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2022 CORSAIR Owner's Manual

2022 CORSAIR



Owner's Manual



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## California Proposition 65



**WARNING:** Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).



**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash your hands after handling.**



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# Introduction

## ABOUT THIS MANUAL

Thank you for choosing Lincoln. We recommend that you take some time to get to know your vehicle by reading this manual. The more that you know about it, the greater the safety and pleasure you will get from driving it.



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

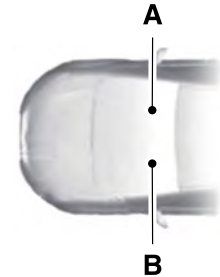
**Note:** *This manual describes product features and options available throughout the range of available models, sometimes even before they are generally available. It may describe options not fitted to the vehicle you have purchased.*

**Note:** *Some of the illustrations in this manual may show features as used in different models, so may appear different to you on your vehicle.*

**Note:** *Always use and operate your vehicle in line with all applicable laws and regulations.*

**Note:** *Pass on this manual when selling your vehicle. It is an integral part of your vehicle.*

This manual may qualify the location of a component as left-hand side or right-hand side. The side is determined when facing forward in the seat.



- A Right-hand side.
- B Left-hand side.

## SYMBOLS GLOSSARY

These are some of the symbols you may see on your vehicle.



Air conditioning system



Air conditioning system lubricant type

# Introduction



Anti-lock braking system



Avoid smoking, flames or sparks



Battery



Battery acid



Brake fluid - non petroleum based



Brake system



Brake system



Cabin air filter



Check fuel cap



Child safety door lock or unlock



Child seat lower anchor



Child seat tether anchor



Cruise control



Do not open when hot



Engine air filter



Engine coolant



Engine coolant temperature



Engine oil



Explosive gas



Fan warning



Fasten seatbelt



Flammable



Front airbag



Front fog lamps



Fuel pump reset



Fuse compartment



Hazard flashers



Heated rear window

# Introduction



Windshield defrosting system



Interior luggage compartment release



Jack



Keep out of reach of children



Lighting control



Low tire pressure warning



Maintain correct fluid level



Note operating instructions



Horn control



Panic alarm



Parking aid



Parking brake



Power steering fluid



Power windows front/rear



Power window lockout



Requires registered technician



Safety alert



See Owner's Manual



See Service Manual



Malfunction Indicator Lamp (MIL)



Passenger airbag activated



Passenger airbag deactivated



Side airbag



Shield the eyes



Stability control



Hill descent control



Trail control



Windshield wiping system



Windshield wash and wipe



# Introduction

## DATA RECORDING



**WARNING:** Do not connect wireless plug-in devices to the data link connector. Unauthorized third parties could gain access to vehicle data and impair the performance of safety related systems. Only allow repair facilities that follow our service and repair instructions to connect their equipment to the data link connector.

We respect your privacy and are committed to protecting it. The information contained in this manual was correct at the time of publication but as technology rapidly changes, we recommend that you visit the regional Lincoln website for the latest information.

Your vehicle has electronic control units that have data recording functionality and the ability to permanently or temporarily store data. This data could include information on the condition and status of your vehicle, vehicle maintenance requirements, events and malfunctions. The types of data that can be recorded are described in this section. Some of the data recorded is stored in event logs or error logs.

**Note:** *Error logs are reset following a service or repair.*

**Note:** *We may provide information in response to requests from law enforcement, other government authorities and third parties acting with lawful authority or through a legal process. Such information could be used by them in legal proceedings.*

Data recorded includes, for example:

- Operating states of system components, for example, fuel level, tire pressure and battery charge level.
- Vehicle and component status, for example, wheel speed, deceleration, lateral acceleration and seatbelt status.

- Events or errors in essential systems, for example, headlamps and brakes.
- System responses to driving situations, for example, airbag deployment and stability control.
- Environmental conditions, for example, temperature.

Some of this data, when used in combination with other information, for example, an accident report, damage to a vehicle or eyewitness statements, could be associated with a specific person.

### Service Data

Service data recorders in your vehicle are capable of collecting and storing diagnostic information about your vehicle. This potentially includes information about the performance or status of various systems and modules in the vehicle, such as engine, throttle, steering or brake systems. In order to properly diagnose and service your vehicle, Lincoln (Lincoln of Canada, in Canada), and service and repair facilities may access or share among them vehicle diagnostic information received through a

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direct connection to your vehicle when diagnosing or servicing your vehicle. Additionally, Ford Motor Company (Ford of Canada, in Canada) may, where permitted by law, use vehicle diagnostic information for vehicle improvement or with other information we may have about you, for example, your contact information, to offer you products or services that may interest you. Data may be provided to our service providers, such as part suppliers, that may help diagnose malfunctions, and who are similarly obligated to protect data. We retain this data only as long as necessary to perform these functions or to comply with law. We may provide information where required in response to official requests to law enforcement or other government authorities or third parties acting with lawful authority or court order, and such information may be used in legal proceedings. For U.S. only (if equipped), if you choose to use connected apps and services, you consent that certain diagnostic information may also be accessed electronically by Ford Motor Company and Lincoln authorized service facilities, and that the diagnostic information may be used to provide services to you,

personalizing your experience, troubleshoot, and to improve products and services and offer you products and services that may interest you, where permitted by law. For Canada only, for more information, please review the Lincoln of Canada privacy policy at [www.LincolnCanada.com](http://www.LincolnCanada.com), including our U.S. data storage and use of service providers in other jurisdictions who may be subject to legal requirements in Canada, the United States and other countries applicable to them, for example, lawful requirements to disclose personal information to governmental authorities in those countries.

## Event Data

This vehicle is equipped with an event data recorder. The main purpose of an event data recorder is to record, in certain crash or near crash-like situations, such as an airbag deployment or hitting a road obstacle; this data assists in understanding how a vehicle's systems performed. The event data recorder is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less.

The event data recorder in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger seatbelts were buckled or fastened;
- How far, if at all, the driver was depressing the accelerator or the brake pedal; and
- How fast the vehicle was traveling; and
- Where the driver was positioning the steering wheel.

This data can help provide a better understanding of the circumstances in which crashes and injuries occur.

# Introduction

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**Note:** *Event data recorder data is recorded by your vehicle only if a non-trivial crash situation occurs; no data is recorded by the event data recorder under normal driving conditions and no personal data or information (e.g., name, gender, age, and crash location) is recorded. However, other parties, such as law enforcement, could combine the event data recorder data with the type of personally identifying data routinely acquired during a crash investigation.*

To read data recorded by an event data recorder, special equipment is required, and access to the vehicle or the event data recorder is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have such special equipment, can read the information if they have access to the vehicle or the event data recorder.

## **Comfort, Convenience and Entertainment Data**

Your vehicle has electronic control units that have the ability to store data based on your personalized settings. The data is stored locally in the vehicle or on devices that you connect to it, for example, a USB drive or digital music player. You can delete some of this data and also choose whether to share it through the services to which you subscribe. See **Settings** (page 555).

### **Comfort and Convenience Data**

Data recorded includes, for example:

- Seat and steering wheel position.
- Climate control settings.
- Radio presets.

### **Entertainment Data**

Data recorded includes, for example:

- Music, videos or album art.
- Contacts and corresponding address book entries.
- Navigation destinations.

## **Services That We Provide**

If you use our services, we collect and use data, for example, account information, vehicle location and driving characteristics, that could identify you. We transmit this data through a dedicated, protected connection. We only collect and use data to enable your use of our services to which you have subscribed, with your consent or where permitted by law. For additional information, see the terms and conditions of the services to which you have subscribed.

## **Services That Third Parties Provide**

We recommend that you review the terms and conditions and data privacy information for any services equipped with your vehicle or to which you subscribe. We take no responsibility for services that third parties provide.

# Introduction

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## Vehicles With a Modem



The modem has a SIM. The modem was enabled when your vehicle was built and periodically sends messages to stay connected to the cell phone network, receive automatic software updates and send vehicle-related information to us, for example, diagnostic information. These messages could include information that identifies your vehicle, the SIM and the electronic serial number of the modem. Cell phone network service providers could have access to additional information, for example, cell phone network tower identification. For additional information about our privacy policy, visit [www.ConnectedLincoln.com](http://www.ConnectedLincoln.com) or refer to your local Lincoln website.

**Note:** *The modem continues to send this information unless you disable the modem or stop the modem from sharing vehicle data by changing the modem settings. See **Connected Vehicle** (page 491).*

**Note:** *The service can be unavailable or interrupted for a number of reasons, for example, environmental or topographical conditions and data plan coverage.*

**Note:** *To find out if your vehicle has a modem, visit [www.ConnectedLincoln.com](http://www.ConnectedLincoln.com).*

## Vehicles With SYNC

### Mobile Device Data

If you connect a mobile device to your vehicle, you can display data from your device on the touchscreen for example, music and album art. You can share your vehicle data with mobile apps on your device through the system. See **Apps** (page 552).

The mobile apps function operates by your connected device sending data to us in the United States. The data is encrypted and includes, for example, the vehicle identification number of your vehicle, the SYNC module serial number, odometer, enabled apps, usage statistics and

debugging information. We retain it only as long as necessary to provide the service, to troubleshoot, for continuous improvement and to offer you products and services that may be of interest to you according to your preferences and where allowed by law.

If you connect a cell phone to the system, the system creates a profile that links to that cell phone. The cell phone profile enables more mobile features and efficient operation. The profile contains, for example, data from your phonebook, read and unread text messages and call history, including history of calls when your cell phone was not connected to the system.

If you connect a media device, the system creates and retains a media device index of supported media content. The system also records a short diagnostic log of approximately 10 minutes of all recent system activity.

# Introduction

The cell phone profile, media device index and diagnostic log remain in your vehicle unless you delete them and are generally accessible only in your vehicle when you connect your cell phone or media device. If you no longer plan to use the system or your vehicle, we recommend you use the master reset function to erase the stored information. See **Settings** (page 555).

System data cannot be accessed without special equipment and access to your vehicle's module.

For additional information about our privacy policy, refer to your local Lincoln website.

**Note:** *To find out if your vehicle has connectivity technology, visit [www.ConnectedLincoln.com](http://www.ConnectedLincoln.com).*

## Vehicles With an Emergency Call System

When the emergency call system is active, it may disclose to emergency services that your vehicle has been in a crash involving the deployment of an airbag or activation of the fuel pump shut-off. Certain versions or updates to the emergency call system may

also be capable of electronically or verbally disclosing to emergency services operators your vehicle location or other details about your vehicle or crash to assist emergency services operators to provide the most appropriate emergency services. If you do not want to disclose this information, do not activate the emergency call system.

**Note:** *You cannot deactivate emergency call systems that are required by law.*

## PERCHLORATE

Certain components in your vehicle such as airbag modules, seatbelt pretensioners and remote control batteries may contain perchlorate material. Special handling may apply for service or vehicle end of life disposal.

**For more information visit:**

Web Address
<a href="http://www.dtsc.ca.gov/hazard-ouswaste/perchlorate">www.dtsc.ca.gov/hazard-ouswaste/perchlorate</a>

## LINCOLN AUTOMOTIVE FINANCIAL SERVICES

Lincoln Automotive Financial Services offer a full range of financing and lease plans to help you acquire your vehicle. We are dedicated to providing answers, information and a truly extraordinary experience.

We offer a number of convenient ways to contact us and to manage your account online.

Phone: 1-888-498-8801

Mail: Lincoln Automotive Financial Services

P.O. Box 542000

Omaha, NE 68154-8000

For more information, visit [www.lincoln.com/finance](http://www.lincoln.com/finance).

# Introduction

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## REPLACEMENT PARTS RECOMMENDATION

We have built your vehicle to the highest standards using quality parts. We recommend that you demand the use of genuine Ford, Lincoln and Motorcraft parts whenever your vehicle requires scheduled maintenance or repair. You can clearly identify genuine Ford, Lincoln and Motorcraft parts by looking for the Ford, Lincoln, FoMoCo or Motorcraft branding on the parts or their packaging.

## Scheduled Maintenance and Mechanical Repairs

One of the best ways for you to make sure that your vehicle provides years of service is to have it maintained in line with our recommendations using parts that conform to the specifications detailed in this Owner's Manual. Genuine Ford, Lincoln and Motorcraft parts meet or exceed these specifications.

## Collision Repairs

We hope that you never experience a collision, but accidents do happen. Genuine Ford, Lincoln replacement collision parts meet our stringent requirements for fit, finish, structural integrity, corrosion protection and dent resistance. During vehicle development we validate that these parts deliver the intended level of protection as a whole system. A great way to know for sure you are getting this level of protection is to use genuine Ford, Lincoln replacement collision parts.

## Warranty on Replacement Parts

Genuine Ford, Lincoln and Motorcraft replacement parts are the only replacement parts that benefit from a Lincoln Warranty. Damage caused to your vehicle as a result of the failure of non-Ford, non-Lincoln parts may not be covered by the Lincoln Warranty. For additional information, refer to the terms and conditions of the Lincoln Warranty.

## SPECIAL NOTICES

### New Vehicle Limited Warranty

#### Vehicles sold in the United States and Canada

For a detailed description of what is covered by your New Vehicle Limited Warranty, see your warranty guide that is available online. For more information, refer to our website and download your copy of the warranty guide.


#### Vehicles sold outside the United States and Canada


For a detailed description of what is covered by your New Vehicle Limited Warranty, see the warranty guide that is provided to you along with your Owner's Manual.

### Special Instructions


For your added safety, your vehicle comes with sophisticated electronic controls.

# Introduction

 **WARNING:** You risk death, fire, or serious injury to yourself and others if you do not follow the instruction highlighted by the warning symbol.


 **WARNING:** NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the CHILD can occur.


## On Board Diagnostics Data Link Connector

 **WARNING:** Do not connect wireless plug-in devices to the data link connector. Unauthorized third parties could gain access to vehicle data and impair the performance of safety related systems. Only allow repair facilities that follow our service and repair instructions to connect their equipment to the data link connector.

Your vehicle has an OBD Data Link Connector that is used in conjunction with a diagnostic scan tool for vehicle diagnostics, repairs and reprogramming services. Installing an aftermarket device that uses the data link connector during normal driving for purposes such as remote insurance company monitoring, transmission of vehicle data to other devices or entities, or altering the performance of the vehicle, may cause interference with or even damage to vehicle systems. We do not recommend or endorse the use of unapproved aftermarket plug-in devices. The vehicle warranty does not cover damage caused by an aftermarket plug-in device.

## Notice to Owners of Pickup Trucks and Utility Type Vehicles

 **WARNING:** Utility vehicles have a significantly higher rollover rate than other types of vehicles.

 **WARNING:** Vehicles with a higher center of gravity (utility and four-wheel drive vehicles) handle differently than vehicles with a lower center of gravity (passenger cars). Avoid sharp turns, excessive speed and abrupt steering in these vehicles. Failure to drive cautiously increases the risk of losing control of your vehicle, vehicle rollover, personal injury and death.

Before you drive your vehicle, please read this Owner's Guide carefully. Your vehicle is not a passenger car. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of vehicle control, vehicle rollover, personal injury or death.

## Using Your Vehicle With a Snowplow

### Do not use this vehicle for snowplowing.

Your vehicle does not have a snowplowing package.

# Introduction


## Using Your Vehicle as an Ambulance

If your light truck has the Ford Ambulance Preparation Package, it may be utilized as an ambulance. We urge ambulance manufacturers to follow the recommendations of our Incomplete Vehicle Manual, Ford Truck Body Builder's Layout Book and the Qualified Vehicle Modifiers (QVM) Guidelines as well as pertinent supplements. For additional information, please contact the Truck Body Builders Advisory Service at <http://www.fleet.ford.com/truckbbas/> and then by selecting Contact Us or by phone at 1-877-840-4338.

Use of your light truck as an ambulance, without the Ford Ambulance Preparation Package voids the Ford New Vehicle Limited Warranty and may void the emissions warranties. In addition, ambulance usage without the preparation package could cause high underbody temperatures, over-pressurized fuel and a risk of spraying fuel, which could lead to fires.

If your vehicle has the Ford Ambulance Preparation Package, it is indicated on the Safety Compliance Certification Label. The label is on the driver side door pillar or on the rear edge of the driver door. You can determine whether the ambulance manufacturer followed our recommendations by directly contacting that manufacturer.

## MOBILE COMMUNICATIONS EQUIPMENT

 **WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

Using mobile communications equipment is becoming increasingly important in the conduct of business and personal affairs. However, you must not compromise your own or others' safety when using such equipment. Mobile communications can enhance personal safety and security when appropriately used, particularly in emergency situations. Safety must be paramount when using mobile communications equipment to avoid negating these benefits. Mobile communication equipment includes, but is not limited to, cellular phones, pagers, portable email devices, text messaging devices and portable two-way radios.

## EXPORT UNIQUE OPTIONS

For your particular global region, your vehicle may be equipped with features and options that are different from the features and options that are described in this Owner's Manual. A market unique supplement may be supplied that complements this book. By referring to the market unique supplement, if provided, you can properly identify those features, recommendations and



# Introduction

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specifications that are unique to your vehicle. This Owner's Manual is written primarily for the U.S. and Canadian Markets. Features or equipment listed as standard may be different on units built for export. **Refer to this Owner's Manual for all other required information and warnings.**

# Environment

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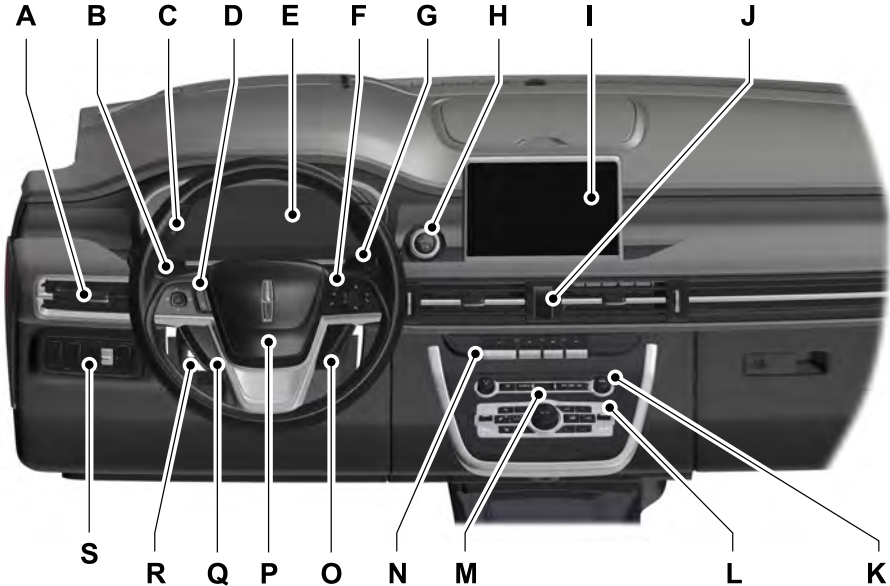
## **PROTECTING THE ENVIRONMENT**

You can take significant steps toward protecting the environment with correct vehicle usage and the authorized disposal of waste, cleaning and lubrication materials.

For additional information about our sustainability progress and initiatives, visit [www.sustainability.ford.com](http://www.sustainability.ford.com).

# At a Glance

## INSTRUMENT PANEL



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# At a Glance

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- A Air vents.
- B Direction indicators. See **Direction Indicators** (page 110).
- C Voice control. See **Using Voice Recognition** (page 509).
- D Audio control. See **Audio Unit** (page 498).
- E Information display. See **General Information** (page 136).
- F Information display control. See **General Information** (page 136).
- G Wiper lever. See **Windshield Wipers** (page 102).
- H Ignition switch. See **Keyless Starting** (page 202).
- I Information and entertainment display.
- J Camera button. See **What Is the 360 Degree Camera** (page 293). Park assist button. See **What Is Active Park Assist** (page 297). Driver assistance button.
- K Audio unit. See **Audio Unit** (page 498).
- L Climate control. See **Automatic Climate Control** (page 169).
- M Hazard flasher switch. See **Hazard Flashers** (page 363).
- N Transmission selector. See **Automatic Transmission** (page 256).
- O Adaptive cruise control with lane centering buttons. See **Switching Lane Centering On and Off** (page 312).
- P Horn.
- Q Cruise control buttons. See **Setting the Cruise Control Speed** (page 301). Adaptive cruise control with lane centering buttons. See **Setting the Adaptive Cruise Control Speed** (page 308).

## At a Glance

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- R Steering wheel adjustment. See **Adjusting the Steering Wheel** (page 100).
- S Lighting control. See **Lighting Control** (page 105). Power liftgate. See **Opening the Liftgate From Inside Your Vehicle** (page 88).

# Child Safety

## GENERAL INFORMATION

See the following sections for directions on how to properly use safety restraints for children.



**WARNING:** Always make sure your child is secured properly in a device that is appropriate for their height, age and weight. Child safety restraints must be bought separately from your vehicle. Failure to follow these instructions and guidelines may result in an increased risk of serious injury or death to your child.



**WARNING:** All children are shaped differently. The National Highway Traffic Safety Administration and other safety organizations, base their recommendations for child restraints on probable child height, age and weight thresholds, or on the minimum requirements of the law. We recommend that you check with a NHTSA Certified Child Passenger Safety Technician (CPST) to make sure that you properly install the child restraint in your vehicle and that you consult your pediatrician to make sure you have a child restraint appropriate for your child. To locate a child restraint fitting station and CPST, contact NHTSA toll free at



1-888-327-4236 or go to [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov). In Canada, contact Transport Canada toll free at 1-800-333-0371 or go to [www.tc.gc.ca](http://www.tc.gc.ca) to find a Child Car Seat Clinic in your area. Failure to properly restrain children in child restraints made especially for their height, age and weight, may result in an increased risk of serious injury or death to your child.



**WARNING:** On hot days, the temperature inside the vehicle can rise very quickly. Exposure of people or animals to these high temperatures for even a short time can cause death or serious heat related injuries, including brain damage. Small children are particularly at risk.

# Child Safety

## Recommendations for Safety Restraints for Children

Child	Child Size, Height, Weight, or Age	Recommended Restraint Type
Infants or toddlers	Children weighing 40 lb (18 kg) or less (generally age four or younger).	Use a child restraint (sometimes called an infant carrier, convertible seat, or toddler seat).
Small children	Children who have outgrown or no longer properly fit in a child restraint (generally children who are less than 57 in (1.45 m) tall, are greater than age four and less than age 12, and between 40 lb (18 kg) and 80 lb (36 kg) and upward to 100 lb (45 kg) if recommended by your child restraint manufacturer).	Use a belt-positioning booster seat.
Larger children	Children who have outgrown or no longer properly fit in a belt-positioning booster seat (generally children who are at least 57 in (1.45 m) tall or greater than 80 lb (36 kg) or 100 lb (45 kg) if recommended by child restraint manufacturer).	Use a vehicle seatbelt having the lap belt snug and low across the hips, shoulder belt centered across the shoulder and chest, and seat backrest upright.

# Child Safety

- You are required by law to properly use child restraints for infants and toddlers in the United States, Canada and Mexico.
- Many states and provinces require that small children use approved booster seats until they reach age eight, a height of 57 in (1.45 m) tall, or 80 lb (36 kg). Check your local and state or provincial laws for specific requirements about the safety of children in your vehicle.
- When possible, properly restrain children 12 years of age and under in a rear seating position of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in a front seating position. See **Front Passenger Sensing System** (page 55).
- When installing a rear facing child restraint, adjust the vehicle seats to avoid interference between the child restraint and the vehicle seat in front of the child restraint.

## INSTALLING CHILD RESTRAINTS

### Child Restraints



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Use a child restraint (sometimes called an infant carrier, convertible seat, or toddler seat) for infants, toddlers, or children weighing 40 lb (18 kg) or less (generally age four or younger).

## Using Lap and Shoulder Belts




**WARNING:** Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Properly secure children 12 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.



# Child Safety

 **WARNING:** Depending on where you secure a child restraint, and depending on the child restraint design, you may block access to certain seatbelt buckle assemblies and LATCH lower anchors, rendering those features potentially unusable. To avoid risk of injury, make sure occupants only use seating positions where they are able to be properly restrained.

When installing a child restraint with combination lap and shoulder belts:

- Use the correct seatbelt buckle for that seating position.
- Insert the belt tongue into the proper buckle until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.
- Keep the buckle release button pointing up and away from the child restraint, with the tongue between the child restraint and the release button, to prevent accidental unbuckling.

- Place the vehicle seat in the upright position before you install the child restraint.
- Put the seatbelt in the automatic locking mode. See Step 5. This vehicle does not require the use of a locking clip.

Perform the following steps when installing the child restraint with combination lap and shoulder belts:

**Note:** *Although the child restraint illustrated is a forward facing child restraint, the steps are the same for installing a rear facing child restraint.*



1. Position the child restraint in a seat with a combination lap and shoulder belt.

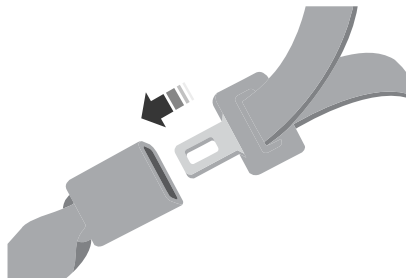


2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.

## Child Safety



3. While holding the shoulder and lap belt portions together, route the tongue through the child restraint according to the child restraint manufacturer's instructions. Make sure that you did not twist the belt webbing.



4. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) for that seating position until you hear a snap and feel the latch engage. Make sure the tongue is latched securely by pulling on it.



5. To put the retractor in the automatic locking mode, grasp the shoulder portion of the belt and pull downward until you pull all of the belt out.

**Note:** *The automatic locking mode is available on the front passenger and rear seats.*

6. Allow the belt to retract to remove slack. The belt clicks as it retracts to indicate it is in the automatic locking mode.

# Child Safety

7. Try to pull the belt out of the retractor to make sure the retractor is in the automatic locking mode. You should not be able to pull more belt out. If the retractor is not locked, unbuckle the belt and repeat Steps 5 and 6.



8. Remove remaining slack from the belt. Force the seat down with extra weight, for example, by kneeling on the child restraint while pulling up on the shoulder belt in order to force slack from the belt. This is necessary to remove the remaining slack that exists once you add the extra weight

of the child to the child restraint. It also helps to achieve the proper snugness of the child restraint to your vehicle. Sometimes, a slight lean toward the buckle will additionally help to remove remaining slack from the belt.


9. If the child restraint has a tether strap, attach it.



10. Before placing the child in the seat, forcibly move the seat forward and back to make sure the seat is securely held in place. To check this, grab the seat at the belt path and attempt to move it side to side and forward and back. There should be no more than 1 in (2.5 cm) of movement for proper installation.

We recommend checking with a NHTSA Certified Child Passenger Safety Technician to make certain the child restraint is properly installed. In Canada, check with Transport Canada for referral to a Child Car Seat Clinic.

## Using Lower Anchors and Tethers for Children (LATCH)

 **WARNING:** Do not attach two child safety restraints to the same anchor. In a crash, one anchor may not be strong enough to hold two child safety restraint attachments and may break, causing serious injury or death.

# Child Safety

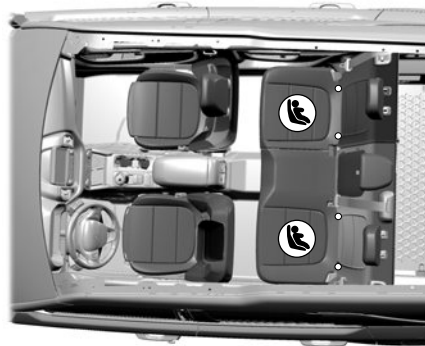


**WARNING:** Depending on where you secure a child restraint, and depending on the child restraint design, you may block access to certain seatbelt buckle assemblies and LATCH lower anchors, rendering those features potentially unusable. To avoid risk of injury, make sure occupants only use seating positions where they are able to be properly restrained.

The LATCH system has three vehicle anchor points: two lower anchors where the seat backrest and seat cushion meet (called the seat bight) and one top tether anchor behind that seating position.

LATCH compatible child restraints have two rigid or webbing mounted attachments that connect to the two lower anchors at the LATCH equipped seating positions in your vehicle. This type of attachment method eliminates the need to use seatbelts to attach

the child restraint. However, you can still use the seatbelt to attach the child restraint. For forward-facing child restraints, you must also attach the top tether strap to the proper top tether anchor, if a top tether strap has been provided with your child restraint.



Your vehicle has LATCH lower anchors for child restraint installation. The LATCH anchors are at the rear section of the rear seat between the cushion and seat backrest. Follow the child restraint manufacturer's instructions to properly install a child restraint with LATCH attachments. Follow the instructions on attaching child restraints with tether straps.

Attach LATCH lower attachments of the child restraint only to the anchors.

## Use of Inboard Lower Anchors from the Outermost Seating Positions (Center Seating Use)



**WARNING:** The standardized spacing for LATCH lower anchors is 11 in (280 mm) center to center. Do not use LATCH lower anchors for the center seating position unless the child restraint manufacturer's instructions permit and specify using anchors spaced at least as far apart as those in this vehicle.

# Child Safety

The lower anchors at the center of the second row rear seat are spaced 18 in (46 cm) apart. You cannot install a child restraint with rigid LATCH attachments at the center seating position. LATCH compatible child restraints (with attachments on belt webbing) can only be used at this seating position provided that the child restraint manufacturer's instructions permit use with the anchor spacing stated. Do not attach a child restraint to any lower anchor if an adjacent child restraint is attached to that anchor.

Each time you use the child restraint, check that the seat is properly attached to the lower anchors and tether anchor, if applicable. Tug the child restraint from side to side and forward and back where it is secured to your vehicle. The seat should move less than 1 in (2.5 cm) when you do this for a proper installation.

If the child restraint is not anchored properly, the risk of a child being injured in a crash greatly increases.

## Combining Seatbelt and LATCH Lower Anchors for Attaching Child Restraints

When used in combination, either the seatbelt or the LATCH lower anchors may be attached first, provided a proper installation is achieved. Attach the tether strap afterward, if included with the child restraint.

## Using Tether Straps



Many forward-facing child restraints include a tether strap which extends from the back of the child restraints and hooks to an anchoring point called the top tether anchor. Tether straps are available as an accessory for many older child restraints.

Contact the manufacturer of your child restraint for information about ordering a tether strap, or to obtain a longer tether strap if the tether strap on your child restraint does not reach the appropriate top tether anchor in your vehicle.

Once you install the child restraint using either the seatbelt, the lower anchors of the LATCH system, or both, you can attach the top tether strap.

The tether strap anchors in your vehicle are in the following positions (shown from top view):

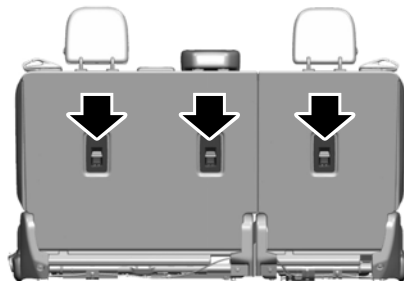


Perform the following steps to install a child restraint with tether anchors:

# Child Safety

**Note:** If you install a child restraint with rigid LATCH attachments, do not tighten the tether strap enough to lift the child restraint off your vehicle seat cushion when the child is seated in it. Keep the tether strap just snug without lifting the front of the child restraint. Keeping the child restraint just touching your vehicle seat gives the best protection in a severe crash.

1. Route the child restraint tether strap over the back of the seat. For the outermost seating positions, route the tether strap under the head restraint and between the head restraint posts. For the center seating positions, route the tether strap over the top of the head restraint. If needed, you can also remove the head restraints.



2. Locate the correct anchor on the back panel of the rear seat for the selected seating position. The anchors are labeled with the tether strap symbol.



3. Clip the tether strap to the anchor as shown.
4. Tighten the child restraint tether strap according to the manufacturer's instructions. If your child restraint system is equipped with a tether strap, and the child restraint manufacturer recommends its use, we also recommend its use.

## BOOSTER SEATS



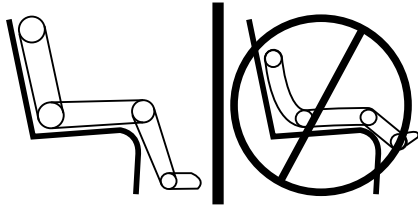
**WARNING:** Do not put the shoulder section of the seatbelt or allow the child to put the shoulder section of the seatbelt under their arm or behind their back. Failure to follow this instruction could reduce the effectiveness of the seatbelt and increase the risk of injury or death in a crash.

Use a belt-positioning booster seat for children who have outgrown or no longer properly fit in a child safety restraint (generally children who are less than 57 in (1.45 m) tall, are greater than age 4 and less than age 12, and between 40 lb (18 kg) and

# Child Safety

80 lb (36 kg) and upward to 100 lb (45 kg) if recommended by your child restraint manufacturer). Many state and provincial laws require that children use approved booster seats until they reach age eight, a height of 57 in (1.45 m) tall, or 80 lb (36 kg).

Booster seats should be used until you can answer YES to ALL of these questions when seated without a booster seat:



- Can the child sit all the way back against their vehicle seat backrest with knees bent comfortably at the edge of the seat cushion?
- Can the child sit without slouching?

- Does the lap belt rest low across the hips?
- Is the shoulder belt centered on the shoulder and chest?
- Can the child stay seated like this for the whole trip?

Always use booster seats in conjunction with your vehicle lap and shoulder belt.

## Types of Booster Seats



- Backless booster seats



- High back booster seats

If your backless booster seat has a removable shield, remove the shield. If a vehicle seating position has a low seat backrest or no head restraint, a backless booster seat may place your child's head (as measured at the tops of the ears) above the top of the seat. In this case, move the backless booster to another seating position with a higher seat backrest or head restraint and lap and shoulder belts, or consider using a high back booster seat.

# Child Safety

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If, with a backless booster seat, you cannot find a seating position that adequately supports your child's head, a high back booster seat would be a better choice.

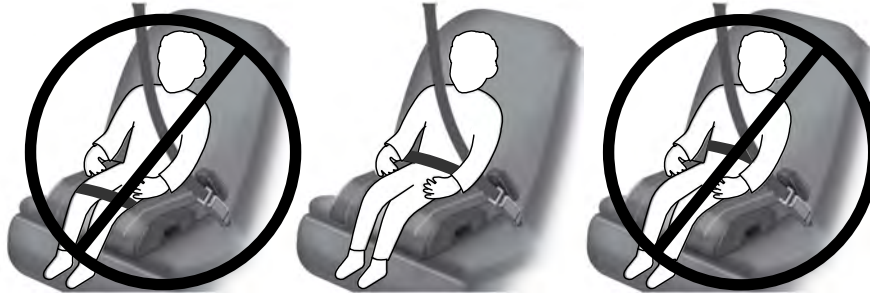
Children and booster seats vary in size and shape. Choose a booster that keeps the lap belt low and snug across the hips, never up across the stomach, and lets you adjust the shoulder belt to cross the chest and rest snugly near the center of the shoulder.

The following drawings compare the ideal fit (center) to a shoulder belt uncomfortably close to the neck and a shoulder belt that could slip off the shoulder. The drawings also show how the lap belt should be low and snug across the child's hips.





# Child Safety



If the booster seat slides on the vehicle seat upon which it is being used, placing a rubberized mesh sold as shelf or carpet liner under the booster seat may improve this condition. Do not introduce any item thicker than this under the booster seat. Check with the booster seat manufacturer's instructions.

## CHILD RESTRAINT POSITIONING



**WARNING:** Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Properly secure children 12 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.

# Child Safety



**WARNING:** Always carefully follow the instructions and warnings provided by the manufacturer of any child restraint to determine if the restraint device is appropriate for your child's size, height, weight, or age. Follow the child restraint manufacturer's instructions and warnings provided for installation and use in conjunction with the instructions and warnings provided by your vehicle manufacturer. A safety seat that is improperly installed or utilized, is inappropriate for your child's height, age, or weight or does not properly fit the child may increase the risk of serious injury or death.



**WARNING:** Do not allow a passenger to hold a child on their lap when your vehicle is moving. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



**WARNING:** Do not use pillows, books or towels to boost your child's height. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Properly secure child restraints or booster seats when they are not in use. They could become projectiles in a sudden stop or crash. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Do not put the shoulder section of the seatbelt or allow the child to put the shoulder section of the seatbelt under their arm or behind their back. Failure to follow this instruction could reduce the effectiveness of the seatbelt and increase the risk of injury or death in a crash.



**WARNING:** Do not leave children or pets unattended in your vehicle. Failure to follow this instruction could result in personal injury or death.

# Child Safety

## Recommendations for Attaching Child Safety Restraints for Children

Restraint Type	Combined Weight of Child and Child Restraint	Use Any Attachment Method as Indicated Below by X				
		LATCH (Lower Anchors and Top Tether Anchor)	LATCH (Lower Anchors Only)	Seatbelt and Top Tether Anchor	Seatbelt and LATCH (Lower Anchors and Top Tether Anchor)	Seatbelt Only
Rear facing child restraint	Up to 65 lb (29.5 kg)		X			X
Rear facing child restraint	Over 65 lb (29.5 kg)					X
Forward facing child restraint	Up to 65 lb (29.5 kg)	X		X	X	
Forward facing child restraint	Over 65 lb (29.5 kg)			X	X	

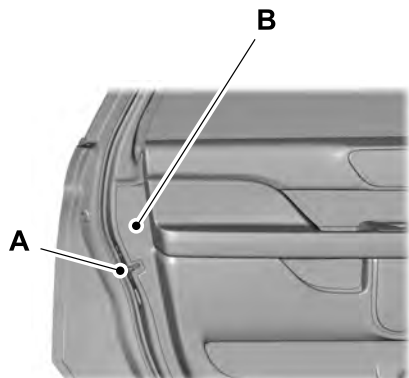
**Note:** *The child restraint must rest tightly against the vehicle seat upon which it is installed. It may be necessary to lift or remove the head restraint. See **Seats** (page 175).*

### CHILD SAFETY LOCKS

When the child safety locks are set, the rear doors cannot be opened from the inside.

# Child Safety

---



- A Child safety lock location.
- B Manual lock location.

The child safety locks are in the latching area of each rear door. Each lock must be set separately.

## Left-Hand Side

Turn it clockwise to switch the child lock on and counterclockwise to switch it off.


See **Keys and Remote Controls** (page 65).


## Right-Hand Side


Turn it counterclockwise to switch the child lock on and clockwise to switch it off.


# Seatbelts


## PRINCIPLE OF OPERATION


 **WARNING:** Always drive and ride with your seatback upright and the lap belt snug and low across the hips.


 **WARNING:** Children must always be properly restrained.


 **WARNING:** Do not allow a passenger to hold a child on their lap when your vehicle is moving. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.


 **WARNING:** All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.

 **WARNING:** It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a crash, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and seatbelts. Make sure everyone in your vehicle is in a seat and properly using a seatbelt. Failure to follow this warning could result in serious personal injury or death.

 **WARNING:** In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seatbelt.

 **WARNING:** Each seating position in your vehicle has a specific seatbelt assembly made up of one buckle and one tongue designed to be used as a pair. Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. Never use a single seatbelt for more than one person.

 **WARNING:** Even with advanced restraints systems, properly restrain children 12 and under in a rear seating position. Failure to follow this could seriously increase the risk of injury or death.

 **WARNING:** Seatbelts and seats may be hot in a vehicle that is in the sunshine. The hot seatbelts or seats may burn a small child. Check seat covers and buckles before you place a child anywhere near them.

All seating positions in your vehicle have lap and shoulder seatbelts. All occupants of the vehicle should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided.

The seatbelt system consists of:

- Lap and shoulder seatbelts.
- Shoulder seatbelt with automatic locking mode, (except driver seatbelt).
- Height adjuster at the front outermost seating positions.

# Seatbelts

- Seatbelt pretensioners at the front outermost and second row outermost seating positions.
- Belt tension sensor at the front outermost passenger seating position.



- Seatbelt warning light and chime.



- Crash sensors and monitoring system with readiness indicator.

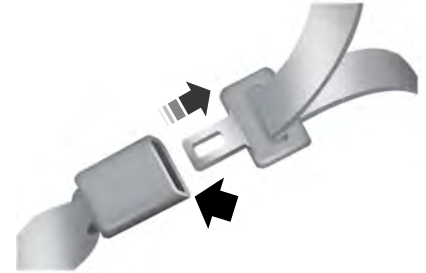
The seatbelt pretensioners are designed to tighten the seatbelts when activated. In frontal and near-frontal crashes, the seatbelt pretensioners may be activated alone or, if the crash is of sufficient severity, together with the front airbags. The pretensioners may also activate when a Safety Canopy airbag deploys.

## FASTENING THE SEATBELTS

The front outboard and rear safety restraints in the vehicle are combination lap and shoulder belts.



1. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.



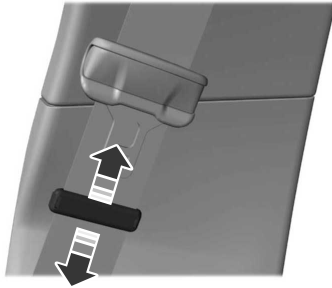
2. To unfasten, press the release button and remove the tongue from the buckle.



When in use, place the rear seatbelts in the belt guides on the outermost seat backrests.

# Seatbelts

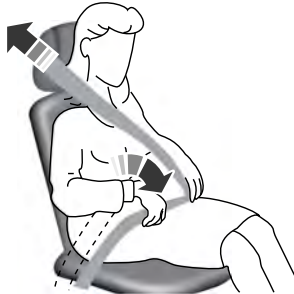
## Using a Sliding Clip (If Equipped)



Slide the clip away from the tongue so there is no loose webbing when an occupant or child seat is buckled up. You can also use the sliding clip to raise the tongue and prevent it from rattling or to ease access to the tongue.

## Using Seatbelts During Pregnancy

**WARNING:** Always ride and drive with your seatback upright and properly fasten your seatbelt. Fit the lap portion of the seatbelt snugly and low across the hips. Position the shoulder portion of the seatbelt across your chest. Pregnant women must follow this practice. See the following figure.



Pregnant women should always wear their seatbelt. Position the lap belt portion of a combination lap and shoulder belt low across the hips below the belly and worn as tight as comfort allows. Position the shoulder belt to cross the middle of the shoulder and the center of the chest.

## Seatbelt Locking Modes

**WARNING:** If your vehicle is involved in a crash, have the seatbelts and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

All safety restraints in the vehicle are combination lap and shoulder belts. The driver seatbelt has the first type of locking mode, and the front outboard passenger and rear seatbelts have both types of locking modes described as follows:

# Seatbelts

## Vehicle Sensitive Mode

This is the normal retractor mode, which allows free shoulder belt length adjustment to your movements and locking in response to vehicle movement. For example, if the driver brakes suddenly or turns a corner sharply, or the vehicle receives an impact of about 5 mph (8 km/h) or more, the combination seatbelts lock to help reduce forward movement of the driver and passengers.

In addition, the retractor is designed to lock if you pull the webbing out too quickly. If the seatbelt retractor locks, slowly lower the height adjuster to allow the seatbelt to retract. If the retractor does not unlock, pull the seatbelt out slowly then feed a small length of webbing back toward the stowed position. For rear seatbelts, recline the rear seat backrest or push the seat backrest cushion away from the seatbelt. Feed a small length of webbing back toward the stowed position.

## Automatic Locking Mode

In this mode, the shoulder belt automatically pre-locks. The belt still retracts to remove any slack in the shoulder belt. The automatic locking mode is not available on the driver seatbelt.

## When to Use the Automatic Locking Mode

Use this mode any time a child safety seat, except a booster, is installed in passenger front or rear seating positions. Properly restrain children 12 years old and under in a rear seating position whenever possible. See **Child Safety** (page 27).

## How to Use the Automatic Locking Mode



1. Buckle the combination lap and shoulder belt.
2. Grasp the shoulder portion and pull downward until you pull the entire belt out. Allow the belt to retract. As the belt retracts, you will hear a clicking sound. This indicates the seatbelt is now in the automatic locking mode.



# Seatbelts

## How to Disengage the Automatic Locking Mode

Unbuckle the combination lap and shoulder belt and allow it to retract completely to disengage the automatic locking mode and turn on the vehicle sensitive (emergency) locking mode.

## How to Extract Seatbelts in the Rear Outermost Positions

Seatbelts in the rear outermost positions can lock if you firmly return the seat backrest to its upright position. You can unlock the seatbelts using the following procedures.

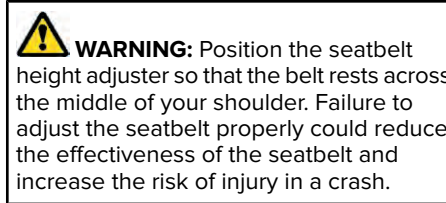
For vehicles where the rear seats recline:

1. Recline the seat to its full rear recline position.
2. The seatbelt should then unlock.
3. Return the seat backrest to your desired upright position.

For vehicles with rear seats that do not recline or are locked with the seat in its full rear recline position:

1. Grasp the seatbelt webbing at the top of the seat backrest.
2. Pull the seatbelt webbing forward, firmly.
3. After pulling the seatbelt forward, allow the seatbelt to feed back into the seatbelt retractor as much as possible. If necessary, press the seat backrest down to allow the seatbelt webbing to retract further.
4. The seatbelt should then unlock.
5. If the seatbelt does not unlock, repeat steps 1-3.

## SEATBELT HEIGHT ADJUSTMENT



E146191

To adjust the shoulder belt height, squeeze the button and slide the height adjuster up or down. Release the button and pull down on the height adjuster to make sure it is locked in place.

## SEATBELT WARNING LAMP AND INDICATOR CHIME



This lamp illuminates and an indicator chime will sound if the driver seatbelt has not been fastened when the vehicle's ignition is turned on.

# Seatbelts

## Conditions of operation

If	Then
The driver seatbelt is not buckled before the ignition switch is turned to the on position...	The seatbelt warning lamp illuminates and the indicator chime sounds for a few seconds.
The driver seatbelt is buckled while the warning lamp is illuminated and the indicator chime is sounding...	The seatbelt warning lamp and indicator chime turn off.
The driver seatbelt is buckled before the ignition switch is turned to the on position...	The seatbelt warning lamp and indicator chime remain off.

## SEATBELT REMINDER



**WARNING:** The system will only provide protection when you use the seatbelt correctly.

This system monitors all seating positions and provides audio and graphic feedback.



This lamp illuminates and a warning tone sounds if you do not fasten your seatbelt when you switch the ignition on. The lamp and tone turn off when you fasten your seatbelt or about one minute has elapsed.

When the initial warning expires for the driver, the system provides more warnings for the driver and front passenger. This lamp illuminates and a warning tone sounds if you or your front passenger do not fasten the seatbelt buckle and the vehicle speed exceeds 6 mph (9.7 km/h). To deactivate the warning, see Deactivating and Activating the Belt-Minder Feature.

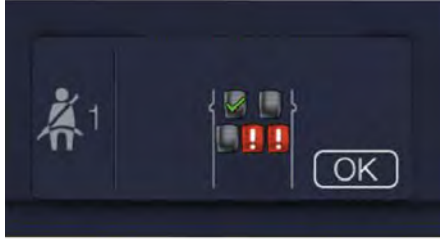
**Note:** To avoid inadvertent warnings, do not place large objects on the seat.



This lamp illuminates when you switch the ignition on, identifying the number of seating positions with fastened buckles. It illuminates again when a seating position changes from unfastened to fastened.

# Seatbelts

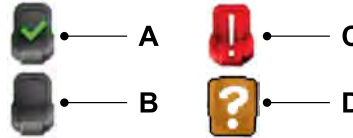
## Seatbelt Status



This warning displays and a tone sounds if an occupant unfastens the rear seatbelt buckle or it becomes unfastened.

**Note:** If a rear seat is unoccupied, or an occupant never fastens the seatbelt buckle to begin with, the warning will not display.

**Note:** Front seating positions appear in this warning display. Warnings for unfastened front seatbelt buckles appear in the initial warning lamp.




- A Seatbelt fastened.
- B Seatbelt not fastened.

- C Seatbelt recently unfastened.
- D Fault.

To view the seatbelt status, use the information display controls on the steering wheel.

## Deactivating and Activating the Seatbelt Reminder - Front Seats Only

 **WARNING:** While the system allows you to deactivate it, this system is designed to improve your chances of being safely belted and surviving an accident. We recommend you leave the system activated for yourself and others who may use the vehicle.

**Note:** The driver and front passenger warnings switch on and off independently. When you perform this procedure for one seating position, do not buckle the other position as this terminates the process.

Read Steps 1 - 4 before starting the procedure.

# Seatbelts

Make sure that:

- You set the parking brake.
  - The transmission is in park (P).
  - The ignition is off.
  - You close all vehicle doors.
  - You unbuckle the driver and front passenger seatbelts.
1. Switch the ignition on. Do not start the engine.
  2. Wait until the seatbelt warning lamp turns off (about one minute). After Step 2, wait an additional five seconds before proceeding with Step 3. Once you start Step 3, you must complete the procedure within 30 seconds.
  3. For the seating position you are switching off, buckle then unbuckle the seatbelt three times at a moderate speed, ending in the unbuckled state. After Step 3, the seatbelt warning lamp turns on.
  4. When the seatbelt warning lamp is on, buckle then unbuckle the seatbelt. After Step 4, the seatbelt warning lamp flashes for confirmation.

- This switches the feature off if it is currently on.
- This switches the feature on if it is currently off.

## CHILD RESTRAINT AND SEATBELT MAINTENANCE

Inspect the vehicle seatbelts and child safety seat systems periodically to make sure they work properly and are not damaged. Inspect the vehicle and child restraint seatbelts to make sure there are no nicks, tears or cuts. Replace if necessary. All vehicle seatbelt assemblies, including retractors, buckles, front seatbelt buckle assemblies, buckle support assemblies (slide bar-if equipped), shoulder belt height adjusters (if equipped), shoulder belt guide on seat backrest (if equipped), child safety seat LATCH and tether anchors, and attaching hardware, should be inspected after a crash. Read the child restraint manufacturer's instructions for additional inspection and maintenance information specific to the child restraint.

We recommend that all seatbelt assemblies in use in vehicles involved in a crash be replaced. However, if the crash was minor and an authorized dealer finds that the belts do not show damage and continue to operate properly, they do not need to be replaced. Seatbelt assemblies not in use during a crash should also be inspected and replaced if either damage or improper operation is noted.

Properly care for seatbelts. See **Vehicle Care** (page 413).


## SEATBELT EXTENSIONS





**WARNING:** Persons who fit into the vehicle's seatbelt should not use an extension. Unnecessary use could result in serious personal injury in the event of a crash.


# Seatbelts

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 **WARNING:** Only use extensions provided free of charge by our dealers. The dealer will provide an extension designed specifically for this vehicle, model year and seating position. The use of an extension intended for another vehicle, model year or seating position may not offer you the full protection of your vehicle's seatbelt restraint system.

 **WARNING:** Never use seatbelt extensions to install child restraints.

 **WARNING:** Do not use a seatbelt extension with an inflatable seatbelt.

 **WARNING:** Do not use extensions to change the way the seatbelt fits across the torso, over the lap or to make the seatbelt buckle easier to reach.

extensions made by the same company which made the original equipment seatbelts, should be used with Lincoln seatbelts. Ask your authorized dealer if your extension is compatible with your Lincoln vehicle restraint system.

If, because of body size or driving position, it is not possible to properly fasten the seatbelt over your lap and shoulder, an extension that is compatible with the seatbelts is available free of charge from Lincoln dealers. Only Lincoln seatbelt

# Personal Safety System™

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The Personal Safety System provides an improved overall level of frontal crash protection to front seat occupants and is designed to help further reduce the risk of airbag-related injuries. The system is able to analyze different occupant conditions and crash severity before activating the appropriate safety devices to help better protect a range of occupants in a variety of frontal crash situations.

The Vehicle Personal Safety System consists of:

- Driver and passenger dual-stage airbag supplemental restraints.
- Front seat outermost seatbelts with pretensioners, energy management retractors and seatbelt usage sensors.
- Driver seat position sensor.
- Passenger seat position sensor.
- Front passenger sensing system.
- Passenger airbag off and on indicators.
- Front crash severity sensors.
- Restraints control module with impact and safing sensors.


- Restraint system warning lamp and tone.
- The electrical wiring for the airbags, crash sensors, seatbelt pretensioners, front seatbelt usage sensors, driver seat position sensor, front passenger sensing system and indicators.


## **How Does the Personal Safety System Work?**


The Personal Safety System can adapt the deployment strategy of the safety devices according to crash severity and occupant conditions. A collection of crash and occupant sensors provides information to the restraints control module. During a crash, the restraints control module may deploy the seatbelt pretensioners, one or both stages of the dual-stage airbags based on crash severity and occupant conditions.


# Supplementary Restraints System


## PRINCIPLE OF OPERATION


 **WARNING:** Airbags do not inflate slowly or gently, and the risk of injury from a deploying airbag is the greatest close to the trim covering the airbag module.


 **WARNING:** All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.


 **WARNING:** Even with advanced restraints systems, properly restrain children 12 and under in a rear seating position. Failure to follow this could seriously increase the risk of injury or death.


 **WARNING:** Do not place your arms on the airbag cover or through the steering wheel. Failure to follow this instruction could result in personal injury.

 **WARNING:** Keep the areas in front of the airbags free from obstruction. Do not affix anything to or over the airbag covers. Objects could become projectiles during airbag deployment or in a sudden stop. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** Airbags can kill or injure a child in a child restraint. Never place a rear-facing child restraint in front of an active airbag. If you must use a forward-facing child restraint in the front seat, move the seat upon which the child restraint is installed all the way back.

 **WARNING:** Do not attempt to service, repair, or modify the supplementary restraint system or associated components. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** Several airbag system components get hot after inflation. To reduce the risk of injury, do not touch them after inflation.

 **WARNING:** If a supplementary restraint system component has deployed, it will not function again. Have the system and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

The airbags are a supplemental restraint system and are designed to work with the seatbelts to help protect the driver and right front passenger from certain upper body injuries. Airbags do not inflate slowly; there is a risk of injury from a deploying airbag.

**Note:** *You will hear a loud bang and see a cloud of harmless powdery residue if an airbag deploys. This is normal.*


# Supplementary Restraints System


The airbags inflate and deflate rapidly upon activation. After airbag deployment, it is normal to notice a smoke-like, powdery residue or smell the burnt propellant. This may consist of cornstarch, talcum powder (to lubricate the bag) or sodium compounds (for example, baking soda) that result from the combustion process that inflates the airbag. Small amounts of sodium hydroxide may be present which may irritate the skin and eyes, but none of the residue is toxic.


While the system is designed to help reduce serious injuries, contact with a deploying airbag may also cause abrasions or swelling. Temporary hearing loss is also a possibility as a result of the noise associated with a deploying airbag. Because airbags must inflate rapidly and with considerable force, there is the risk of death or serious injuries such as fractures, facial and eye injuries or internal injuries, particularly to occupants who are not properly restrained or are otherwise out of position at the time of airbag deployment. Thus, it is extremely important that occupants be properly restrained as far away from the airbag module as possible while maintaining vehicle control.

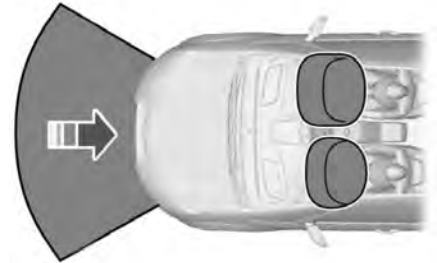
Routine maintenance of the airbags is not required.

## DRIVER AND PASSENGER AIRBAGS

 **WARNING:** Do not place your arms on the airbag cover or through the steering wheel. Failure to follow this instruction could result in personal injury.

 **WARNING:** Keep the areas in front of the airbags free from obstruction. Do not affix anything to or over the airbag covers. Objects could become projectiles during airbag deployment or in a sudden stop. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** Airbags can kill or injure a child in a child restraint. Never place a rear-facing child restraint in front of an active airbag. If you must use a forward-facing child restraint in the front seat, move the seat upon which the child restraint is installed all the way back.



The driver and front passenger airbags will deploy during significant frontal and near frontal crashes.



# Supplementary Restraints System

The driver and passenger front airbag system consists of:

- Driver and passenger airbag modules.
- Front passenger sensing system.



• Crash sensors and monitoring system with readiness indicator. See **Crash Sensors and Airbag**

**Indicator** (page 60).

## Proper Driver and Front Passenger Seating Adjustment



**WARNING:** National Highway Traffic Safety Administration (NHTSA) recommends a minimum distance of at least 10 in (25 cm) between an occupant's chest and the driver airbag module.

To properly position yourself away from the airbag:

- Move your seat to the rear as far as you can while still reaching the pedals comfortably.
- Recline the seat slightly (one or two degrees) from the upright position.

After all occupants have adjusted their seats and put on seatbelts, it is very important that they continue to sit properly. A properly seated occupant sits upright, leaning against the seatback, and centered on the seat cushion, with their feet comfortably extended on the floor. Sitting improperly can increase the chance of injury in a crash event. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward or sideways, or puts one or both feet up, the chance of injury during a crash is greatly increased.

## Children and Airbags



**WARNING:** Airbags can kill or injure a child in a child restraint. Never place a rear-facing child restraint in front of an active airbag. If you must use a forward-facing child restraint in the front seat, move the seat upon which the child restraint is installed all the way back.



Children must always be properly restrained. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating position. Failure to follow these instructions may increase the risk of injury in a crash.

# Supplementary Restraints System

## FRONT PASSENGER SENSING SYSTEM



**WARNING:** Even with advanced restraints systems, properly restrain children 12 and under in a rear seating position. Failure to follow this could seriously increase the risk of injury or death.



**WARNING:** Sitting improperly, out of position or with the seatback reclined too far can take weight off the seat cushion and affect the decision of the passenger sensing system, resulting in serious injury or death in the event of a crash. Always sit upright against your seat back, with your feet on the floor.



**WARNING:** Any alteration or modification to the front passenger seat may affect the performance of the front passenger sensing system. This could seriously increase the risk of injury or death.

This system works with sensors that are part of the front passenger seat and seatbelt to detect the presence of a properly-seated occupant and determine if the front passenger frontal airbag should be enabled (may inflate) or not.



The indicators are on the overhead console.

The front passenger sensing system uses passenger airbag status indicators that illuminate indicating that the front passenger frontal airbag is either on (enabled) or off (disabled).

**Note:** *The indicators illuminate briefly when you first switch the ignition on to confirm they are functional.*

The front passenger sensing system is designed to disable (will not inflate) the front passenger frontal airbag when the front passenger seat is unoccupied, or a rear facing infant seat, a forward-facing child restraint, or a booster seat is detected. Even with this technology, parents are **strongly** encouraged to always properly restrain children in the rear seat.

- When the front passenger sensing system disables (will not inflate) the front passenger frontal airbag, the passenger airbag status off indicator illuminates and stays on to remind you that the front passenger frontal airbag is disabled.
- If you have installed the child restraint and the passenger airbag status on indicator illuminates, then switch the vehicle off, remove the child restraint from the vehicle and reinstall the restraint following the child restraint manufacturer's instructions.

The front passenger sensing system is designed to enable (may inflate) the front passenger frontal airbag anytime the system senses that a person of adult size is sitting properly in the front passenger seat.

## Supplementary Restraints System

- When the front passenger sensing system enables the front passenger frontal airbag (may inflate), the passenger airbag status on indicator illuminates and remains illuminated.

If a person of adult size is sitting in the front passenger seat, but the passenger airbag is disabled, it is possible that the person is not sitting properly in the seat. If this happens:

- Switch the vehicle off and ask the person to place the seat backrest in an upright position.
- Have the person sit upright in the seat, centered on the seat cushion, with the person's legs comfortably extended.

- Restart the vehicle and have the person remain in this position for about two minutes. This allows the system to detect that person and enables the passenger frontal airbag.
- If the passenger airbag status off indicator remains on even after this, advise the person to ride in the rear seat.

Occupant	Passenger Airbag Status Indicator	Passenger Airbag
Empty	OFF: Illuminated	Disabled
	ON: Not Illuminated	
Child	OFF: Illuminated	Disabled
	ON: Not Illuminated	
Adult	OFF: Not Illuminated	Enabled
	ON: Illuminated	

# Supplementary Restraints System

After all occupants have adjusted their seats and put on seatbelts, it is very important that they continue to sit properly. A properly seated occupant sits upright, leaning against the seat backrest, and centered on the seat cushion, with their feet comfortably extended on the floor. Sitting improperly can increase the chance of injury in a crash event. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward or sideways, or puts one or both feet up, the chance of injury during a crash greatly increases.

If you think that the status of the passenger airbag off indicator is incorrect, check for the following:

- Objects lodged underneath the seat.
- Objects between the seat cushion and the center console.
- Objects hanging off the seat backrest.
- Objects stowed in the seat backrest map pocket.
- Objects placed on the occupant's lap.
- Cargo interference with the seat.

- Other passengers pushing or pulling on the seat.
- Rear passenger feet and knees resting or pushing on the seat.

The conditions listed above may cause the weight of a properly seated occupant to be incorrectly interpreted by the passenger sensing system. The person in the front passenger seat may appear heavier or lighter due to the conditions described in the list above.



Make sure the front passenger sensing system is operating properly. See **Crash Sensors and Airbag Indicator** (page 60).

Do not attempt to repair or service the system. Take your vehicle immediately to an authorized dealer.

If it is necessary to modify an advanced front airbag system to accommodate a person with disabilities, contact your authorized dealer.

## SIDE AIRBAGS



**WARNING:** Do not place objects or mount equipment on or near the airbag cover, on the side of the front or rear seatbacks, or in areas that may come into contact with a deploying airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.





**WARNING:** Accessory seat covers not released by Ford Motor Company could prevent the deployment of the airbags and increase the risk of injuries in a crash.



**WARNING:** Do not lean your head on the door. The side airbag could injure you as it deploys from the side of the seatback.

# Supplementary Restraints System

 **WARNING:** Do not attempt to service, repair, or modify the supplementary restraint system or associated components. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** If a supplementary restraint system component has deployed, it will not function again. Have the system and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

The side airbags are on the outermost side of each front and rear seat backrest. In certain sideways crashes or rollover events, the side airbags will be inflated. The airbag was designed to inflate between the door panel and occupant to further enhance the protection provided occupants in side impact crashes.



Properly restrain children 12 years old and under in the rear seats. The rear side airbag will not interfere with children restrained using a properly installed child or booster seat.

The system consists of the following:

- A label or embossed side panel indicating that side airbags are fitted to your vehicle.
- Side airbags inside the driver and front passenger seat backrests, as well as side airbags inside of each outermost rear seat backrest.



- Crash sensors and monitoring system with readiness indicator. See **Crash Sensors and Airbag Indicator** (page 60).

The design and development of the side airbag system included recommended testing procedures that were developed by a group of automotive safety experts known as the Side Airbag Technical Working Group. These recommended testing procedures help reduce the risk of injuries related to the deployment of side airbags.

## DRIVER AND PASSENGER KNEE AIRBAGS

Driver and passenger knee airbags are located under or within the instrument panel. During a crash, the restraints control module may activate the driver and passenger knee airbags (individually or both) based on crash severity and respective occupant conditions. Under certain crash and occupant conditions,

# Supplementary Restraints System

the driver and passenger knee airbags may deploy (individually or both) but the corresponding front airbag may not activate. As with front and side airbags, it is important to be properly seated and restrained to reduce the risk of death or serious injury.



Make sure the knee airbags are operating properly. See **Crash Sensors and Airbag Indicator** (page 60).

## SAFETY CANOPY™



**WARNING:** Do not place objects or mount equipment on or near the headliner at the siderail that may come into contact with a deploying curtain airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.



**WARNING:** Do not lean your head on the door. The curtain airbag could injure you as it deploys from the headliner.



**WARNING:** Do not attempt to service, repair, or modify the supplementary restraint system or associated components. Failure to follow this instruction could result in personal injury or death.



**WARNING:** All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.

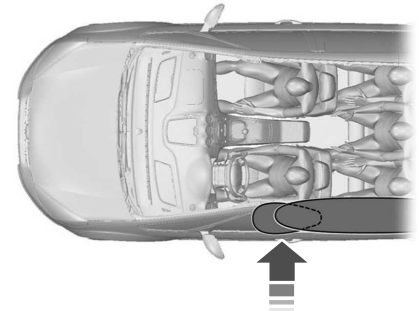


**WARNING:** To reduce risk of injury, do not obstruct or place objects in the deployment path of the airbag.



**WARNING:** If a supplementary restraint system component has deployed, it will not function again. Have the system and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

The Safety Canopy deploys during significant side crashes or when a certain likelihood of a rollover event is detected by the rollover sensor. The Safety Canopy is mounted to the roof side rail sheet metal, behind the headliner, above each row of seats. In certain sideways crashes or rollover events, the Safety Canopy will be activated, regardless of which seats are occupied. The Safety Canopy is designed to inflate between the side window area and occupants to further enhance protection provided in side impact crashes and rollover events.



# Supplementary Restraints System

The system consists of the following:

- Safety Canopy curtain airbags above the trim panels over the front and rear side windows identified by a label or wording on the headliner or roof-pillar trim.
- A flexible headliner which opens above the side doors to allow air curtain deployment



• Crash sensors and monitoring system with a readiness indicator. See **Crash Sensors and Airbag**

**Indicator** (page 60).

Properly restrain children 12 years old and under in the rear seats. The Safety Canopy will not interfere with children restrained using a properly installed child or booster seat because it is designed to inflate downward from the headliner above the doors along the side window opening.

The design and development of the Safety Canopy included recommended testing procedures that were developed by a group of automotive safety experts known as the Side Airbag Technical Working Group. These recommended testing procedures help reduce the risk of injuries related to the deployment of side airbags (including the Safety Canopy).

## CRASH SENSORS AND AIRBAG INDICATOR



**WARNING:** Modifying or adding equipment to the front of your vehicle could affect the performance of the airbag system, increasing the risk of injury. This includes the hood, bumper system, frame, front body structure, tow hooks, hood pins, push bar and snowplows.

Your vehicle has a collection of crash and occupant sensors which provide information to the restraints control module. The restraints control module deploys (activates) the seatbelt pretensioners, driver airbag, passenger airbag, knee airbag(s), seat mounted side airbags and the Safety Canopy. Based on the type of crash, the restraints control module deploys the appropriate safety devices.

The restraints control module also monitors the readiness of the above safety devices plus the crash and occupant sensors. The readiness of the safety system is indicated by a warning indicator light in the instrument cluster or by a backup tone if the warning light is not working. Routine maintenance of the airbag is not required.

A difficulty with the system is indicated by one or more of the following:

# Supplementary Restraints System

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- The readiness light will not illuminate immediately after you switch the ignition on.
- The readiness light either flashes or stays on.
- A series of five beeps is heard. The tone pattern repeats periodically until the problem, the light or both are repaired.

If any of these things happen, even intermittently, have the supplemental restraint system serviced at an authorized dealer immediately. Unless serviced, the system may not function properly in the event of a crash.

The restraint system is designed to activate when the vehicle sustains conditions sufficient to cause the restraint control module to deploy a safety device.

The fact that not all the safety devices activate for all occupants in a crash does not mean something is wrong with the system. Rather, it means the restraints control module determined the accident conditions (crash severity, type of crash, belt usage) were not appropriate to activate these safety devices.

- The front airbags are designed to activate only in frontal and near-frontal crashes (not rollovers, side impacts or rear impacts) unless the crash causes sufficient frontal deceleration.
- The front seatbelt pretensioners are designed to activate in frontal, near-frontal and side crashes, and in rollovers. The rear seatbelt pretensioners are designed to activate in frontal crashes and in rollovers.
- The knee airbag(s) may deploy based on crash severity and occupant conditions.

- The side airbags are designed to inflate in certain side impact crashes or rollover events. Side airbags may activate in other types of crashes if your vehicle experiences sufficient sideways motion or deformation, or a certain likelihood of rollover.
- The Safety Canopy is designed to inflate in certain side impact crashes or rollover events. The Safety Canopy may activate in other types of crashes if your vehicle experiences sufficient sideways motion or deformation, or a certain likelihood of rollover.

## **AIRBAG DISPOSAL**

Contact your authorized dealer as soon as possible. Airbags must be disposed of by qualified personnel.



## Pedestrian Protection (If Equipped)

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### **PEDESTRIAN ALERT SYSTEM**

Due to the quiet operation of hybrid and electric vehicles at low speeds, the system creates a subtle sound to alert pedestrians.

The system is on when your vehicle is running and not in park (P). Some sound may be audible in the passenger compartment.

# 911 Assist

## WHAT IS 911 ASSIST

911 Assist is a SYNC system feature that can call for help if you are in an accident. If a crash deploys an airbag, excluding knee airbags and rear inflatable seatbelts [if equipped], or activates the fuel pump shut-off, your SYNC-equipped vehicle may be able to contact emergency services by dialing 911 through a paired and connected Bluetooth enabled phone. You can learn more about the 911 Assist feature, by visiting:

Website
<a href="http://www.owner.lincoln.com">www.owner.lincoln.com</a>
<a href="http://www.syncmyride.ca">www.syncmyride.ca</a>
<a href="http://www.syncmaroute.ca">www.syncmaroute.ca</a>

Not all crashes will deploy an airbag or activate the fuel pump shut-off, the triggers for 911 Assist. If a connected cell phone sustains damage or loses its connection to SYNC during a crash, SYNC will search for and try to connect to a previously paired cell phone. SYNC will then attempt to call the emergency services.

Before making the call:

- SYNC provides a short window of time, about 10 seconds, to cancel the call. If you fail to cancel the call, SYNC attempts to dial 911.
- SYNC says the following, or a similar message: SYNC will attempt to call 911, to cancel the call, press Cancel on your screen or press and hold the phone button on your steering wheel.

If you do not cancel the call, and SYNC makes a successful call, a pre-recorded message plays for the 911 operator, and then the occupant(s) in your vehicle is able to talk with the operator. Be prepared to immediately provide your name, phone number and location, because not all 911 systems are capable of receiving this information electronically.

During an emergency call, the system transmits vehicle data to the emergency service. See **Data Recording** (page 14).

## EMERGENCY CALL REQUIREMENTS



**WARNING:** Do not wait for 911 Assist to make an emergency call if you can do it yourself. Dial emergency services immediately to avoid delayed response time which could increase the risk of serious injury or death after a crash. If you do not hear 911 Assist within five seconds of the crash, the system or phone may be damaged or non-functional.



**WARNING:** Always place your phone in a secure location in your vehicle so it does not become a projectile or get damaged in a crash. Failure to do so may cause serious injury to someone or damage the phone which could prevent 911 Assist from working properly.



**WARNING:** Unless the 911 Assist setting is set on before a crash, the system will not dial for help which could delay response time, potentially increasing the risk of serious injury or death after a crash.

# 911 Assist

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- SYNC must be powered and working properly at the time of the incident and throughout feature activation and use.
- The 911 Assist feature must be set on before the incident.
- You must pair and connect a **Bluetooth**® enabled and compatible cell phone to SYNC.
- A connected **Bluetooth**® enabled phone must have the ability to make and maintain an outgoing call at the time of the incident.
- A connected **Bluetooth**® enabled phone must have adequate network coverage, battery power and signal strength.
- The vehicle must have battery power and be located in the U.S., Canada or in a territory in which 911 is the emergency number.

**Note:** *If any user sets 911 Assist to on or off, that setting applies for all paired phones. If 911 Assist is switched off and the phone is connected to SYNC, an icon displays on the status bar.*

**Note:** *Every phone operates differently. While SYNC 911 Assist works with most cellular phones, some may have trouble using this feature.*

## EMERGENCY CALL LIMITATIONS

The SYNC 911 Assist feature only operates in the U.S., Canada or in a territory in which 911 is the emergency number.

- Your cellular phone or 911 Assist hardware sustains damage in a crash.
- The vehicle's battery or the SYNC system has no power.
- The phone(s) thrown from your vehicle are the ones paired and connected to the system.

# Keys and Remote Controls

## GENERAL INFORMATION ON RADIO FREQUENCIES

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

The typical operating range for your transmitter is approximately 33 ft (10 m). Vehicles with the remote start feature will have a greater range.

One of the following could cause a decrease in operating range:

- Weather conditions.
- Nearby radio towers.
- Structures around the vehicle.
- Other vehicles parked next to your vehicle.

The radio frequency used by your remote control can also be used by other radio transmitters, for example amateur radios, medical equipment, wireless headphones, wireless remote controls, cell phones, battery chargers and alarm systems. If the frequencies are jammed, you will not be able to use your remote control. You can lock and unlock the doors with the key.

**Note:** *Make sure to lock your vehicle before leaving it unattended.*

**Note:** *If you are in range, the remote control will operate if you press any button unintentionally.*

**Note:** *The remote control contains sensitive electrical components. Exposure to moisture or impact may cause permanent damage.*

## Intelligent Access (If Equipped)

The system uses a radio frequency signal to communicate with your vehicle and authorize your vehicle to unlock when one of the following conditions are met:

- You activate the front exterior door handle switch.
- You press the luggage compartment button.
- You press a button on the transmitter.

If excessive radio frequency interference is present in the area or if the transmitter battery is low, you may need to mechanically unlock your door. You can use the mechanical key blade in your intelligent access key to open the driver door in this situation. See **Remote Control** (page 65).

## REMOTE CONTROL

### Passive Key

**Note:** *You may not be able to shift out of park (P) unless the passive key is inside your vehicle.*

# Keys and Remote Controls



Your remote control operates the power locks, remote start system, and liftgate. Your remote control must be in your vehicle to activate the push button start.

## Removable Key Blade

The passive key also contains a removable key blade that you can use to unlock your vehicle.



Push the release button and pull the key blade out.




**Note:** Your vehicle keys came with a security label that provides important key cut information. Keep the label in a safe place for future reference.

## Child Safety Locks

Use the key blade to lock and unlock the child safety locks. See **Child Safety Locks** (page 40).

## Replacing the Battery

 **WARNING:** Keep batteries away from children to prevent ingestion. Failure to follow this instruction could result in personal injury or death. If ingested, immediately seek medical attention.

## Keys and Remote Controls



**WARNING:** If the battery compartment does not securely close, stop using the remote control and replace it as soon as possible. In the meantime, keep the remote control away from children. Failure to follow this instruction could result in personal injury or death.

**Note:** Refer to local regulations before you dispose of the remote control batteries.

**Note:** Do not wipe off any grease on the battery terminals or on the back surface of the circuit board.

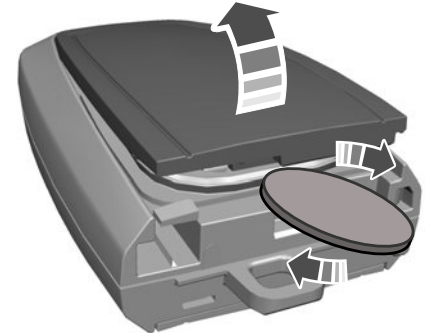
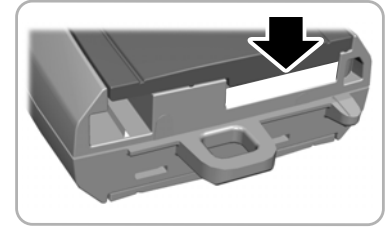
**Note:** Replacing the remote control battery does not erase the programmed key from your vehicle. The remote control operates as normal.

A message appears in the information display when the remote control battery is low. See **Information Messages** (page 142).

The remote control uses one coin-type three-volt lithium battery, CR2450, or equivalent.

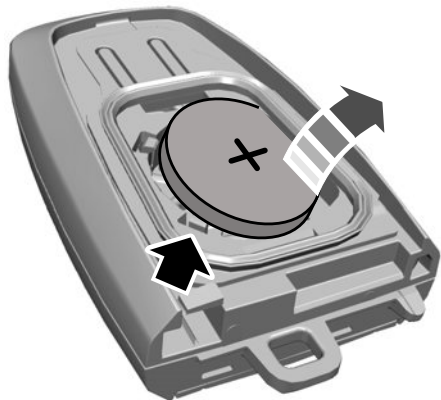


1. Push the release button and pull the key blade out.



2. Twist a thin coin under the tab hidden behind the key blade head to remove the battery cover.

## Keys and Remote Controls



3. Insert a screwdriver in the position shown and carefully remove the battery.
4. Install a new battery with the + facing upward.
5. Reinstall the battery cover and the key blade.

### Car Finder



Press the button twice within three seconds. A tone sounds and the turn signals flash. We recommend you use this method to locate your vehicle.

### Sounding the Panic Alarm



Press the button to sound the panic alarm. To turn it off, press the button again or switch the ignition on.

**Note:** *The panic alarm only operates when the ignition is off.*

### Memory Feature

You can program your passive key to recall memory positions. See **Memory Function** (page 183).

## REPLACING A LOST KEY OR REMOTE CONTROL

Replacement keys or remote controls can be purchased from an authorized dealer. Authorized dealers can program remote controls for your vehicle.

# Phone as a Key (If Equipped)

## WHAT IS PHONE AS A KEY

Phone as a Key allows you to use your phone in place of a passive key.

You can use your phone for the following functions:

- Remote locking and unlocking.
- Passive entry and exit.
- Passive start and drive the vehicle.
- Remote start.
- Memory function recall.

## PHONE AS A KEY LIMITATIONS

Limitations can vary based on the make and model of your phone, phone location and physical obstructions.

The following items could impact Phone as a Key performance or prevent functionality in some cases:

- The typical operating range for Phone as a Key is 131 ft (40 m).

- Your **Bluetooth**® connection is not enabled, is disrupted, or out of range.
- Your Phone as a Key is not active or enabled on at least one phone.
- Your vehicle battery has depleted.
- Your phone battery has depleted.
- Interference from other devices using radio frequencies or physical obstructions.
- Your phone is too close to metal objects or other electronic devices.

**Note:** *Do not leave a duplicate coded key in the vehicle. Always take your keys and phone and lock all doors when leaving the vehicle.*

## PROGRAMMING YOUR PHONE

To program your smartphone as Phone as a Key:

1. Visit your device's app store to download the Lincoln Way app.

2. Create or sign-in to the Lincoln Way app and add the vehicle identification number to your account.
3. Once you add the vehicle identification number, follow the prompts in the Lincoln Way app to complete the Sync Connect Authorization process.
4. After the vehicle authorizes, you can setup Phone as a Key following the prompts in the Lincoln Way app.
5. After Phone as a Key is setup, you can setup the Backup Start Passcode by following the prompts on your touchscreen.

**Note:** *Keep your new Backup Start Passcode with you in case of an emergency.*

## Resetting Phone as a Key

If the Phone as a Key belongs to your account, you can delete it from your phone. If not, reset Phone as a Key using the following steps:

1. Press **Settings** on the touchscreen.
2. Press **General**.
3. Press **Reset**.



## Phone as a Key (If Equipped)

4. Press **Lincoln Way Connect Reset**.
5. Press **Reset All**.
6. Confirm you would like to continue with erasing all Phone as a Key, Backup Start Passcodes.
7. Press **Continue**.
8. Confirm you are aware you are de-authorizing all authorized users and Lincoln Way Connect settings.
9. Press **Continue**.

**Note:** Please wait while the vehicle resets all the Phone as a Key, Backup Start Passcodes, Lincoln Way Connect Settings and de-authorize previously authorized users.

### USING THE VALET MODE

1. Press Settings on the touchscreen.
2. Press Valet Mode.

**Note:** Have your Backup Start Passcode completely setup before using Valet Mode.

**Note:** Once the system detects a valid Phone as a Key, the temporary passcode displays in both the touchscreen and mobile app. If the system does not detect a valid Phone as a Key, it prompts you to enter your Backup Start Passcode. Once validated, the temporary passcode displays on the touchscreen.

3. Enter the first five digits of the passcode on the keyless entry keypad to unlock your vehicle.
4. Enter the eight-digit passcode on the touchscreen to start and drive your vehicle.

To disable Valet Mode, press Exit Valet Mode on the touchscreen. Once the system detects an authorized Phone as a Key, it disables. If the system does not detect a valid Phone as a Key, it prompts you to enter your Backup Start Passcode. Once validated, Valet Mode disables.

### USING THE BACKUP START PASSCODE

If you are unable to start your vehicle with Phone as a Key, follow the steps below:

1. Press the brake pedal and the ignition button. If the system does not detect a valid Phone as a Key, a message appears and the system prompts you for your Backup Start Passcode.

**Note:** Make sure you have Phone as a Key active on at least one phone to use the previously created Backup Start Passcode.

**Note:** If the Backup Start Passcode screen does not appear, it is necessary to press the ignition button again.

2. Use the touchscreen to enter your Backup Start Passcode.
3. After entering your Backup Start Passcode, you must press Enter within 30 seconds.
4. Once the system validates the Backup Start Passcode, a message alerts you to start your vehicle.

## Phone as a Key (If Equipped)

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5. Press the brake pedal and the ignition button within 20 seconds to start the vehicle.
6. If your vehicle does not start, repeat steps 1-5.

### System Lockout

The system locks after five attempts of trying to enter a Backup Start Passcode, resetting a current passcode or entering an incorrect Valet Mode passcode.

**Note:** *The system remains locked for five minutes. After five minutes the system allows codes to be entered again.*

### PHONE AS A KEY – TROUBLESHOOTING

#### PHONE AS A KEY – FREQUENTLY ASKED QUESTIONS

##### How can I tell if my vehicle has Phone as a Key?

The touchscreen shows the Phone as a Key reset option if your vehicle has Phone as a Key. If you have registered your vehicle through the Lincoln Way app, a control button appears on the home screen of the Lincoln Way app.

##### What happens if I cannot unlock the vehicle with Phone as a Key?

Attempt to move your phone closer to the vehicle. Check that the Lincoln Way app is still running and that the Phone as a Key control screen shows connected. If the phone is connected, attempt to press the remote unlock button in the Lincoln Way app. If the phone is not connected or the remote unlock button does not work in the Lincoln Way app, attempt to force close and restart the app.

##### Why do I get a No Key Detected message in the instrument cluster display when I am using Phone as a Key and my phone is in the car?

Your phone's Bluetooth connection has been disrupted or is not connected. Try reconnecting your phone's Bluetooth connection. Move the phone closer to the center of the vehicle near the cup holder or center console. Verify your Phone as a Key is still active, enabled and has not been revoked.

## Phone as a Key (If Equipped)

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### **What do I do if my phone is lost, damaged, or the battery has depleted?**

Use the Backup Start Passcode that you created to protect you in the event that you lose your phone, damage it, or the battery depletes. See **Using the Backup Start Passcode** (page 70).

### **How many phones can I use for Phone as a Key?**

You can program and activate up to four phones with Phone as a Key to your vehicle.

### **How does a valet drive my car if I only use my Phone as a Key?**

Have the valet use the temporary valet passcode that you created when using valet mode. See **Using the Valet Mode** (page 70).

### **I uninstalled my Lincoln Way app and reinstalled it. Why am I not able to get a new Phone as a Key?**

Remove the Phone as a Key that was previously associated with your phone or reset Phone as a Key from your vehicle, and then request a new Phone as a Key. See **Programming Your Phone** (page 69).

### **Why can I not remotely start the vehicle with my Phone as a Key?**

Using the Lincoln Way app, verify your Phone as a Key setup is complete and enabled via Bluetooth connection on at least one phone. If Bluetooth has connected but Phone as a Key setup is not complete, complete the setup of your Phone as a Key, as prompted from the Lincoln Way app. See **Programming Your Phone** (page 69).

## WHAT IS MYKEY

MyKey allows you to program keys with restricted driving modes to promote good driving habits.

## MYKEY SETTINGS

### NON-CONFIGURABLE MYKEY SETTINGS

#### Seatbelt Reminder or Belt-Minder™

MyKey mutes the audio system until the drivers, and in some instances, passengers, fasten their seatbelts.

**Note:** *If your vehicle includes an AM/FM radio or a very basic audio system, then the radio may not mute.*

#### Satellite Radio (If Equipped)

Satellite radio adult content restrictions.

## Early Low Fuel

The low fuel level warning lamp turns on earlier.

## Driving and Parking Aids

Parking aids, blind spot information system and cross traffic alert turn on when you start the engine and cannot be switched off with a MyKey.

Pre-collision assist and lane keeping alert turn on when you start the engine, but can be switched off with a MyKey.

A new destination in the navigation system can only be set using voice commands when using a MyKey, and with your vehicle moving.

**Note:** *MyKey drivers may be able to turn the lane departure warning feature off, but this feature turns back on automatically with every new key cycle.*

## CONFIGURABLE MYKEY SETTINGS

You can configure the following settings after creating a MyKey. See **Creating a MyKey** (page 74).

## Speed Limit



**WARNING:** Do not set MyKey maximum speed limit to a limit that will prevent the driver from maintaining a safe speed considering posted speed limits and prevailing road conditions. The driver is always responsible to drive in accordance with local laws and prevailing conditions. Failure to do so could result in accident or injury.

You can set a speed limit for your vehicle. Warning messages appear in the information display and a tone sounds if your vehicle reaches the set speed. You cannot override the set speed when using a MyKey.

## Speed Reminder

You can set a speed reminder for your vehicle. Warning messages appear in the information display and a tone sounds if your vehicle exceeds the set speed.

## Audio System Volume Limit

The audio system maximum volume is reduced. A message appears in the information display if you attempt to exceed the volume limit. Automatic volume control turns off.

## Emergency Assistance

If you set emergency assistance to always on, you cannot switch it off with a MyKey.

## Do Not Disturb

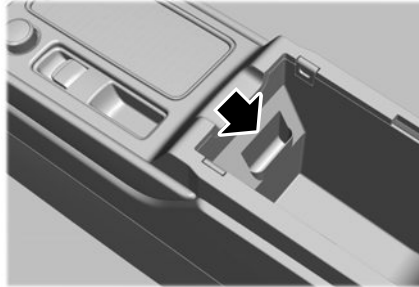
If you set do not disturb to always on, you cannot switch it off with a MyKey.

**Note:** *If a phone is connected using Apple CarPlay or Android Auto while driving with a MyKey, the driver can receive phone calls and text messages even if the do not disturb restriction is on. If the vehicle comes with satellite radio, the adult content is not restricted.*

## Traction Control

If you set traction control to always on, you cannot switch it off with a MyKey.

## CREATING A MYKEY



1. Open the center console lid.
2. Place the passive key in the position shown.
3. Switch the ignition on.
4. Press **Settings** on the touchscreen.
5. Press **Vehicle Settings**.
6. Press **MyKey**.
7. Press **Create MyKey**.
8. Press **Yes**.
9. Switch the ignition off.

**Note:** *We recommend that you label this key.*

## PROGRAMMING A MYKEY

You can only program each MyKey to the same settings.

1. Switch the ignition on using an admin key.
2. Using the touchscreen, press **Menu**.
3. Press **Settings**.
4. Press **Vehicle**.
5. Press **MyKey**.
6. Press a setting.
7. Configure the setting.
8. Switch the ignition off.

## CLEARING ALL MYKEYS

When you clear all MyKeys, you remove all restrictions and return all MyKeys to their original admin key status.

1. Switch the ignition on using an admin key.

2. Using your touchscreen, press **Menu**.
3. Press **Settings**.
4. Press **Vehicle**.
5. Press **MyKey**.
6. Press **Clearing All MyKeys**.
7. Press **Yes** to clear all MyKeys from your vehicle.

## CHECKING MYKEY SYSTEM STATUS

You can find information about the distance traveled using a MyKey, and the number of admin keys and MyKeys created for your vehicle.

1. Switch the ignition on.
2. Press **Settings** on the touchscreen.
3. Press **Vehicle Settings**.
4. Press **MyKey**.

5. Press **MyKey Information**.
6. Switch the ignition off.

## USING MYKEY WITH REMOTE START SYSTEMS

MyKey is not compatible with unapproved, aftermarket remote start systems. If you choose to install a remote start system, see an authorized dealer for an approved remote start system.

## MYKEY – TROUBLESHOOTING

### MYKEY – INFORMATION MESSAGES

Message	Description
Place Key in Backup Location	Displays when trying to create a MyKey and there is no admin key in the backup position. See <b>Creating a MyKey</b> (page 74).
Key is Already a MyKey	Displays when trying to create a MyKey with a key already designated as a MyKey.
This Key restricted at Next Key Cycle. Label Key as MyKey	Displays to confirm that you have a restricted key after you switch the ignition off.

## MYKEY – FREQUENTLY ASKED QUESTIONS

### What is an admin key?

- An admin key is a key that you have not created as a MyKey. See **Creating a MyKey** (page 74).

### Why am I not able create a MyKey?

- You did not place the admin key in the backup position. See **Creating a MyKey** (page 74).
- You did not use an admin key to switch the ignition on.
- The key used to switch the ignition on is the only admin key. At least one key needs to remain as an admin key.
- You did not switch the ignition off after creating the last MyKey.

### Why am I not able to program a MyKey?

- The admin key is not inside your vehicle.
- The key used to switch the ignition on is not an admin key.
- You have not created any MyKeys. See **Creating a MyKey** (page 74).

### Why am I not able to clear the MyKeys?

- The admin key is not inside your vehicle.
- The key used to switch the ignition on is not an admin key.
- You have not created any MyKeys. See **Creating a MyKey** (page 74).

### Why is the MyKey distance not accumulating?

- The key used to start the engine is an admin key.
- An admin key and a MyKey are inside your vehicle.
- You have not created any MyKeys. See **Creating a MyKey** (page 74).
- You have cleared the MyKeys.

### Why am I not able to start the engine with a MyKey?

- An admin key and a MyKey are inside your vehicle.

# Doors and Locks

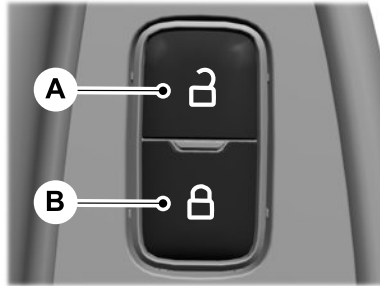
## LOCKING AND UNLOCKING

You can use the power door lock or the remote control to lock and unlock your vehicle.

**Note:** Do not use the door latch assembly to attach any accessory, such as handles or steps, as this can cause damage to your vehicle.

### Power Door Locks

The power door lock is on the driver and front passenger door panels.



- A    Unlock.
- B    Lock.

### Door Lock Indicator

An LED on each door window trim lights when you lock the door. It remains on for up to five minutes after you switch the ignition off.

### Switch Inhibitor

When you electronically lock your vehicle, the power door lock and interior luggage compartment release switch no longer operates after 20 seconds. Make sure you unlock your vehicle with the remote control, intelligent access or keyless keypad, or switch the ignition on, to restore function to these switches. You can switch this feature on or off from the touchscreen. See **Settings** (page 555).

### Remote Control

You can use the remote control at any time. The luggage compartment release button only works when your vehicle speed is less than 3 mph (5 km/h).

### Unlocking the Doors (Two-Stage Unlock)



Press the button to unlock the driver door. Press the button again within three seconds to unlock all doors. The turn signals flash.



# Doors and Locks

Press and hold both the lock and unlock buttons on the remote control for four seconds to disable or enable two-stage unlocking. Disabling two-stage unlocking allows all vehicle doors to unlock with one press of the button. The turn signals flash twice to indicate a change to the unlocking mode. The unlocking mode applies to the remote control, keyless entry keypad and intelligent access.

Intelligent access at the driver door unlocks all doors when you disable two-stage unlocking.

## Locking the Doors



Press the button to lock all the doors. The turn signals flash.

Press the button again within three seconds to confirm that all the doors have closed. The doors lock again, a tone sounds and the turn signals flash if all the doors and the luggage compartment have closed.

## Mislock

If any door or the luggage compartment is open, or if the hood is open on vehicles with an anti-theft alarm or remote start, a tone sounds and the turn signals do not flash. You can switch this feature on or off from the touchscreen. See **Settings** (page 555).

## Audible and Visual Locking Confirmation

If audible and visual locking confirmation is configurable, you can turn it on or off from the touchscreen. See **Settings** (page 555).

## Mechanical Key

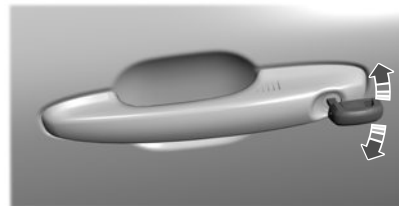
The intelligent access key also contains a removable key blade that you can use to lock and unlock your vehicle. See **Remote Control** (page 65).

Turn the top of the key toward the front of your vehicle once to lock all doors.

Turn the top of the key toward the rear of your vehicle once to unlock the driver door only.

## Locking and Unlocking the Doors with the Key Blade

If the central locking function does not operate, lock the doors using the key blade in the door handle lock cylinder.



## Locking with the Key Blade

Insert the key blade into the driver door handle lock cylinder, turn the key up toward the front of your vehicle to lock.

## Unlocking with the Key Blade

Insert the key blade into the driver door handle lock cylinder and turn the key down toward the rear of your vehicle to unlock.

# Doors and Locks

## Opening a Rear Door from Inside

Pull the interior door handle twice to unlock and open a rear door. The first pull unlocks the door and the second pull unlatches the door.

## Activating Intelligent Access

### General Information

You can unlock and lock the vehicle without taking the keys out of your pocket or purse when your intelligent access key is within 3 ft (1 m) of your vehicle. Intelligent access uses a sensor on the back of the door handle for unlocking, and a separate sensor on the face of each door handle for locking.

The system does not function if:

- Your vehicle battery has no charge.
- The key battery has no charge.
- The key frequencies have jammed.

**Note:** *The system may not function if the intelligent access key is close to metal objects or electronic devices, for example, keys or a cell phone.*

**Note:** *If the system does not function, use the key blade to lock and unlock your vehicle. See **Remote Control** (page 65).*

### Unlocking Using Intelligent Access



With your intelligent access key within 3 ft (1 m) of your vehicle, touch the unlock sensor on the back of the door handle for a brief period and then pull on the door handle to unlock, being careful not to touch the lock sensor at the same time or pull on the door handle too quickly. The intelligent access system requires a brief delay to authenticate your intelligent access key.

### Locking Using Intelligent Access



With your intelligent access key within 3 ft (1 m) of your vehicle, touch the outer door handle lock sensor for approximately one second to lock, being careful not to touch the unlock sensor on the back of the door handle at the same time. After locking, you can immediately pull on the door handle to confirm locking occurred without inadvertently unlocking.

### At the Liftgate

Press the exterior liftgate release button inside the top of the liftgate pull-cup handle.

### Smart Unlocks

This feature helps to prevent you from unintentionally locking your intelligent access key inside the passenger compartment or rear cargo area.

When you lock your vehicle with the door open and the ignition off, your vehicle searches for an intelligent access key in the passenger compartment after you close the door. If your vehicle finds a key, all the doors immediately unlock.

# Doors and Locks

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You can override the smart unlock feature and intentionally lock the intelligent access key inside your vehicle. To do this, lock your vehicle after you have closed all the doors by:

- Using the keyless entry keypad.
- Pressing the lock button on another intelligent access key.
- Touching the locking area on the handle with another intelligent access key in your hand.

When you open one of the front doors with the ignition on, and lock your vehicle using the power door lock, all doors lock, then unlock.

## **Autolock** (If Equipped)

Autolock locks all the doors when all of the following occur:

- You have closed all doors.
- The ignition is on.
- You shift into any gear putting your vehicle in motion.
- Your vehicle reaches a speed greater than 12 mph (20 km/h).

Autolock repeats when:

- You open, then close any door while the ignition is on and your vehicle speed is 9 mph (15 km/h) or lower.
- Your vehicle reaches a speed greater than 12 mph (20 km/h).

## **Autounlock** (If Equipped)

Autounlock unlocks all the doors when:

- The ignition is on, you have closed all the doors, and your vehicle has been moving at a speed greater than 12 mph (20 km/h).
- Your vehicle comes to a stop and you switch the ignition off or to the accessory position.
- You open the driver door within 10 minutes of switching the ignition off or to accessory.

**Note:** *The doors do not autounlock if you electronically lock your vehicle after you switch the ignition off before you open the driver door.*

## **Enabling or Disabling**

You can enable or disable the feature from the touchscreen or an authorized dealer can do it for you. See **Settings** (page 555).

## **Illuminated Entry** (If Equipped)

The interior lamps and select exterior lamps light when you unlock the doors with the remote control.

The system turns off the lights if:

- You start your vehicle.
- You press the remote control lock button.
- They are on for 25 seconds.

The lights do not turn off if:

- You switch them on with the lamp control.
- Any door is open.

## **Illuminated Exit**

The interior lamps and select exterior lamps light when you have closed all the doors and you switch the ignition off.

# Doors and Locks

---

The lamps turn off if all the doors remain closed and either of the following occurs:

- After 25 seconds elapse.
- You lock your vehicle from the outside.

## Battery Saver

If you leave the courtesy lamps or dome lamps on and switch the ignition off, this feature turns them off after some time.

### Accessory Mode Battery Saver for Intelligent Access Keys

If you leave your vehicle with the ignition on, it turns off 30 minutes after you close all the doors.

## Welcome Lighting

This feature lights select exterior lighting as you approach your vehicle. You must have an intelligent access key with you. The feature turns off when you open a door, liftgate, or unlock your vehicle. Welcome lighting remains on for 25 seconds or until you start your vehicle.

The feature is active when:

- You configure the feature from the touchscreen. See **Welcome Lighting** (page 110).
- The ignition is off.
- You have closed all the doors and liftgate.
- You lock your vehicle.

The feature disables when:

- Your vehicle detects the intelligent access key is inside.
- The intelligent access key is in close range of the vehicle for more than two minutes.
- The anti-theft alarm triggers.
- You do not start your vehicle for more than five days.
- The vehicle battery charge is low.
- You approach the vehicle to trigger the welcome lighting feature 10 or more times without switching the ignition on.

**Note:** *When this feature disables, you must switch the ignition on to reset it.*

**Note:** *This feature may not correctly operate if you store the intelligent access key within 8–15 ft (2.4–4.6 m) of your vehicle while not in use.*

**Note:** *Welcome Lighting does not function if you disable it from the touchscreen.*

# Keyless Entry

## KEYLESS ENTRY LIMITATIONS

Make sure your remote control is within 3 ft (1 m) from the front door handles and the tailgate.

The system could not function if:

- The remote control remains stationary for about a minute.
- The vehicle battery has no charge.
- The remote control battery has no charge.
- There is interference causing issues with the remote control frequencies.
- The remote control is too close to metal objects or electronic devices, for example keys or a cell phone.

## KEYLESS ENTRY SETTINGS

### Switching Keyless Entry On and Off

1. Switch the ignition on using an original key that has not been created as a MyKey.
2. Press **Settings** on the touchscreen.

3. Press **Vehicle Settings**.
4. Press **Locks**.

### Reprogramming the Unlocking Function

You can enable two-stage unlocking function allowing you to unlock only the driver door when you touch the unlock sensor.

Press and hold both the lock and unlock buttons on the remote control for four seconds to disable or enable two-stage unlocking.

If you program the unlocking function so that only the driver door unlocks, you can unlock all of the other doors from inside your vehicle using the power door lock control. You can unlock individual doors by pulling the interior door handles on those doors.

## USING KEYLESS ENTRY

### Unlocking the Doors



With the remote control within 3 ft (1 m) of your vehicle, touch the unlock sensor on the back of the door handle for a brief period and then pull on the door handle to unlock, being careful not to touch the lock sensor at the same time or pull on the door handle too quickly. The system requires a brief delay to authenticate the remote control.

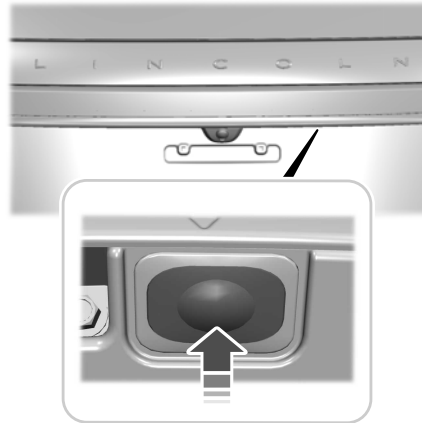
### Locking the Doors



# Keyless Entry

With your passive key within 3 ft (1 m) of your vehicle, touch the outer door handle lock sensor for approximately one second to lock, being careful not to touch the unlock sensor on the back of the door handle at the same time. After locking, you can immediately pull on the door handle to confirm locking occurred without inadvertently unlocking.

## Opening the Liftgate with the Remote Control



Press the exterior liftgate release button inside of the liftgate handle. The liftgate unlocks and opens. See **Opening the Liftgate From Outside Your Vehicle** (page 88).

## KEYLESS ENTRY – TROUBLESHOOTING

### KEYLESS ENTRY – FREQUENTLY ASKED QUESTIONS

#### Why does the keypad not accept the access code?

If you enter the access code too fast on the keypad, the unlock function may not work. Slowly re-enter the access code.

#### Why does the passive key not work?

The system deactivates passive keys left inside your vehicle when you lock it. You cannot switch the ignition on using a deactivated passive key. Press the unlock button on the remote control to reactivate a passive key.

#### Why does the keypad not function?

The keypad goes into an anti-scan mode if you enter a wrong code seven times. The anti-scan mode disables the keypad for one minute and the red light flashes.

# Keyless Entry Keypad

## WHAT IS THE KEYLESS ENTRY KEYPAD

The keyless entry keypad allows you to lock and unlock your vehicle using the keypad on the window trim.

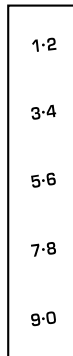
## KEYLESS ENTRY KEYPAD LIMITATIONS

The system may not function if:

- The vehicle battery has no charge.

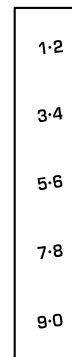
## LOCATING THE KEYLESS ENTRY KEYPAD

The keypad is near the driver window and illuminates when you touch it.



## KEYLESS ENTRY KEYPAD MASTER ACCESS CODE

### Unlocking the Doors

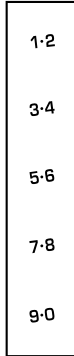


Enter the factory-set five-digit code or your personal code. You must press each number within five seconds of each other.

- Press 3-4 within five seconds to unlock all doors.

# Keyless Entry Keypad

## Locking the Doors



Press and hold **7-8** and **9-0** at the same time with the driver door closed.

**Note:** *You do not need to enter the code first.*

## KEYLESS ENTRY KEYPAD PERSONAL ACCESS CODES

### Programming a Personal Entry Code

1. Enter the five-digit master code.
2. Press **1-2** on the keypad within five seconds.
3. Enter your personal five-digit code. You must do this within five seconds of completing Step 2.
4. Press **1-2** on the keypad to save personal code 1.

The doors lock then unlock to confirm that programming was successful.

To program additional personal entry codes, repeat Steps 1 through 3, then for Step 4:

- Press **3-4** to save personal code 2.
- Press **5-6** to save personal code 3.
- Press **7-8** to save personal code 4.
- Press **9-0** to save personal code 5.

If your vehicle comes with SYNC, you can also program the system with a personal entry code.

Hints:

- Do not set a code that uses five of the same number.
- Do not use five numbers in sequential order.
- The five-digit master code works even if you have set your own personal code.

### Erasing a Personal Code

1. Enter the five-digit master code.
2. Press and release **1-2** on the keypad within five seconds.
3. Press and hold **1-2** for two seconds. You must do this within five seconds of completing Step 2.

All personal codes erase and only the five-digit master code works.

### Anti-Scan Feature

The keypad goes into an anti-scan mode if you enter the wrong code seven times. This mode turns off the keypad for one minute and the keypad lamp flashes.



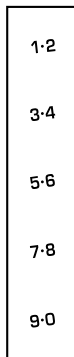
# Keyless Entry Keypad

The anti-scan feature turns off after:

- One minute of keypad inactivity.
- You press the unlock button on the remote control.
- You switch the ignition on.
- You unlock your vehicle using keyless entry.

## USING THE KEYLESS ENTRY KEYPAD

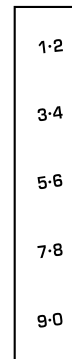
### Unlocking the Doors



Enter the factory-set five-digit code or your personal code. You must press each number within five seconds of each other.

- Press 3-4 within five seconds to unlock all doors.

### Locking the Doors



Press and hold **7-8** and **9-0** at the same time with the driver door closed.

**Note:** *You do not need to enter the code first.*

# Keyless Entry Keypad

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## **KEYLESS ENTRY KEYPAD – TROUBLESHOOTING**

### **KEYLESS ENTRY KEYPAD – FREQUENTLY ASKED QUESTIONS**

#### **Why does the keypad not accept the access code?**


If you enter the access code too fast on the keypad, the unlock function may not work. Slowly re-enter the access code.


#### **Why does the keypad not function?**

The keypad goes into an anti-scan mode if you enter a wrong code seven times. The anti-scan mode disables the keypad for one minute and the red light flashes.

# Liftgate

## LIFTGATE PRECAUTIONS

 **WARNING:** It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a crash, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and seatbelts. Make sure everyone in your vehicle is in a seat and properly using a seatbelt. Failure to follow this warning could result in serious personal injury or death.

 **WARNING:** Make sure that you fully close the liftgate to prevent exhaust fumes from entering your vehicle. If you are unable to fully close the liftgate, open the air vents or the windows to allow fresh air to enter your vehicle. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Keep keys out of reach of children. Do not allow children to operate or play near an open or moving power liftgate. You should supervise the operation of the power liftgate at all times.

## OPENING THE LIFTGATE

### OPENING THE LIFTGATE FROM INSIDE YOUR VEHICLE



With the transmission in park (P), press the button on the instrument panel.

**Note:** Be careful when opening or closing the liftgate in a garage or other enclosed area to avoid damaging the liftgate.

**Note:** Do not hang anything, for example a bike rack, from the glass or liftgate. This could damage the liftgate and its components.

**Note:** Do not leave the liftgate open while driving. This could damage the liftgate and its components.

### OPENING THE LIFTGATE FROM OUTSIDE YOUR VEHICLE

1. Unlock the liftgate with the remote control or power door unlock control. If a passive key is within 3 ft (1 m) of the liftgate, the liftgate unlocks when you press the liftgate release button.



2. Press and release the liftgate control button.

# Liftgate

**Note:** Allow the power system to open the liftgate. Manually pushing or pulling the liftgate could activate the system's obstacle detection feature and stop the power operation or reverse its direction, replicate a strut failure, or damage mechanical components.

**Note:** Be careful when opening or closing the liftgate in a garage or other enclosed area to avoid damaging the liftgate.

**Note:** Do not hang anything, for example a bike rack, from the glass or liftgate. This could damage the liftgate and its components.

**Note:** Do not leave the liftgate open while driving. This could damage the liftgate and its components.

## Switching the Power Liftgate On or Off

You can switch the power liftgate on or off through the vehicle settings on your touchscreen.

When switched off, the liftgate only unlatches and does not power open or close.

## OPENING THE LIFTGATE USING THE REMOTE CONTROL



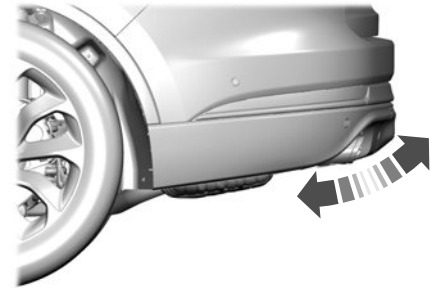
Press the remote control button twice within a few seconds.

## OPENING THE HANDS-FREE LIFTGATE

(If Equipped)

Make sure you have the passive key within 3 ft (1 m) of the liftgate.

1. Stand behind your vehicle, and face the liftgate.
2. Move your foot, in a single-kick motion, without pausing, under and away from the rear bumper detection area.



3. The liftgate opens.

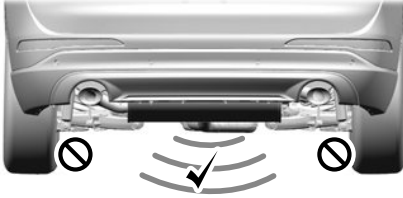
Avoid the following actions when using the hands-free opening feature:

- Making physical contact with the bumper.
- Holding your foot under the bumper.
- Sweeping your foot from side to side, or kicking at an odd angle.

# Liftgate

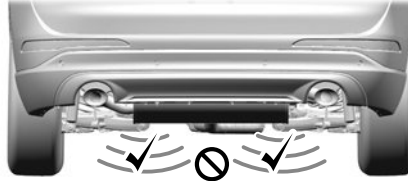
## Detection Zones

### Vehicles Without a Trailer Hitch



The detection area is in the center of the rear bumper.

### Vehicles With a Trailer Hitch



The detection area is on the left-hand side and right-hand side of the hitch, between the exhaust and the hitch.

**Note:** Allow the power system to open the liftgate. Manually pushing or pulling the liftgate may activate the system's obstacle detection feature and stop the power operation or reverse its direction, replicate a strut failure, or damage mechanical components.

**Note:** Splashing water may cause the hands-free liftgate to open. Keep the passive key away from the rear bumper detection area when you wash your vehicle.

## SETTING THE LIFTGATE OPENING HEIGHT

1. Open the liftgate.
2. Stop the liftgate movement by pressing the control button on the liftgate when it reaches the desired height.

**Note:** Once the liftgate stops moving, you can manually move it to the desired height.

3. Press and hold the control button on the liftgate until a tone sounds, indicating programming is complete.

**Note:** You can only use the liftgate control button to program the height.

**Note:** You cannot program the height if the liftgate position is too low.

4. The power liftgate now opens at the programmed height. To change the programmed height, repeat the steps.

**Note:** You can fully open the liftgate by manually pushing it upward to the maximum open position if it opens in a lower position.

# Liftgate

**Note:** The system recalls the new programmed height until you reprogram it, even if you disconnect the battery.

## CLOSING THE LIFTGATE

### CLOSING THE LIFTGATE FROM INSIDE YOUR VEHICLE



**WARNING:** Make sure all persons are clear of the power liftgate area before using the power liftgate control.



With the transmission in park (P), press the button on the instrument panel.

**Note:** Make sure that you close the liftgate before operating or moving your vehicle, especially in an enclosure, like a garage or a parking structure. This could damage the liftgate and its components.

**Note:** Make sure the area behind your vehicle is free from obstruction and that there is enough room for you to operate the liftgate. Objects too close to your vehicle, for example a wall, garage door or another vehicle may come into contact with the moving liftgate. This could damage the liftgate and its components.

**Note:** Make sure that you fully close the liftgate to prevent cargo from falling out.

### CLOSING THE LIFTGATE FROM OUTSIDE YOUR VEHICLE



**WARNING:** Make sure all persons are clear of the power liftgate area before using the power liftgate control.



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Press and release the liftgate button.

**Note:** Make sure that you close the liftgate before operating or moving your vehicle, especially in an enclosure, like a garage or a parking structure. This could damage the liftgate and its components.

**Note:** Make sure the area behind your vehicle is free from obstruction and that there is enough room for you to operate the liftgate. Objects too close to your vehicle, for example a wall, garage door or another vehicle may come into contact with the moving liftgate. This could damage the liftgate and its components.

# Liftgate

**Note:** Make sure you fully close the liftgate to prevent cargo from falling out.

## CLOSING THE LIFTGATE USING THE REMOTE CONTROL



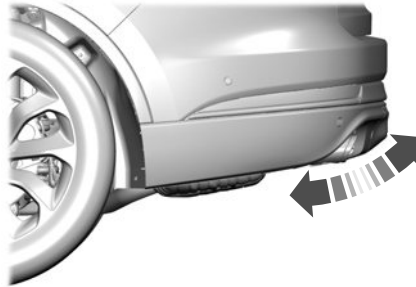
Press the remote control button twice within three seconds.

## CLOSING THE HANDS-FREE LIFTGATE

(If Equipped)

Make sure you have the passive key within 3 ft (1 m) of the liftgate.

1. Stand behind your vehicle, and face the liftgate.
2. Move your foot, in a single-kick motion, without pausing, under and away from the rear bumper detection area.



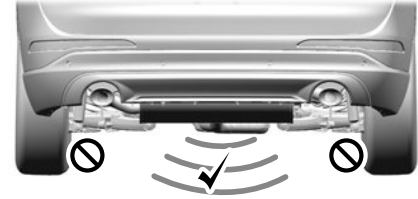
3. The liftgate closes.

Avoid the following actions when using the hands-free opening feature:

- Making physical contact with the bumper.
- Holding your foot under the bumper.
- Sweeping your foot from side to side, or kicking at an odd angle.

## Detection Zones

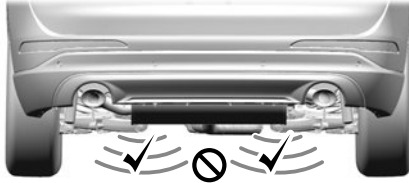
### Vehicles Without a Trailer Hitch



The detection area is in the center of the rear bumper.

# Liftgate

## Vehicles With a Trailer Hitch



The detection area is on the left-hand side and right-hand side of the hitch, between the exhaust and the hitch.

**Note:** Allow the power system to close the liftgate. Manually pushing or pulling the liftgate may activate the system's obstacle detection feature and stop the power operation or reverse its direction, replicate a strut failure, or damage mechanical components.

**Note:** Any physical actions that mimic a kicking motion such as splashing water, trailer chains or vacuum hoses may cause the hands-free liftgate to activate. Switch the power liftgate off through your vehicle settings or keep the passive key away from the rear bumper detection area.

## STOPPING THE LIFTGATE MOVEMENT

**Note:** Do not apply sudden excessive force to the liftgate while it is in motion. This could damage the power liftgate and its components.

**Note:** Selections will vary depending on region or options.

You can stop the liftgate movement by doing any of the following:

- Pressing the liftgate control button on the liftgate.
- Pressing the liftgate control button inside the vehicle.

- Pressing the liftgate button on the remote control twice.
- Pressing the liftgate button on an authorized device.
- Moving your foot under and away from the center rear bumper in a single-kick motion.

## LIFTGATE OBSTACLE DETECTION

### Closing the Liftgate

The system stops when it detects an obstacle. A tone sounds and the system reverses to open. Once you remove the obstacle, you can power close the liftgate.

**Note:** To prevent accidental obstacle detection, let the power liftgate close completely before you enter your vehicle.

### Opening the Liftgate

The system stops when it detects an obstacle and a tone sounds. Once you remove the obstacle, you can continue to operate the liftgate.



# Liftgate

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## LIFTGATE – TROUBLESHOOTING

### LIFTGATE – INFORMATION MESSAGES

Message	Action
Liftgate Ajar	The liftgate is not completely closed. Close the liftgate.

# Liftgate

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## **LIFTGATE – FREQUENTLY ASKED QUESTIONS**

### **Why won't my power liftgate function?**

Make sure the transmission is in park (P), ensure nothing is obstructing the liftgate path and there is not excessive weight on the liftgate. If there are continued issues, the battery voltage may be low or other system issues. See an authorized dealer.

# Security

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## PASSIVE ANTI-THEFT SYSTEM

### WHAT IS THE PASSIVE ANTI-THEFT SYSTEM

The passive anti-theft system prevents someone from starting the vehicle with an incorrectly coded key.

**Note:** *Do not leave a duplicate coded key in your vehicle. Always take the keys and lock all the doors when leaving your vehicle.*

### ARMING THE PASSIVE ANTI-THEFT SYSTEM

The passive anti-theft system arms your vehicle after a short period of time when you switch the power off.

### DISARMING THE PASSIVE ANTI-THEFT SYSTEM

The passive anti-theft system disarms when you switch the power on with a correctly coded key.

**Note:** *You could have difficulty starting the vehicle if you have metallic objects, electronic devices or a second coded key on the same key chain.*

## ANTI-THEFT ALARM SYSTEM

### WHAT IS THE ANTI-THEFT ALARM SYSTEM

The Anti-Theft Alarm System warns you of an unauthorized entry to your vehicle.

### HOW DOES THE ANTI-THEFT ALARM SYSTEM WORK

When armed, the anti-theft alarm is triggered in any of the following ways:

- If someone opens a door, the liftgate or the hood without a correctly coded key or remote control.
- If you turn the power on without a correctly coded key.
- If the interior sensors detect movement inside your vehicle.

- If the inclination sensors detect an attempt to raise your vehicle.
- If someone disconnects the vehicle battery or the battery backup alarm.

If the anti-theft alarm is triggered, the alarm horn sounds for 30 seconds and the direction indicators flash for 5 minutes.

Any further attempts to carry out one of the above sounds the alarm again.

## WHAT IS THE PERIMETER ALARM

The perimeter alarm is designed to detect unauthorized access to your vehicle.

## WHAT ARE THE INTERIOR SENSORS

The interior sensors are designed to detect any movement inside your vehicle.

The interior sensors are in the overhead console.

**Note:** *Do not cover the interior sensors.*

# Security

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## WHAT ARE THE INCLINATION SENSORS

The inclination sensor is designed to detect an attempt to raise your vehicle, for example to remove a wheel or to tow it away.

## WHAT IS THE BATTERY BACKUP ALARM

The battery backup alarm is an additional alarm sounder that has its own battery. It can detect if the vehicle battery is disconnected to overcome the alarm system.

## ARMING THE ANTI-THEFT ALARM SYSTEM

The alarm is ready to arm when your vehicle is switched off.

Lock your vehicle with your remote control to arm the alarm.

## DISARMING THE ANTI-THEFT ALARM SYSTEM

Disarm the alarm by performing any of the following actions:

- Unlock the doors or luggage compartment with the remote control.
- Switch your vehicle on or start your vehicle.

## ANTI-THEFT ALARM SYSTEM SETTINGS

### WHAT ARE THE ALARM SECURITY LEVELS

You can select two levels of alarm security, all sensors and perimeter sensing.

#### All Sensors

All sensors is the standard setting.

In all sensors, all equipped sensors are on when you arm the alarm.

**Note:** Do not arm the alarm with all sensors if passengers, animals or other moving objects are inside your vehicle.

#### Perimeter Sensing

In perimeter sensing, the interior sensors are off when you arm the alarm.

All the other equipped sensors activate when you arm the alarm in this mode.

## SETTING THE ALARM SECURITY LEVEL

1. Press **Settings** on the touchscreen.
2. Press **Vehicle Settings**.
3. Press **Alarm System**.
4. Press **Sensor Set**.
5. Press a setting.

## WHAT IS ASK ON EXIT

You can choose which level of security you require after you switch the ignition off.

# Security

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**Note:** *If you do not choose a setting, the system defaults to all sensors.*

## **SWITCHING ASK ON EXIT ON AND OFF**

1. Press **Settings** on the touchscreen.
2. Press **Vehicle Settings**.
3. Press **Alarm System**.
4. Switch **Ask on Exit** on or off.

## **SECURITY – TROUBLESHOOTING**

### **SECURITY – INFORMATION MESSAGES**

<b>Message</b>	<b>Action</b>
No Key Detected	The system has not detected a correctly coded key.
Starting System Fault	The system has malfunctioned. Have your vehicle checked as soon as possible.
Vehicle Alarm To Stop Alarm, Start Vehicle.	Displays when the alarm has been triggered due to unauthorized entry.
Alarm Announcement	

## **SECURITY – FREQUENTLY ASKED QUESTIONS**

### **What should I do if there is any potential alarm problem with my vehicle?**


Take all remote controls to an authorized dealer if there is any potential alarm problem with your vehicle.

### **What should I do if the vehicle is unable to start with a correctly coded key?**

Have your vehicle checked as soon as possible.

# Steering Wheel

## ADJUSTING THE STEERING WHEEL - VEHICLES WITH: POWER ADJUSTABLE STEERING COLUMN

 **WARNING:** Do not adjust the steering wheel when your vehicle is moving.


**Note:** Make sure that you are sitting in the correct position. See **Sitting in the Correct Position** (page 175).



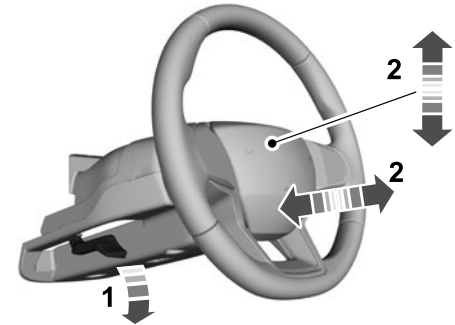
Press the top or bottom of the control to move the steering wheel up or down.

Press the front or rear of the control to move the steering wheel in or out.

## ADJUSTING THE STEERING WHEEL - VEHICLES WITH: MANUAL ADJUSTABLE STEERING COLUMN

 **WARNING:** Do not adjust the steering wheel when your vehicle is moving.

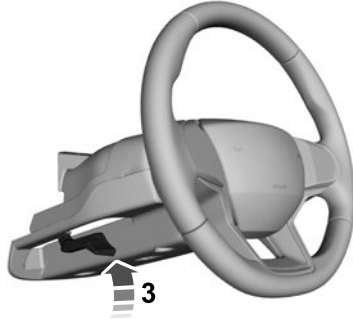
**Note:** Make sure that you are sitting in the correct position. See **Sitting in the Correct Position** (page 175).



E279960

# Steering Wheel

1. Unlock the steering column.
2. Adjust the steering wheel to the desired position.



E279962

3. Lock the steering column.

## RESETTING THE STOPPING POSITION - VEHICLES WITH: POWER ADJUSTABLE STEERING COLUMN

**Note:** *The steering wheel stops when it detects an obstruction. This sets a new stopping position.*

To reset the steering column to its normal stopping position:

1. Confirm there is nothing obstructing the motion of the steering column.
2. Press and hold the steering column control until the steering column stops moving.
3. Press the steering column control again.

**Note:** *The steering column may start to move again.*

4. When the steering column stops, continue holding the control for a few seconds.
5. Repeat for each direction, as necessary.

## HORN



Press on the center of the steering wheel near the horn icon to activate the horn.

## SWITCHING THE HEATED STEERING WHEEL ON AND OFF (IF

EQUIPPED)



To activate the heated steering wheel, press the button on the climate control unit.

On some vehicles, an indicator on the button illuminates when the heated steering wheel is on.

**Note:** *A sensor regulates the temperature of the steering wheel.*

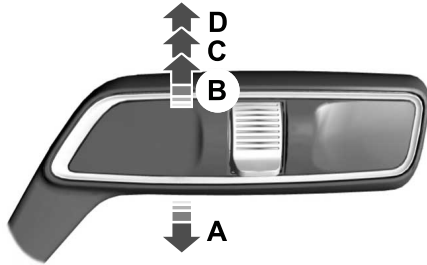


# Wipers and Washers

## WINDSHIELD WIPERS



Push the lever up or down to operate the windshield wiper.



- A Single wipe.
- B Intermittent wipe.
- C Normal wipe.
- D High-speed wipe.

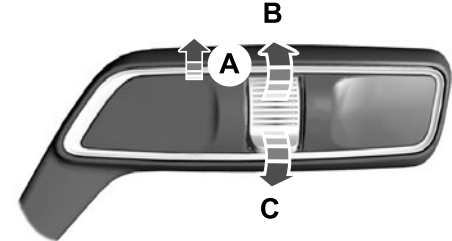
**Note:** Fully defrost the windshield before you switch the windshield wipers on.

**Note:** Make sure that you switch the windshield wipers off before entering a car wash.

**Note:** If streaks or smears appear on the windshield, clean the windshield and the wiper blades. If that does not resolve the issue, install new wiper blades.

**Note:** Do not operate the wipers on a dry windshield. This may scratch the glass, damage the wiper blades or cause the wiper motor to burn out. Always use the windshield washers before wiping a dry windshield.

## Intermittent Wipe



E269411

- A Intermittent wipe.
- B Shortest wipe interval.
- C Longest wipe interval.

Use the rotary control to adjust the intermittent wipe interval.

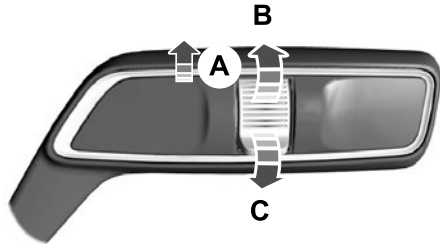
## Speed Dependent Wipers

When your vehicle speed increases, the interval between wipes decreases.

# Wipers and Washers

## AUTOWIPERS

Wet or winter driving conditions with ice, snow or salty road mist can cause inconsistent and unexpected wiping or smearing.



E269411

- A Autowipers On.
- B High sensitivity.
- C Low sensitivity.



Use the rotary control to adjust the sensitivity of the autowipers.

When you select low sensitivity, the wipers operate when the sensor detects a large amount of water on the windshield. When you select high sensitivity, the wipers operate when the sensor detects a small amount of water on the windshield.

Keep the outside of the windshield clean. The rain sensor is very sensitive and the wipers may operate if dirt, mist or insects hit the windshield.

In these conditions, you can do the following:

- Lower the sensitivity of the autowipers to reduce the amount of smearing on the windshield.
- Switch to normal or high-speed wipe.
- Switch autowipers off.

**Note:** Fully defrost the windshield before you switch the windshield wipers on.

**Note:** Make sure that you switch the windshield wipers off before entering a car wash.

**Note:** If streaks or smears appear on the windshield, clean the windshield and the wiper blades. If that does not resolve the issue, install new wiper blades.

**Note:** If you switch autolamps and autowipers on, the headlamps turn on when the windshield wipers continuously operate.

## Autowipers Settings

This setting defaults to on and remains on until you switch it off in the touchscreen.

When you switch the feature off, the wipers do not operate based on the rain sensor. When you switch on the windshield wipers to the intermittent wipe position with the feature off, the wipers use the wipe speed set by the rotary control.

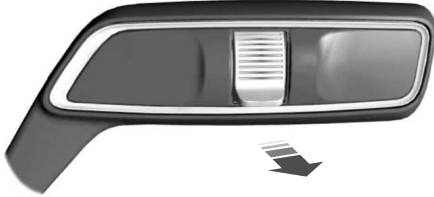
## Low Temperature Wipe Inhibit

The rain sensing feature will not operate immediately after starting your vehicle when it is in park (P) and the outside temperature is below 32°F (0°C). You can switch on the wipers by adjusting the rain sensor sensitivity or adjusting the wiper speed.

This prevents damage to the wiper blades from ice and snow on the windshield.

# Wipers and Washers

## WINDSHIELD WASHERS



Pull the lever toward you to operate the windshield washers.

When you release the lever, the wipers operate for a short time. When activated, a courtesy wipe occurs a short time after the wipers stop to clear any remaining washer fluid.

**Note:** You can switch courtesy wipe on or off in the touchscreen.

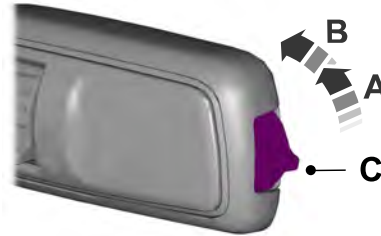
**Note:** Do not operate the washers when the washer reservoir is empty. This could cause the washer pump to overheat.

## Front Camera Washer (If Equipped)

Operating the windshield washer also turns on the front camera washer.

## REAR WINDOW WIPER AND WASHERS

### Rear Window Wiper

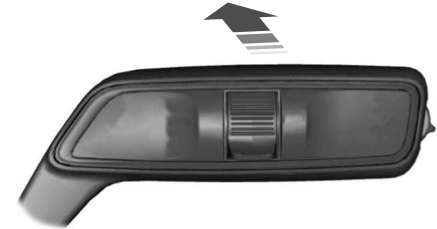


- A Intermittent wipe.
- B Continuous wipe.
- C Rear window wiper off.

Depending on your vehicle, when you switch on the front wipers and move the gearshift lever to reverse (R), the rear intermittent wipe may turn on.

**Note:** Make sure you switch the rear window wiper off before entering a car wash.

### Rear Window Washer



Push the lever away from you to operate the rear window washer. When you release the lever, the wipers operate for a short time.

Do not operate the washers when the washer reservoir is empty. This could cause the washer pump to overheat.

# Lighting

## GENERAL INFORMATION

### Condensation in the Exterior Front Lamps and Rear Lamps

Exterior front lamps and rear lamps have vents to accommodate normal changes in air pressure.

Condensation can be a natural by-product of this design. When moist air enters the lamp assembly through the vents, there is a possibility that condensation can occur when the temperature is cold. When normal condensation occurs, a fine mist can form on the interior of the lens. The fine mist eventually clears and exits through the vents during normal operation.

Clearing time may take as long as 48 hours under dry weather conditions.

Examples of acceptable condensation are:

- The presence of a fine mist (no streaks, drip marks or large droplets).
- A fine mist covers less than 50% of the lens.

Examples of unacceptable condensation are:

- A water puddle inside the lamp.
- Streaks, drip marks or large droplets present on the interior of the lens.

If you see any unacceptable condensation, have your vehicle checked by an authorized dealer.

## LIGHTING CONTROL

### Lighting Control Selections



E281538

Press the toggle switch upward or downward to make a selection.

**Note:** An indicator illuminates next to the active selection.



Lamps off.



Parking lamps, instrument panel lamps, license plate lamps and rear lamps.



Autolamps.



Headlamps on.

**Note:** The lighting control defaults to autolamps each time you switch your vehicle on.

### Switching High Beam Headlamps On and Off



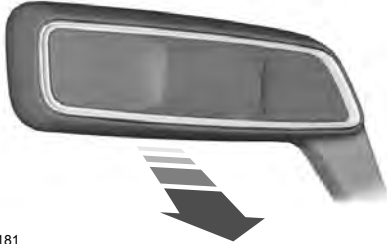
# Lighting



Push the lever away from you to switch the high beam on.

Push the lever forward again or pull the lever toward you to switch the high beams off.

## Flashing High Beam Headlamps



E273181

Pull the lever toward you and release it to flash the high beam headlamps.

## AUTOLAMPS



**WARNING:** The system does not relieve you of your responsibility to drive with due care and attention. You may need to override the system if it does not turn the headlamps on in low visibility conditions, for example daytime fog.

Autolamps turn the headlamps on in low light situations or when the wipers operate.



Switch the lighting control to the autolamps position.

**Note:** The lighting control defaults to autolamps each time you switch your vehicle on.

The headlamps remain on for a period of time after you switch the ignition off. Use the touchscreen to adjust the period of time that the headlamps remain on.

**Note:** If you switch the autolamps on, you cannot switch the high beams on until the system turns the low beams on.

## Windshield Wiper Activated Headlamps

When you switch the autolamps on, the headlamps turn on within 10 seconds of switching the wipers on. They turn off approximately 60 seconds after you switch the windshield wipers off.

The headlamps do not turn on with the wipers:

- During a single wipe.
- When using the windshield washers.
- If the wipers are in intermittent mode.

**Note:** If you switch the autolamps and the autowipers on, the headlamps turn on when the windshield wipers continuously operate.

## INSTRUMENT LIGHTING DIMMER

The instrument lighting dimmer buttons are on the lighting control.



Repeatedly press one of the buttons to adjust the brightness.

# Lighting

## HEADLAMP EXIT DELAY

After you switch the ignition off, you can switch the headlamps on by pulling the direction indicator lever toward you. You will hear a short tone. The headlamps will switch off automatically after three minutes with any door open or 30 seconds after the last door has been closed. You can cancel this feature by pulling the direction indicator lever toward you again or switching the ignition on.

## DAYTIME RUNNING LAMPS - VEHICLES WITH: CONFIGURABLE DAYTIME RUNNING LAMPS



**WARNING:** The daytime running lamps system does not activate the rear lamps and may not provide adequate lighting during low visibility driving conditions. Make sure you switch the headlamps on, as appropriate, during all low visibility conditions. Failure to do so may result in a crash.

Switch the daytime running lamps on or off using the touchscreen:

1. Select **Settings**. See **Settings** (page 555).
2. Select **Vehicle**.
3. Select **Lighting**.

The daytime running lamps turn on when:

1. The lamps are on in the information display.
2. You switch the ignition on.
3. The transmission is not in park (P) for vehicles with automatic transmissions or you release the parking brake for vehicles with manual transmissions.
4. The lighting control is in the autolamps position.
5. The headlamps are off.

The other lighting control switch positions do not turn on the daytime running lamps.

If the daytime running lamps are off in the information display, the lamps stay off in all switch positions.

## DAYTIME RUNNING LAMPS - VEHICLES WITH: DAYTIME RUNNING LAMPS (DRL)



**WARNING:** The daytime running lamps system does not activate the rear lamps and may not provide adequate lighting during low visibility driving conditions. Make sure you switch the headlamps on, as appropriate, during all low visibility conditions. Failure to do so may result in a crash.

The system turns the lamps on in daylight conditions.

To switch the system on, switch the lighting control to any position except headlamps.

## FRONT FOG LAMPS (IF EQUIPPED)

### Switching the Front Fog Lamps On or Off

Only switch the front fog lamps on during reduced visibility.

# Lighting

---

You can switch the front fog lamps on if any of the following occur:

- You set the lighting control to the parking lamps position.
- You set the lighting control to the headlamps position.
- You set the lighting control to the autolamps position and the headlamps are on.

The front fog lamp button is on the lighting control.



Press the button to switch the front fog lamps on or off.

**Note:** *The brightness of the daytime running lamps may decrease when the front fog lamps are switched on.*

## Front Fog Lamp Indicator



It illuminates when you switch the front fog lamps on.

## ADAPTIVE HEADLAMPS (IF EQUIPPED)

### About Adaptive Headlamps

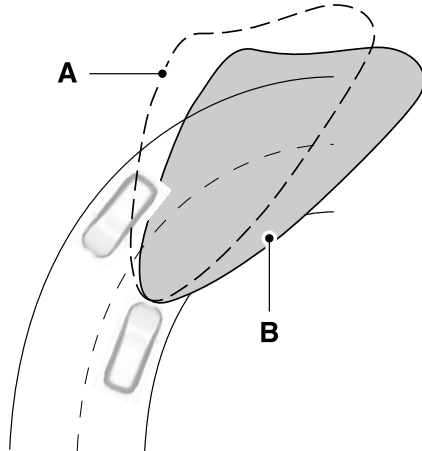
The headlamps are designed to adapt when you are steering around a curve, or if the camera detects lane markings indicating a curve or traffic signs indicating an intersection.

The system is designed to operate if all of the following occur:

- You switch the system on through your vehicle settings.
- You set the lighting control to the autolamps position.
- The ambient light level is low enough that low beams are required.

# Lighting


## Steering Around a Curve

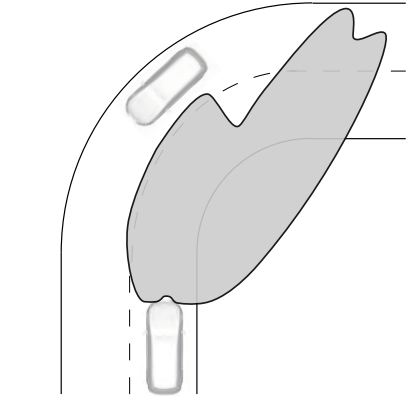


A Without adaptive headlamps.

B With adaptive headlamps.

## Camera Detects Lane Markings (If Equipped)

 **WARNING:** Inspect and replace the windshield wiper blades regularly to make sure the camera sensor has a clear view. The windshield wiper blades must be the correct length.

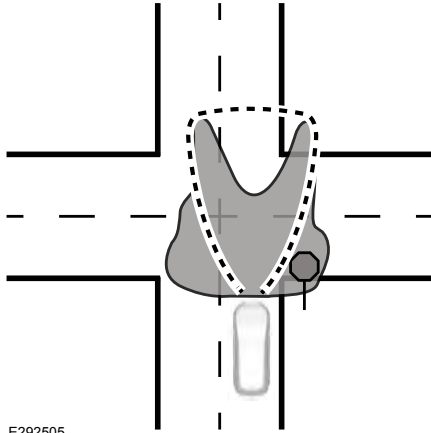


E267903



# Lighting

## Camera Detects Traffic Signs (If Equipped)



E292505

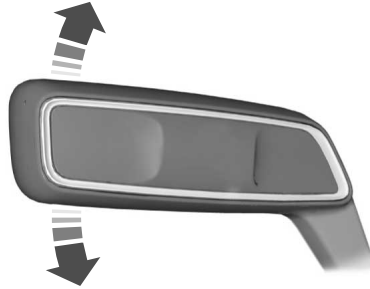
**Note:** The camera only detects traffic signs if your vehicle speed is below 31 mph (50 km/h).

## Switching Adaptive Headlamps On or Off

Use the touchscreen to select the following:

1. Select **Settings**.
2. Select **Vehicle**.
3. Select **Lighting**.

## DIRECTION INDICATORS



Push the lever up or down to use the direction indicators.

## Indicating a Lane Change

Tap the lever up or down to make the direction indicators flash three times to indicate a lane change.

## WELCOME LIGHTING (IF EQUIPPED)

The Lincoln welcome mat projection lights are on the bottom of the exterior mirror housings. They project an image onto the ground a short distance from your vehicle when welcome lighting or lighted entry turns on.

For auto-fold mirrors, the Lincoln welcome mat turns on when welcome lighting or lighted entry turns on and the mirrors fold in upon locking or using the switch on the door.

**Note:** Moisture, frost and ice build-up or other types of contamination on the surface of the light lens can cause non-permanent distortion or reduced brightness of the image. Do not use abrasive materials to clean the lens.

**Note:** If you enable auto-fold and then you fold the mirrors in to the door window glass, the welcome mats do not turn on.

## Switching the Welcome Lighting On or Off

Use the touchscreen to select the following:

# Lighting

1. Select **Settings**. See **Settings** (page 555).
2. Select **Vehicle**.
3. Select **Lighting**.

## INTERIOR LAMPS

The lamps turn on under the following conditions:

- You open any door.
- You press a button on the remote control.
- You press the all lamps on button on the overhead console.

### Front Interior Lamp



The front interior lamp switches are on the overhead console.

**Note:** *The position of each button on the overhead console depends on your vehicle.*

### All Lamps On or Off



Press to switch all interior lamps on or off.

### Individual Map Lamps

Touch the lamp lens to switch the map lamps on and off.

### Interior Lamp Function



Press to switch the interior lamp function on and off.

When the interior lamp function is off and you open a door, the courtesy and door lamps stay off.

When the interior lamp function is on and you open a door, the courtesy and door lamps turn on.

**Note:** *The indicator lamp lights amber when the door function is off.*

## Rear Interior Lamps



The rear interior lamps may be above the rear seat or above the rear windows.



Press to switch the lamps on or off.

**Note:** *If the rear lamps are switched on through the overhead console, you cannot switch them off with the rear lamp switch.*

## AMBIENT LIGHTING (IF EQUIPPED)

Use the touchscreen to select the following:

# Lighting

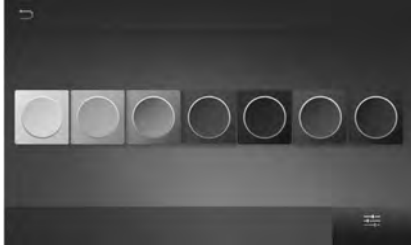
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Select the settings option on the feature bar.



Select ambient lighting.



E281470

## Switching Ambient Lighting On

Touch a color once.

## Changing the Color

Touch any color once.

## Adjusting the Brightness

Drag the selected color up or down.

## Switching Ambient Lighting Off

Touch the selected color once or drag the selected color down to zero brightness.

# Automatic High Beam Control

## WHAT IS AUTOMATIC HIGH BEAM CONTROL

The system turns on high beams if it is dark enough and no other traffic is present. If it detects an approaching vehicle's headlamps or tail lamps, or street lighting ahead, the system turns the high beams off. Low beams remain on.

A camera sensor, centrally mounted behind the windshield of your vehicle, continuously monitors conditions to turn the high beams on and off.

## SWITCHING AUTOMATIC HIGH BEAM CONTROL ON AND OFF



**WARNING:** Do not use the system in poor visibility, for example fog, heavy rain, spray or snow.

1. Press **Settings**.
2. Press **Vehicle**.
3. Press **Lighting**.

## Activating the Automatic High Beam Control



Switch the lighting control to the autolamps position. See **Autolamps** (page 106).

**Note:** *The lighting control defaults to autolamps each time you switch your vehicle on.*

When active, the high beams turn on if all of the following occur:

- The ambient light level is low enough.
- There is no traffic in front of your vehicle.
- The vehicle speed is greater than approximately 32 mph (51 km/h).

When active, the high beams turn off if any of the following occur:

- The ambient light level is high enough that the system does not require high beams.
- The system detects an approaching vehicle's headlamps or tail lamps.
- The system detects severe rain, snow or fog.

- The camera is blocked.
- The vehicle speed falls below approximately 27 mph (44 km/h).

**Note:** *The deactivation speed is lower on curves.*

**Note:** *There could be a delay in high beam reactivation in certain curvy road situations.*

**Note:** *If there is a blocked sensor, the system may not operate properly. Keep the windshield free from obstruction or damage.*

**Note:** *The system may not operate properly in cold or inclement conditions. You can switch on the high beams by overriding the system.*

**Note:** *If the system detects a blockage, for example bird droppings, bug splatter, snow or ice, the system goes into low beam mode until you clear the blockage. If there is a blocked camera, a message may appear in the information display.*

**Note:** *Using much larger tires or adding vehicle accessories such as snowplows can modify your vehicle's ride height and degrade automatic high beam control performance.*

# Automatic High Beam Control

## AUTOMATIC HIGH BEAM CONTROL INDICATORS



The indicator illuminates to confirm when the system is ready to assist.

## OVERRIDING AUTOMATIC HIGH BEAM CONTROL



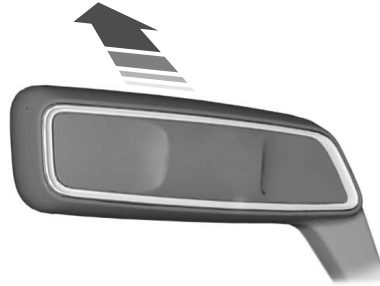
**WARNING:** The system does not relieve you of your responsibility to drive with due care and attention. You may need to override the system if it does not turn the high beams on or off.



**WARNING:** You may need to override the system when approaching other road users.



**WARNING:** You may need to override the system during inclement weather.



Push the lever away from you to switch between high beam and low beam.

# Windows and Mirrors

## POWER WINDOWS



**WARNING:** Do not leave children unattended in your vehicle and do not let them play with the power windows. Failure to follow this instruction could result in personal injury.



**WARNING:** When closing the power windows, verify they are free of obstruction and make sure that children and pets are not in the proximity of the window openings.



Press the control to open the window. Lift the control to close the window.

To reduce wind noise or pulsing noise when just one window is open, slightly open the opposite window.

### One-Touch Down

Press the switch fully and release it. Press again or lift it to stop the window.

### One-Touch Up

Lift the switch fully and release it. Press or lift it again to stop the window.

### Resetting One-Touch Up

Start the engine.

1. Lift and hold the window switch until you fully close the door window. Continue to hold the switch for a few seconds after you close the window.
2. Release the window switch.
3. Press and hold the window switch until you fully open the door window.
4. Release the window switch.
5. Lift and hold the window switch until you fully close the window.
6. Test for correct window operation by carrying out the one-touch down and one-touch up features.

### Rear Window Lock



Press the control to lock or unlock the rear window controls. It illuminates when you lock the rear window controls.

### Bounce-Back (If Equipped)

The window stops and reverses if it detects an obstruction.

### Overriding the Bounce-Back Feature



**WARNING:** If you override bounce-back, the window does not reverse if it detects an obstacle. Take care when closing the windows to avoid personal injury or damage to your vehicle.

Pull up the window switch and hold within a few seconds of the window reaching the bounce-back position. The window travels up with no bounce-back protection. The window stops if you release the switch before the window fully closes.

# Windows and Mirrors

## Accessory Delay

You can use the window controls for several minutes after switching off the ignition or until opening either front door.

## GLOBAL OPENING AND CLOSING

You can use the remote control to operate the windows with the ignition off.

**Note:** You can switch this feature on and off in the information display or contact an authorized dealer. See **General Information** (page 136).

**Note:** To operate this feature, make sure the accessory delay is not switched on.

## Opening the Windows

You can open the windows only for a short time after you unlock your vehicle with the remote control. After you unlock your vehicle, press and hold the remote control unlock button to open the windows. Release the button once movement starts. Press the lock or unlock button to stop movement.

## Closing the Windows



**WARNING:** When closing the windows, you should verify they are free of obstructions and make sure that children and pets are not in the proximity of the window openings.

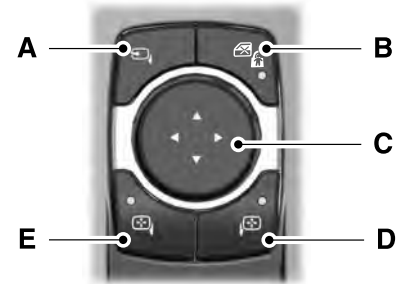
To close the windows, press and hold the remote control lock button. Release the button once movement starts. Press the lock or unlock button to stop movement.

## EXTERIOR MIRRORS

### Power Exterior Mirrors



**WARNING:** Do not adjust the mirrors when your vehicle is moving. This could result in the loss of control of your vehicle, serious personal injury or death.



- A Power-folding mirror control.
- B Window lockout.
- C Adjustment control.
- D Right-hand mirror.
- E Left-hand mirror.

# Windows and Mirrors

---

To adjust your mirrors, switch your vehicle on - with the ignition in accessory mode or the engine running and then:

1. Select the mirror you want to adjust. The control light turns on.
2. Use the adjustment control to adjust the position of the mirror.
3. Press the mirror control again. The control light turns off.

## Fold-Away Exterior Mirrors

Push the mirror toward the door window glass. Make sure that you fully engage the mirror in its support when returning it to its original position.

## Auto-Folding Mirrors

The exterior mirrors fold in toward the glass after you place the transmission into park (P), turn off the vehicle, open and close the driver side door and lock the vehicle. The exterior mirrors unfold and return to their driving position after you unlock the vehicle and open and close the driver side door.

You can switch this feature on and off through the information display. See **General Information** (page 136).

**Note:** *If you switch this feature off through the information display, the welcome lighting also switches off.*

You can fold the mirrors on demand by pressing the power-folding mirror control located on the door. The control lights and the mirrors fold in toward the glass. Press the control again to unfold the mirrors. The control light turns off.

**Note:** *If you use the power-folding control to fold the mirrors on demand and the auto fold feature is switched on, the auto-folding feature becomes disabled. To re-enable the auto-folding feature, press the control again to unfold the mirrors.*

## Loose Mirror

If your auto-folding mirrors are manually folded or unfolded, they may not work properly even after you re-position them. You need to reset them if:

- The mirrors vibrate when you drive.
- The mirrors feel loose.
- The mirrors do not stay in the folded or unfolded position.
- One of the mirrors is not in its normal driving position.

To reset the auto-fold feature, use the power-folding mirror control to fold and unfold the mirrors. You may hear a loud noise as you reset the mirrors. This sound is normal. Repeat this process as needed each time the mirrors are manually folded or unfolded.

## Heated Exterior Mirrors

See **Heated Exterior Mirrors** (page 173).



# Windows and Mirrors

## Memory Mirrors

You can save and recall the mirror positions through the memory function. See **Memory Function** (page 183).

## Signal Indicator Mirrors (If Equipped)

The outer portion of the appropriate mirror housing blinks when you switch on the turn signal.

## Auto-Dimming Feature (If Equipped)

The driver's exterior mirror automatically dims when the interior auto-dimming mirror turns on.

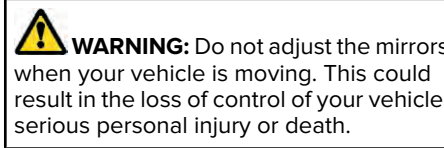
## Lincoln Welcome Mat (If Equipped)

Projection lights, on the bottom of the mirror housings, project an image onto the ground a short distance from the vehicle. See **Welcome Lighting** (page 110).

## Blind Spot Monitor

See **Blind Spot Information System** (page 324).

## INTERIOR MIRROR



**Note:** Do not clean the housing or glass of any mirror with harsh abrasives, fuel or other petroleum or ammonia-based cleaning products.

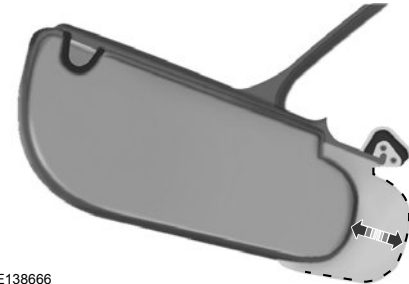
You can adjust the interior mirror to your preference. Some mirrors also have a second pivot point. This lets you move the mirror head up or down and from side to side.

## Auto-Dimming Mirror

Do not block the sensors on the front and back of the mirror. Mirror performance may be affected. A rear center passenger or raised rear center head restraint could prevent light from reaching the sensor.

The mirror dims to reduce the effect of bright light from behind. It returns to normal when the bright light from behind is no longer present or if you shift into reverse (R), to make sure you have a clear view when backing up.

## SUN VISORS

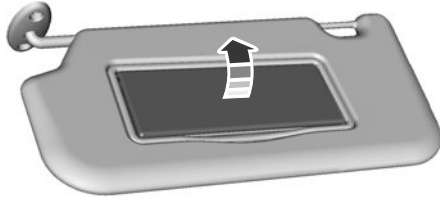


E138666

Rotate the sun visor toward the side window and extend it rearward for extra shade.

# Windows and Mirrors

## Illuminated Vanity Mirror



E162197

Lift the cover to switch the lamp on.

## MOONROOF (IF EQUIPPED)



**WARNING:** Do not leave children unattended in your vehicle and do not let them play with the moonroof. Failure to follow this instruction could result in personal injury.



**WARNING:** When closing the moonroof, verify that it is free of obstruction and make sure that children and pets are not in the proximity of the roof opening.

The moonroof and sunshade controls are on the overhead console and have a one-touch open and close feature. To stop the motion during a one-touch operation, touch the control a second time.



- A **Moonroof open.** Press and release to open the moonroof.
- B **Moonroof vent/close.** Press and release to vent or close the moonroof.

# Windows and Mirrors

---

- C **Sunshade open.** Press and release to open the sunshade. The sunshade opens automatically with the moonroof. You can also open the sunshade with the moonroof closed.
- D **Sunshade close.** Press and release to close the sunshade.

Press and hold (B) for glass bounce-back or (D) for shade bounce-back within two seconds of a bounce-back event to override this function.

**Note:** *The sunshade stops short of its fully opened position for the comfort of rear passengers. To open the sunshade fully, press the control again.*

**Note:** *When closing the sunshade stops at the first panel for the dual panel moonroof. Press and release again to continue to fully close sunshade.*

## Bounce-Back

The moonroof will stop automatically and reverse some distance if an obstacle is detected while closing.

# Instrument Cluster

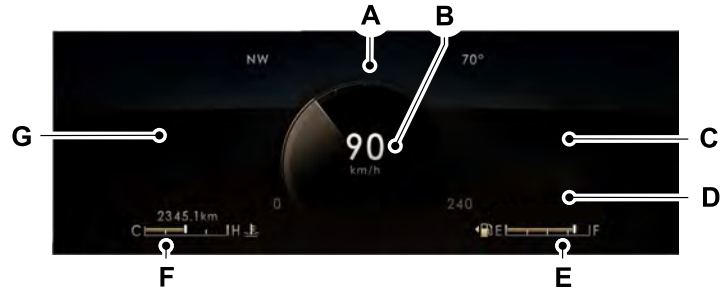
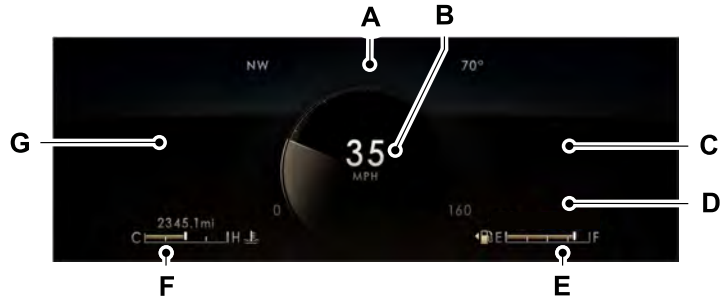
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## **GAUGES - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV), VEHICLES WITH: 12.3 INCH INSTRUMENT CLUSTER DISPLAY SCREEN**

### **Single Gauge View**

**Note:** *Displays may appear slightly different depending on region.*

# Instrument Cluster



- A Status Bar.
- B Speedometer.
- C Right information group.

# Instrument Cluster

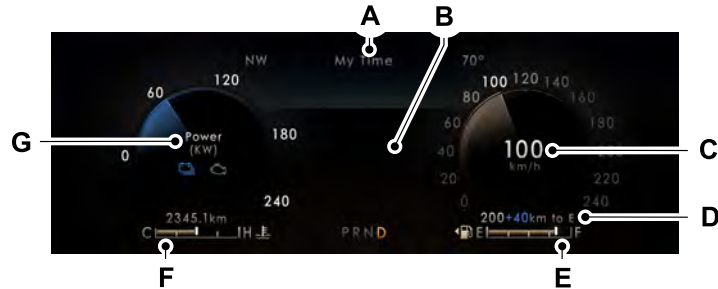
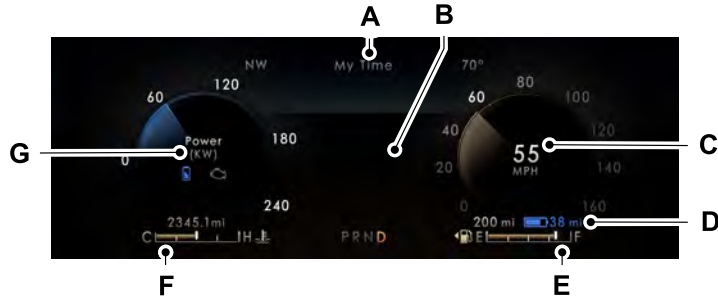
---

- D Vehicle driving range.
- E Fuel and battery gauges.
- F Engine coolant temperature gauge.
- G Left information group.

## Dual Gauge View

**Note:** *Displays may appear slightly different depending on region.*

# Instrument Cluster



- A Status Bar.
- B Information group.
- C Speedometer.

# Instrument Cluster

---

- D Vehicle driving range.
- E Fuel and battery gauges.
- F Engine coolant temperature gauge.
- G Power gauge.

## Status Bar

Displays information related to the current audio source, compass direction and outside air temperature.

## Left and Right Information Group

Information that appears depends on current gauge view and personalized settings. See **General Information** (page 136).

## Fuel Gauge

The fuel gauge indicates about how much fuel is in the fuel tank.

The arrow adjacent to the fuel pump symbol indicates on which side of your vehicle the fuel filler door is located.

**Note:** *The fuel gauge may vary slightly when your vehicle is moving or on a slope.*

## Low Fuel Reminder

A low fuel level reminder displays and sounds when the distance to empty reaches 75 mi (120 km) to empty for MyKey, and at 50 mi (80 km), 25 mi (40 km), 10 mi (20 km) and 0 mi (0 km) for all vehicle keys.

**Note:** *The low fuel reminder can appear at different fuel gauge positions depending on fuel economy conditions. This variation is normal.*

## High Voltage Battery Gauge

The high voltage battery gauge displays the total amount of charge associated with your available electric only driving range. A full fill represents the total amount of energy you can get from an external charge, plugging your vehicle in. When the fill reaches empty, the powertrain system switches to hybrid operation. See **Plug-In Hybrid Vehicle Operation** (page 215).



# Instrument Cluster

## Power Gauge

The power gauge displays power to the wheels when accelerating or maintaining speed. The high voltage battery power and engine power contributions are distinguished by color and added together to indicate total power to the wheels. When slowing down by lifting your foot off the accelerator pedal or pressing the brake, the gauge displays the power captured by the regenerative braking system and returned to the high voltage battery.

## Vehicle Driving Range



Vehicle range indicates the estimated distance your vehicle will travel with the energy currently onboard. Estimates will vary based on the energy used while driving.

Changes in driving pattern can cause the values to not only decrease but also increase or stay constant for periods of time.

The amount of energy being used while driving is affected by:

- Mild or aggressive acceleration or braking.
- Your vehicle speed.
- Use of accessories such as climate control.
- Ambient temperature and other weather conditions.
- Driving in a city or on a highway.
- Driving on hilly road conditions.

**Note:** *It is normal for vehicle range estimates to vary due to changes in average energy usage. This is why you typically see different range estimates each time you fill up your fuel tank or fully charge your battery.*

## Gasoline Distance to Empty

Indicates the approximate distance your vehicle can travel on the fuel remaining in the tank.

## Electric Range

Indicates the approximate distance your vehicle can travel on electric power only with the engine off.

## Engine Coolant Temperature Gauge

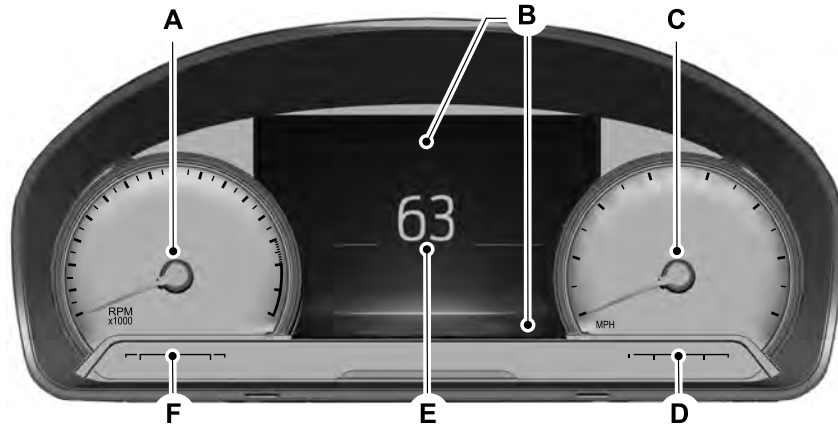


**WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

Indicates engine coolant temperature. At normal operating temperature, the level indicator is in the normal range. If the engine coolant temperature exceeds the normal range, stop your vehicle as soon as safely possible, switch off the engine and let the engine cool.

# Instrument Cluster

## GAUGES - VEHICLES WITH: 6.5 INCH INSTRUMENT CLUSTER DISPLAY SCREEN



- A Tachometer.
- B Information bar.
- C Speedometer.
- D Fuel gauge.

# Instrument Cluster

- E Information display.
- F Engine coolant temperature gauge.

## Information Bar

Displays information related to the navigation, outside air temperature, odometer and distance to empty.

Distance to Empty - Indicates the approximate distance your vehicle can travel on the fuel remaining in the tank. Changes in driving pattern can cause the value to not only decrease but also increase or stay constant for periods of time.

## Information Display

Information that appears depends on your vehicle settings. See **General Information** (page 136).

## Engine Coolant Temperature Gauge

Shows the temperature of the engine coolant. At normal operating temperature, the needle remains in the center section. If the needle enters the red section, the engine is overheating. Stop the engine, switch the ignition off and determine the cause once the engine has cooled down.

**Note:** Do not restart the engine until the cause of the overheating has been resolved.



**WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

## Fuel Gauge

The fuel gauge indicates about how much fuel is in the fuel tank.

The arrow adjacent to the fuel pump symbol indicates on which side of your vehicle the fuel filler door is located.

**Note:** The fuel gauge may vary slightly when your vehicle is moving or on a slope.

## Low Fuel Reminder

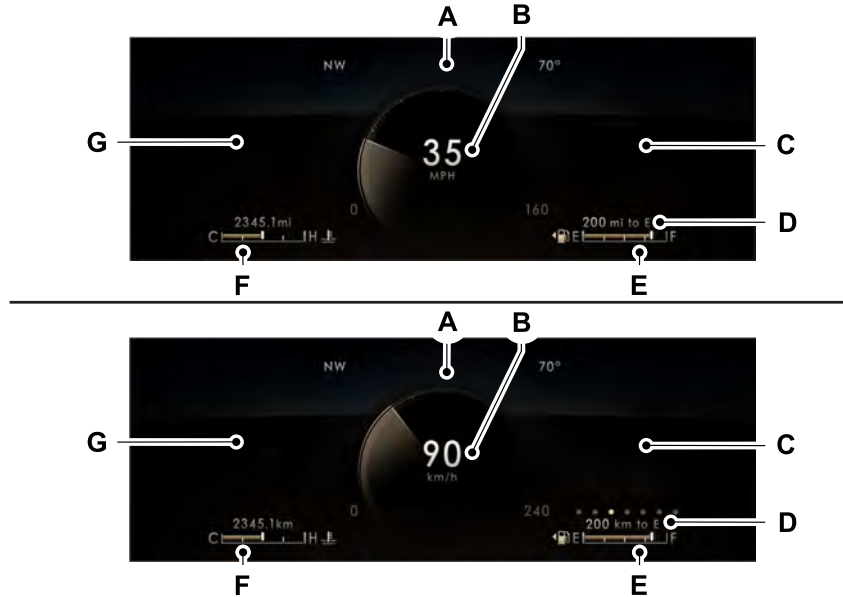
A low fuel level reminder displays and sounds when the distance to empty reaches 75 mi (120 km) to empty for MyKey, and at 50 mi (80 km), 25 mi (40 km), 10 mi (20 km) and 0 mi (0 km) for all vehicle keys.

**Note:** The low fuel reminder can appear at different fuel gauge positions depending on fuel economy conditions. This variation is normal.

# Instrument Cluster

## GAUGES - VEHICLES WITH: 12.3 INCH INSTRUMENT CLUSTER DISPLAY SCREEN

**Note:** Clusters shown in single gauge view.



# Instrument Cluster

---

- A Status bar.
- B Speedometer.
- C Right information group.
- D Vehicle driving range.
- E Fuel gauge.
- F Engine coolant temperature gauge.
- G Left information group.

## Status Bar

Displays information related to the current audio source, compass direction and outside air temperature.

## Left and Right Information Group

Information that appears depends on current gauge view and personalized settings. See **General Information** (page 136).

## Fuel Gauge

The fuel gauge indicates about how much fuel is in the fuel tank.

The arrow adjacent to the fuel pump symbol indicates on which side of your vehicle the fuel filler door is located.

**Note:** *The fuel gauge may vary slightly when your vehicle is moving or on a slope.*

## Distance to Empty

Indicates the approximate distance your vehicle can travel on the fuel remaining in the tank. Changes in driving pattern can cause the value to not only decrease but also increase or stay constant for periods of time

## Low Fuel Reminder

A low fuel level reminder displays and sounds when the distance to empty reaches 75 mi (120 km) to empty for MyKey, and at 50 mi (80 km), 25 mi (40 km), 10 mi (20 km) and 0 mi (0 km) for all vehicle keys.

**Note:** *The low fuel reminder can appear at different fuel gauge positions depending on fuel economy conditions. This variation is normal.*

# Instrument Cluster

## Engine Coolant Temperature Gauge

Indicates engine coolant temperature. At normal operating temperature, the level indicator will be in the normal range. If the engine coolant temperature exceeds the normal range, stop your vehicle as soon as safely possible, switch off the engine and let the engine cool.



**WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

## WARNING LAMPS AND INDICATORS

The following warning lamps and indicators alert you to a vehicle condition that may become serious. Some lamps illuminate when you start your vehicle to make sure they work. If any lamps remain on after starting your vehicle, refer to the respective system warning lamp for further information.

**Note:** *Some warning indicators appear in the information display and function the same as a warning lamp, but do not display when you start your vehicle.*

### Adaptive Cruise Control (If Equipped)



The speed control system indicator light changes color to indicate what mode the system is in. See

**Adaptive Cruise Control Indicators** (page 311).

On (white light): Illuminates when you switch on the adaptive cruise control system. Turns off when the speed control system is turned off.

Engaged (green light): Illuminates when you engage the adaptive cruise control system. Turns off when you disengage the speed control system.

## Anti-Lock Brake System



If it illuminates when you are driving, this indicates a system error. You continue to have the normal braking (without ABS) unless the brake system warning lamp also illuminates. Have the system checked immediately.

## Automatic High Beam Control (If Equipped)



Illuminates when this feature is on. See **Automatic High Beam Control Indicators** (page 114).

## Auto Hold Active



Illuminates when the system holds your vehicle stationary.

# Instrument Cluster

## Auto Hold Unavailable



Illuminates when the system is on, but unavailable to hold your vehicle stationary.

## Auto Start-Stop (If Equipped)



Illuminates to inform you when the engine shuts down or in conjunction with a message.

## Battery



If it illuminates while driving, it indicates a system error. Switch off all unnecessary electrical equipment and have the system checked immediately.

## Blind Spot Monitor



Illuminates when you switch this feature off or in conjunction with a message. See **Blind Spot**

**Information System** (page 324).

## Brake System Warning Lamp



**WARNING:** Driving your vehicle with the warning lamp on is dangerous. A significant decrease in braking performance may occur. It may take you longer to stop your vehicle. Have your vehicle checked as soon as possible. Driving extended distances with the parking brake engaged can cause brake failure and the risk of personal injury.

This lamp is a dual function lamp and illuminates when:

- You apply the parking brake with the ignition on.
- Your vehicle has a brake fault or low brake fluid level, regardless of parking brake position.



If the lamp illuminates when you are moving, you may have the parking brake applied. Make sure the parking brake is off. Have your vehicle checked as soon as possible if the lamp continues to illuminate.

**Note:** Indicator varies depending on region.

## Cruise Control (If Equipped)



Illuminates when you switch this feature on.

## Direction Indicator



Illuminates when you switch on the left-hand or right-hand direction indicator or the hazard flasher. If the indicators stay on or flash faster, check for a burned out bulb. See **Changing a Bulb** (page 412).

## Distance Alert



Flashes when your vehicle is rapidly approaching another vehicle or a pedestrian within your driving path. See **Pre-Collision Assist** (page 331).

# Instrument Cluster

## Door Ajar



Illuminates when the ignition is on and any door is not completely closed.

## Electric Parking Brake



Illuminates or flashes when the electric parking brake has a system error. See **Electric Parking Brake** (page 271).



**Note:** Indicators vary depending on region.

## Engine or Motor Coolant Temperature



Illuminates when your vehicle coolant temperature is high. Stop your vehicle as soon as possible, switch off the engine and let it cool. See **Engine Coolant Check** (page 400).

## Engine Oil



If it illuminates with the engine running or when you are driving, this indicates a system error. Stop your vehicle as soon as it is safe to do so and switch the engine off. Check the engine oil level. See **Engine Oil Check** (page 396).

**Note:** Do not resume your journey if it illuminates despite the level being correct. Have the system checked immediately.

## Fasten Seatbelt



Illuminates and a tone sounds to remind you to fasten your seatbelt. See **Seatbelt Reminder** (page 47).

## Fasten Rear Seatbelt (If Equipped)



Illuminates and a tone sounds to signal the rear seatbelts are not fastened.

## Front Airbag



If it fails to illuminate when you start your vehicle, continues to flash or remains on, it indicates there is a system error. Have the system checked as soon as possible.

## Front Fog Lamps (If Equipped)



Illuminates when you switch the front fog lamps on.

## High Beam



Illuminates when you switch the high beam headlamps on. It flashes when you use the headlamp flasher.

## Hood Ajar



Illuminates when the ignition is on and the hood is not completely closed.



# Instrument Cluster

## Lamps On



Illuminates when you switch the low beam headlamps or the parking lamps on.

## Liftgate Ajar



Illuminates when the liftgate is not completely closed.

## Low Beam Warning



Illuminates when the low beam headlamp bulb is not functioning properly.

## Low Fuel Level



Illuminates when the fuel level is low or the fuel tank is nearly empty. Refuel as soon as possible.

## Low Tire Pressure Warning



Illuminates when your tire pressure is low. If the lamp remains on with the engine running or when driving, check your tire pressure as soon as possible.

It also illuminates momentarily when you switch the ignition on to confirm the lamp is functional. If it does not illuminate when you switch the ignition on, or begins to flash at any time, have the system checked as soon as possible.

## Low Washer Fluid



Illuminates when the windshield washer fluid is low.

## Powertrain Fault



Illuminates when the system detects a powertrain or a 4WD/AWD fault. Have your vehicle checked as soon as possible.

## Ready to Drive (If Equipped)



Illuminates when you switch on your vehicle and it is ready to drive. A corresponding message may appear in the information display.

## Service Engine Soon



Illuminates when you switch the ignition on prior to engine start to check the bulb and to indicate whether your vehicle is ready for Inspection and Maintenance (I/M) testing.

Normally, it illuminates until the engine is cranked and automatically turns off if no system errors are present. However, if after 15 seconds it flashes eight times, this indicates that your vehicle is not ready for Inspection and Maintenance (I/M) testing. See **Catalytic Converter** (page 232).

If it illuminates when the engine is running this indicates a system error. The On Board Diagnostics system has detected an error in the vehicle emission control system.

# Instrument Cluster

If it flashes, engine misfire may be occurring. Continuing to drive your vehicle may cause reduced power or the engine to stop. Failure to respond to the warning lamp may cause component damage not covered by the vehicle Warranty. Have your vehicle checked as soon as possible.

## Stability Control



It flashes when the system is active. If it remains illuminated or does not illuminate when you switch the ignition on, this indicates a system error. During a system error, the system switches off. Have the system checked immediately. See **Using Stability Control** (page 282).

## Stability Control Off



Illuminates when you switch the system off. It goes out when you switch the system back on or when you switch the ignition off. See **Using Stability Control** (page 282).

## Stop Safely Now



Illuminates if your vehicle has an electrical component fault or failure that will cause your vehicle to shutdown or enter into a limited operating mode. A message may also display.

## Tow Haul Indicator (If Equipped)



Illuminates when the system switches on.

## Vehicle Plugged In (If Equipped)



Illuminates when your vehicle is plugged in. A corresponding message may display after attempting to start your vehicle.

## AUDIBLE WARNINGS AND INDICATORS

### Keyless Warning Alert

The horn will sound twice when you exit your vehicle with the intelligent access key and your vehicle is in RUN, indicating your vehicle is still on.

### Headlamps On Warning Chime


Sounds when you have left the headlamps or parking lamps on and open the driver door with the vehicle off.

### Parking Brake On Warning Chime

Sounds when you have left the parking brake on and drive your vehicle. If the warning chime remains on after you have released the parking brake, have the system checked by your authorized dealer immediately.

# Information Displays

## GENERAL INFORMATION





 **WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

You can control various systems on your vehicle using the quick action menu (QAM) on the right-hand side of the steering wheel. The information display provides the corresponding information.

## Information Display Controls



**Note:** *The controls change when you enter a submenu.*

-  Move the selector switch up to enter the navigation submenu.
-  Move the selector switch down to enter the settings submenu.
-  Move the selector switch to the right to enter the mode phone submenu.
-  Move the selector switch to the left to enter the media submenu.



Press the folder button to scroll through information on demand display screens. See **Personalized Settings** (page 140).

## Menu Controls

The following controls are only available once you enter a submenu:



Use the selector switch to toggle up and down.



Press the home button to exit a submenu.

# Information Displays



Move the selector switch to the left to exit a submenu.



Move the selector switch to the right to choose and confirm settings or messages.

## Menu



This icon shows the features on or off status. A check in the box indicates the feature is on, and unchecked indicates the feature is off.

**Note:** Some menu items are regional specific or optional and may appear slightly different or not at all.

## Settings

Settings		
Display Setup	Information Screens	See <b>Personalized Settings</b> (page 140).
	Speedometer km/h	
	Speedometer MPH	
	Show Tach in Normal	
	Show Power Gauge in Normal <sup>1</sup>	
	Driving History <sup>1</sup>	
	Eco Coach	
	Border Crossing	Enter the submenu and select your setting
Brake Coach		
Oil Life	Displays your oil life status	

# Information Displays

Settings	
	Hold OK to Reset
Tire Monitor	Hold OK to Reset
Neutral Tow <sup>1</sup>	Hold OK to Initialize

<sup>1</sup>Hybrid Only

**Note:** *Additional vehicle settings are available through your touchscreen. See **Settings** (page 555).*

## Head Up Display (If Equipped)

Head Up Display
Menu options covered in the head up display section. See <b>Head Up Display</b> (page 162).

## Phone

Phone
Menu options covered in the SYNC chapter. See <b>Phone</b> (page 536).

# Information Displays

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## Audio

Audio
Menu options covered in the SYNC chapter. See <b>Entertainment</b> (page 521).

## Navigation (If Equipped)

Navigation
Menu options covered in the SYNC chapter. See <b>Navigation</b> (page 538).

## Hybrid Display Information

For plug-in hybrid vehicles it displays unique hybrid vehicle information when you shut off your vehicle or come to a stop.

### Brake Coach

The brake coach appears after you bring your vehicle to a stop. It coaches you to brake in a manner that maximizes the amount of energy returned through the regenerative braking system.

The percent displayed is an indication of the regenerative braking efficiency with 100% representing the maximum amount of energy recovery. You can switch brake coach on or off in the settings menu.

### Trip Summary

Displays upon switching off your vehicle. The values are cumulative since you last started your vehicle.

The information shown is the same as the **This Trip** on demand screen. See **Personalized Settings** (page 140).

### Vehicle Charging Status

Displays when you switch off your vehicle and when you switch it on when plugged in. Charging status includes the charge start or charge end time as appropriate. You can modify your vehicles charge settings through the touchscreen. See **SYNC™ 3** (page 507).

# Information Displays

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## PERSONALIZED SETTINGS

### Information On Demand

**Note:** *On Demand information appears on the right-hand side of the instrument cluster in single gauge view and in the center of the instrument cluster in dual gauge view when you switch on certain drive modes.*

**Note:** *Pure EV information is only available when you switch on the Pure EV drive mode.*

**Note:** *Some menu items are regional specific or optional and may appear slightly different or not at all.*

Information Screens
Calm Screen
PURE EV
Trip 1
Trip 2
This Trip
Fuel Economy
Auto StartStop
Seatbelts
Tire Pressure
Power Distribution

# Information Displays

Information Screens
Trailer Light Check
Off Road
ECO Behaviors
EV Coach
Electric Efficiency

## Trip 1 and 2

Provides trip timer, trip average fuel economy, total trip distance traveled, and distance traveled on electric power only with the engine off.

Press and hold the folder button to reset.

## This Trip

Provides trip timer, trip average fuel economy, total trip distance traveled, and distance traveled on electric power only with the engine off. If the gasoline engine has not turned on during the trip then trip average fuel economy is not shown. This trip automatically resets each time you start your vehicle.

## Fuel Economy

An instant fuel economy gauge is provided along with average fuel economy. Average fuel economy is continuously averaged since the last reset.

Both electric only and hybrid operation are included in the calculation. More electric only driving will result in greater average fuel economy.

While viewing this screen you can reset your average fuel economy by pressing and holding the folder button.

When the gasoline engine is off the instant fuel economy gauge is replaced with an electric driving message.

## EV Coach

EV coach can help you to get the most out of your vehicle's electric driving and regenerative braking capabilities.



## Information Displays

When you are accelerating or maintaining speed you will see a blue or white solid bar indicating vehicle power. You may also see a blue rectangular box which shows the power level at which the engine will turn on.

- When your power level is within the box the color of the bar will be blue. This means you are in electric operation and the engine is off.
- When your power level is outside of the box the color of the bar will be white. This means you are in hybrid operation with a combination of the electric motor and the engine providing vehicle power.

When you are decelerating with either your foot off the accelerator pedal or on the brake pedal you will see a green or white solid bar indicating the power being used to slow down the vehicle. You may also see a green rectangular box which shows the amount of power that can be recaptured by the regenerative braking system and returned to the high voltage battery.

- When your power level is completely within the box the color of the bar will be all green. This means that the regenerative braking system is being used to efficiently slow the vehicle down and return the maximum percentage of energy to the high voltage battery.
- When your power level is outside of the green box then the bar will be white. This means that both the regenerative braking system and conventional braking system are being used.

### Electric Efficiency

The screen shows your average driving distance per kWh of electricity used on your plug-in hybrid vehicle. The value is calculated only when your available electric range is being used and the gasoline engine is off.

Distance per full charge is also shown. This is an estimate of the electric range you would have if you plugged in and fully charged your vehicle right now. The higher the electric efficiency, the higher your distance per full charge.

Your electric efficiency is affected by your driving style and route, climate control use, outside temperature and other factors. Best efficiency is achieved in mild ambient temperatures with mild to moderate acceleration and braking, moderate speeds and low climate control usage.

### INFORMATION MESSAGES



# Information Displays



Move the selector switch to the right to acknowledge and remove some messages from the

information display. The system removes other messages automatically after a short time.

You need to confirm certain messages before you can access the menus.

## Active Park (If Equipped)

Message	Details
Active Park Fault	The system has detected a fault that requires service. Have the system checked as soon as possible.

## Adaptive Cruise Control (If Equipped)

Message	Details
Adaptive Cruise Malfunction	A radar malfunction is preventing the adaptive cruise from engaging.
Front Sensor Not Aligned	
Adaptive Cruise Not Available	Conditions exist such that the adaptive cruise cannot properly function.
Adaptive Cruise Not Available Sensor Blocked See Manual	Inclement weather conditions; ice, mud or water are blocking the sensor, causing poor radar visibility. You can typically clean the sensor to resolve.
Normal Cruise Active Adaptive Braking Off	Displays when the system disables the automatic braking.
Adaptive Cruise - Driver Resume Control	Displays when the adaptive cruise control system reinstates the controls to you.
Adaptive Cruise Speed Too Low to Activate	Displays when the vehicle speed is too slow to activate the adaptive cruise.

# Information Displays

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## Adaptive Headlamps (If Equipped)

Message	Details
Check Headlamp System See Manual	Displays when a system error has occurred. Have the system checked as soon as possible.

## AdvanceTrac™ and Traction Control

Message	Details
Service AdvanceTrac	The system detects a condition that requires service. Have the system checked as soon as possible.
AdvanceTrac Off	The status of the system after you switch it off.
AdvanceTrac On	The status of the system after you switch it off.
AdvanceTrac SPORT MODE	The status of the system after you switch it on.
Traction Control Off	The status of the system after you switch it off.
Traction Control On	The status of the system after you switch it off.

# Information Displays

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## Alarm

Message	Details
Vehicle Alarm To Stop Alarm, Start Vehicle.	Alarm triggered due to unauthorized entry. See <b>What Is the Anti-Theft Alarm System</b> (page 96).

## Automatic Engine Shutdown

Message	Details
Vehicle Shuts Off In {seconds:#0} Seconds	The engine is getting ready to shut off.
Vehicle Shut Off to Save Energy	The engine has shut off to help increase fuel economy.
Vehicle Shuts Off in {seconds:#0} Seconds Press OK to Override	The engine is getting ready to shut off. You can press OK on the left-hand steering wheel button to override the shut down.

# Information Displays

## AWD (If Equipped)

Message	Details
AWD Temporarily Disabled	The all-wheel drive system temporarily turns off to protect itself from overheating.
AWD Temporarily Locked	The all-wheel drive system is locking up the torque transfer clutch to help reduce clutch temperature.
AWD OFF	The all-wheel drive system temporarily turns off to protect itself from overheating or if you are using the temporary spare tire.
AWD Restored	The all-wheel drive system will resume normal function and clear this message after driving a short distance with the road tire re-installed or after the system cools.
AWD Fault Service Required	The all-wheel drive system is not operating properly. If the warning stays on or continues to come on, have the system checked as soon as possible.
Change AWD Power Transfer Unit Lube	Displays when the transfer case fluid requires service.
AWD Power Transfer Unit Lube Set to New	Displays when the transfer case fluid has been changed and reset to new.

# Information Displays

## Battery and Charging System (12 Volt)

Message	Details
Check Charging System	The charging system needs servicing. If the warning stays on or continues to come on, contact an authorized dealer as soon as possible.
Charging System Service Soon	The charging system needs servicing. If the warning stays on or continues to come on, have the system checked as soon as possible.
Charging System Service Now	The charging system needs servicing. Have the system checked as soon as possible.
Battery State of Charge Low	The battery management system determines that the 12V battery is at a low state of charge. Start the engine to charge the battery or charge the battery using an aftermarket battery charger. This message clears once you restart your vehicle and the battery state of charge recovers.
Turn Power Off To Save Battery	The battery management system determines that the battery is at a low state of charge. Turn the ignition off as soon as possible to protect the battery. This message clears once you start your vehicle and the battery state of charge recovers. Turning off unnecessary electrical loads allows faster battery state-of-charge recovery.
Low Battery Features Temporarily Turned Off	Displays when the battery management system detects an extended low-voltage condition. The system disables various vehicle features to help preserve the battery. Turn off as many of the electrical loads as soon as possible to improve system voltage. When the system voltage recovers, the disabled features operate again as normal.

# Information Displays

## Battery and Charging System (High Voltage)

Message	Details
Vehicle Plugged In ? Yes No	Your vehicle needs confirmation it is unplugged before allowing a start. Check to make sure you unplugged your vehicle and then respond to the message prompt before starting your vehicle.
Unplug Prior to Starting Vehicle	Your vehicle detects it is still plugged in after you attempt to start it.
Ready to Drive	Your vehicle is ready to drive.
Ready to Drive {percent charged:##0}% Charged	Your vehicle is ready to drive. You have XXX% plug-in energy available.
Engine Enabled Due to Defrost Setting	Your vehicle enables the engine due to the climate control defrost setting. This is normal operation.
Change Drive Mode for Full Defrost	For full defrost heat, select a drive mode other than Pure EV. The engine may run to provide more cabin heat.
Engine Enabled for System Performance	Your vehicle enables the engine for system performance. This is normal operation.
Press OK to Enable Engine	You can press <b>OK</b> to enable the engine temporarily for increased performance when in Pure EV drive mode.

# Information Displays

## Blind Spot Information and Cross Traffic Alert System

Message	Details
Blind Spot System Fault	A system error has occurred. Have the system checked as soon as possible.
Blind Spot Not Available Sensor Blocked See Manual	The system sensors are blocked. See <b>Blind Spot Information System</b> (page 324).
Cross Traffic Alert Applying Brakes	The system detects a vehicle and automatically applies the brakes.
Cross Traffic Not Available Sensor Blocked See Manual	The blind spot information system and cross traffic alert system sensors are blocked. See <b>Cross Traffic Alert</b> (page 326).
Cross Traffic System Fault	A system error has occurred. Have the system checked as soon as possible.

## Doors and Locks

Message	Details
Driver Door Ajar	The driver door is not completely closed.
Passenger Door Ajar	The passenger door is not completely closed.
Rear Left Door Ajar	The rear left-hand door is not completely closed.
Rear Right Door Ajar	The rear right-hand door is not completely closed.
Liftgate Ajar	The liftgate is not completely closed.



## Information Displays

Message	Details
Hood Ajar	The hood is not completely closed.
Switches Inhibited Security Mode	The system has disabled the door switches.
Doors Locked Unlock Before Opening	Displays when the door is locked and you attempt to open the door. Unlock the door before opening.
Driver Door Fault Use Inside Override Lever In Map Pocket	Indicates a driver door fault that requires manually opening the door by the override lever. Have the system checked as soon as possible.
Door Fault Service Required	Indicates a fault with the electronic door system. Have the system checked as soon as possible.
Child Lock Malfunction Service Required	There is a system malfunction with the child locks. Have the system checked as soon as possible.
Child Lock ON	Indicates that the rear seat interior door release switches and power windows are switched off, preventing rear seat occupants from opening the doors or windows.
Child Lock OFF	Indicates that the rear seat interior door release switches and power windows are switched on.
Factory Keypad Code {X X X X X}	The factory keypad code appears in the information display after the system resets the keypad. See <b>What Is the Passive Anti-Theft System</b> (page 96).

# Information Displays

## Driver Alert

Message	Details
Driver Alert Warning Rest Now	Stop and rest as soon as it is safe to do so.
Driver Alert Warning Rest Suggested	Take a rest soon.

## Fuel

Message	Details
Fuel Level Low	An early reminder of a low fuel condition.
Check Fuel Fill Inlet	The fuel fill inlet valve may not be properly closed.
Fuel Door Opening	Wait for up to 15 seconds while the fuel system depressurizes.
Fuel Door Open	The fuel system has finished depressurizing.
Close Fuel Door to Avoid ""Check Engine"" Light	A reminder to close the fuel door. Failure to follow this instruction can cause the check engine light to illuminate.
Refuel Error See Manual	There is an error in attempting to refill your vehicle. See <b>Refueling</b> (page 222).

# Information Displays

## Hill Start Assist

Message	Details
Hill Start Assist Not Available	Hill start assist is not available. Contact an authorized dealer. See <b>Hill Start Assist</b> (page 273).

## Keys and Intelligent Access

Message	Details
To START Press Brake	A reminder to press the brake while starting your vehicle.
No Key Detected	The system does not detect the key. You need to have the intelligent access key inside your vehicle to restart the engine.
Restart Now or Key is Needed	When you press the Start Stop button to shut the engine off, you need to have the intelligent access key inside your vehicle to restart the engine.
Full Accessory Power Active	Your vehicle is in the accessory ignition state.
Starting System Fault	There is a problem with your vehicle's starting system. See an authorized dealer for service.
Key Program Successful	This message appears after you program a spare key to the system.
Max Number of Keys Learned	This message appears after you program the maximum number of keys to the system.
Key Program Failure	This message appears when your attempt to program a spare key fails.

# Information Displays

Message	Details
Not Enough Keys Learned	Displays during spare key programming when you have not programmed enough keys.
Key Battery Low Replace Soon	Displays when the key battery is low. Change the battery as soon as possible.
Vehicle Switched Off	Displays when you switch the vehicle off.

## Lane Keeping System

Message	Details
Lane Keeping Sys. Malfunction Service Required	The system has malfunctioned. Have the system checked as soon as possible.
Front Camera Temporarily Not Available	The system detects a condition and temporarily disables the front camera. Check to make sure the area around the camera is clean and free of objects.
Front Camera Low Visibility Clean Screen	Clean the windshield to improve visibility and allow the front camera to properly operate.
Front Camera Malfunction Service Required	The system has malfunctioned. Have the system checked as soon as possible.
Keep Hands on Steering Wheel	The system requests that you keep your hands on the steering wheel.

# Information Displays

## Maintenance

Message	Details
Low Engine Oil Pressure	Stop your vehicle as soon as safely possible and turn off the engine. Check the oil level. If the warning stays on or continues to come on with your engine running, have the system checked as soon as possible.
Change Engine Oil Soon	The engine oil life remaining is 10% or less.
Oil Change Required	The oil life left reaches 0%.
Brake Fluid Level Low	The brake fluid level is low, have the brake system inspected immediately. See <b>Brake Fluid Check</b> (page 405).
Check Brake System	The brake system needs servicing. Stop the vehicle in a safe place. Have the system checked as soon as possible.
Engine Coolant Over Temperature	The engine coolant temperature is excessively high. See <b>Engine Coolant Check</b> (page 400).
Washer Fluid Level Low	Refill the washer fluid to clear message.
Transport Mode Contact Dealer	Indicates that your vehicle is still in Transport mode. This may not allow some features to properly operate. Have the system checked as soon as possible.
Factory Mode Contact Dealer	Indicates that your vehicle is still in Factory mode. This may not allow some features to properly operate. Have the system checked as soon as possible.

## Information Displays

Message	Details
See Manual	Informs you that the powertrain needs service due to a powertrain malfunction.
Power Reduced to Lower Engine Temp	The engine reduces power to help lower high engine temperature.
Brake Applied Power Reduced	The brake system reduces stopping power.

### MyKey

Message	Details
MyKey not Created	You cannot program a MyKey.
MyKey Active Drive Safely	MyKey is active.
Speed Limited to XX MPH/km/h	With a MyKey in use, the system displays the programmed speed limit for your vehicle.
Near Vehicle Top Speed	With a MyKey in use, the system indicates that the programmed vehicle speed is approaching the top speed limit of 80 mph (130 km/h).
Vehicle at Top Speed of MyKey Setting	You have reached the speed limit set for your MyKey.
Check Speed Drive Safely	You have an active MyKey with a programmed set speed limit.
Buckle Up to Unmute Audio	Belt-Minder turns on with a MyKey in use.
AdvanceTrac On - MyKey Setting	With a MyKey in use, AdvanceTrac turns on.

# Information Displays

Message	Details
Traction Control On - MyKey Setting	With a MyKey in use, traction control turns on.
MyKey Park Aid Cannot be Deactivated	With a MyKey in use, park aid is always on.
Lane Keeping Alert On MyKey Setting	With a MyKey in use, lane keeping alert turns on.

## Park Aid

Message	Details
Check Front Park Aid	The system detects a fault that requires service. Have the system checked as soon as possible.
Check Rear Park Aid	The system detects a fault that requires service. Have the system checked as soon as possible.
Rear Park Aid Not Available Sensor Blocked See Manual	Inclement weather conditions; ice, mud or water are blocking the sensor, causing poor radar visibility. You can typically clean the sensor to resolve.
Front Park Aid Not Available Sensor Blocked See Manual	Inclement weather conditions; ice, mud or water are blocking the sensor, causing poor radar visibility. You can typically clean the sensor to resolve.
Park Aid Not Available Sensor Blocked See Manual	Inclement weather conditions; ice, mud or water are blocking the sensor, causing poor radar visibility. You can typically clean the sensor to resolve.
Front Park Aid On Off	Displays the park aid status.
Rear Park Aid On Off	Displays the park aid status.

# Information Displays

## Park Brake

<b>Message</b>	<b>Details</b>
Park Brake Engaged	The parking brake is set, the engine is running and you drive your vehicle more than 3 mph (5 km/h). If the warning stays on after you release the parking brake, have the system checked as soon as possible.
To Release: Press Brake and Switch	The electric parking brake is set and you attempt a manual release without pressing both the brake pedal and switch.
Park Brake Use Switch to Release	The electric parking brake is set and you attempt an automatic release. Perform a manual release.
Release Park Brake	The electric parking brake is set and your vehicle speed exceeds 3 mph (5 km/h). Release the park brake before continuing to drive.
Park Brake Not Applied	Fully press the parking brake.
Park Brake Not Released	Fully press both the switch and the parking brake to release.
Park Brake Maintenance Mode	The electric parking brake system is in a special mode to allow service of the rear brakes. Have the system checked as soon as possible.



# Information Displays

Message	Details
Park Brake Limited Function Service Required	The electric park brake system detects a condition that requires service. Some functionality may still be available. Have the system checked as soon as possible.
Park Brake Malfunction Service Now	The electric parking brake system detects a condition that requires service. Have the system checked as soon as possible.
Park Brake System Overheated	Applying the park brake numerous times has overheated the system. Wait 2 minutes before attempting to apply again.

## Power Steering

Message	Details
Steering Fault Service Now	The power steering system detects a condition that requires service. Have the system checked as soon as possible.
Steering Loss Stop Safely	The power steering system is not working. Stop your vehicle in a safe place. Have the system checked as soon as possible.
Steering Assist Fault Service Required	The power steering system detects a condition within the power steering system or passive entry or passive start system that requires service. Have the system checked as soon as possible.
Steering Lock Malfunction Service Now	The steering lock system detects a condition that requires service. Have the system checked as soon as possible.

# Information Displays

## Pre-Collision Assist

Message	Details
Pre-Collision Assist Not Available Sensor Blocked	Inclement weather conditions; ice, mud or water are blocking the sensor, causing poor radar visibility. You can typically clean the sensor to resolve.
Pre-Collision Assist Not Available	A fault with the system has occurred. Have the system checked as soon as possible.

## Remote Start

Message	Details
To Drive: Press Brake and Gear Shift Button	Displays after a remote start to remind you to apply the brake and push the gear shift button to drive your vehicle.

## Seats

Message	Details
Occupant Sensor BLOCKED Remove Objects Near Passenger Seat	Move objects away from the seat. If the warning stays on or continues to come on, contact an authorized dealer as soon as possible.
Memory Recall Not Permitted While Driving	Displays as a reminder that memory seats are not available while driving.
Memory {0} Saved	Displays to show you where you saved your memory setting.

# Information Displays

## Starting System

Message	Details
To START Press Brake	Displays when starting the vehicle as a reminder to apply the brake.
Cranking Time Exceeded	Displays when the starter exceeds its cranking time when attempting to start the vehicle.
Engine Start Pending Please Wait	Displays when the starter attempts to start the vehicle.
Pending Start Cancelled	Displays when the system cancels the pending start.

## Tire Pressure Monitoring System

Message	Details
Tire Pressure Low	One or more tires on your vehicle have low tire pressure. See <b>Tire Pressure Monitoring System</b> (page 446).
Tire Pressure Monitor Fault	The tire pressure monitoring system is malfunctioning. If the warning stays on or continues to come on, have the system checked as soon as possible. See <b>Tire Pressure Monitoring System</b> (page 446).
Tire Pressure Sensor Fault	A tire pressure sensor is malfunctioning, or your spare tire is in use. For more information on how the system operates under these conditions, See <b>Tire Pressure Monitoring System</b> (page 446). If the warning stays on or continues to come on, have the system checked as soon as possible.

# Information Displays

## Transmission

Message	Details
Shift to Park	You switched the engine off and the gear selector is in any position other than park (P).
Transmission Warming Up Please Wait	The transmission is too cold. Wait for it to warm up before you drive.
Press Brake Pedal	Displays when you need to press the brake pedal.
Transmission Over Temperature Stop Safely	The transmission is overheating and needs to cool. Stop in a safe place as soon as possible.
Transmission Service Required	Have the system checked as soon as possible.
Transmission Too Hot Press Brake	The transmission is overheating and needs to cool. Stop in a safe place as soon as possible.
Transmission Limited Function See Manual	The transmission has limited functionality. Have the system checked as soon as possible.
Transmission Not in Park	A reminder to shift into park. In addition, this message is typical after reconnecting or recharging the battery until you switch the ignition to the on mode. See <b>Changing the 12V Battery</b> (page 406).
SHIFT SYS FAULT Confirm Park Brake Apply Before Exiting the Vehicle	Displays when there is a system fault and the park brake needs to be depressed before exiting the vehicle. Have the system checked as soon as possible.
SHIFT SYS FAULT Service Required	Have the system checked as soon as possible.
SHIFT SYS FAULT Vehicle is Shifting to Park	Displays when there is a system fault while the vehicle is shifting to park. Have the system checked as soon as possible.
SHIFT SYS FAULT Reverse Unavailable Service Required	Displays when there is a system fault while the vehicle is shifting to reverse. Have the system checked as soon as possible.

# Information Displays

Message	Details
SHIFT SYS FAULT Drive Unavailable Select S for Drive Service Required	Have the system checked as soon as possible.
SHIFT SYS FAULT Neutral Unavailable Service Required	Have the system checked as soon as possible.
SHIFT SYS FAULT Sport Unavailable Service Required	Have the system checked as soon as possible.
Invalid Gear Selection	Displays when you select an invalid gear.
Depress Brake to Shift from Park	Displays when you need to press the brake pedal to enable the transmission to shift from park.

## HEAD UP DISPLAY (IF EQUIPPED)

The head up display (HUD) is a visual system that shows information in your field of view as you drive. The information comes from various vehicle systems and includes vehicle speed, speed limit, navigation, and advanced driver assistance systems such as adaptive cruise control and the lane keeping system. This system projects the information off the windshield, and focuses the image near the

end of the hood approximately 7 ft (2 m) in front of the driver. Viewing this information does not require you to significantly move your head, allowing you to keep your eyes on the road while having quick and easy access to information.

## Configuring The Head Up Display

You can control the system's options through the information display by using the 4-way toggle on the right-hand side of your steering wheel. See **General Information** (page 136). You can adjust the display according to your height to make viewing the content easier. You can also adjust what content displays and the brightness of the content. The system's options appear in the instrument cluster while the updates happen in the head up display.

# Information Displays

**Note:** If **HUD On** is unchecked, other options of the system are hidden.

**Note:** The head up display menu automatically closes after a certain period of inactivity.

**Note:** The head up display image brightness automatically adjusts to the brightness of the ambient environment. You have the ability to adjust the brightness further according to your preference.

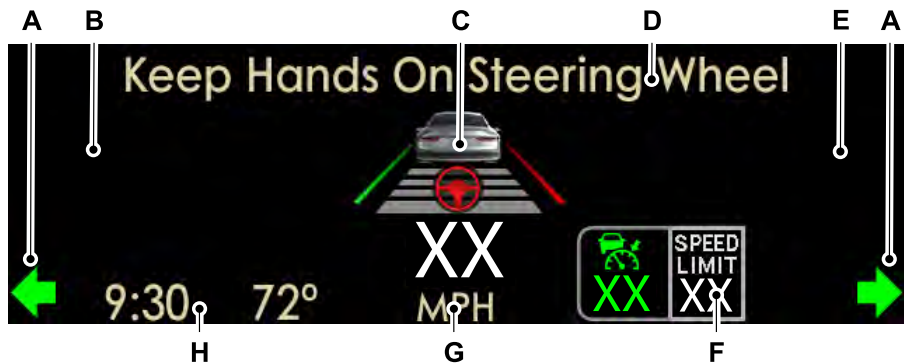
**Note:** In some instances, sunlight can cause some reflections in and around the head up display image.

Head-Up Display (HUD)		
HUD On	Turns the head up display on and off.	
Brightness	Follow onscreen directions to confirm or modify your settings.	
HUD Position	Vertical Position	Follow onscreen directions to confirm or modify your settings.
	Image Rotation	
HUD Content	Turns the distance to empty, time and temperature on and off.	
	Cruise and Lane Control	Select Your Setting

**Note:** When you save a memory preset position, your current head up display settings are also saved to that memory preset position. See **Memory Function** (page 183).

# Information Displays

## Head Up Display Overview



- A Signaling and traffic indication.
- B Navigation display area.
- C Advanced driver assistance systems display area.
- D System message display area.
- E Advanced driver assistance systems message display area.
- F Speed limit display area.
- G Speedometer display area.
- H Status bar.

# Information Displays

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## Signaling and Traffic Indication

Displays direction indicators and blind spot information (if direction indicators are active).

## Navigation Display Area

Displays navigation next turn instructions.

## Advanced Driver Assistance Systems Display Area

Displays adaptive cruise control, lane centering aid and lane keeping system status and warnings.

## System Message Display Area

Displays system messages and notifications including an incoming phone call.

## Advanced Driver Assistance Systems Message Display Area

Displays advanced driver assistance systems messages and image adjustment prompts.

## Speed Limit Display Area

Displays your speed limit information if it is available in the map database or is detected by the camera.

## Speedometer Display Area

Displays your current vehicle speed and your transmission gear selection.

## Status Bar

Displays Distance To Empty (DTE), time and outside air temperature. Next to DTE, the fuel gauge fill color changes to yellow in low fuel conditions. You can switch off the status bar in the head up display settings menu.

## Maintaining Your Head Up Display

- Do not place objects onto the transparent cover, as they may block you from seeing portions of the image. These objects could also damage the cover and affect the quality of the projected image.
- The system uses a special windshield designed to provide the optimum image quality. You must replace the windshield in a vehicle with this system with a certified original equipment manufactured (OEM) head up display windshield. Replacing this system's windshield with a non-head up display windshield causes a double image or distorted image. Have an authorized dealer or authorized repair facility replace the windshield.
- Light conditions such as oncoming headlamps, sunrise, sunset or reflections off road surfaces can affect the driver's ability to see the head up display image.
- Clean the windshield often for optimal head up display performance. See **Cleaning the Windows and Wiper Blades** (page 416).



# Remote Start

## WHAT IS REMOTE START

The system allows you to remotely start your vehicle and therefore to heat or cool the interior to a predetermined temperature.

## REMOTE START LIMITATIONS

Remote start does not work if:

- The alarm horn is sounding.
- The hood is open.
- The transmission is not in park (P).
- Remote start is not enabled.
- The ignition is on.

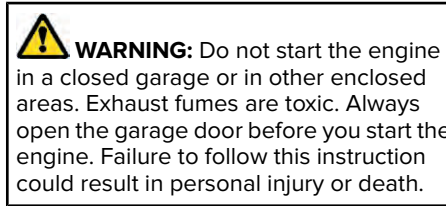
**Note:** Do not use remote start if your fuel level is low.

## ENABLING REMOTE START

1. Press **Settings** on the touchscreen.
2. Press **Vehicle Settings**.
3. Press **Remote Start Setup**.
4. Switch **System** on or off.

**Note:** To use remote start, make sure that the modem is enabled. See **Enabling and Disabling the Modem** (page 491).

## REMOTELY STARTING THE ENGINE



To start the engine, do the following:



Press the button on the remote control.



Within three seconds, press the button on the remote control.

Within three seconds, press the button again.

**Note:** You can also use the Lincoln Way App to start the engine.

**Note:** The turn signals flash twice.

**Note:** The parking lamps turn on when the engine is running.

**Note:** The horn sounds if the system fails to start.

**Note:** All other vehicle systems remain off when you remotely started the engine.

**Note:** The vehicle remains secure when you remotely start the engine. Make sure a valid key is inside your vehicle to switch the ignition on and drive your vehicle.

## EXTENDING THE REMOTE START DURATION

To extend the engine running duration during remote start, do the following:



Press the button on the remote control.



Within three seconds, press the button on the remote control.

Within three seconds, press the button again.

# Remote Start

**Note:** You can extend the engine running duration to a maximum of 30 minutes.

## REMOTELY STOPPING THE ENGINE



Press the button on the remote control to stop the engine.

**Note:** You can also use the Lincoln Way App to stop the engine.

## REMOTE START REMOTE CONTROL INDICATORS

### Remote Control Feedback

An LED on the remote control provides status feedback of remote start or stop commands.

LED	Status
Solid green.	Remote start successful.
Solid red.	Remote stop successful.
Blinking red.	Request failed or status not received.
Blinking green.	Status incomplete.

## REMOTE START SETTINGS

### SWITCHING CLIMATE CONTROL AUTO MODE ON AND OFF

1. Using the information display controls on the steering wheel, select **Settings**.
2. Select **Vehicle**.
3. Select **Remote Start**.
4. Select **Climate Control**.
5. Switch **Auto** on and off.

**Note:** If you switch the auto mode on, the system attempts to heat or cool the interior to 72°F (22°C).

**Note:** When you switch the ignition on, the climate control system returns to the last used settings.

**Note:** The heated windshield, heated rear window, heated mirrors, heated seats and heated steering wheel could turn on in cold weather.

## SWITCHING CLIMATE CONTROL LAST SETTINGS ON AND OFF

1. Using the information display controls on the steering wheel, select **Settings**.
2. Select **Vehicle**.
3. Select **Remote Start**.
4. Select **Climate Control**.
5. Switch **Last settings** on or off.

**Note:** If you switch the last settings on, the system remembers the last used settings.

# Remote Start

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## SWITCHING THE HEATED SEAT SETTINGS ON AND OFF

1. Using the information display controls on the steering wheel, select **Settings**.
2. Select **Vehicle**.
3. Select **Remote Start**.
4. Select **Front Seats**.
5. Select **Auto** or **Off**.

**Note:** *If you switch the heated seat settings on, the heated seats turn on during cold weather.*

**Note:** *You cannot adjust the heated seat settings when you have remotely started the engine.*

## SWITCHING THE HEATED STEERING WHEEL SETTINGS ON AND OFF

1. Using the information display controls on the steering wheel, select **Settings**.
2. Select **Vehicle**.
3. Select **Remote Start**.
4. Select **Front Seats & Wheel**.

5. Select **Auto** or **Off**.

**Note:** *If you switch the heated steering wheel settings on, the heated steering wheel turns on during cold weather.*

**Note:** *You cannot adjust the heated steering wheel settings when you have remotely started the engine.*

## SETTING THE REMOTE START DURATION

You can set a duration for the engine to run.

**Note:** *Wait a few seconds before remotely starting the engine after the engine stops running.*

1. Using the information display controls on the steering wheel, select **Settings**.
2. Select **Vehicle**.
3. Select **Remote Start**.
4. Select **Duration**.

# Climate Control

## AUTOMATIC CLIMATE CONTROL



**Note:** Depending on your vehicle option package, the controls may look different from what you see here.

**Note:** You can switch temperature units between Fahrenheit and Celsius.

**Note:** For hybrid vehicles, the air conditioning compressor may run allowing you to feel airflow when the climate control is off providing cooling to the battery.

**Note:** You can control some of the climate features using the touchscreen.

### Accessing the Air Distribution Controls



Press and release the button to activate the selection screen.

From the screen, you can direct air to the windshield, instrument panel or footwell vents on or off. You can direct air through any combination of these vents. See **Climate** (page 533).

### Accessing the Climate Control Menu



Press and release the button to access additional controls for the front climate system.

### Setting the Blower Motor Speed



Turn the control to adjust the volume of air circulating in your vehicle.

### Setting the Temperature



Press the button on the left-hand side of the climate control upward or downward to set the left-hand side temperature.

**Note:** This control also adjusts the right-hand side temperature when you switch off dual zone mode.

Press the toggle button on the right-hand side of the climate control upward or downward to set the right-hand side temperature.

### Switching Auto Mode On and Off



Press and release the button to switch on automatic operation. Repeatedly press the button to adjust auto mode.

The system adjusts the blower motor speed, air distribution, air conditioning operation, and outside or recirculated air to reach and maintain the temperature you have set.

Adjust the blower motor control to turn auto mode off.

**Note:** The system starts at the previous setting when you switch on auto mode.

**Note:** You can also switch off dual zone mode by pressing and holding the button for more than two seconds.

# Climate Control

## Auto Mode Indicator Status

Auto Mode Indicator Status	Description
One indicator illuminates.	<ul style="list-style-type: none"><li>The blower motor speed reduces.<ul style="list-style-type: none"><li>Use this setting to minimize the amount of noise from the blower motor.</li><li>This setting increases the time taken to cool the interior.</li></ul></li></ul>
Two indicators illuminate.	<ul style="list-style-type: none"><li>The blower motor speed is moderate.</li></ul>
Three indicators illuminate.	<ul style="list-style-type: none"><li>The blower motor speed increases.<ul style="list-style-type: none"><li>Use this setting to reduce the time taken to cool the interior.</li><li>This setting increases the amount of noise from the blower motor.</li></ul></li></ul>

## Switching the Air Conditioning On and Off



Press and release the button.

Use air conditioning with recirculated air to improve cooling performance and efficiency.

**Note:** *In certain conditions, such as maximum defrost, the air conditioning compressor may continue to operate even though you switch off the air conditioning.*

## Switching the Climate Control On and Off



Press and release the button.

**Note:** *Your vehicle may not have a physical button. You can use the touchscreen to turn the climate control on and off.*

## Switching Maximum Air Conditioning On and Off



Press and release the button for maximum cooling.

# Climate Control

The left-hand and right-hand settings set to LO, recirculated air flows through the instrument panel air vents, air conditioning turns on and the blower motor adjusts to the highest speed.

## Switching Maximum Defrost On and Off



Press and release the button for maximum defrosting.

The left-hand and right-hand temperatures are set to HI, air flows through the windshield air vents, and the blower motor adjusts to the highest speed.

You can also use this setting to defog and clear the windshield of a thin covering of ice.

**Note:** *To prevent window fogging, you cannot select recirculated air when maximum defrost is on.*

**Note:** *The heated rear window also turns on when you select maximum defrost.*

## Switching Recirculated Air On and Off



Press and release the button to switch between outside air and recirculated air.

The air currently in the passenger compartment recirculates. This may reduce the time needed to cool the interior when used with air conditioning, and reduce unwanted odors from entering your vehicle.

**Note:** *Recirculated air may turn off, or prevent you from switching on, in all air flow modes except maximum air conditioning to reduce the risk of fogging. Recirculation may also turn on and off in various air distribution control combinations to improve heating or cooling efficiency.*

## HINTS ON CONTROLLING THE INTERIOR CLIMATE

### General Hints

**Note:** *Prolonged use of recirculated air may cause the windows to fog up.*

**Note:** *You may feel a small amount of air from the footwell air vents regardless of the air distribution setting.*

**Note:** *To reduce humidity build-up inside your vehicle, do not drive with the system switched off or with recirculated air always switched on.*

**Note:** *Do not place objects under the front seats as this may interfere with the airflow to the rear seats.*

**Note:** *Remove any snow, ice or leaves from the air intake area at the base of the windshield.*

**Note:** *To improve the time to reach a comfortable temperature in hot weather, drive with the windows open until you feel cold air through the air vents.*

### Automatic Climate Control

**Note:** *Adjusting the settings when your vehicle interior is extremely hot or cold is not necessary. Automatic mode is best recommended to maintain set temperature.*

# Climate Control

**Note:** The system adjusts to heat or cool the interior to the temperature you select as quickly as possible.

**Note:** For the system to function efficiently, the instrument panel and side air vents should be fully open.

**Note:** If you select **AUTO** during cold outside temperatures, the system directs air flow to the windshield and side window air vents. In addition, the blower motor may run at a slower speed until the engine warms up.

**Note:** If you select **AUTO** during hot temperatures and the inside of the vehicle is hot, the system uses recirculated air to maximize interior cooling. Blower motor speed may also reduce until the air cools.

## Quickly Heating the Interior

1. Press and release **AUTO**.
2. Adjust the temperature function to the setting you prefer.

## Recommended Settings for Heating

1. Press and release **AUTO**.

2. Adjust the temperature function to the setting you prefer. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.

## Quickly Cooling the Interior

1. Press and release **MAX A/C**.

## Recommended Settings for Cooling

1. Press and release **AUTO**.
2. Adjust the temperature function to the setting you prefer. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.

## Defogging the Side Windows in Cold Weather

1. Press and release defrost or maximum defrost.
2. Adjust the temperature control to the setting you prefer. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.

## HEATED WINDSHIELD (IF EQUIPPED)

### Windshield Wiper De-Icer



When you switch the heated rear window on, the windshield wiper de-icer turns on.

## HEATED REAR WINDOW



Press the button to clear the rear window of thin ice and fog. The heated rear window turns off after a short period of time.

**Note:** Do not use harsh chemicals, razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. The vehicle warranty may not cover damage to the heated rear window grid lines.

## **HEATED EXTERIOR MIRRORS (IF EQUIPPED)**

When you switch the heated rear window on, the heated exterior mirrors turn on.

**Note:** *Do not remove ice from the mirrors with a scraper or adjust the mirror glass when it is frozen in place.*

**Note:** *Do not clean the mirror housing or glass with harsh abrasives, fuel or other petroleum-based cleaning products. The vehicle warranty may not cover damage caused to the mirror housing or glass.*



# Interior Air Quality

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## WHAT IS THE CABIN AIR FILTER

The cabin air filter improves the quality of air in your vehicle by trapping dust, pollen and other particles.

## LOCATING THE CABIN AIR FILTER

You can locate the cabin air filter behind the glove box.

## REPLACING THE CABIN AIR FILTER

Replace the filter at regular intervals. See **Scheduled Maintenance** (page 579).

**Note:** *Make sure you have a cabin air filter installed at all times. This prevents foreign objects from entering the system. Running the system without a filter in place could result in degradation or damage to the system.*

**Note:** *Using an aftermarket cabin air filter could reduce cabin air filtration and climate control performance.*

# Seats

## SITTING IN THE CORRECT POSITION



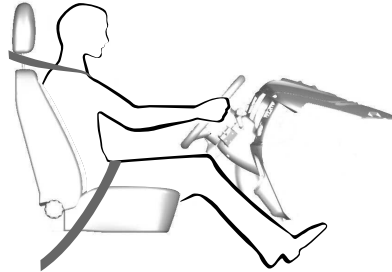
**WARNING:** Sitting improperly, out of position or with the seatback reclined too far can take weight off the seat cushion and affect the decision of the passenger sensing system, resulting in serious injury or death in the event of a crash. Always sit upright against your seat back, with your feet on the floor.



**WARNING:** Do not recline the seat backrest too far as this can cause the occupant to slide under the seatbelt, resulting in personal injury in the event of a crash.



**WARNING:** Do not place objects higher than the top of the seat backrest. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



When you use them properly, the seat, head restraint, seatbelt and airbags will provide optimum protection in the event of a crash.

We recommend that you follow these guidelines:


- Sit in an upright position with the base of your spine as far back as possible.
- Do not recline the seat backrest so that your torso is more than 30 degrees from the upright position.


- Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable.
- Keep sufficient distance between yourself and the steering wheel. We recommend a minimum of 10 in (25 cm) between your breastbone and the airbag cover.
- Hold the steering wheel with your arms slightly bent.
- Bend your legs slightly so that you can press the pedals fully.
- Position the shoulder strap of the seatbelt over the center of your shoulder and position the lap strap tightly across your hips.


Make sure that your driving position is comfortable and that you can maintain full control of your vehicle.

# Seats

## HEAD RESTRAINTS

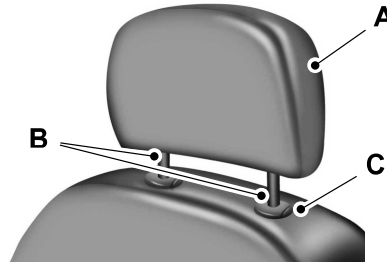
 **WARNING:** Fully adjust the head restraint before you sit in or operate your vehicle. This will help minimize the risk of neck injury in the event of a crash. Do not adjust the head restraint when your vehicle is moving.

 **WARNING:** The head restraint is a safety device. Whenever possible it should be installed and properly adjusted when the seat is occupied. Failure to adjust the head restraint properly could reduce its effectiveness during certain impacts.

 **WARNING:** Adjust the head restraints for all passengers before you drive your vehicle. This will help minimize the risk of neck injury in the event of a crash. Do not adjust the head restraints when your vehicle is moving.

**Note:** *Adjust the seat backrest to an upright driving position before adjusting the head restraint. Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable. If you are extremely tall, adjust the head restraint to its highest position.*

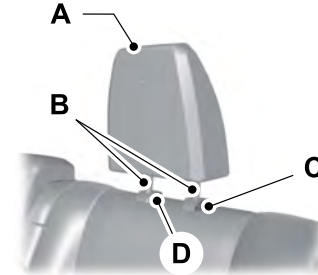
### Front Seat Head Restraint



The head restraint consists of:

- A An energy absorbing head restraint.
- B Two steel stems.
- C Guide sleeve adjust and unlock button.

### Rear Seat Outermost Head Restraint



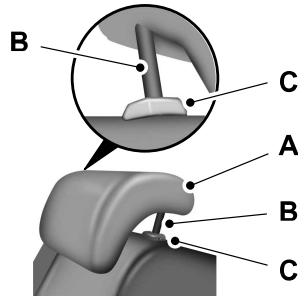
The head restraint consists of:

- A An energy absorbing head restraint.
- B Two steel stems.

# Seats

- C Guide sleeve adjust and unlock button.
- D Guide sleeve unlock and remove button.

## Rear Seat Center Head Restraint



The head restraint consists of:

- A An energy absorbing head restraint.
- B Two steel stems.
- C Guide sleeve unlock and remove button.

## Raising the Head Restraint

Pull the head restraint up.

## Lowering the Head Restraint

1. Press and hold button C.
2. Push the head restraint down.

## Tilting the Front Seat Head Restraint (if Equipped)

The front head restraint tilts for extra comfort.



To tilt the head restraint:

1. Adjust the seat backrest to an upright driving or riding position.
2. Pivot the head restraint forward toward your head to the preferred position.

After the head restraint reaches the forward-most tilt position, pivot it forward again to release it to the rearward, un-tilted position.

## Removing the Head Restraint

### Removing the Front Seat Head Restraint

1. Pull the head restraint up until it reaches its highest position.
2. Press and hold button C.
3. Pull the head restraint up.

### Removing the Rear Seat Outermost Head Restraints

1. Pull the head restraint up until it reaches its highest position.
2. Press and hold buttons C and D.
3. Pull the head restraint up.

# Seats

## Removing the Rear Seat Center Head Restraint

1. Pull the head restraint up until it reaches its highest position.
2. Press and hold button C.
3. Pull the head restraint up.

## Installing the Head Restraint

Align the steel stems into the guide sleeves and push the head restraint down until it locks.

## POWER SEATS

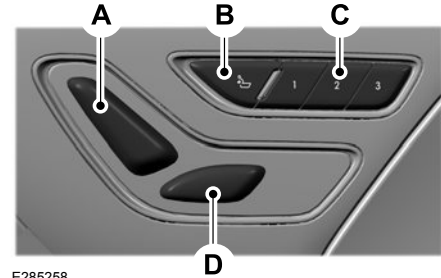


**WARNING:** Do not adjust the driver seat or seat backrest when your vehicle is moving. This may result in sudden seat movement, causing the loss of control of your vehicle.



**WARNING:** Do not place cargo or any objects behind the seat backrest before returning it to the original position. Pull on the seat backrest to make sure that it has fully latched after returning the seat backrest to its original position. An unlatched seat may become dangerous if you stop suddenly or have a crash.

The power seat controls are on the door.



E285258

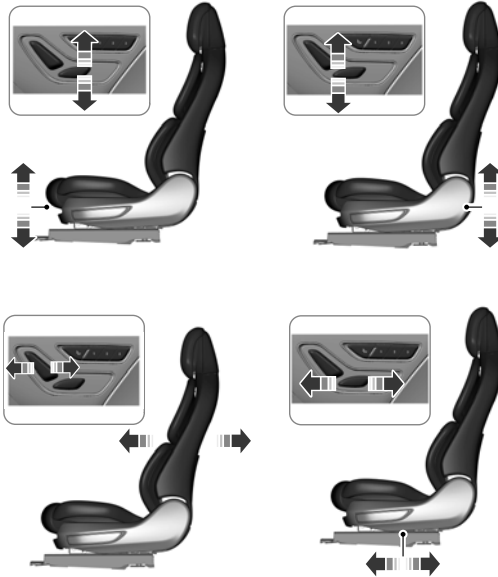
- A Recline.
- B Lumbar control.
- C Memory function.
- D Power seat.



Press this button to access the lumbar menu on the touchscreen.

# Seats

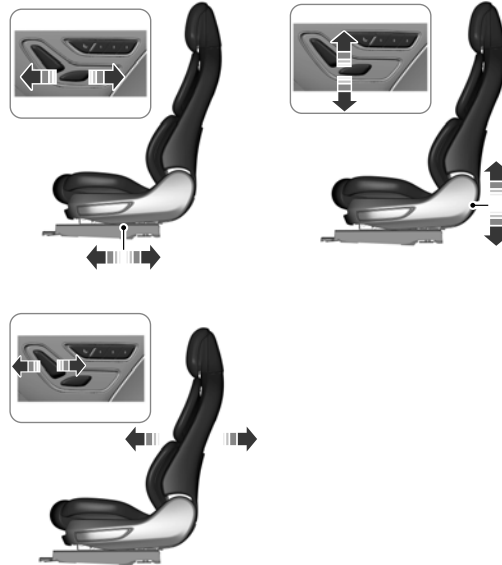
## 10-Way Seat Controls (If Equipped)



E285488

# Seats

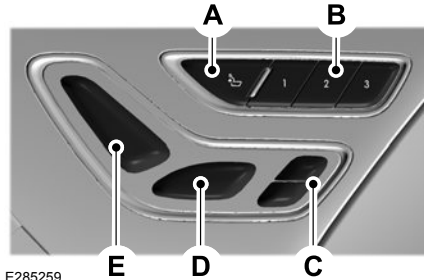
## 8-Way Seat Controls (If Equipped)



# Seats

## 24-Way Seat Controls (If Equipped)

The power seat controls are on the door.



E285259

- A Lumbar control or multi-contour seat control.
- B Memory function.

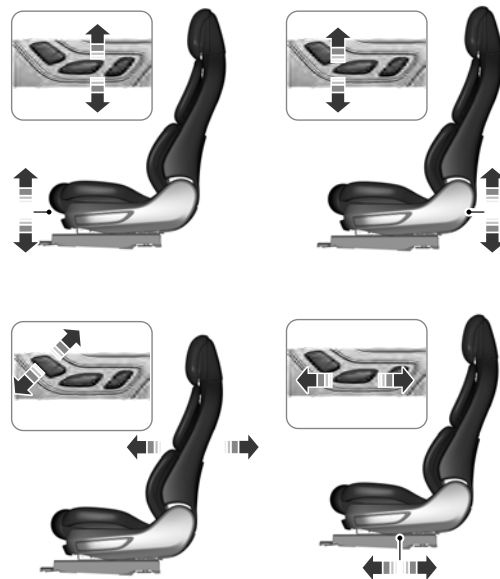
- C Seat cushion adjustment.
- D Power seat.
- E Recline.



Press this button to access the lumbar menu on the touchscreen.

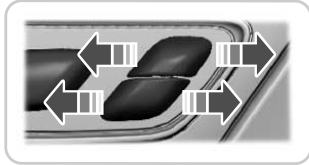


# Seats



# Seats

## Adjusting the Length of the Seat Cushion



E285685


## Adjusting the Multi-Contour Front Seats With Active Motion (If Equipped)


You can adjust this feature through the touchscreen.

**Note:** *The engine must be running or the vehicle must be in accessory mode to activate the seats.*

**Note:** *Allow a few seconds for any selection to activate. The seat backrest and cushion massage cannot function at the same time.*

## MEMORY FUNCTION

 **WARNING:** Before activating the memory seat, make sure that the area immediately surrounding the seat is clear of obstructions and that all occupants are clear of moving parts.

 **WARNING:** Do not use the memory function when your vehicle is moving.

This feature recalls the position of the following:

- Driver seat.
- Power mirrors.
- Optional power steering column.



E283882

The memory control is on the driver door.

## Saving a Preset Position

1. Switch the ignition on.
2. Adjust the memory features to your preferred positions.
3. Press and hold the preferred reset button until you hear a single tone.

**Note:** *A confirmation that you saved a memory preset appears in the information display.*

You can save up to three preset memory positions. You can save a memory preset at any time.

# Seats

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## Recalling a Preset Position

Press and release the preset button associated with your preferred driving position. The memory features move to the position stored for that preset.

**Note:** *You can only recall a preset memory position when the ignition is off, or when the transmission is in park (P) or neutral (N) and the ignition is on.*

**Note:** *Press any seat or mirror adjustment switch, or any memory button during a memory recall, to cancel the operation.*

You can also recall a preset memory position by:

- Pressing the unlock button on your remote control if you linked it to a preset position.
- Unlocking the driver door if a linked remote control is present.

**Note:** *Using a linked remote control to recall your memory position when the ignition is off moves the seat and steering column to the Easy Entry position.*

## Linking a Preset Position to Your Remote Control

For information on linking a preset position to your remote control, see the Personal Profiles section.

## Easy Entry and Exit Feature

If you enable the easy entry and exit feature, it moves the driver seat position rearward up to 2 in (5 cm) when you switch the ignition off. The driver seat returns to the previous position when you switch the ignition on.

You can enable or disable this feature through the information display.

See **Information Displays** (page 136).

## Personal Profiles

This feature allows you to create multiple personal profiles enabling users to personalize vehicle's settings. You can create one profile for each preset memory seat button along with a guest profile. You can recall a profile using the touchscreen or the preset button you selected when you created your profile. You can also link a remote control and a mobile device to your profile, which are used to recall it.

## Creating a Personal Profile

Use the touchscreen to create a personal profile.

1. Switch the ignition on and leave the vehicle in park (P).
2. Select the Personal Profiles button under Settings.
3. Follow the instructions on the display.

# Seats

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## Linking a Personal Profile to Your Remote Control or Mobile Device

You can save preset memory positions for up to three remote controls by assigning a remote control to a personal profile using the touchscreen. You can assign three additional remote controls set up as Phone as a Key.

Use the touchscreen to link a remote control, mobile device or both to a personal profile.

1. Switch the ignition on and leave the vehicle in park (P).
2. Select the Personal Profiles button under Settings.
3. Touch the arrow for the profile you wish to link to a remote control or mobile device.
4. Select remote control, mobile device, or both.
5. Follow the instructions on the display.

**Note:** To successfully link a mobile device, the mobile device must be in your vehicle, and must have previously been setup as a remote control for your vehicle.

**Note:** If more than one linked remote control is in range, the memory function moves to the settings of the first key to initiate a memory recall.

**Note:** The guest profile consists of existing settings when there is no driver profile created. After you create a driver profile, the guest profile serves as an additional driver profile.

**Note:** You cannot link a personalized name, a memory seat button or a remote control to a guest profile.

## Personal Settings

Personal Profiles allow you to personalize positional settings such as seats and mirrors, as well as non-positional settings such as radio, navigation, driver assist and system settings. See **SYNC™ 3** (page 507). You cannot change the menu locations and settings of those personalized features with Personal Profiles.

**Note:** Non-positional settings save to the active driver profile whenever you change a setting.

**Note:** You can save positional settings if you press and hold a memory seat button.

## Recalling and Changing a Profile

You can recall a profile by:

- Using a remote control or mobile device linked to a driver profile to access the remote start feature, press an unlock button or open the door with the exterior door handle.
- Pressing a memory seat button linked to a driver profile.
- Using the Personal Profiles menu on the touchscreen.

**Note:** The recalled profile replaces the previously active profile. If the active profile is not your preferred profile, you can change it using any of the three methods listed.

# Seats

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When you switch on the Personal Profiles feature:

- Unlocking a door with a remote control or mobile device that is not linked to a driver profile does not change the active profile, but remains in the last known profile. It does not change the positional settings.
- Pressing a memory seat button that is not linked to a driver profile or saved to a preset setting does not change the active profile, but remains in the last known profile. It does not change the positional settings.
- Pressing a memory seat button that is not linked to a driver profile but is saved to a preset setting does not change the active profile, but remains in the last known profile. It recalls the positional settings that you saved to that memory seat button.

See **SYNC™ 3** (page 507).

When you switch off a Personal Profiles feature:

- Unlocking a door with a remote control or mobile device does not recall any non-positional settings but still recalls positional settings from the driver profile which the remote control or mobile device is linked to.
- Pressing a memory seat button that is not linked to a driver profile or saved to a preset setting does not change the positional or non-positional settings.
- Pressing a memory seat button that is linked to a driver profile or has saved to a preset setting recalls the positional settings that you saved to that memory seat button.

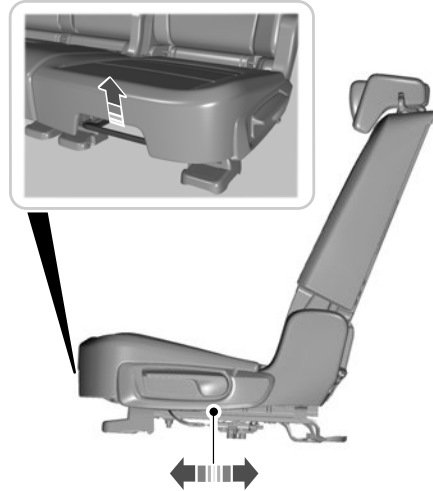
## REAR SEATS

### Moving the Seats Backward and Forward



**WARNING:** Make sure the seat fully locks into place by rocking it backward and forward.

# Seats



## Folding the Seat Backrest (If Equipped)

With the seat empty, pull the lever up to fold the seat backrest forward. You may need to lower the center head restraint first.

## Unfolding the Seat Backrest

Pull the seat backrest up to unfold the seat backrest.

## Recline Adjustment

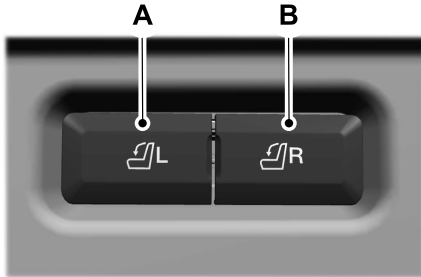
With the seat occupied, pull the lever up to recline the seat backrest.



# Seats

## Folding the Power Seat Backrest (If

Equipped)



- A Folds the left-hand rear seat backrest.
- B Folds the right-hand rear seat backrest.

Press and hold the button for a few seconds to fold the corresponding seat.

## HEATED SEATS

### Front Seats



**WARNING:** People who are unable to feel pain to their skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion or other physical conditions, must exercise care when using the heated seat. The heated seat may cause burns even at low temperatures, especially if used for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket or cushion. This may cause the heated seat to overheat. Do not puncture the seat with pins, needles or other pointed objects. This may damage the heating element which may cause the heated seat to overheat. An overheated seat may cause serious personal injury.

Do not do the following:

- Place heavy objects on the seat.
- Operate the heated seat if water or any other liquid spills on the seat. Allow the seat to dry thoroughly.

**Note:** *The heated seats will only function when the engine is running.*



Press the heated seat symbol to cycle through the various heat settings and off. More indicator lights indicate warmer settings.

**Note:** *After 90 minutes of operation, the heated seats switch off. Press the heated seat symbol to switch the heated seats on.*

# Seats

**Note:** Depending on your remote start settings, the heated seats may remain on after you remote start your vehicle. The heated seats may also turn on when you start your vehicle if they were on when your vehicle was turned off.

## Rear Seats (If Equipped)



**WARNING:** Persons who are unable to feel pain to the skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion, or other physical conditions, must exercise care when using the seat heater. The seat heater may cause burns even at low temperatures, especially if used for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket or cushion, because this may cause the seat heater to

overheat. Do not puncture the seat with pins, needles, or other pointed objects because this may damage the heating element which may cause the seat heater to overheat. An overheated seat may cause serious personal injury.

Do not do the following:

- Place heavy objects on the seat.
- Operate the seat heater if water or any other liquid spills on the seat. Allow the seat to dry thoroughly.

**Note:** The heated seats will only function when the engine is running.

The rear seat heat controls are located on the rear of the center console.



Press the heated seat symbol to cycle through the various heat settings and off. More indicator lights indicate warmer settings.

## VENTILATED SEATS (IF EQUIPPED)

**Note:** The ventilated seats switch on during a remote start if they are enabled. See **Enabling Remote Start** (page 166). The ventilated seats may also switch on when you start your vehicle if they were on when you previously switched your vehicle off.

Do not do the following:

- Spill liquid on the front seats. This may cause the air vent holes to become blocked and not work properly.
- Place cargo or objects under the seats. They may block the air intake causing the air vents to not work properly.

The ventilated seats only function when the engine is running.



# Seats

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Press this symbol to cycle through the various ventilation settings and off. More indicator lights indicate higher fan speeds.

If the engine falls below 350 RPM while the ventilated seats are on, the feature turns itself off. You need to reactivate it.

**Note:** *To improve comfort, use the ventilated seats along with the vehicle's air conditioning system.*

# Rear Occupant Alert System (If Equipped)

## WHAT IS THE REAR OCCUPANT ALERT SYSTEM

The rear occupant alert system monitors vehicle conditions and notifies you to check for rear seat occupants when you switch the ignition off.

## HOW DOES THE REAR OCCUPANT ALERT SYSTEM WORK

The system monitors when rear doors have been opened and closed to indicate the potential presence of an occupant in the rear seat.

A message displays in the information and entertainment display screen and an audible warning sounds when you switch the ignition off after any of the following conditions have been met:

- A rear door is opened or closed while the ignition is on.
- You switch the ignition on within 15 minutes of a rear door opening and closing.
- You switch the ignition on within 15 minutes of the alert having displayed or sounded.

## REAR OCCUPANT ALERT SYSTEM PRECAUTIONS



**WARNING:** On hot days, the temperature inside the vehicle can rise very quickly. Exposure of people or animals to these high temperatures for even a short time can cause death or serious heat related injuries, including brain damage. Small children are particularly at risk.



**WARNING:** Do not leave children or pets unattended in your vehicle. Failure to follow this instruction could result in personal injury or death.

## REAR OCCUPANT ALERT SYSTEM LIMITATIONS

The system does not detect the presence of objects or passengers in the rear seat. It monitors when rear doors are opened and closed.

**Note:** *It is possible to receive an alert when there is no rear seat occupant, but alert conditions are met.*

**Note:** *It is possible to receive no alert when there is an occupant in the rear seat, if alert conditions are not met. For example, if a rear seat occupant does not enter the vehicle through a rear door.*

**Note:** *The audible warning does not sound when the front door is opened before you switch the ignition off.*

## Rear Occupant Alert System (If Equipped)

### SWITCHING REAR OCCUPANT ALERT SYSTEM ON AND OFF

1. Press **Settings** on the touchscreen.
2. Press **Vehicle**.
3. Switch **Rear Occupant Alert** on or off.

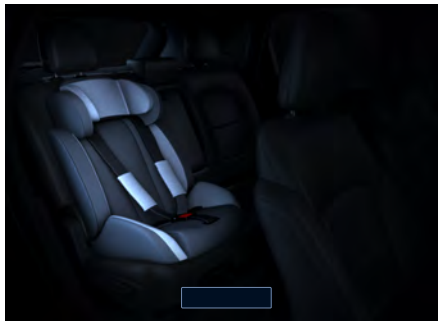
**Note:** The default setting is on.

**Note:** Performing a master reset causes the system to switch on again.

### Semiannual Reminder (If Equipped)

When you switch the system off, a message appears every six months as a reminder that the system is off. You can switch the system back on or leave it off.

### REAR OCCUPANT ALERT SYSTEM INDICATORS



Message
Check rear seats for occupants.

Displays when you switch your vehicle off after the alert conditions are met.

The message displays for a short period of time. Press **Close** to acknowledge and remove the message.

**Note:** Depending on your SYNC version, the graphic may look different from what you see here.

### REAR OCCUPANT ALERT SYSTEM AUDIBLE WARNINGS

Sounds when you switch your vehicle off after the alert conditions are met.

The warning sounds for a short period of time.

# Garage Door Opener (If Equipped)

## WHAT IS THE GARAGE DOOR OPENER

### HomeLink Wireless Control System



The universal garage door opener replaces the common hand-held garage door opener with a three-button transmitter integrated into the driver's sun visor.


## HOW DOES THE GARAGE DOOR OPENER WORK

The system includes two primary features, a garage door opener and a platform for remote activation of devices within the home. You can program garage doors as well as entry gate operators, security systems, entry door locks and home or office lighting.

Additional system information can be found online at [www.homelink.com](http://www.homelink.com) or by calling the toll-free help line at 1-800-355-3515.

**Note:** *You can program a maximum of three devices. To change or replace any of the three devices after it has been initially programmed, you must first erase the current settings. See **Clearing the Garage Door Opener** (page 196).*

## GARAGE DOOR OPENER PRECAUTIONS

 **WARNING:** Do not use the system with any garage door opener that does not have the safety stop and reverse feature as required by U.S. Federal Safety Standards (this includes any garage door opener manufactured before April 1, 1982). A garage door opener which cannot detect an object, signaling the door to stop and reverse, does not meet current federal safety standards. Using a garage door opener without these features increases the risk of serious injury or death.

**Note:** *Make sure that the garage door and security device are free from obstruction when you are programming. Do not program the system with your vehicle in the garage.*

**Note:** *Make sure you keep the original remote control transmitter for use in other vehicles as well as for future system programming.*

## Garage Door Opener (If Equipped)

**Note:** We recommend that upon the sale or lease termination of your vehicle, you erase the programmed function buttons for security reasons. See **Clearing the Garage Door Opener** (page 196).

### GARAGE DOOR OPENER LIMITATIONS

Canadian radio-frequency laws require transmitter signals to time-out (or quit) after several seconds – which may not be long enough for HomeLink to pick up the signal.

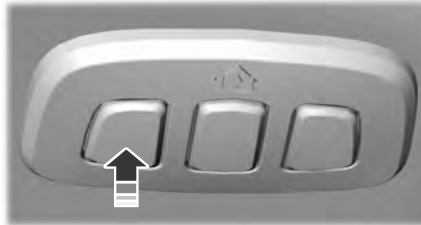
U.S. gate operators time-out in the same manner.

**Note:** If programming a garage door opener or gate operator, it is advised to unplug the device during the “cycling” process to prevent possible overheating.

### PROGRAMMING THE GARAGE DOOR OPENER TO YOUR HAND-HELD TRANSMITTER

This process is to program your in-vehicle HomeLink function button with your hand-held transmitter.

**Note:** The programming steps below assume you will be programming HomeLink that was not previously programmed. If your HomeLink was previously programmed, you may need to erase your HomeLink buttons. See **Clearing the Garage Door Opener** (page 196).



1. With your vehicle parked outside of the garage, switch your ignition to the on position, but do not start your vehicle.
2. Press and release one of the three HomeLink function buttons that you would like to program.
3. Hold your hand-held garage door transmitter 1–3 in (2–8 cm) away from the HomeLink button you want to program.
4. Press and hold the hand-held transmitter button you want to program while watching the indicator light on HomeLink. Continue to hold the hand-held button until the HomeLink indicator light flashes rapidly or is continuously on.

**Note:** You may need to use a different method if you live in Canada or have difficulties programming your gate operator or garage door opener. See **Programming the Garage Door Opener to Your Gate Opener Motor** (page 195).

5. Press and hold the HomeLink button you programmed for two seconds, then release. You may need to do this twice to activate the door.

## Garage Door Opener (If Equipped)

**Note:** If the indicator light stays on, the programming is complete.

**Note:** If the HomeLink indicator flashes rapidly, repeat step 5.

**Note:** If your device still does not operate, you must program your garage door. See **Programming the Garage Door Opener to Your Garage Door Opener Motor** (page 195).

6. To program additional buttons, repeat Steps 1 – 4.

### PROGRAMMING THE GARAGE DOOR OPENER TO YOUR GARAGE DOOR OPENER MOTOR



1. Press the learn button on the garage door opener motor, you have 30 seconds to complete the next two steps.
2. Return to your vehicle.



3. Press and hold one of the three HomeLink function buttons you want to program for two seconds, then release. Repeat this step. Depending on your brand of garage door opener, you may need to repeat this sequence a third time.

### PROGRAMMING THE GARAGE DOOR OPENER TO YOUR GATE OPENER MOTOR

#### Gate Operator / Canadian Programming

Canadian radio-frequency laws require transmitter signals to “time-out” (or quit) after several seconds of transmission – which may not be long enough for HomeLink to pick up the signal during programming. Similar to this Canadian law, some U.S. gate operators “time-out” in the same manner.

**Note:** If programming a garage door opener or gate operator, it is advised to unplug the device during the “cycling” process to prevent possible overheating.

1. Press and release, every two seconds, your hand-held transmitter until the HomeLink indicator light changes to a rapidly blinking or continuously on light.
2. Release the hand-held transmitter button.

## Garage Door Opener (If Equipped)

3. Press and hold the HomeLink function button you want to program for two seconds, then release. You may need to do this twice to activate the door.

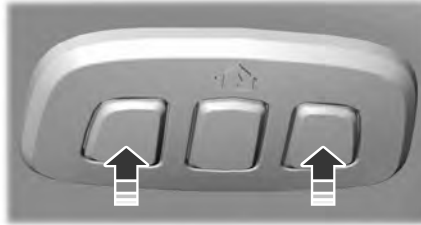
**Note:** If the indicator light stays on, the programming is complete.

**Note:** If the HomeLink indicator flashes rapidly, repeat Step 3.

**Note:** If your device still does not operate, you must program your garage door. See **Programming the Garage Door Opener to Your Garage Door Opener Motor** (page 195).

4. To program additional buttons, repeat Steps 1 – 4.

### CLEARING THE GARAGE DOOR OPENER



1. Press and hold the outer two function buttons simultaneously for approximately 10 seconds until the indicator light above the buttons flashes rapidly.
2. When the indicator light flashes, release the buttons.

**Note:** You cannot erase individual buttons.

### REPROGRAMMING THE GARAGE DOOR OPENER

To program a device to a previously trained button, follow these steps:

1. Press and hold the desired button. Do NOT release the button.
2. The indicator light begins to flash after 20 seconds. Without releasing the button, follow programming steps.

### GARAGE DOOR OPENER RADIO FREQUENCIES

#### FCC and RSS-210 Industry Canada Compliance



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

## Garage Door Opener (If Equipped)

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This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that could cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End Users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 8 in (20 cm) from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.



# Auxiliary Power Points

## 12 Volt DC Power Point



**WARNING:** Do not plug optional electrical accessories into the cigar lighter socket. Incorrect use of the cigar lighter can cause damage not covered by the vehicle warranty, and can result in fire or serious injury.

**Note:** When you switch the ignition on, you can use the socket to power 12 volt appliances with a maximum current rating of 15 amps.

**Note:** If the power supply does not work after you switch the ignition off, switch the ignition on.

**Note:** Do not hang any accessory from the accessory plug.

**Note:** Do not use the power point over the vehicle capacity of 12 volt DC 180 watts or a fuse may blow.

**Note:** Always keep the power point caps closed when not in use.

Do not insert objects other than an accessory plug into the power point. This damages the power point and may blow the fuse.

Run the vehicle for full capacity use of the power point.

To prevent the battery from running out of charge:

- Do not use the power point longer than necessary when the vehicle is not running.
- Do not leave devices plugged in overnight or when you park your vehicle for extended periods.

## USB Port and Power Point Locations

USB Ports and Power Points may be in the following locations:

- On the lower instrument panel.
- Inside the center console.
- On the front of the center console.
- On the rear of the center console.
- In the cargo area.
- On the passenger side floor panel.
- 3rd row on the quarter trim panels.

**Note:** Some of the USB ports may not have data transfer capabilities.

**Note:** Incorrect use of the USB ports can cause damage not covered by the vehicle warranty.

## WIRELESS ACCESSORY CHARGER

(IF EQUIPPED)



**WARNING:** Wireless charging devices can affect the operation of implanted medical devices, including cardiac pacemakers. If you have any implanted medical devices, we recommend that you consult with your physician.

**Note:** For compatible devices with built-in Qi wireless charging capability, the charging performance may be affected if your device is in a case. It may be necessary to remove the case to wirelessly charge your device.

The system supports one Qi wireless charging compatible device on the charging area.

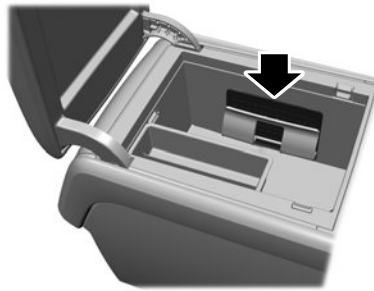
## Auxiliary Power Points

Keep the charging area clean and remove foreign objects prior to charging a device.

Do not place items with a magnetic strip, for example passports, parking tickets or credit cards, near the charging area when charging a device. Damage may occur to the magnetic strip.

Do not place metal objects, for example remote controls, coins and candy wrappers, on or near the charging area when charging a device. Metal objects may heat up and degrade the charging performance, in addition to causing error messages and interruptions in charging.

**Note:** *The rate of charge, or charging power, is controlled by the device. During charging, the device and the charger may heat up, this is normal. If the battery gets hotter than usual, the charger may stop charging.*



The charging area is in the center console.

You can charge a compatible device when the vehicle is on, in accessory mode, or if SYNC is on.

To begin charging, place the device on the center of the charging surface with the charging side down. The charging stops after your device reaches a full charge.

**Note:** *If the system detects a foreign object or if the device is misaligned on the charging area, a message appears in the display.*

**Note:** *Software and firmware updates may affect device compatibility, including the use of unofficial software or firmware. Customers should verify charging functionality with their specific devices in-vehicle.*

Message	Behavior	Description
Wireless Charger Active	Message on screen display or pop-up window.	This message appears when wireless charging begins.
Phone misaligned or object between phone and charger detected. Correct the condition to resume charging.	Pop-up window.	The system stops charging your device if the system detects the phone is misaligned, or a foreign metal object is on the charging surface.

# Auxiliary Power Points

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FCC ID: L2C0074TR

Canada: 3432A-0074TR

This equipment has been tested and found to comply with part 18 of the FCC Rules.

- This equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, please consult the dealer.
- This product is not end-user serviceable.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

# Storage Compartments

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## OVERHEAD CONSOLE





Press near the rear edge of the door to open it.

# Starting and Stopping the Engine

## GENERAL INFORMATION

 **WARNING:** Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.

 **WARNING:** Do not park, idle or drive your vehicle on dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, creating the risk of fire.

 **WARNING:** Do not start the engine in a closed garage or in other enclosed areas. Exhaust fumes can be toxic. Always open the garage door before you start the engine.



**WARNING:** Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.

If you disconnect the battery, your vehicle may exhibit some unusual driving characteristics for approximately 5 mi (8 km) after you reconnect it. This is because the engine management system must realign itself with the engine. You can disregard any unusual driving characteristics during this period.

The powertrain control system meets all Canadian interference-causing equipment standard requirements regulating the impulse electrical field or radio noise.

When you start the engine, avoid pressing the accelerator pedal before and during operation. Only use the accelerator pedal when you have difficulty starting the engine.

## KEYLESS STARTING

**Note:** The keyless starting system may not function if the key is close to metal objects or electronic devices such as cellular phones.

**Note:** A valid key must be located inside your vehicle to switch the ignition on and start the engine.

## Ignition Modes



E144447

The keyless starting system has three modes:

**Off:** Turns the ignition off.

# Starting and Stopping the Engine

- Without applying the brake pedal, press and release the button once when the ignition is in the on mode, or when the engine is running but the vehicle is not moving.

**On:** All electrical circuits are operational and the warning lamps and indicators illuminate.

- Without applying the brake pedal, press and release the button once.

**Note:** You may have to press the push button ignition switch twice to switch the ignition on.

**Start:** Starts the engine.

- Press the brake pedal, and then press the button for any length of time. An indicator light on the button illuminates when then ignition is on and when the engine starts.

## STARTING A GASOLINE ENGINE

When you start the engine, the idle speed increases, this helps to warm up the engine. If the engine idle speed does not slow down, have your vehicle checked as soon as possible.

**Note:** If your vehicle has remote start, you can start your vehicle with the remote, and then drive away by pressing the brake pedal and pushing a button on the transmission. This allows you to drive away without pressing the engine start button.

Before starting the engine, check the following:

- Make sure all occupants have fastened their seatbelts.
- Make sure the headlamps and electrical accessories are off.
- Make sure the parking brake is on.
- Make sure the transmission is in park (P).

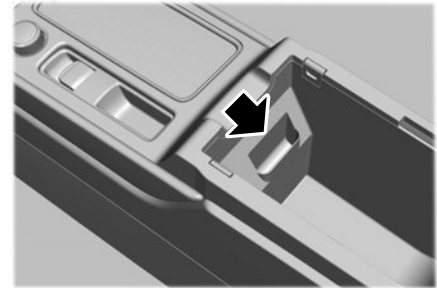
**Note:** Do not touch the accelerator pedal.

- Fully press the brake pedal.
- Press the push button ignition switch.

The system does not function if:

- The key frequencies are jammed.
- The key battery has no charge.

If you are unable to start the engine, do the following:



- Open the center console lid.
- Slide the remote into the back-up slot.
- With the key in this position, press the brake pedal, then press the push button ignition switch to switch the ignition on and start your vehicle.

# Starting and Stopping the Engine

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## Fast Restart

The fast restart feature allows you to restart the engine within 20 seconds of switching it off, even if a valid key is not present.

When you switch it off temporarily, it turns on at the next ignition cycle. After 20 seconds, you can no longer restart the engine without the key present inside your vehicle.

Once the engine starts, it remains running until you press the push button ignition switch, even if the system does not detect a valid key. If you open and close a door while the engine is running, the system searches for a valid key. You cannot restart the engine if the system does not detect a valid key within 20 seconds.

## Vehicles using Phone as a Key

**Note:** *Do not touch the accelerator pedal.*

**Note:** *You must have your Phone as a Key in your vehicle to shift the transmission out of park (P).*

1. Fully depress the brake pedal.
2. Press the push button ignition switch.

The system does not function if:

- The **Bluetooth**® enabled phone frequencies are jammed.
- The Phone as a Key battery is low or fully discharged. See **Phone as a Key** (page 69).

## Automatic Engine Shutdown

If your vehicle has a keyless ignition, it has a feature that shuts down the engine if it has been idling for an extended period. The ignition also turns off in order to save battery power. Before the engine shuts down, a message appears in the information display showing a timer counting down from 30 seconds. If you do not intervene within 30 seconds, the engine shuts down. Another message appears in the information display to inform you that the engine has shut down in order to save fuel. Start your vehicle as you normally do.

## Automatic Engine Shutdown Override

**Note:** *You cannot permanently switch off the automatic engine shutdown feature. When you switch it off temporarily, it turns on at the next ignition cycle.*

You can stop the engine shutdown, or reset the timer, at any point before the 30-second countdown has expired by doing any of the following:

- You can reset the timer by interacting with your vehicle, such as pressing the brake pedal or accelerator pedal.
- Use the vehicle settings on the touchscreen to switch 30min max idle on or off.
- During the countdown before engine shutdown, a message appears prompting you to press OK or RESET, depending on your type of information display, to temporarily switch the feature off.

## Stopping the Engine When Your Vehicle is Stationary

1. Put the transmission in park (P).

# Starting and Stopping the Engine

2. Press the push button ignition switch once.
3. Apply the parking brake.

**Note:** *This switches off the ignition, all electrical circuits, warning lamps and indicators.*

**Note:** *If the engine is idling for 30 minutes, the ignition and engine shut down.*

## Vehicles using Phone as a Key

1. Shift into park (P).
2. Press the push button ignition switch.
3. Apply the parking brake.

**Note:** *The ignition, all electrical circuits and all warning lamps and indicators turn off.*

**Note:** *If the engine is idling for 30 minutes, the ignition and engine shut down.*

## Stopping the Engine When Your Vehicle is Moving



**WARNING:** Switching off the engine when your vehicle is still moving results in a significant decrease in braking assistance. Higher effort is required to apply the brakes and to stop your vehicle. A significant decrease in steering assistance could also occur. The steering does not lock, but higher effort could be required to steer your vehicle. When you switch the ignition off, some electrical circuits, for example airbags, also turn off. If you unintentionally switch the ignition off, shift into neutral (N) and restart the engine.

1. Press and hold the push button ignition switch for one second, or press it three times within two seconds.
2. Put the transmission into neutral (N) and use the brakes to bring your vehicle to a safe stop.
3. When your vehicle has stopped, shift into park (P).

4. Apply the parking brake.

## Vehicles using Phone as a Key

1. Press and hold the push button ignition switch, or press it three times within two seconds.
2. Put the transmission into neutral (N) and use the brakes to bring your vehicle to a safe stop.
3. When your vehicle has stopped, shift into park (P).
4. Apply the parking brake.

## Guarding Against Exhaust Fumes



**WARNING:** Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.



# Starting and Stopping the Engine

## Important Ventilating Information

If you stop your vehicle and leave the engine idling for long periods, we recommend that you do one of the following:

- Open the windows at least 1 in (2.5 cm).
- Set your climate control to outside air.

## STARTING A HYBRID ELECTRIC VEHICLE SYSTEM

When the engine starts for the first time on your drive, the idle speed increases, this helps to warm up the engine. If the engine idle speed does not slow down, have your vehicle checked as soon as possible.

Before starting your vehicle, check the following:

- Make sure all occupants fasten their seatbelt.
- Make sure the headlamps and electrical accessories are off.
- Make sure the parking brake is on.
- Make sure the transmission is in park (P).

**Note:** Do not touch the accelerator pedal.

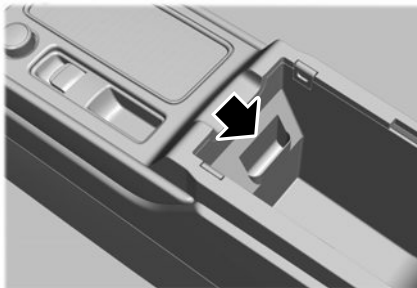
1. Fully press the brake pedal.
2. Press the push button ignition switch.

**Note:** The green ready indicator illuminates letting you know that your vehicle is ready for driving. Since your vehicle is equipped with a silent key start, the engine may not start when your vehicle starts.

The system does not function if:

- The key frequencies are jammed.
- The key battery has no charge.

If you are unable to start your vehicle, do the following:



1. Open the center console lid.
2. Slide the remote into the back-up slot.
3. With the key in this position, press the brake pedal, then press the push button ignition switch to switch the ignition on and start your vehicle.

## Fast Restart

The fast restart feature allows you to restart the engine within 20 seconds of switching it off, even if a valid key is not present.

Within 20 seconds of switching the engine off, press the brake pedal and press the push button ignition switch. After 20 seconds, you can no longer restart the engine without the key present inside your vehicle.

Once the engine starts, it remains running until you press the push button ignition switch, even if the system does not detect a valid key. If you open and close a door while the engine is running, the system searches for a valid key. You cannot restart the engine if the system does not detect a valid key within 20 seconds.

# Starting and Stopping the Engine

## Vehicles using Phone as a Key

**Note:** *Do not touch the accelerator pedal.*

**Note:** *You must have your Phone as a Key in your vehicle in order to shift the transmission out of park (P).*

1. Fully depress the brake pedal.
2. Press the push button ignition switch.

The system does not function if:

- The Bluetooth® enabled phone frequencies are jammed.
- The Phone as a Key battery is low or fully discharged. See **Phone as a Key** (page 69).

## Automatic Shutdown

This feature shuts down your vehicle if it has been idling for an extended period. The ignition also turns off in order to save battery power. Before your vehicle shuts down, a message appears in the information display showing a timer counting down from 30

seconds. If you do not intervene within 30 seconds, your vehicle shuts down. Another message appears in the information display to inform you that your vehicle has shut down in order to save fuel. Start your vehicle as you normally do.

## Automatic Shutdown Override

**Note:** *You cannot permanently switch off the automatic engine shutdown feature. When you switch it off temporarily, it turns on at the next ignition cycle.*

You can stop the shutdown, or reset the timer, at any point before the 30-second countdown has expired by doing any of the following:

- Interacting with your vehicle, for example pressing the brake or accelerator pedal.
- You can temporarily switch off the shutdown feature any time the ignition is on (for the current ignition cycle only). Use the information display to do so. See **Information Displays** (page 136).
- During the countdown before shutdown, you are prompted to press OK or RESET (depending on your type of information display) to temporarily switch the feature off (for the current ignition cycle only).

## Switching Off Your Vehicle When It Is Stationary

1. Shift into park (P).
2. Press the push button ignition switch.
3. Apply the parking brake.

**Note:** *This switches off the ignition, all electrical circuits, warning lamps and indicators.*

**Note:** *If the engine is idling for 30 minutes, the ignition and engine shut down.*

# Starting and Stopping the Engine

## Vehicles using Phone as a Key

1. Shift into park (P).
2. Press the push button ignition switch.
3. Apply the parking brake.

**Note:** This switches off the ignition, all electrical circuits, warning lamps and indicators.

**Note:** If the engine is idling for 30 minutes, the ignition and engine shut down.

## Switching Off Your Vehicle When It Is Moving



**WARNING:** Switching off the engine when your vehicle is still moving results in a significant decrease in braking assistance. Higher effort is required to apply the brakes and to stop your vehicle. A significant decrease in steering assistance could also occur. The steering does not lock, but higher effort could be

required to steer your vehicle. When you switch the ignition off, some electrical circuits, for example airbags, also turn off. If you unintentionally switch the ignition off, shift into neutral (N) and restart the engine.

1. Press and hold the push button ignition switch for one second, or press it three times within two seconds.
2. Put the transmission into neutral (N) and use the brakes to bring your vehicle to a safe stop.
3. When your vehicle has stopped, shift into park (P).
4. Apply the parking brake.

## Vehicles using Phone as a Key

1. Press and hold the push button ignition switch, or press it three times within two seconds.
2. Put the transmission into neutral (N) and use the brakes to bring your vehicle to a safe stop.

3. When your vehicle has stopped, shift into park (P).
4. Apply the parking brake.

## Guarding Against Exhaust Fumes



**WARNING:** Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.

## Important Ventilating Information

If you stop your vehicle and then leave the engine idling for long periods of time, we recommend that you do one of the following:

- Open the windows at least 1 in (3 cm).
- Set your climate control to outside air.

# Starting and Stopping the Engine

## ENGINE BLOCK HEATER (IF EQUIPPED)



**WARNING:** Failure to follow engine block heater instructions could result in property damage or serious personal injury.



**WARNING:** Do not use your heater with ungrounded electrical systems or two-pronged adapters. There is a risk of electrical shock.



**WARNING:** Do not fully close the hood, or allow it to drop under its own weight when using the engine block heater. This could damage the power cable and may cause an electrical short resulting in fire, injury and property damage.

**Note:** *The heater is most effective when outdoor temperatures are below 0°F (-18°C).*

The heater acts as a starting aid by warming the engine coolant. This allows the climate control system to respond quickly. The equipment includes a heater element, installed in the engine block and a wire harness. You can connect the system to a grounded 120-volt AC electrical source.

We recommend that you do the following for a safe and correct operation:

- Use a 16-gauge outdoor extension cord that is product certified by Underwriter's Laboratory (UL) or Canadian Standards Association (CSA). This extension cord must be suitable for use outdoors, in cold temperatures, and be clearly marked Suitable for Use with Outdoor Appliances. Do not use an indoor extension cord outdoors. This could result in an electric shock or become a fire hazard.
- Use as short an extension cord as possible.
- Do not use multiple extension cords.
- Make sure that when in operation, the extension cord plug and heater cord plug connections are free and clear of water. This could cause an electric shock or fire.
- If the block heater cord is under the hood, Do Not remove the wiring from its original location. Do Not close the hood on the extension wiring.
- Make sure your vehicle is parked in a clean area, clear of combustibles.
- Make sure the heater, heater cord and extension cord are firmly connected.
- Check for heat anywhere in the electrical hookup once the system has been operating for approximately 30 minutes.
- Make sure the system is unplugged and properly stowed before starting and driving your vehicle. Make sure the protective cover seals the prongs of the block heater cord plug when not in use.
- Make sure the heater system is checked for proper operation before winter.

# Starting and Stopping the Engine

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## **Using the Engine Block Heater**

Make sure the receptacle terminals are clean and dry prior to use. Clean them with a dry cloth if necessary.

The heater uses 0.4 to 1.0 kilowatt-hours of energy per hour of use. The system does not have a thermostat. It achieves maximum temperature after approximately three hours of operation. Using the heater longer than three hours does not improve system performance and unnecessarily uses electricity.

# Unique Driving Characteristics

## AUTO-START-STOP (IF EQUIPPED)



**WARNING:** Always fully apply the parking brake and make sure you shift into park (P). Failure to follow this instruction could result in personal injury or death.



**WARNING:** Apply the parking brake, shift into park (P), switch the ignition off and remove the key before you open the hood or have any service or repair work completed. If you do not switch the ignition off, the engine could restart at any time. Failure to follow this instruction could result in personal injury or death.



**WARNING:** The system may require the engine to automatically restart when the auto-start-stop indicator illuminates green or flashes amber. Failure to follow this instruction could result in personal injury.

The system helps reduce fuel consumption by automatically shutting off and restarting the engine while your vehicle is stopped. The engine will restart automatically when you release the brake pedal. In some situations, your vehicle may restart automatically, for example:

- To maintain interior comfort
- To recharge the battery

**Note:** *Power assist steering is turned off when the engine is off.*

The Auto-Start-Stop system status is available at a glance within the information display. See **Information Displays** (page 136).

### Enabling Auto-Start-Stop

The system is automatically enabled every time you start your vehicle if the following conditions are met:

- The Auto-Start-Stop button is not pressed (not illuminated).
- Your vehicle exceeds an initial speed of 3 mph (5 km/h) after the vehicle has been initially started.

- Your vehicle is stopped.
- Your foot is on the brake pedal.
- The transmission is in drive (D).
- The driver's door is closed.
- There is adequate brake vacuum.
- The interior compartment has been cooled or warmed to an acceptable level.
- The front windshield defroster is off.
- The steering wheel is not turned rapidly or is not at a sharp angle.
- The vehicle is not on a steep road grade.
- The battery is within optimal operating conditions (battery state of charge and temperature in range).
- The engine coolant is at operating temperature.
- The Vehicle is not at a high altitude.
- Ambient temperature is moderate.



The green Auto-Start-Stop indicator light on the instrument cluster will illuminate to indicate when the automatic engine stop occurs.

# Unique Driving Characteristics



If the instrument cluster is equipped with a grey Auto-Start-Stop indicator light, it is illuminated when automatic engine stop is not available due to one of the above noted conditions not being met.

## Automatic Engine Restart

Any of the following conditions will result in an automatic restart of the engine:

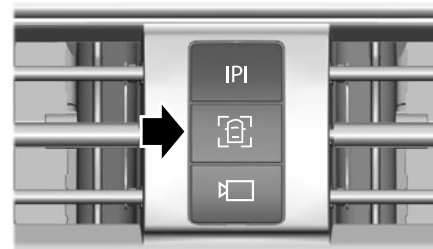
- Your foot is removed from the brake pedal.
- You press the accelerator pedal.
- You press the accelerator and the brake pedal at the same time.
- The driver safety belt becomes unfastened or the driver door is ajar.
- Your vehicle is moving.
- The interior compartment does not meet customer comfort when air conditioning or heat is on.
- Fogging of the windows could occur and the air conditioning is on.

- The battery is not within optimal operating conditions.
- The maximum engine off time is exceeded.
- When you press the Auto-Start-Stop button while the engine is stopped automatically.
- The heated windshield is turned on.

Any of the following conditions may result in an automatic restart of the engine:

- The blower fan speed is increased or the climate control temperature is changed.
- An electrical accessory is turned on or plugged in.

## Disabling Auto-Start-Stop



Press the button on the instrument panel to access the Auto-Start-Stop feature on the touchscreen. Use the touchscreen to deactivate the feature. Deactivating the feature lasts only 1 key cycle. Use the touchscreen to restore Auto-Start-Stop function.

# Unique Driving Characteristics

## HYBRID VEHICLE OPERATION - HYBRID ELECTRIC VEHICLE (HEV)

This hybrid vehicle combines electric and gasoline propulsion to provide breakthrough performance and improved efficiency. Familiarizing yourself with these unique characteristics provides an optimal driving experience from your vehicle.

### Starting

**READY** When you start your vehicle, a green READY indicator light appears in the instrument cluster letting you know that your vehicle is ready for driving.

The engine may not start because your vehicle has a silent key start feature. This fuel saving feature allows your vehicle to be ready to drive without requiring the gas engine to be running. The indicator remains on when your vehicle is on, whether the

engine is running or not, to indicate your vehicle is capable of movement using the electric motor, gas engine or both. Typically, the engine does not start unless the vehicle is cold, a climate control change is requested or you press the accelerator pedal.

### Driving

The gas engine automatically starts and stops to provide power when needed and to save fuel when not needed. When coasting at low speeds, coming to a stop, or standing, the gas engine normally shuts down and your vehicle operates in electric-only mode.

Conditions that may cause the engine to start up or remain running include:

- Considerable vehicle acceleration.
- Climbing a hill.
- Charge level of high voltage battery is low.
- High or low outside temperatures in order to provide system heating or cooling.

- Engine not warm enough to provide passenger requested cabin temperature.
- Towing a trailer.
- Selectable drive modes: Certain selectable drive modes may cause the engine to run. See **What Is Drive Mode Control** (page 337).
- Live in Drive: Use of the paddle shifters while in drive (D) may cause the engine to run. See **Automatic Transmission** (page 261).

### Stopping

The gas engine may shut off to conserve fuel as you come to a stop. Restarting your vehicle is not required. Simply step on the accelerator when you are ready to drive.

### Transmission Operation

The engine and electric motor together propel the vehicle through the automatic transmission. This is normal hybrid operating and helps deliver fuel efficiency and performance.



# Unique Driving Characteristics

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## Battery

Your hybrid is equipped with a high voltage battery. A cool battery maintains battery life and provides the best possible performance. The high voltage battery is cooled by the vehicle's air conditioning system. When the air conditioning system is on, you may notice a slight increase in air temperature coming from the climate control vents while the battery is cooling. You may also notice cool air flowing from the vents when the air conditioning or blower is off.

## Braking

Your hybrid is equipped with standard hydraulic braking and regenerative braking. Regenerative braking is performed by your transmission and it captures brake energy and stores it in the high voltage battery.

You may also notice during extending downhill driving that your engine continues to run instead of shutting off. During this engine braking, the engine stays on, but it is not using any fuel. You may also hear a slight whine or whistle when operating your vehicle. This is the normal operation of the electric motor in the hybrid system.

## Driving to Optimize Fuel Economy

**Note:** *Having your engine running is not always an indication of inefficiency. In some cases, it is actually more efficient than driving in electric mode.*

Your fuel economy should improve throughout your hybrid's break-in period. As with any vehicle, your driving habits and accessory usage can significantly impact your fuel economy. For best results, keep these tips in mind:

- Keep the tires properly inflated and only use the recommended size.
- Aggressive driving increases the amount of energy required to move your vehicle. In general, you can achieve better fuel economy with mild to moderate acceleration and deceleration. Moderate braking is particularly important since it allows you to maximize the energy captured by the regenerative braking system.

### Additional Tips:

- Do not carry extra loads.
- Be mindful of adding external accessories that may increase aerodynamic drag.
- Observe posted speed limits.
- Perform all scheduled maintenance.
- There is no need to wait for your engine to warm up. The vehicle is ready to drive immediately after starting.

# Unique Driving Characteristics

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## **PLUG-IN HYBRID VEHICLE OPERATION - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)**

Regularly plug in your vehicle to get optimal electric-only range capability from the high voltage battery. Charging your vehicle adds electrical energy. This energy propels the vehicle.

Estimated electric-only driving range shows in blue next to the gasoline range on the information display.

The system maximizes the use of electric-only operation in normal drive mode. System conditions could require the engine to operate, however, the system uses the available electric range whenever possible.

In Pure EV drive mode, your vehicle only uses electric power unless you enable the engine, or system conditions require the engine to operate.

Preserve EV drive mode saves the electric range for later use. If you select this mode and the battery is at full or near full charge, it uses some electric-only range to discharge the battery. This allows the regenerative braking system to fully operate. If the battery charge is low when selecting Preserve EV mode, the engine charges the high voltage battery to a minimum level. This provides additional electric driving range. When the battery charges to this level, Preserve EV saves the electric range for later use.

Other drive modes appropriately make use of electric power to help deliver the selected drive mode experience. It could use available electric-only range, if needed. See **What Is Drive Mode Control** (page 337).

When the electric-only range reaches zero, the powertrain system switches to hybrid operation. This means the energy you gain from plugging in and charging your vehicle is now gone. Both the gasoline engine and electric motor power your vehicle and maximize fuel economy during hybrid operation. Hybrid operation provides some electric-only driving as the powertrain system maintains the high voltage battery charge level within functional limits.

### **Low Engine Use**

The low engine use mode properly lubricates the engine at sufficient temperature and activates when you drive your vehicle with limited engine operation. When in low engine use mode, your vehicle runs the engine as necessary. When low engine use mode begins, a message appears in the information display. If low engine use mode does not complete before you switch your vehicle off, it continues the next time you start your vehicle and the message reappears. See **Information Messages** (page 142).

Pure EV mode is not available during low engine use mode.

# Unique Driving Characteristics

**Note:** Cold temperatures affect the engine warm up time and the low engine use mode could operate more frequently.

**Note:** An oil change is not required but gives you the option of not running a low engine use cycle. Resetting the oil life monitoring system suspends the low engine use mode.

## HYBRID VEHICLE FREQUENTLY ASKED QUESTIONS


Question	Answer
What are the series of clicks from the cargo area when I first turn the key in the ignition?	The high voltage battery is electrically isolated from the rest of the vehicle when the key is off. When you switch the key on, high voltage contactors inside the battery close to make the electricity available to the motor and generator and enable the vehicle to drive. The clicks are the sound of these contactors as they close and open during start up and shut down.
Why does the engine sometimes start at key-on?	The vehicle's computer determines if you require an engine start at key-on. Silent key start starts the engine if it is necessary for cabin heating, windshield defrost, or if the outside temperature is low.
Why does it take a long time before the engine shuts down?	There are several reasons the engine stays on for an extended amount of time when you first start it. One common reason is to make sure that the emissions components are warm enough to minimize tailpipe emissions. As the climate gets cooler, this engine-on time extends.
Why does my engine never shut down above 85 mph (137 km/h)?	The engine turns on above this speed to protect the transmission hardware.


## Unique Driving Characteristics


Question	Answer
Why does my engine stay on when it is extremely cold outside?	In order to make sure that the climate control system can begin heating the cabin or defrosting the windshield as soon as a driver requests it, the engine keeps the coolant temperature sufficiently hot. Keeping the engine on maintains the correct coolant temperature.
Why does my engine rev up so high sometimes when I accelerate?	The design of your vehicle's engine and transmission delivers the power you need at the most efficient engine speed. This may be higher than expected during heavy accelerations and may fluctuate when driving at a steady speed. These are characteristics of the Atkinson engine cycle and the transmission technology that help maximize your hybrid's fuel economy.
Can I put E15 or E85 in my vehicle, and how will it affect my fuel economy?	Your hybrid vehicle can use E15 (15% ethanol, 85% gasoline) fuel, but you may notice slightly reduced fuel economy because ethanol contains less energy per gallon than gasoline. The design of your hybrid vehicle does not allow for the use of E85 (85% ethanol).
How long will my high voltage battery last? Does it need maintenance?	The design of the high voltage battery system is to last the life of the vehicle and does not require any maintenance.
Can you charge the battery with a plug into an AC outlet?	Yes. You can charge the battery with an AC outlet. See <b>High Voltage Battery</b> (page 235).
Can I tow the hybrid behind my motor home with all four wheels on the ground?	Yes. Your hybrid vehicle can be flat towed with all four wheels on the ground.


# Fuel and Refueling

## SAFETY PRECAUTIONS

 **WARNING:** Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

 **WARNING:** The fuel system may be under pressure. If you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

 **WARNING:** Fuels can cause serious injury or death if misused or mishandled.

 **WARNING:** Fuel may contain benzene, which is a cancer-causing agent.



**WARNING:** When refueling always shut the engine off and never allow sparks or open flames near the fuel tank filler valve. Never smoke or use a cell phone while refueling. Fuel vapor is extremely hazardous under certain conditions. Avoid inhaling excess fumes.

Follow these guidelines when refueling:

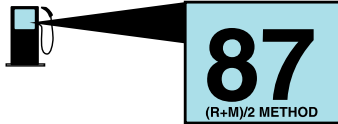
- Extinguish all smoking materials and any open flames before refueling your vehicle.
- Always switch the engine off before refueling.
- Automotive fuels can be harmful or fatal if swallowed. Fuel is highly toxic and if swallowed can cause death or permanent injury. If fuel is swallowed immediately call a physician, even if no symptoms are immediately apparent. The toxic effects of fuel may not be apparent for hours.

- Avoid inhaling fuel vapors. Inhaling fuel vapor can lead to eye and respiratory tract irritation. In severe cases, excessive or prolonged breathing of fuel vapor can cause serious illness and permanent injury.
- Avoid getting fuel in your eyes. If you splash fuel in your eyes, immediately remove contact lenses (if worn), flush with water for 15 minutes and seek medical attention. Failure to seek proper medical attention could lead to permanent injury.
- Fuels can be harmful if absorbed through the skin. If you splash fuel on your skin, clothing or both, promptly remove contaminated clothing and thoroughly wash your skin with soap and water. Repeated or prolonged skin contact causes skin irritation.
- Be particularly careful if you are taking Antabuse or other forms of Disulfiram for the treatment of alcoholism. Breathing fuel vapors could cause an adverse reaction, serious personal injury or sickness. Immediately call a physician if you experience any adverse reactions.

# Fuel and Refueling

## FUEL QUALITY - GASOLINE

### Choosing the Right Fuel



Your vehicle is designed to operate on regular unleaded gasoline with a minimum pump (R+M)/2 octane rating of 87.

Some fuel stations, particularly those in high altitude areas, offer fuels posted as regular unleaded gasoline with an octane rating below 87. The use of these fuels could result in engine damage that will not be covered by the vehicle warranty.

For best overall vehicle and engine performance, premium fuel with an octane rating of 91 or higher is recommended. The performance gained by using premium fuel is most noticeable in hot weather as well as other conditions, for example when towing a trailer. See **Towing** (page 350).

Do not be concerned if the engine sometimes knocks lightly. However, if the engine knocks heavily while using fuel with the recommended octane rating, contact an authorized dealer to prevent any engine damage.

We recommend Top Tier detergent gasolines, where available to help minimize engine deposits and maintain optimal vehicle and engine performance. For additional information, refer to [www.toptiergas.com](http://www.toptiergas.com).

**Note:** *Use of any fuel for which the vehicle was not designed can impair the emission control system, cause loss of vehicle performance, and cause damage to the engine which may not be covered by the vehicle Warranty.*

Do not use:

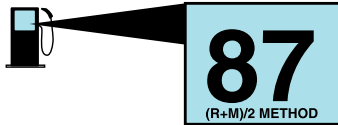
- Diesel fuel.
- Fuels containing kerosene or paraffin.
- Fuel containing more than 15% ethanol or E85 fuel.
- Fuels containing methanol.
- Fuels containing metallic-based additives, including manganese-based compounds.
- Fuels containing the octane booster additive, methylcyclopentadienyl manganese tricarbonyl (MMT).
- Leaded fuel, using leaded fuel is prohibited by law.

The use of fuels with metallic compounds such as methylcyclopentadienyl manganese tricarbonyl (commonly known as MMT), which is a manganese-based fuel additive, will impair engine performance and affect the emission control system.

# Fuel and Refueling

## FUEL QUALITY - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

### Choosing the Right Fuel



Your vehicle is designed to operate on regular unleaded gasoline with a minimum pump (R+M)/2 octane rating of 87.

Some fuel stations, particularly those in high altitude areas, offer fuels posted as regular unleaded gasoline with an octane rating below 87. The use of these fuels could result in engine damage that is not covered by the vehicle warranty.

For best overall vehicle and engine performance, premium fuel with an octane rating of 91 or higher is recommended. The performance gained by using premium fuel is most noticeable in hot weather as well as other conditions, for example when towing a trailer. See **Towing** (page 350).

Do not be concerned if the engine sometimes knocks lightly. However, if the engine knocks heavily while using fuel with the recommended octane rating, contact an authorized dealer to prevent any engine damage.

We recommend Top Tier detergent gasolines, where available to help minimize engine deposits and maintain optimal vehicle and engine performance. For additional information, refer to [www.toptiergas.com](http://www.toptiergas.com).

**Note:** *Use of any fuel for which the vehicle was not designed can impair the emission control system, cause loss of vehicle performance, and cause damage to the engine which may not be covered by the vehicle Warranty.*

Do not use:

- Diesel fuel.
- Fuels containing kerosene or paraffin.
- Fuel containing more than 15% ethanol or E85 fuel.
- Fuels containing methanol.
- Fuels containing metallic-based additives, including manganese-based compounds.
- Fuels containing the octane booster additive, methylcyclopentadienyl manganese tricarbonyl (MMT).
- Leaded fuel; using leaded fuel is prohibited by law.

The use of fuels with metallic compounds such as methylcyclopentadienyl manganese tricarbonyl (commonly known as MMT), which is a manganese-based fuel additive impair engine performance and affect the emission control system.

## FUEL FILLER FUNNEL LOCATION

The fuel filler funnel is under the luggage compartment floor covering.

# Fuel and Refueling

## RUNNING OUT OF FUEL

Running out of fuel can cause damage not covered by the vehicle Warranty.

If your vehicle runs out of fuel:

- Add a minimum of 1.3 gal (5 L) of fuel to restart the engine.
- You may need to switch the ignition from off to on several times after refueling to allow the fuel system to pump the fuel from the tank to the engine. When restarting, cranking time takes a few seconds longer than normal.

**Note:** *If your vehicle is on a steep slope, more fuel may be required.*

## Filling a Portable Fuel Container



**WARNING:** Flow of fuel through a fuel pump nozzle can produce static electricity. This can cause a fire if you are filling an ungrounded fuel container.

Use the following guidelines to avoid electrostatic charge build-up, which can produce a spark, when filling an ungrounded fuel container:

- Only use an approved fuel container to transfer fuel to your vehicle. Place the container on the ground when filling it.
- Do not fill a fuel container when it is inside your vehicle (including the cargo area).
- Keep the fuel pump nozzle in contact with the fuel container when filling it.
- Do not use a device that holds the fuel pump nozzle lever in the fill position.

## Adding Fuel From a Portable Fuel Container



**WARNING:** Do not insert the nozzle of a fuel container or an aftermarket funnel into the fuel filler neck. This may damage the fuel system filler neck or its seal and cause fuel to run onto the ground.



**WARNING:** Do not try to pry open or push open the capless fuel system with foreign objects. This could damage the fuel system and its seal and cause injury to you or others.



**WARNING:** Do not dispose of fuel in the household refuse or the public sewage system. Use an authorized waste disposal facility.

When refueling the vehicle fuel tank from a fuel container, use the fuel filler funnel included with your vehicle. See **Fuel Filler Funnel Location** (page 220).

**Note:** *Do not use aftermarket funnels as they may not work with the capless fuel system and can damage it.*

When refueling the vehicle fuel tank from a fuel container, do the following:

1. Fully open the fuel filler door.
2. Fully insert the fuel filler funnel into the fuel filler inlet.



# Fuel and Refueling



3. Add fuel to your vehicle from the fuel container.
4. Remove the fuel filler funnel.
5. Fully close the fuel filler door.
6. Clean the fuel filler funnel and place it back in your vehicle or correctly dispose of it.

**Note:** *Extra funnels can be purchased from an authorized dealer if you choose to dispose of the funnel.*

## REFUELING - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

**⚠ WARNING:** When refueling always shut the engine off and never allow sparks or open flames near the fuel tank filler valve. Never smoke or use a cell phone while refueling. Fuel vapor is extremely hazardous under certain conditions. Avoid inhaling excess fumes.

**⚠ WARNING:** The fuel system may be under pressure. If you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

**⚠ WARNING:** Do not pry open the fuel tank filler valve. This could damage the fuel system. Failure to follow this instruction could result in fire, personal injury or death.

**⚠ WARNING:** Do not remove the fuel pump nozzle from its fully inserted position when refueling.

**⚠ WARNING:** Stop refueling when the fuel pump nozzle automatically shuts off for the first time. Failure to follow this will fill the expansion space in the fuel tank and could lead to fuel overflowing.

**⚠ WARNING:** Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

**⚠ WARNING:** Wait at least five seconds before removing the fuel pump nozzle to allow any residual fuel to drain into the fuel tank.

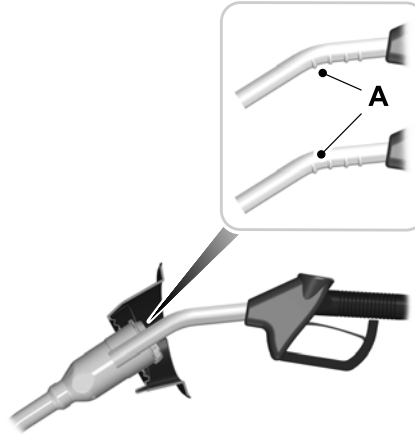
**⚠ WARNING:** Read and follow all the instructions on the pump island.

1. When you stop your vehicle, shift into park (P) and switch the ignition off.

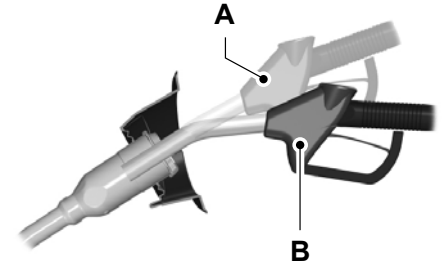
# Fuel and Refueling



2. Press the button on the left side of the instrument panel next to the headlamp switch to open the fuel filler door. The fuel filler door can take up to 15 seconds to open before you can insert a fuel filler nozzle.

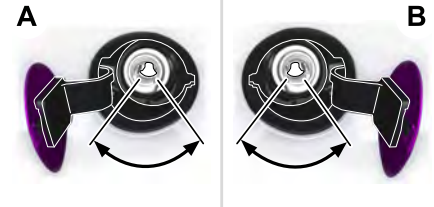


3. Insert the fuel pump nozzle up to the first notch on the nozzle A. Keep it resting on the cover of the fuel tank filler pipe opening.



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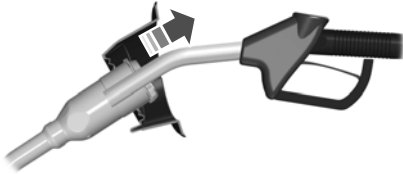
4. Hold the fuel pump nozzle in position B when refueling. Holding the fuel pump nozzle in position A can affect the flow of fuel and shut off the fuel pump nozzle before the fuel tank is full.



5. Operate the fuel pump nozzle within the area shown.

# Fuel and Refueling

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## System Warnings

If the fuel filler door fails to open, an information message appears in the information display.

6. When the pump shuts off, wait 5 seconds, then slowly lift and remove the nozzle.
7. Fully close the fuel filler door.

**Note:** *To close the fuel filler door, press the center rear edge of the fuel filler door and then release.*

Complete the refueling process within 20 minutes. If 20 minutes elapses, press the button on the left side of the instrument panel again. Fuel pump nozzle automatic shut off could occur if you do not press the button on the left side of the instrument panel.

# Fuel and Refueling

Message	Action
Please wait for fuel door to open	Your vehicle has a sealed fuel system that may be under pressure. This information message appears while the fuel system is depressurizing with the fuel filler door closed. Wait for the fuel system to depressurize and for the fuel filler door to unlatch.
Fuel Door Open	This information message appears when the fuel system depressurizes and the fuel filler door opens. Fully open the fuel filler door to refuel and fully close the fuel filler door when refueling is complete.
Refuel Error See Manual	A warning message appears in the information display when the fuel system fails to depressurize or the fuel filler door fails to open. You may have to use the fuel filler door

Message	Action
	manual override lever.

If the Refuel Error information message appears, do the following:

1. Check the fuel filler door for anything that may be obstructing its movement, for example ice or snow.
2. Remove any obstruction from the fuel filler door.
3. Press the button on the left side of the instrument panel to open the fuel filler door.
4. If the fuel filler door fails to open and the information message remains in the information display, use the fuel filler door manual override lever.

## Fuel Filler Door Manual Override Lever



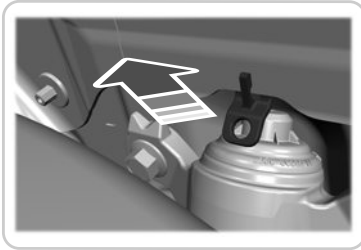
**WARNING:** The fuel system may be under pressure. If you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

**Note:** *The transmission must be in park (P) or neutral (N).*

When using the manual override lever do the following:

1. Switch the ignition on.

# Fuel and Refueling



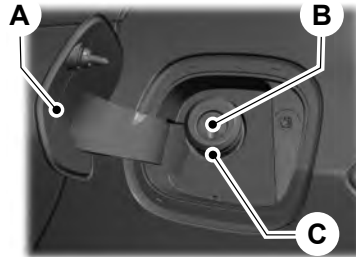
**Note:** The manual override lever is in the driver side rear wheel well area.

2. Pull the manual override lever.

3. Switch the ignition off.
4. Complete the refueling process within 20 minutes.

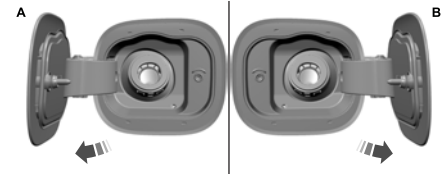
## REFUELING - GASOLINE

### Refueling System Overview



- A Fuel filler door.
- B Fuel tank filler valve.
- C Fuel tank filler pipe.

Your vehicle does not have a fuel tank filler cap.



- A Left-hand side. Pull the rear of the fuel filler door to fully open it. After refueling, close the door by pushing and compressing it into the vehicle.
- B Right-hand side. Pull the rear of the fuel filler door to fully open it. After refueling, close the door by pushing and compressing it into the vehicle.

# Fuel and Refueling

## Refueling Your Vehicle

**⚠ WARNING:** When refueling always shut the engine off and never allow sparks or open flames near the fuel tank filler valve. Never smoke or use a cell phone while refueling. Fuel vapor is extremely hazardous under certain conditions. Avoid inhaling excess fumes.

**⚠ WARNING:** The fuel system may be under pressure. If you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

**⚠ WARNING:** Do not pry open the fuel tank filler valve. This could damage the fuel system. Failure to follow this instruction could result in fire, personal injury or death.

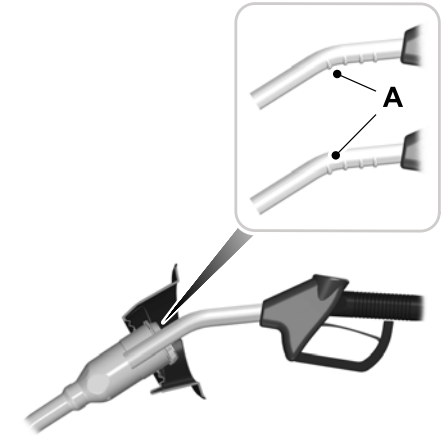
**⚠ WARNING:** Do not remove the fuel pump nozzle from its fully inserted position when refueling.

**⚠ WARNING:** Stop refueling when the fuel pump nozzle automatically shuts off for the first time. Failure to follow this will fill the expansion space in the fuel tank and could lead to fuel overflowing.

**⚠ WARNING:** Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

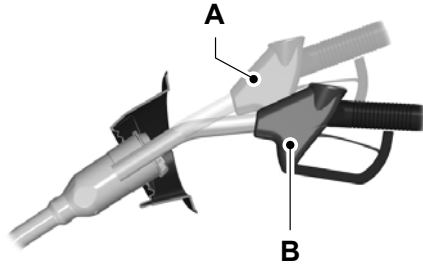
**⚠ WARNING:** Wait at least five seconds before removing the fuel pump nozzle to allow any residual fuel to drain into the fuel tank.

1. Fully open the fuel filler door.
2. Select the correct fuel pump nozzle for your vehicle.



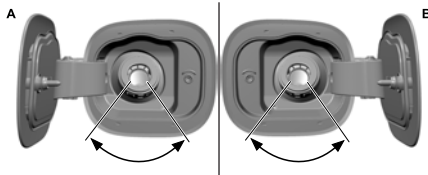
3. Insert the fuel pump nozzle up to the first notch on the nozzle A. Keep the fuel pump nozzle resting on the fuel tank filler pipe.

# Fuel and Refueling

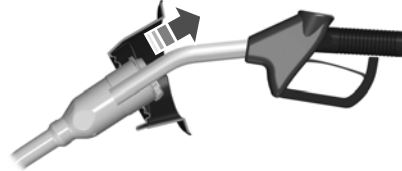


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4. Hold the fuel pump nozzle in position B when refueling. Holding the fuel pump nozzle in position A can affect the flow of fuel and shut off the fuel pump nozzle before the fuel tank is full.



5. Operate the fuel pump nozzle within the area shown.



6. When the nozzle shuts off, wait at least 5 seconds, then slightly raise the fuel pump nozzle and slowly remove it.
7. Fully close the fuel filler door.

Do not attempt to start the engine if you have filled the fuel tank with incorrect fuel. Incorrect fuel use could cause damage not covered by the vehicle Warranty. Have your vehicle immediately checked.

## Refueling System Warning (If Equipped)

If the fuel tank filler valve does not fully close, a message could appear in the information display.

### Message

Check Fuel Fill Inlet

If the message appears, do the following:

1. Stop your vehicle as soon as it is safe to do so and switch the engine off.
2. Shift into park (P) or neutral (N).
3. Apply the parking brake.
4. Fully open the fuel filler door.
5. Check the fuel tank filler valve for any debris that may be restricting its movement.
6. Remove any debris from the fuel tank filler valve.
7. Fully insert a fuel pump nozzle or the fuel filler funnel provided with your vehicle into the fuel filler pipe. See **Fuel Filler Funnel Location** (page 220). This action should dislodge any debris that may be preventing the fuel tank filler valve from fully closing.
8. Remove the fuel pump nozzle or fuel filler funnel from the fuel filler pipe.

# Fuel and Refueling

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9. Fully close the fuel filler door.

**Note:** *The message may not immediately reset. If the message continues to appear and a warning lamp illuminates, have your vehicle checked as soon as possible.*

## FUEL CONSUMPTION

### Advertised Capacity

The advertised capacity is the maximum amount of fuel that you can add to the fuel tank when the fuel gauge indicates empty. See **Capacities and Specifications** (page 461).

In addition, the fuel tank contains an empty reserve. The empty reserve is an unspecified amount of fuel that remains in the fuel tank when the fuel gauge indicates empty.

**Note:** *When refueling your vehicle after the fuel gauge indicates empty, you might not be able to refuel the full amount of the advertised capacity due to the empty reserve still present in the fuel tank.*

### Filling the Fuel Tank

For consistent results when refueling:

- Turn the ignition off before fueling; an inaccurate reading results if the engine is left running.
- Use the same fill rate (low-medium-high) each time the tank is filled.
- Allow no more than one automatic shut-off when refueling.

Results are most accurate when the filling method is consistent.

### Calculating Fuel Economy

Your vehicle calculates fuel economy figures through the trip computer average fuel function. See **Information Displays** (page 136).

The first 1,000 mi (1,500 km) of driving is the break-in period of the engine. A more accurate measurement is obtained after 2,000 mi (3,000 km).

1. Completely fill the fuel tank and record the initial odometer reading.

2. Each time you fill the fuel tank, record the amount of fuel added.
3. After at least three fill ups, fill the fuel tank and record the current odometer reading.
4. Subtract your initial odometer reading from the current odometer reading.

To calculate L/100 km (liters per 100 kilometers) fuel consumption, multiply the liters used by 100, then divide by kilometers traveled. To calculate MPG (miles per gallon) fuel consumption, divide miles traveled by gallons used.

Keep a record for at least one month and record the type of driving, for example city or highway. This provides an accurate estimate of your vehicle's fuel economy under current driving conditions. Keeping records during summer and winter shows how temperature impacts fuel economy.



# Fuel and Refueling

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## Conditions

- Heavily loading your vehicle reduces fuel economy.
- Carrying unnecessary weight in your vehicle may reduce fuel economy.
- Avoid adding accessories that increase aerodynamic drag to your vehicle such as bug deflectors, car top carriers and ski or bike racks.
- Using fuel blended with alcohol may lower fuel economy.
- Fuel economy may decrease with lower temperatures.
- Fuel economy may decrease when driving short distances.
- You will get better fuel economy when driving on flat terrain than when driving on hilly terrain.

# Engine Emission Control

## EMISSION LAW



**WARNING:** Do not remove or alter the original equipment floor covering or insulation between it and the metal floor of the vehicle. The floor covering and insulation protect occupants of the vehicle from the engine and exhaust system heat and noise. On vehicles with no original equipment floor covering insulation, do not carry passengers in a manner that permits prolonged skin contact with the metal floor. Failure to follow these instructions may result in fire or personal injury.

U.S. federal laws and certain state laws prohibit removing or rendering inoperative emission control system components. Similar federal or provincial laws may apply in Canada. We do not approve of any vehicle modification without first determining applicable laws.



Tampering with emissions control systems including related sensors or the Diesel Exhaust Fluid system can result in reduced engine power and the illumination of the service engine soon light.

## Tampering With a Noise Control System

Federal laws prohibit the following acts:

- Removal or rendering inoperative by any person other than for purposes of maintenance.
- Repair or replacement of any device or element of the design incorporated into a new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use.
- The use of the vehicle after any person removes or renders inoperative any device or element of the design.

The U.S. Environmental Protection Agency may presume to constitute tampering as follows:

- Removal of hood blanket, fender apron absorbers, fender apron barriers, underbody noise shields or acoustically absorptive material.
- Tampering or rendering inoperative the engine speed governor, to allow engine speed to exceed manufacturer specifications.

If the engine does not start, runs rough, experiences a decrease in engine performance, experiences excess fuel consumption or produces excessive exhaust smoke, check for the following:

- A plugged or disconnected air inlet system hose.
- A plugged engine air filter element.
- Water in the fuel filter and water separator.
- A clogged fuel filter.
- Contaminated fuel.
- Air in the fuel system, due to loose connections.

# Engine Emission Control

- An open or pinched sensor hose.
- Incorrect engine oil level.
- Incorrect fuel for climatic conditions.
- Incorrect engine oil viscosity for climatic conditions.

**Note:** *Some vehicles have a lifetime fuel filter that is integrated with the fuel tank. Regular maintenance or replacement is not needed.*

**Note:** *If these checks do not help you correct the concern, have your vehicle checked as soon as possible.*

## Noise Emissions Warranty, Prohibited Tampering Acts and Maintenance

On January 1, 1978, Federal regulation became effective governing the noise emission on trucks over 10,000 lb (4,536 kg) Gross Vehicle Weight Rating (GVWR). The preceding statements concerning prohibited tampering acts and maintenance, and the noise warranty found in the Warranty Guide, are applicable to complete chassis cabs over 10,000 lb (4,536 kg) GVWR.

## CATALYTIC CONVERTER



**WARNING:** Do not park, idle or drive your vehicle on dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, creating the risk of fire.



**WARNING:** The normal operating temperature of the exhaust system is very high. Never work around or attempt to repair any part of the exhaust system until it has cooled. Use special care when working around the catalytic converter. The catalytic converter heats up to a very high temperature after only a short period of engine operation and stays hot after the engine is switched off.



**WARNING:** Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.

Your vehicle has various emission control components and a catalytic converter that enables it to comply with applicable exhaust emission standards.

To make sure that the catalytic converter and other emission control components continue to work properly:

- Do not crank the engine for more than 10 seconds at a time.
- Do not run the engine with a spark plug lead disconnected.
- Do not push-start or tow-start your vehicle. Use booster cables. See **Jump Starting the Vehicle** (page 364).
- Use only the specified fuel listed.
- Do not switch the ignition off when your vehicle is moving.
- Avoid running out of fuel.
- Have the items listed in scheduled maintenance information performed according to the specified schedule.

**Note:** *Resulting component damage may not be covered by the vehicle Warranty.*

# Engine Emission Control

The scheduled maintenance items listed in scheduled maintenance information are essential to the life and performance of your vehicle and to its emissions system.

If you use anything other than Ford, Motorcraft or Ford-authorized parts for maintenance replacements or for service of components affecting emission control, such non-Ford parts should be equivalent to genuine Ford Motor Company parts in performance and durability.

Illumination of the service engine soon indicator, charging system warning light or the temperature warning light, fluid leaks, strange odors, smoke or loss of engine power could indicate that the emission control system is not working properly.

An improperly operating or damaged exhaust system may allow exhaust to enter the vehicle. Have a damaged or improperly operating exhaust system inspected and repaired immediately.

Do not make any unauthorized changes to your vehicle or engine. By law, vehicle owners and anyone who manufactures, repairs, services, sells, leases, trades vehicles, or supervises a fleet of vehicles are not permitted to intentionally remove an emission control device or prevent it from working. Information about your vehicle's emission system is on the Vehicle Emission Control Information Decal located on or near the engine. This decal also lists engine displacement.

Please consult your warranty information for complete details.

## On-Board Diagnostics (OBD-II)

Your vehicle has a computer known as the on-board diagnostics system (OBD-II) that monitors the engine's emission control system. The system protects the environment by making sure that your vehicle continues to meet government emission standards. The OBD-II system also assists a service technician in properly servicing your vehicle.



When the service engine soon indicator illuminates, the OBD-II system has detected a malfunction.

Temporary malfunctions may cause the service engine soon indicator to illuminate. Examples are:

1. Your vehicle has run out of fuel—the engine may misfire or run poorly.
2. Poor fuel quality or water in the fuel—the engine may misfire or run poorly.
3. The fuel fill inlet may not have closed properly. See **Refueling** (page 226).
4. Driving through deep water—the electrical system may be wet.

You can correct these temporary malfunctions by filling the fuel tank with good quality fuel, properly closing the fuel fill inlet or letting the electrical system dry out. After three driving cycles without these or any other temporary malfunctions present, the service engine soon indicator should stay off the next time you start the engine. A driving cycle consists of a cold engine startup followed by mixed city and highway driving. No additional vehicle service is required.

# Engine Emission Control

If the service engine soon indicator remains on, have your vehicle serviced at the first available opportunity. Although some malfunctions detected by the OBD-II may not have symptoms that are apparent, continued driving with the service engine soon indicator on can result in increased emissions, lower fuel economy, reduced engine and transmission smoothness and lead to more costly repairs.

## Readiness for Inspection and Maintenance (I/M) Testing

Some state and provincial and local governments may have Inspection/Maintenance (I/M) programs to inspect the emission control equipment on your vehicle. Failure to pass this inspection could prevent you from getting a vehicle registration.



If the service engine soon indicator is on or the bulb does not work, your vehicle may need service. See On-Board Diagnostics.

Your vehicle may not pass the I/M test if the service engine soon indicator is on or not working properly (bulb is burned out), or if the OBD-II system has determined that some of the emission control systems have not been properly checked. In this case, the vehicle is not ready for I/M testing.

If the vehicle's engine or transmission has just been serviced, or the battery has recently run down or been replaced, the OBD-II system may indicate that the vehicle is not ready for I/M testing. To determine if the vehicle is ready for I/M testing, turn the ignition key to the on position for 15 seconds without cranking the engine. If the service engine soon indicator blinks eight times, it means that the vehicle is not ready for I/M testing; if the service engine soon indicator stays on solid, it means that your vehicle is ready for I/M testing.

The OBD-II system checks the emission control system during normal driving. A complete check may take several days.

If the vehicle is not ready for I/M testing, you can perform the following driving cycle consisting of mixed city and highway driving:

1. 15 minutes of steady driving on an expressway or highway followed by 20 minutes of stop-and-go driving with at least four 30-second idle periods.
2. Allow your vehicle to sit for at least eight hours with the ignition off. Then, start the vehicle and complete the above driving cycle. The vehicle must warm up to its normal operating temperature. Once started, do not turn off the vehicle until the above driving cycle is complete.

If the vehicle is still not ready for I/M testing, you need to repeat the above driving cycle.

# High Voltage Battery (If Equipped)

## GENERAL INFORMATION



**WARNING:** This battery pack should only be serviced by an authorized electric vehicle technician. Improper handling can result in personal injury or death.



**WARNING:** Apply the parking brake, shift into park (P), switch the ignition off and remove the key before you open the hood or have any service or repair work completed. If you do not switch the ignition off, the engine could restart at any time. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Do not touch the electronic ignition system parts after you have switched the ignition on or when the engine is running. The system operates at high voltage. Failure to adhere to this warning could result in serious personal injury or death.



**WARNING:** Keep your hands and clothing clear of the engine cooling fan.

**Note:** *The high-voltage battery does not require regular service maintenance.*

Your vehicle consists of various high-voltage components and wiring. All of the high-voltage power flows through specific wiring assemblies labeled as such or covered with a solid orange convolute, or orange striped tape, or both. Do not come in contact with these components.

The high-voltage battery pack contains a lithium-ion battery. The pack is underneath the vehicle. The high-voltage battery system uses an advanced liquid heating and cooling system to regulate the high-voltage battery temperature and help maximize high-voltage battery life.

## CHARGING THE HIGH VOLTAGE BATTERY

There are two different style chargers that could be used for charging your vehicle. Refer to the illustrations below to identify the charger, and the instructions for use with the specific type charger.

## Charging Solution One

### IMPORTANT SAFETY INSTRUCTIONS



**WARNING:** Do not use the dual-voltage charging cord in commercial garages.




**WARNING:** This equipment has arcing or sparking parts. Do not expose to flammable vapors. Position this equipment at least 18 in (450 mm) above the floor.


### RISK OF FIRE or ELECTRIC SHOCK





**WARNING:** The AC wall plug must fit firmly into the AC outlet. If the connection feels loose, worn or the AC outlet is damaged, please have a qualified electrician replace the AC outlet. Using a dual-voltage charging cord with a worn outlet may cause burns, property damage and increase the risk of electric shock or fire.


## High Voltage Battery (If Equipped)


 **WARNING:** Do not use the dual-voltage charging cord with an extension cord, two-prong adapter, surge protector, timer or other adapter. Failure to follow this instruction could result in electric shock or fire.


 **WARNING:** Do not allow charging equipment to be immersed in water or liquids. Failure to follow this warning could result in fire, electric shock, or serious personal injury or death.


 **WARNING:** Do not attempt to open the charging equipment. Failure to follow this instruction could result in personal injury, fire, electric shock, death or property damage.

 **WARNING:** Do not use the charging equipment if it is faulty or has been damaged. Failure to follow this instruction could result in personal injury, fire, electric shock, death or property damage.

 **WARNING:** You risk death, fire, or serious injury to yourself and others if you do not follow the instruction highlighted by the warning symbol.

 **WARNING:** Install charging equipment in compliance with local regulations. Failure to follow this warning could result in fire, electric shock, serious personal injury or death.

 **WARNING:** Do not use an ungrounded wall outlet. The wall outlet must be in good condition and meet up-to-date local codes. Have a qualified electrician check the wall outlet, if you suspect that it is not properly grounded. Failure to follow this instruction could result in electric shock, personal injury, or death.

 **WARNING:** Do not modify the dual-voltage charging cord plug. If the dual-voltage charging cord plug does not properly fit into the wall outlet, have a qualified electrician install the correct wall outlet. Failure to follow this instruction could result in personal injury, fire, electric shock, or death.

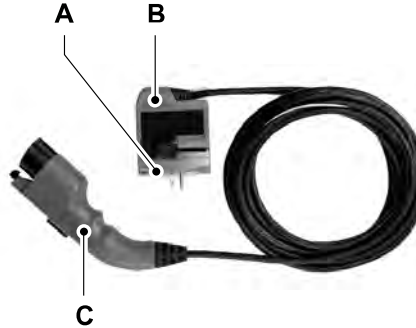
### OPERATION INSTRUCTIONS

- Read all the instructions before using this product.
- Supervise this device when in use around children.
- Do not put fingers into the electric vehicle connector.
- Do not use this product if the flexible power cord or electric vehicle cable has broken insulation, or any other signs of damage.
- Do not use this product if the enclosure or the electric vehicle connector is broken, cracked, open, or shows any other indication of damage.

## High Voltage Battery (If Equipped)

**Note:** Ground this product. If it malfunctions or breaks down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product comes with a cord having an equipment grounding conductor and a grounding plug. Make sure you plug it into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

### Charging Equipment



- A Wall Plug.
- B Control Box.
- C Coupler.

Your vehicle has a dual-voltage charging cord in the luggage compartment.

**Note:** You need to plug the dual-voltage charging cord into a dedicated outlet.

**Note:** Firmly fit the AC wall plug into the AC outlet. If the connection feels loose, worn or the AC outlet is damaged, please have a qualified electrician replace the AC outlet. Using a dual-voltage charging cord with a worn outlet could cause burns, property damage and increase the risk of electric shock.

**Note:** Do not use the dual-voltage charging cord with an extension cord, two-prong adapter, surge protector, timer or other adapter.

**Note:** If charging for your plug-in vehicle fails, please call the Customer Relationship Center, or click on Call for support or Live Chat at our website.

**CAUTION: TO REDUCE THE RISK OF FIRE-** Use a three-prong AC outlet that is properly grounded, 15-20 amps or greater, and in good condition. Use a dedicated line. You cannot have other appliances connected to the same circuit. If you do not use a dedicated circuit, the circuit breaker could trip or open. If you do not have a dedicated circuit, contact a licensed professional electrician for proper installation.



# High Voltage Battery (If Equipped)

**Note:** Make sure the electrical source meets the requirements for the high-voltage batteries to charge.

Make sure that the dual-voltage charging cord is completely unwrapped before charging. Always plug the cord into the AC outlet before connecting the charged coupler into the charge port on your vehicle.

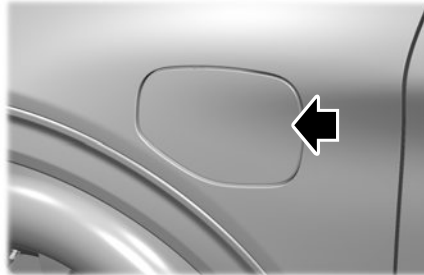
**Note:** If the power indicator light is off after plugging in the dual-voltage charging cord and you cannot determine a charge status, use a different outlet.

**Note:** Store the dual-voltage charging cord in a clean dry place between the temperature of  $-39.9$ – $157.9^{\circ}\text{F}$  ( $-40$ – $70^{\circ}\text{C}$ )

**Note:** For further information on the dual-voltage charging cord, please refer to the user manual provided with the dual-voltage charging cord.

## Charge Port

The charge port is between the front left-hand side door and the front left-hand wheel well. To open, press the center right edge of the charge port door, and then release.



**Note:** Do not force the charge port door open or closed. Forcing the door open or closed damages the charge port.

The charge status indicator around the charge port indicates the charge status of the high voltage battery in your vehicle.

Divided into five zones, the charge status indicator displays the state of charge in 20 percent increments.

We use the color white as a courtesy light to help with plugging in and to acknowledge actions such as plugging in, unplugging or pressing the charge times button.

Blue is used when you plug the vehicle in and are either charging or waiting to charge.

Orange indicates charge faults.

## Charge Times Button

Use the charge times button to either turn off or turn on your charge times settings for this location. Select charge settings on the home page of your touchscreen or under the vehicle settings menu to access charge preferences. See **SYNC™ 3** (page 507).

# High Voltage Battery (If Equipped)



## Charging



To charge the high-voltage battery:

1. Put the vehicle in park (P).
2. Press the center right edge of the charge port door and then release to open the door.
3. Plug the charging coupler into the charge port receptacle on your vehicle. Make sure the button clicks confirming that you have completely engaged the coupler.

**Note:** Put your vehicle in park (P) to charge, and for the charge status indicator to illuminate.

**Note:** Pump and fan noise could be present when charging the high voltage battery. The pump and fan noise is normal as it circulates liquid and keeps your high voltage battery cool while charging.



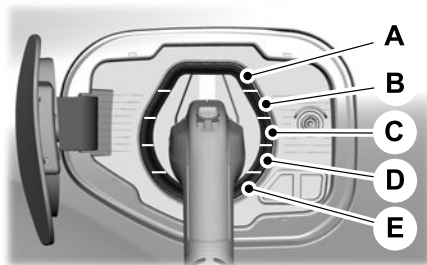
4. Verify that the cord acknowledgment feature activates. This indicates the beginning of a normal charge cycle. The charge status indicator lights up each zone alternately from bottom to top and from bottom to top again.

5. If using a charging station, follow the instructions on the charge station to begin the charging process.

The charge status indicator displays how far along the charge is:

- When the bottom zone is pulsing, the charge is between 0-20 percent.
- When the bottom zone illuminates and the next is pulsing, the charge is between 20-40 percent.
- When two zones illuminate and the next is pulsing, the charge is between 40-60 percent.
- When three zones illuminate and the next is pulsing, the charge is between 60-80 percent.
- When four zones illuminate and the top zone is pulsing, the charge is between 80-100 percent.
- When all zones illuminate, the charge is 100 percent.

## High Voltage Battery (If Equipped)



- A. 80%-100% state of charge.
- B. 60%-80% state of charge.
- C. 40%-60% state of charge.
- D. 20%-40% state of charge.
- E. 0%-20% state of charge.

**Note:** When charging stops, the charge status indicator shows all the completed zones solidly lit up in a blue color for 30 seconds before turning off. For example, if charging stops at 70 percent, then the bottom three zones light up solidly to indicate a battery charge level of at least 60 percent but less than 80 percent. Charging stops when complete or when paused due to preferred charge settings or charge station actions.

**Note:** If the charge status indicator does not light up or pulse after plugging in, please verify that the charge port light setting is On. If you do not wish to have the charge status indicator light up at all while charging, then you can switch it Off. See charge port light under vehicle settings on your touchscreen. See **SYNC™ 3** (page 507).



**Note:** You can identify charging faults by the color orange on the charge status indicator. Faults can occur within the vehicle charging system or outside the vehicle, such as with the charge cord, charge station or electrical supply.

**Note:** If the system detects a fault in the vehicle charging system at any point in a charge cycle, the entire charge status indicator lights up solidly in an orange color for 30 seconds and then turns off. If this happens, unplug the charging coupler and then plug it back into the charge port receptacle. If the problem persists, have your vehicle checked as soon as possible.

**Note:** If the system detects a fault outside the vehicle, such as with the charge station or charge cord, the entire charge status indicator flashes continuously for 30 seconds and then turns off. If this happens, check the charge cord and the charge station or electrical supply.

# High Voltage Battery (If Equipped)

## Locking the Charging Coupler



**Note:** You need a padlock or a combination lock with a shackle diameter of 0.2 in (5 mm) or less, and the straight portion of the shackle of 1.0 in (25.4 mm) of length or more.

1. Insert the lock through the hole in the charging coupler button.
2. Lock the padlock or combination lock.

## Waiting to Charge



**Note:** Select charge settings on the home page of the touchscreen or under the vehicle settings menu to access charge preferences. See **SYNC™ 3** (page 507).

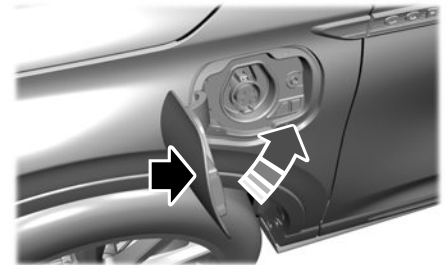
Charging may not begin upon plugging in if you have set up preferred charge times for this vehicle location. Your vehicle could delay charging to take advantage of off-peak electricity rates. Your vehicle optimizes the charge schedule to be complete by your next departure time.

When waiting to charge, plugged in and not currently charging, the charge status indicator shows the present state of charge of the high voltage battery by lighting up all completed zones for 30 seconds before turning off. For example, if the battery is at 70 percent charge then the bottom three zones solidly light up to indicate a battery charge level of at least 60 percent but less than 80 percent. When the current state of charge is less than 20 percent, none of the zones light up.

**Note:** When your vehicle is waiting to charge, the charge status indicator turns off 30 seconds after displaying the present state of charge. When your vehicle begins charging, the charge status indicator turns on and displays the status of the charge, as described above.

## Disconnecting the Charging Coupler

1. If you have installed a padlock or combination lock, then remove it.
2. Press the button on the charging coupler.
3. While holding the button, remove the charging coupler from the charge port receptacle.



## High Voltage Battery (If Equipped)

4. Press the center right edge of the charge port door to close.

**Note:** Do not pull the wall plug from the wall when your vehicle is charging. Doing so could damage the outlet and the cord.

### MOVING AND STORAGE INSTRUCTIONS

Make sure that you completely wrap the dual-voltage charging cord after charging.

When complete, replace the dual-voltage charging cord in the luggage compartment.

**Note:** Do not hold the dual-voltage charging cord by the flexible power cable.

**Note:** Store the dual-voltage charging cord in a clean, dry place between the temperature of  $-39.9$ – $157.9^{\circ}\text{F}$  ( $-40$ – $70^{\circ}\text{C}$ ).

### Charging Solution Two

There are two different style chargers that could be used for charging your vehicle. Refer to the illustration below to identify the charger and the instructions for use with the specific type charger.



**WARNING:** Do not allow charging equipment to be immersed in water or liquids. Failure to follow this warning could result in fire, electric shock, or serious personal injury or death.



**WARNING:** Do not attempt to open the charging equipment. Failure to follow this instruction could result in personal injury, fire, electric shock, death or property damage.



**WARNING:** Do not use the charging equipment if it is faulty or has been damaged. Failure to follow this instruction could result in personal injury, fire, electric shock, death or property damage.



**WARNING:** Install charging equipment in compliance with local regulations. Failure to follow this warning could result in fire, electric shock, serious personal injury or death.



**WARNING:** Do not use an ungrounded wall outlet. The wall outlet must be in good condition and meet up-to-date local codes. Have a qualified electrician check the wall outlet, if you suspect that it is not properly grounded. Failure to follow this instruction could result in electric shock, personal injury, or death.



**WARNING:** It is recommended that electrical outlets for use with your charging equipment be installed by a licensed, qualified electrician. Installations must comply with the provisions of all local codes. Failure to follow this warning could result in personal injury or death.



**WARNING:** Do NOT DROP the control box or coupler.





**WARNING:** Do NOT use if stored outside temperature range specified.





**WARNING:** Do not attempt to repair the charging equipment. Contact your local dealer for assistance.


## High Voltage Battery (If Equipped)


 **WARNING:** Read all warnings on the charging equipment before using for the first time.


 **WARNING:** Read all instructions in this publication before using the charging equipment.


 **WARNING:** To reduce the risk of fire, connect only to a circuit provided with 40 amps maximum branch circuit overcurrent protection installed in accordance with NEC and local electrical code.


 **WARNING:** Do not use the charging equipment with an extension cord, surge protector, timer or other adapter. Failure to follow this instruction could result in electric shock or fire.


 **WARNING:** The wall plug must fit firmly into the outlet. If the connection feels loose, worn or the outlet is damaged, have a qualified electrician replace the outlet. Using charging equipment with a worn outlet may cause burns, property damage and increase the risk of electric shock.


 **WARNING:** Fully insert the plug into the wall outlet. Failure to follow this instruction could result in electric shock.


 **WARNING:** Children should be supervised when in the vicinity of the charging equipment while plugged in.


 **WARNING:** Do not put fingers into the electric charge coupler. Failure to follow this instruction could result in electric shock.


 **WARNING:** This equipment has arcing or sparking parts. Do not expose to flammable vapors. Position this equipment at least 18 in (450 mm) above the floor.

 **WARNING:** Do not connect or disconnect any pluggable components of the charging equipment when in use or charging. Failure to follow this instruction can cause damage to the charging equipment.


 **WARNING:** Do not use the charging equipment in temperatures outside of the operation range of -22°F (-30°C) to 122°F (50°C).


 **WARNING:** Store the charging equipment in a clean dry place between the temperatures of -22°F (-30°C) to 185°F (85°C).


 **WARNING:** Do not plug the charging equipment into an electrical outlet that is submerged in water or covered in snow.


 **WARNING:** Do not use charging equipment in severe rain, snow or electrical storm.


## High Voltage Battery (If Equipped)


 **WARNING:** Do not allow charging equipment to be immersed in water or liquids. Failure to follow this warning could result in fire, electric shock, or serious personal injury or death.


 **WARNING:** When using the charging equipment avoid moisture, water, snow and foreign objects at all times.


 **WARNING:** Do not replace the plug on the connector. There are critical safety devices in the plug, and the charging equipment will not operate, if the plug is replaced. Failure to follow this instruction could result in electric shock, personal injury, death, or fire.

 **WARNING:** Charging equipment contains no user modifiable or repairable parts. If the charging equipment plug does not properly fit into the wall outlet, have a qualified electrician install the correct wall outlet. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** High voltage is present in your electric meter housing and power distribution service panel. Contact with high voltage can cause death or serious personal injury.

 **WARNING:** Visually inspect the charging equipment before each use. Do not use the charging equipment if it is damaged.

 **WARNING:** Keep charging equipment inside when not in use. Stow the control box on the hanger or all the charging equipment in the bag after use to prevent damage to the charging equipment and personal injury.

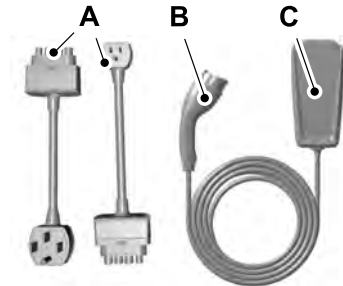
 **WARNING:** Use the charger only to supply power to electric vehicles equipped with an SAE J1772 or IEC 62196-2 compliant vehicle receptacle.

Your vehicle comes with a mobile charger that has a low power connector to use with a 120V plug NEMA 5-15 and a high power connector to use with a 240V plug NEMA 14-50. Other connectors, such as NEMA 6-20, are available as service parts at authorized dealers.

Specification Type	Specification Value
Charger Model	SAE
Voltage	120-240 VAC
Maximum Current	32 amps max continuous
Frequency	60Hz
Power draw when idle	< 2 Watts
Power draw when charging	< 4 Watts
Cable length	Approximately 20 ft (6.1 m)
Weight	8.6 lb (3.9 kg)

## High Voltage Battery (If Equipped)

Specification Type	Specification Value
Operating temperature	-22°F (-30°C) to 122°F (50°C)
Storage temperature	-22°F (-30°C) to 185°F (85°C)
CCID Environmental	IP67
Ventilation	Not required



- A Connector.
- B Coupler.
- C Control Box.

The mobile charger is in the rear luggage compartment, and allows you to charge the vehicle's battery using a standard household outlet.

You must plug the connector into the control box first. Then plug the connector into the household outlet, and then plug the coupler into the vehicle charge port.

The power indicator illuminates blue when the connector is properly inserted into the control box and dedicated wall outlet.

**Note:** To insert the connector, firmly grasp the connector by the cable or plug and push into the control box until and audible click is heard. Make sure the connector is fully inserted and flush with the control box before inserting it into the outlet. Improper insertion will cause a longer charge session.

**Note:** Follow the installation instructions provided with the mobile charger.

**Note:** We recommend using the supplied plugs and connectors.

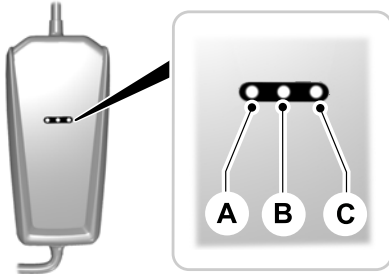
**Note:** If you do not use a dedicated circuit, the circuit breaker could trip or open. If a dedicated circuit is not available, contact a licensed professional electrician regarding the installation of a dedicated outlet.

**Note:** Plug the connector for the mobile charger directly into the wall plug receptacle. Do not plug the mobile charger into any form of extension cord.



# High Voltage Battery (If Equipped)

## Mobile Charger Indicator Lights



- A Amber Fault Indicator Light.
- B Blue Status Indicator Light.
- C Red Trouble Indicator Light.

Mobile Charger Fault Indicator Type	Indicator Description
AMBER	The amber fault indicator illuminates to communicate that the charger is rebooting after an error.
BLUE	When plugged into the wall outlet, the blue indicator illuminates to communicate that the charger is ready to use.
RED	The red indicator illuminates when the charger has detected an error. If the red indicator is illuminated, the

Mobile Charger Fault Indicator Type	Indicator Description
	charger will not deliver power to the vehicle. The error must be corrected before a charging cycle can begin or continue.

**Note:** When first plugged into a wall outlet the amber, blue and red indicators will blink once. Then the blue indicator turns on, followed by a blink of the red indicator. After, the blue indicator turns off then back on. This cycle will happen twice if a different connector is used from a previous charge.

## High Voltage Battery (If Equipped)

<b>AMBER</b>	<b>BLUE</b>	<b>RED</b>	<b>MODE</b>	<b>ACTION</b>
OFF	OFF	OFF	UNPOWERED; The mobile charger is not powered.	Make sure the outlet is operational, and the circuit breaker is in the ON position or try using another outlet. Ensure the connector is fully inserted into mobile charger. Ensure the plug is not severely degraded. If the error persists, contact us.
OFF	PULSING	OFF	CHARGING; The mobile charger is charging.	No action required.
OFF	ON	OFF	STANDBY; The mobile charger is powered and ready to charge. At the current time the mobile charger is not charging the vehicle.	If you expect the mobile charger to be charging the vehicle, make sure the vehicle coupler is properly inserted into the vehicle. Check and adjust your charging time preferences in the on screen display. If your vehicle is still not charging, contact us.

## High Voltage Battery (If Equipped)

AMBER	BLUE	RED	MODE	ACTION
ON	ON	ON	REBOOTING; The mobile charger is recovering after encountering an error.	Wait for the mobile charger to return to standby. If the mobile charger cycles for more than 2-3 minutes, unplug the vehicle coupler. Unplug and replug in the connector. If the issue persists, contact us.
ON	PULSING	OFF	CHARGING REDUCED; The mobile charger is charging at a reduced rate due to overheating.	Make sure the connector and the control box are properly connected. Unplug and replug in the connector. If the mobile charger is warm or in a hot environment, try charging in a cooler area. Try a different outlet. Try a different connector if you have one available. If the error persists, contact us.

## High Voltage Battery (If Equipped)

AMBER	BLUE	RED	MODE	ACTION
1 FLASH	PULSING	OFF	CHARGING REDUCED, AC PLUG OR WALL OUTLET; The mobile charger is charging at a reduced rate due to overheating of the connector or the wall outlet.	Make sure the connector and control box are properly connected. Unplug and replug in the connector. If the mobile charger is warm or in a hot environment, try charging in a cooler area. Try a different outlet. Try a different connector if you have one available. If the error persists, contact us.
ON	OFF	OFF	USER TROUBLESHOOTING; The mobile charger has encountered a fault that requires troubleshooting.	Make sure the connector and control box are properly connected. Unplug and replug in the connector. If the mobile charger is warm or in a hot environment, try charging in a cooler area. Try a different outlet. Try a different connector if you have one available. If the error persists, contact us.

## High Voltage Battery (If Equipped)

AMBER	BLUE	RED	MODE	ACTION
OFF	OFF	ON	NON - RECOVERABLE FAULT; There is an internal fault in the mobile charger that cannot be recovered.	Try a different connector if you have one available. If error persists, contact us.
OFF	OFF	1 FLASH	NON - RECOVERABLE FAULT; There is an internal fault in the connector that cannot be recovered.	Try using another connector if you have one available. If not, contact us about obtaining a replacement. If your warranty has expired, you can order a replacement from your ford dealer.
OFF	OFF	PULSING	GROUND LEAKAGE FAULT; Electrical current is leaking through a potentially unsafe path.	Potential shock hazard - immediately turn off circuit breaker for the outlet within home. Discontinue use. Contact us about obtaining a replacement.

# High Voltage Battery (If Equipped)

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**Note:** *When plugging into an unfamiliar wall outlet, let the vehicle charge for several minutes before leaving it unattended. The red indicator will illuminate if not charging. The unit will turn off if breaker or infrastructure ground fault circuit interrupter (GFCI) is tripped. You can view vehicle charging status remotely via the Lincoln Way App.*

## Mobile Charger Auto-Restart

Auto-restart helps to make sure that your vehicle will be charged and ready for use when needed. A charge could be interrupted if errors are detected. Charging resumes once the error is no longer detected. The red indicator illuminates during an error condition.

The exception to the immediate auto-restart is when the interruption is due to a charger ground fault circuit interrupter (GFCI) event. The charger attempts to restart 15 minutes after a ground fault circuit interrupter (GFCI) event. After the fourth attempt to restart, the charger shuts down and the red indicator stays on.

If the fault persists, do not continue to try to charge your vehicle. Contact your authorized dealer.

## CARE INSTRUCTIONS

Do not use cleaners or solvents as this could damage your mobile charger. Do not place stress on the charger cables. If unit overheats, remove the mobile charger from direct sunlight.

## SAFETY FEATURES

The charger includes the following safety features to protect against the risk of electric shock:

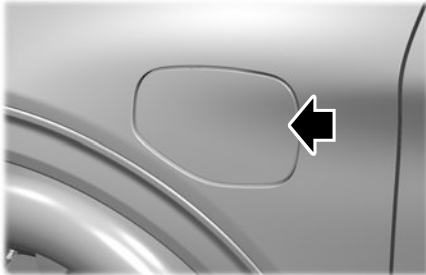
- **Service Ground Check:** The charger constantly checks for the presence of a service ground connection. If the service ground ever fails, the charger red indicator turns ON and shuts down power to the vehicle.
- **Thermal Event Sensor:** Charger module senses out-of-ordinary thermal events and decreases the charging current or shuts the unit down if required.

- **Ground fault circuit interrupter (GFCI) Protection:** The charger has a ground fault circuit interrupter (GFCI) reaction system to protect against electric shock. If the charger module detects an output ground fault, it shuts down power to the output cable and illuminates the red indicator.
- **Insulation:** The charger module, connector, cable assembly, and charge coupler are completely insulated. There are no exposed live parts, to protect against electric shock.
- **Unintentional Disconnection:** The charge coupler is designed to minimize unintentional disconnection. A pilot signal wire in the cable and charge coupler eliminates the possibility of electric shock when not connected to a vehicle or if an unintended disconnect occurs during a charge. Disconnection during charging is safe.

# High Voltage Battery (If Equipped)

## Charge Port

The charge port is between the front left-hand side door and the front left-hand wheel well. To open, press the center right edge of the charge port door, and then release.



**Note:** Do not force the charge port door open or closed. Forcing the door open or closed damages the charge port.

The charge status indicator around the charge port indicates the charge status of the high voltage battery in your vehicle.

Divided into five zones, the charge status indicator displays the state of charge in 20 percent increments.

We use the color white as a courtesy light to help with plugging in and to acknowledge actions such as plugging in, unplugging or pressing the charge times button.

Blue is used when you plug the vehicle in and are either charging or waiting to charge.

Orange indicates charge faults.

## Charge Times Button

Use the charge times button to either turn off or turn on your charge times settings for this location. Select charge settings on the home page of your touchscreen or under the vehicle settings menu to access charge preferences.



## Charging



To charge the high-voltage battery:

1. Put the vehicle in park (P).
2. Press the center right edge of the charge port door and then release to open the door.
3. Plug the charging coupler into the charge port receptacle on your vehicle. Make sure the button clicks confirming that you have completely engaged the coupler.

## High Voltage Battery (If Equipped)

**Note:** Put your vehicle in park (P) to charge, and for the charge status indicator to illuminate.

**Note:** Pump and fan noise could be present when charging the high voltage battery. The pump and fan noise is normal as it circulates liquid and keeps your high voltage battery cool while charging.



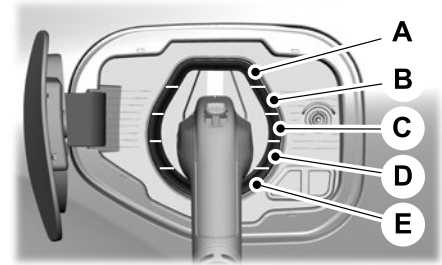
4. Verify that the cord acknowledgment feature activates. This indicates the beginning of a normal charge cycle. The charge status indicator lights up each zone alternately from bottom to top and from bottom to top again.

5. If using a charging station, follow the instructions on the charge station to begin the charging process.

### Charge Port Indicators

The charge status indicator displays how far along the charge is:

- When the bottom zone is pulsing, the charge is between 0-20 percent.
- When the bottom zone illuminates and the next is pulsing, the charge is between 20-40 percent.
- When two zones illuminate and the next is pulsing, the charge is between 40-60 percent.
- When three zones illuminate and the next is pulsing, the charge is between 60-80 percent.
- When four zones illuminate and the top zone is pulsing, the charge is between 80-100 percent.
- When all zones illuminate, the charge is 100 percent.



- A. 80%-100% state of charge.
- B. 60%-80% state of charge.
- C. 40%-60% state of charge.
- D. 20%-40% state of charge.
- E. 0%-20% state of charge.



## High Voltage Battery (If Equipped)

**Note:** When charging stops, the charge status indicator shows all the completed zones solidly lit up in a blue color for 30 seconds before turning off. For example, if charging stops at 70 percent, then the bottom three zones light up solidly to indicate a battery charge level of at least 60 percent but less than 80 percent. Charging stops when complete or when paused due to preferred charge settings or charge station actions.

**Note:** If the charge status indicator does not light up or pulse after plugging in, please verify that the charge port light setting is On. If you do not wish to have the charge status indicator light up at all while charging, then you can switch it Off. See charge port light under vehicle settings on your touchscreen.



**Note:** You can identify charging faults by the color orange on the charge status indicator. Faults can occur within the vehicle charging system or outside the vehicle, such as with the charge cord, charge station or electrical supply.

**Note:** If the system detects a fault in the vehicle charging system at any point in a charge cycle, the entire charge status indicator lights up solidly in an orange color for 30 seconds and then turns off. If this happens, unplug the charging coupler and then plug it back into the charge port receptacle. If the problem persists, have your vehicle checked as soon as possible.

**Note:** If the system detects a fault outside the vehicle, such as with the charge station or charge cord, the entire charge status indicator flashes continuously for 30 seconds and then turns off. If this happens, check the charge cord and the charge station or electrical supply.

### Waiting to Charge



**Note:** Select charge settings on the home page of the touchscreen or under the vehicle settings menu to access charge preferences.

Charging may not begin upon plugging in if you have set up preferred charge times for this vehicle location. Your vehicle could delay charging to take advantage of off-peak electricity rates. Your vehicle optimizes the charge schedule to be complete by your next departure time.

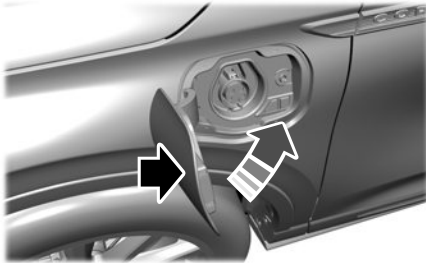
When waiting to charge, plugged in and not currently charging, the charge status indicator shows the present state of charge of the high voltage battery by lighting up all completed zones for 30 seconds before turning off. For example, if the battery is at 70 percent charge then the bottom three zones solidly light up to indicate a battery charge level of at least 60 percent but less than 80 percent. When the current state of charge is less than 20 percent, none of the zones light up.

**Note:** When your vehicle is waiting to charge, the charge status indicator turns off 30 seconds after displaying the present state of charge. When your vehicle begins charging, the charge status indicator turns on and displays the status of the charge, as described above.

# High Voltage Battery (If Equipped)

## Disconnecting the Charging Coupler

1. If you have installed a padlock or combination lock, then remove it.
2. Press the button on the charging coupler.
3. While holding the button, remove the charging coupler from the charge port receptacle.



4. Press the center right edge of the charge port door to close.

**Note:** Do not pull the wall plug from the wall when your vehicle is charging. Doing so could damage the outlet and the cord.

## MOVING AND STORAGE INSTRUCTIONS

Make sure you wrap the mobile charger after charging. Store the mobile charger in the storage bag supplied with the mobile charger.


When charging is complete, replace the mobile charger in the rear luggage compartment.


**Note:** Do not hold the mobile charger by the power cable. Hold the complete unit and carefully place back in the storage bag.


**Note:** To remove the connector, firmly grasp the connector by the cable or plug and pull away from the control box.

# Transmission

## **AUTOMATIC TRANSMISSION - EXCLUDING: PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)**

 **WARNING:** Apply the parking brake, shift into park (P), switch the ignition off and remove the key before you leave your vehicle. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** When your vehicle is stationary, keep the brake pedal fully pressed when shifting gears. Failure to follow this instruction could result in personal injury, death or property damage.

 **WARNING:** Do not apply the brake pedal and accelerator pedal simultaneously. Applying both pedals simultaneously for more than a few seconds will limit engine performance, which may result in difficulty maintaining speed in traffic and could lead to serious injury.

**Note:** *You may not be able to shift out of park (P) unless the intelligent access key is inside your vehicle.*

### **Understanding the Shift Positions of Your Automatic Transmission**



### **To place your vehicle in gear from park (P):**

1. Fully press and hold the brake pedal when shifting out of park (P).
2. Press the desired gear on the transmission selector.
3. When you finish driving, come to a complete stop.

4. Press the park (P) button on the transmission selector.

The instrument cluster displays the current gear.

### **Park (P)**

With the transmission in park (P), your vehicle locks the transmission and prevents the wheels from turning. Always come to a complete stop before putting your vehicle into and out of park (P). An audible tone sounds once you select park (P).

The electric parking brake may apply when you shift to park (P) without fully pressing the brake pedal. The electric parking brake applies when you shift to park (P) on large slopes. The electric parking brake releases with the drive away release operation. See **Electric Parking Brake** (page 271).

### **Automatic Return to Park**

#### ***What is Automatic Return to Park (P)***

Your vehicle shifts into park (P) if you attempt to exit your vehicle without the transmission in park (P).

# Transmission

## **How Does Automatic Return to Park (P) Work**

Your vehicle shifts into park (P) when your vehicle is stationary and any of the following occur:

- You switch the vehicle off.
- You open the driver door with your seatbelt unlatched.
- You unlatch the driver seatbelt when the driver door is open.

**Note:** Do not use automatic return to park (P) when your vehicle is moving, except in an emergency.

## **Automatic Return to Park (P) Limitations**

Automatic return to park (P) may not work if the door ajar switch is malfunctioning.

See an authorized dealer if any of the following occur:

- Door ajar indicator does not illuminate with the driver door open.
- Door ajar indicator illuminates with the driver door closed.
- Transmission not in park message appears with the driver door closed, after you shift out of park (P).

## **Reverse (R)**

With the selector in reverse (R), your vehicle moves backward. Always come to a complete stop before shifting into and out of reverse (R).

## **Neutral (N)**



In neutral (N), power does not transmit to the driven wheels, but the transmission does not lock. You can start the engine with the transmission in this position.

## **Temporary Neutral Mode**

### **What is Temporary Neutral Mode**

This mode keeps your vehicle in neutral (N) when you switch your vehicle off. Use this mode at an automatic car wash if you exit your vehicle, or switch your vehicle off.

**Note:** Do not tow your vehicle in this mode.

**Note:** Automatic return to park (P) delays when your vehicle is in this mode.

### **Temporary Neutral Mode Limitations**

Your vehicle could shift to park (P) after 30 minutes, or when the vehicle battery charge level is low. Prolonged use of this mode can cause the vehicle battery to run out of charge.

Do not tow your vehicle in this mode. Failure to follow these instructions could result in vehicle damage not covered by the vehicle warranty.

### **Entering Temporary Neutral Mode**

1. Power your vehicle on.
2. Bring your vehicle to a complete stop.

# Transmission

3. Press and hold the brake pedal.
4. Press the neutral (N) button.

**Note:** A confirmation message appears when your vehicle enters the mode.

5. Release the brake pedal.

**Note:** Your vehicle is free to roll.

6. Switch your vehicle off.

**Note:** Do not tow your vehicle in this mode.

**Note:** The neutral (N) indicator on the transmission selector may flash in this mode.

## Exiting Temporary Neutral Mode

1. Press the brake pedal.
2. Shift into park (P), or power your vehicle on and shift into drive (D), or reverse (R).

## Drive (D)

Drive (D) is the normal driving position for the best fuel economy.

## Transmission Not in Park (P) Audible Warning

Sounds if you open the driver door before shifting into park (P).

## Park Selection Audible Warning

Sounds when you shift into park (P).

## Manually Shifting Gears with Live in Drive

### Shifting Using Paddle Shifters

The instrument cluster displays the current gear. The current gear flashes when your vehicle cannot shift into the requested gear. Your vehicle cannot shift if the requested gear raises or lowers the engine speed beyond the limit.

Your vehicle could shift when you fully press the accelerator or brake pedal.

**Note:** Prolonged driving with high engine speed could cause vehicle damage not covered by the vehicle warranty.

**Note:** Shifting into the requested gear could affect the drive modes.



## Manually Shifting Gears in Drive (D)

Use this feature when overtaking another vehicle, or to temporarily change gear.

- Pull any paddle to switch the feature on.
- Pull the right (+) paddle to upshift.
- Pull the left (-) paddle to downshift.
- Hold the (+) paddle for a few seconds to switch the feature off.

**Note:** The feature switches off after a short period of time if you do not pull either paddle.

# Transmission

## Manual Park Release

**WARNING:** When doing this procedure, you need to take the transmission out of park (P) which means your vehicle can roll freely. To avoid unwanted vehicle movement, always fully apply the parking brake prior to doing this procedure. Use wheel chocks if appropriate.

**WARNING:** If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. Have your vehicle checked as soon as possible.

**WARNING:** Do not drive your vehicle until you verify that the stoplamps are working.

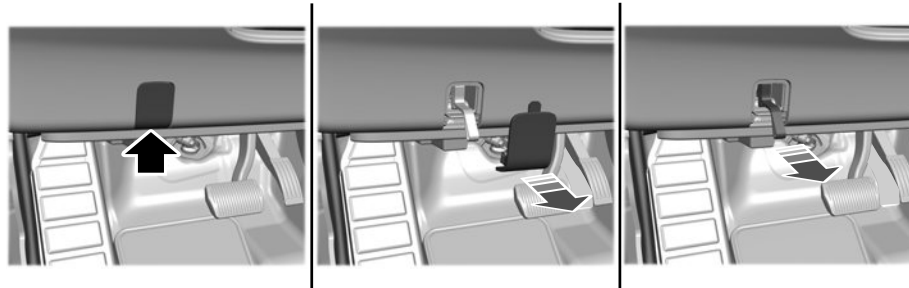
Use the manual park release to move your transmission from the park (P) position in the event of an electrical malfunction or emergency.

## Activating the Manual Park Release Cable

1. Apply the parking brake. See **Electric Parking Brake** (page 271).

**Note:** *If the vehicle battery runs out of charge, use an external power source to apply the parking brake.*

2. Locate the Manual Park Release cable access cover on the lower instrument panel dash to the bottom left-hand side of the steering column.



# Transmission

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- Using a tool or the key blade, carefully remove the access cover.

**Note:** *Do not pull the tether until you are in the driver seat.*

- Switch the ignition on.

**Note:** *Do not activate the manual park release when you start the engine.*

- Once in the driver seat, fully press the brake pedal and hold. Do not release. Pull the orange tether towards the driver seat until it locks the tether in the override position. Then leave the tether.
- Keep the tether extended while in the override position.
- If done correctly, a message on the instrument cluster displays Park Not Available, Transmission Not in Park, or Shift System Fault.

**Note:** *Your vehicle is now out of the park (P) position and is free to roll.*

- With your foot still fully applied on the brake pedal, disengage the parking brake. See **Electric Parking Brake** (page 271).

- Switch off the ignition.
- Disconnect the negative battery cable from the battery.

**Note:** *If your vehicle detects wheel movement before you disconnect the battery, the electric parking brake could apply.*

## Returning Your Vehicle to Normal Mode

- Once it is safe to do so, reconnect the negative, black, battery cable to the battery.
- Apply the parking brake. See **Electric Parking Brake** (page 271).

**Note:** *If your vehicle detects wheel movement, the electric parking brake could apply.*

**Note:** *If the vehicle battery runs out of charge, use an external power source to apply the parking brake.*

- Fully apply the brake pedal and hold, do not release. Pull the orange tether outward toward the driver seat to remove it from the override position.

- The cable releases and retracts back to its original rest position.
- Stow the manual park release cable tether back inside the instrument panel dash hole and install the access cover by pressing it back in position.
- With your foot fully applied on the brake pedal, start your vehicle. Confirm that your vehicle is in the park (P) position and that the instrument cluster indicates park (P).
- If the instrument cluster is not displaying the park (P) position or there is a message stating Park Not Available, Transmission Not In Park, or Shift System Fault, apply the parking brake before exiting your vehicle. Contact an authorized dealer for service.

# Transmission

## Automatic Transmission Adaptive Learning

This feature may increase durability and provide consistent shift feel over the life of your vehicle. A new vehicle or transmission may have firm shifts, soft shifts or both. This is normal and does not affect the operation or durability of the transmission. Over time, the adaptive learning process fully updates transmission operation.

## If Your Vehicle Gets Stuck in Mud or Snow

If your vehicle gets stuck in mud or snow, you can rock it out by shifting between forward and reverse gears, stopping between shifts in a steady pattern. Press lightly on the accelerator in each gear.


**Note:** Do not rock your vehicle if the engine is not at normal operating temperature or damage to the transmission could occur.


**Note:** Do not rock your vehicle for more than a minute or damage to the transmission and tires could occur, or the engine may overheat.


**Note:** If your vehicle has SelectShift™, you can pull away in second (2) gear.

1. Shift into drive (D).
2. Pull the (+) paddle until 2 shows on the instrument cluster.

## AUTOMATIC TRANSMISSION - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

 **WARNING:** Apply the parking brake, shift into park (P), switch the ignition off and remove the key before you leave your vehicle. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** When your vehicle is stationary, keep the brake pedal fully pressed when shifting gears. Failure to follow this instruction could result in personal injury, death or property damage.

 **WARNING:** Do not apply the brake pedal and accelerator pedal simultaneously. Applying both pedals simultaneously for more than a few seconds will limit engine performance, which may result in difficulty maintaining speed in traffic and could lead to serious injury.

**Note:** You may not be able to shift out of park (P) unless the intelligent access key is inside your vehicle.

## Understanding the Shift Positions of Your Automatic Transmission





# Transmission

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## To place your vehicle in gear from park (P):

1. Fully press and hold the brake pedal when shifting out of park (P).
2. Press the desired gear on the transmission selector.
3. When you finish driving, come to a complete stop.
4. Press the park (P) button on the transmission selector.

The instrument cluster displays the current gear.

## Park (P)

With the transmission in park (P), your vehicle locks the transmission and prevents the wheels from turning. Always come to a complete stop before putting your vehicle into and out of park (P). An audible tone sounds once you select park (P).

The electric parking brake may apply when you shift to park (P) without fully pressing the brake pedal. The electric parking brake applies when you shift to park (P) on large slopes. The electric parking brake releases with the drive away release operation. See **Electric Parking Brake** (page 271).

## Automatic Return to Park

### **What is Automatic Return to Park (P)**

Your vehicle shifts into park (P) if you attempt to exit your vehicle without the transmission in park (P).

### **How Does Automatic Return to Park (P) Work**

Your vehicle shifts into park (P) when your vehicle is stationary and any of the following occur:

- You switch the vehicle off.
- You open the driver door with your seatbelt unlatched.
- You unlatch the driver seatbelt when the driver door is open.

**Note:** Do not use automatic return to park (P) when your vehicle is moving, except in an emergency.

## **Automatic Return to Park (P) Limitations**

Automatic return to park (P) may not work if the door ajar switch is malfunctioning.

See an authorized dealer if any of the following occur:

- Door ajar indicator does not illuminate with the driver door open.
- Door ajar indicator illuminates with the driver door closed.
- Transmission not in park message appears with the driver door closed, after you shift out of park (P).

## **Reverse (R)**

With the selector in reverse (R), your vehicle moves backward. Always come to a complete stop before shifting into and out of reverse (R).

# Transmission

## Neutral (N)



**WARNING:** In neutral (N) your vehicle is free to roll.

In neutral (N), power does not transmit to the driven wheels, but the transmission does not lock. You can start the engine with the transmission in this position.

## Temporary Neutral Mode

### *What is Temporary Neutral Mode*

This mode keeps your vehicle in neutral (N) when you switch your vehicle off. Use this mode at an automatic car wash if you exit your vehicle, or switch your vehicle off.

**Note:** Do not tow your vehicle in this mode.

**Note:** Automatic return to park (P) delays when your vehicle is in this mode.

## *Temporary Neutral Mode Limitations*

Your vehicle could shift to park (P) after 30 minutes, or when the vehicle battery charge level is low. Prolonged use of this mode can cause the vehicle battery to run out of charge.

Do not tow your vehicle in this mode. Failure to follow these instructions could result in vehicle damage not covered by the vehicle warranty.

## *Entering Temporary Neutral Mode*

1. Power your vehicle on.
2. Bring your vehicle to a complete stop.
3. Press and hold the brake pedal.
4. Press the neutral (N) button.

**Note:** A confirmation message appears when your vehicle enters the mode.

5. Release the brake pedal.

**Note:** Your vehicle is free to roll.

6. Switch your vehicle off.

**Note:** Do not tow your vehicle in this mode.

**Note:** The neutral (N) indicator on the transmission selector may flash in this mode.

## *Exiting Temporary Neutral Mode*

1. Press the brake pedal.
2. Shift into park (P), or power your vehicle on and shift into drive (D), or reverse (R).

## Drive (D)

Drive (D) is the normal driving position for the best fuel economy.

## Transmission Not in Park (P) Audible Warning

Sounds if you open the driver door before shifting into park (P).

## Park Selection Audible Warning

Sounds when you shift into park (P).

# Transmission

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## **If Your Vehicle Gets Stuck In Mud or Snow**

If your vehicle gets stuck in mud or snow, you can rock it out by shifting between forward and reverse gears, stopping between shifts in a steady pattern. Press lightly on the accelerator in each gear.

**Note:** *Do not rock your vehicle if the engine is not at normal operating temperature or damage to the transmission could occur.*

**Note:** *Do not rock your vehicle for more than a minute or damage to the transmission and tires could occur, or the engine may overheat.*

## All-Wheel Drive (If Equipped)

### USING ALL-WHEEL DRIVE

**Note:** When a system malfunction is present, a warning message appears in the information display. See **Information Messages** (page 142). This means the system is not functioning correctly and only front-wheel drive is available. Have your vehicle checked by an authorized dealer.

**Note:** When the system overheats and switches to front-wheel drive, a warning message appears in the information display. This may occur if you operate your vehicle in extreme high load conditions or with excessive wheel spin (for example, deep sand). To resume all-wheel drive function, stop your vehicle in a safe location and turn off the ignition. When the system cools, normal all-wheel drive function will return.

**Note:** When using the spare tire, a warning message may appear in the information display. This message turns off after reinstalling the repaired or replaced road tire and you switch on the ignition.

**Note:** Re-install the repaired tire or replace the tire as soon as possible. Different tire sizes between the front and rear axles can cause system damage, or turn off the all-wheel drive.

This system anticipates wheel spin and transfers power to the rear wheels before the spin occurs. Even when wheel spin is not occurring, the system is continuously adjusting power distribution to the wheels, in an attempt to improve straight line and cornering, both on and off road.

The system automatically turns on every time you switch on the ignition.

The all-wheel drive system does not require maintenance.

Your all-wheel drive vehicle is not intended for off-road use. The AWD feature gives your vehicle some limited off-road capabilities in which driving surfaces are relatively level, obstruction-free and otherwise similar to normal on-road driving conditions. Operating your vehicle in other than those conditions could subject your vehicle to excessive stress which might result in damage that is not covered under your vehicle warranty.



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The information display indicates the power distribution between the front and rear wheels. The more the area is filled, the more power is being distributed to that wheel.

### Driving in Special Conditions With All-Wheel Drive

All-wheel drive has operating characteristics that are somewhat different from two-wheel drive, both on and off the freeway.

**Note:** It may be useful to switch the traction control off. This allows for more wheel spin and engine torque in certain off road conditions or if your vehicle becomes stuck.

## All-Wheel Drive (If Equipped)

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When driving at slow speeds off road under high load conditions, use a low gear when possible. Low gear operation will maximize the engine and transmission cooling capability.

Under severe operating conditions, the air conditioning may cycle on and off to prevent the engine from overheating.

### Basic Operating Principles

- Drive slower in strong crosswinds that can affect the normal steering characteristics of your vehicle.
- When driving your vehicle on surfaces made slippery by loose sand, water, gravel, snow or ice, proceed with care.

### If Your Vehicle leaves the Road

If your vehicle leaves the road, reduce your vehicle speed and avoid severe braking. Once you have reduced your vehicle speed, ease your vehicle back onto the road. Do not turn the steering wheel sharply while returning your vehicle to the road.

It may be safer to stay on the shoulder of the road and slow down gradually before returning to the road. You may lose control if you do not slow down or if you turn the steering wheel too sharply or abruptly.

It may be less risky to strike small objects, such as freeway reflectors, with minor damage to your vehicle rather than attempt an abrupt dangerous direction change. Remember, your primary concern should be your safety and the safety of others.

### Emergency Maneuvers

If you must make a sudden emergency direction change, avoid over-driving your vehicle. Turn the steering wheel only as rapidly and as far as you need to avoid the emergency. Apply smooth pressure to the accelerator pedal or brake pedal as needed. Avoid abrupt steering, acceleration and braking changes. Abrupt changes could increase the risk of vehicle roll over, loss of vehicle control and personal injury. Use all available road surfaces to bring your vehicle under control.

In the event of an emergency stop, avoid skidding and do not attempt any sharp steering wheel movements.

Your vehicle responds differently to steering, accelerating and braking on different road surfaces when changing from one type of surface to another.

### Sand

When driving over sand, avoid driving at excessive speeds. This will cause your vehicle momentum to work against you. Your vehicle could become stuck and that may require assistance from another vehicle. Remember, if you proceed with caution you may be able to back out the way you came.

Do not drive in deep sand for an extended period. This will cause the all-wheel drive system to overheat. You will see a warning message in the information display. See **Information Messages** (page 142).

## All-Wheel Drive (If Equipped)

To resume operation, switch the ignition off and allow the system to cool down for a minimum of 15 minutes. After the system has cooled down, you will see a brief message display in the information display. See **Information Messages** (page 142).

When driving at slow speeds in deep sand under high outside temperatures, use a low gear when possible. Low gear operation will maximize the engine and transmission cooling capability.

Tips when driving over sand:

- Keep all four wheels on the most solid area of the trail.
- Shift to a lower gear.
- Apply the accelerator slowly.
- Drive steadily through the terrain.
- Avoid excessive wheel spin.
- Avoid reducing the tire pressures.

### Mud and Water

#### Mud

Avoid sudden changes in vehicle speed or direction when you are driving in mud. Even all-wheel drive vehicles can lose traction in mud. If your vehicle does slide, steer in the direction of the slide until you regain control of your vehicle.

After driving through mud, clean off excess mud stuck to rotating driveshafts and tires. Excess mud stuck on tires and rotating driveshafts can cause an imbalance that could damage drive components.

#### Water

Drive slowly through high water. Traction or brake capability may be limited.

When driving through water, determine the depth and avoid water higher than the bottom of the wheel rims. If the ignition system gets wet, your vehicle may stall.

Once through water, always try the brakes. Wet brakes will not stop your vehicle as quickly as dry brakes. Apply light pressure to the brake pedal while slowly moving the vehicle to dry the brakes.

**Note:** *Driving through deep water may damage the transmission. If the front or rear axle is submerged in water, have the power transfer unit (PTU) or rear axle serviced by an authorized dealer.*

### Driving on Hilly or Sloping Terrain

Although natural obstacles may make it necessary to travel diagonally up or down a hill or steep incline, always try to drive straight up or straight down the sloping terrain.

**Note:** *To maintain traction and avoid possibly rolling your vehicle, avoid turning on steep slopes or hills. When you drive on a hill, determine beforehand the route you will use. Do not drive over a hill without first seeing what is on the other side. Do not drive in reverse over a hill without the aid of an observer.*

## All-Wheel Drive (If Equipped)

Start climbing a steep slope or hill in a low gear rather than downshifting to a low gear from a high gear after you have started your climb. This reduces strain on the engine and the possibility of stalling.

If your vehicle stalls, do not try to turn around. Turning could cause the vehicle to roll over. Instead, reverse back to a safe location.

Apply just enough power to the wheels to climb the hill. Too much power will cause the tires to slip, spin or lose traction, and you could lose control of your vehicle.



To avoid brake overheating, come down a hill in the same gear you used to go up the hill. Do not come down in neutral. Move the transmission selector lever to a lower gear. When descending a steep hill, avoid sudden hard braking to keep the front wheels rolling and to maintain your vehicle's steering.

Your vehicle has anti-lock brakes. Apply the brakes steadily. Do not pump the brake pedal.

### Driving on Snow and Ice



**WARNING:** If you are driving in slippery conditions that require tire chains or cables, then it is critical that you drive cautiously. Keep speeds down, allow for longer stopping distances and avoid aggressive steering to reduce the chances of a loss of vehicle control which can lead to serious injury or death. If the rear end of your vehicle slides while cornering, steer in the direction of the slide until you regain control of your vehicle.

**Note:** Excessive tire slippage can cause transmission damage.

In snow and ice, all-wheel drive vehicles have advantages over two-wheel drive vehicles but can still skid. When driving on snowy or icy roads, should you start to slide, turn the steering wheel in the direction of the slide until you regain control.

On snow and ice, avoid suddenly applying power and avoid quick change of direction. Apply the accelerator slowly and steadily when starting from a stop.

Avoid sudden braking. An all-wheel drive vehicle may accelerate better than a two-wheel drive vehicle in snow and ice. However, an all-wheel drive vehicle will not stop any faster, as braking occurs at all four wheels. Do not become overconfident to road conditions.

## All-Wheel Drive (If Equipped)

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Make sure that you allow sufficient distance between your vehicle and other vehicles for stopping. On ice and snow, you should drive more slowly than usual, and consider using one of the lower gears. In emergency stopping situations, steadily apply the brake. Your vehicle has a four wheel anti-lock brake system, do not pump the brake pedal. See **Hints on Driving With Anti-Lock Brakes** (page 271).

### **If Your Vehicle Gets Stuck In Mud or Snow**

If your vehicle becomes stuck in mud or snow, shift between forward and reverse gears, and, in a steady pattern, stop between shifts. Press lightly on the accelerator with each shift. Rocking your vehicle this way may dislodge your vehicle.

**Note:** *Do not rock your vehicle if the engine is not at normal operating temperature, damage to the transmission may occur.*

**Note:** *Do not rock your vehicle for more than a minute, damage to the transmission and tires may occur or the engine may overheat.*

### **Maintenance and Modifications**

The suspension and steering systems on your vehicle provides predictable performance whether your vehicle is loaded or empty. For this reason, we recommend that you do not make modifications to your vehicle (lift kits or stabilizer bars) or use replacement parts not equivalent to the original factory equipment.

We recommend that you use caution when your vehicle has either a high load or device (ladder or luggage racks). Modifications to your vehicle that raise the center of gravity may cause your vehicle to tip if you should lose vehicle control.

Failure to maintain your vehicle correctly may void the warranty, increase your repair cost, reduce vehicle performance and operational capabilities, and adversely affect you and your passenger's safety. We recommend that you frequently inspect your vehicle's chassis components if your vehicle is subject to off-road use.



# Brakes

## GENERAL INFORMATION

**Note:** Occasional brake noise is normal. If a metal-to-metal, continuous grinding or continuous squeal sound is present, the brake linings may be worn-out, have an authorized dealer check them. If your vehicle has continuous vibration or shudder in the steering wheel when braking, an authorized dealer should check your vehicle.

**Note:** Brake dust may accumulate on the wheels, even under normal driving conditions. Some dust is inevitable as the brakes wear and does not contribute to brake noise. Wet brakes result in reduced braking efficiency. Gently press the brake pedal a few times when driving from a car wash or standing water to dry the brakes.

See **Cleaning the Wheels** (page 419).

## Brake Over Accelerator

In the event the accelerator pedal becomes stuck or entrapped, apply steady and firm pressure to the brake pedal to slow the vehicle and reduce engine power. If you experience this condition, apply the brakes and bring your vehicle to a safe stop. Move the transmission to park (P), switch the engine off and apply the parking brake. Inspect the accelerator pedal for any interference. If none are found and the condition persists, have your vehicle towed to the nearest authorized dealer.

## Emergency Brake Assist

Emergency brake assist detects when you brake heavily by measuring the rate at which you press the brake pedal. It provides maximum braking efficiency as long as you press the pedal. Emergency brake assist can reduce stopping distances in critical situations.

**Note:** Depending on applicable laws and regulations in the country for which your vehicle was originally built, your brake lamps may flash during heavy braking. Following this, your hazard lights may also flash when your vehicle comes to a stop.

## Anti-lock Brake System

This system helps you maintain steering control during emergency stops by keeping the brakes from locking.



If the light does not momentarily illuminate, continues to flash or remains on when you switch the ignition on, the anti-lock brake system could be disabled. Have the system checked. If the anti-lock brake system is disabled, normal braking is still effective. Have the system checked.

See **Warning Lamps and Indicators** (page 131).

**Note:** Indicators vary depending on region.

# Brakes

## BRAKE

If the light does not momentarily illuminate, continues to flash or remains on when you switch the ignition on, have the system checked by an authorized dealer. If the brake warning lamp illuminates with the parking brake released, have the system checked immediately.



## HINTS ON DRIVING WITH ANTI-LOCK BRAKES

The anti-lock brake system does not eliminate the risks when:

- You drive too closely to the vehicle in front of you.
- Your vehicle is hydroplaning.
- You take corners too fast.
- The road surface is poor.

**Note:** *If the system activates, the brake pedal could pulse and may travel further. Maintain pressure on the brake pedal. You may also hear a noise from the system. This is normal.*

## ELECTRIC PARKING BRAKE



**WARNING:** Always fully apply the parking brake and make sure you shift into park (P). Failure to follow this instruction could result in personal injury or death.



**WARNING:** If you drive extended distances with the parking brake applied, you could cause damage to the brake system.



**WARNING:** The electric parking brake does not operate if the vehicle battery is running out of charge.

**Note:** *The electric parking brake makes noises during operation. This is normal.*

Your vehicle has an electric parking brake. You operate it with a switch instead of a lever. The switch is on the center console or to the left-hand side of the steering wheel, on the lower part of the instrument panel.

## Applying the Electric Parking Brake



Pull the switch upward.



The red warning lamp flashes during operation and illuminates when you apply the parking brake.



**Note:** *It remains illuminated for a short period of time after you switch the ignition off.*

If it continues to flash or does not illuminate, the system has malfunctioned. Have your vehicle checked as soon as possible.

**Note:** *You can apply the electric parking brake when the ignition is off.*

**Note:** *The electric parking brake could automatically apply when you shift into park (P). See **Transmission** (page 256).*

# Brakes

## Applying the Electric Parking Brake in an Emergency

**Note:** Do not apply the electric parking brake when your vehicle is moving, except in an emergency. If you repeatedly use the electric parking brake to slow or stop your vehicle, you could cause damage to the brake system.

You can use the electric parking brake to slow or stop your vehicle in an emergency.



Pull the switch upward and hold it.

The red warning lamp illuminates, a tone sounds and the stoplamps turn on.



The electric parking brake continues to slow your vehicle down unless you release the switch.

## Manually Releasing the Electric Parking Brake

Switch the ignition on.

Press and hold the brake pedal.



Push the switch downward.

The red warning lamp turns off.



If it remains illuminated or flashes, the system has malfunctioned. Have your vehicle checked as soon as possible.

## Pulling Away on a Hill When Towing a Trailer

Press and hold the brake pedal.



Pull the switch upward and hold it.

Shift into gear.

Press the accelerator pedal until engine has developed sufficient torque to prevent your vehicle from rolling down the hill.



Release the switch and pull away in a normal manner.

## Automatically Releasing the Electric Parking Brake

Close the driver door.

Shift into gear.

Press the accelerator pedal and pull away in a normal manner.



The red warning lamp turns off.



If it remains illuminated or flashes, the electric parking brake has not released. Manually release the parking brake.

# Brakes

## Releasing the Electric Parking Brake if the Vehicle Battery is Running Out of Charge

**Note:** *The electric parking brake does not apply or release if the battery is low or has no charge.*

Connect a booster battery to the vehicle battery to release the electric parking brake if the vehicle battery is running out of charge. See **Jump Starting the Vehicle** (page 364).

## HILL START ASSIST (IF EQUIPPED)



**WARNING:** The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake.



**WARNING:** You must remain in your vehicle when the system turns on. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

**Note:** *If the engine is revved excessively, or if a malfunction is detected, the system turns off.*

The system makes it easier to pull away when your vehicle is on a slope without the need to use the parking brake.

When the system is active, your vehicle will remain stationary on the slope for two to three seconds after you release the brake pedal. This allows you time to move your foot from the brake to the accelerator pedal. The brakes release automatically when the engine has sufficient torque to prevent your vehicle from rolling down the grade. This is an advantage when pulling away on a slope, for example from a car park ramp, traffic lights or when reversing uphill into a parking space.

The system will activate automatically on any slope that will cause significant vehicle rollback. For vehicles with a manual transmission, you can switch this feature off using the information display. See **Information Displays** (page 136). The system will remain on or off depending on how it was last set.

**Note:** *There is no warning lamp to indicate the system is either on or off.*

**Note:** *If your vehicle is equipped with Auto Hold, Hill Start Assist is not available while Auto Hold is active.*

## Using Hill Start Assist

1. Bring your vehicle to a complete standstill. Keep the brake pedal pressed and select a forward gear, for example, drive (D) or first (1) when facing uphill or reverse (R) when facing downhill.
2. If the sensors detect that your vehicle is on a slope, the system will activate automatically.

# Brakes

- When you remove your foot from the brake pedal, your vehicle will remain on the slope without rolling away for about two or three seconds. This hold time will automatically be extended if you are in the process of driving off.
- Drive off in the normal manner. The brakes will release automatically.

## Switching the System On and Off

When you switch the ignition on, the system automatically turns on. You cannot switch the system on or off.

## AUTO HOLD (IF EQUIPPED)



**WARNING:** The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake.



**WARNING:** You must remain in your vehicle when the system turns on. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.



**WARNING:** The system turns off if there is a malfunction or if you excessively rev the engine.

The system is designed to apply the brakes to hold your vehicle at a standstill after you stop your vehicle and release the brake pedal. This could be beneficial in certain situations, for example when waiting on a hill or in traffic.

## Switching Auto Hold On and Off



Press the button in the instrument panel to access the Auto Hold feature on the touchscreen.

**Note:** You can only switch the system on after you close the driver door, fasten your seatbelt and start the engine.

**Note:** The system remembers the last setting when you start your vehicle.

Make sure you switch the system off before towing with your vehicle or before using an automatic car wash.

## Using Auto Hold

- Use the brakes to bring your vehicle to a complete stop. The auto hold active indicator illuminates in the information display.
- Release the brake pedal. The system holds your vehicle at a standstill. The auto hold active indicator remains illuminated in the information display.

**Note:** The system only activates if you apply enough brake pressure. If your vehicle is on a steep slope, you need to press the brake pedal harder before the system activates.

**Note:** Under certain conditions, the system could apply the electric parking brake. The brake system warning lamp illuminates. The electric parking brake releases when you press the accelerator pedal. See **Electric Parking Brake** (page 271).

# Brakes


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**Note:** *If auto-start-stop turns off the engine, auto hold remains active.*

**Note:** *The system turns off if you shift into reverse (R) and press the brake pedal.*

3. Pull away in the normal manner. The system releases the brakes and the auto hold active indicator turns off.

## Auto Hold Indicator

 The auto hold indicator is shown in the information display. The indicator illuminates in green when the system is active. Your vehicle remains stationary after you release the brake pedal.

 Illuminates in grey when auto hold is on but unavailable to hold your vehicle at a standstill.

The system could be unavailable when any of the following occur:

- During an active park assist maneuver.
- Your vehicle is in neutral (N).
- The driver door is open.
- You do not fasten your seatbelt.

- You shift into reverse (R) before the system is active.

# Reverse Braking Assist (If Equipped)


## WHAT IS REVERSE BRAKING ASSIST





Reverse braking assist design is to reduce impact damage or assists in avoiding a collision by using the sensors on the rear of your vehicle to detect a possible collision and applies the brakes. The system functions when in reverse (R) and traveling at a speed of 1–7 mph (1.5–12 km/h).


If the system detects an obstacle behind your vehicle, it provides a warning through the rear parking aid or cross traffic alert system.


## REVERSE BRAKING ASSIST PRECAUTIONS


 **WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.

 **WARNING:** The system may not operate properly during severe weather conditions, for example snow, ice, heavy rain and spray. Always drive with due care and attention. Failure to take care may result in a crash.

 **WARNING:** Traffic control systems, fluorescent lamps, inclement weather, air brakes, external motors and fans may affect the correct operation of the sensing system. This may cause reduced performance or false alerts.

 **WARNING:** Some situations and objects prevent hazard detection. For example low or direct sunlight, inclement weather, unconventional vehicle types, and pedestrians. Apply the brakes when necessary. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** Do not use the system with accessories that extend beyond the front or rear of your vehicle, for example a trailer hitch or bike rack. The system is not able to make corrections for the additional length of the accessories.

# Reverse Braking Assist (If Equipped)

The system only applies the brakes for a short period of time when an event occurs. Act as soon as you notice the brakes apply in order to remain in control of the vehicle. If you do not intervene the vehicle may start to move again.

**Note:** Certain add-on devices around the bumper or fascia may create false alerts. For example, large trailer hitches, bicycle or surfboard racks, license plate brackets, bumper covers or any other device that may block the normal detection zone of the system. Remove the add-on device to prevent false alerts.

**Note:** The system does not react to small or moving objects, particularly those close to the ground.

**Note:** The system does not operate during hard acceleration or steering.

**Note:** If your vehicle sustains damage to the bumper or fascia leaving it misaligned or bent, it could alter the sensing zone causing inaccurate measurement of obstacles or false alerts.

**Note:** Vehicle loading and suspension changes can impact the angle of the sensors and may change the normal detection zone of the system resulting in inaccurate measurement of obstacles or false alerts.

**Note:** When you connect a trailer, the system may detect the trailer and provide an alert, or the system turns off. If the system does not turn off, switch the system off manually after you connect the trailer.

**Note:** You may experience reduced system performance on road surfaces that limit deceleration. For example, roads with ice, loose gravel, mud or sand.

## SWITCHING REVERSE BRAKING ASSIST ON AND OFF

You can switch the system on or off through the touchscreen. See **Settings** (page 555).

**Note:** The system is unavailable when rear parking aid or cross traffic alert is off.

## OVERRIDING REVERSE BRAKING ASSIST

There could be instances when unexpected or unwanted braking occurs. Firmly pressing the accelerator pedal or switching the feature off overrides the system.

## REVERSE BRAKING ASSIST INDICATORS

If the system determines that a collision with an obstacle may occur, full braking may apply. Bring your vehicle to a stop a safe distance away from the obstacle.



A message and warning indicator appear when the system applies the brakes.



# Reverse Braking Assist (If Equipped)

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## REVERSE BRAKING ASSIST – TROUBLESHOOTING

### REVERSE BRAKING ASSIST – INFORMATION MESSAGES

Message	Action
Reverse Brake Assist Not Available See Manual	Make sure that all doors, liftgate and hood are closed. Drive the vehicle on a straight road for a short period. Make sure the parking aids and cross traffic alert systems are on. If the message remains on, have the system checked as soon as possible.
Reverse Brake Assist Fault	Displays when a system error has occurred. Have your vehicle checked as soon as possible.
Reverse Brake Assist Off	Displays when reverse brake assist is off.

## Reverse Braking Assist (If Equipped)

### REVERSE BRAKING ASSIST – FREQUENTLY ASKED QUESTIONS

Why is reverse braking assist unavailable?

- Make sure the reverse braking assist is on. See **Switching Reverse Braking Assist On and Off** (page 277).
- Make sure that all doors and the liftgate or tailgate are closed. Drive the vehicle on a straight road for a short period. If the message remains, contact an authorized dealer.
- Make sure the cross traffic alert system is on if equipped.
- Make sure the rear parking aid system is on. See **Parking Aids** (page 283).
- Make sure the traction control is on. See **Using Traction Control** (page 280).

**Note:** *The traction control automatically turns off if four-wheel drive low and certain drive modes such as mud/ruts and snow/sand is activated.*

- The vehicle may have sustained a rear end impact. Contact an authorized dealer to have the sensors checked for proper coverage and operation.
- An anti-lock brake, traction control or stability control event may have occurred. Reverse braking assist resumes operation when the event is complete.
- Make sure the rear view camera and 360 degree camera are not dirty or obstructed. If dirty, clean the camera. If the message still appears after cleaning the camera, wait a short time for the message to clear. If the message does not clear, contact an authorized dealer.
- Make sure the cross traffic alert and rear parking aid sensors are not blocked or faulty.
- You recently had your vehicle serviced, or the battery disconnected. Drive your vehicle a short distance to resume system operation.
- Reverse braking assist does not function when you connect a trailer. Operation resumes when you disconnect the trailer.

**Note:** *If the answers to why the system is unavailable do not assist in returning reverse braking assist to available, have the system checked as soon as possible.*

# Traction Control

## PRINCIPLE OF OPERATION

The traction control system helps avoid drive wheel spin and loss of traction.

If your vehicle begins to slide, the system applies the brakes to individual wheels and, when needed, reduces engine power at the same time. If the wheels spin when accelerating on slippery or loose surfaces, the system reduces engine power in order to increase traction.

## USING TRACTION CONTROL



**WARNING:** Operating your vehicle with the traction control disabled could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

The system automatically turns on each time you switch the ignition on.

If your vehicle is stuck in mud or snow, switching traction control off may be beneficial as this allows the wheels to spin.

**Note:** When you switch traction control off, stability control remains fully active.

### Switching the System Off

When you switch the system off or on, a message appears in the information display showing system status.

You can switch the system off by either using the information display controls or the switch.

### Using the Information Display Controls

You can switch this feature off or on in the information display. See **General Information** (page 136).

### Using a Switch (If Equipped)

Use the traction control switch on the instrument panel to switch the system off or on.

### System Indicator Lights and Messages



The stability and traction control light:

- Temporarily illuminates on engine start-up.
- Flashes when a driving condition activates either of the systems.
- Illuminates if a problem occurs in either of the systems.



The stability and traction control off light temporarily illuminates on engine start-up and stays on when you switch the traction control system off.

# Stability Control

## PRINCIPLE OF OPERATION



**WARNING:** Vehicle modifications involving braking system, aftermarket roof racks, suspension, steering system, tire construction and wheel and tire size may change the handling characteristics of your vehicle and may adversely affect the performance of the electronic stability control system. In addition, installing any stereo loudspeakers may interfere with and adversely affect the electronic stability control system. Install any aftermarket stereo loudspeaker as far as possible from the front center console, the tunnel, and the front seats in order to minimize the risk of interfering with the electronic stability control sensors. Reducing the effectiveness of the electronic stability control system could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.



**WARNING:** Remember that even advanced technology cannot defy the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions. Aggressive driving on any road condition can cause you to lose control of your vehicle increasing the risk of personal injury or property damage. Activation of the electronic stability control system is an indication that at least some of the tires have exceeded their ability to grip the road; this could reduce the operator's ability to control the vehicle potentially resulting in a loss of vehicle control, vehicle rollover, personal injury and death. If your electronic stability control system activates, **SLOW DOWN.**

The system automatically turns on each time you switch the ignition on.

If a fault occurs in either the stability control or the traction control system, you may experience the following conditions:

- The stability and traction control light illuminates steadily.
- The stability control and traction control systems do not enhance your vehicle's ability to maintain traction of the wheels.

If a driving condition activates either the stability control or the traction control system you may experience the following conditions:

- The stability and traction control light flashes.
- Your vehicle slows down.
- Reduced engine power.
- A vibration in the brake pedal.
- The brake pedal is stiffer than usual.
- If the driving condition is severe and your foot is not on the brake, the brake pedal may move as the system applies higher brake force.

The stability control system has several features built into it to help you maintain control of your vehicle:

# Stability Control

## Electronic Stability Control

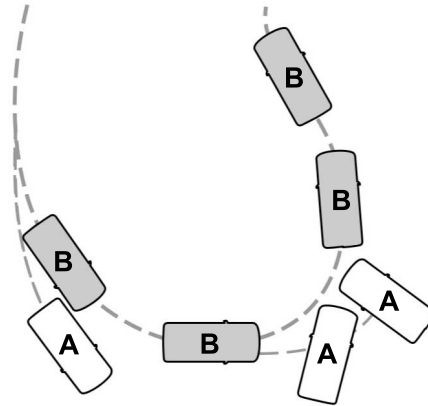
The system enhances your vehicle's ability to prevent skids or lateral slides by applying brakes to one or more of the wheels individually and, if necessary, reducing engine power.

## Roll Stability Control

The system enhances your vehicle's ability to prevent rollovers by detecting your vehicle's roll motion and the rate at which it changes by applying the brakes to one or more wheels individually.

## Traction Control

The system enhances your vehicle's ability to maintain traction of the wheels by detecting and controlling wheel spin. See **Using Traction Control** (page 280).



- A Vehicle without stability control skidding off its intended route.
- B Vehicle with stability control maintaining control on a slippery surface.

## USING STABILITY CONTROL

The system automatically turns on each time you switch the ignition on.

You cannot switch the stability control and roll stability control systems off, but when you shift into reverse (R), the systems turn off.

You can switch the traction control system off or on. See **Using Traction Control** (page 280).

# Parking Aids

## PRINCIPLE OF OPERATION



**WARNING:** To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.



**WARNING:** The system may not detect objects with surfaces that absorb reflection. Always drive with due care and attention. Failure to take care may result in a crash.



**WARNING:** Traffic control systems, inclement weather, air brakes, external motors and fans may affect the correct operation of the sensing system. This may cause reduced performance or false alerts.



**WARNING:** The system may not detect small or moving objects, particularly those close to the ground.

**Note:** If your vehicle has MyKey™, the sensing system cannot be switched off when a MyKey™ is present. See **What Is MyKey** (page 73).

**Note:** Keep the sensors on the bumper or fascia free from snow, ice and large accumulations of dirt. If the sensors are covered, the system's accuracy can be affected. Do not clean the sensors with sharp objects.

**Note:** If your vehicle sustains damage to the bumper or fascia, leaving it misaligned or bent, the sensing zone may be altered causing inaccurate measurement of obstacles or false alerts.

**Note:** Certain add-on devices installed around the bumper or fascia may create false alerts. For example, large trailer hitches, bike or surfboard racks, license plate brackets, bumper covers or any other device that may block the normal detection zone of the system. Remove the add-on device to prevent false alerts.

**Note:** When you connect a trailer to your vehicle, the rear parking aid may detect the trailer and therefore provide an alert. Disable the rear parking aid when you connect a trailer to prevent the alert.

The sensing system warns the driver of obstacles within a certain range of your vehicle. The system turns on automatically whenever you switch the ignition on.

You can switch the system off through the touchscreen, information display or from the pop-up message that appears once you shift the transmission into reverse (R). If your vehicle has a parking aid button, you can switch the system off by pressing the button.

If a fault is present in the system, a warning message appears in the information display. See **Information Messages** (page 142).

## REAR PARKING AID





**WARNING:** The system may not detect objects with surfaces that absorb reflection. Always drive with due care and attention. Failure to take care may result in a crash.



**WARNING:** The system may not detect small or moving objects, particularly those close to the ground.

# Parking Aids

 **WARNING:** To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.

 **WARNING:** The parking aid system can only assist you to detect objects when your vehicle is moving at parking speeds. To help avoid personal injury you must take care when using the parking aid system.

**Note:** *Keep the sensors free from snow, ice and large accumulations of dirt.*

**Note:** *Do not cover up the sensors.*

**Note:** *Do not clean the sensors with sharp objects.*

**Note:** *If your vehicle sustains damage leaving the sensors misaligned, this could cause inaccurate measurements or false alerts.*

**Note:** *Some accessories, for example, large trailer hitches, bike or surfboard racks, can cause reduced performance or false alerts.*

The sensors are on the rear bumper.

The sensors are active when the transmission is in reverse (R) and the vehicle speed is less than 5 mph (8 km/h). When the parking aid system sounds a tone, the audio system may reduce the set volume.

A warning tone sounds when your vehicle approaches an object. As your vehicle moves closer to an object, the rate of the tone increases. The warning tone continuously sounds when an object is 12 in (30 cm) or less from the center of the rear bumper.



The sensor coverage area is up to 70 in (180 cm) from the rear bumper.

**Note:** *There is a decreased coverage area at the outer corners.*

If the system detects a fault, a warning message appears in the information display.

The system detects large objects when you shift into reverse (R) and any of the following occur:

- Your vehicle is moving backward at low speed.
- Your vehicle is stationary, but an object is approaching the rear of your vehicle at low speed.
- Your vehicle is moving backward at low speed and an object is moving toward your vehicle, for example another vehicle at low speed.

If your vehicle remains stationary for two seconds, the audible warning turns off. If your vehicle moves backward, the tone sounds again.

**Note:** *If the detected object is 12 in (30 cm) or less from the rear bumper, the audible warning does not turn off.*

# Parking Aids

## Object Distance Indicator (If Equipped)





The system provides object distance indication through the information display.


- As the distance to the object decreases, the indicator blocks illuminate and move toward the vehicle icon.
- If the system does not detect an object, the distance indicator blocks are gray.


When you shift into reverse (R), the system provides audible warnings and visual indication when your vehicle is moving, and the detected object is moving toward your vehicle. When you stop your vehicle, the audible warnings stop after two seconds. Visual indication remains on when the transmission is in reverse (R).

## FRONT PARKING AID (IF EQUIPPED)

 **WARNING:** The system may not detect objects with surfaces that absorb reflection. Always drive with due care and attention. Failure to take care may result in a crash.

 **WARNING:** The system may not detect small or moving objects, particularly those close to the ground.

 **WARNING:** To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.

 **WARNING:** The parking aid system can only assist you to detect objects when your vehicle is moving at parking speeds. To help avoid personal injury you must take care when using the parking aid system.

**Note:** Keep the sensors free from snow, ice and large accumulations of dirt.

**Note:** Do not cover up the sensors.

**Note:** Do not clean the sensors with sharp objects.

**Note:** If your vehicle sustains damage leaving the sensors misaligned, this may cause inaccurate measurements or false alerts.

**Note:** Some accessories, for example large trailer hitches or bike or surfboard racks can cause reduced performance or false alerts.

The sensors are on the front bumper.



# Parking Aids

The sensors are active when the transmission is in any position other than park (P). When the parking aid system sounds a tone, the audio system may reduce the set volume.

A warning tone sounds when your vehicle approaches an object. As your vehicle moves closer to an object, the rate of the tone increases. The warning tone continuously sounds when an object is 12 in (30 cm) or less from the front bumper.

**Note:** *There is a decreased coverage area at the outer corners.*

The system turns off when the vehicle speed reaches 5 mph (8 km/h).



The sensor coverage area is up to 28 in (70 cm) from the center of the bumper.

If the transmission is in reverse (R), the system detects objects when your vehicle is moving at low speed or an object is moving toward your vehicle, for example another vehicle at low speed. When you stop your vehicle, the audible warning turns off after two seconds.

If the transmission is in any forward gear, the system provides audible warnings when your vehicle is moving and an object is within the detection area. When you stop your vehicle, the audible warning turns off after two seconds and the visual warning turns off after four seconds.

If the system detects a fault, a warning message appears in the information display.

## Object Distance Indicator (If Equipped)



The system provides object distance indication through the information display.

- As the distance to the object decreases, the indicator blocks illuminate and move toward the vehicle icon.
- If there is no object detected, the distance indicator blocks are gray.

# Parking Aids

When you shift into any forward gear, the system provides audible warnings and visual indication when your vehicle is moving at a speed of approximately 5 mph (8 km/h) or below and the system detects an object within the detection zone. When you stop your vehicle, the audible warnings stop after two seconds and visual indication stops after four seconds.

**Note:** *If the detected object is 12 in (30 cm) or less from your vehicle, visual indication remains on.*

When you shift into neutral (N), the system only provides visual indication if your vehicle is moving at a speed of approximately 5 mph (8 km/h) or below, for example, your vehicle is moving on a slope, and the system detects an object moving toward your vehicle. When you stop your vehicle, visual indication stops after four seconds.

## SIDE SENSING SYSTEM (IF EQUIPPED)



**WARNING:** The system may not detect objects with surfaces that absorb reflection. Always drive with due care and attention. Failure to take care may result in a crash.



**WARNING:** The system may not detect small or moving objects, particularly those close to the ground.



**WARNING:** To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.



**WARNING:** The parking aid system can only assist you to detect objects when your vehicle is moving at parking speeds. To help avoid personal injury you must take care when using the parking aid system.

The system uses the front and rear outermost parking aid sensors to detect objects that are near to the sides of your vehicle. The system displays them on a virtual map in the information display as your vehicle moves past them.

The sensors are on the front and rear bumpers.

**Note:** *Keep the sensors free from snow, ice and large accumulations of dirt.*

**Note:** *Do not cover up the sensors.*

**Note:** *Do not clean the sensors with sharp objects.*

**Note:** *If your vehicle sustains damage leaving the sensors misaligned, this may cause inaccurate measurements or false alerts.*

The system may not function if:

- You switch the ignition on, off and back on within a few seconds.
- Your vehicle remains stationary for over two minutes.
- The anti-lock brake system activates.
- The traction control system activates.

# Parking Aids

**Note:** If you switch traction control off, the side sensing system also turns off.

**Note:** Some accessories, for example large trailer hitches or bike or surfboard racks can cause reduced performance or false alerts.

To reinitialize the system, you may have to drive your vehicle approximately 10 ft (3 m).



The sensor coverage area is up to 24 in (60 cm) from the side of your vehicle.

When the system detects an object within the coverage area and the driving path of your vehicle, an audible warning sounds. As your vehicle moves closer to the object, the rate of the tone increases.

**Note:** The system does not detect an object that is moving toward the side of your vehicle, for example another vehicle moving at low speed, if it does not pass a front or rear sensor.

## Object Distance Indicator (If Equipped)



The system provides object distance indication through the information display.

- As the distance to the object decreases, the indicator blocks illuminate and move toward the vehicle icon.
- If there is no object detected, the distance indicator blocks are gray.

# Parking Aids

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When you shift into reverse (R), the system provides audible warnings and a visual indication when detected objects are within 24 in (60 cm) and are inside the driving path of your vehicle. When you stop your vehicle, the audible warnings turn off after two seconds.

When you shift into any forward gear, the system provides audible warnings and a visual indication when your vehicle is moving at a speed of approximately 5 mph (8 km/h) or below and the system detects an object within the detection zone. When you stop your vehicle, the audible warnings turn off after two seconds and the visual indication turns off after four seconds.

When you shift into neutral (N), the system only provides a visual indication if your vehicle is moving at a speed of approximately 5 mph (8 km/h) or below. For example, your vehicle is moving on a slope, and the system detects an object moving toward your vehicle. When you stop your vehicle, the visual indication turns off after four seconds.


If the system is not available, the side distance indicator blocks do not display.


# Rear View Camera


## WHAT IS THE REAR VIEW CAMERA


The rear view camera provides a video image of the area behind your vehicle when the transmission is in reverse (R).


## REAR VIEW CAMERA PRECAUTIONS

 **WARNING:** The rear view camera system is a reverse aid supplement device that still requires the driver to use it in conjunction with the interior and exterior mirrors for maximum coverage.

 **WARNING:** Objects that are close to either corner of the bumper or under the bumper, might not be seen on the screen due to the limited coverage of the camera system.

 **WARNING:** Reverse your vehicle slowly. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** Use caution when the rear cargo door is ajar. If the rear cargo door is ajar, the camera will be out of position and the video image could be incorrect. All guide lines disappear when the rear cargo door is ajar. Failure to follow this instruction could result in personal injury.

 **WARNING:** Use caution when turning camera features on or off when the transmission is not in park (P). Make sure your vehicle is not moving.

**Note:** *When towing, the camera only sees what you are towing. This might not provide adequate coverage and you might not see some objects. In some vehicles, the guide lines may disappear when you connect the trailer tow connector.*

## LOCATING THE REAR VIEW CAMERA



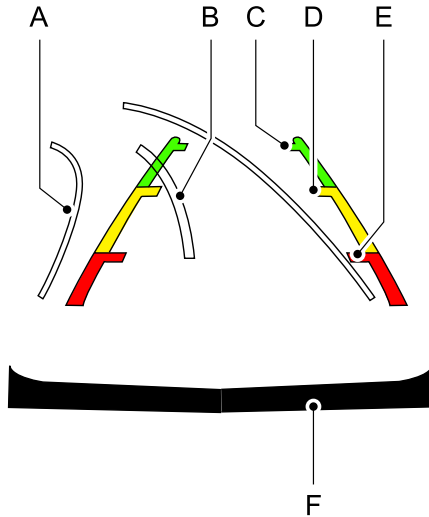
The rear view camera is on the tailgate.

## REAR VIEW CAMERA GUIDE LINES

**Note:** *Active guide lines and fixed guide lines are only available when the transmission is in reverse (R).*

**Note:** *The centerline is only available if the active or fixed guide lines are on.*

# Rear View Camera



- A. Active guide lines.
- B. Centerline.
- C. Fixed guide line: Green zone.

- D. Fixed guide line: Yellow zone.
- E. Fixed guide line: Red zone.
- F. Rear bumper.

Active guide lines only show with fixed guide lines. To use active guide lines, turn the steering wheel to point the guide lines toward an intended path. If the steering wheel position changes while reversing, your vehicle might deviate from the intended path.

The fixed and active guide lines fade in and out depending on the steering wheel position. The active guide lines do not display when the steering wheel position is straight.

Use caution while reversing. Objects in the red zone are closest to your vehicle and objects in the green zone are farther away. Objects get closer to your vehicle as they move from the green zone to the yellow or red zones. Use the side view mirrors and rear view mirror to get better coverage on both sides and rear of your vehicle.

## REAR VIEW CAMERA OBJECT DISTANCE INDICATORS

The system provides an image of your vehicle and the sensor zones. The zones highlight green, yellow, and red when the parking aid sensors detect an object in the coverage area.

## REAR VIEW CAMERA SETTINGS

### ZOOMING THE REAR VIEW CAMERA IN AND OUT



**WARNING:** When manual zoom is on, the full area behind your vehicle may not show. Be aware of your surroundings when using the manual zoom feature.

Selectable settings for this feature are zoom in (+) and zoom out (-). Press the symbol on the camera screen to change the view. The default setting is zoom off.

# Rear View Camera

---

This allows you to get a closer view of an object behind your vehicle. The zoomed image keeps the bumper in the image to provide a reference. The zoom is only active while the transmission is in reverse (R).

**Note:** *Manual zoom is only available when the transmission is in reverse (R).*

**Note:** *Only the centerline shows when you enable manual zoom.*

## SWITCHING REAR VIEW CAMERA DELAY ON AND OFF

1. Press **Features** on the touchscreen.
2. Press **Driver Assistance**.
3. Press **Rear View Camera**.
4. Switch **Rear View Camera Delay** on or off.

When shifting the transmission out of reverse (R) and into any gear other than park (P), the camera image remains in the display until:

- Your vehicle speed reaches approximately 5 mph (8 km/h).
- You shift your vehicle into park (P).

## 360 Degree Camera (If Equipped)

### WHAT IS THE 360 DEGREE CAMERA

The 360 degree camera system provides visibility around your vehicle in parking maneuvers such as:

- Centering in a parking space.
- Obstacles near your vehicle.
- Parallel parking.

The 360 degree camera system consists of front, side and rear cameras.

### 360 DEGREE CAMERA PRECAUTIONS



**WARNING:** The 360 degree camera system still requires the driver to use it in conjunction with looking out of the windows, and checking the interior and exterior mirrors for maximum coverage.



**WARNING:** Objects that are close to either corner of the bumper or under the bumper, might not be seen on the screen due to the limited coverage of the camera system.



**WARNING:** Use caution when turning camera features on or off when the transmission is not in park (P). Make sure your vehicle is not moving.



**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Use caution when the rear cargo door is ajar. If the rear cargo door is ajar, the camera will be out of position and the video image could be incorrect. All guide lines disappear when the rear cargo door is ajar. Failure to follow this instruction could result in personal injury.



**WARNING:** When manual zoom is on, the full area behind your vehicle may not show. Be aware of your surroundings when using the manual zoom feature.

### 360 DEGREE CAMERA LIMITATIONS

**Note:** Use caution if a door is ajar. The 360 degree camera could be out of position and the image could be incorrect.



## 360 Degree Camera (If Equipped)

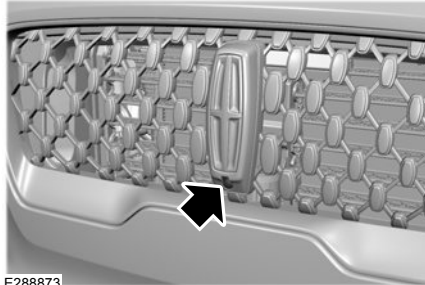
### 360 DEGREE CAMERA CAMERAS

#### LOCATING THE REAR VIEW CAMERA



The rear view camera is on the tailgate.

#### LOCATING THE FRONT VIEW CAMERA



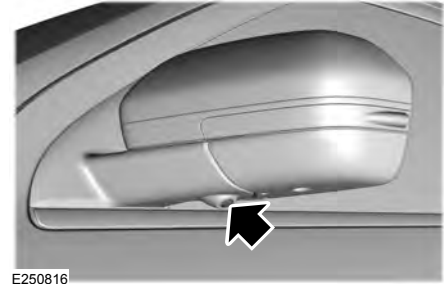
The front video camera, located in the grille, provides a video image of the area in front of your vehicle. It adds assistance to the drive while driving at low speeds.

To use the front camera system, place the transmission in any gear except reverse (R) and press the small icon in the corner of the screen.

**Note:** *The front camera system turns on when you are in mud/sand, rock crawl, or baja mode and your speed is less than 14.9 mph (24 km/h).*

The area displayed on the screen could vary according to your vehicle's orientation and road conditions.

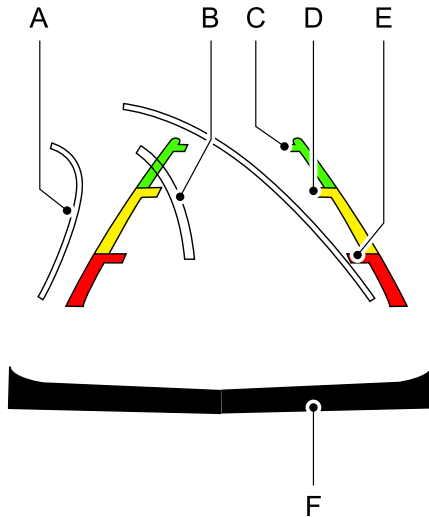
#### LOCATING THE SIDE VIEW CAMERA



The side view camera, that is in the outside mirror, provides a video image of the area on the sides of your vehicle as part of the front 360 + normal view and rear 360 + normal view. It aids you while parking your vehicle either forward or backward.

## 360 Degree Camera (If Equipped)

### 360 DEGREE CAMERA GUIDE LINES



- A. Active guide lines.
- B. Centerline.
- C. Fixed guide line: Green zone.
- D. Fixed guide line: Yellow zone.
- E. Fixed guide line: Red zone.
- F. Rear bumper.

Active guide lines only show with fixed guide lines. Turn the steering wheel to point the guide lines toward an intended path. If the steering wheel position changes when reversing, your vehicle could deviate from the intended path.

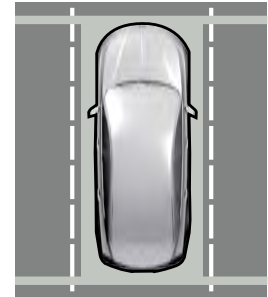
The fixed and active guide lines fade in and out depending on the steering wheel position. The active guide lines do not display when the steering wheel position is straight.

Objects in the red zone are closest to your vehicle and objects in the green zone are farther away. Objects get closer to your vehicle as they move from the green zone to the yellow or red zones. Use the side view mirrors and rear view mirror to get better coverage on both sides and rear of your vehicle.

**Note:** Active guide lines and fixed guide lines are only available when the transmission is in reverse (R).

**Note:** The centerline is only available if the active or fixed guide lines are on.

### Keep Out Zone



E225016

The yellow dotted lines running parallel to your vehicle represent the keep out zone.

# 360 Degree Camera (If Equipped)

## 360 DEGREE CAMERA SETTINGS

### SWITCHING THE 360 DEGREE CAMERA ON AND OFF



The 360 degree camera system button is on the instrument panel and allows you to toggle through different camera views. The front and rear cameras have multiple screens which consist of:

- Normal view
- Normal view with 360
- Split view

When in park (P), neutral (N) or drive (D), only the front images display when you press the button. When in reverse (R), only the rear images display when you press the button.

**Note:** *The 360 degree camera system turns off when your vehicle is in motion at low speed, except when in reverse (R).*

### SWITCHING THE 360 DEGREE CAMERA VIEW



Press to access the different camera views.



**Normal + 360 view:** Contains the normal camera view next to a 360 degree camera view.



**Normal view:** Provides an image of what is directly in front of or behind your vehicle.



**Split view:** Provides an extended view of what is in front of or behind your vehicle.



Zooms in on the image.

## Active Park Assist (If Equipped)

### WHAT IS ACTIVE PARK ASSIST

Assists you with parking in and out of parking spaces.

### SWITCHING ACTIVE PARK ASSIST ON AND OFF



Press the parking aid button, then press the active park assist icon on the touchscreen to bring up full screen notifications.

Press the soft keys on the touchscreen to switch between the parallel park in, perpendicular park in, or parallel park out parking modes.

### Cancelling Active Park Assist

To cancel parking assistance at any time, shift out of neutral (N).

### Pausing Active Park Assist

To pause parking assistance at any time, release the parking aid button.

If you open the passenger or rear doors, active park assist pauses.

To resume parking, press and hold the parking aid button again.

### ENTERING A PARALLEL PARKING SPACE

1. Press the parking aid button.

**Note:** *The system detects other vehicles and curbs to find a parking space.*

2. Press the active park assist icon on the touchscreen.
3. Select parallel parking.
4. Use the turn signal lever to search for a parking space on the driver or passenger side of your vehicle.

**Note:** *If you do not use the turn signal lever, the system searches for a parking space on the passenger side of your vehicle.*

5. Drive your vehicle approximately 3 ft (1 m) away from and parallel to the other parked vehicles when searching for a parking space.

**Note:** *A tone sounds and a message appears in the information and entertainment display when active park assist finds a suitable parking space.*

6. Press and hold the brake pedal.
7. Release the steering wheel and shift into neutral (N).
8. Press and hold the active park assist button.
9. Release the brake pedal to allow your vehicle to park.

**Note:** *You can slow down your vehicle at any time by pressing the brake pedal.*

**Note:** *When parallel parking between objects, the system parks closer to the object in front of your vehicle to allow easier access to the luggage compartment.*

**Note:** *When parking is complete, your vehicle shifts into park (P).*

### ENTERING A PERPENDICULAR PARKING SPACE

1. Press the parking aid button.

## Active Park Assist (If Equipped)

**Note:** Active park assist does not recognize parking space lines and centers your vehicle between objects.

2. Press the active park assist icon on the touchscreen.
3. Select perpendicular parking.
4. Use the turn signal lever to search for a parking space on the driver or passenger side of your vehicle.

**Note:** If you do not use the turn signal lever, the system searches for a parking space on the passenger side of your vehicle.

5. Drive your vehicle approximately 3 ft (1 m) away from and perpendicular to the other parked vehicles when searching for a parking space.

**Note:** A tone sounds and a message appears in the information and entertainment display when active park assist finds a parking space.

6. Press and hold the brake pedal.
7. Release the steering wheel and shift into neutral (N).

8. Press and hold the active park assist button.
9. Release the brake pedal to allow the vehicle to park.

**Note:** Active park assist backs your vehicle into parking spaces.

**Note:** Active park assist aligns the front end of your vehicle with the lane side of the object next to it.

**Note:** When the system detects only one object, it allows enough distance to open the door on either side.

**Note:** You can slow down your vehicle at any time by pressing the brake pedal.

**Note:** When parking is complete, your vehicle shifts into park (P).

### EXITING A PARKING SPACE

Active park assist only assists leaving parallel parking spaces.

1. Press the parking aid button.
2. Press the active park assist icon on the touchscreen.

3. Select parallel park exit.
4. Use the turn signal to choose the direction to exit the parking space.
5. Press and hold the brake pedal.
6. Release the steering wheel and shift into neutral (N).
7. Release the parking brake.
8. Press and hold the active park assist button.
9. Release the brake pedal to allow your vehicle to move.

**Note:** After active park assist drives your vehicle to a position where you can exit the parking space in a forward movement, a message appears instructing you to take full control of your vehicle.

10. Take control of your vehicle.

**Note:** You can slow down your vehicle at any time by pressing the brake pedal.

# Active Park Assist (If Equipped)

## ACTIVE PARK ASSIST – TROUBLESHOOTING

### ACTIVE PARK ASSIST – INFORMATION MESSAGES

Message	Action
Active Park Fault	The system requires service. Have your vehicle checked as soon as possible.

### ACTIVE PARK ASSIST – FREQUENTLY ASKED QUESTIONS

#### Why does active park assist not operate correctly?

The system is unable to detect a vehicle, curb or object to park next to or in between. The system needs boundary objects to operate correctly.

#### Why does active park assist not search for a parking space?

You have switched traction control off.

#### Why does active park assist not search for a parking space?

The transmission is in reverse (R). Your vehicle must be moving forward to be able to detect a parking space.

#### Why does active park assist not offer a parking space?

The sensors could be blocked. For example, snow, ice or large accumulations of dirt. Blocked sensors can affect how the system functions.

#### Why does active park assist not offer a parking space?

The sensors in the front or rear bumper could be damaged.

#### Why does active park assist not offer a parking space?

There is not enough room in the parking space for your vehicle to safely park.

#### Why does active park assist not offer a parking space?

There is not enough space for the parking maneuver on the opposite side of the parking space.

#### Why does active park assist not offer a parking space?

The parking space is more than 5 ft (1.5 m) or less than 2 ft (0.5 m) away from your vehicle.

#### Why does active park assist not offer a parking space?

Your vehicle's speed is greater than 22 mph (35 km/h) for parallel parking or greater than 19 mph (30 km/h) for perpendicular parking.

#### Why does active park assist not offer a parking space?

You recently disconnected or replaced the battery. After you reconnect the battery you must drive your vehicle on a straight road for a short period of time.

#### Why does active park assist not correctly position the vehicle into a parking space?

An irregular curb along the parking space prevents the system from correctly aligning your vehicle.

## Active Park Assist (If Equipped)

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### **Why does active park assist not correctly position the vehicle into a parking space?**

Vehicles or objects bordering the space could not be correctly parked.

### **Why does active park assist not correctly position the vehicle into a parking space?**

Your vehicle stopped too far past the parking space.

### **Why does active park assist not correctly position the vehicle into a parking space?**

The tires are not correctly installed or maintained. For example, using a spare tire, not inflated correctly, improper size, or of different sizes.

### **Why does active park assist not correctly position the vehicle into a parking space?**

A repair or alteration changed the detection capabilities.

### **Why does active park assist not correctly position the vehicle into a parking space?**

A parked vehicle has a high attachment. For example, a salt sprayer, snowplow or moving truck bed.

### **Why does active park assist not correctly position the vehicle into a parking space?**

The parking space length, or position of parked objects, changes after your vehicle passes the space.

### **Why does active park assist not correctly position the vehicle into a parking space?**

The temperature around your vehicle quickly changes. For example, driving from a heated garage into a cold outside temperature, or after leaving a car wash.

# Cruise Control

## WHAT IS CRUISE CONTROL

Cruise control lets you maintain a set speed without keeping your foot on the accelerator pedal.

### Requirements

Use cruise control when the vehicle speed is greater than 20 mph (30 km/h).

## SWITCHING CRUISE CONTROL ON AND OFF



**WARNING:** Do not use cruise control on winding roads, in heavy traffic or when the road surface is slippery. This could result in loss of vehicle control, serious injury or death.

The cruise controls are on the steering wheel.

### Switching Cruise Control On



Press the button to put the system in standby mode.

### Switching Cruise Control Off



Press the button when in standby mode or switch the ignition off.

**Note:** When you switch cruise control off the set speed clears.

## SETTING THE CRUISE CONTROL SPEED



**WARNING:** When you are going downhill, your vehicle speed could increase above the set speed. The system does not apply the brakes.

Drive to the speed you prefer.

**SET+**

Press either button to set the current speed.

**SET-**

Take your foot off the accelerator pedal.

**Note:** The indicator changes color in the information display.

### Changing the Set Speed

**SET+**

Press and release the button to increase the set speed in small increments.

Press and hold the button to accelerate. Release the button when you reach your preferred speed.

**SET-**

Press and release the button to decrease the set speed in small increments.

Press and hold the button to decelerate. Release the button when you reach your preferred speed.




# Cruise Control

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**Note:** *If you accelerate by pressing the accelerator pedal, the set speed does not change. When you release the accelerator pedal, your vehicle returns to the speed that you previously set.*


## CANCELING THE SET SPEED

 Press the button, or tap the brake pedal to cancel the set speed.


**Note:** *The system remembers the set speed.*

**Note:** *The system cancels if the vehicle speed drops below 10 mph (16 km/h) under the set speed when driving uphill.*

## RESUMING THE SET SPEED

 Press the button.

## CRUISE CONTROL INDICATORS

 Illuminates when you switch the system on.

# Adaptive Cruise Control (If Equipped)

## HOW DOES ADAPTIVE CRUISE CONTROL WITH STOP AND GO WORK

Adaptive cruise control with stop and go uses radar and camera sensors to adjust the speed of your vehicle to maintain a set gap from the vehicle in front of you in the same lane while following it to a complete stop. You can also engage the system to follow a vehicle in front of you and adjust set speed while stopped.

## WHAT IS ADAPTIVE CRUISE CONTROL WITH LANE CENTERING

Adaptive cruise control with lane centering uses radar and camera sensors to help keep your vehicle in the lane by applying continuous assistance steering torque input toward the lane center on highways.

**Note:** *The adaptive cruise control gap setting operates normally.*

## WHAT IS INTELLIGENT ADAPTIVE CRUISE CONTROL

Intelligent adaptive cruise control combines speed sign recognition with adaptive cruise control to adjust the cruise set speed to the speed limit detected by the speed sign recognition system. For example, if the speed sign recognition system detects a 50 mph (80 km/h) speed limit, the cruise set speed is updated to 50 mph (80 km/h) +/- the driver's selected speed offset.

**Note:** *The adaptive cruise control gap setting operates normally.*

## ADAPTIVE CRUISE CONTROL PRECAUTIONS - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH LANE CENTERING

Adaptive cruise control precautions apply to lane centering unless stated otherwise or contradicted by a lane centering precaution. See **Adaptive Cruise Control Precautions** (page 304).




**WARNING:** Do not use the system when towing a trailer. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.





**WARNING:** Do not use the system if any changes or modifications to the steering wheel have been made. Any changes or modifications to the steering wheel could affect the functionality or performance of the system. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.


# Adaptive Cruise Control (If Equipped)


## ADAPTIVE CRUISE CONTROL PRECAUTIONS - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH STOP AND GO


 **WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.


 **WARNING:** Pay close attention to changing road conditions such as entering or leaving a highway, on roads with intersections or roundabouts, roads without visible lanes of travel, roads that are winding, slippery, unpaved, or steep slopes.


 **WARNING:** The system does not control speed in low traction conditions or extremely steep slopes. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in personal injury.

 **WARNING:** The system is not a crash warning or avoidance system.


 **WARNING:** Do not use the system when towing a trailer that has aftermarket electronic trailer brake controls. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** Do not use tire sizes other than those recommended because this can affect the normal operation of the system. Failure to do so may result in a loss of vehicle control, which could result in serious injury.

 **WARNING:** Do not use the system with a snow plow blade installed.

 **WARNING:** Do not use the system in poor visibility, for example fog, heavy rain, spray or snow.

### When Following a Vehicle

 **WARNING:** When following a vehicle that is braking, your vehicle does not always decelerate quickly enough to avoid a crash without driver intervention. Apply the brakes when necessary. Failure to follow this instruction could result in personal injury or death.

# Adaptive Cruise Control (If Equipped)

## Hilly Condition Usage

You should select a lower gear when the system is active in situations such as prolonged downhill driving on steep grades, for example in mountainous areas. The system needs additional engine braking in these situations to reduce the load on the vehicle's regular brake system to prevent it from overheating.

**Note:** *An audible alarm sounds and the system shuts down if it applies brakes for an extended period of time. This allows the brakes to cool. The system functions normally again after the brakes cool.*

## ADAPTIVE CRUISE CONTROL LIMITATIONS - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH LANE CENTERING

Adaptive cruise control limitations apply to lane centering unless stated otherwise or contradicted by a lane centering limitation. See **Adaptive Cruise Control Limitations** (page 305).

The system may not correctly operate in any of the following conditions:

- The lane is too narrow or wide.
- The system does not detect at least one lane marking or when lanes merge or split.
- Limited steering torque input is applied.
- Areas under construction or new infrastructure.
- When modifications to the steering system have been made.
- When using a spare tire.

**Note:** *The driving assistance torque is limited and may not be sufficient for all driving situations such as driving through tight curves or driving through curves at high speeds.*

**Note:** *In exceptional conditions, the system may deviate from the center line.*

## ADAPTIVE CRUISE CONTROL LIMITATIONS - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH STOP AND GO

### Sensor Limitations



**WARNING:** On rare occasions, detection issues can occur due to the road infrastructures, for example bridges, tunnels and safety barriers. In these cases, the system may brake late or unexpectedly. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required.





**WARNING:** If the system malfunctions, have your vehicle checked as soon as possible.





**WARNING:** Large contrasts in outside lighting can limit sensor performance.


## Adaptive Cruise Control (If Equipped)


 **WARNING:** The system only warns of vehicles detected by the radar sensor. In some cases there may be no warning or a delayed warning. Apply the brakes when necessary. Failure to follow this instruction could result in personal injury or death.

 **WARNING:** The system may not detect stationary or slow moving vehicles below 6 mph (10 km/h).

 **WARNING:** The system does not detect pedestrians or objects in the road.

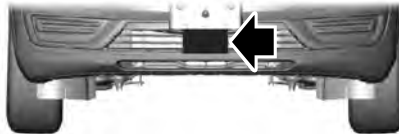
 **WARNING:** The system does not detect oncoming vehicles in the same lane.

 **WARNING:** The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction.

 **WARNING:** The sensor may incorrectly track lane markings as other structures or objects. This can result in a false or missed warning.



The camera is mounted on the windshield behind the interior mirror.



The radar sensor is in the lower grille.

**Note:** You cannot see the sensor. It is behind a fascia panel.

**Note:** Keep the front of your vehicle free of dirt, metal badges or objects. Vehicle front protectors, aftermarket lights, additional paint or plastic coatings could also degrade sensor performance.

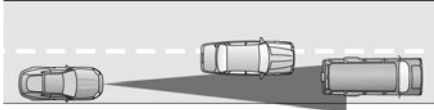
A message displays if something obstructs the camera or the sensor. When something blocks the sensor, the system cannot detect a vehicle ahead and does not function. See **Adaptive Cruise Control – Information Messages** (page 314).

The radar sensor has a limited field of view. It may not detect vehicles at all or detect a vehicle later than expected in some situations. The lead vehicle image does not illuminate if the system does not detect a vehicle in front of you.

# Adaptive Cruise Control (If Equipped)

## Detection issues can occur:

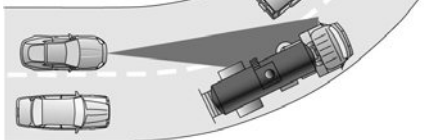
A



B



C



- A When driving on a different line than the vehicle in front.

- B With vehicles that edge into your lane. The system can only detect these vehicles once they move fully into your lane.
- C There may be issues with the detection of vehicles in front when driving into and coming out of a bend or curve in the road.

In these cases, the system may brake late or unexpectedly.

If something hits the front end of your vehicle or damage occurs, the radar-sensing zone may change. This could cause missed or false vehicle detection.

Optimal system performance requires a clear view of the road by the windshield-mounted camera.

Optimal performance may not occur if:

- The camera is blocked.
- There is poor visibility or lighting conditions.
- There are bad weather conditions.

## SWITCHING ADAPTIVE CRUISE CONTROL ON AND OFF

The cruise controls are on the steering wheel.

### Switching Adaptive Cruise Control On



Press the button to set the system in standby mode.

The indicator, current gap setting and set speed appear in the information display.

### Switching Adaptive Cruise Control Off



Press the button when the system is in standby mode, or switch the ignition off.

**Note:** You erase the set speed when you switch the system off.

### Automatic Cancellation or Deactivation

The system may cancel if:

- The tires lose traction.
- You apply the parking brake.

# Adaptive Cruise Control (If Equipped)

The system may cancel and set the parking brake if:

- You unbuckle the seatbelt and open the driver door after you stop your vehicle.
- Your vehicle is at a stop continuously for more than three minutes.

The system may turn off or prevent activating when requested if:

- The vehicle has a blocked sensor.
- The brake temperature is too high.
- There is a failure in the system or a related system.

## SETTING THE ADAPTIVE CRUISE CONTROL SPEED

Drive to the speed you prefer.

**SET+** Press either button to set the current speed.

**SET-**

Take your foot off the accelerator pedal.

The indicator, current gap setting and set speed appear in the information display.



A vehicle image illuminates if there is a vehicle detected in front of you.

**Note:** When adaptive cruise control is active, the speedometer may vary slightly from the set speed displayed in the information display.

### Setting the Adaptive Cruise Speed from a Complete Stop

**SET+** Press and release either button while keeping the brake pedal fully pressed.

**SET-**

The set speed adjusts to 20 mph (30 km/h).

The indicator, current gap setting and set speed appear in the information display.

**Note:** The system activates from a complete stop only when it detects a lead vehicle in close proximity.

### Manually Changing the Set Speed

**SET+** Press and release to increase the set speed in small increments.

**SET-** Press and release to decrease the set speed in small increments.

Press and hold either button to change the set speed in large increments. Release the button when the set speed shown is equal to the speed you prefer.

Press the accelerator or brake pedal until you reach the speed you prefer. Press either button to select the current speed as the set speed.

The system may apply the brakes to slow the vehicle to the new set speed. The set speed displays continuously in the information display when the system is active.

# Adaptive Cruise Control (If Equipped)

## SETTING THE ADAPTIVE CRUISE CONTROL GAP



Press the button to cycle through the four gap settings.



The selected gap appears in the instrument cluster display as shown by the bars in the image.

**Note:** The gap setting is time dependent and therefore, the distance adjusts with your vehicle speed.

**Note:** It is your responsibility to select a gap appropriate to the driving conditions.

### Adaptive Cruise Control Gap Settings

Graphic Display, Bars Indicated Between Vehicles	Gap Distance	Dynamic Behavior
1	Closest.	Sport.
2	Close.	Normal.
3	Medium.	Normal.
4	Far.	Comfort.

Each time you switch the system on, it selects the last chosen gap setting.

### Following a Vehicle

When a vehicle ahead of you enters the same lane or a slower vehicle is ahead in the same lane, the vehicle speed adjusts to maintain the gap setting.

**Note:** When you are following a vehicle and you switch on a turn signal lamp, adaptive cruise control may provide a small, temporary acceleration to help you pass.

Your vehicle maintains a consistent gap from the vehicle ahead until:

- The vehicle in front of you accelerates to a speed above the set speed.
- The vehicle in front of you moves out of the lane you are in.
- You set a new gap distance.

The system applies the brakes to slow down your vehicle to maintain a safe gap distance from the vehicle in front of you. The system only applies limited braking. You can override the system by applying the brakes.

**Note:** The brakes may emit noise when applied by the system.

If the system determines that its maximum braking level is not sufficient, an audible warning sounds, a message appears in the instrument cluster display and an indicator flashes when the system continues to brake. Take immediate action.



# Adaptive Cruise Control (If Equipped)

## CANCELING THE SET SPEED

**CANCEL**

Press the button or tap the brake pedal.

The set speed does not erase.

## RESUMING THE SET SPEED

**RESUME**

Press the button.

Your vehicle speed returns to the previously set speed and gap setting. The set speed displays continuously in the information display when the system is active.

**Note:** Only use resume if you are aware of the set speed and intend to return to it.

## Resuming the Set Speed from a Complete Stop

If your vehicle follows a vehicle to a complete stop and remains stationary for less than three seconds, your vehicle accelerates from a stationary position to follow the vehicle ahead.

**RESUME**

If your vehicle follows a vehicle to a complete stop and remains stationary for more than three seconds, press and release the button or press the accelerator pedal to follow the vehicle ahead.

## OVERRIDING THE SET SPEED



**WARNING:** If you override the system by pressing the accelerator pedal, it does not automatically apply the brakes to maintain a gap from any vehicle ahead.

When you press the accelerator pedal, you override the set speed and gap distance.

Use the accelerator pedal to intentionally exceed the set speed limit.

When you override the system, the green indicator illuminates and the vehicle icon does not appear in the instrument cluster display.

The system resumes operation when you release the accelerator pedal. The vehicle speed decreases to the set speed, or a lower speed if following a slower vehicle.

## ADAPTIVE CRUISE CONTROL INDICATORS - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH LANE CENTERING



Illuminates when you switch lane centering on. The color of the indicator changes to indicate the system status.

Gray indicates the system is on but inactive.

Green indicates the system is active and applying assistance steering torque input to keep your vehicle in the center of the lane.

Amber with an audible tone and then gray indicates a system auto-cancellation.

# Adaptive Cruise Control (If Equipped)

## ADAPTIVE CRUISE CONTROL INDICATORS - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH STOP AND GO



Illuminates when you switch adaptive cruise control on. The color of the indicator changes to indicate the system status.

White indicates the system is on but inactive.

Green indicates that you set the speed and the system is active.

## ADAPTIVE CRUISE CONTROL INDICATORS - VEHICLES WITH: INTELLIGENT ADAPTIVE CRUISE CONTROL



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A bracket appears around the set speed and the detected speed limit sign in the information display.

### System Warnings

If the set speed is increased beyond the speed limit or speed limit plus a positive tolerance value, the set speed indicator flashes.

The warning does not occur if:

- You override the set speed using the accelerator pedal.
- The vehicle speed exceeds the set speed due to being on a downhill slope.

## SWITCHING FROM ADAPTIVE CRUISE CONTROL TO CRUISE CONTROL



**WARNING:** Normal cruise control will not brake when your vehicle is approaching slower vehicles. Always be aware of which mode you have selected and apply the brakes when necessary.

Use the touchscreen to select the following:

1. Select **Settings**.
2. Select **Driver Assist**.
3. Select **Cruise Control**.
4. Select **Normal**.

# Adaptive Cruise Control (If Equipped)



The cruise control indicator replaces the adaptive cruise control indicator if you select normal cruise control. The gap setting does not display, and the system does not respond to lead vehicles. Automatic braking remains active to maintain set speed. The system remembers the last setting when you start your vehicle.

## SWITCHING LANE CENTERING ON AND OFF

The cruise controls are on the steering wheel. See **What Is Cruise Control** (page 301).



Press the button.

The indicator appears in the information display. When the system is on, the color of the indicator changes to indicate the system status. See **Adaptive Cruise Control Indicators** (page 310).

**Note:** Adaptive cruise control must be on before you can switch lane centering on.

## Activating Lane Centering

The system only activates when all of the following occur:

- You have adaptive cruise control with stop-and-go on.
- Your hands are on the steering wheel.
- The system detects both lane markings.

**Note:** If it does not detect valid lane markings, the system stays inactive until valid markings are available.

You can override the system at any time by steering your vehicle.

## System Alerts and Automatic Cancellation

You must keep your hands on the steering wheel at all times.

When the system is active and detects no steering activity for a certain period of time, the system alerts you to put your hands on the steering wheel. If you do not react to the warnings the system cancels and slows your vehicle down to idle speeds while maintaining steering control.

The system also alerts you if your vehicle crosses lane markings without detected steering activity.

**Note:** The system may detect a light grip or touch on the steering wheel as hands-off driving.

When an external condition cancels the system, for example, no lane markings available, a tone sounds as the icon turns amber then gray, and a message appears in the information display.

**RESUME** If your vehicle starts to slow down, you must provide steering input to the wheel and press and release the button to regain full system performance.

Automatic cancellation can also occur if:

- The lane becomes too wide or too narrow.
- The system cannot detect valid lane markings.
- Lane markings are crossed.

**Note:** The system disables until the next key cycle if your vehicle slows down due to driver inactivity twice within a key cycle.

# Adaptive Cruise Control (If Equipped)

## SWITCHING INTELLIGENT MODE ON AND OFF



**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

1. Press **Settings** on the touchscreen.
2. Press **Driver Assistance**.
3. Press **Cruise Control**.
4. Press **Intelligent**.

### Changing the Set Speed with Intelligent Adaptive Cruise Control

When intelligent mode is on, the system adjusts the set speed to the speed limit detected by the camera and the speed limit information provided by the navigation system.

**Note:** The set speed adjusts when the system detects a different maximum speed limit.

**Note:** The speed limit information provided by the navigation map data may be inaccurate or out of date. See **Navigation** (page 538).

**Note:** The system alerts you if the set speed increases beyond the speed limit. See **Adaptive Cruise Control Indicators** (page 310).

If the system does not detect a speed limit, the vehicle speed remains at the current set speed.

You can override the set speed at any time. You may need to override or cancel the system in certain situations such as inclement weather or if an incorrect speed is set.

**Note:** The system may not detect and read speed limit signs with conditional information, for example, when a sign is flashing, during specific time ranges, or when children are present.

**Note:** Under certain conditions, the system may not adjust the vehicle speed until after your vehicle passes the speed limit sign.

## ADJUSTING THE SET SPEED TOLERANCE - VEHICLES WITH: INTELLIGENT ADAPTIVE CRUISE CONTROL

You can set a permanent speed tolerance that is above or below the detected speed limit.

1. Press **Settings** on the touchscreen.
2. Press **Driver Assistance**.
3. Press **Cruise Control**.
4. Press **Intelligent**.
5. Press **Tolerance**.
6. Use + and - to set the tolerance.

**Note:** You cannot set the tolerance more than 20 mph (30 km/h) above or below the recognized speed.

# Adaptive Cruise Control (If Equipped)

## ADAPTIVE CRUISE CONTROL – TROUBLESHOOTING

**Note:** Depending on your vehicle options and instrument cluster type, not all messages display or are available.

## ADAPTIVE CRUISE CONTROL – INFORMATION MESSAGES - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH LANE CENTERING

**Note:** The system could abbreviate or shorten certain messages depending upon which cluster type you have.

Message	Action
Keep Hands on Steering Wheel	Return your hands to the steering wheel and provide steering input to cancel the message.
Lane Centering Assist Not Available	To reset the feature when the vehicle is stationary, return the gear selector to park and turn the engine off. Restart the engine with your foot on the brake pedal.
Resume Control	You must immediately take full control of the vehicle.
Press Accelerator Pedal to Resume	Resume adaptive cruise control with lane centering by applying foot pressure on the accelerator pedal. You can also resume the feature by pressing the resume button on the steering wheel.

## Adaptive Cruise Control (If Equipped)

### ADAPTIVE CRUISE CONTROL – INFORMATION MESSAGES - VEHICLES WITH: ADAPTIVE CRUISE CONTROL WITH STOP AND GO

**Note:** Depending on your vehicle options and instrument cluster type, not all messages display or are available.

**Note:** The system could abbreviate or shorten certain messages depending upon which cluster type you have.

Message	Action
Adaptive Cruise Malfunction	A malfunction is preventing the adaptive cruise from engaging.
Front Sensor Not Aligned	Contact an authorized dealer to have the radar checked for proper coverage and operation.
Adaptive Cruise Not Available	Conditions exist preventing the system from being available.
Adaptive Cruise Not Available Sensor Blocked See Manual	You have a blocked radar because of poor radar visibility due to inclement weather or ice, mud, or water in front of the radar. You can typically clean the sensor to resolve this. Due to the nature of radar technology, it is possible to get a blockage warning with no actual block. This happens, for example, when driving in sparse rural or desert environments. A false blocked condition either self clears, or clears after you restart your vehicle.
Normal Cruise Active Adaptive Braking Off	You have selected normal cruise control. The system does not brake or react to traffic.
Adaptive Cruise - Driver Resume Control	Displays when the adaptive cruise control is going to cancel and you must take control.
Adaptive Cruise Speed Too Low to Activate	Displays when the vehicle speed is too slow to activate the adaptive cruise control and there is no lead vehicle in range.

# Adaptive Cruise Control (If Equipped)

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## **ADAPTIVE CRUISE CONTROL – INFORMATION MESSAGES - VEHICLES WITH: INTELLIGENT ADAPTIVE CRUISE CONTROL**


**Note:** Depending on your vehicle options and instrument cluster type, not all messages display or are available.


**Note:** Certain messages may be abbreviated or shortened depending upon which cluster type you have.


<b>Message</b>	<b>Action</b>
Intelligent Cruise Control Speed Sign Recognition Not Available	Conditions exist preventing the system from being available.


# Driving Aids


## DRIVER ALERT


 **WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.


 **WARNING:** The system may not function if the sensor is blocked.


 **WARNING:** Take regular rest breaks if you feel tired. Do not wait for the system to warn you.

 **WARNING:** Certain driving styles may result in the system warning you even if you are not feeling tired.

 **WARNING:** In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.

 **WARNING:** The system will not operate if the sensor cannot track the road lane markings.

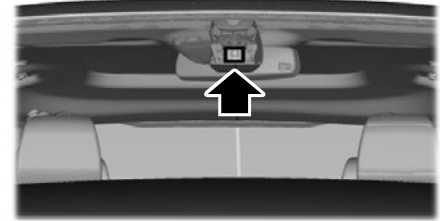
 **WARNING:** If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.

 **WARNING:** The system may not correctly operate if your vehicle is fitted with a suspension kit not approved by us.

**Note:** *If enabled in the menu, the system activates at speeds above 40 mph (64 km/h). When below the activation speed, the information display informs the driver that the system is unavailable.*

**Note:** *Keep the windshield free from obstructions. For example, bird droppings, insects and snow or ice.*

**Note:** *If the camera is blocked or if the windshield is damaged, the system may not function.*



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The system automatically monitors your driving behavior using various inputs, including the front camera sensor.

If the system detects that your driving alertness reduces below a certain threshold, the system alerts you using a tone and a message in the information display.



# Driving Aids

## Using Driver Alert

### Switching the system on and off

You can switch the system on or off through the information display. See **General Information** (page 136). When active, the system monitors your alertness level based upon your driving behavior in relation to the lane markings and other factors.

### System Warnings

**Note:** *The system does not issue warnings below approximately 40 mph (64 km/h).*

The warning system has two stages. First, the system issues a temporary warning stating that you need to take a rest. This message only appears for a short time. If the system detects your driving alertness reduces further, it may issue another warning which remains in the information display for a longer time. Press **OK** on the steering wheel control to clear the warning.

### System Display

When active, the system runs automatically in the background and only issues a warning when required. See **General Information** (page 136).

**Note:** *If you receive a warning you should consider resting, even if the current assessment is within the typical range.*

**Note:** *If the camera sensor cannot track the road lane markings or if your vehicle speed drops below approximately 40 mph (64 km/h), the alertness level changes to grey for a short time and the information display informs you that the system is unavailable.*

### Resetting the System

You can reset the system by either:

- Switching the ignition off and on.
- Stopping the vehicle and then opening and closing the driver's door.

## LANE KEEPING SYSTEM



**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Always drive with due care and attention when using and operating the controls and features on your vehicle.



**WARNING:** In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.



**WARNING:** Large contrasts in outside lighting can limit sensor performance.

# Driving Aids



**WARNING:** The system will not operate if the sensor cannot track the road lane markings.



**WARNING:** The sensor may incorrectly track lane markings as other structures or objects. This can result in a false or missed warning.



**WARNING:** The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction.



**WARNING:** If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.



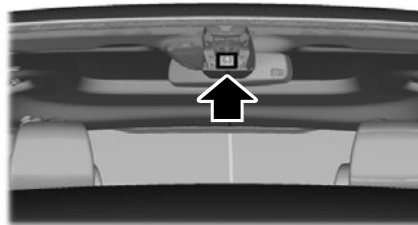
**WARNING:** The system may not correctly operate if your vehicle is fitted with a suspension kit not approved by us.

**Note:** The system works above 40 mph (64 km/h).

**Note:** The system works as long as the camera can detect one lane marking.

**Note:** When you select aid or alert and aid mode and the system detects no steering activity for a short period, the system alerts you to put your hands on the steering wheel. **The system may detect a light grip or touch on the steering wheel as hands off driving.**

**Note:** The system may not function with a blocked camera, or if the windshield is damaged or dirty.



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When you switch the system on and it detects an unintentional drift out of your lane is likely to occur, the system notifies or assists you to stay in your lane through the steering system and information display. In alert mode, the system provides a warning by vibrating the steering wheel. In aid mode, the system provides steering assistance by gently counter steering your vehicle back into the lane.

When the system is functioning in the combined alert and aid mode, the system first provides steering assistance by gently counter steering your vehicle back into the lane, followed by a warning that vibrates the steering wheel if the vehicle is still out of the lane markings.

## Switching the System On and Off

**Note:** Unless the system detects a MyKey, the system stores the on or off setting, until manually changed. If the system detects a MyKey, it defaults to on and the mode sets to alert.

# Driving Aids

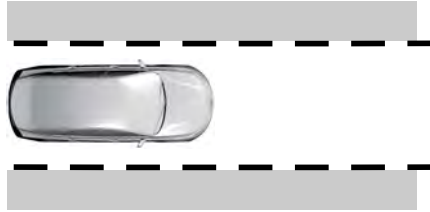


Press the button on the direction indicator stalk to switch the system on or off.

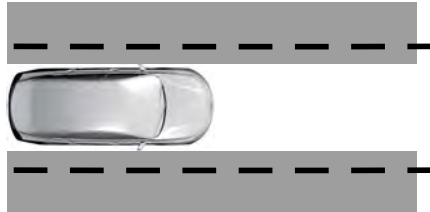
## System Settings

The system has optional setting menus available. The system stores the last known selection for each of these settings. You do not need to readjust your settings each time you switch the system on.

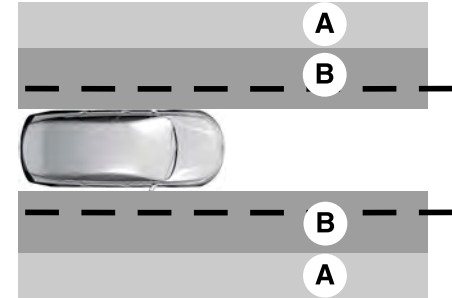
**Mode:** This setting allows you to select which of the system features you can enable.



Alert only – Provides a steering wheel vibration when the system detects an unintended lane departure.



Aid only – Provides steering assistance toward the lane center when the system detects an unintended lane departure.



- A Alert.
- B Aid.

Alert and aid – Provides steering assistance toward the lane center.

If your vehicle continues drifting out of the lane after the lane keeping aid corrects the vehicle, the system provides a steering wheel vibration.

# Driving Aids

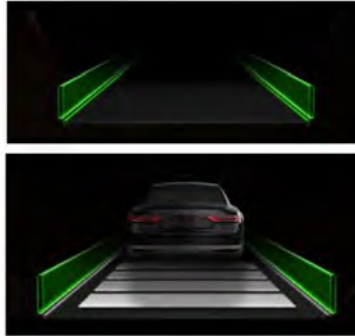
If your vehicle stays to one side of the lane after the lane keeping aid corrects your vehicle and then subsequently drifts out of the lane again, the system only provides an alert at the steering wheel.

**Note:** *The alert and aid diagrams illustrate general zone coverage. They do not provide exact zone parameters.*

**Intensity:** This setting affects the intensity of the steering wheel vibration used for the alert and alert and aid modes. **This setting does not affect the aid mode.**

- Low.
- Normal.
- High.

## System Display



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When you switch the system on, a graphic of lane markings appears in the information display.

When you switch the system off, the lane marking graphics do not display.

While the system is on, the color of the lane markings change to indicate the system status. These colors represent the following:

Gray: Indicates that the system is temporarily unable to provide a warning or intervention on the indicated side. This may be because:

- Your vehicle is under the activation speed.
- The direction indicator is active.
- Your vehicle is in a dynamic maneuver.
- The road has no or poor lane markings in the camera field-of-view.
- Environmental, traffic or vehicle conditions cause the camera to become obscured or unable to detect the lane markings. For example, significant sun angles, shadows, snow, heavy rain or fog, following a large vehicle that is blocking or shadowing the lane or poor headlamp illumination.

See **Troubleshooting** for additional information.

Green: Indicates that the system is available or ready to provide a warning or intervention on the indicated side.

Animated graphic: Indicates that the system is providing or has just provided a lane keeping aid intervention.

# Driving Aids

Red: Indicates that the system is providing or has just provided a lane keeping alert warning.

The system can temporarily suppress itself at any time by the following:

- Quick braking.
- Fast acceleration.

- Using the direction indicator.
- Evasive steering maneuver.
- Driving too close to the lane markings.

## Troubleshooting

<b>Why is the feature not available (line markings are gray) when I can see the lane markings on the road?</b>
Your vehicle speed is outside the operational range of the feature.
The sun is shining directly into the camera lens.
A quick intentional lane change has occurred.
Your vehicle stays too close to the lane markings.
Driving at high speeds in curves.
The last alert warning or aid intervention occurred a short time ago.
Ambiguous lane markings, for example, in construction zones.
Rapid transition from light to dark, or from dark to light.
Sudden offset in lane markings.
ABS or AdvanceTrac™ is active.
There is a camera blockage due to dirt, grime, fog, frost or water on the windshield.

# Driving Aids

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<b>Why is the feature not available (line markings are gray) when I can see the lane markings on the road?</b>
--

You are driving too close to the vehicle in front of you.
---

Transitioning between no lane markings to lane markings or vice versa.
--

There is standing water on the road.
--------------------------------------

Faint lane markings, for example partial yellow lane markings on concrete roads.
--

Lane width is too narrow or too wide.
---------------------------------------

The camera has not been calibrated after a windshield replacement.
--

Driving on tight roads or on uneven roads.
--

<b>Why does the vehicle not come back toward the middle of the lane, as expected, in the aid or alert and aid mode?</b>
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High cross winds are present.
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There is a large road crown.
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Rough roads, grooves or shoulder drop-offs.
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Heavy uneven loading of the vehicle or improper tire inflation pressure.
--

The tires have been changed, or the suspension has been modified.
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# Driving Aids

## BLIND SPOT INFORMATION SYSTEM

 **WARNING:** Do not use the blind spot information system as a replacement for using the interior and exterior mirrors or looking over your shoulder before changing lanes. The blind spot information system is not a replacement for careful driving.

 **WARNING:** The system may not operate properly during severe weather conditions, for example snow, ice, heavy rain and spray. Always drive with due care and attention. Failure to take care may result in a crash.



The design of the system is to detect vehicles that may have entered the blind spot zone. The detection area is on both sides of your vehicle, extending rearward from the exterior mirrors to approximately 13 ft (4 m) beyond the rear bumper. The detection area extends to approximately 59 ft (18 m) beyond the rear bumper when the vehicle speed is greater than 30 mph (48 km/h) to alert you of faster approaching vehicles.

**Note:** *The system does not prevent contact with other vehicles. Its design is not to detect parked vehicles, pedestrians, animals or other infrastructures.*

## Using the Blind Spot Information System

### Vehicles with Automatic Transmission

The system turns on when all of the following occur:

- You start your vehicle.
- You shift into drive (D).
- The vehicle speed is greater than 6 mph (10 km/h).

**Note:** *The system does not operate in park (P) or reverse (R).*

### Vehicles with Manual Transmission

The system turns on when all of the following occur:

- You start your vehicle.
- The vehicle speed is greater than 6 mph (10 km/h).

**Note:** *The system does not operate in reverse (R).*

# Driving Aids

## System Lights and Messages



When the system detects a vehicle, an alert indicator illuminates in the exterior mirror on the side the approaching vehicle is coming from. If you turn the direction indicator on for that side of your vehicle, the alert indicator flashes.

**Note:** The system may not alert you if a vehicle quickly passes through the detection zone.

## Blocked Sensors



The sensors are behind the rear bumper on both sides of your vehicle.

**Note:** Keep the sensors free from snow, ice and large accumulations of dirt.

**Note:** Do not cover the sensors with bumper stickers, repair compound or other objects.

**Note:** Blocked sensors could affect system performance.

**Note:** Bike and cargo racks could cause false alerts due to the obstruction of the sensor. We recommend switching the feature off when using a bike or cargo rack.

If the sensors become blocked, a message may appear in the information display. See **Information Messages** (page 142). The alert indicators remain illuminated but the system does not alert you.

## System Errors

If the system detects a fault, a warning lamp illuminates and a message displays. See **Information Messages** (page 142).

## Switching the System On and Off

You can switch the system off using the information display. See **General Information** (page 136). When you switch the system off, a warning lamp illuminates and a message displays. When you switch the system on or off, the alert indicators flash twice.

**Note:** The system remembers the last used setting when you start your vehicle.



# Driving Aids

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**Note:** *The system may not correctly operate when towing a trailer. For vehicles with a trailer tow module and tow bar approved by us, the system turns off when you attach a trailer. For vehicles with an aftermarket trailer tow module or tow bar, we recommend that you switch the system off when you attach a trailer.*

To permanently switch the system off, contact an authorized dealer.

## CROSS TRAFFIC ALERT



**WARNING:** Do not use the cross traffic alert system as a replacement for using the interior and exterior mirrors or looking over your shoulder before reversing out of a parking space. The cross traffic alert system is not a replacement for careful driving.



**WARNING:** The system may not operate properly during severe weather conditions, for example snow, ice, heavy rain and spray. Always drive with due care and attention. Failure to take care may result in a crash.

The system alerts you of vehicles approaching from the sides behind your vehicle when you shift into reverse (R).

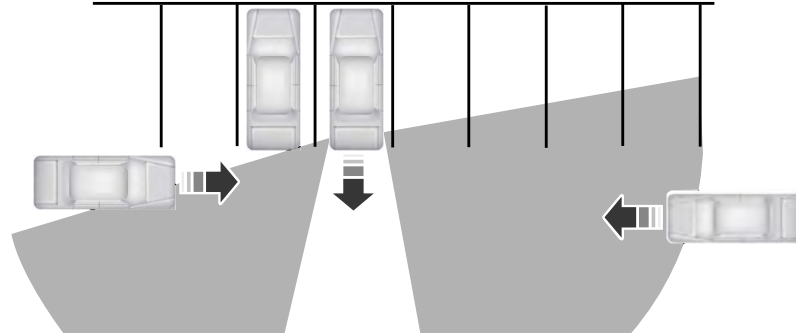
### Using Cross Traffic Alert

The system detects vehicles that approach at a speed between 4 mph (6 km/h) and 37 mph (60 km/h). Coverage decreases when the sensors are partially, mostly or fully obstructed. Slowly reversing helps increase the coverage area and effectiveness.

The system turns on when you start the engine and you shift into reverse (R). The system turns off when you shift out of reverse (R).

# Driving Aids

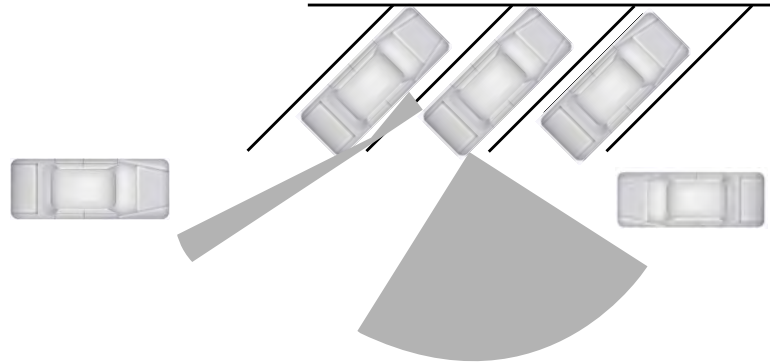
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The sensor on the left-hand side is only partially obstructed and zone coverage maximizes on the right-hand side.

# Driving Aids

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Zone coverage also decreases when parking at narrow angles. The sensor on the left-hand side is mostly obstructed and zone coverage on that side is severely reduced.

## Cross Traffic Alert System Limitations

The system may not correctly operate when any of the following occur:

- Something blocks the sensors.
- Adjacently parked vehicles or objects obstruct the sensors.
- Vehicles approach at speeds less than 4 mph (6 km/h) or greater than 37 mph (60 km/h).
- The vehicle speed is greater than 7 mph (12 km/h).
- You reverse out of an angled parking space.

# Driving Aids

## Switching the System On and Off

To switch the system on or off, adjust the settings using the touchscreen. See **Settings** (page 555).

**Note:** *The system turns on every time you switch the ignition on. To permanently switch the system off, contact an authorized dealer.*

## Cross Traffic Alert System Sensors



The sensors are behind the rear bumper on both sides of your vehicle.

If something blocks the sensors, a message may appear in the information display when you shift into reverse (R).

**Note:** *Keep the sensors free from snow, ice and large accumulations of dirt.*

**Note:** *Do not cover the sensors with bumper stickers, repair compound or other objects.*

**Note:** *Blocked sensors could affect system performance.*

**Note:** *Bike and cargo racks could cause false alerts due to obstruction of the sensor. We recommend switching the feature off when using a bike or cargo rack.*

## Cross Traffic Alert Indicator



When the system detects an approaching vehicle, a tone sounds, a warning lamp illuminates in the relevant exterior mirror, and arrows appear in the information display to show which side the approaching vehicle is coming from.

**Note:** *If arrows do not display, a message appears in the information display.*

If the system malfunctions, a warning lamp illuminates in the instrument cluster and a message appears in the information display. Have your vehicle checked as soon as possible.

**Note:** *In exceptional conditions, the system could alert you, even when there is nothing in the detection zone, for example a vehicle passing further away from your vehicle.*

# Driving Aids

## Cross Traffic Alert Information Messages

Message	Action
Cross Traffic Alert	Displays instead of indication arrows when the system detects a vehicle. Check for approaching traffic.
Cross Traffic Not Available Sensor Blocked See Manual	Indicates blocked cross traffic alert system sensors. Clean the sensors. If the message continues to appear, have your vehicle checked as soon as possible.
Cross Traffic System Fault	The system has malfunctioned. Have your vehicle checked as soon as possible.
Cross Traffic Alert Deactivated Trailer Attached	Displays if you attach a trailer to your vehicle.

## STEERING

### Electric Power Steering



**WARNING:** The electric power steering system has diagnostic checks that continuously monitor the system. If a fault is detected, a message displays in the information display. Stop your vehicle as soon as it is safe to do so. Switch the



**WARNING:** If the system detects an error, you may not feel a difference in the steering, however a serious condition may exist. Have your vehicle checked as soon as possible. Failure to do so may result in loss of steering control.

Your vehicle is equipped with an electric power-assisted steering system. There is no fluid reservoir to check or fill.

If your vehicle loses electrical power while you are driving (or if the ignition is turned off), you can steer the vehicle manually, but it takes more effort. You must adapt your speed and driving behavior to reduced steering assist. Extreme continuous steering may increase the effort it takes for you to steer. This occurs to prevent internal overheating and permanent damage to your steering system. If this should occur, you will

# Driving Aids

neither lose the ability to steer the vehicle manually nor will it cause permanent damage. Typical steering and driving maneuvers will allow the system to cool down and steering assist will return to normal.


## Steering Tips


If the steering wanders or pulls, check for:


- An improperly inflated tire.
- Uneven tire wear.
- Loose or worn suspension components.
- Loose or worn steering components.
- Improper vehicle alignment.


A high crown in the road or high crosswinds may also make the steering seem to wander or pull.


## PRE-COLLISION ASSIST

 **WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** The system does not detect vehicles that are driving in a different direction, pedestrians at night, cyclists or animals. Apply the brakes when necessary. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** The system does not operate during hard acceleration or steering. Failure to take care may lead to a crash or personal injury.

 **WARNING:** The system may fail or operate with reduced function during cold and severe weather conditions. Snow, ice, rain, spray and fog can adversely affect the system. Keep the front camera and radar free of snow and ice. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

 **WARNING:** In situations where the vehicle camera has limited detection capability, this may reduce system performance. These situations include but are not limited to direct or low sunlight, vehicles at night without tail lights, unconventional vehicle types, pedestrians with complex backgrounds, running pedestrians, partly obscured pedestrians, or pedestrians that the system cannot distinguish from a group. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

# Driving Aids



**WARNING:** Take additional care if your vehicle is heavily loaded or you are towing a trailer. These conditions could result in reduced performance of this system. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** The system cannot help prevent all crashes. Do not rely on this system to replace driver judgment and the need to maintain a safe distance and speed.

## Using the Pre-Collision Assist System

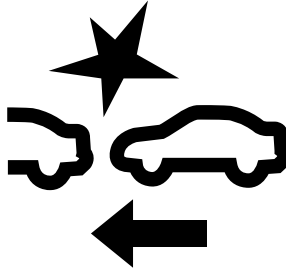
The system detects and warns of approaching hazards in the roadway. If your vehicle is rapidly approaching another stationary vehicle, a vehicle traveling in the same direction as yours, or a pedestrian within your driving path, the system provides multiple levels of assistance to help avoid a collision.

The system is active at speeds above 3 mph (5 km/h) and pedestrian detection is active at speeds up to 50 mph (80 km/h).



If your vehicle is rapidly approaching another stationary vehicle, a vehicle traveling in the same direction as yours, or a pedestrian within your driving path, the system provides three levels of functionality:

1. Alert.
2. Brake support.
3. Active braking.



**Alert:** When active, a flashing visual warning appears and an audible warning tone sounds.

**Brake support:** The system helps reduce the impact speed by preparing the brakes for rapid braking. Brake support does not automatically apply the brakes. If you press the brake pedal, the system could apply additional braking up to maximum braking force, even if you lightly press the brake pedal.

**Active braking:** It activates if the system determines that a collision is about to occur. The system may help the driver reduce impact damage or completely avoid the crash.

**Note:** If you perceive pre-collision assist alerts as being too frequent or disturbing, you can reduce the alert sensitivity, though we recommend using the highest sensitivity setting where possible. Setting lower sensitivity would lead to fewer and later system warnings.

# Driving Aids

**Note:** Brake support and active braking are active at speeds up to 80 mph (130 km/h). If your vehicle has a radar sensor included with adaptive cruise control, then brake support and active braking are active up to the maximum speed of your vehicle.

**Note:** The system turns off when you select the deep conditions drive mode.

## Pedestrian Detection Limitations

Pedestrian detection is active at speeds up to 50 mph (80 km/h). Pedestrian detection functions optimally when detected hazards are clearly identifiable. System performance may reduce in situations where pedestrians are running, partly obscured, have a complex background, or you cannot distinguish them from a group.

## Distance Indication and Alert (If Equipped)

This feature is a function that provides the driver with a graphical indication of the time gap to other preceding vehicles traveling in the same direction. The information display screen shows one of the images that follow.



If the time gap to a preceding vehicle is small, a red visual indication displays to the driver.

**Note:** Distance indication and alert turns off and the images do not display when adaptive cruise control is active.



# Driving Aids

Speed	Sensitivity	Images	Distance Gap	Time Gap
62 mph (100 km/h)	Normal	Grey	>82 ft (25 m)	>0.9 sec
62 mph (100 km/h)	Normal	Yellow	56–82 ft (17–25 m)	0.6 sec–0.9 sec
62 mph (100 km/h)	Normal	Red	<56 ft (17 m)	<0.6 sec

## Automatic Emergency Braking

This may activate if the system determines that a collision is imminent. The system may help reduce impact damage to avoid the crash completely. Automatic emergency braking is only available up to certain speeds.

## Evasive Steering Assist (If Equipped)

If your vehicle is rapidly approaching a stationary vehicle or a vehicle traveling in the same direction as your vehicle, the system helps you steer around the vehicle.

The system only activates when all the following occur:

- The pre-collision assist system detects a vehicle ahead and starts to apply active braking.
- You turn the steering wheel in an attempt to steer around the vehicle.

After you turn the steering wheel, the system applies additional steering torque to help you steer around the vehicle. After you pass the vehicle, the system applies steering torque in the opposite direction to encourage you to steer back into the lane. The system turns off after you fully pass the vehicle.

**Note:** *The system does not automatically steer around a vehicle. If you do not turn the steering wheel, the system does not activate.*

**Note:** *The system does not activate if the distance to the vehicle ahead is too small and it cannot avoid a crash.*

**Note:** *The system does not activate with cyclists or pedestrians.*

## Adjusting the Pre-Collision Assist Settings

You can adjust the following settings by using the center stack screen.

- Change alert and distance alert sensitivity to one of three settings.
- Switch distance indication and alert on or off.

# Driving Aids

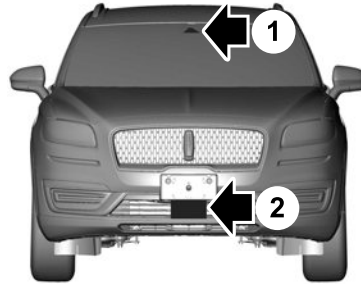
- If required, switch active braking on or off.
- If required, switch evasive steering assist on or off.

See **Settings** (page 555).

**Note:** Active braking and evasive steering assist turn on every time you switch the ignition on.

**Note:** If you switch active braking off, evasive steering assist turns off.

## Blocked Sensors



- 1 Camera.
- 2 Radar sensor (if equipped).

If a message regarding a blocked sensor or camera appears in the information display, the radar signals or camera images are obstructed. If your vehicle has a radar sensor, it is behind the fascia cover in the center of the lower grille. With a blocked sensor or camera, the pre-collision assist system may not operate, or performance may reduce. The following table lists possible causes and actions for when this message displays.

## Camera Troubleshooting

Cause	Action
The windshield in front of the camera is dirty or obstructed in some way.	Clean the outside of the windshield in front of the camera.
The windshield in front of the camera is clean but the message remains in the display screen.	Wait a short time. It could take several minutes for the camera to detect that there is no obstruction.

# Driving Aids

## Radar Troubleshooting (If Equipped)

Cause	Action
The surface of the radar in the grille is dirty or obstructed in some way.	Clean the grille surface in front of the radar or remove the object causing the obstruction
The surface of the radar in the grille is clean but the message remains in the display screen.	Wait a short time. It could take several minutes for the radar to detect that there is no obstruction.
Heavy rain, spray, snow or fog is interfering with the radar signals.	The pre-collision assist system temporarily disables. Pre-collision assist reactivates a short time after the weather conditions improve.
Swirling water, snow or ice on the surface of the road could interfere with the radar signals.	The system temporarily disables.
Radar is out of alignment due to a front-end impact.	The system temporarily disables.

**Note:** Proper system operation requires a clear view of the road by the camera. Have any windshield damage in the camera's field of view repaired.

**Note:** If something hits the front-end of your vehicle or damage occurs, the radar sensing zone may change. This could cause missed or false detections. Have the system checked as soon as possible.

**Note:** If your vehicle detects excessive heat at the camera or a potential misalignment condition, a message could display in the information display indicating temporary sensor unavailability. When operational conditions are correct, the message deactivates. For example, when the ambient temperature around the sensor decreases or the sensor recalibrates successfully.

# Drive Mode Control

## WHAT IS DRIVE MODE CONTROL

The system delivers a driving experience through a suite of sophisticated electronic vehicle systems. These systems optimize steering, handling and powertrain response. This provides a single location to control multiple systems performance settings.

Changing the drive mode automatically changes the functionality of the following systems:

- Electronically power-assisted steering system adjusts steering effort and feel based on the mode you select. See **Steering** (page 330).
- Electronic stability control and traction control maintains your vehicle control in adverse conditions or high performance driving. See **Stability Control** (page 281).
- Electronic throttle control enhances the powertrain response to your driving inputs.
- Transmission controls optimize with shift schedules tuned to each mode.
- AWD settings become optimized and tuned to each mode.

The system automatically tailors your vehicle configuration for each mode you select.

**Note:** *Not all settings, or modes, may be available.*

**Note:** *The system has diagnostic checks that continuously monitor the system for proper operation. If a mode is unavailable due to a system fault, the mode defaults to Normal.*

## SELECTING A DRIVE MODE

**Note:** *Drive mode changes may not be available when the ignition is off.*



Rotate the drive mode dial on the center console to change the drive mode.

## DRIVE MODES

### CONSERVE

Enables efficient driving. It helps to deliver maximum fuel efficiency and helps to increase driving range.

### DEEP CONDITIONS

For crossing terrain that has deformable deep, rutted surfaces such as mud, deep sand or deep snow. Do not use on dry, hard surfaced roads.

# Drive Mode Control

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## EXCITE

For sporty on-road driving. This mode increases throttle response, provides a sportier exhaust sound and steering feel, along with quicker shifting. The suspension could stiffen, with an emphasis on handling and control. The transmission also holds gears longer, helping your vehicle accelerate faster when shifting gears.

**Note:** *Sportier exhaust sound may not be available depending on vehicle configuration.*

## NORMAL

For everyday driving. This mode is a perfect balance of excitement, comfort and convenience. This is the default mode after each ignition cycle.

## PRESERVE EV - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

Your vehicle runs the engine as needed to save electric driving range for later use in another drive mode. For example, you first drive at high speeds on open roads where engine operation is appropriate. Later, you drive at low speeds in an urban area where electric only is most efficient. See **Plug-In Hybrid Vehicle Operation** (page 215).

## PURE EV - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

This mode provides an electric only driving experience. Your vehicle could accelerate more slowly, and the top speed could reduce. For more power, you can temporarily enable your engine at any time by using one of the following methods:

- Press and hold the folder button on the steering wheel when viewing the pure EV information screen. Your vehicle enables the engine as needed, and returns to pure EV after several seconds, or when the vehicle no longer needs the engine.
- Press the accelerator pedal fully. A pop-up message appears. Press OK on the steering wheel to activate as needed.

Your vehicle could enable the engine if system conditions require it. An engine enabled message displays if this occurs. See **Information Messages** (page 142).

Your engine could enable if the climate control is in a defrost mode and the outside temperature is cold. If the vehicle does not need defrost, select a different climate control mode to permit pure EV.

Your vehicle changes from pure EV mode to normal mode when the vehicle electric range is zero.

**Note:** *When in pure EV mode, your vehicle stays in this mode if there is all electric driving range available and the system does not fault.*

# Drive Mode Control

---

## SLIPPERY

For less than ideal road conditions, such as snow or ice covered roads. Slippery mode inspires confidence without taking away from driving pleasure. Slippery mode lowers throttle response and optimizes shifting for slippery surfaces.

**Note:** *Using slippery mode on dry hard surfaces could produce some vibration, driveline bind up, and potential excessive tire wear as the intent of this mode is for slippery and loose surfaces.*

# Speed Sign Recognition (If Equipped)

## WHAT IS SPEED SIGN RECOGNITION

Speed sign recognition detects speed limit signs to inform you of the current speed limit. Detected speed signs appear in the information display.

## HOW DOES SPEED SIGN RECOGNITION WORK

Speed sign recognition uses a sensor behind the interior mirror to detect speed signs.

If your vehicle has speed sign recognition with navigation, stored speed sign data may influence the indicated speed limit value.

## SPEED SIGN RECOGNITION PRECAUTIONS



**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.



**WARNING:** The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction.

**Note:** Do not carry out windshield repairs in the immediate area surrounding the sensor.

**Note:** If your vehicle has a suspension kit not approved by us, the system may not correctly function.

**Note:** The system may not detect all speed signs and may incorrectly read signs.

**Note:** Always fit our original parts when replacing headlamp bulbs. Other bulbs may reduce system performance.

## SPEED SIGN RECOGNITION LIMITATIONS

Speed sign recognition may not operate correctly due to:

- Outdated map data.
- Incorrect recognition of speed limits by the sensor of signs on parallel roads or exit ramps.
- Missed recognition of faded, dirty, or distorted signs.

# Speed Sign Recognition (If Equipped)

## SPEED SIGN RECOGNITION INDICATORS



When the system detects a speed limit sign, it appears in the information display.

## SETTING THE SPEED SIGN RECOGNITION SPEED WARNING

To set the speed warning, use the touchscreen:

1. Press **Settings** on the touchscreen.
2. Press **Driver Assistance**.
3. Press **Speed Sign Recognition**.
4. Select to switch the feature on or off.

## SETTING THE SPEED SIGN RECOGNITION SPEED TOLERANCE

To set the tolerance of the speed warning, use the touchscreen.

1. Press **Settings** on the touchscreen.
2. Press **Driver Assistance**.
3. Press **Speed Sign Recognition**.
4. Press **Tolerance**.
5. Use + and - to set the tolerance.

## SPEED SIGN RECOGNITION – TROUBLESHOOTING

### SPEED SIGN RECOGNITION – INFORMATION MESSAGES

Message	Action
Traffic Sign Reduced Performance See Manual	The traffic sign data provided by the navigation system is unavailable due to weak or no signal. Wait for a short period of time for the signal to improve. If the message continues to appear, have the system checked as soon as possible.



# Speed Sign Recognition (If Equipped)

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## **SPEED SIGN RECOGNITION – FREQUENTLY ASKED QUESTIONS**

### **Why does the speed limit change without any sign on the road?**

The speed limit changes due to the speed limit data stored in the map data.

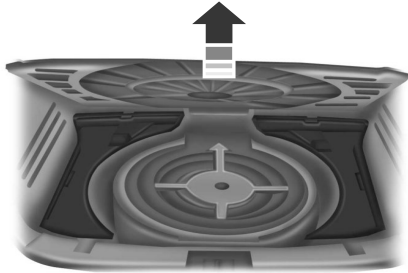
### **Why does speed sign recognition show a wrong speed limit?**

The system shows a wrong speed limit due to incorrect and outdated map data or due to incorrect recognition of the speed limits by the camera.

# Load Carrying

## REAR UNDER FLOOR STORAGE

### Cargo Management System



The system is located in the floor of the cargo area. Lift the handle to open.

## LUGGAGE COVERS

**WARNING:** Do not place objects on the luggage cover. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.

**WARNING:** Make sure that you properly secure the luggage cover. Failure to follow this instruction could result in personal injury in the event of a sudden stop or crash.

Use the cargo cover to cover items in the cargo area of your vehicle.



To attach the cargo cover:

1. Line up the rear panel trim post and the cover clip.

2. Press down firmly on the top of the cover to snap into place. Ensure both sides are attached.

**Note:** To remove the cover push from the bottom of the cover to unsnap it from the trim post.

## ROOF RACKS AND LOAD CARRIERS

**WARNING:** When loading the roof racks, we recommend you evenly distribute the load, as well as maintain a low center of gravity. Loaded vehicles, with higher centers of gravity, may handle differently than unloaded vehicles. Take extra precautions, such as slower speeds and increased stopping distance, when driving a heavily loaded vehicle.

**Note:** Do not use crossbars with a moonroof. This interferes with the moonroof function. Using crossbars with a moonroof could void your vehicle's warranty.

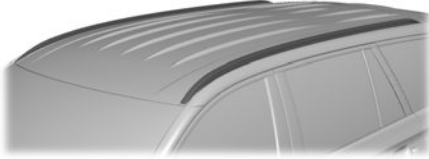
# Load Carrying

Make sure that you securely fasten the load. Check the tightness of the load before driving and at each fuel stop.

**Note:** *Never place loads directly on the roof panel. The roof panel is not designed to directly carry a load.*

## Maximum Recommended Load Amounts

**Note:** *The maximum recommended load is based on evenly distributing the load on the crossbars.*



E291748

Description	Maximum Recommended Load
Vehicles with a moonroof	0 lb (0 kg)
Vehicles without a moonroof	80 lb (36 kg)

**Note:** *When using a roof rack system, you must subtract the weight of the roof rack system from the maximum recommended load to determine your actual maximum cargo load. See the roof rack system manufacturer for more information.*

# Load Carrying

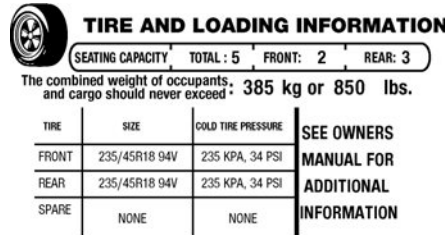
## LOAD LIMIT

### Vehicle Loading - with and without a Trailer

This section guides you in the proper loading of your vehicle, trailer, or both. Keep your loaded vehicle weight within its design rating capability, with or without a trailer. Properly loading your vehicle provides maximum return of vehicle design performance. Before you load your vehicle, become familiar with the following terms for determining your vehicle's weight rating, with or without a trailer, from the vehicle's Tire and Loading Information label or Safety Compliance Certification label.

### Tire and Loading Label Information

Example:



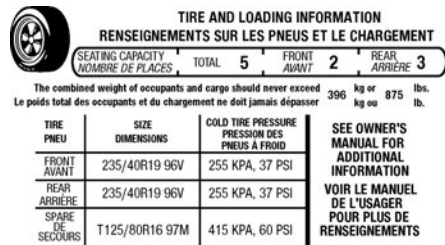
**TIRE AND LOADING INFORMATION**

SEATING CAPACITY TOTAL: 5 FRONT: 2 REAR: 3

The combined weight of occupants and cargo should never exceed **385 kg or 850 lbs.**

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	235/45R18 94V	235 KPA, 34 PSI
REAR	235/45R18 94V	235 KPA, 34 PSI
SPARE	NONE	NONE

SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION



**TIRE AND LOADING INFORMATION**  
**RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT**

SEATING CAPACITY / NOMBRE DE PLACES TOTAL: 5 FRONT AVANT: 2 REAR ARRIERE: 3

The combined weight of occupants and cargo should never exceed **396 kg or 875 lbs.**  
Le poids total des occupants et du chargement ne doit jamais dépasser **396 kg ou 875 lb.**

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE / PRESSION DES PNEUS A FROID
FRONT AVANT	235/40R19 96V	255 KPA, 37 PSI
REAR ARRIERE	235/40R19 96V	255 KPA, 37 PSI
SPARE DE SECOURS	T125/80R16 97M	415 KPA, 60 PSI

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION  
VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS

## Payload

Payload is the combined weight of cargo and passengers that your vehicle is carrying. The maximum payload for your vehicle appears on the Tire and Loading label. The label is either on the B-pillar or the edge of the driver door. Vehicles exported outside the US and Canada may not have a tire and loading label. Look for "The combined weight of occupants and cargo should never exceed XXX kg OR XXX lb" for maximum payload. The payload listed on the Tire and Loading Information label is the maximum payload for your vehicle as built by the assembly plant. If you install any additional equipment on your vehicle, you must determine the new payload. Subtract the weight of the equipment from the payload listed on the Tire and Loading label. When towing, trailer tongue weight or king pin weight is also part of payload.

# Load Carrying



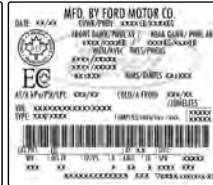
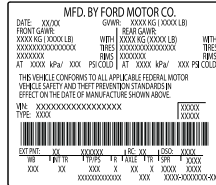
**WARNING:** The appropriate loading capacity of your vehicle can be limited either by volume capacity (how much space is available) or by payload capacity (how much weight the vehicle should carry). Once you have reached the maximum payload of your vehicle, do not add more cargo, even if there is space available. Overloading or improperly loading your vehicle can contribute to loss of vehicle control and vehicle rollover.

## GVWR (Gross Vehicle Weight Rating)

GVWR is the maximum allowable weight of the fully loaded vehicle. This includes all options, equipment, passengers and cargo. It appears on the Safety Compliance Certification label. The label is located on the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver seating position.

The gross vehicle weight must never exceed the Gross Vehicle Weight Rating.

## Safety Compliance Certification Label Example:



## GAWR (Gross Axle Weight Rating)

GAWR is the maximum allowable weight that a single axle (front or rear) can carry. These numbers are on the Safety Compliance Certification label. The label is located on the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver seating position.

The total load on each axle must never exceed its Gross Axle Weight Rating.



**WARNING:** Exceeding the Safety Compliance Certification label vehicle weight limits can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.

## Maximum Loaded Trailer Weight

Maximum loaded trailer weight is the highest possible weight of a fully loaded trailer the vehicle can tow. Consult an authorized dealer (or the RV and Trailer Towing Guide available at an authorized dealer) for more detailed information.

## GCWR (Gross Combined Weight Rating)

GCWR is the maximum allowable weight of the vehicle and the loaded trailer, including all cargo and passengers, that the vehicle can handle without risking damage. (Important: The towing vehicle's braking system is rated for

# Load Carrying

operation at Gross Vehicle Weight Rating, not at Gross Combined Weight Rating.) Separate functional brakes should be used for safe control of towed vehicles and for trailers where the Gross Combined Weight of the towing vehicle plus the trailer exceed the Gross Vehicle Weight Rating of the towing vehicle.

The gross combined weight must never exceed the Gross Combined Weight Rating.

**Note:** For trailer towing information refer to the *RV and Trailer Towing Guide* available at an authorized dealer.



**WARNING:** Do not exceed the GVWR or the GAWR specified on the certification label.



**WARNING:** Do not use replacement tires with lower load carrying capacities than the original tires because they may lower your vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the original tires do not increase the GVWR and GAWR limitations.



**WARNING:** Exceeding any vehicle weight rating can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.

## Steps for determining the correct load limit:

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lb." on your vehicle's placard.

2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lb.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1,400 lb. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lb. (1400-750 (5 x 150) = 650 lb.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

# Load Carrying

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6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

### ***Helpful examples for calculating the available amount of cargo and luggage load capacity***

Suppose your vehicle has a 1400-pound (635-kilogram) cargo and luggage capacity. You decide to go golfing. Is there enough load capacity to carry you, four of your friends and all the golf bags? You and four friends average 220 pounds (99 kilograms) each and the golf bags weigh approximately 30 pounds (13.5 kilograms) each. The calculation would be:  $1400 - (5 \times 220) - (5 \times 30) = 1400 - 1100 - 150 = 150$  pounds. Yes, you

have enough load capacity in your vehicle to transport four friends and your golf bags. In metric units, the calculation would be:  $635 \text{ kilograms} - (5 \times 99 \text{ kilograms}) - (5 \times 13.5 \text{ kilograms}) = 635 - 495 - 67.5 = 72.5$  kilograms.

Suppose your vehicle has a 1400-pound (635-kilogram) cargo and luggage capacity. You and one of your friends decide to pick up cement from the local home improvement store to finish that patio you have been planning for the past two years. Measuring the inside of the vehicle with the rear seat folded down, you have room for twelve 100-pound (45-kilogram) bags of cement. Do you have enough load capacity to transport the cement to your home? If you and your friend each weigh 220 pounds (99 kilograms), the calculation would be:  $1400 - (2 \times 220) - (12 \times 100) = 1400 - 440 - 1200 = -240$  pounds. No, you do not have enough cargo capacity to carry that much weight. In metric units, the calculation would be:  $635 \text{ kilograms} - (2 \times 99 \text{ kilograms}) - (12 \times 45 \text{ kilograms}) = 635 -$

$198 - 540 = -103$  kilograms. You will need to reduce the load weight by at least 240 pounds (104 kilograms). If you remove three 100-pound (45-kilogram) cement bags, then the load calculation would be:  $1400 - (2 \times 220) - (9 \times 100) = 1400 - 440 - 900 = 60$  pounds. Now you have the load capacity to transport the cement and your friend home. In metric units, the calculation would be:  $635 \text{ kilograms} - (2 \times 99 \text{ kilograms}) - (9 \times 45 \text{ kilograms}) = 635 - 198 - 405 = 32$  kilograms.

The above calculations also assume that the loads are positioned in your vehicle in a manner that does not overload the front or the rear gross axle weight rating specified for your vehicle on the Safety Compliance Certification label.

# Load Carrying

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## Special Loading Instructions for Owners of Pick-up Trucks and Utility-type Vehicles



**WARNING:** When loading the roof racks, we recommend you evenly distribute the load, as well as maintain a low center of gravity. Loaded vehicles, with higher centers of gravity, may handle differently than unloaded vehicles. Take extra precautions, such as slower speeds and increased stopping distance, when driving a heavily loaded vehicle.



# Towing

## TOWING A TRAILER



**WARNING:** Towing trailers beyond the maximum recommended gross trailer weight exceeds the limit of your vehicle and could result in engine damage, transmission damage, structural damage, loss of vehicle control, vehicle rollover and personal injury.



**WARNING:** Do not exceed the GVWR or the GAWR specified on the certification label.

**Note:** See **Recommended Towing Weights** (page 352).

Your vehicle may have electrical items, such as fuses or relays, related to towing. See **Fuses** (page 378).

Your vehicle's load capacity designation is by weight, not by volume, so you cannot necessarily use all available space when loading a vehicle or trailer.

Towing a trailer places an extra load on your vehicle's engine, transmission, axle, brakes, tires and suspension. Inspect these components periodically during, and after, any towing operation.

### Load Placement

To help minimize how trailer movement affects your vehicle when driving:

- Load the heaviest items closest to the trailer floor.
- Load the heaviest items centered between the left and right side trailer tires.

- Load the heaviest items above the trailer axles or just slightly forward toward the trailer tongue. Do not allow the final trailer tongue weight to go above or below 10-15% of the loaded trailer weight.
- Select a ball mount with the correct rise or drop and load capacity. When both the loaded vehicle and trailer are connected, the trailer frame should be level, or slightly angled down toward your vehicle, when viewed from the side.

When driving with a trailer or payload, a slight takeoff vibration or shudder may be present due to the increased payload weight. Additional information regarding proper trailer loading and setting your vehicle up for towing is located in another chapter of this manual. See **Load Limit** (page 345).

You can also find information in the **RV & Trailer Towing Guide** available at your authorized dealer, or online.

# Towing

## RV & Trailer Towing Guide Online

Website

<http://www.fleet.ford.com/towing-guides/>

### TRAILER SWAY CONTROL



**WARNING:** Turning off trailer sway control increases the risk of loss of vehicle control, serious injury or death. Ford does not recommend disabling this feature except in situations where speed reduction may be detrimental (such as hill climbing), the driver has significant trailer towing experience, and can control trailer sway and maintain safe operation.

**Note:** *This feature does not prevent trailer sway, but reduces it when it begins.*

**Note:** *This feature cannot stop all trailers from swaying.*

**Note:** *In some cases, if your vehicle speed is too high, the system may turn on multiple times, gradually reducing your vehicle speed.*

The system applies the brakes to the individual wheels and reduces engine torque to aid vehicle stability. If the trailer begins to sway, the stability control warning lamp flashes and a message appears in the information display. See **Information Messages** (page 142). Slow your vehicle down, pull safely to the side of the road and check for correct load distribution. See **Load Carrying** (page 343).

You can switch this feature off in the information display. When you switch the ignition on, the system automatically turns on.

# Towing

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## RECOMMENDED TOWING WEIGHTS

Market	Website
United States of America	<a href="https://www.fleet.ford.com/towing-guides/">https://www.fleet.ford.com/towing-guides/</a>
Canada	<a href="https://www.fleet.ford.ca/towing-guides/">https://www.fleet.ford.ca/towing-guides/</a>

# Towing

## ESSENTIAL TOWING CHECKS

Follow these guidelines for safe towing:

- Do not tow a trailer until you drive your vehicle at least 1,000 mi (1,600 km).
- Consult your local motor vehicle laws for towing a trailer.
- See the instructions included with towing accessories for the proper installation and adjustment specifications.
- Service your vehicle more frequently if you tow a trailer. See your scheduled maintenance information.
- If you use a rental trailer, follow the instructions the rental agency gives you.

You can find information on load specification terms found on the tire label and Safety Compliance label as well as instructions on calculating your vehicle's load in the Load Carrying chapter. See **Load Limit** (page 345).

Remember to account for the trailer tongue weight as part of your vehicle load when calculating the total vehicle weight.

## Hitches

Do not use a hitch that either clamps onto the bumper or attaches to the axle.

Distribute the trailer load so 10-15% of the total trailer weight is on the tongue.

## Safety Chains

**Note:** *Never attach safety chains to the bumper.*

Always connect the safety chains to the hook retainers of your vehicle hitch.

To connect the safety chains, cross them under the trailer tongue and allow enough slack for turning tight corners. Do not allow the chains to drag on the ground.

## Trailer Brakes



**WARNING:** Do not connect a trailer's hydraulic brake system directly to your vehicle's brake system. Your vehicle may not have enough braking power and your chances of having a collision greatly increase.



**WARNING:** Do not tow a trailer fitted with electric trailer brakes unless your vehicle is fitted with a compatible aftermarket electronic trailer brake controller. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death. For additional information and assistance, we recommend that you contact an authorized dealer.

Electric brakes and manual, automatic or surge-type trailer brakes are safe if you install them properly and adjust them to the manufacturer's specifications. The trailer brakes must meet local and federal regulations.

**The rating for the tow vehicle's braking system operation is at the gross vehicle weight rating, not the gross combined weight rating.**

**Separate functioning brake systems are required for safe control of towed vehicles and trailers weighing more than 1500 lb (680 kg) when load.**

# Towing

## Trailer Lamps



**WARNING:** Never connect any trailer lamp wiring to the vehicle's tail lamp wiring; this may damage the electrical system resulting in fire. Contact your authorized dealer as soon as possible for assistance in proper trailer tow wiring installation. Additional electrical equipment may be required.

Trailer lamps are required on most towed vehicles. Make sure all running lights, brake lights, turn signals and hazard lights are working.

## Before Towing a Trailer

Practice turning, stopping and backing up to get the feel of your vehicle-trailer combination before starting on a trip. When turning, make wider turns so the trailer wheels clear curbs and other obstacles.

## When Towing a Trailer

- Do not drive faster than 70 mph (113 km/h) during the first 500 mi (800 km).
  - Do not make full-throttle starts.
  - Check your hitch, electrical connections and trailer wheel lug nuts thoroughly after you have traveled 50 mi (80 km).
  - When stopped in congested or heavy traffic during hot weather, place the transmission in park (P) to aid engine and transmission cooling and to help A/C performance.
  - Turn off the speed control with heavy loads or in hilly terrain. The speed control may turn off automatically when you are towing on long, steep grades.
  - Shift to a lower gear when driving down a long or steep hill. Do not apply the brakes continuously, as they may overheat and become less effective.
- If your transmission is equipped with a Grade Assist or Tow/Haul feature, use this feature when towing. This provides engine braking and helps eliminate excessive transmission shifting for optimum fuel economy and transmission cooling.
  - Allow more distance for stopping with a trailer attached. Anticipate stops and brake gradually.
  - Avoid parking on a grade. However, if you must park on a grade:
    1. Turn the steering wheel to point your vehicle tires away from traffic flow.
    2. Set your vehicle parking brake.
    3. Place the transmission in park (P).
    4. Place wheel chocks in front and back of the trailer wheels. Chocks are not included with your vehicle.

## Launching or Retrieving a Boat or Personal Watercraft (PWC)

**Note:** Disconnect the wiring to the trailer **before** backing the trailer into the water.

# Towing

**Note:** *Reconnect the wiring to the trailer after removing the trailer from the water.*

When backing down a ramp during boat launching or retrieval:

- Do not allow the static water level to rise above the bottom edge of the rear bumper.
- Do not allow waves to break higher than 6 in (15 cm) above the bottom edge of the rear bumper.

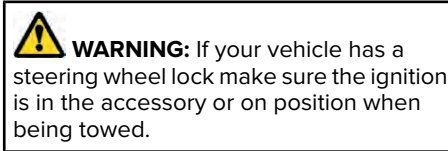
Exceeding these limits may allow water to enter vehicle components:

- Causing internal damage to the components.
- Affecting driveability, emissions, and reliability.

Replace the rear axle lubricant anytime you submerge the rear axle in water. Water may contaminate the rear axle lubricant, which is not a normal maintenance inspection item unless there is a possibility of a leak or other axle repair is required.

## **TOWING THE VEHICLE ON FOUR WHEELS - GASOLINE, 8-SPEED AUTOMATIC TRANSMISSION – 8F35/8F40**

### **Emergency Towing**



If your vehicle becomes inoperable without access to wheel dollies or a vehicle transport trailer, it can be flat-towed with all wheels on the ground, regardless of the powertrain and transmission configuration, under the following conditions:

- Your vehicle is facing forward for towing in a forward direction.
- Refer to the Manual Park Release procedure. See **Automatic Transmission** (page 256). Failing to do so could result in damage to the transmission.

- Maximum speed is 35 mph (56 km/h).
- Maximum distance is 50 mi (80 km).

**Note:** *If you are unsure of the vehicle's configuration, contact an authorized dealer.*

### **Recreational Towing - Front-Wheel Drive Vehicles (If Equipped)**

You cannot recreational tow your vehicle with all wheels on the ground because vehicle or transmission damage could occur. Place the front wheels on a two-wheel tow dolly. If you are using a tow dolly, follow the instructions specified by the equipment provider.

### **Recreational Towing - Rear-Wheel Drive Vehicles (If Equipped)**

You cannot recreational tow your vehicle with all wheels on the ground because vehicle or transmission damage could occur. We recommend towing your vehicle with all four wheels off the ground, such as when using a car-hauling trailer. Otherwise, you cannot recreational tow your vehicle.

# Towing

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## Recreational Towing - All-Wheel and Four-Wheel Drive Vehicles (If Equipped)

You cannot recreational tow your vehicle with all wheels on the ground because vehicle or transmission damage could occur. We recommend towing your vehicle with all four wheels off the ground, such as when using a car-hauling trailer. Otherwise, you cannot recreational tow your vehicle.

## TOWING THE VEHICLE ON FOUR WHEELS - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV), AUTOMATIC TRANSMISSION – HF45

### Emergency Towing

If your vehicle becomes inoperable without access to wheel dollies or a vehicle transport trailer, it can be flat-towed with all wheels on the ground, regardless of the powertrain and transmission configuration, under the following conditions:

- Your vehicle is facing forward for towing in a forward direction.
- You switch **Neutral Tow** on.
- You release the parking brake.
- You switch welcome lighting off. See **Welcome Lighting** (page 110).
- Maximum speed is 35 mph (55 km/h).
- Maximum distance is 50 mi (80 km).

### Switching **Neutral Tow** On

1. Switch your vehicle on in accessory mode.
2. Press the menu button on the steering wheel to enter the instrument cluster display main menu.
3. Select **Settings**.
4. Select **Neutral Tow**.
5. Follow the instructions on the information display.
6. Fully press the brake pedal.
7. Shift into neutral (N).
8. Switch the ignition off.

**Note:** *Failure to follow these instructions could result in damage to the transmission.*

**Note:** *Switching neutral tow on requires battery power.*

**Note:** *Put your climate control system in recirculated air mode to prevent exhaust fumes from entering your vehicle. See **Climate Control** (page 169).*

# Towing

## Switching Neutral Tow Off

1. Switch your vehicle on in accessory mode.
2. Fully press the brake pedal.
3. Shift into park (P).

**Note:** Switch welcome lighting on to reactivate it. See **Welcome Lighting** (page 110).

## Recreational Towing

Follow these guidelines if you have a need for recreational towing. An example of recreational towing is towing your vehicle behind a motorhome. These guidelines ensure that you do not damage the transmission.

If you have a front-wheel drive vehicle, you can tow with the front wheels off the ground by using a tow dolly. If you have an all-wheel drive vehicle, you can tow with all four wheels off the ground using a vehicle transport trailer. If you are using a tow dolly or a vehicle transport trailer, follow the instruction specified by the equipment provider.

**Note:** Put your climate control system in recirculated air mode to prevent exhaust fumes from entering your vehicle. See **Climate Control** (page 169).

You can tow your vehicle with all four wheels on the ground under the following conditions:

- Your vehicle is facing forward for towing in a forward direction.
- You switch **Neutral Tow** on.
- You release the parking brake.
- You switch welcome lighting off. See **Welcome Lighting** (page 110).
- You do not exceed 70 mph (113 km/h).

## Switching Neutral Tow On

1. Switch your vehicle on in accessory mode.
2. Press the menu button on the steering wheel to enter the information display main menu.
3. Select **Settings**.
4. Select **Neutral Tow**.

5. Follow the instructions on the information display.
6. Fully press the brake pedal.
7. Shift into neutral (N).
8. Switch the ignition off.

**Note:** Failure to follow these instructions could result in damage to the transmission.

**Note:** Switching on neutral tow mode requires battery power.

**Note:** If the parking brake is applied, a message appears in the instrument cluster display.

**Note:** If your vehicle has an ignition key, you cannot remove the key from the ignition when the transmission is in neutral (N) and your vehicle is off.

**Note:** Start the engine and allow it to run for a few minutes at the beginning of each day, and every six hours or fewer. With the engine running and your foot on the brake, shift into drive (D) and then into reverse (R) before shifting back into neutral (N). Before continuing to tow, re-enable neutral tow.



# Towing

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## Switching *Neutral Tow Off*

1. Switch your vehicle on in accessory mode.
2. Fully press the brake pedal.
3. Shift into park (P).

**Note:** *Switch welcome lighting on to reactivate it. See **Welcome Lighting** (page 110).*

# Driving Hints

## BREAKING-IN

Your vehicle requires a break-in period. For the first 1,000 mi (1,600 km), avoid driving at high speeds, heavy braking, aggressive shifting or using your vehicle to tow. During this time, your vehicle may exhibit some unusual driving characteristics.

## DRIVING ECONOMICALLY

The following helps to improve fuel consumption:

- Drive smoothly, accelerate gently and anticipate the road ahead to avoid heavy braking.
- Regularly check your tire pressures and make sure that they are inflated to the correct pressure.
- Follow the recommended maintenance schedule and carry out the recommended checks.
- Plan your journey and check the traffic before you set off. It is more efficient to combine errands into a single trip whenever possible.
- Avoid idling the engine in cold weather or for extended periods. Start the engine only when you are ready to set off.
- Do not carry unnecessary weight in your vehicle as extra weight wastes fuel.
- Do not add unnecessary accessories to the exterior of your vehicle, for example running boards. If you use a roof rack, remember to fold it down or remove it when not in use.
- Do not shift into neutral when you are braking or when your vehicle is slowing down.
- Shut all windows when driving at high speeds.
- Switch off all electric systems when not in use, for example air conditioning. Make sure that you unplug any accessories from the auxiliary power points when not in use.

## DRIVING THROUGH SHALLOW WATER



**WARNING:** Do not attempt to cross a deep or flowing body of water. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

**Note:** *Driving through standing water can cause vehicle damage.*

**Note:** *Engine damage can occur if water enters the air filter.*

Before driving through standing water, check the depth. Never drive through water that is higher than the bottom of the front rocker area of your vehicle.

# Driving Hints




When driving through standing water, drive very slowly and do not stop your vehicle. Your brake performance and traction could be limited. After driving through water and as soon as it is safe to do so:


- Lightly press the brake pedal to dry the brakes and to check that they work.
- Turn the steering wheel to check that the steering power assist works.


Check the function of the following:


- Horn
- Exterior lights


## FLOOR MATS

 **WARNING:** Use a floor mat designed to fit the footwell of your vehicle that does not obstruct the pedal area. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** Pedals that cannot move freely can cause loss of vehicle control and increase the risk of serious personal injury.

 **WARNING:** Secure the floor mat to both retention devices so that it cannot slip out of position and interfere with the pedals. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** Do not place additional floor mats or any other covering on top of the original floor mats. This could result in the floor mat interfering with the operation of the pedals. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

 **WARNING:** Always make sure that objects cannot fall into the driver foot well while your vehicle is moving. Objects that are loose can become trapped under the pedals causing a loss of vehicle control.



# Driving Hints

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To install floor mats that have eyelets, position the floor mat eyelet over the retention post and press down to lock in position. Repeat for all eyelets on the floor mat.

To remove the floor mats, reverse the installation procedure.

**Note:** *Regularly check the floor mats to make sure they are secure.*

# Roadside Emergencies

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## ROADSIDE ASSISTANCE

### Vehicles sold in the United States: Getting Roadside Assistance

To fully assist you should you have a vehicle concern, Lincoln offers a complimentary roadside assistance program. This program is separate from the New Vehicle Limited Warranty.

The service is available:

- Throughout the life of the vehicle for original owners.
- For six years or 70,000 mi (110,000 km) (whichever comes first) for subsequent owners.

Roadside Assistance covers:

- A flat tire change with a good spare (except vehicles supplied with a tire inflation kit).
- Battery jump start.
- Lock-out assistance (key replacement cost is the client's responsibility).

- Fuel delivery — independent service contractors, if not prohibited by state, local or municipal law shall deliver up to 2 gal (8 L) of gasoline fuel to a disabled vehicle. Roadside Assistance limits fuel delivery service to two no-charge occurrences within a 12-month period.
- Winch out — available within 100 ft (30 m) of a paved or county maintained road, no recoveries.
- Towing — independent service contractors, if not prohibited by state, local or municipal law shall tow Lincoln eligible vehicles to the client's selling or preferred dealer within 100 mi (160 km) of the disablement location or to the nearest Lincoln dealer. If a client requests a tow to a selling or preferred dealer that is more than 100 mi (160 km) from the disablement location, the client is responsible for any mileage costs in excess of 100 mi (160 km).
- Roadside Assistance includes up to \$200 for a towed trailer if the disabled eligible vehicle requires service at the nearest authorized dealer. If the towing vehicle is operational but the trailer is not, then the trailer does not qualify for any roadside services.

### Vehicles Sold in the United States: Using Roadside Assistance

United States clients who require roadside assistance, call 1-800-521-4140 or contact Roadside Assistance using the Lincoln Way mobile app.

# Roadside Emergencies

If you need to arrange roadside assistance for yourself, Lincoln reimburses a reasonable amount for towing to the nearest Lincoln dealership within 100 mi (160 km). To obtain reimbursement information, United States clients, call 1-800-521-4140. Clients need to submit their original receipts.

## Vehicles Sold in Canada: Getting Roadside Assistance

To fully assist you should you have a vehicle concern, Lincoln offers a complimentary roadside assistance program. This program is eligible within Canada or the continental United States.

The service is available 24 hours a day, seven days a week.

This program is separate from the New Vehicle Limited Warranty, beginning from the original warranty start date and lasts the life of the vehicle for the original owner. Subsequent owners receive coverage that is concurrent with the 6 years or 70,000 mi (110,000 km) (whichever occurs first) powertrain warranty coverage period.

**Note:** *Canadian roadside coverage and benefits may differ from the U.S. coverage.*

For complete program coverage details, review your warranty guide, contact your dealer, call us in Canada at 1-800-387-9333, or visit our website at [www.lincolncanada.com](http://www.lincolncanada.com).

If you purchased your vehicle in Canada and require roadside assistance, please call 1-800-387-9333 or contact Roadside Assistance using the Lincoln Way mobile app.

**Note:** *For quick reference, complete the roadside assistance identification card found in the glove compartment of your vehicle and place it in your wallet.*

## HAZARD FLASHERS

**Note:** *The hazard flashers operate when the ignition is in any position, or if the key is not in the ignition. If used when the vehicle is not running, the battery loses charge. As a result, there may be insufficient power to restart your vehicle.*



The flasher control is on the instrument panel. Use your hazard flashers when your vehicle is creating a safety hazard for other motorists.

- Press the flasher control and all front and rear direction indicators flash.
- Press the button again to switch them off.

## FUEL SHUTOFF



**WARNING:** If your vehicle has been involved in a crash, have the fuel system checked. Failure to follow this instruction could result in fire, personal injury or death.

**Note:** *When you try to restart your vehicle after a fuel shutoff, the vehicle makes sure that various systems are safe to restart. Once the vehicle determines the systems are safe, then the vehicle allows you to restart.*

**Note:** *In the event that your vehicle does not restart after your third attempt, contact a qualified technician.*

# Roadside Emergencies

The fuel pump shutoff stops the flow of fuel to the engine in the event of a moderate to severe crash. Not every impact causes a shutoff.

Should your vehicle shut off after a crash, you may restart your vehicle.

If your vehicle has a key system:

1. Switch off the ignition.
2. Switch to start position.
3. Switch off the ignition.
4. Switch on the ignition to re-enable the fuel pump.
5. If the vehicle does not start, repeat steps 1 through 4.

If your vehicle has a push button start system:

1. Press **START/STOP** to switch off your vehicle.
2. Press the brake pedal and **START/STOP** to switch on your vehicle.
3. Remove your foot from the brake pedal and press **START/STOP** to switch off your vehicle.

4. You can attempt to start the vehicle by pressing the brake pedal and **START/STOP**, or press **START/STOP** without pressing the brake pedal.
5. If the vehicle does not start, repeat steps 1 through 4.

## JUMP STARTING THE VEHICLE



**WARNING:** Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lighted substances to come near the battery. When working near the battery, always shield your face and protect your eyes. Always provide correct ventilation.



**WARNING:** Keep batteries out of reach of children. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Shield your eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, call a physician immediately.



**WARNING:** Use only adequately sized cables with insulated clamps.



**WARNING:** Make sure that the cables are clear of any moving parts and fuel delivery system parts.

**Note:** Do not attempt to push-start your automatic transmission vehicle. Attempting to push-start a vehicle with an automatic transmission may cause transmission damage.

**Note:** Do not disconnect the battery of the disabled vehicle as this could damage the vehicle electrical system.

# Roadside Emergencies

## Preparing Your Vehicle

**Note:** Use only a 12 volt supply to start your vehicle.

Park the booster vehicle close to the hood of the disabled vehicle, making sure the two vehicles do not touch.

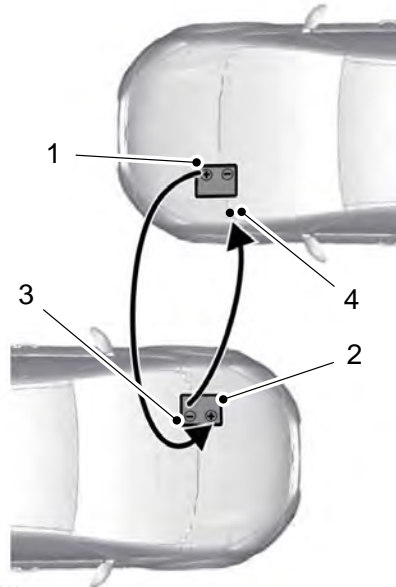
## Connecting the Jumper Cables



**WARNING:** Do not connect the negative jumper cable to any other part of your vehicle. Use the ground point.

**Note:** If you are using a jump pack or booster box, follow that manufacturer's instructions.

**Note:** In the illustration that follows, the bottom vehicle represents the booster vehicle.



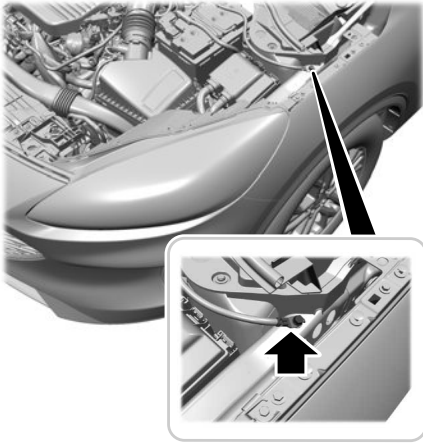
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1. Pull the red rubber boot backward. Connect the positive (+) jumper cable to the positive (+) terminal of the discharged battery.

2. Connect the other end of the positive (+) jumper cable to the positive (+) terminal of the booster vehicle battery.
3. Connect the negative (-) jumper cable to the negative (-) terminal of the booster vehicle battery.
4. Make the final connection of the negative (-) jumper cable to an exposed metal part of the stalled vehicle's engine, as shown in the following illustration, away from the battery and the fuel injection system, or connect the negative (-) jumper cable to a ground connection point if available.



# Roadside Emergencies



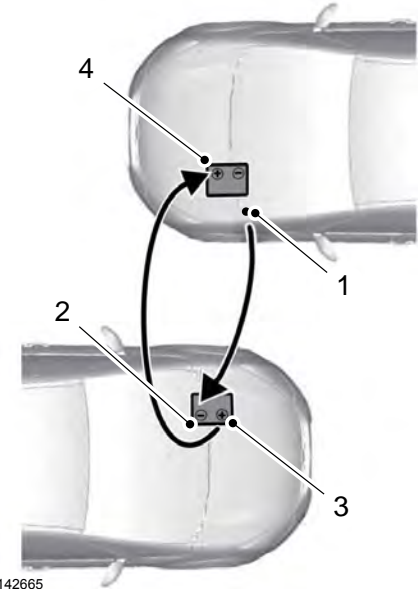
3. Once you start the disabled vehicle, run both vehicle engines for an additional three minutes before disconnecting the jumper cables.

## Removing the Jumper Cables

Remove the jumper cables in the reverse order that they were connected.

## Starting the Engine

1. Start the engine of the booster vehicle and moderately rev the engine, or gently press the accelerator to keep your engine speed between 2000 and 3000 RPM, as shown in your tachometer.
2. Start the engine of the disabled vehicle.



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1. Remove the negative (-) jumper cable from the disabled vehicle.

# Roadside Emergencies

2. Remove the jumper cable on the negative (-) terminal of the booster vehicle battery.
3. Remove the jumper cable from the positive (+) terminal of the booster vehicle battery.
4. Remove the jumper cable from the positive (+) terminal of the disabled vehicle battery.
5. Allow the engine to idle for at least one minute.

## POST-CRASH ALERT SYSTEM

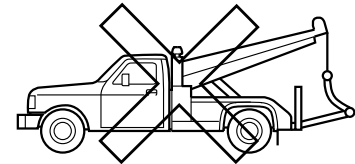
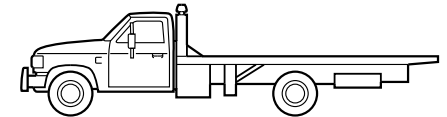
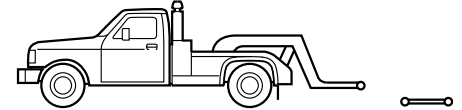
The system flashes the direction indicators and sounds the horn (intermittently) in the event of a serious impact that deploys an airbag (front, side, side curtain or Safety Canopy) or the seatbelt pretensioners.

The horn and indicators turn off when:

- You press the hazard control button.
- You press the panic button on the remote entry transmitter (if equipped).

- Your vehicle runs out of power.
- Sounding of the horn is only enabled in specific markets.

## TRANSPORTING THE VEHICLE



# Roadside Emergencies

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If you need to tow your vehicle, contact a professional towing service or, if you are a member of a roadside assistance program, your roadside assistance service provider.

We recommend the use of a wheel lift and dollies or flatbed equipment to tow your vehicle. Do not tow with a slingbelt. Lincoln does not approve a slingbelt towing procedure. If you tow your vehicle incorrectly, or by any other means, vehicle damage may occur.

Lincoln produces a towing manual for all authorized tow truck operators. Have your tow truck operator refer to this manual for proper hook-up and towing procedures for your vehicle.

It is acceptable to have your front-wheel drive vehicle towed from the front if using proper wheel lift equipment to raise the front wheels off the ground. When towing in this manner, the rear wheels can remain on the ground.

Front-wheel drive vehicles must have the front wheels placed on a tow dolly when towing your vehicle from the rear using wheel lift equipment. This prevents damage to the transmission.

Towing an all-wheel drive vehicle requires that all wheels be off the ground, such as using a wheel lift and dollies or flatbed equipment. This prevents damage to the transmission, all-wheel drive system and vehicle.

# Customer Assistance

## GETTING THE SERVICES YOU NEED

Warranty repairs to your vehicle must be performed by an authorized dealer. While any authorized dealer handling your vehicle line provides warranty service, we recommend you return to your selling authorized dealer who wants to ensure your continued satisfaction.

Please note that certain warranty repairs require special training and equipment, so not all authorized dealers are authorized to perform all warranty repairs. This means that, depending on the warranty repair needed, you may have to take your vehicle to another authorized dealer.

A reasonable time must be allowed to perform a repair after taking your vehicle to the authorized dealer. Repairs are made using Lincoln or Motorcraft parts, or remanufactured or other parts that are authorized by Lincoln.

## Away From Home

If you are away from home when your vehicle needs service, contact the Lincoln Client Relationship Center or use the online resources listed below to find the nearest authorized dealer.

In the United States:

### Mailing address

Lincoln  
Client Relationship Center  
P.O. Box 6248  
Dearborn, MI 48126

### Telephone

1-800-521-4140  
TDD for the hearing impaired:  
7-1-1 (where offered by your telephone  
service provider)

Web Address
<a href="http://www.LincolnOwner.com">www.LincolnOwner.com</a>

These are some of the items that can be found online:

- United States dealer locator by Dealer Name, City, State or ZIP Code.
- Owner Manuals.
- Maintenance Schedules.
- Recalls.
- Lincoln Extended Service Plans.
- Lincoln Original Accessories.
- Service specials and promotions.

In Canada:

### Mailing address

Lincoln Client Relationship Centre  
Lincoln of Canada, Limited  
P.O. Box 2000  
Oakville, Ontario L6K 1C8

### Telephone

# Customer Assistance

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1-800-387-9333  
TDD for the hearing impaired:  
7-1-1 (where offered by your telephone  
service provider)

Web Address
<a href="http://www.LincolnCanada.com">www.LincolnCanada.com</a>

## Online Resources

### Twitter

@LincolnClientCA

### Instagram

@LincolnMotorCA

### Facebook

/LincolnClientCA

## Additional Assistance

If you have questions or concerns, or are unsatisfied with the service you are receiving, follow these steps:

1. Contact your Sales Representative or Service Advisor at your selling or servicing authorized dealer.

2. If your inquiry or concern remains unresolved, contact the Sales Manager, Service Manager or Customer Relations Manager.
3. If you require assistance or clarification on Lincoln policies, please contact the Lincoln Client Relationship Center.

In order to help us serve you better, please have the following information available when contacting a Client Relationship Center:

- Vehicle Identification Number.
- Your telephone number (home and business).
- The name of the authorized dealer and city where located.
- The vehicle's current odometer reading.

In some states, you must directly notify Lincoln in writing before pursuing remedies under your state's warranty laws. Lincoln is also allowed a final repair attempt in some states.

In the United States, a warranty dispute must be submitted to the BBB AUTO LINE before taking action under the Magnuson-Moss Warranty Act, or to the extent allowed by state law, before pursuing replacement or repurchase remedies provided by certain state laws. This dispute handling procedure is not required prior to enforcing state created rights or other rights which are independent of the Magnuson-Moss Warranty Act or state replacement or repurchase laws.

## IN CALIFORNIA (U.S. ONLY)

California Civil Code Section 1793.2(d) requires that, if a manufacturer or its representative is unable to repair a motor vehicle to conform to the vehicle's applicable express warranty after a reasonable number of attempts, the manufacturer shall be required to either replace the vehicle with one substantially identical or repurchase the

## Customer Assistance

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vehicle and reimburse the buyer in an amount equal to the actual price paid or payable by the consumer (less a reasonable allowance for consumer use). The consumer has the right to choose whether to receive a refund or replacement vehicle.

California Civil Code Section 1793.22(b) presumes that the manufacturer has had a reasonable number of attempts to conform the vehicle to its applicable express warranties if, within the first 18 months of ownership of a new vehicle or the first 18,000 mi (29,000 km), whichever occurs first:

1. Two or more repair attempts are made on the same non-conformity likely to cause death or serious bodily injury OR
2. Four or more repair attempts are made on the same nonconformity (a defect or condition that substantially impairs the use, value or safety of the vehicle) OR
3. The vehicle is out of service for repair of nonconformities for a total of more than 30 calendar days (not necessarily all at one time).

In the case of 1 or 2 above, the consumer must also notify the manufacturer of the need for the repair of the nonconformity at the following address:

Ford Motor Company  
16800 Executive Plaza Drive  
Mail Drop 3NE-B  
Dearborn, MI 48126

You are required to submit your warranty dispute to BBB AUTO LINE before asserting in court any rights or remedies conferred by California Civil Code Section 1793.22(b). You are also required to use BBB AUTO LINE before exercising rights or seeking remedies created by the Federal Magnuson-Moss Warranty Act, 15 U.S.C. sec. 2301 et seq. If you choose to seek redress by pursuing rights and remedies not created by California Civil Code Section 1793.22(b) or the Magnuson-Moss Warranty Act, resort to BBB AUTO LINE is not required by those statutes.

### **THE BETTER BUSINESS BUREAU (BBB) AUTO LINE PROGRAM (U.S. ONLY)**

Your satisfaction is important to Ford Motor Company and to your dealer. If a warranty concern has not been resolved using the three-step procedure outlined earlier in this chapter in the Getting the Services you need section, you may be eligible to participate in the BBB AUTO LINE program.

The BBB AUTO LINE program consists of two parts – mediation and arbitration. During mediation, a representative of the BBB will contact both you and Ford Motor Company to explore options for settlement of the claim. If an agreement is not reached during mediation or you do not want to participate in mediation, and if your claim is eligible, you may participate in the arbitration process. An arbitration hearing will be scheduled so that you can present your case in an informal setting before an impartial person. The arbitrator considers the testimony provided and makes a decision after the hearing.

# Customer Assistance

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Disputes submitted to the BBB AUTO LINE program are usually decided within 40 days after you file your claim with the BBB. You are not bound by the decision, and may reject the decision and proceed to court where all findings of the BBB Auto Line dispute, and decision, are admissible in the court action. Should you choose to accept the BBB AUTO LINE decision, Ford is then bound by the decision, and must comply with the decision within 30 days of receipt of your acceptance letter.

**BBB AUTO LINE Application:** Using the information that follows, please call or write to request a program application. You will be asked for your name and address, general information about your new vehicle, information about your warranty concerns, and any steps you have already taken to try to resolve them. A Customer Claim Form will be mailed that needs to be completed, signed and returned to the BBB along with proof of ownership. Upon receipt, the BBB reviews the claim for eligibility under the Program Summary Guidelines.

**You can get more information by calling BBB AUTO LINE at 1-800-955-5100, or writing to:**

**BBB AUTO LINE a Division of BBB National Programs, Inc.  
1676 International Drive, Suite 550  
McLean, VA 22102**

BBB AUTO LINE applications can also be requested by calling the Ford Motor Company Customer Relationship Center at 1-800-392-3673.

For additional information, refer to the Better Business Bureau website.

**Note:** *Ford Motor Company reserves the right to change eligibility limitations, modify procedures, or to discontinue this process at any time without notice and without obligation.*

## **UTILIZING THE MEDIATION/ARBITRATION PROGRAM (CANADA ONLY)**

For vehicles delivered to authorized Canadian dealers. In those cases where you continue to feel that the efforts by Ford of Canada and the authorized dealer to resolve a factory-related vehicle service concern have been unsatisfactory, Ford of Canada participates in an impartial third party mediation/arbitration program administered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

The CAMVAP program is a straight forward and relatively speedy alternative to resolve a disagreement when all other efforts to produce a settlement have failed. This procedure is without cost to you and is designed to eliminate the need for lengthy and expensive legal proceedings.

# Customer Assistance

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In the CAMVAP program, impartial third-party arbitrators conduct hearings at mutually convenient times and places in an informal environment. These impartial arbitrators review the positions of the parties, make decisions and, when appropriate, render awards to resolve disputes. CAMVAP decisions are fast, fair, and final as the arbitrator's award is binding on both you and Ford of Canada.

CAMVAP services are available in all Canadian territories and provinces. For more information, without charge or obligation, call your CAMVAP Provincial Administrator directly at 1-800-207-0685 or visit [www.camvap.ca](http://www.camvap.ca).

## **GETTING ASSISTANCE OUTSIDE THE U.S. AND CANADA**

Before exporting your vehicle to a foreign country, contact the appropriate foreign embassy or consulate. These officials can inform you of local vehicle registration regulations and where to find unleaded fuel or petrol/gas engines or the proper sulfur fuel for diesel engines.

If you cannot find the proper fuel recommended for your vehicle, contact our Customer Relationship Center.

The use of improper fuels in your vehicle without proper conversion may damage the effectiveness of your emission control system and may cause engine knocking or serious engine damage. Ford Motor Company or Ford of Canada is not responsible for any damage caused by use of improper fuel. Using improper fuels may also result in difficulty importing your vehicle back into the United States.

If your vehicle must be serviced while you are traveling or living in Asia-Pacific Region, Sub-Saharan Africa, U.S. Virgin Islands and/or Puerto Rico, Central America, the Caribbean, and Israel and the Middle East, contact the nearest authorized dealer. If the authorized dealer cannot help you, contact the corresponding Ford Customer Assistance Center:

### **FORD MOTOR COMPANY**

**Customer Relationship Centers in:**



## Customer Assistance

Customer Relationship Center	Phone	Fax	E-mail
Asia Pacific	N/A	N/A	apemcrc@ford.com
Caribbean and Central America	+1-800-841-3673	N/A	atnclien@ford.com
Middle East	Ford 80004443673	971 4 3327 266	menacac@ford.com
	Lincoln 80004441067		
	UAE 80004441066		
	Saudi Arabia 8008443673		
	Mobily and Zain cell phone users in Saudi 800850078		
	Kuwait 22280384		
North Africa	N/A	N/A	nafcrc@ford.com

# Customer Assistance

Customer Relationship Center	Phone	Fax	E-mail
Puerto Rico and U.S. Virgin Islands	+1-800-841-3673	N/A	atnclien@ford.com
Sub-Saharan Africa	N/A	N/A	ssacrc@ford.com
South Korea	+82-02-1600-6003	N/A	infokr1@ford.com or infokr@lincoln.com

If you buy your vehicle in North America and then relocate to any of the above locations, register your vehicle identification number (VIN) and new address with Ford Global Trade Services by emailing, [expcso@ford.com](mailto:expcso@ford.com).

If you are in another foreign country, contact the nearest authorized dealer. In the event your inquiry is unresolved, communicate your concern with the dealership's Sales Manager, Service Manager or Customer Relations Manager. If you require additional assistance or clarification, please contact the respective Customer Relationship Center as previously listed.

**Customers in the U.S. should call 1-800-392-3673.**

## ORDERING ADDITIONAL OWNER'S LITERATURE

To order the publications in this portfolio, contact Helm, LLC at:

HELM, LLC  
47911 Halyard Drive, Suite 200  
Plymouth, Michigan 48170  
Attention: Customer Service

Or to order a free publication catalog, call toll free: 1-800-782-4356

Monday-Friday 8:00 a.m. - 6:00 p.m. EST

Helm, LLC can also be reached by their website:

[www.helminc.com](http://www.helminc.com)

(Items in this catalog may be purchased by credit card, check or money order.)

## Obtaining a French Owner's Manual

French Owner's Manual can be obtained from your authorized dealer or by contacting Helm, LLC using the contact information listed previously in this section.

# Customer Assistance

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## REPORTING SAFETY DEFECTS (U.S. ONLY)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ford Motor Company.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ford Motor Company.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to [www.safercar.gov](http://www.safercar.gov); or write to:

Administrator  
1200 New Jersey Avenue, Southeast

Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from [www.safercar.gov](http://www.safercar.gov).

## REPORTING SAFETY DEFECTS (CANADA ONLY)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform Transport Canada and Ford of Canada.

Transport Canada Contact Information	
Website	<a href="http://tc.canada.ca/recalls">http://tc.canada.ca/recalls</a>
Website	<a href="http://tc.canada.ca/rappels">http://tc.canada.ca/rappels</a>
Phone	1-800-333-0510

# Customer Assistance

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<b>Lincoln of Canada Contact Information</b>	
Website	<a href="http://www.LincolnCanada.com">www.LincolnCanada.com</a>
Phone	1-800-387-9333

# Fuses

## FUSE SPECIFICATION CHART

### Engine Compartment Fuse Box



**WARNING:** Always disconnect the battery before servicing high current fuses.



**WARNING:** To reduce risk of electrical shock, always replace the cover to the power distribution box before reconnecting the battery or refilling fluid reservoirs.

The engine compartment fuse box is in the engine compartment. It has high-current fuses that protect your vehicle's main electrical systems from overloads.

When you disconnect and reconnect the battery, you need to reset some features. See **Changing the 12V Battery** (page 406).

Lift the release lever at the rear of the cover to remove it.

**Note:** *Replace fuses with the same type and rating. See **Changing a Fuse** (page 389).*



# Fuses

Fuse Location	Fuse Rating	Protected Component
1	—	Not used.
2	30 A	Heated backlight.
3	10 A	Not used (spare).
4	50 A	Electric water pump (hybrid).
5	—	Not used.
6	—	Not used.
7	40 A	Driveline control module.
8	—	Not used.
9	30 A	Second row seat release.
10	—	Not used.
11	15 A	Powertrain control module.
12	15 A	Powertrain control module.
13	15 A	Powertrain control module.
14	15 A	Powertrain control module.
15	—	Not used.

# Fuses

Fuse Location	Fuse Rating	Protected Component
16	—	Not used.
17	15 A	Heated wiper park.
18	10 A	Air conditioning clutch.
19	—	Not used.
20	5 A	DC/DC converter (hybrid).
21	10 A	Battery charge control module (hybrid).
22	5 A	Not used (spare).
23	5 A	Charge port light ring (hybrid).
24	5 A	Battery electronic control module (hybrid).
25	25 A	Left-hand enhanced exterior lighting module.
26	25 A	Right-hand enhanced exterior lighting module.
27	5 A	Powertrain control module (hybrid).
28	10 A	Anti-lock brake system module.
29	10 A	Powertrain control module.
30	10 A	Electronic stability control. Transmission oil pump.



# Fuses

Fuse Location	Fuse Rating	Protected Component
31	5 A	Electronic power assist steering.
32	30 A	Body control module.
33	10 A	Front parking aid camera. Rear view camera. Blind spot information system. Cruise control module. Image processing module B.
34	10 A	Headlamp leveling.
35	15 A	Heated steering wheel.
36	10 A	Powertrain control module (hybrid).
37	20 A	Horn.
38	40 A	Blower motor.
39	—	Not used.
40	10 A	Brake on-off switch.
41	20 A	Amplifier.
42	30 A	Driver power seat.
43	40 A	Anti-lock brake control valves.

# Fuses

<b>Fuse Location</b>	<b>Fuse Rating</b>	<b>Protected Component</b>
44	40 A	Not used (spare).
45	30 A	Passenger power seat.
46	20 A	Not used (spare).
47	20 A	Heated seats.
48	30 A	Power liftgate.
49	60 A	Anti-lock brake control pump.
50	60 A	Cooling fan.
51	30 A	Moonroof.
52	5 A	USB charge port - rear console.
53	5 A	USB charge port - rear console.
54	20 A	Rear heated seat module.
55	30 A	Starter motor.
56	20 A	Amplifier.
57	10 A	Data link connector.
58	30 A	Climate controlled seat module.
59	40 A	Body control module.

# Fuses

Fuse Location	Fuse Rating	Protected Component
60	—	Not used.
61	—	Not used.
62	—	Not used.
63	—	Not used.
64	—	Not used.
65	—	Not used.
66	—	Not used.
67	—	Not used.
68	—	Not used.
69	15 A	Port fuel injectors.
70	20 A	Rear cargo power point.
71	20 A	Rear console power point.
72	20 A	Rear window wiper.
73	—	Not used.
74	30 A	Windshield wiper motor.
75	20 A	Not used (spare).

# Fuses

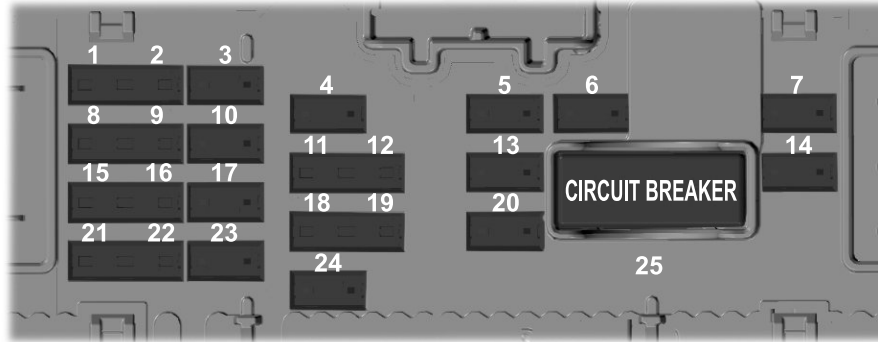
Fuse Location	Fuse Rating	Protected Component
76	—	Not used.
77	—	Not used.
78	15 A	Multi-contour seats.
79	10 A	Not used (spare).
80	20 A	Fuel pump.
81	10 A	Rear window washer pump.
82	40 A	Not used (spare).
83	—	Not used.
84	40 A	Auxiliary power distribution box (hybrid).
85	5 A	Rain sensor.
86	—	Not used.
87	—	Not used.
88	—	Not used.

**Note:** Spare fuse amperage may vary.

# Fuses

## Passenger Compartment Fuse Box

The fuse box is below the glove compartment.



Fuse Location	Fuse Rating	Protected Component
1	5 A	Not used.
2	5 A	Rear heated seats.
3	10 A	Not used (spare).
4	10 A	Ignition switch.
5	20 A	Lock.

# Fuses

Fuse Location	Fuse Rating	Protected Component
		Unlock.
6	10 A	Moonroof.
7	30 A	Passenger door module.
8	5 A	Parking assist control module.
9	5 A	Image processing module A. Electrochromatic mirror.
10	10 A	Extended power module.
11	5 A	Power liftgate. Hands-free liftgate actuation module. Telematics control unit module.
12	5 A	Keyless keypad switch.
13	15 A	Driver door lock.
14	30 A	Driver door module.
15	15 A	Extended power module.
16	15 A	Vehicle dynamics module.
17	15 A	SYNC. Receiver transceiver module. Integrated control panel.

# Fuses

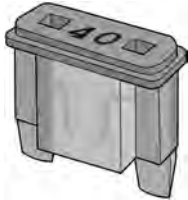
Fuse Location	Fuse Rating	Protected Component
18	7.5 A	Driver power seat switch. Passenger power seat switch. Wireless accessory charging module. Selectable drive mode switch.
19	7.5 A	Headlamp switch pack. Telematics control unit module. Bluetooth low energy module.
20	10 A	Not used (spare).
21	7.5 A	Climate control. E-shifter module.
22	7.5 A	Instrument cluster. Gateway module. Steering column control module.
23	20 A	Audio unit.
24	20 A	Head up display.
25	30 A	Not used (spare).

**Note:** Spare fuse amperage may vary.

# Fuses

## CHANGING A FUSE

### General Information



E217331

If electrical components in the vehicle are not working, a fuse may have blown. Blown fuses are identified by a broken wire within the fuse.

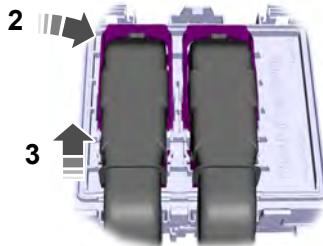
### Engine Compartment Fuse Box



**WARNING:** Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.



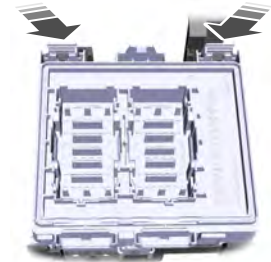
1. Pull the latch toward you and remove the top cover.



E253689

2. Pull the connector lever upward.

3. Pull the connector upward to remove it.



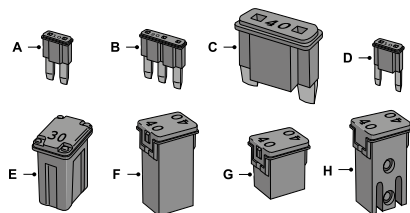
4. Pull both latches toward you and remove the fuse box.
5. Turn the fuse box over and open the lid.



# Fuses

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## Fuse Types



- A Micro 2.
- B Micro 3.
- C Maxi.
- D Mini.
- E M Case.
- F J Case.
- G J Case Low Profile.
- H Slotted M Case.

# Maintenance

## GENERAL INFORMATION

Have your vehicle serviced regularly to help maintain its roadworthiness and resale value. There is a large network of authorized dealers that are there to help you with their professional servicing expertise. We believe that their specially trained technicians are best qualified to service your vehicle properly and expertly. They are supported by a wide range of highly specialized tools developed specifically for servicing your vehicle.

If your vehicle requires professional service, an authorized dealer can provide the necessary parts and service. Check your warranty information to find out which parts and services are covered.

Use only recommended fuels, lubricants, fluids and service parts conforming to specifications. Motorcraft® parts are designed and built to provide the best performance in your vehicle.

## Precautions

- Do not work on a hot engine.
- Make sure that nothing gets caught in moving parts.
- Do not work on a vehicle with the engine running in an enclosed space, unless you are sure you have enough ventilation.
- Keep all open flames and other burning material (such as cigarettes) away from the battery and all fuel related parts.

## Working with the Engine Off

1. Set the parking brake and shift the transmission to park (P).
2. Switch off the engine.
3. Block the wheels.

## Working with the Engine On

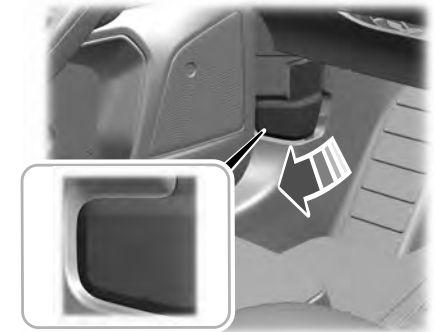


**WARNING:** To reduce the risk of vehicle damage and personal burn injuries, do not start your engine with the air cleaner removed and do not remove it while the engine is running.

1. Set the parking brake and shift the transmission to park (P).
2. Block the wheels.

## OPENING AND CLOSING THE HOOD

### Opening the Hood



E263274

1. Open the left-hand front door.
2. Fully pull the hood release lever and let it completely retract.

# Maintenance

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**Note:** *This action releases the hood latch.*

3. Fully pull the hood release lever for a second time.

**Note:** *This action fully releases the hood.*

4. Open the hood.

**Note:** *There is no secondary lever under the hood.*

## Closing the Hood

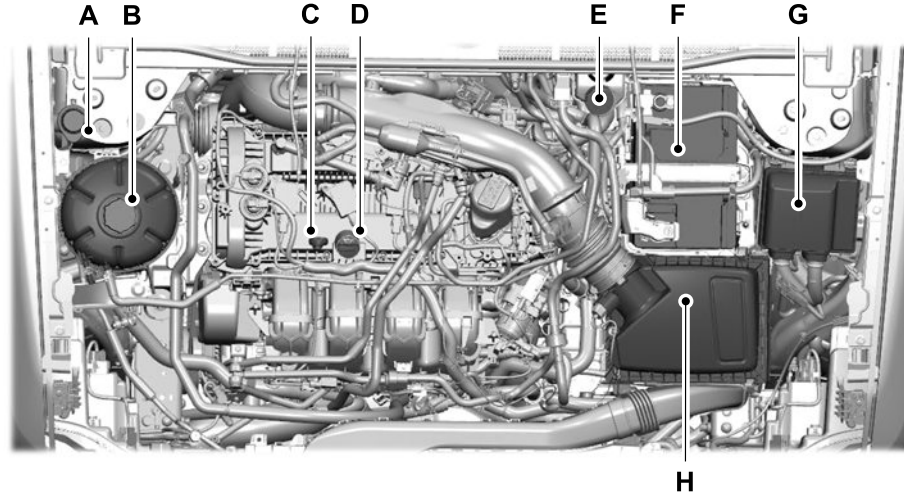


**WARNING:** Make sure that you fully latch the hood before driving. Failure to follow this instruction could result in personal injury or death.

1. For vehicles with a prop rod, fully stow the prop rod prior to lowering the hood.
2. Lower the hood and make sure it fully latches.

# Maintenance

## UNDER HOOD OVERVIEW - 2.0L/2.3L



- A Windshield washer fluid reservoir. See **Washer Fluid Check** (page 410).
- B Engine coolant reservoir. See **Engine Coolant Check** (page 400).
- C Engine oil dipstick. See **Engine Oil Dipstick** (page 396).

# Maintenance

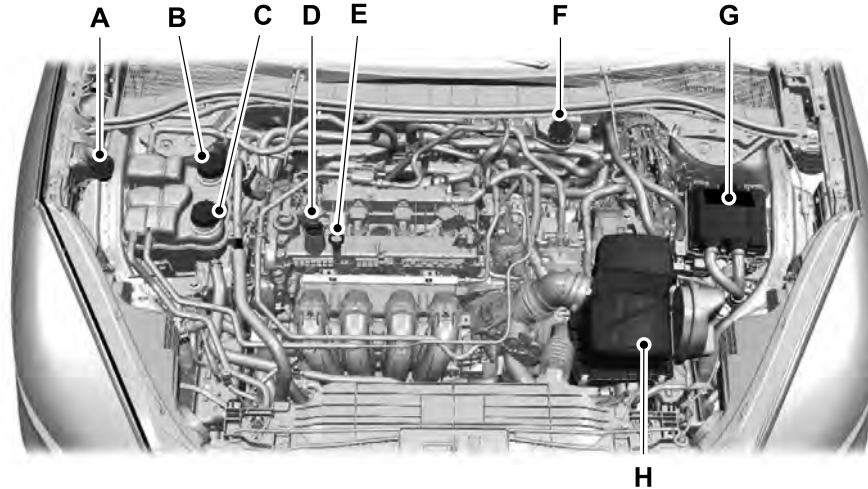
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- D Engine oil filler cap. See **Engine Oil Check** (page 396).
- E Brake fluid reservoir. See **Brake Fluid Check** (page 405).
- F Battery. See **Changing the 12V Battery** (page 406).
- G Engine compartment fuse box. See **Fuses** (page 378).
- H Air filter assembly. See **Changing the Engine Air Filter** (page 397).

# Maintenance

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## UNDER HOOD OVERVIEW - PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

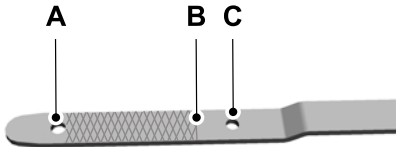


- A Windshield washer fluid reservoir: See **Washer Fluid Check** (page 410).
- B Low temp coolant cap: See **Engine Coolant Check** (page 400).
- C High temp coolant cap: See **Engine Coolant Check** (page 400).

# Maintenance

- D Engine oil filler cap: See **Engine Oil Check** (page 396).
- E Engine oil dipstick: See **Engine Oil Dipstick** (page 396).
- F Brake fluid reservoir: See **Brake Fluid Check** (page 405).
- G Power distribution box: See **Under Hood Overview** (page 393).
- H Air filter assembly: See **Changing the Engine Air Filter** (page 397).

## ENGINE OIL DIPSTICK



- A Minimum.
- B Nominal.
- C Maximum.

## ENGINE OIL CHECK

1. Make sure that your vehicle is on level ground.
2. Check the oil level before starting the engine, or switch the engine off after warm up and wait 10 minutes for the oil to drain into the oil pan.
3. Remove the dipstick and wipe it with a clean, lint-free cloth.
4. Reinstall the dipstick and make sure it is fully seated.
5. Remove the dipstick again to check the oil level.

**Note:** *If the oil level is between the maximum and minimum marks, the oil level is acceptable. Do not add oil.*

6. If the oil level is at the minimum mark, immediately add oil.
7. Reinstall the dipstick. Make sure it is fully seated.

**Note:** *The oil consumption of new engines reaches its normal level after approximately 3,000 mi (5,000 km).*

## Adding Engine Oil



**WARNING:** Do not add engine oil when the engine is hot. Failure to follow this instruction could result in personal injury.

# Maintenance



**WARNING:** Do not remove the filler cap when the engine is running.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that the vehicle warranty may not cover.

1. Clean the area surrounding the engine oil filler cap before you remove it.
2. Remove the engine oil filler cap.
3. Add engine oil that meets our specifications. See **Capacities and Specifications** (page 461).
4. Reinstall the engine oil filler cap. Turn it clockwise until you feel a strong resistance.

**Note:** Do not add oil further than the maximum mark. Oil levels above the maximum mark may cause engine damage.

**Note:** Immediately soak up any oil spillage with an absorbent cloth.

## Engine Oil Pressure Warning Lamp



**WARNING:** If it illuminates when you are driving do not continue your journey, even if the oil level is correct. Have your vehicle checked.



It illuminates when you switch the ignition on.

If it illuminates when the engine is running this indicates a malfunction. Stop your vehicle as soon as it is safe to do so and switch the engine off. Check the engine oil level. If the oil level is sufficient, this indicates a system malfunction. Have your vehicle checked as soon as possible.

## OIL CHANGE INDICATOR RESET

Use the information display controls on the steering wheel to reset the oil change indicator.

From the main menu scroll to:

Message	Action and description
Oil Life	Press the right arrow button, then from this menu scroll to the following message.
Hold OK to Reset	Press and hold the <b>OK</b> button. When the oil change indicator resets the instrument cluster displays 100%. Remaining Life {00}%

## CHANGING THE ENGINE AIR FILTER - 2.0L/2.3L



**WARNING:** To reduce the risk of vehicle damage and personal burn injuries, do not start your engine with the air cleaner removed and do not remove it while the engine is running.



# Maintenance

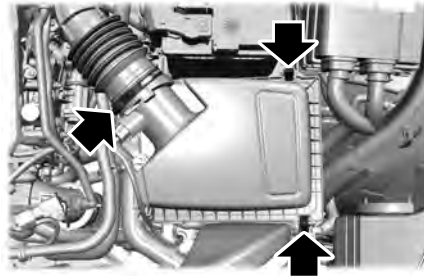
When changing the air filter element, use only parts that meet or exceed our specifications.

When servicing the air cleaner on vehicles with a turbocharger, it is important that no foreign material enter the air induction system. The engine and turbocharger are susceptible to damage from even small particles.

Change the air filter element at the proper interval. See **Normal Scheduled Maintenance** (page 584).

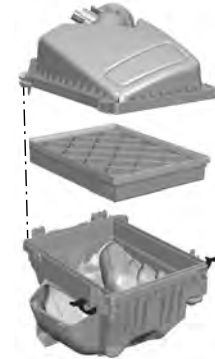
**Note:** *Failure to use the correct air filter element may result in severe engine damage. The customer warranty may be void for any damage to the engine if the correct air filter element is not used.*

## Gas Engines



1. Using a screwdriver, loosen the clamp on the air filter housing cover.
2. Gently pull the boot back away from the air filter housing cover.
3. Release the two clips from the air filter housing cover.
4. Remove the air filter housing cover.
5. Remove the air filter element from the air filter housing.

6. Wipe any dirt or debris from the air filter housing assembly to make sure no dirt gets in the engine and to make sure you have a good seal.



7. Install a new air filter element. Be careful not to crimp the filter element edges between the air filter housing and cover. This could cause filter damage and allow unfiltered air to enter the engine if it is not properly seated.
8. Install the air filter housing cover.

# Maintenance

- Engage the clips to secure the air filter housing cover to the air filter housing.
- Reconnect the boot to the air filter housing cover and tighten securely.

## CHANGING THE ENGINE AIR FILTER - 2.5L, PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

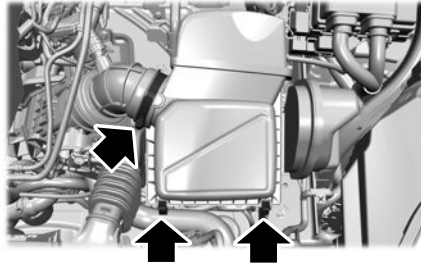


**WARNING:** To reduce the risk of vehicle damage and personal burn injuries, do not start your engine with the air cleaner removed and do not remove it while the engine is running.

When changing the air filter element, use only parts that meet or exceed our specifications.

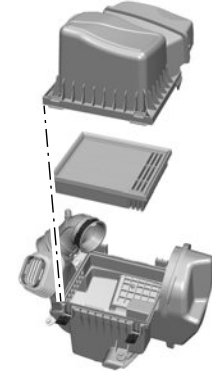
Change the air filter element at the proper interval. See **Scheduled Maintenance** (page 579).

**Note:** *If you do not use the correct air filter element, your vehicle warranty may be void.*



- Using a screwdriver, loosen the clamp on air filter housing cover.
- Gently pull the boot back away from the air filter housing cover.
- Release the two clips from the air filter housing cover.
- Remove air filter housing cover.
- Remove the air filter element from the air filter housing.

- Wipe any dirt or debris from the air filter housing assembly to make sure no dirt gets in the engine and to make sure you have a good seal.





- Install a new air filter element. Be careful not to crimp the filter element edges between the air filter housing and cover. This could cause filter damage and allow unfiltered air to enter the engine if it is not properly seated.
- Install the air filter housing cover.


# Maintenance

- Engage the clips to secure the air filter housing cover to the air filter housing.
- Reconnect the boot to the air filter housing cover and tighten securely.

## ENGINE COOLANT CHECK

 **WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

 **WARNING:** Do not put coolant in the windshield washer reservoir. If sprayed on the windshield, coolant could make it difficult to see through the windshield.

 **WARNING:** To reduce the risk of personal injury, make sure the engine is cool before unscrewing the coolant pressure relief cap. The cooling system is under pressure. Steam and hot liquid can come out forcefully when you loosen the cap slightly.

 **WARNING:** Do not add coolant further than the **MAX** mark.


When the engine is cold, check the concentration and level of the coolant at the intervals listed in the scheduled maintenance information. See **Scheduled Maintenance** (page 579).


**Note:** *Make sure that the coolant level is between the **MIN** and the **MAX** marks on the coolant reservoir.*

**Note:** *Coolant expands when it is hot. The level may extend beyond the **MAX** mark.*

Maintain coolant concentration within 48% to 50%, which equates to a freeze point between -29°F (-34°C) and -35°F (-37°C). Coolant concentration should be checked using a refractometer. We do not recommend the use of hydrometers or coolant test strips for measuring coolant concentration.

## Adding Coolant

 **WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

 **WARNING:** Do not add engine coolant when the engine is on or the cooling system is hot. Failure to follow this instruction could result in personal injury.

# Maintenance

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**Note:** *Automotive fluids are not interchangeable. Take care not to put engine coolant in the windshield washer fluid reservoir or windshield washer fluid in the engine coolant reservoir.*

**Note:** *Do not use stop leak pellets, cooling system sealants, or non-specified additives as they can cause damage to the engine cooling or heating systems. Resulting component damage may not be covered by the vehicle Warranty.*

It is very important to use prediluted coolant approved to the correct specification in order to avoid plugging the small passageways in the engine cooling system. See **Capacities and Specifications** (page 461). Do not mix different colors or types of coolant in your vehicle. Mixing of engine coolants or using an incorrect coolant may harm the engine or cooling system components and may not be covered by the vehicle Warranty.

**Note:** *If prediluted coolant is not available, use the approved concentrated coolant diluting it to 50/50 with distilled water. See **Capacities and Specifications** (page 461). Using water that has not been deionised may contribute to deposit formation, corrosion and plugging of the small cooling system passageways.*

**Note:** *Coolants marketed for all makes and models may not be approved to our specifications and may cause damage to the cooling system. Resulting component damage may not be covered by the vehicle Warranty.*

If the coolant level is at or below the minimum mark, add prediluted coolant immediately.

To top up the coolant level do the following:

1. Unscrew the cap slowly. Any pressure escapes as you unscrew the cap.
2. Add prediluted coolant approved to the correct specification. See **Capacities and Specifications** (page 461).
3. Add enough prediluted coolant to reach the correct level.

4. Replace the coolant reservoir cap. Turn the cap clockwise until it contacts the hard stop.
5. Check the coolant level in the coolant reservoir the next few times you drive your vehicle. If necessary, add enough prediluted engine coolant to bring the coolant level to the correct level.

If you have to add more than 1.1 qt (1 L) of engine coolant per month, have your vehicle checked as soon as possible. Operating an engine with a low level of coolant can result in engine overheating and possible engine damage.

In case of emergency, you can add a large amount of water without engine coolant in order to reach a vehicle service location. In this instance, qualified personnel:

1. Must drain the cooling system.
2. Chemically clean the coolant system.
3. Refill with engine coolant as soon as possible.

Water alone, without engine coolant, can cause engine damage from corrosion, overheating or freezing.

# Maintenance

Do not use the following as a coolant substitute:

- Alcohol.
- Methanol.
- Brine.
- Any coolant mixed with alcohol or methanol antifreeze.

Alcohol and other liquids can cause engine damage from overheating or freezing.

Do not add extra inhibitors or additives to the coolant. These can be harmful and compromise the corrosion protection of the coolant.

## Recycled Coolant

We do not recommend the use of recycled coolant as an approved recycling process is not yet available.

Dispose of used engine coolant in an appropriate manner. Follow your community's regulations and standards for recycling and disposing of automotive fluids.

## Severe Climates

If you drive in extremely cold climates:

- It may be necessary to increase the coolant concentration above 50%.
- A coolant concentration of 60% provides improved freeze point protection. Coolant concentrations above 60% decrease the overheat protection characteristics of the coolant and may cause engine damage.

If you drive in extremely hot climates:

- You can decrease the coolant concentration to 40%.
- A coolant concentration of 40% provides improved overheat protection.
- Coolant concentrations below 40% decrease the overheat and corrosion protection characteristics of the coolant and may cause engine damage.

Vehicles driven year-round in non-extreme climates should use prediluted coolant for optimum cooling system and engine protection.

## Coolant Change

At specific mileage intervals, as listed in the scheduled maintenance information, the coolant should be changed. Add prediluted coolant approved to the correct specification. See **Capacities and Specifications** (page 461).

## Fail-Safe Cooling

Fail-safe cooling allows you to temporarily drive your vehicle before any incremental component damage occurs. The fail-safe distance depends on ambient temperature, vehicle load and terrain.

## How Fail-Safe Cooling Works



If the engine begins to overheat, the coolant temperature gauge moves toward the red zone:



A warning lamp illuminates and a message may appear in the information display.

# Maintenance

If the engine reaches a preset over-temperature condition, the engine automatically switches to alternating cylinder operation. Each disabled cylinder acts as an air pump and cools the engine.

When this occurs, your vehicle still operates, however:

- Engine power is limited.
- The air conditioning system turns off.

Continued operation increases the engine temperature, causing the engine to completely shut down. Your steering and braking effort increases in this situation.

When the engine temperature cools, you can re-start the engine. Have your vehicle checked as soon as possible to minimize engine damage.

## When Fail-Safe Mode Is Activated



**WARNING:** Fail-safe mode is for use during emergencies only. Operate your vehicle in fail-safe mode only as long as necessary to bring your vehicle to rest in a safe location and seek immediate repairs. When in fail-safe mode, your vehicle will have limited power, will not be able to maintain high-speed operation, and may completely shut down without warning, potentially losing engine power, power steering assist, and power brake assist, which may increase the possibility of a crash resulting in serious injury.



**WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

Your vehicle has limited engine power when in the fail-safe mode, drive your vehicle with caution. Your vehicle does not maintain high-speed operation and the engine may operate poorly.

Remember that the engine is capable of automatically shutting down to prevent engine damage. In this situation:

1. Pull off the road as soon as safely possible and switch the engine off.
2. If you are a member of a roadside assistance program, we recommend that you contact your roadside assistance service provider.
3. If this is not possible, wait a short period for the engine to cool.
4. Check the coolant level. If the coolant level is at or below the minimum mark, add prediluted coolant immediately.
5. When the engine temperature cools, you can re-start the engine. Have your vehicle checked as soon as possible to minimize engine damage.

**Note:** *Driving your vehicle without repair increases the chance of engine damage.*

# Maintenance

## Engine Coolant Temperature Management (If Equipped)



**WARNING:** To reduce the risk of crash and injury, be prepared that the vehicle speed may reduce and the vehicle may not be able to accelerate with full power until the coolant temperature reduces.

If you tow a trailer with your vehicle, the engine may temporarily reach a higher temperature during severe operating conditions, for example ascending a long or steep grade in high ambient temperatures.

At this time, you may notice the coolant temperature gauge moves toward the red zone and a message may appear in the information display.

You may notice a reduction in vehicle speed caused by reduced engine power in order to manage the engine coolant temperature. Your vehicle may enter this mode if certain high-temperature and high-load conditions take place. The amount of speed reduction depends on vehicle loading, grade and ambient temperature. If this occurs, there is no need to stop your vehicle. You can continue to drive.

The air conditioning may automatically turn on and off during severe operating conditions to protect the engine from overheating. When the coolant temperature decreases to the normal operating temperature, the air conditioning turns on.

If the coolant temperature gauge moves fully into the red zone, or if the coolant temperature warning or service engine soon messages appear in your information display, do the following:

1. Stop your vehicle as soon as it is safe to do so. Fully apply the parking brake, shift into park (P) or neutral (N).

2. Leave the engine running until the coolant temperature gauge needle returns to the normal position. If the temperature does not drop after several minutes, follow the remaining steps.
3. Switch the engine off and wait for it to cool. Check the coolant level.
4. If the coolant level is at or below the minimum mark, add prediluted coolant immediately.
5. If the coolant level is normal, restart the engine and continue.

## AUTOMATIC TRANSMISSION FLUID CHECK

The automatic transmission does not have a transmission fluid dipstick.

The automatic transmission does not consume fluid. However, the fluid level should be checked if the transmission is not working properly, for example if the transmission slips or shifts slowly or if you notice some sign of fluid leakage.

# Maintenance

**Note:** Transmission fluid should be checked by an authorized dealer. If required, fluid should be added by an authorized dealer.

Do not use supplemental transmission fluid additives, treatments or cleaning agents. The use of these materials may affect transmission operation and result in damage to internal transmission components.

## BRAKE FLUID CHECK

**WARNING:** Do not use any fluid other than the recommended brake fluid as this will reduce brake efficiency. Use of incorrect fluid could result in the loss of vehicle control, serious personal injury or death.

**WARNING:** Only use brake fluid from a sealed container. Contamination with dirt, water, petroleum products or other materials may result in brake system damage or failure. Failure to adhere to this warning could result in the loss of vehicle control, serious personal injury or death.

**WARNING:** Do not allow the fluid to touch your skin or eyes. If this happens, rinse the affected areas immediately with plenty of water and contact your physician.

**WARNING:** The brake system could be affected if the brake fluid level is below the **MIN** mark or above the **MAX** mark on the brake fluid reservoir.



1. Park your vehicle on a level surface.
2. Look at the brake fluid reservoir to see where the brake fluid level is relative to the **MIN** and the **MAX** marks on the reservoir.

**Note:** If the brake fluid level is between the **MIN** and the **MAX** marks on the reservoir, it is acceptable.



# Maintenance

**Note:** If the brake fluid level is below the **MIN** mark or above the **MAX** mark, have your vehicle checked as soon as possible.

**Note:** To avoid fluid contamination, the reservoir cap must remain in place and fully tight, unless you are adding fluid.

Only use fluid that meets our specifications. See **Capacities and Specifications** (page 461).

## Brake Fluid Service Interval

Brake fluid absorbs water over time which degrades the effectiveness of the brake fluid. Change the brake fluid at the specified intervals to prevent degraded braking performance.

For detailed interval information, see Scheduled Maintenance in your Owner's Manual or your local maintenance guide.

## POWER STEERING FLUID CHECK

Your vehicle is equipped with an electric power steering (EPS) system. There is no fluid reservoir to check or fill.

## CHANGING THE 12V BATTERY



**WARNING:** Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lighted substances to come near the battery. When working near the battery, always shield your face and protect your eyes. Always provide correct ventilation.



**WARNING:** When lifting a plastic-cased battery, excessive pressure on the end walls could cause acid to flow through the vent caps, resulting in personal injury and damage to the vehicle or battery. Lift the battery with a battery carrier or with your hands on opposite corners.



**WARNING:** Keep batteries out of reach of children. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Shield your eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, call a physician immediately.



**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash your hands after handling.**

# Maintenance



**WARNING:** This vehicle may have more than one battery. Removing the battery cables from only one battery does not disconnect your vehicle electrical system. Make sure you disconnect the battery cables from all batteries when disconnecting power. Failure to do so may cause serious personal injury or property damage.



**WARNING:** For vehicles with Auto-Start-Stop the battery requirement is different. You must replace the battery with one of exactly the same specification.

The battery is in the engine compartment. See **Under Hood Overview** (page 393).

Your vehicle has a maintenance-free battery. It does not require additional water during service.

If the vehicle battery has a cover and vent hose, make sure you correctly install it after cleaning or replacing the battery.

For longer, trouble-free operation, keep the top of the battery clean and dry and the battery cables tightly fastened to the battery terminals. If any corrosion is present on the battery or terminals, remove the cables from the terminals and clean with a wire brush. You can neutralize the acid with a solution of baking soda and water.

We recommend that you disconnect the negative battery cable terminal from the battery if you plan to store your vehicle for an extended period.

**Note:** *If you only disconnect the negative battery cable terminal, make sure it is isolated or placed away from the battery terminal to avoid unintended connection or arcing.*

If you replace the battery make sure it matches the electrical requirements of your vehicle.

If you disconnect or replace the battery and your vehicle has an automatic transmission, it must relearn its adaptive strategy. Because of this, the transmission may shift firmly when first driven. This is normal operation while the transmission fully updates its operation to optimum shift feel.

## Battery Sensor Reset

When you install a new battery, reset the battery sensor by doing the following:

1. Switch the ignition on, and leave the engine off.

**Note:** *Complete Steps 2 and 3 within 10 seconds.*

2. Flash the high beam headlamps five times, ending with the high beams off.
3. Press and release the brake pedal three times.

The battery warning lamp flashes three times to confirm that the reset is successful.

# Maintenance

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## Battery Management System (if Equipped)

The system monitors battery conditions and takes actions to extend battery life. If excessive battery drain is detected, the system temporarily disables some electrical systems to protect the battery.

Systems included are:

- Heated rear window.
- Heated seats.
- Climate control.
- Heated steering wheel.
- Audio unit.
- Navigation system.

A message may appear in the information display to alert you that battery protection actions are active. This message is only for notification that an action is taking place, and not intended to indicate an electrical problem or that the battery requires replacement.

After battery replacement, or in some cases after charging the battery with an external charger, the battery management system requires eight hours of vehicle sleep time to relearn the battery state of charge. During this time, your vehicle must remain fully locked with the ignition switched off.

**Note:** *Prior to relearning the battery state of charge, the battery management system may temporarily disable some electrical systems.*

## Electrical Accessory Installation

To make sure the battery management system works correctly, do not connect an electrical device ground connection directly to the battery negative post. This can cause inaccurate measurements of the battery condition and potential incorrect system operation.

**Note:** *If you add electrical accessories or components to the vehicle, it may adversely affect battery performance and durability. This may also affect the performance of other electrical systems in the vehicle.*

## Remove and Reinstall the Battery

Install a battery approved for use by our specifications. See **Capacities and Specifications** (page 461).

To disconnect or remove the battery, do the following:

1. Apply the parking brake and switch the ignition off.
2. Switch all electrical equipment off, for example lights and radio.
3. Wait a minimum of two minutes before disconnecting the battery.

**Note:** *The engine management system has a power hold function and remains powered for a period of time after you switch the ignition off. This is to allow the system to store diagnostic and adaptive tables. Disconnecting the battery without waiting can cause damage not covered by the vehicle warranty.*

4. Disconnect the negative battery cable terminal.
5. Disconnect the positive battery cable terminal.

# Maintenance

6. Remove the battery securing clamp.
7. Remove the battery.
8. To install, reverse the removal procedure.

**Note:** Before reconnecting the battery, make sure the ignition remains switched off.

**Note:** Make sure to fully tighten the battery cables.

If you disconnect or replace the vehicle battery, you must reset the following features:

- Window bounce-back. See **Power Windows** (page 115).
- Clock Settings.
- Pre-set radio stations.

## Battery Disposal

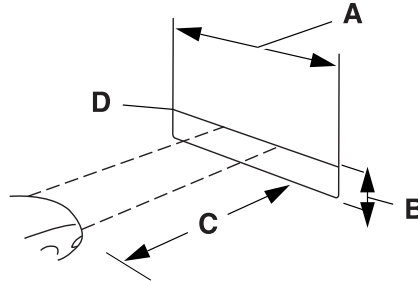


Make sure that you dispose of old batteries in an environmentally friendly way. Seek advice from your local authority about recycling old batteries.

## ADJUSTING THE HEADLAMPS

### Vertical Aim Adjustment

The assembly plant properly aims the headlamps on your vehicle. If your vehicle has been in an accident, have the alignment of your headlamps checked by your authorized dealer.



- A 8 ft (2.4 m).
- B Center height of lamp to ground.
- C 25 ft (7.6 m).
- D Horizontal reference line.

1. Park the vehicle directly in front of a wall or screen on a level surface, approximately 25 ft (7.6 m) away.
2. Measure the height of the headlamp passing beam optical center from the ground and mark an 8 ft (2.4 m) horizontal reference line on the vertical wall or screen at this height.

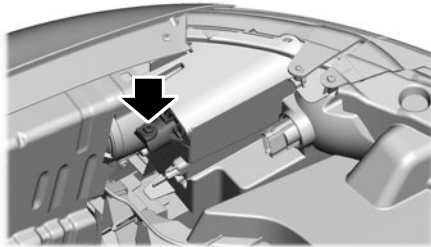
**Note:** To see a clearer light pattern for adjusting, block the light from one headlamp while adjusting the other.

3. Switch on the low beam headlamps to light the wall or screen and open the hood.



# Maintenance

4. On the wall or screen, observe a flat zone of high intensity light at the top of the right-hand portion of the beam pattern. If the top edge of the high intensity light zone is not at the horizontal reference line, adjust the headlamp.



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5. Locate the vertical adjuster on each headlamp. Turn the adjuster either clockwise or counterclockwise to aim the headlamp.
6. Close the hood and switch off the lamps.

## Horizontal Aim Adjustment

Your vehicle does not require horizontal aim as it is non-adjustable.

## WASHER FLUID CHECK



**WARNING:** If you operate your vehicle in temperatures below 41.0°F (5°C), use washer fluid with antifreeze protection. Failure to use washer fluid with antifreeze protection in cold weather could result in impaired windshield vision and increase the risk of injury or accident.

**Note:** *The front and rear washer systems are supplied from the same reservoir.*

Add fluid to fill the reservoir if the level is low. Only use a washer fluid that meets our specifications. See **Capacities and Specifications** (page 461).

State or local regulations on volatile organic compounds may restrict the use of methanol, a common windshield washer antifreeze additive. Washer fluids containing non-methanol antifreeze agents should be used only if they provide cold weather protection without damaging the vehicle's paint finish, wiper blades or washer system.

## FUEL FILTER

Your vehicle is equipped with a lifetime fuel filter that is integrated with the fuel tank. Regular maintenance or replacement is not needed.

## CHECKING THE WIPER BLADES



Run the tip of your fingers over the edge of the blade to check for roughness.

Clean the wiper blades with washer fluid or water applied with a soft sponge or cloth.

# Maintenance

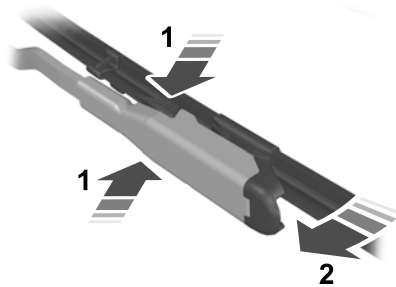
## CHANGING THE WIPER BLADES

Clean the wiper blades and the windshield to improve wiper performance.

**Note:** Do not move the wiper arm when the ignition is on as it may cause damage to the wiper motor.

Replace the wiper blades at least annually for optimum performance.

### Front Wiper Blades



1. Lift the wiper arm and then press the wiper blade locking buttons together.

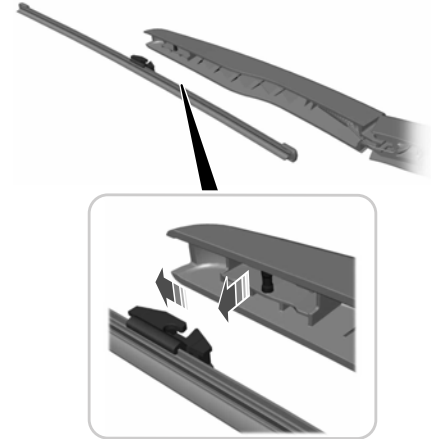
**Note:** Do not hold the wiper blade when lifting the wiper arm.

**Note:** Make sure that the wiper arm does not spring back against the glass when the wiper blade is not attached.

2. Slightly rotate the wiper blade.
3. Remove the wiper blade.
4. Install in the reverse order.

**Note:** Make sure that the wiper blade locks into place.

### Rear Window Wiper Blade



1. Lift the wiper arm.

**Note:** Do not hold the wiper blade when lifting the wiper arm.

**Note:** Make sure that the wiper arm does not spring back against the glass when the wiper blade is not attached.

2. Remove the wiper blade.

# Maintenance

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**Note:** *Make sure that the wiper blade locks into place.*

## **REMOVING A HEADLAMP**

To gain access to the headlamp securing bolts and to remove the headlamp assembly, you must first remove the front fascia and front bumper assemblies. We recommend you see an authorized dealer.

## **CHANGING A BULB**

Your vehicle has LED lamps. These are not serviceable. See your authorized dealer if they fail.

# Vehicle Care

## GENERAL INFORMATION

Your dealer has many quality products available to clean your vehicle and protect its finishes.

## CLEANING PRODUCTS

### Materials

For best results, use the following products or products of equivalent quality:

For additional information and assistance, we recommend that you contact an authorized dealer.

Name	Specification
Motorcraft® Bug and Tar Remover, ZC-42 (U.S. & Canada)	
Motorcraft® Custom Bright Metal Cleaner, ZC-15 (U.S. & Canada)	ESR-M5B194-B
Motorcraft® Detail Wash, ZC-3-A (U.S. & Canada)	ESR-M14P4-A
Motorcraft® Engine Shampoo and Degreaser, ZC-20 (U.S.)	ESR-M14P3-A
Motorcraft® Engine Shampoo, CXC-66-A (Canada)	
Motorcraft® Premium Leather and Vinyl Cleaner, ZC-56 (U.S. & Canada)	
Motorcraft® Multi-Purpose Cleaner, CXC-101 (Canada)	
Motorcraft® Premium Windshield Wash Concentrate with Bitterant, ZC-32-B2 (U.S.)	WSS-M14P19-A
Motorcraft® Premium Quality Windshield Washer Fluid, CXC-37-F/M (Canada)	WSS-M14P19-A
Motorcraft® Professional Strength Carpet & Upholstery Cleaner, ZC-54 (U.S. & Canada)	
Motorcraft® Premium Glass Cleaner, CXC-100 (Canada)	ESR-M14P5-A



# Vehicle Care

Name	Specification
Motorcraft® Spot and Stain Remover, ZC-14 (U.S.)	
Motorcraft® Ultra-Clear Spray Glass Cleaner, ZC-23 (U.S.)	ESR-M14P5-A
Motorcraft® Wheel and Tire Cleaner, ZC-37-A (U.S. & Canada)	

## CLEANING THE EXTERIOR

Wash your vehicle regularly with cool or lukewarm water and a neutral pH shampoo, we recommend Motorcraft Detail Wash.

- Never use strong household detergents or soap, for example dish washing or laundry liquid. These products can discolor and spot painted surfaces.
- Never wash your vehicle when it is hot to the touch, or during strong or direct sunlight.
- Dry your vehicle with a chamois or soft terry cloth towel to eliminate water spotting.

- Immediately remove fuel spillages, bird droppings, insect deposits and road tar. These may cause damage to your vehicle's paintwork or trim over time. We recommend Motorcraft Bug and Tar Remover.
- Remove any exterior accessories, for example antennas, before entering a car wash.
- When filling with AdBlue®, remove any residue on painted surfaces immediately.

**Note:** *Suntan lotions and insect repellents can damage painted surfaces. If these substances come in contact with your vehicle, wash the affected area as soon as possible.*

## Cleaning the Exterior Precautions

Immediately remove fuel spillages, AdBlue residuals, bird droppings, insect deposits and road tar. These may cause damage to your vehicle's paintwork or trim over time.

Remove any exterior accessories, for example antennas, before entering a car wash.

## Cleaning the Exterior Lamps

**Note:** *Do not scrape the exterior lamps lenses or use abrasives, alcoholic solvents or chemical solvents to clean them.*

**Note:** *Do not wipe the exterior lamps when they are dry.*

# Vehicle Care

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## Exterior Chrome Parts

- Apply a high quality-cleaning product to bumpers and other chrome parts. Follow the manufacturer's instructions. We recommend Motorcraft Custom Bright Metal Cleaner.
- Do not apply the cleaning product to hot surfaces. Do not leave the cleaning product on chrome surfaces longer than the time recommended.
- Using non-recommended cleaners can result in severe and permanent cosmetic damage.

**Note:** *Never use abrasive materials, for example steel wool or plastic pads as they can scratch the chrome surface.*

**Note:** *Do not use chrome cleaner, metal cleaner or polish on wheels or wheel covers.*

## Exterior Plastic Parts

For routine cleaning we recommend Motorcraft Detail Wash. If tar or grease spots are present, we recommend Motorcraft Bug and Tar Remover.

## Stripes or Graphics (If Equipped)

Hand washing your vehicle is preferred however, pressure washing may be used under the following conditions:

- Do not use water pressure higher than 2,000 psi (14,000 kPa).
- Do not use water hotter than 179°F (82°C).
- Use a spray with a 40 degree wide spray angle pattern.
- Keep the nozzle at a 12 in (305 mm) distance and 90 degree angle to your vehicle's surface.

**Note:** *Holding the pressure washer nozzle at an angle to the vehicle's surface may damage graphics and cause the edges to peel away from the vehicle's surface.*

## Underbody

Regularly clean the underside of your vehicle using water. Keep body and door drain holes free of debris or foreign material.

## Under Hood

For removing black rubber marks from under the hood we recommend Motorcraft Wheel and Tire Cleaner or Motorcraft Bug and Tar Remover.

## WAXING

Regular waxing is necessary to protect your car's paint from the elements. We recommend that you wash and wax the painted surface once or twice a year.

When washing and waxing, park your vehicle in a shaded area out of direct sunlight. Always wash your vehicle before applying wax.

- Use a quality wax that does not contain abrasives.
- Follow the manufacturer's instructions to apply and remove the wax.
- Apply a small amount of wax in a back-and-forth motion, not in circles.

# Vehicle Care

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- Do not allow wax to come in contact with any non-body (low-gloss black) colored trim. The wax will discolor or stain the parts over time.
  - Roof racks.
  - Bumpers.
  - Grained door handles.
  - Side moldings.
  - Mirror housings.
  - Windshield cowl area.
- Do not apply wax to glass areas.
- After waxing, your car's paint should feel smooth, and be free of streaks and smudges.

## CLEANING THE ENGINE

Engines are more efficient when they are clean because grease and dirt buildup keep the engine warmer than normal.

When washing:

- Take care when using a power washer to clean the engine. The high-pressure fluid could penetrate the sealed parts and cause damage.
- Do not spray a hot engine with cold water to avoid cracking the engine block or other engine components.
- Spray Motorcraft Engine Shampoo and Degreaser on all parts that require cleaning and pressure rinse clean. In Canada, use Motorcraft Engine Shampoo.

**Note:** *If your vehicle has an engine cover remove the cover before application of Motorcraft Engine Shampoo and Degreaser. Immediately rinse away any over spray.*

- Never wash or rinse the engine while it is hot or running; water in the running engine may cause internal damage.
- Never wash or rinse any ignition coil, spark plug wire or spark plug well, or the area in and around these locations.
- Cover the battery, power distribution box, and air filter assembly to prevent water damage when cleaning the engine.

## CLEANING THE WINDOWS AND WIPER BLADES

Car wash chemicals and environmental fallout can result in windshield and wiper blade contamination. Dirty windshield and wipers will result in poor windshield wiper operation. Keep the windshield and wiper blades clean to maintain windshield wiper performance.

To clean the windshield and wiper blades:

- Clean the windshield with a non-abrasive glass cleaner. When cleaning the interior of the windshield, avoid getting any glass cleaner on the instrument panel or door panels. Wipe any glass cleaner off these surfaces immediately.
- For windshields contaminated with tree sap, chemicals, wax or bugs, clean the entire windshield using steel wool (no greater than 0000 grade) in a circular motion and rinse with water.
- Clean the wiper blades with isopropyl rubbing alcohol or windshield washer concentrate.

# Vehicle Care

**Note:** Do not use razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. The vehicle warranty does not cover damage caused to the heated rear window grid lines.

## CLEANING THE INTERIOR



**WARNING:** Do not use cleaning solvents, bleach or dye on the vehicle's seatbelts, as these actions may weaken the belt webbing.



**WARNING:** On vehicles equipped with seat-mounted airbags, do not use chemical solvents or strong detergents. Such products could contaminate the side airbag system and affect performance of the side airbag in a crash.

**Note:** Follow the same procedure for cleaning leather seats when cleaning leather interior. See **Cleaning Leather Seats** (page 418).

**Note:** Do not use household cleaning products or glass cleaners, which can stain and discolor the fabric and affect the flame retardant abilities of the seat materials.

For fabric, carpets, cloth seats, safety belts and seats equipped with side airbags:

- Remove dust and loose dirt with a vacuum cleaner.
- Remove light stains and soil with Motorcraft® Professional Strength Carpet & Upholstery Cleaner.

For grease or tar stains:

- Spot clean the area with Motorcraft® Spot and Stain Remover. In Canada, use Motorcraft® Multi-Purpose Cleaner.
- If a ring forms on the fabric after spot cleaning, clean the entire area immediately, but do not oversaturate or the ring will set.

## CLEANING THE INSTRUMENT PANEL AND INSTRUMENT CLUSTER LENS



**WARNING:** Do not use chemical solvents or strong detergents when cleaning the steering wheel or instrument panel to avoid contamination of the airbag system.

**Note:** Follow the same procedure as cleaning leather seats for cleaning leather instrument panels and leather interior trim surfaces. See **Cleaning Leather Seats** (page 418).

Clean the instrument panel and cluster lens with a clean, damp and soft cloth, then use a clean, dry and soft cloth to dry these areas.

# Vehicle Care

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- Avoid cleaners or polishes that increase the gloss of the upper portion of the instrument panel. The dull finish in this area helps protect you from undesirable windshield reflection.
  - Do not use any household cleaning products or glass cleaners as these may damage the finish of the instrument panel, interior trim and cluster lens.
  - Wash or wipe your hands clean if you have been in contact with certain products such as insect repellent and suntan lotion to avoid possible damage to the interior painted surfaces.
  - Do not allow air fresheners and hand sanitizers to spill onto interior surfaces. If a spill occurs, wipe off immediately. Your warranty may not cover these damages.
2. Use Motorcraft Premium Leather and Vinyl Cleaner or a commercially available leather cleaning product for automotive interiors. Test any cleaner or stain remover on an inconspicuous area.
  3. Alternatively, wipe the surface with a clean, soft cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
  4. If necessary, apply more soap and water solution or cleaning product to a clean, soft cloth and press it onto the soiled area. Allow this to set at room temperature for 30 minutes.
  5. Remove the soaked cloth, then with a clean, damp cloth, use a rubbing motion for 60 seconds on the soiled area.
  6. Dry the area with a clean, soft cloth.

If a staining liquid like coffee or juice has been spilled on the instrument panel or on interior trim surfaces:

1. Wipe up spilled liquid using a clean, soft cloth as quickly as possible.

## CLEANING LEATHER SEATS

**Note:** Follow the same procedure as cleaning leather seats for cleaning leather instrument panels and leather interior trim surfaces.

For routine cleaning, wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.

**Note:** Test any cleaner or stain remover on an inconspicuous area.

You should:

- Remove dust and loose dirt with a vacuum cleaner.
- Clean and treat spills and stains as soon as possible.

Do not use the following products as these may damage the leather:

- Oil and petroleum or silicone-based leather conditioners.
- Household cleaners.
- Alcohol solutions.
- Solvents or cleaners intended specifically for rubber, vinyl and plastics.

# Vehicle Care

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## REPAIRING MINOR PAINT DAMAGE

Authorized dealers have touch-up paint to match your vehicle's color. Your vehicle color code is printed on a sticker on the front, left-hand side door jamb. Take your color code to your authorized dealer to make sure you get the correct color.

Before repairing minor paint damage, use a cleaner to remove particles such as bird droppings, tree sap, insect deposits, tar spots, road salt and industrial fallout.

Read the instructions before using cleaning products.

## CLEANING THE WHEELS

**Note:** Do not apply a cleaning chemical to warm or hot wheel rims and covers.

**Note:** Industrial-strength (heavy-duty) cleaners, or cleaning chemicals, in combination with brush agitation to remove brake dust and dirt, could wear away the clear coat finish over a period of time.

**Note:** Do not use hydrofluoric acid-based or high caustic-based wheel cleaners, steel wool, fuels or strong household detergent.

**Note:** If you intend to park your vehicle for an extended period after cleaning the wheels with a wheel cleaner, drive your vehicle for a few minutes before doing so. This reduces the risk of increased corrosion of the brake discs, brake pads and linings.

**Note:** Some automatic car washes could cause damage to the finish on your wheel rims and covers.

Alloy wheels and wheel covers are coated with a clear coat paint finish. To maintain their condition we recommend that you:

- Clean them weekly with the recommended wheel and tire cleaner.
- Use a sponge to remove heavy deposits of dirt and brake dust accumulation.
- Rinse them thoroughly with a pressurized stream of water when you complete the cleaning process.

We recommend that you use our surface wheel cleaner. Make sure that you read and follow the manufacturer's instructions.

Using other non-recommended cleaning products can result in severe and permanent damage.

## VEHICLE STORAGE

If you plan on storing your vehicle for 30 days or more, read the following maintenance recommendations to make sure your vehicle stays in good operating condition.

We engineer and test all motor vehicles and their components for reliable, regular driving. Under various conditions, long-term storage may lead to degraded engine performance or failure unless you use specific precautions to preserve engine components.

### General

- Store all vehicles in a dry, ventilated place.
- Protect from sunlight, if possible.
- If vehicles are stored outside, they require regular maintenance to protect against rust and damage.

# Vehicle Care

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## Body

- Wash your vehicle thoroughly to remove dirt, grease, oil, tar or mud from exterior surfaces, rear-wheel housing and the underside of front fenders.
- Periodically wash your vehicle if it is stored in exposed locations.
- Touch-up exposed or primed metal to prevent rust.
- Cover chrome and stainless steel parts with a thick coat of auto wax to prevent discoloration. Re-wax as necessary when you wash your vehicle.
- Lubricate all hood, door and luggage compartment hinges and latches with a light grade oil.
- Cover interior trim to prevent fading.
- Keep all rubber parts free from oil and solvents.

## Engine

- Change the engine oil and filter prior to storage because used engine oil contains contaminants which may cause engine damage.
- Start the engine every 15 days for a minimum of 15 minutes. Run at fast idle with the climate controls set to defrost until the engine reaches normal operating temperature.
- With your foot on the brake, shift through all the gears while the engine is running.
- We recommend that you change the engine oil before you use your vehicle again.

## Fuel system

- Fill the fuel tank with high-quality fuel until the first automatic shutoff of the fuel pump nozzle.

## Cooling system

- Protect against freezing temperatures.
- When removing your vehicle from storage, check coolant fluid level. Confirm that there are no cooling system leaks and that fluid is at the recommended level.

## Disconnecting Your 12 Volt Battery

- Check and recharge as necessary. Keep connections clean.
- If storing your vehicle for more than 30 days without recharging the battery, we recommend that you disconnect the battery cables to maintain battery charge for quick starting.

**Note:** *It is necessary to reset memory features if you disconnect the battery cables.*

# Vehicle Care

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## Plugging in Your HYBRID

We recommend the following options for your plug-in vehicle (PHEV) :

- Leave your vehicle plugged in. The 12 volt battery maintains power if left plugged in. However, this periodically uses electricity from the household outlet.
- Connect a battery charger to your 12 volt battery and leave it on a continuous, slow charge.
- Disconnect the 12 volt battery. If your 12 volt battery is located in the luggage compartment, do not fully shut the luggage compartment after disconnecting the 12 volt battery. Only leave the luggage compartment open if your vehicle is stored in a locked location.

## Brakes

- Make sure the brakes and parking brake release fully.

## Tires

- Maintain recommended air pressure.

## Miscellaneous

- Make sure all linkages, cables, levers and pins under your vehicle are covered with grease to prevent rust.
- Move vehicles at least 25 ft (7.5 m) every 15 days to lubricate working parts and prevent corrosion.

## Removing Vehicle From Storage

When your vehicle is ready to come out of storage, do the following:

- Wash your vehicle to remove any dirt or grease film build-up on window surfaces.
- Check windshield wipers for any deterioration.
- Check under the hood for any foreign material that may have collected during storage such as mice or squirrel nests.
- Check the exhaust for any foreign material that may have collected during storage.

- Check tire pressures and set tire inflation per the Tire Label.
- Check brake pedal operation. Drive your vehicle 15 ft (4.5 m) back and forth to remove rust build-up.
- Check fluid levels (including coolant, oil and gas) to make sure there are no leaks, and fluids are at recommended levels.
- If you remove the battery, clean the battery cable ends and check for damage.

Contact an authorized dealer if you have any concerns or issues.

## BODY STYLING KITS

The distance between the underside of your vehicle and the ground is less than that of other models. Drive with extreme care to avoid damage to your vehicle.



# Wheels and Tires

## GENERAL INFORMATION

The recommended tire inflation pressures are found on the Tire Label which is located on the B-pillar or the edge of the driver door. This information can also be found on the Safety Compliance Certification Label, affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post; next to the driver's seating position.

We strongly recommend maintaining these tire pressures at all times. Failure to follow the tire pressure recommendations can cause uneven treadwear patterns, reduced fuel economy, and adversely affect the way your vehicle handles.

**Note:** *Check and set the tire pressure at the ambient temperature in which you are intending to drive your vehicle and when the tires are cold.*

**Note:** *Check your tire pressures at least once per month.*

If your vehicle has a spare tire, set the pressure to the highest value given for your vehicle and tire size combination.

Use only approved wheels and tire sizes, using other sizes could damage your vehicle.

If you change the diameter of the factory installed tires, the speedometer may not display the correct speed. Take your vehicle to an authorized dealer and have the engine management system reprogrammed.

If you intend to change the size of the factory installed tires, check the suitability with an authorized dealer.

Additional information related to the functionality and maintenance of your tires can be found in the Wheels and Tire section. See **Tire Care** (page 431).

## Notice to utility vehicle and truck owners



**WARNING:** Vehicles with a higher center of gravity (utility and four-wheel drive vehicles) handle differently than vehicles with a lower center of gravity (passenger cars). Avoid sharp turns, excessive speed and abrupt steering in these vehicles. Failure to drive cautiously increases the risk of losing control of your vehicle, vehicle rollover, personal injury and death.



**WARNING:** In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seatbelt.

Utility vehicles and trucks handle differently than passenger cars in the various driving conditions that are encountered on streets, highways and off-road. Utility vehicles and trucks are not designed for cornering at speeds as high as passenger cars any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions.

# Wheels and Tires

Study your owner's manual and any supplements for specific information about equipment features, instructions for safe driving and additional precautions to reduce the risk of an accident or serious injury.

## All-wheel drive system (if equipped)



**WARNING:** Do not become overconfident in the ability of four-wheel drive vehicles. Although a four-wheel drive vehicle may accelerate better than a two-wheel drive vehicle in low traction situations, it won't stop any faster than two-wheel drive vehicles. Always drive at a safe speed.

A vehicle equipped with all-wheel drive has the ability to use all four wheels to power itself. This increases traction which may enable you to safely drive over terrain and road conditions that a conventional two-wheel drive vehicle cannot.

For all-wheel-drive vehicles, a spare tire of a different size other than the tire provided should never be used. A dissimilar spare tire size; other than the spare tire provided or major dissimilar tire sized between the front and rear axles could cause the all-wheel-drive system to stop functioning and default to front-wheel drive.

## How your vehicle differs from other vehicles

Sport utility vehicles and trucks can differ from some other vehicles in a few noticeable ways. Your vehicle may be:

- Higher - to allow higher load carrying capacity and to allow it to travel over rough terrain without getting hung up or damaging underbody components.
- Shorter - to give it the capability to approach inclines and drive over the crest of a hill without getting hung up or damaging underbody components. All other things held equal, a shorter wheelbase may make your vehicle quicker to respond to steering inputs than a vehicle with a longer wheelbase.
- Narrower - to provide greater maneuverability in tight spaces, particularly in off-road use.

As a result of the above dimensional differences, Sport utility vehicles and trucks often have a higher center of gravity and a greater difference in center of gravity between the loaded and unloaded condition. These differences that make your vehicle so versatile also make it handle differently than an ordinary passenger car.

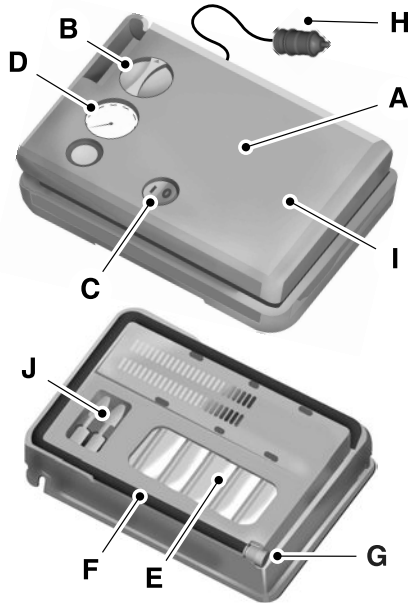
# Wheels and Tires

## TIRE SEALANT AND INFLATOR KIT

(IF EQUIPPED)

**Note:** The temporary mobility kit contains enough sealant compound in the canister for one tire repair only. See your authorized Ford dealer for replacement sealant canisters.

The kit is located under the load floor in the trunk. The kit consists of an air compressor to re-inflate the tire and a canister of sealing compound that will effectively seal most punctures caused by nails or similar objects. This kit will provide a temporary tire repair allowing you to drive your vehicle up to 120 mi (200 km) at a maximum speed of 50 mph (80 km/h) to reach a tire service location.



- A Air compressor (inside)
- B Selector switch
- C On and off button

- D Air pressure gauge
- E Sealant bottle and canister
- F Dual purpose hose: air and repair
- G Tire valve connector
- H Accessory power plug
- I Casing/housing
- J Bike/raft/sports ball adapters

### General Information



**WARNING:** Failure to follow these guidelines could result in an increased risk of loss of vehicle control, injury or death.

**Note:** Do not use the kit if a tire has become severely damaged. Only punctures located within the tire tread can be sealed with the kit.

Do not attempt to repair punctures larger than 0.24 in (6 mm) or damage to the tire's sidewall. The tire may not completely seal.

Loss of air pressure may adversely affect tire performance. For this reason:

# Wheels and Tires

**Note:** Do not drive the vehicle above 50 mph (80 km/h).

**Note:** Do not drive further than 120 mi (200 km). Drive only to the closest authorized Ford dealer or tire repair shop to have your tire inspected.

- Drive carefully and avoid abrupt steering maneuvers.
- Periodically monitor tire inflation pressure in the affected tire; if the tire is losing pressure, have the vehicle towed.
- Read the information in the Tips for Use of the Kit section to make sure safe operation of the kit and your vehicle.

## Tips for Use of the Kit

To ensure safe operation of the kit:

- Read all instructions and cautions fully.
- Before operating the kit, make sure your vehicle is safely off the road and away from moving traffic. Turn on the hazard lights.
- Always set the parking brake to ensure the vehicle doesn't move unexpectedly.

- Do not remove any foreign objects, such as nails or screws, from the tire.
- When using the kit, leave the engine running (only if the vehicle is outdoors or in a well-ventilated area) so the compressor does not drain the vehicle's battery.
- Do not allow the compressor to operate continuously for more than 15 minutes. This will help prevent the compressor from overheating.
- Never leave the kit unattended during operation.
- Sealant compound contains latex. Those with latex sensitivities should use appropriate precautions to avoid an allergic reaction.
- Keep the kit away from children.
- Only use the kit when the ambient temperature is between -22°F (-30°C) and 158°F (70°C).

- Only use the sealing compound before the use-by date. The use-by date is on a label on the sealant canister and can be seen through the rectangular viewing window on the bottom of the compressor. Check the use-by date regularly and replace the canister when the sealant expires.
- Do not store the kit unsecured inside the passenger compartment of the vehicle as it may cause injury during a sudden stop or crash. Always store the kit in its original location.
- After sealant use, the tire pressure monitoring system sensor and valve stem on the wheel must be replaced by an authorized Ford dealer.
- Operating the kit could cause an electrical disturbance in radio, CD, and DVD player operation.



\* When inflation only is required for a tire or other objects, the selector must be in the Air position.


# Wheels and Tires

## What to do when a Tire Is Punctured

A tire puncture within the tire's tread area can be repaired in two stages with the kit.

- In the first stage, the tire will be reinflated with a sealing compound and air. After the tire has been inflated, you will need to drive the vehicle a short distance 4 mi (6 km) to distribute the sealant in the tire.
- In the second stage, you will need to check the tire pressure and adjust, if necessary, to the vehicle's specified tire inflation pressure.

## First Stage: Reinflating the Tire with Sealing Compound and Air

 **WARNING:** Do not stand directly over the kit while inflating the tire. If you notice any unusual bulges or deformations in the tire's sidewall during inflation, stop and call roadside assistance.



**WARNING:** If the tire does not inflate to the recommended tire pressure within 15 minutes, stop and call roadside assistance.



**WARNING:** Do not run the engine when operating the air compressor unless the vehicle is outdoors or in a well-ventilated area.

Preparation: Park the vehicle in a safe, level and secure area, away from moving traffic.

Turn the hazard lights on. Apply the parking brake and turn the engine off. Inspect the flat tire for visible damage.

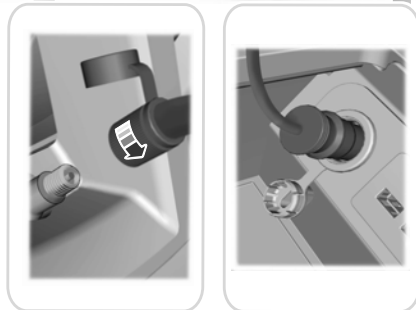
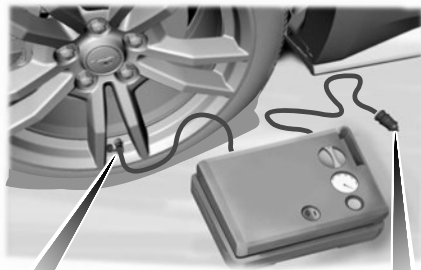
Sealant compound contains latex. Use appropriate precautions to avoid any allergic reactions.

Do not remove any foreign object that has pierced the tire. If a puncture is located in the tire sidewall, stop and call roadside assistance.

1. Remove the valve cap from the tire valve.

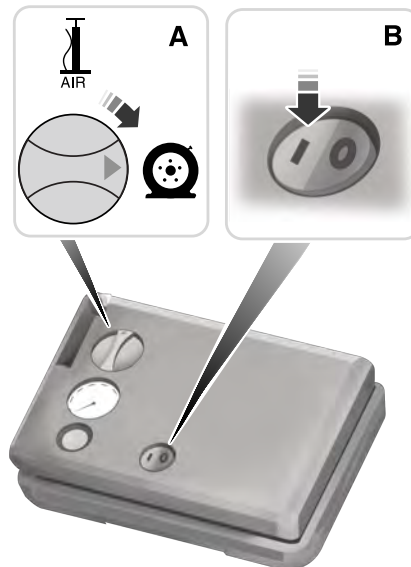
2. Unwrap the dual purpose hose (black tube) from the back of the compressor housing.
3. Fasten the hose to the tire valve by turning the connector clockwise. Tighten the connection securely.

## Wheels and Tires



4. Plug the power cable into the 12-volt power point in the vehicle.

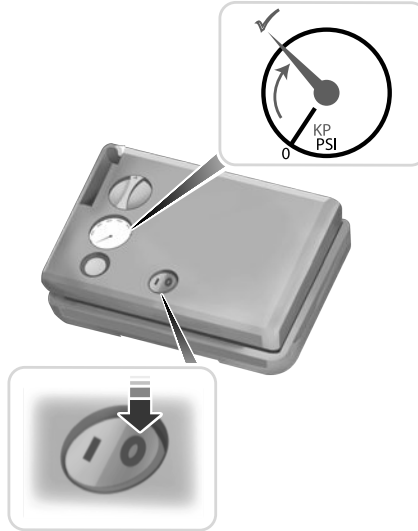
5. Remove the warning sticker found on the casing/housing and place it on the top of the instrument panel or the center of the dash.
6. Start the vehicle leave the engine running so the compressor does not drain the vehicle's battery.



7. Turn dial (A) clockwise to the sealant position. Turn the kit on by pressing the on/off button (B).

## Wheels and Tires

- Inflate the tire to the pressure listed on the tire label located on the driver's door or the door jamb area. The initial air pressure gauge reading may indicate a value higher than the label pressure while the sealing compound is being pumped into the tire. This is normal and should be no reason for concern. The pressure gauge reading will indicate the tire inflation pressure after about 30 seconds of operation. The final tire pressure should be checked with the compressor turned OFF in order to get an accurate pressure reading.



- When the recommended tire pressure is reached, turn off the kit, unplug the power cable, and disconnect the hose from the tire valve. Re-install the valve cap on the tire valve and return the kit to the stowage area.
- Immediately and cautiously, drive the vehicle 4 mi (6 km) to distribute the sealant evenly inside the tire. Do not exceed 50 mph (80 km/h).
- After 4 mi (6 km), stop and check the tire pressure. See Second stage: Checking tire pressure.

**Note:** *If you experience any unusual vibration, ride disturbance or noise while driving, reduce your speed until you can safely pull off to the side of the road to call for roadside assistance. Note: Do not proceed to the second stage of this operation.*

# Wheels and Tires

## Second Stage: Checking Tire Pressure



**WARNING:** If the tire does not inflate to the recommended tire pressure within 15 minutes, stop and call roadside assistance.



**WARNING:** The power plug may get hot after use and should be handled carefully when unplugging.

Check the air pressure of your tires as follows:



1. Remove the valve cap from the tire valve.

2. Firmly screw the air compressor hose onto the valve stem by turning clockwise.
3. Push and turn the dial clockwise to the air position.
4. If required, turn on the compressor and adjust the tire to the recommended inflation pressure shown on the tire label located on the driver's door or door jamb area. The tire pressure should be checked with the compressor turned OFF in order to get an accurate pressure reading.
5. Unplug the hoses, re-install the valve cap on the tire and return the kit to the storage area.

## What to do after the Tire has been Sealed

After using the kit to seal your tire, you will need to replace the sealant canister. Sealant canisters and spare parts can be obtained at an authorized Ford dealer. Empty sealant canisters may be disposed of at home. However, canisters still containing liquid sealant should be disposed of by your local authorized Ford dealer or tire dealer, or in accordance with local waste disposal regulation.

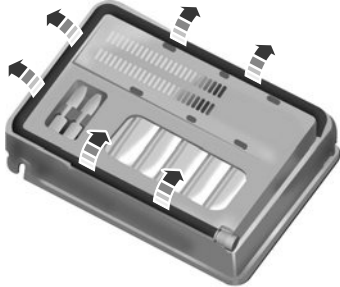
**Note:** *After the sealing compound has been used, the maximum vehicle speed is 50 mph (80 km/h) and the maximum driving distance is 120 mi (200 km). The sealed tire should be inspected immediately.*

You can check the tire pressure any time within the 120 mi (200 km) by performing the steps listed previously in the Second stage: Checking Tire Pressure procedure.



# Wheels and Tires

## Removal of the sealant canister from the kit



1. Unwrap the dual purpose hose (black tube) from the compressor housing.



2. Unwrap the power cord.



3. Remove the back cover.



4. Rotate the sealant canister up 90 degrees and pull away from casing/housing to remove.

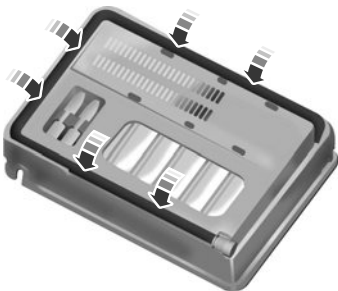
## Installation of the sealant canister to the kit

1. With the canister held perpendicular to the housing, insert the canister nozzle into the connector and push until seated.
2. Rotate the canister 90 degrees down into the housing/casing.

# Wheels and Tires



3. Snap the back cover back into place.



4. Wrap the dual purpose hose (black tube) around the channel on the bottom of the housing/casing.



5. Wrap the power cord around the housing and stow the accessory power plug into its storage area.

**Note:** *If you experience any difficulties with the removal or installation of the sealant canister, consult your authorized Ford dealer for assistance.*

Be sure to check the sealant compound's use-by date regularly. The use-by date is on a label located on the sealant canister and can be seen through the rectangular viewing window on the bottom of the kit. The sealant canister should be replaced when the sealant expires.

## TIRE CARE

### Information About Uniform Tire Quality Grading



Tire Quality Grades apply to new pneumatic passenger car tires. The Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example: **Treadwear 200 Traction AA Temperature A.**

# Wheels and Tires

These Tire Quality Grades are determined by standards that the United States Department of Transportation has set.

Tire Quality Grades apply to new pneumatic passenger car tires. They do not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, light truck or LT type tires, tires with nominal rim diameters of 10 to 12 inches or limited production tires as defined in Title 49 Code of Federal Regulations Part 575.104 (c)(2).

**U.S. Department of Transportation Tire quality grades:** The U.S. Department of Transportation requires us to give you the following information about tire grades exactly as the government has written it.

## Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear 1½ times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics and climate.

## Traction AA A B C



**WARNING:** The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning or peak traction characteristics.

The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

## Temperature A B C



**WARNING:** The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause

# Wheels and Tires

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the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

## Glossary of Tire Terminology

**\*Tire label:** A label showing the original equipment tire sizes, recommended inflation pressure and the maximum weight the vehicle can carry.

**\*Tire Identification Number (TIN):** A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size and date of manufacture. Also referred to as DOT code.

**\*Inflation pressure:** A measure of the amount of air in a tire.

**\*Standard load:** A class of P-metric or Metric tires designed to carry a maximum load at set pressure. For example: For P-metric tires 35 psi (2.4 bar) and for Metric tires 36 psi (2.5 bar). Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.

**\*Extra load:** A class of P-metric or Metric tires designed to carry a heavier maximum load at 42 psi (2.9 bar). Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.

**\*kPa:** Kilopascal, a metric unit of air pressure.

**\*PSI:** Pounds per square inch, a standard unit of air pressure.

**\*Cold tire pressure:** The tire pressure when the vehicle has been stationary and out of direct sunlight for an hour or more and prior to the vehicle being driven for 1 mi (1.6 km).

**\*Recommended inflation pressure:** The cold inflation pressure found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label located on the B-Pillar or the edge of the driver door.

**\*B-pillar:** The structural member at the side of the vehicle behind the front door.

**\*Bead area of the tire:** Area of the tire next to the rim.

**\*Sidewall of the tire:** Area between the bead area and the tread.

**\*Tread area of the tire:** Area of the perimeter of the tire that contacts the road when mounted on the vehicle.

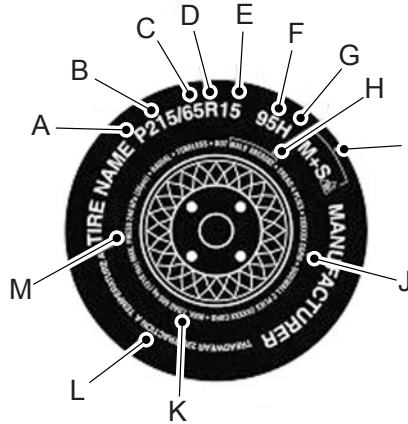
**\*Rim:** The metal support (wheel) for a tire or a tire and tube assembly upon which the tire beads are seated.

# Wheels and Tires

## Information Contained on the Tire Sidewall

Both United States and Canada Federal regulations require tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a U.S. DOT Tire Identification Number for safety standard certification and in case of a recall.

## Information on P Type Tires



P215/65R15 95H is an example of a tire size, load index and speed rating. The definitions of these items are listed below. (Note that the tire size, load index and speed rating for your vehicle may be different from this example.)

A. **P**: Indicates a tire, designated by the Tire and Rim Association, that may be used for service on cars, sport utility vehicles, minivans and light trucks. **Note:** If your tire size does not begin with a letter this may mean it is designated by either the European Tire and Rim Technical Organization or the Japan Tire Manufacturing Association.

B. **215**: Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

C. **65**: Indicates the aspect ratio which gives the tire's ratio of height to width.

D. **R**: Indicates a radial type tire.

E. **15**: Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

## Wheels and Tires

**F. 95:** Indicates the tire's load index. It is an index that relates to how much weight a tire can carry. You may find this information in your owner's manual. If not, contact a local tire dealer.

**Note:** *You may not find this information on all tires because it is not required by federal law.*

**G. H:** Indicates the tire's speed rating. The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time under a standard condition of load and inflation pressure. The tires on your vehicle may operate at different conditions for load and inflation pressure. These speed ratings may need to be adjusted for the difference in conditions. The ratings range from 81 mph (130 km/h) to 186 mph (299 km/h). These ratings are listed in the following chart.

**Note:** *You may not find this information on all tires because it is not required by federal law.*

Letter rating	Speed rating
M	81 mph (130 km/h)
N	87 mph (140 km/h)
Q	99 mph (159 km/h)
R	106 mph (171 km/h)
S	112 mph (180 km/h)
T	118 mph (190 km/h)
U	124 mph (200 km/h)
H	130 mph (210 km/h)
V	149 mph (240 km/h)

Letter rating	Speed rating
W	168 mph (270 km/h)
Y	186 mph (299 km/h)

**Note:** *For tires with a maximum speed capability over 149 mph (240 km/h), tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph (299 km/h), tire manufacturers always use the letters ZR.*

**H. U.S. DOT Tire Identification Number (TIN):** This begins with the letters DOT and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and the last four numbers represent the week and year the tire was built. For example, the numbers 317 mean the 31st week of 1997. After 2000, the numbers

# Wheels and Tires

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go to four digits. For example, 2501 means the 25th week of 2001. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.

**I. M+S or M/S:** Mud and Snow, or

**AT:** All Terrain, or

**AS:** All Season.

## **J. Tire Ply Composition and Material**

**Used:** Indicates the number of plies or the number of layers of rubber-coated fabric in the tire tread and sidewall. Tire manufacturers also must indicate the ply materials in the tire and the sidewall, which include steel, nylon, polyester, and others.

**K. Maximum Load:** Indicates the maximum load in kilograms and pounds that can be carried by the tire. See the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), for the correct tire pressure for your vehicle.

## **L. Treadwear, Traction and Temperature Grades:**

**\*Treadwear:** The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half times as well on the government course as a tire graded 100.

**\*Traction:** The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

**\*Temperature:** The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

## **M. Maximum Inflation Pressure:**

Indicates the tire manufacturers' maximum permissible pressure or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the vehicle manufacturer's recommended cold inflation pressure which can be found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to

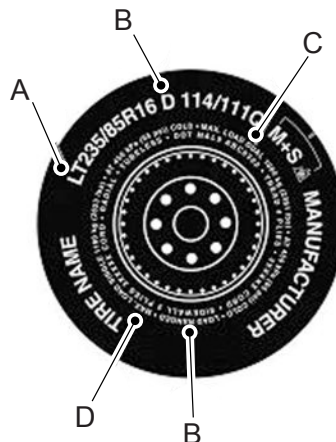
## Wheels and Tires

the driver's seating position), or Tire Label which is located on the B-Pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the vehicle label.

The tire suppliers may have additional markings, notes or warnings such as standard load or radial tubeless.

### Additional Information Contained on the Tire Sidewall for LT Type Tires

**Note:** *Tire Quality Grades do not apply to this type of tire.*



LT type tires have some additional information beyond those of P type tires; these differences are described below.

A. **LT:** Indicates a tire, designated by the Tire and Rim Association, that is intended for service on light trucks.

### B. Load Range and Load Inflation

**Limits:** Indicates the tire's load-carrying capabilities and its inflation limits.

C. **Maximum Load Dual lb (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a dual, defined as four tires on the rear axle (a total of six or more tires on the vehicle).

D. **Maximum Load Single lb (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a single, defined as two tires (total) on the rear axle.

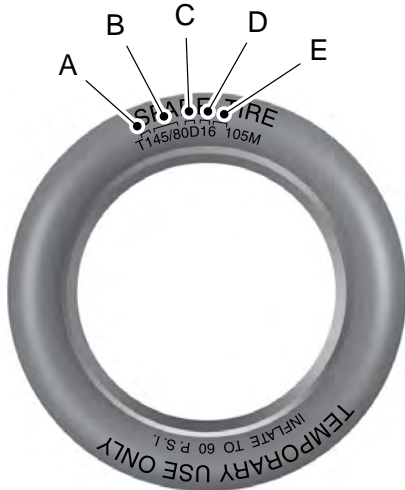
### Information on T Type Tires

T145/80D16 is an example of a tire size.

**Note:** *The temporary tire size for your vehicle may be different from this example. Tire Quality Grades do not apply to this type of tire.*



# Wheels and Tires



**A. T:** Indicates a type of tire, designated by the Tire and Rim Association, that is intended for temporary service on cars, sport utility vehicles, minivans and light trucks.

**B. 145:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

**C. 80:** Indicates the aspect ratio which gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall.

**D. D:** Indicates a diagonal type tire.

**R:** Indicates a radial type tire.

**E. 16:** Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

T type tires have some additional information beyond those of P type tires; these differences are described below:

## Location of the Tire Label

You will find a Tire Label containing tire inflation pressure by tire size and other important information located on the B-Pillar or the edge of the driver door.

## Inflating Your Tires

Safe operation of your vehicle requires that your tires are properly inflated. Remember that a tire can lose up to half of its air pressure without appearing flat.

Every day before you drive, check your tires. If one looks lower than the others, use a tire gauge to check pressure of all tires and adjust if required.

At least once a month and before long trips, inspect each tire and check the tire pressure with a tire gauge (including spare, if equipped). Inflate all tires to the inflation pressure recommended by us.

## Wheels and Tires

You are strongly urged to buy a reliable tire pressure gauge, as automatic service station gauges may be inaccurate. We recommend the use of a digital or dial-type tire pressure gauge rather than a stick-type tire pressure gauge.

Use the recommended cold inflation pressure for optimum tire performance and wear. Under-inflation or over-inflation may cause uneven treadwear patterns.



**WARNING:** Under-inflation is the most common cause of tire failures and may result in severe tire cracking, tread separation or blowout, with unexpected loss of vehicle control and increased risk of injury. Under-inflation increases sidewall flexing and rolling resistance, resulting in heat buildup

and internal damage to the tire. It also may result in unnecessary tire stress, irregular wear, loss of vehicle control and accidents. A tire can lose up to half of its air pressure and not appear to be flat!

Always inflate your tires to the recommended inflation pressure even if it is less than the maximum inflation pressure information found on the tire. Our recommended tire inflation pressure is found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label which is located on the B-Pillar or the edge of the driver's door. Failure to follow the tire pressure recommendations can cause uneven treadwear patterns and adversely affect the way your vehicle handles.

**Maximum Inflation Pressure** is the tire manufacturer's maximum permissible pressure and the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the manufacturer's recommended cold inflation pressure which can be found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label which is located on the B-Pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the Safety Compliance Certification Label or Tire Label.

When weather temperature changes occur, tire inflation pressures also change. A 11°F (6°C) temperature drop can cause a corresponding drop of 1 psi (7 kPa) in inflation pressure. Check your tire pressures frequently and adjust them to the proper pressure which can be found on the Safety Compliance Certification Label or Tire Label.

# Wheels and Tires

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To check the pressure in your tire(s):

1. Make sure the tires are cool, meaning they are not hot from driving even a mile.

**Note:** *If you are checking tire pressure when the tire is hot, (for example, driven more than 1 mi (1.6 km), never bleed or reduce air pressure. The tires are hot from driving and it is normal for pressures to increase above recommended cold pressures. A hot tire at or below recommended cold inflation pressure could be significantly under-inflated.*

**Note:** *If you have to drive a distance to get air for your tire(s), check and record the tire pressure first and add the appropriate air pressure when you get to the pump. It is normal for tires to heat up and the air pressure inside to go up as you drive.*

2. Remove the cap from the valve on one tire, then firmly press the tire gauge onto the valve and measure the pressure.

3. Add enough air to reach the recommended air pressure.

**Note:** *If you overfill the tire, release air by pressing on the metal stem in the center of the valve. Then recheck the pressure with your tire gauge.*

4. Replace the valve cap.
5. Repeat this procedure for each tire, including the spare.

**Note:** *Some spare tires operate at a higher inflation pressure than the other tires. For T type mini-spare tires, see the Dissimilar spare wheel and tire assembly information for a description. Store and maintain at 60 psi (4.15 bar). For full-size and dissimilar spare tires, see the Dissimilar spare wheel and tire assembly information for a description. Store and maintain at the higher of the front and rear inflation pressure as shown on the Tire Label.*

6. Visually inspect the tires to make sure there are no nails or other objects embedded that could poke a hole in the tire and cause an air leak.
7. Check the sidewalls to make sure there are no gouges, cuts or bulges.

## Inspecting Your Tires and Wheel Valve Stems

Periodically inspect the tire treads for uneven or excessive wear and remove objects such as stones, nails or glass that may be wedged in the tread grooves. Check the tire and valve stems for holes, cracks, or cuts that may permit air leakage and repair or replace the tire and replace the valve stem. Inspect the tire sidewalls for cracking, cuts, bruises and other signs of damage or excessive wear. If internal damage to the tire is suspected, have the tire demounted and inspected in case it needs to be repaired or replaced. For your safety, tires that are damaged or show signs of excessive wear should not be used because they are more likely to blow out or fail.

# Wheels and Tires

Improper or inadequate vehicle maintenance can cause tires to wear abnormally. Inspect all your tires, including the spare, frequently, and replace them if one or more of the following conditions exist:

## Tire Wear



When the tread is worn down to one sixteenth of an inch (2 mm), tires must be replaced to help prevent your vehicle from skidding and hydroplaning. Built-in treadwear indicators, or wear bars, which look like narrow strips of smooth rubber across the tread will appear on the tire when the tread is worn down to one sixteenth of an inch (2 mm).

When the tire tread wears down to the same height as these wear bars, the tire is worn out and must be replaced.

## Damage

Periodically inspect the tire treads and sidewalls for damage (such as bulges in the tread or sidewalls, cracks in the tread groove and separation in the tread or sidewall). If damage is observed or suspected, have the tire inspected by a tire professional. Tires can be damaged during off-road use, so inspection after off-road use is also recommended.

## Age



**WARNING:** Tires degrade over time depending on many factors such as weather, storage conditions, and conditions of use (load, speed, inflation pressure) the tires experience throughout their lives.

In general, tires should be replaced after six years regardless of tread wear. However, heat caused by hot climates or frequent high loading conditions can accelerate the aging process and may require tires to be replaced more frequently. You should replace your spare tire when you replace the road tires or after six years due to aging even if it has not been used.

# Wheels and Tires

## U.S. DOT Tire Identification Number

Both United States and Canada Federal regulations require tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a U.S. DOT Tire Identification Number for safety standard certification and in case of a recall.

This begins with the letters DOT and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and the last four numbers represent the week and year the tire was built. For example, the numbers 317 mean the 31st week of 1997. After 2000, the numbers go to four digits. For example, 2501 means the 25th week of 2001. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.

## Tire Replacement Requirements

Your vehicle is equipped with tires designed to provide a safe ride and handling capability.



**WARNING:** Do not use replacement tires with lower load carrying capacities than the original tires because they may lower your vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the original tires do not increase the GVWR and GAWR limitations.



**WARNING:** Replace the wheels and tires with the exact original brand, size and construction that came originally on your vehicle. Use of any other wheel or tire combinations, even with identical size ratings, may result

in insufficient running clearances, tire rubbing and eventual puncture. Failure to follow tire replacement recommendations can lead to tire failure, loss of vehicle control, serious injury or death.



**WARNING:** The use of non-recommended tires and wheels could cause steering, suspension, axle, transfer case or power transfer unit failure. If you have questions regarding tire replacement, contact your authorized dealer as soon as possible.



**WARNING:** To reduce the risk of serious injury, when mounting replacement tires and wheels, you should not exceed the maximum pressure indicated on the sidewall of the tire to set the beads without additional precautions listed below. If the beads do not seat at the maximum pressure indicated, re-lubricate and try again.

# Wheels and Tires



**WARNING:** When inflating the tire for mounting pressures up to 20 psi (1.38 bar) greater than the maximum pressure on the tire sidewall, the following precautions must be taken to protect the person mounting the tire:

- Make sure that you have the correct tire and wheel size.
- Lubricate the tire bead and wheel bead seat area again.
- Stand at a minimum of 12.0 ft (3.66 m) away from the wheel and tire assembly.
- Use both eye and ear protection.



**WARNING:** Always inflate steel carcass tires with a remote air fill with the person inflating standing at a minimum of 12 ft (3.66 m) away from the wheel and tire assembly.

**Important:** Remember to replace the wheel valve stems when the road tires are replaced on your vehicle.

It is recommended that the two front tires or two rear tires generally be replaced as a pair.

The tire pressure sensors mounted in the wheels (originally installed on your vehicle) are not designed to be used in aftermarket wheels.

The use of wheels or tires not recommended by us, may affect the operation of your tire pressure monitoring system.

If the tire pressure monitoring system indicator is flashing, your system is malfunctioning. Your replacement tire might be incompatible with your tire pressure monitoring system, or some component of the system may be damaged.

## Safety Practices



**WARNING:** If your vehicle is stuck in snow, mud or sand, do not rapidly spin the tires; spinning the tires can tear the tire and cause an explosion. A tire can explode in as little as three to five seconds.



**WARNING:** Do not spin the wheels at over 34 mph (55 km/h). The tires may fail and injure a passenger or bystander.

**Driving habits have a great deal to do with your tire mileage and safety.**

- \*Observe posted speed limits
- \*Avoid fast starts, stops and turns
- \*Avoid potholes and objects on the road
- \*Do not run over curbs or hit the tire against a curb when parking

# Wheels and Tires

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## Highway Hazards

No matter how carefully you drive, there is always the possibility that you may eventually have a flat tire on the highway. Drive slowly to the closest safe area out of traffic. This may further damage the flat tire, but your safety is more important.

If you feel a sudden vibration or ride disturbance while driving, or you suspect your tire or vehicle has been damaged, immediately reduce your speed. Drive with caution until you can safely pull off the road. Stop and inspect the tires for damage. If a tire is under-inflated or damaged, deflate it, remove wheel and replace it with your spare tire and wheel. If you cannot detect a cause, have the vehicle towed to the nearest repair facility or tire dealer to have the vehicle inspected.

## Tire and Wheel Alignment

A bad jolt from hitting a curb or pothole can cause the front end of your vehicle to become misaligned or cause damage to your tires. If your vehicle seems to pull to one side when you are driving, the wheels may be out of alignment. Have an authorized dealer check the wheel alignment periodically.

Wheel misalignment in the front or the rear can cause uneven and rapid treadwear of your tires and should be corrected by an authorized dealer. Front-wheel drive vehicles and those with an independent rear suspension (if equipped) may require alignment of all four wheels.

The tires should also be balanced periodically. An unbalanced tire and wheel assembly may result in irregular tire wear.

## Tire Rotation

**Note:** *If your tires show uneven wear, ask an authorized dealer to check for and correct any wheel misalignment, tire imbalance or mechanical problem involved before tire rotation.*

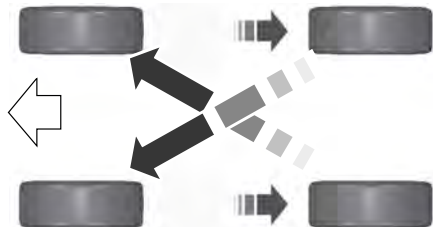
**Note:** *Your vehicle may be equipped with a dissimilar spare wheel and tire assembly. A dissimilar spare wheel and tire assembly is defined as a spare wheel and tire assembly that is different in brand, size or appearance from the road tires and wheels. If you have a dissimilar spare wheel and tire assembly, it is intended for temporary use only and should not be used in a tire rotation.*

**Note:** *After having your tires rotated, inflation pressure must be checked and adjusted to the vehicle requirements.*

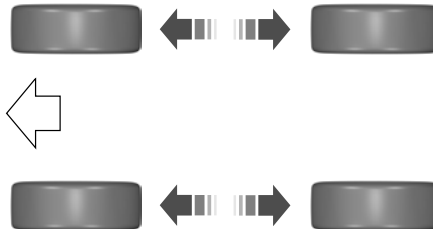
# Wheels and Tires

Rotating your tires at the recommended interval will help your tires wear more evenly, providing better tire performance and longer tire life. Sometimes irregular tire wear can be corrected by rotating the tires.

## Non-directional tires



## Directional tires



E70415

## USING SNOW CHAINS



**WARNING:** Wheels and tires must be the same size, load index and speed rating as those originally fitted on the vehicle. Use of any other tire or wheel can affect the safety and performance of your vehicle. Additionally, the use of non-recommended tires and wheels can cause steering, suspension, axle, transfer case or power transfer unit failure. Follow the recommended tire inflation pressures

found on the Safety Compliance Certification label, or the Tire Label on the B-Pillar or the edge of the driver door. Failure to follow this instruction could result in loss of vehicle control, vehicle rollover, or personal injury or death.

The tires on your vehicle have all-weather treads to provide traction in rain and snow. However, in some climates, you may need to use snow tires and cables. If you need to use cables, it is recommended that steel wheels of the same size and specifications be used, as cables may chip aluminum wheels.

Follow these guidelines when using snow tires and traction devices:

- If possible, avoid fully loading your vehicle.
- Purchase chains or cables from a manufacturer that clearly labels body to tire dimension restrictions.
- Use 10 mm cables or chains only on front axle with 225/60R18 tires.



# Wheels and Tires

- Not all S-class snow chains or cables meet these restrictions. Chains of this size restriction will include a tensioning device.
- The snow chains or cables must be mounted in pairs on the front axle.
- Do not use chains or cables on 225/55R19, and 245/45R20 tires.
- Install cables securely, verifying that the cables do not touch any wiring, brake lines or fuel lines.
- When driving with tire cables do not exceed 29.8 mph (48 km/h) or the maximum speed recommended by the chain manufacturer, whichever is less.
- Drive cautiously. If you hear the cables rub or bang against the vehicle, stop and retighten them. If this does not work, remove the cables to prevent vehicle damage.
- Remove the cables when they are no longer needed. Do not use cables on dry roads.

If you have any questions regarding snow chains or cables, please contact your authorized dealer.

## TIRE PRESSURE MONITORING SYSTEM



**WARNING:** The tire pressure monitoring system is not a substitute for manually checking tire pressures. You should periodically check tire pressures using a pressure gauge. Failure to correctly maintain tire pressures could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.

**Note:** *You should only use tire sealants in roadside emergencies as they may cause damage to the tire pressure monitoring system sensor.*

**Note:** *If the tire pressure monitoring system sensor becomes damaged, it may not function.*



Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires).

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure.

## Wheels and Tires

Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

This device complies with Part 15 of the FCC Rules and with License exempt RSS Standards of Industry Canada. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

### Changing Tires With a Tire Pressure Monitoring System



# Wheels and Tires

**Note:** Each road tire is equipped with a tire pressure sensor located inside the wheel and tire assembly cavity. The pressure sensor is attached to the valve stem. The pressure sensor is covered by the tire and is not visible unless the tire is removed. Take care when changing the tire to avoid damaging the sensor.

You should always have your tires serviced by an authorized dealer.

Check the tire pressure periodically (at least monthly) using an accurate tire gauge. See **When Inflating Your Tires** in this chapter.

## Understanding Your Tire Pressure Monitoring System



The tire pressure monitoring system measures pressure in your road tires and sends the tire pressure readings to your vehicle. You can view the tire pressure readings through the information display. See **General Information** (page 136). The low tire pressure warning light will turn on if the tire pressure is significantly low. Once

the light is illuminated, your tires are under-inflated and need to be inflated to the manufacturer's recommended tire pressure. Even if the light turns on and a short time later turns off, your tire pressure still needs to be checked.

## When Your Temporary Spare Tire is Installed

When one of your road tires needs to be replaced with the temporary spare, the system will continue to identify an issue to remind you that the damaged road wheel and tire assembly needs to be repaired and put back on your vehicle.

To restore the full function of the tire pressure monitoring system, have the damaged road wheel and tire assembly repaired and remounted on your vehicle.

# Wheels and Tires

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## **When You Believe Your System is Not Operating Properly**

The main function of the tire pressure monitoring system is to warn you when your tires need air. It can also warn you

in the event the system is no longer capable of functioning as intended. See the following chart for information concerning your tire pressure monitoring system:

## Wheels and Tires

Low tire pressure warning light	Possible cause	Customer action required
Solid warning light	Tire(s) under-inflated	Make sure tires are at the proper pressure. See Inflating your tires in this chapter. After inflating your tires to the manufacturer's recommended pressure as shown on the Tire Label (located on the edge of driver's door or the B-Pillar), the vehicle must be driven for at least two minutes over 20 mph (32 km/h) before the light turns off.
	Spare tire in use	Repair the damaged road wheel and tire assembly and reinstall it on the vehicle to restore system function. For a description on how the system functions, see <b>When Your Temporary Spare Tire is Installed</b> in this section.
	TPMS malfunction	If the tires are properly inflated and the spare tire is not in use but the light remains on, contact your authorized dealer as soon as possible.
Flashing warning light	Spare tire in use	Repair the damaged road wheel and tire assembly and reinstall it on the vehicle to restore system function. For a description on how the system functions, see <b>When Your Temporary Spare Tire is Installed</b> in this section.
	TPMS malfunction	If the tires are properly inflated and the spare tire is not in use but the light remains on, contact your authorized dealer as soon as possible.

# Wheels and Tires

## When Inflating Your Tires



**WARNING:** Do not use the tire pressure displayed in the information display as a tire pressure gauge. Failure to follow this instruction could result in personal injury or death.

When putting air into your tires (such as at a gas station or in your garage), the tire pressure monitoring system may not respond immediately to the air added to your tires.

It may take up to two minutes of driving over 20 mph (32 km/h) for the light to turn off after you have filled your tires to the recommended inflation pressure.

## How Temperature Affects Your Tire Pressure

The tire pressure monitoring system monitors tire pressure in each pneumatic tire. While driving in a normal manner, a typical passenger tire inflation pressure may increase about 2–4 psi (14–28 kPa) from a cold start situation. If the vehicle is stationary overnight with the outside temperature significantly lower than the daytime temperature, the tire pressure may decrease about 3 psi (21 kPa) for a drop of 30°F (17°C) in ambient temperature. This lower pressure value may be detected by the tire pressure monitoring system as being significantly lower than the recommended inflation pressure and activate the system warning light for low tire pressure. If the low tire pressure warning light is on, visually check each tire to verify that no tire is flat. If one or more tires are flat,

repair as necessary. Check the air pressure in the road tires. If any tire is under-inflated, carefully drive the vehicle to the nearest location where air can be added to the tires. Inflate all the tires to the recommended inflation pressure.

## CHANGING A ROAD WHEEL (IF EQUIPPED)



**WARNING:** The tire pressure monitoring system is not a substitute for manually checking tire pressures. You should periodically check tire pressures using a pressure gauge. Failure to correctly maintain tire pressures could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.



**WARNING:** If the tire pressure monitor sensor becomes damaged it may not function.

# Wheels and Tires

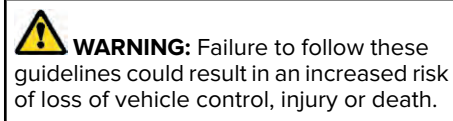
**Note:** Only use tire sealants in roadside emergencies as they may cause damage to the tire pressure monitoring system sensor.

**Note:** The tire pressure monitoring system indicator light illuminates when the spare tire is in use. To restore the full function of the monitoring system, all road wheels equipped with tire pressure monitoring sensors must be mounted on the vehicle.

If you get a flat tire when driving, do not apply the brake heavily. Instead, gradually decrease your speed. Hold the steering wheel firmly and slowly move to a safe place on the side of the road.

Have a flat serviced by an authorized dealer in order to prevent damage to the tire pressure monitoring system sensors. See **Tire Pressure Monitoring System** (page 446). Replace the spare tire with a road tire as soon as possible. During repairing or replacing of the flat tire, have the authorized dealer inspect the tire pressure monitoring system sensor for damage.

## Dissimilar Spare Wheel and Tire Assembly Information



If you have a dissimilar spare wheel and tire, then it is intended for temporary use only. This means that if you need to use it, you should replace it as soon as possible with a road wheel and tire assembly that is the same size and type as the road tires and wheels that we provided with the vehicle. If the dissimilar spare tire or wheel is damaged, replace it instead of repairing it.

A dissimilar spare wheel and tire assembly is defined as a spare wheel and tire assembly that is different in brand, size or appearance from the road tires and wheels and can be one of three types:

**1. T-type mini-spare:** This spare tire begins with the letter T for tire size and may have Temporary Use Only molded in the sidewall.

**2. Full-size dissimilar spare with label on wheel:** This spare tire has a label on the wheel that states: THIS WHEEL AND TIRE ASSEMBLY FOR TEMPORARY USE ONLY.

When driving with one of the dissimilar spare tires listed above, do not:

- Exceed 50 mph (80 km/h).
- Load the vehicle beyond maximum vehicle load rating listed on the Safety Compliance Label.
- Tow a trailer.
- Use snow chains on the end of the vehicle with the dissimilar spare tire.
- Use more than one dissimilar spare tire at a time.
- Use commercial car washing equipment.
- Try to repair the dissimilar spare tire.

Use of one of the dissimilar spare tires listed above at any one wheel location can lead to impairment of the following:

- Handling, stability and braking performance.
- Comfort and noise.
- Ground clearance and parking at curbs.

# Wheels and Tires

- Winter weather driving capability.
- Wet weather driving capability.
- All-wheel driving capability

### 3. Full-size dissimilar spare without label on wheel

When driving with the full-size dissimilar spare wheel and tire assembly, do not:

- Exceed 70 mph (113 km/h).
- Use more than one dissimilar spare wheel and tire assembly at a time.
- Use commercial car washing equipment.
- Use snow chains on the end of the vehicle with the dissimilar spare wheel and tire assembly.

The usage of a full-size dissimilar spare wheel and tire assembly can lead to impairment of the following:

- Handling, stability and braking performance.
- Comfort and noise.
- Ground clearance and parking at curbs.
- Winter weather driving capability.

- Wet weather driving capability.
- All-wheel driving capability

When driving with the full-size dissimilar spare wheel and tire assembly additional caution should be given to:

- Towing a trailer.
- Driving vehicles equipped with a camper body.
- Driving vehicles with a load on the cargo rack.

Drive cautiously when using a full-size dissimilar spare wheel and tire assembly and seek service as soon as possible.

### Tire Change Procedure



**WARNING:** Never place anything between the vehicle jack and the ground.



**WARNING:** Never place anything between the vehicle jack and your vehicle.



**WARNING:** To help prevent your vehicle from moving when changing a wheel, shift the transmission into park (P), set the parking brake and use an appropriate block or wheel chock to secure the wheel diagonally opposite to the wheel being changed. For example, when changing the front left wheel, place an appropriate block or wheel chock on the right rear wheel.




**WARNING:** It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.





**WARNING:** Always use the jack provided as original equipment with your vehicle. If using a jack other than the one provided, make sure the jack capacity is adequate for the vehicle weight, including any vehicle cargo or modifications. If you are unsure if the jack capacity is adequate, contact the authorized dealer.





# Wheels and Tires


 **WARNING:** The jack supplied with this vehicle is only intended for changing wheels. Do not use the vehicle jack other than when you are changing a wheel in an emergency.


 **WARNING:** Ensure screwthread is adequately lubricated before use.


 **WARNING:** Check that the vehicle jack is not damaged or deformed and the thread is lubricated and clean.

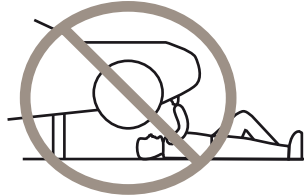
 **WARNING:** The jack should be used on level firm ground wherever possible.

 **WARNING:** Use only the specified jacking points. If you use other positions, you may damage the body, steering, suspension, engine, braking system or the fuel lines.

 **WARNING:** Switch the ignition off and apply the park brake fully before lifting vehicle.

 **WARNING:** Park your vehicle so that you do not obstruct the flow of traffic or place yourself in any danger and set up a warning triangle.

 **WARNING:** Do not get under a vehicle that is only supported by a vehicle jack.

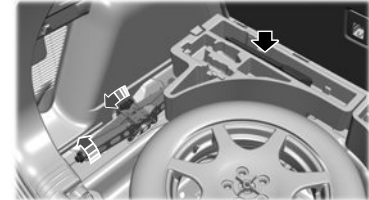


**Note:** The jack does not require maintenance or additional lubrication over the service life of your vehicle.

1. Park on a level surface, set the parking brake and activate the hazard flashers.
2. Place the transmission in park (P) and turn the engine off.

3. Lift and remove the carpeted cargo area floor to access the spare tire and jack.
4. Remove the wing nut that secures the spare tire by turning it counterclockwise.
5. Remove the spare tire and jack kit from the spare tire compartment.
6. Remove the jack and the flat tire retainer strap from the jack base.

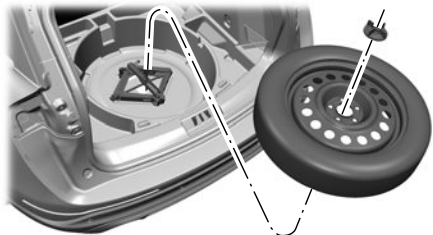
**Note:** On Plug-in Hybrid Electric Vehicles "PHEV" you can find the jack and wrench to the left of the spare tire.



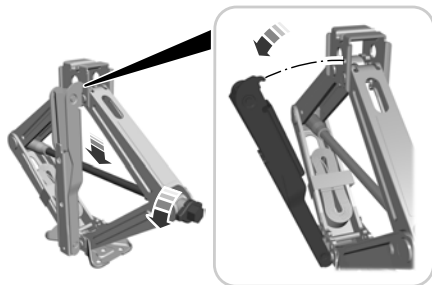
**Note:** On Non Plug-in Hybrid Electric Vehicles ("Non-PHEV") you can find the jack and wrench under the spare tire.

7. Remove the jack and the flat tire retainer strap from the jack base.

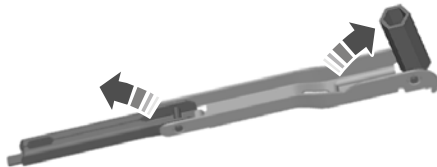
## Wheels and Tires



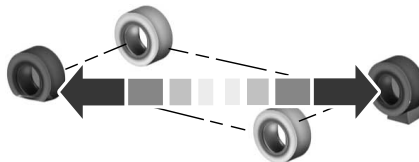
- Turn the jack hex nut drive screw counterclockwise to detach the lug wrench from the jack. This lowers the jack and releases the mechanical lock.



- Unfold the lug wrench for use.



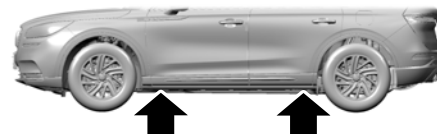
- Block the diagonally opposite wheel.



- Loosen each wheel lug nut one-half turn counterclockwise, but do not remove them until the wheel is raised off the ground.

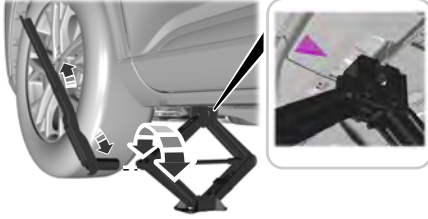
**Note:** Jack at the specified locations to avoid damage to the vehicle.

- The vehicle jacking points shown here are also depicted on the warning label on the jack. Small arrow-shaped marks on the vehicle sills show the location of the jacking points.



- Turn the wrench clockwise to raise the vehicle until the flat tire is completely off the ground.

# Wheels and Tires

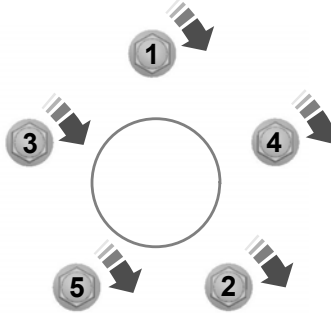


14. Remove the lug nuts with the lug wrench.

**Note:** For vehicles with full wheel covers with exposed wheel nuts, remove the wheel nuts prior to removing the wheel cover or damage to the wheel cover may occur.

15. Replace the flat tire with the spare tire, making sure the valve stem is facing outward. Reinstall the lug nuts until the wheel is snug against the hub. Do not fully tighten the lug nuts until the wheel has been lowered.
16. Lower the wheel by turning the jack handle counterclockwise.

17. Remove the jack and fully tighten the lug nuts in the order shown. See **Technical Specifications** (page 459).

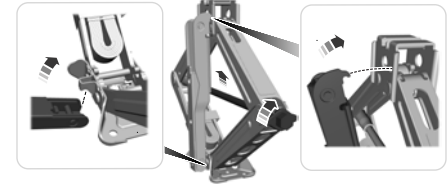


## Stowing the flat tire

1. To store the jack kit on Non Plug-in Hybrid Electric Vehicles "Non-PHEV", fold the jack and wrench handle and engage it to the bracket of the jack base using the lug wrench pin.

**Note:** To store the jack and wrench on Plug-in Hybrid Electric Vehicles "PHEV", fold the jack and wrench into the closed position, and place the wrench into the storage compartment. Position the jack assembly into the closed position and make sure the jack is fastened securely before you drive.

2. When attaching the folded wrench on the jack, swing the wrench upward and adjust the jack height until the wrench hook engages the hole on the jack. Tighten the hex nut clockwise until secure.



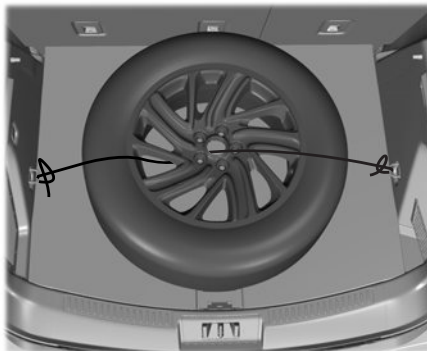
3. Re-position the jack kit assembly into the original vehicle position and secure with the plastic wing nut. Make sure the jack is fastened securely before you drive.
4. Unblock the wheels.

## Wheels and Tires

5. Stow the flat tire on the floor in the cargo area. Secure with the flat tire retainer strap by following the next steps:



6. Locate the cargo tie-down near the seatback. Push the loop of the retainer strap through the tie-down. Thread the non-loop end through the loop.



7. Weave the retainer strap through the wheel openings.
8. Locate the front cargo tie-down at the opposite corner of the cargo area to the tie-down used in Step 4. Thread the retainer strap through the tie-down and pull tight.
9. Secure by tying a 2-half hitch knot.

# Wheels and Tires

---

1



2



3



# Wheels and Tires

## TECHNICAL SPECIFICATIONS

### Wheel Lug Nut Torque Specifications



**WARNING:** When you install a wheel, always remove any corrosion, dirt or foreign materials present on the mounting surfaces of the wheel or the surface of the wheel hub, brake drum or brake disc that contacts the wheel. Make sure to secure any fasteners that attach the rotor to the hub so they do not interfere with the mounting surfaces of the wheel. Installing wheels without correct metal-to-metal contact at the wheel mounting surfaces can cause the wheel nuts to loosen and the wheel to come off while your vehicle is in motion, resulting in loss of vehicle control, personal injury or death.

Bolt size	lb-ft (Nm)
M12 x 1.5	100 lb.ft (135 Nm)

Torque specifications are for nut and bolt threads free of oil, dirt and rust. Use only Ford recommended replacement fasteners.

Retighten the lug nuts to the specified torque within 100 mi (160 km) after any wheel disturbance (such as tire rotation, changing a flat tire, wheel removal).

# Wheels and Tires

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A Wheel pilot bore.

Inspect the wheel pilot bore and mounting surface prior to installation. Remove any visible corrosion or loose particles.

# Capacities and Specifications

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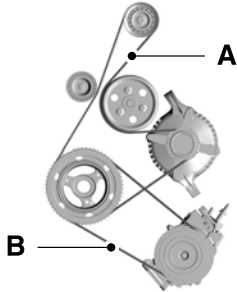
## ENGINE SPECIFICATIONS - 2.0L

<b>Engine</b>	<b>Specification</b>
Displacement.	122 in <sup>3</sup> (1,999 cm <sup>3</sup> )
Compression ratio.	10:1
Firing order.	1-3-4-2
Spark plug gap.	0.028–0.031 in (0.7–0.8 mm)



# Capacities and Specifications

## Drivebelt Routing



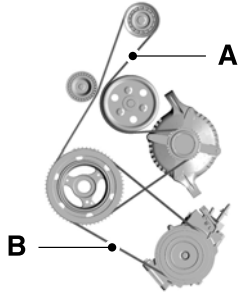
- A. The long drivebelt is on the first pulley groove closest to the engine.
- B. The short drivebelt is on the second pulley groove farthest from engine.

## ENGINE SPECIFICATIONS - 2.3L

Engine	Specification
Displacement.	138 in <sup>3</sup> (2,261 cm <sup>3</sup> )
Compression ratio.	10.0:1
Firing order.	1-3-4-2
Spark plug gap.	0.028–0.031 in (0.7–0.8 mm)

# Capacities and Specifications

## Drivebelt Routing



- A. The long drivebelt is on the first pulley groove closest to the engine.
- B. The short drivebelt is on the second pulley groove farthest from the engine.

## ENGINE SPECIFICATIONS - 2.5L, PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

Engine	Specification
Compression ratio.	13.0:1
Displacement.	152 in <sup>3</sup> (2,490 cm <sup>3</sup> )
Firing order.	1-3-4-2
Ignition system.	Coil on plug
Spark plug gap.	0.049–0.053 in (1.25–1.35 mm)

# Capacities and Specifications

## MOTORCRAFT PARTS - 2.0L

Component	Motorcraft Part Number
Air filter element.	FA-1939
Oil filter. <sup>1</sup>	FL-910-S
Battery.	BAGM-94RH7-800
Spark plug.	SP-594
Cabin air filter.	FP-89
Windshield wiper blade.	WW-2765 (driver side) WW-1814 (passenger side) WW-1003 (rear window)

<sup>1</sup> If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

We recommend Motorcraft parts that are available at your authorized dealer or at [www.parts.ford.com](http://www.parts.ford.com). We engineer these parts for your vehicle to meet or exceed our specifications. Use of other parts could impact vehicle performance, emissions and durability. Your warranty could be void for any damage related to use of other parts.

# Capacities and Specifications

## MOTORCRAFT PARTS - 2.3L

Component	Motorcraft Part Number
Air filter element.	FA-1939
Oil filter. <sup>1</sup>	FL-910-S
Battery.	BAGM-94RH7-800
Spark plug.	SP-594
Cabin air filter.	FP-89
Windshield wiper blade.	WW-2765 (driver side) WW-1814 (passenger side) WW-1003 (rear window)

<sup>1</sup> If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

We recommend Motorcraft parts that are available at your authorized dealer or at [www.parts.ford.com](http://www.parts.ford.com). We engineer these parts for your vehicle to meet or exceed our specifications. Use of other parts could impact vehicle performance, emissions and durability. Your warranty could be void for any damage related to use of other parts.

# Capacities and Specifications

## MOTORCRAFT PARTS - 2.5L, PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

Component	Motorcraft Part Number
Air filter element.	FA-1948
Oil filter. <sup>1</sup>	FL-910-S
Battery.	BAGM-48H6-760
Spark plug.	SP-530
Cabin air filter.	FP-89
Windshield wiper blade.	WW-2765 (driver side) WW-1814 (passenger side) WW-1003 (rear window)

<sup>1</sup> If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

We recommend Motorcraft parts that are available at your authorized dealer or at [www.fordparts.com](http://www.fordparts.com). We engineer these parts for your vehicle to meet or exceed our specifications. Use of other parts could impact vehicle performance, emissions and durability. Your warranty could be void for any damage related to use of other parts.

# Capacities and Specifications

## CAPACITIES AND SPECIFICATIONS - 2.0L

Use oil and fluid that meets the defined specification and viscosity grade.

If you do not use oil and fluid that meets the defined specification and viscosity grade, it could result in:

- Component damage that your vehicle warranty does not cover.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Reduced brake performance.

## Air Conditioning System



**WARNING:** The air conditioning refrigerant system contains refrigerant under high pressure. Only qualified personnel should service the air conditioning refrigerant system. Opening the air conditioning refrigerant system can cause personal injury.

## Capacities

Variant	Refrigerant	Refrigerant Oil
All.	19.4 oz (0.55 kg)	3.4 fl oz (100 ml)

# Capacities and Specifications

## Materials

Name	Specification
R-1234yf Refrigerant(U.S.) R-1234yf Refrigerant / Frigorigène R-1234yf(Canada) YN-33-A(U.S.) HS7Z-19B519-BA(Canada)	WSS-M17B21-A
Motorcraft® R-1234yf Refrigerant PAG Oil(U.S.) Motorcraft® R-1234yf Refrigerant PAG Oil / Huile PAG pour frigorigène R-1234yf Motorcraft®(Canada) YN-35(U.S. & Canada)	WSS-M2C300-A2

## Engine Coolant

### Capacities

Variant	Quantity
All.	8.7 qt (8.2 L)

# Capacities and Specifications

## Materials

Name	Specification
Motorcraft® Yellow Prediluted Antifreeze/Coolant(U.S.) Motorcraft® Yellow Prediluted Antifreeze/Coolant / Antigél/liquide de refroidissement prédilué jaune Motorcraft®(Canada) VC-13DL-G(U.S.) CVC-13DL-G(Canada)	WSS-M97B57-A2

## Engine Oil



An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of ILSAC.

We recommend Motorcraft® motor oil for your vehicle. If Motorcraft® oil is not available, use motor oils of the recommended viscosity grade that display the API Certification Mark for gasoline engines.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage not covered by your vehicle warranty.



# Capacities and Specifications

## Capacities

Variant	Including the Oil Filter
All.	5.5 qt (5.2 L)

## Materials

Name	Specification
Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil(U.S.) Motorcraft® SAE 5W-30 Super Premium Motor Oil / Huile moteur de très haute qualité SAE 5W-30 Motorcraft®(Canada) XO-5W30-Q1SP(U.S.) CXO-5W30-LSP6(Canada)	WSS-M2C961-A1

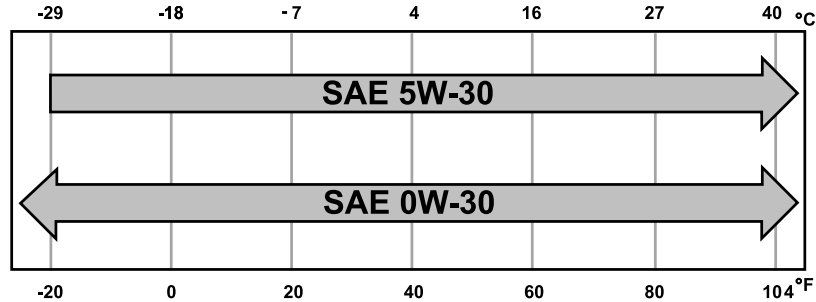
## Alternative Engine Oil for Extremely Cold Climates

To improve engine cold start performance, we recommend that you use the following alternative engine oil in extremely cold climates, where the ambient temperature reaches -22°F (-30°C) or below.

# Capacities and Specifications

## Materials

Name	Specification
Engine Oil - SAE 0W-30 - Synthetic Blend	WSS-M2C963-A1



# Capacities and Specifications

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## Fuel Tank

### Capacities

Variant	Quantity
All.	16.2 gal (61.2 L)

## Grease

### Materials

Name	Specification
Motorcraft® Multi-Purpose Grease Spray(U.S.) Motorcraft® Multi-Purpose Grease Spray / Graisse tout usage en aérosol Motorcraft®(Canada) XL-5-A(U.S. & Canada)	ESB-M1C93-B

## Hydraulic Brake System

# Capacities and Specifications

---

## Materials

Name	Specification
Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid(U.S.) Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid / Liquide de frein automobile haute performance DOT 4 LV Motorcraft®(Canada) PM-20(U.S. & Canada)	WSS-M6C65-A2

**Note:** *We recommend you use DOT 4 LV (Low Viscosity) High Performance Brake Fluid meeting WSS-M6C65-A2 specifications or ISO 4925 Class 6 standards. If you use any fluid other than the recommended fluid, it could cause reduced brake performance and not meet our performance standards. Keep brake fluid clean and dry. Contamination with dirt, water, petroleum products or other materials could result in brake system damage and possible failure.*

## Locks

# Capacities and Specifications

## Materials

Name	Specification
Motorcraft® Penetrating and Lock Lubricant(U.S.) Motorcraft® Penetrating Fluid / Liquide dégrissant Motorcraft®(Canada) XL-1(U.S.) CXC-51-A(Canada)	-

## Washer Reservoir

### Capacities

Variant	Quantity
All.	Fill as required.

## Materials

Name	Specification
Motorcraft® Premium Windshield Wash Concentrate with Bitterant(U.S.) Motorcraft® Premium Quality Windshield Washer Fluid / Liquide lave-glace de haute qualité Motorcraft®(Canada) ZC-32-B2(U.S.) CXC-37-F/M(Canada)	WSS-M14P19-A

# Capacities and Specifications

## CAPACITIES AND SPECIFICATIONS - 2.3L

Use oil and fluid that meets the defined specification and viscosity grade.

If you do not use oil and fluid that meets the defined specification and viscosity grade, it could result in:

- Component damage that your vehicle warranty does not cover.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Reduced brake performance.

## Air Conditioning System



**WARNING:** The air conditioning refrigerant system contains refrigerant under high pressure. Only qualified personnel should service the air conditioning refrigerant system. Opening the air conditioning refrigerant system can cause personal injury.

## Capacities

Variant	Refrigerant	Refrigerant Oil
All.	19.4 oz (0.55 kg)	3.4 fl oz (100 ml)

# Capacities and Specifications

## Materials

Name	Specification
R-1234yf Refrigerant(U.S.) R-1234yf Refrigerant / Frigorigène R-1234yf(Canada) YN-33-A(U.S.) HS7Z-19B519-BA(Canada)	WSS-M17B21-A
Motorcraft® R-1234yf Refrigerant PAG Oil(U.S.) Motorcraft® R-1234yf Refrigerant PAG Oil / Huile PAG pour frigorigène R-1234yf Motorcraft®(Canada) YN-35(U.S. & Canada)	WSS-M2C300-A2

## Engine Coolant

### Capacities

Variant	Quantity
All.	8.7 qt (8.2 L)

# Capacities and Specifications

## Materials

Name	Specification
Motorcraft® Yellow Prediluted Antifreeze/Coolant(U.S.) Motorcraft® Yellow Prediluted Antifreeze/Coolant / Antigél/liquide de refroidissement prédilué jaune Motorcraft®(Canada) VC-13DL-G(U.S.) CVC-13DL-G(Canada)	WSS-M97B57-A2

## Engine Oil



An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of ILSAC.

We recommend Motorcraft® motor oil for your vehicle. If Motorcraft® oil is not available, use motor oils of the recommended viscosity grade that display the API Certification Mark for gasoline engines.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage not covered by your vehicle warranty.



# Capacities and Specifications

---

## Capacities

Variant	Including the Oil Filter
All.	5.5 qt (5.2 L)

## Materials

Name	Specification
Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil(U.S.) Motorcraft® SAE 5W-30 Super Premium Motor Oil / Huile moteur de très haute qualité SAE 5W-30 Motorcraft®(Canada) XO-5W30-Q1SP(U.S.) CXO-5W30-LSP6(Canada)	WSS-M2C961-A1

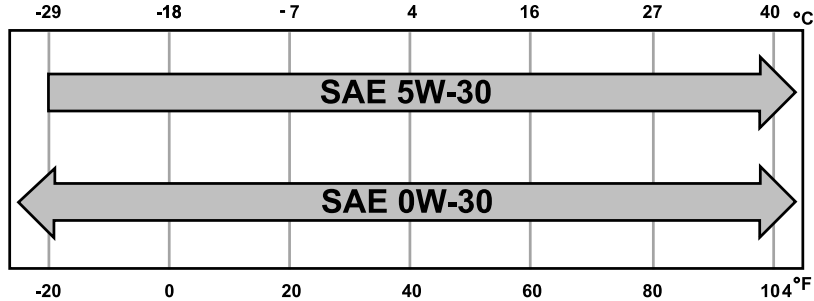
## Alternative Engine Oil for Extremely Cold Climates

To improve engine cold start performance, we recommend that you use the following alternative engine oil in extremely cold climates, where the ambient temperature reaches -22°F (-30°C) or below.

# Capacities and Specifications

## Materials

Name	Specification
Engine Oil - SAE 0W-30 - Synthetic Blend	WSS-M2C963-A1



# Capacities and Specifications

---

## Fuel Tank

### Capacities

Variant	Quantity
All.	16.2 gal (61.2 L)

## Grease

### Materials

Name	Specification
Motorcraft® Multi-Purpose Grease Spray(U.S.) Motorcraft® Multi-Purpose Grease Spray / Graisse tout usage en aérosol Motorcraft®(Canada) XL-5-A(U.S. & Canada)	ESB-M1C93-B

## Hydraulic Brake System

# Capacities and Specifications

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## Materials

Name	Specification
Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid(U.S.) Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid / Liquide de frein automobile haute performance DOT 4 LV Motorcraft®(Canada) PM-20(U.S. & Canada)	WSS-M6C65-A2

**Note:** *We recommend you use DOT 4 LV (Low Viscosity) High Performance Brake Fluid meeting WSS-M6C65-A2 specifications or ISO 4925 Class 6 standards. If you use any fluid other than the recommended fluid, it could cause reduced brake performance and not meet our performance standards. Keep brake fluid clean and dry. Contamination with dirt, water, petroleum products or other materials could result in brake system damage and possible failure.*

## Locks

# Capacities and Specifications

## Materials

Name	Specification
Motorcraft® Penetrating and Lock Lubricant(U.S.) Motorcraft® Penetrating Fluid / Liquide dégrissant Motorcraft®(Canada) XL-1(U.S.) CXC-51-A(Canada)	-

## Washer Reservoir

### Capacities

Variant	Quantity
All.	Fill as required.

## Materials

Name	Specification
Motorcraft® Premium Windshield Wash Concentrate with Bitterant(U.S.) Motorcraft® Premium Quality Windshield Washer Fluid / Liquide lave-glace de haute qualité Motorcraft®(Canada) ZC-32-B2(U.S.) CXC-37-F/M(Canada)	WSS-M14P19-A

# Capacities and Specifications

## CAPACITIES AND SPECIFICATIONS - 2.5L, PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

Use oil and fluid that meets the defined specification and viscosity grade.

If you do not use oil and fluid that meets the defined specification and viscosity grade, it could result in:

- Component damage that your vehicle warranty does not cover.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Reduced brake performance.

## Air Conditioning System



**WARNING:** The air conditioning refrigerant system contains refrigerant under high pressure. Only qualified personnel should service the air conditioning refrigerant system. Opening the air conditioning refrigerant system can cause personal injury.

## Capacities

Variant	Refrigerant	Refrigerant Oil
All.	19.4 oz (0.55 kg)	4.7 fl oz (140 ml)

# Capacities and Specifications

## Materials

Name	Specification
R-1234yf Refrigerant(U.S.) R-1234yf Refrigerant / Frigorigène R-1234yf(Canada) YN-33-A(U.S.) HS7Z-19B519-BA(Canada)	WSS-M17B21-A
Motorcraft® R-1234yf Refrigerant POE Oil(U.S.) Motorcraft® R-1234yf Refrigerant POE Oil / Huile POE pour frigorigène R-1234yf Motorcraft®(Canada) YN-34(U.S. & Canada)	WSS-M2C31-B2

## Engine Coolant

### Capacities

Variant	Quantity
Low temperature cooling circuit.	6.6 qt (6.2 L)
High temperature cooling circuit.	10.1 qt (9.6 L)

# Capacities and Specifications

## Materials

Name	Specification
Motorcraft® Yellow Prediluted Antifreeze/Coolant(U.S.) Motorcraft® Yellow Prediluted Antifreeze/Coolant / Antigél/liquide de refroidissement prédilué jaune Motorcraft®(Canada) VC-13DL-G(U.S.) CVC-13DL-G(Canada)	WSS-M97B57-A2

## Engine Oil



An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of ILSAC.

We recommend Motorcraft® motor oil for your vehicle. If Motorcraft® oil is not available, use motor oils of the recommended viscosity grade that display the API Certification Mark for gasoline engines.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage not covered by your vehicle warranty.



# Capacities and Specifications

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## Capacities

Variant	Including the Oil Filter
All.	5.7 qt (5.4 L)

## Materials

Name	Specification
Motorcraft® SAE 0W-20 Full Synthetic Motor Oil(U.S.) (Canada) XO-0W20-QFS(U.S.)	WSS-M2C962-A1

## Fuel Tank

### Capacities

Variant	Quantity
All.	11.2 gal (42.3 L)

## Grease

# Capacities and Specifications

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## Materials

Name	Specification
Motorcraft® Multi-Purpose Grease Spray(U.S.) Motorcraft® Multi-Purpose Grease Spray / Graisse tout usage en aérosol Motorcraft®(Canada) XL-5-A(U.S. & Canada)	ESB-M1C93-B

## Hydraulic Brake System

### Materials

Name	Specification
Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid(U.S.) Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid / Liquide de frein automobile haute performance DOT 4 LV Motorcraft®(Canada) PM-20(U.S. & Canada)	WSS-M6C65-A2

# Capacities and Specifications

**Note:** We recommend you use DOT 4 LV (Low Viscosity) High Performance Brake Fluid meeting WSS-M6C65-A2 specifications or ISO 4925 Class 6 standards. If you use any fluid other than the recommended fluid, it could cause reduced brake performance and not meet our performance standards. Keep brake fluid clean and dry. Contamination with dirt, water, petroleum products or other materials could result in brake system damage and possible failure.

## Locks

### Materials

Name	Specification
Motorcraft® Penetrating and Lock Lubricant(U.S.) Motorcraft® Penetrating Fluid / Liquide dégrissant Motorcraft®(Canada) XL-1(U.S.) CXC-51-A(Canada)	-

### Washer Reservoir

#### Capacities

Variant	Quantity
All.	Fill as required.

# Capacities and Specifications

---

## Materials

Name	Specification
Motorcraft® Premium Windshield Wash Concentrate with Bitterant(U.S.) Motorcraft® Premium Quality Windshield Washer Fluid / Liquide lave-glace de haute qualité Motorcraft®(Canada) ZC-32-B2(U.S.) CXC-37-F/M(Canada)	WSS-M14P19-A

## BULB SPECIFICATION CHART

All exterior and interior lamps are LED.

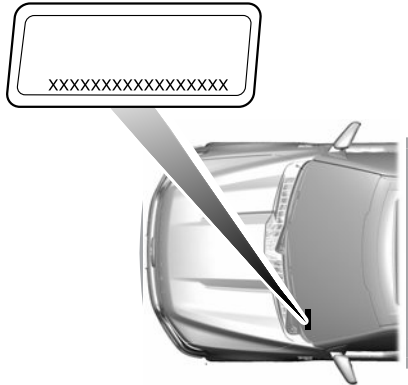
**Note:** *LED lamps are not serviceable. See an authorized dealer if they fail.*

# Vehicle Identification

## VEHICLE IDENTIFICATION NUMBER

### LOCATING THE VEHICLE IDENTIFICATION NUMBER

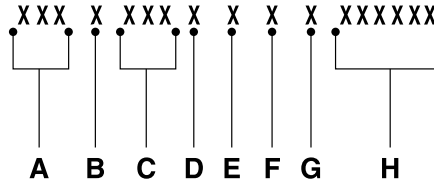
The vehicle identification number is on the left-hand side of the instrument panel.



**Note:** In the illustration, XXXX is representative of your vehicle identification number.

## VEHICLE IDENTIFICATION NUMBER OVERVIEW

The vehicle identification number contains the following information:



- A World manufacturer identifier.
- B Brake system, gross vehicle weight rating, restraint devices and their locations.
- C Make, vehicle line, series, body type.
- D Engine or motor type.
- E Check digit.

- F Model year.
- G Assembly plant.
- H Production sequence number.

# Connected Vehicle

## WHAT IS A CONNECTED VEHICLE

A connected vehicle has technology that allows your vehicle to connect to a mobile network and for you to access a range of features. When used in conjunction with the Lincoln Way app, it could allow you to monitor and control your vehicle further, for example checking the tire pressures, and the vehicle location. For additional information, refer to the local Lincoln website.

## CONNECTED VEHICLE REQUIREMENTS

Connected service and related feature functionality requires a compatible vehicle network.

Some remote features require a subscription. For additional information, see the Lincoln Way app. Some restrictions, third party terms and message or data rates may apply.

## CONNECTED VEHICLE LIMITATIONS

Evolving technology, cellular networks, or regulations could affect functionality and availability, or continued provision of some features. These changes could even stop some features from functioning.

## CONNECTING THE VEHICLE TO A MOBILE NETWORK

### WHAT IS THE MODEM



The modem allows access to a range of features built into your vehicle.

## ENABLING AND DISABLING THE MODEM

1. Press **Settings**.
2. Press **Lincoln Connect**.
3. Press **Connectivity Settings**.

4. Switch connectivity features on or off.

## CONNECTING LINCOLN WAY TO THE MODEM

1. Make sure that the modem is enabled using the vehicle settings menu.
2. Open the Lincoln Way app on your device and log in.
3. Add your vehicle or select your vehicle if already added.
4. Select the option for vehicle details.
5. Select the option to activate your vehicle.
6. Make sure that the name on the screen matches the name shown in your Lincoln Way account.
7. Confirm that your Lincoln Way account is connected to the modem.

## CONNECTING THE VEHICLE TO A WI-FI NETWORK

1. Press **Settings**.
2. Press **Wi-Fi**.

# Connected Vehicle

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3. Switch **Wi-Fi** on.

5. Select an available Wi-Fi network.

**Note:** *Enter the network password to connect to a secure network.*

4. Press **View Available Networks**.

## CONNECTED VEHICLE – TROUBLESHOOTING

### CONNECTED VEHICLE – FREQUENTLY ASKED QUESTIONS - VEHICLES WITH: MODEM

Symptom	Possible Cause and Resolution
I cannot confirm the connection of my Lincoln Way account to the modem.	<ul style="list-style-type: none"><li>– Modem is not enabled.<ul style="list-style-type: none"><li>• Switch connectivity features on.</li></ul></li><li>– Weak network signal.<ul style="list-style-type: none"><li>• Move your vehicle closer to a place where the network signal is not obstructed.</li></ul></li></ul>

# Connected Vehicle

## CONNECTED VEHICLE – FREQUENTLY ASKED QUESTIONS - VEHICLES WITH: SYNC 3

Symptom	Possible Cause and Resolution
I cannot connect to a Wi-Fi network.	<ul style="list-style-type: none"><li>– Password error.<ul style="list-style-type: none"><li>• Enter the correct network password.</li></ul></li><li>– Weak network signal.<ul style="list-style-type: none"><li>• Move your vehicle closer to the Wi-Fi hotspot or to a place where the network signal is not obstructed.</li></ul></li><li>– Multiple access points in range with the same SSID.<ul style="list-style-type: none"><li>• Use a unique name for your SSID. Do not use the default name unless it contains a unique identifier, for example as part of the MAC address.</li></ul></li></ul>
The Wi-Fi connection disconnects after successful connection.	<ul style="list-style-type: none"><li>– Weak network signal.<ul style="list-style-type: none"><li>• Move your vehicle closer to the Wi-Fi hotspot or to a place where the network signal is not obstructed.</li></ul></li></ul>
I am close to a Wi-Fi hotspot but the network signal strength is weak.	<ul style="list-style-type: none"><li>– Obstructed network signal.<ul style="list-style-type: none"><li>• If your vehicle has a heated windshield, position your vehicle so that the windshield is not facing the Wi-Fi hotspot.</li><li>• If your vehicle has metallic tinting on the windows but not on the windshield, position your vehicle so that the windshield is facing the Wi-Fi hotspot or open the windows that are facing the hotspot.</li><li>• If your vehicle has metallic tinting on the windows and the windshield, open the windows that are facing the hotspot.</li></ul></li></ul>



# Connected Vehicle

Symptom	Possible Cause and Resolution
	<ul style="list-style-type: none"> <li>• If your vehicle is in a garage and you have the garage door closed, open the garage door.</li> </ul>
I cannot see a network in the list of available networks that I expect to see.	<ul style="list-style-type: none"> <li>– Hidden network.               <ul style="list-style-type: none"> <li>• Make the network visible and try again.</li> </ul> </li> </ul>
I cannot see the Wi-Fi hotspot name when I search for Wi-Fi networks on my cell phone or other device.	<ul style="list-style-type: none"> <li>– System limitation.               <ul style="list-style-type: none"> <li>• Make sure Wi-Fi hotspot visibility is on.</li> <li>• The system does not provide a Wi-Fi hotspot at this time.</li> </ul> </li> </ul>
Software downloads take too long.	<ul style="list-style-type: none"> <li>– Weak network signal.               <ul style="list-style-type: none"> <li>• Move your vehicle closer to the Wi-Fi hotspot or to a place where the network signal is not obstructed.</li> </ul> </li> <li>– Wi-Fi hotspot in high demand or has a slow Internet connection.               <ul style="list-style-type: none"> <li>• Use a more reliable Wi-Fi hotspot.</li> </ul> </li> </ul>
The system seems to connect to a Wi-Fi network and the signal strength is excellent but the software does not update.	<ul style="list-style-type: none"> <li>– No software update available.</li> <li>– Wi-Fi network requires a subscription or acceptance of terms and conditions.               <ul style="list-style-type: none"> <li>• Test the connection using another device. If the network requires a subscription or acceptance of terms and conditions, contact the network service provider.</li> </ul> </li> </ul>

# Vehicle Wi-Fi Hotspot

## CREATING A VEHICLE WI-FI HOTSPOT

You can create a Wi-Fi hotspot in your vehicle and allow devices to connect to it for access to the Internet.



Select the settings option on the feature bar.

1. Press **Lincoln Connect**.
2. Press **Vehicle Hotspot**.

**Note:** The vehicle hotspot default setting is on.

3. Press **Settings**.
4. Press **Wi-Fi visibility**.

**Note:** The Wi-Fi Visibility default setting is on.

### Finding the Wi-Fi Hotspot Name and Password



Select the settings option on the feature bar.

1. Press **Lincoln Connect**.

2. Press **Vehicle Hotspot**.
3. Press **Settings**.

**Note:** The SSID is the hotspot name.

4. Press **View Password**.

### Connecting a Device to the Wi-Fi Hotspot

1. On your device, switch Wi-Fi on and select the hotspot from the list of available Wi-Fi networks.
2. When prompted, enter the password.

### Purchasing a Data Plan

1. Connect a device to the hotspot.

**Note:** The vehicle network carrier's portal opens on your device.

2. If the portal does not open on your device, open a website and it redirects to the vehicle network carrier's portal.

**Note:** Secure websites do not redirect.

3. Follow the instructions on the carrier portal to purchase a plan.

**Note:** If you have an active plan, the system does not redirect to the vehicle network carrier's portal when you connect a device. Visit the vehicle network carrier's website to purchase more data.

**Note:** If data usage information is available in the vehicle hotspot menu, it is approximate.

**Note:** If you carry out a master reset, the system does not remove your vehicle from your vehicle network carrier's account. To remove your vehicle from the account, contact your vehicle network carrier.

**Note:** The vehicle network carrier provides Vehicle Hotspot services, subject to your vehicle network carrier agreement, coverage and availability.

## CHANGING THE VEHICLE WI-FI HOTSPOT NAME OR PASSWORD



Select the settings option on the feature bar.

1. Press **Lincoln Connect**.

# Vehicle Wi-Fi Hotspot

---

2. Press **Vehicle Hotspot**.
3. Press **Settings**.
4. Press **Edit**.
5. Press **Change SSID Name**.
6. Enter your required SSID.
7. Press **Done**.
8. Press **Change Password**.
9. Enter your required password.
10. Press **Done**.

# Audio System

## GENERAL INFORMATION



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the

road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

## Radio Frequencies and Reception Factors

**Note:** *Listening to loud audio for long periods of time could damage your hearing.*

Radio Reception Factors	
<b>Distance and strength</b>	The further you travel from an AM or FM station, the weaker the signal and the weaker the reception.
<b>Terrain</b>	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with the reception.
<b>Station overload</b>	When you pass a ground-based broadcast repeating tower, a stronger signal may overtake a weaker one and result in the audio system muting.

# Audio System

## AUDIO UNIT



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

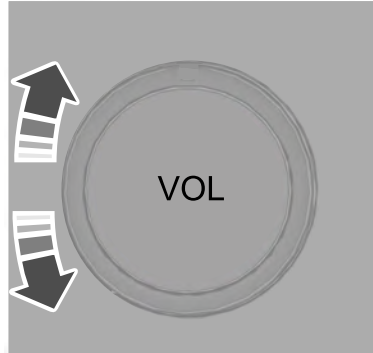


**Note:** Depending on your vehicle option package, the controls may look different from what you see here.

**Note:** Some features, such as satellite radio, may not be available in your location. Check with an authorized dealer.

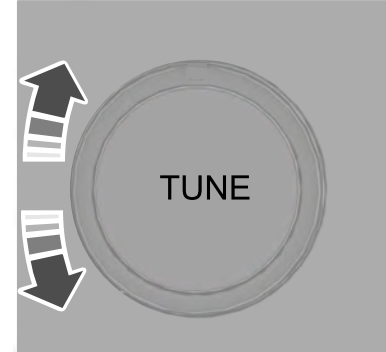
**Note:** The touchscreen system controls most of the audio features.

### Adjusting the Volume



Turn to adjust the volume.

### Changing Radio Stations



In radio mode, turn to search through the radio frequency band.

In satellite radio mode, turn to find the previous or next available satellite radio station.

### Selecting the Audio Modes

**SOURCE**

Press and release the button to access different audio modes such as AM, FM and CD.

# Audio System

## Switching the Audio Unit On and Off



Press and release the button.

## Switching the Display On and Off (if Equipped)



Press and release the button.

## Using Seek, Fast Forward and Reverse



In radio mode, select a frequency band and press and release either button. The system stops at the first station it finds in that direction.

In satellite radio mode, press and release to select the next or previous satellite radio station. If you select a specific category, such as jazz, rock or news, press to find the next or previous station in that category.

## DIGITAL RADIO

**Note:** *HD Radio broadcasts are not available in all markets.*

HD Radio technology is the digital evolution of analog AM/FM radio. Your system has a special receiver that allows it to receive digital broadcasts, where available, in addition to the analog broadcasts, it already receives. Digital broadcasts provide a better sound quality than analog broadcasts with free, crystal-clear audio and no static or distortion. For more information, and a guide to available stations and programming, please visit [www.hdradio.com](http://www.hdradio.com).

When HD Radio is on and you tune to a station broadcasting HD Radio technology, you may notice the HD Radio logo on your screen. When this logo is available, you may also see Title and Artist fields on-screen.

The multicast indicator appears in FM mode, only, if the current station is broadcasting multiple digital broadcasts. The highlighted numbers signify available digital channels where new or different content is available. HD1 signifies the main programming status and is available in analog and digital broadcasts. Other multicast stations, HD2 through HD7, are only available digitally.

When HD Radio broadcasts are active, you can access the following functions:

- **Memory presets** allow you to save an active channel as a memory preset. Touch and hold a memory preset slot until the sound returns. There is a brief mute while the radio saves the station. Sound returns when finished. When switching to an HD2 or HD3 memory preset, the sound mutes before the digital audio plays, because the system has to reacquire the digital signal.

**Note:** *As with any saved radio station, you cannot access the saved station if your vehicle is outside the station's reception area.*

# Audio System

## HD Radio Reception and Station Troubleshooting

Potential Reception Issues	
Reception area	If you are listening to a multicast station and you are on the fringe of the reception area, the station may mute due to weak signal strength.
	If you are listening to HD1, the system switches back to the analog broadcast until the digital broadcast is available again. However, if you are listening to any of the possible HD2-HD7 multicast channels, the station mutes and stays muted unless it is able to connect to the digital signal again.
Station blending	When the system first receives a station, aside from HD2-HD7 multicast stations, it first plays the station in the analog version. Once the receiver verifies the station is an HD Radio station, it shifts to the digital version. Depending on the station quality, you may hear a slight sound change when the station changes from analog to digital. Blending is the shift from analog to digital sound or digital back to analog sound.

In order to provide the best possible experience, use the contact form to report any station issues found while listening to a station broadcasting with HD Radio technology. Independent entities own and operate each station. These stations are responsible for the accuracy of all audio streams and data fields.

# Audio System

Potential Station Issues		
Issues	Cause	Action
Echo, stutter, skip or repeat in audio. Increase or decrease in audio volume.	This is poor time alignment by the radio broadcaster.	No action required. This is a broadcast issue.
Sound fading or blending in and out.	The radio is shifting between analog and digital audio.	No action required. The reception issue may clear up as you continue to drive.
There is an audio mute delay when selecting HD2 or HD3, multicast preset or direct tune.	The digital multicast is not available until the HD Radio broadcast is decoded. Once decoded, the audio is available.	No action required. This is normal behavior. Wait until the audio is available.
Cannot access the HD2 or HD3 multicast channels when recalling a preset or from a direct tune.	The previously stored multicast preset or direct tune is not available in your current reception area.	No action required. The station is not available in your current location.
Text information does not match currently playing audio.	Data service issue by the radio broadcaster.	Fill out the station issue form at website listed below. <sup>1</sup>
There is no text information shown for currently selected frequency.	Data service issue by the radio broadcaster.	Fill out the station issue form at website listed below. <sup>1</sup>

<sup>1</sup> <http://hdradio.com/stations/feedback>.



# Audio System

HD Radio Technology manufactured under license from iBiquity Digital Corporation and foreign patents. HD Radio and the HD and HD Radio logos are proprietary trademarks of DTS. Ford and DTS are not responsible for the content sent using HD Radio technology. Content may be changed, added or deleted at any time at the station owner's discretion.

## SATELLITE RADIO

SiriusXM® Satellite Radio broadcasts a variety of music, news, sports, weather, traffic and entertainment satellite radio channels. For more information and a complete list of SiriusXM satellite radio channels, visit [www.siriusxm.com](http://www.siriusxm.com) in the United States, [www.siriusxm.ca](http://www.siriusxm.ca) in Canada, or call SiriusXM at 1-888-539-7474.

**Note:** *This receiver includes the eCos real-time operating system. eCos is published under the eCos License.*

## Satellite Radio Reception Factors

Potential Satellite Radio Reception Issues	
Antenna obstructions	For optimal reception performance, keep the antenna clear of snow and ice build-up and keep luggage and other material as far away from the antenna as possible. Factory-installed and aftermarket vehicle structures including, but not limited to, roof racks and soft top roofs in a partially open position could reduce reception performance.
Terrain	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with your reception.
Station overload	When you pass a ground-based broadcast-repeating tower, a stronger signal may overtake a weaker one and the audio system could mute.
Satellite radio signal interference	Your display may show ACQUIRING . . . to indicate the interference and the audio system could mute.

# Audio System

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## SiriusXM Satellite Radio Service

**Note:** *SiriusXM reserves the unrestricted right to change, rearrange, add or delete programming including canceling, moving or adding particular channels, and its prices, at any time, with or without notice to you. Neither SiriusXM and its affiliates nor Ford Motor Company and its affiliates will be liable to you or any third party for any such modification, suspension or termination.*



SiriusXM satellite radio is a subscription-based satellite radio service that broadcasts a variety of music, sports, news, weather, traffic and entertainment programming. Your factory-installed SiriusXM satellite radio system includes hardware and a limited subscription term, which begins on the date of sale or lease of your vehicle. See an authorized dealer for availability.

For more information on extended subscription terms, a service fee is required, the online media player and a complete list of SiriusXM satellite radio channels, and other features, please visit [www.siriusxm.com](http://www.siriusxm.com) in the United States, [www.siriusxm.ca](http://www.siriusxm.ca) in Canada, or call SiriusXM at 1-888-539-7474.

## Satellite Radio Electronic Serial Number (ESN)

You need your ESN to activate, modify or track your satellite radio account.

### Locating Your ESN

1. Select SiriusXM as the audio source.
2. Tune to channel 0.

# Audio System

## Troubleshooting

Message	Condition	Action
Acquiring...	Radio requires more than two seconds to produce audio for the selected channel.	No action required. This message should disappear shortly.
Satellite antenna fault SIRIUS system failure	There is an internal module or system failure present.	If this message does not clear shortly, or with an ignition key cycle, your receiver may have a fault. See an authorized dealer for service.
Invalid Channel	The channel is no longer available.	Tune to another channel or choose another preset.
Unsubscribed Channel	Your subscription does not include this channel.	Contact SiriusXM at 1-888-539-7474 to subscribe to the channel, or tune to another channel.
No Signal	The signal is lost from the SiriusXM satellite or SiriusXM tower to your vehicle antenna.	The signal is blocked. When you move into an open area, the signal should return.
Updating...	Update of channel programming in progress.	No action required. The process may take up to three minutes.
Questions? Call 1-888-539-7474	Your satellite service is no longer available.	Contact SiriusXM at 1-888-539-7474 to resolve subscription issues.

# Audio System

Message	Condition	Action
None found Check Channel Guide	All the channels in the selected category are either skipped or locked.	Use the channel guide to turn off the Lock or Skip function on that station.
Subscription Updated	SiriusXM has updated the channels available for your vehicle.	No action required.

## USB PORT



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

### USB A



### USB C



The USB port allows you to plug in media playing devices, memory sticks and charge devices.

**Note:** We recommend using only USB-IF certified cables and adapters. Non-certified cables and adapters may not work.

# Audio System

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## Locating the USB Ports

The USB ports may be in the following locations:

- Inside the media bin.
- Inside the center console.
- On the lower instrument panel.

**Note:** *The number and type of USB ports may vary depending on your vehicle.*

**Note:** *Not all USB ports in your vehicle have data transfer capabilities. See **Auxiliary Power Points** (page 198).*

## GENERAL INFORMATION



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

### About SYNC

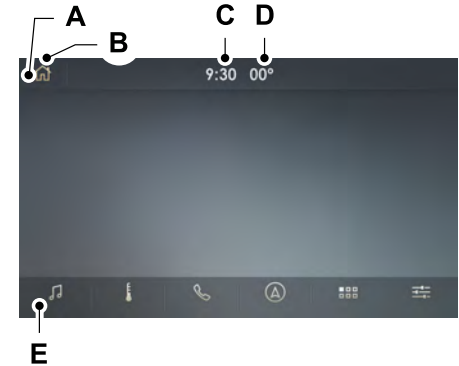
The system allows you to interact with the entertainment, information and communication systems on your vehicle using voice commands and a touchscreen. The system provides easy interaction with audio, phone, navigation, mobile apps and settings.

**Note:** You can switch the system on and use it for up to an hour without switching the ignition on.

**Note:** You can use the system after you switch the ignition off for up to 10 minutes or until you open a door.

**Note:** For your safety, some features are speed-dependent. Their use is limited to when your vehicle speed is less than 3 mph (5 km/h).

## Using the Touchscreen



- A Status bar.
- B Home screen.
- C Clock. See **Settings** (page 555).
- D Outside air temperature.
- E Feature bar.

## Status Bar



Cell phone microphone muted.



Audio system muted.



Software update installed.



Wi-Fi connected.



Cell phone roaming.



Text message received.



Automatic crash notification system off.



Cell phone network signal strength.



Vehicle data sharing active.



Vehicle location sharing active.



Vehicle data and location sharing active.

## Feature Bar



Select to use the radio, a USB, a media player or a Bluetooth device. See **Entertainment** (page 521).



Select to adjust climate settings. See **Climate** (page 533).



Select to make calls and access the phonebook on your cell phone. See **Phone** (page 536).



Select to use the navigation system. See **Navigation** (page 538).



Select to search for and use compatible apps on your iOS or Android device. See **Apps** (page 552).



Select to adjust system settings. See **Settings** (page 555).

## Cleaning the Touchscreen

See **Cleaning the Interior** (page 417).

## Updating the System

### Updating the System Using a USB Drive

#### Downloading an Update

1. Go to the SYNC update page on the regional website.
2. Download the update.

**Note:** *The website notifies you if an update is available.*

3. Insert a USB drive into your computer.

**Note:** *The USB drive needs to be empty and meet the minimum requirements detailed on the website.*

4. Follow the instructions provided to download the update to the USB drive.

## Installing an Update

**Note:** You can use the system when an installation is in progress.

1. Disconnect all other USB devices from the USB ports.
2. Connect the USB drive with the update to a USB port.

**Note:** Installation starts automatically within a few minutes.

## Updating the System Using a Wi-Fi Network Connection

### Switching Automatic System Updates On



Select the settings option on the feature bar.

1. Select **Automatic Updates**.
2. Switch **Automatic System Updates** on.

The system is now set to check for and receive system updates when it is connected to a Wi-Fi network.

**Note:** You can use the system when a download is in progress.

**Note:** If the system is disconnected from the Wi-Fi network when a download is in progress, the download continues the next time the system is connected to a Wi-Fi network.

## Connecting to a Wi-Fi Network

See **Vehicle Wi-Fi Hotspot** (page 495).

## Additional Information and Assistance

For additional information and assistance, we recommend that you contact an authorized dealer or refer to the local website.

## USING VOICE RECOGNITION

The system allows you to interact with the entertainment, information and communication systems on your vehicle using voice commands. This allows you to keep your hands on the steering wheel and focus on what is in front of you.



Press the voice control button on the steering wheel and wait for the voice prompt.

**Note:** Press the voice control button again to interrupt a voice prompt and begin speaking.

**Note:** Turn the volume control when a voice prompt plays to adjust the volume.

**Note:** Press and hold the voice control button on the steering wheel to use Siri on your iOS device.

The following voice commands are designed to help you from any screen:

- **List of Commands**
- **Help**

The following tables list some of the more frequently used voice commands. For a complete list of voice commands, refer to our website.



## General

Voice Command	Description
___ List of Commands	Get a list of voice commands for a specific feature. <sup>1</sup>
Cancel	Cancel an active voice session.
___ Help	Get a list of voice commands for a specific feature. <sup>1</sup>
Go back	Return to the previous screen.
Main Menu	Go to the main menu.
Next Page	Go to the next page.
Previous Page	Go to the previous page.

<sup>1</sup> Add the name of the feature to the command.

## Entertainment

### Audio Source

Voice Command	Description
Radio	Use the radio.
CD Player	Use the CD player.
Bluetooth Stereo	Use a <b>Bluetooth</b> ® device.
USB	Use a USB or media player.

### Radio

Voice Command	Description
AM	Listen to AM radio.
AM ____	Tune to a specific AM frequency. <sup>1</sup>
Sirius Channel ____	Listen to SiriusXM radio. <sup>2</sup>

Voice Command	Description
FM	Listen to FM radio.
FM ____	Tune to a specific FM frequency. <sup>1</sup>

<sup>1</sup>Add the radio frequency to two decimal places to the command.

<sup>2</sup>You can say the Sirius channel name or number such as "Sirius Channel 16" or "Sirius The Pulse".

## USB and Media Player

Voice Command	Description
Play Album ____	Play your music by category. <sup>1</sup>
Play Artist ____	
Play Genre ____	
Play Playlist ____	
Play Song ____	
Play Audiobook ____	
Play Podcast ____	
Browse All Albums	Browse music on a USB device.
Browse All Artists	

Voice Command	Description
Browse All Audiobooks	
Browse All Genres	
Browse All Playlists	
Browse All Podcasts	
Browse All Songs	
Browse Album ____	
Browse Artist ____	
Browse Audiobook ____	
Browse Genre ____	
Browse Playlist ____	
Browse Podcast ____	

<sup>1</sup>Add an album name, artist name, audiobook name, genre name, playlist name, podcast name or track name to the command. Say the name exactly as it appears on your device.

**Climate** (If Equipped)

You can control the temperature of the vehicle using voice commands.

\_\_\_\_ is a dynamic listing, meaning that for climate voice commands it can be the desired degrees for the temperature setting.

**To adjust the temperature, say:**

Voice command	Description
Set Temperature ____	Adjust the temperature between 60–85°F (15.5–29.5°C).

**Phone**

Voice Command	Description
Pair Phone	Pair a cell phone or <b>Bluetooth</b> ®-enabled device.
Redial	Redial the last number that you dialed.
Dial ____	Dial a number. <sup>1</sup>
Call ____	Call a specific contact from your phonebook. <sup>2</sup>
Call ____ ____	Call a specific contact from your phonebook at a specific location. <sup>3</sup>
Listen to Message	Listen to a text message.

## SYNC™ 3

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Voice Command	Description
Listen to Message ____	Listen to a specific text message from a list of text messages.
Reply to Message	Reply to the last text message.

<sup>1</sup> Add the number you want to dial to the command.

<sup>2</sup> Add a contact name from your phonebook to the command. Say the first and last name of your contact exactly as it appears on your device.

<sup>3</sup> Add a contact name and location from your phonebook to the command. Say the first and last name of your contact exactly as it appears on your device.

## Navigation (If Equipped)

### Setting a Destination

Voice Command	Description
Find an Address	Enter a destination address. When prompted, provide the house number, the street and city.
Find a Place	Search for a point of interest by name or by category.
Find the Next ____	Search for a nearby point of interest by category. <sup>1</sup>
Find a POI Category	Search for a point of interest category. <sup>1</sup>
Drive Home	Set your saved home address as your destination.
Drive to Work	Set your saved place of work as your destination.
Show Previous Destinations	Display and select from a list of previous destinations.
Show Favorites	Display and select from a list of favorite destinations.

<sup>1</sup> Add a point of interest category or the name of a major brand or chain to the command.

## Route Guidance

Voice Command	Description
Cancel Route	Cancel the current route.
Detour	Select an alternate route.
Repeat Instruction	Repeat the last guidance prompt.
Show Route	Display an overview of the route.
Show Traffic	Display a list of traffic events on your route.
Show Map	Display the map on the touchscreen.
North Up	Display a two-dimensional map with north toward the top of the touchscreen.
Heading Up	Display a two-dimensional map with the direction you are traveling toward the top of the touchscreen.
Show 3D	Display a three-dimensional map with the direction you are traveling toward the front.



## Apps

### General

Voice Command	Description
Mobile Applications	Start an app. The system prompts you for the app name.
List Applications	Get a list of apps running on your device.
Find Applications	Search and connect to apps running on your device.

### Active App

Voice Command	Description
___ Help	Get a list of voice commands for a specific app. <sup>1</sup>
Exit ___	Close an app. <sup>1</sup>

<sup>1</sup> Add an app name to the command.

**SiriusXM Traffic and Travel Link** (If Equipped)

Voice command	Description
Show Traffic	Displays a list of traffic incidents.
Show Weather Map	Displays the current weather map.
Show Fuel Prices	Displays a list of fuel prices.
Show 5 Day Forecast	Displays the 5 day weather forecast.

**Voice Settings**

Voice Command	Description
Voice Settings	Go to the voice settings menu.
Interaction Mode Novice	Switch long voice prompts on.
Interaction Mode Advanced	Switch short voice prompts on.
Phone Confirmation On	Switch call confirmation on. The system prompts you to confirm before making a call.

Voice Command	Description
Phone Confirmation Off	Switch call confirmation off. The system does not prompt you to confirm before making a call.
Voice Command Lists On	Switch the display of voice commands on.
Voice Command Lists Off	Switch the display of voice commands off.

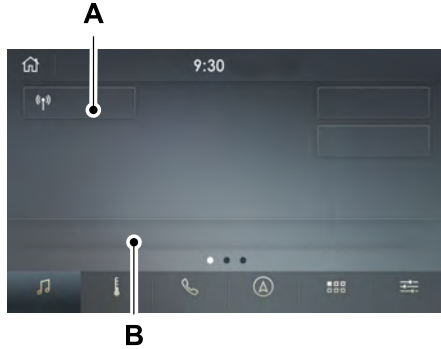
## Automatic Blower Motor Speed Reduction

If necessary, the system decreases the blower motor speed when you are using voice commands to reduce the amount of background noise in your vehicle. It returns to normal when you are done.

## Switching Automatic Blower Motor Speed Reduction Off

Simultaneously press the **A/C** and recirculated air buttons.

## ENTERTAINMENT



- A Audio source. Select to choose a different audio source.
- B Presets. Swipe left to view more presets.

You can access these options using the touchscreen or voice commands.

### Sources

Press this button to select the source of media you want to listen to.

Menu Item	
AM	
FM	
SIRIUS	
CD	
USB	The name of the USB that is plugged in displays here.

Menu Item	
Bluetooth Stereo	
Apps	If you have SYNC 3 compatible apps on your connected smart phone, they display here as individual source selections.

## AM/FM Radio

### Tuning a Station

You can use the tune or seek controls on the radio bezel to select a station.

### To tune a station using the touchscreen, select:

Menu Item
Direct Tune

A pop up appears, allowing you to type in the frequency of a station. You can only enter a valid station for the source you are currently listening to.

You can press the backspace button to delete the previously entered number.

### Once you have entered the station's call numbers, you can select:

Menu Item	Action and Description
Enter	Press to begin playing the station you have entered.
Cancel	Press to exit without changing the station.

### Presets

To set a new preset, tune to the station and then press and hold one of the memory preset buttons. The audio mutes briefly while the system saves the station and then returns.

You may be able to add additional preset pages using the settings option on the feature bar.

### SiriusXM® Satellite Radio (If Activated)

**Note:** *This feature may not be available in all markets and requires an active subscription.*



SiriusXM satellite radio is a subscription-based satellite radio service that broadcasts a variety of music, sports, news, weather, traffic and entertainment programming. Your factory-installed SiriusXM satellite radio system includes hardware and a limited subscription term that begins on the date of sale or lease of your vehicle. See an authorized dealer for availability.

For more information on extended subscription terms (a service fee is required), the online media player and a list of SiriusXM satellite radio channels, and other features, please visit [www.siriusxm.com](http://www.siriusxm.com) in the United States, [www.siriusxm.ca](http://www.siriusxm.ca) in Canada, or call SiriusXM at 1-888-539-7474.

**Note:** *SiriusXM reserves the unrestricted right to change, rearrange, add or delete programming. This includes canceling, moving or adding particular channels, and its prices, at any time, with or without notice to you. We are not responsible for any such programming changes.*

**Note:** *This receiver includes the eCos real-time operating system. eCos is published under the eCos License.*

**The following buttons are available for SiriusXM:**

Menu Item	Action and Description	
Browse	Touch this button to see a list of available stations.	
Direct Tune	A pop-up appears, allowing you to type in the call numbers of a station. Once you enter the stations call numbers, you can select:	
	Enter	The system tunes to the station you select.
	Cancel	You exit the pop-up and the current station continues to play.
	You can press the backspace button to delete the previous number.	

Menu Item	Action and Description	
Replay	Replay audio on the current channel. You can replay approximately 45 minutes of audio as long as you remain tuned to the current station. Changing stations erases the previous audio.	
	Live	When you are in replay mode, you are not able to select a different preset until you return to live audio. Pressing this button returns you to the live broadcast.
ALERT	Save the current song, artist, or team as a favorite. The system alerts you when it plays again on any channel. Selecting this button allows you to enable and edit alerts. See <b>Settings</b> (page 555).	

### Memory Presets

To set a preset, tune to the station then press and hold one of the memory preset buttons. The audio mutes briefly while the system saves the station and returns once the station is stored.

You may be able to add additional preset pages using the settings option on the feature bar.

### Satellite Radio Electronic Serial Number (ESN)

You need your ESN to activate, modify or track your satellite radio account. See **Settings** (page 555).

**SiriusXM Satellite Radio Reception Factors and Troubleshooting**

<b>Potential Reception Issues</b>	
Antenna obstructions	For optimal reception performance, keep the antenna clear of snow and ice build-up and keep luggage and other materials as far away from the antenna as possible.
Terrain	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with your reception.
Station overload	When you pass a ground-based broadcast-repeating tower, a stronger signal may overtake a weaker one and the audio system may mute.
Satellite radio signal interference	Your display may show ACQUIRING... to indicate the interference and the audio system may mute.

<b>Troubleshooting Tips</b>		
<b>Message</b>	<b>Cause</b>	<b>Action</b>
Acquiring Signal	Radio requires more than two seconds to produce audio for the selected channel.	No action required. This message should disappear shortly.
Satellite antenna fault SIRIUS system failure	There is an internal module or system failure present.	If this message does not clear shortly, or with an ignition key cycle, your receiver may have a fault. See an authorized dealer for service.
Invalid Channel	The channel is no longer available.	Tune to another channel or choose another preset.



<b>Troubleshooting Tips</b>		
<b>Message</b>	<b>Cause</b>	<b>Action</b>
Unsubscribed Channel	Your subscription does not include this channel.	Contact SiriusXM at 1-888-539-7474 to subscribe to the channel, or tune to another channel.
Satellite acquiring signal...	The signal is lost from the SiriusXM satellite or SiriusXM tower to your vehicle antenna.	The signal is blocked. When you move into an open area, the signal should return.
Updating...	Update of channel programming in progress.	No action required. The process may take up to three minutes.
Questions? Call 1-888-539-7474	Your satellite service is no longer available.	Contact SiriusXM at 1-888-539-7474 to resolve subscription issues.
None found. Check channel guide.	All the channels in the selected category are either skipped or locked.	Use the channel guide or the Sirius XM Settings tile to turn off the Lock or Skip function on that station.
SIRIUS Subscription updated	SiriusXM has updated the channels available for your vehicle.	No action required.

### **HD Radio™ Information (If Available)**

To activate HD radio, please see the Radio Settings in the Settings Chapter. See **Settings** (page 555).

**Note:** *HD Radio broadcasts are not available in all markets.*

HD Radio technology is the digital evolution of analog AM/FM radio. Your system has a special receiver that allows it to receive digital broadcasts (where available) in addition to the analog broadcasts, it already receives. Digital broadcasts provide a better sound quality than analog broadcasts with free, crystal-clear audio and no static or distortion. For more information, and a guide to available stations and programming, please visit:

<b>Website</b>
<a href="http://www.hdradio.com">www.hdradio.com</a>

When HD Radio is on and you tune to a station broadcasting HD Radio technology, you may notice the following indicators on your screen:



The HD logo is grey when acquiring a digital station, and then changes to orange when digital audio is playing. When this logo is available, you may also see Title and Artist fields on-screen.

The multicast indicator appears in FM mode (only) if the current station is broadcasting multiple digital broadcasts. The highlighted numbers signify available digital channels where new or different content is available. HD1 signifies the main programming status and is available in analog and digital broadcasts. Other multicast stations (HD2 through HD7) are only available digitally.

**Note:** *There is also an additional feature for stations that have more than 1 HD multicast (For example, HD1 or HD2). The HD logo and Radio text appears as a button. Pressing this button allows you to cycle through all of the HD stations on that specific frequency. For example, if you are on 101.1 and it has HD1, HD2, HD3, pressing the button repeatedly causes the radio to cycle through the HD stations in a cyclic increasing order.*

**When HD Radio broadcasts are active, you can access the following functions:**

Message	Action and Description
Presets	Allows you to save an active channel as a memory preset. Touch and hold a memory preset slot until the sound returns. There is a brief mute while the radio saves the station. Sound returns when the channel saves. When switching to an HD2 or HD3 memory preset, the sound mutes before the digital audio plays, because the system has to reacquire the digital signal.

**Note:** *As with any station you save, you cannot access the saved station if your vehicle is outside the station's reception area.*

## HD Radio Reception and Station Troubleshooting

Potential Reception Issues	
Reception area	If you are listening to a multicast station and you are on the fringe of the reception area, the station may mute due to weak signal strength.
	If you are listening to HD1, the system changes back to the analog broadcast until the digital broadcast is available again. However, if you are listening to any of the possible HD2-HD7 multicast channels, the station mutes and stays muted unless it is able to connect to the digital signal again.
Station blending	When the system first receives a station (aside from HD2-HD7 multicast stations), it first plays the station in the analog version. Once the receiver verifies the station is an HD Radio station, it shifts to the digital version. Depending on the station quality, you may hear a slight sound change when the station changes from analog to digital. Blending is the shift from analog to digital sound or digital back to analog sound.

In order to provide the best possible experience, use the contact form to report any station issues found while listening to a station broadcasting with HD Radio

technology. Independent entities own and operate each station. These stations are responsible for ensuring all audio streams and data fields are accurate.

<b>Potential Station Issues</b>		
<b>Issues</b>	<b>Cause</b>	<b>Action</b>
Echo, stutter, skip or repeat in audio. Increase or decrease in audio volume.	This is poor time alignment by the radio broadcaster.	No action required. This is a broadcast issue.
Sound fading or blending in and out.	The radio is shifting between analog and digital audio.	No action required. The reception issue may clear up as you continue to drive.
There is an audio mute delay when selecting HD2 or HD3, multicast preset or Direct Tune.	The digital multicast is not available until the HD Radio broadcast is decoded. Once decoded, the audio is available.	No action required. This is normal behavior. Wait until the audio is available.
Cannot access HD2 or HD3 multicast channel when recalling a preset or from a direct tune.	The previously stored multicast preset or direct tune is not available in your current reception area.	No action required. The station is not available in your current location.
Text information does not match currently playing audio.	Data service issue by the radio broadcaster.	Fill out the station issue form.
There is no text information shown for currently selected frequency.	Data service issue by the radio broadcaster.	Fill out the station issue form.

<b>Station Issue Form</b>
<a href="http://hdradio.com/stations/feedback">http://hdradio.com/stations/feedback</a>

HD Radio Technology manufactured under license from iBiquity Digital Corporation and foreign patents. HD Radio and the HD and HD Radio logos are proprietary trademarks of DTS. The vehicle manufacturer and DTS are not responsible for the content sent using HD Radio technology. Content may be changed, added or deleted at any time at the station owner's discretion.

**CD (If equipped)**

Once you select this option, the system returns you to the main audio screen.

The current audio information appears on the screen.

**The following buttons are also available:**

Button	Function
Browse	You can use the browse button to select a track.
Repeat	Select this button and a small number one displays to indicate the track is set to repeat. For MP3 CDs, this button allows you to toggle through repeat off, repeat one track (a small number one displays), and repeat current folder (a small folder displays).
Shuffle	Select the shuffle symbol to have the audio on the disk play in random order.

You can use the forward, reverse, pause or play buttons to control the audio playback.

## Bluetooth Stereo or USB

Bluetooth Stereo and USB allow you to access media that you store on your Bluetooth device or USB device such as music, audio books or podcasts.

### The following buttons are available for Bluetooth and USB:

Button	Function
Repeat	Pressing the repeat button toggles the repeat setting through three modes: repeat off (button not highlighted), repeat all (button highlighted) and repeat track (button highlighted with a small number one).
Shuffle	Play the tracks in random order.

You can use the forward, reverse, pause or play buttons to control the audio playback.

To get more information about the currently playing track, press the cover art or Info button.

For some devices, SYNC 3 is able to provide 30-second skip buttons when you listen to audio books or podcasts. These buttons allow you to skip forward or backward within a track.

While playing audio from a USB device you can look for certain music by selecting the following:

Button	Function
Browse	If available, displays the list of tracks in the Now Playing playlist.
New Search	This option, which is available under browse, allows you to play all tracks or to filter the available media into one of the following categories.
	Play All
	Playlists
	Artist
	Albums
	Songs
	Genres
	Podcasts
	Audio books Composers
A-Z Jump	This button allows you to choose a specific letter to view within the category you are browsing.
Explore Device	If available, this allows you to browse the folders and files on your USB device.

## USB Ports



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The USB ports are in the center console or behind a small access door in the instrument panel.

This feature allows you to plug in USB media devices, memory sticks, flash drives or thumb drives, and charge devices if they support this feature.

Select this option to play audio from your USB device.

## Apps

The system supports the use of certain audio apps such as iHeartRadio through a USB or Bluetooth enabled device.

Each app gives you different on-screen options depending on the app's content. See **Apps** (page 552).

## Supported Media Players, Formats and Metadata Information

The system is capable of hosting nearly any digital media player, including iPod, iPhone, and most USB drives.

Supported audio formats include MP3, WMA, WAV, AAC, and FLAC.

Supported audio file extensions include MP3, WMA, WAV, M4A, M4B, AAC, and FLAC.

Supported USB file systems include: FAT, exFAT, and NTFS.

SYNC 3 is also able to organize the media from your USB device by metadata tags. Metadata tags, which are descriptive software identifiers embedded in the media files, provide information about the file.

If your indexed media files contain no information embedded in these metadata tags, SYNC 3 may classify the empty metadata tags as unknown.

SYNC 3 is capable of indexing up to 50,000 songs per USB device, for up to 10 devices.

## CLIMATE

Touch the climate button on the touchscreen to access the climate control features.

**Note:** You can switch temperature units between Fahrenheit and Celsius. See **Settings** (page 555).

## Accessing the Climate Control Menu



Touch the button to access additional controls for the front climate system.

## Directing the Airflow



Touch the button to direct airflow to the windshield air vents and de-mister.





Touch the button to direct airflow to the instrument panel air vents.



Touch the button to direct airflow to the footwell air vents.

You can direct air through any combination of these air vents.

## Setting the Blower Motor Speed



Touch up or down to increase or decrease the volume of air that circulates in your vehicle.

## Setting the Temperature

Touch up or down on the left-hand temperature control to set the left-hand temperature.

**Note:** *This control also adjusts the right-hand side temperature when you switch off dual zone mode.*

Touch up or down on the right-hand temperature control to set the right-hand temperature.

## Switching Auto Mode On and Off



Touch the button to switch on automatic operation, then set the temperature.

The system adjusts the blower motor speed, air distribution, air conditioning operation, and outside or recirculated air to reach and maintain the temperature you have set.

## Switching the Air Conditioning On and Off



A pop-up appears on the screen to display the air conditioning options.

**MAX A/C:** Touch the button to activate and maximize cooling. The driver and passenger temperatures are set to LO, recirculated air flows through the instrument panel vents, air conditioning automatically turns on and the fan automatically adjusts to the highest speed.

**A/C:** Touch to switch the air conditioning on or off. Use A/C with recirculated air to improve cooling performance and efficiency.

**Note:** *In certain conditions, such as maximum defrost, the air conditioning compressor may continue to operate even though you switch off the air conditioning.*

## Switching the Climate Control On and Off



Touch the button.

## Switching the Climate Controlled Seats On and Off



Touch the button to cycle through the various climate controlled seat settings.

## Switching Dual Zone Mode On and Off



Touch the button to switch on temperature control for the right-hand side of the vehicle.

## Switching the Heated Exterior Mirrors On and Off



Touch the button.

## Switching the Heated Windshield On and Off



Touch the button to clear the windshield of thin ice and fog. The heated windshield turns off after a short period of time.

## Switching the Heated Rear Window On and Off



Touch the button to clear the rear window of thin ice and fog.

## Switching the Heated Seats On and Off



Touch the button to cycle through the various heat settings.

## Switching the Heated Steering Wheel On and Off



Touch the button.

## Switching Maximum Air Conditioning On and Off



Touch the button for maximum cooling.

Recirculated air flows through the instrument panel air vents, air conditioning turns on and the blower motor adjusts to the highest speed.

## Switching Maximum Defrost On and Off



Touch the button for maximum defrosting.

Air flows through the windshield air vents, and the blower motor adjusts to the highest speed.

You can also use this setting to defog and clear the windshield of a thin covering of ice.

**Note:** To prevent window fogging, you cannot select recirculated air when maximum defrost is on.

**Note:** The heated rear window also turns on when you select maximum defrost.

**Note:** Depending on your region, air conditioning turns on.

## Switching Recirculated Air On and Off



Touch the button to switch between outside air and recirculated air.

The air currently in the passenger compartment recirculates. This may reduce the time needed to cool the interior, when used with **A/C**, and reduce unwanted odors from entering your vehicle.

**Note:** Recirculated air may turn off, or prevent you from switching on, in all air flow modes except **MAX A/C** to reduce the risk of fogging. Recirculation may also turn on and off in various air distribution control combinations during hot weather to improve cooling efficiency.

### Switching the Ventilated Seats On and Off



Touch the button to cycle through the various ventilated seat settings.

### Accessing Rear Climate Controls



Touch the button to access additional controls for the rear climate system.

### Rear Climate Control Lock Indicator



Touch the button.

When on, you can only operate the rear passenger settings through the front controls.

### Switching Rear Auto Mode On and Off



Touch the button to switch on rear automatic operation, then set the temperature.

### Switching the Rear Climate Controlled Seats On and Off



Touch the button to cycle through the various climate controlled seat settings.

### Switching the Rear Heated Seats On and Off



Touch the button to cycle through the various heat settings.

### Switching the Rear Ventilated Seats On and Off



Touch the button to cycle through the various ventilated seat settings.

## PHONE



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

Check the compatibility of your device on the regional website.

### Pairing Your Cell Phone for the First Time

Go to the settings menu on your device and switch **Bluetooth**® on.



Select the phone option on the feature bar.

1. Select **Add Phone**.

**Note:** A prompt alerts you to search for your vehicle on your cell phone.

2. Select your vehicle on your cell phone.

**Note:** A number appears on your cell phone and on the touchscreen.

3. Confirm that the number on your cell phone matches the number on the touchscreen.

**Note:** The touchscreen indicates that you have successfully paired your cell phone.

4. Download the phonebook from your cell phone when you are prompted.

**Note:** If you pair more than one cell phone, use the phone settings to specify the primary phone. You can change this setting at any time.

## Using Your Cell Phone (If Equipped)

### Recent Call List

Display and select an entry from a list of previous calls.

### Contacts

Display a smart search form to look up your contacts. Use the List button to alphabetically sort your contacts.

### Change Phone

Display the list of paired or connected devices that you can select.

### Phone Settings

Change ring tones, alerts or pair another phone.

### Do Not Disturb

Reject incoming calls and switch ring tones and alerts off.

### Phone Keypad

Directly dial a number.

### Mute

Mute the microphone when in a call.

### Phone Voice Assistant

Say a command to use the Google or Siri voice assistant available on your connected phone to access supported features.

### Text Messaging

#### Setting Text Message Notification

##### iOS

1. Go to the settings menu on your cell phone.
2. Select **Bluetooth®**.
3. Select the information icon to the right of your vehicle.
4. Switch text message notification on.

##### Android

1. Go to the settings menu on your cell phone.
2. Select **Bluetooth®**.
3. Select the profiles option.
4. Select the phone profile.
5. Switch text message notification on.

## Using Text Messaging

Menu Item	Description
Hear It	Hear the text message.
View	View the text message.
Call	Call the sender.
Reply	Reply to the text message with a standard text message.

### Apple CarPlay (If Equipped)

1. Connect your device to a USB port.
2. Follow the instructions on the touchscreen.

**Note:** Certain features of the system are not available when you are using Apple CarPlay.

### Switching Apple CarPlay Off



Select the settings option on the feature bar.

1. Select **Apple CarPlay Preferences**.
2. Switch **Apple CarPlay** off.

### Android Auto (If Equipped)

1. Connect your device to a USB port.
2. Follow the instructions on the touchscreen.

**Note:** You might need to enable Android Auto from the settings menu.

**Note:** Certain features of the system are not available when you are using Android Auto.

### Switching Android Auto Off



Select the settings option on the feature bar.

1. Select **Android Auto**.

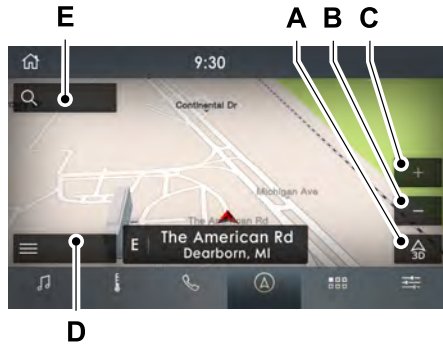
2. Switch **Android Auto** off.

### NAVIGATION (IF EQUIPPED)

**Note:** For more information, refer to our website.



Select the navigation option on the feature bar.



- A Map view menu.
- B Zoom out.
- C Zoom in.
- D Route guidance menu.
- E Destination entry menu.

## Setting a Destination

### Destination Entry Menu

Item	Description
Search	Enter a destination address.
Previous Destinations	Display and select from a list of previous destinations.
Home	Set your saved home address as your destination
Work	Set your saved place of work as your destination.
Favorites	Display and select from a list of favorite destinations.

## Setting a Destination Using the Text Entry Screen



- A Text entry field.
- B Automatic suggestions based on the text you enter.
- C Information icon.

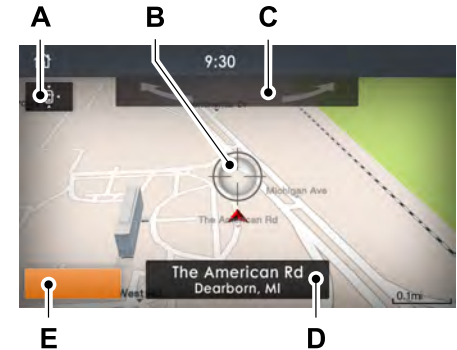
- D Search.
- E Keyboard settings.

**Note:** Select one of the suggestions to copy the detail to the text entry field.

*You can search by entering all or part of the destination, such as the Address, POI Category or Name, Intersection, City, Latitude/Longitude, etc. Tips: If you do not specify a location, the system will use the current vehicle location. You can specify a location by address, city, state or zip code. For additional search support, please visit: [owner.lincoln.com](http://owner.lincoln.com).*

**Note:** Press the button in the top right-hand corner of the main map to display estimated time of arrival, remaining travel time or distance to destination.

## Setting a Destination Using the Map Screen



- A Re-center the map.
- B Selected location.
- C 3D map rotation. Swipe left or right.
- D Destination name.
- E Start route guidance.

Select the location on the map.

Select **Start** to begin route guidance.



## Changing the Format of the Map

Display the map in one of the following formats:

- A two-dimensional map with the direction you are traveling toward the top of the screen.
- A two-dimensional map with north toward the top of the screen.
- A three-dimensional map with the direction you are traveling toward the front.

## Zoom

Display more or less detail on the map.

**Note:** You can use pinch gestures to zoom in and out. Place two fingers on the screen and move them apart to zoom in. Place two fingers on the screen and bring them together to zoom out.

## Route Guidance



- A Turn indicator. Select to hear the last voice prompt.
- B Point of interest.

- C Estimated time of arrival, distance to destination or time to destination.
- D Current road.
- E Mute guidance prompts.

**Note:** To change guidance prompt volume, turn the volume control when a guidance prompt plays.

**Route Guidance Menu**

Menu Item	Description
Screen View	Adjust your map preferences for when route guidance is active.
Full Map	View a full screen map when route guidance is active.
Highway Exit Info	View highway exit information for your current route.
Turn List	View the turn list for your current route. Select a road to avoid it.
Traffic List	You can find the SiriusXM Traffic and Travel Link information by pressing this button. This information requires an active subscription to SiriusXM Traffic and Travel Link. When a route is not active, a list of nearby traffic incidents displays. When a route is active, you can choose to display a list of traffic nearby or on the route.
Navigation Settings	Adjust navigation settings. See <b>Settings</b> (page 555).
Where Am I?	View information about your current location.
Cancel Route	Cancel route guidance.
View Route	View the entire current route on the map.
Detour	View an alternative route compared to your current one.
Edit Waypoints	Change the order or remove waypoints.
Optimize Order	The system determines the order of waypoints for you.
Go	Go to the next screen and start the new route.

## Adjusting the Guidance Prompt Volume

Turn the volume control when a guidance prompt plays to adjust the volume.

**Note:** *If you have inadvertently adjusted the volume to zero, press the turn indicator button to play the last voice prompt and then adjust the volume to the desired level.*

## Muting Guidance Prompts



Select the mute option on the screen to mute guidance prompts.

**Note:** *The system mutes the next and all future guidance prompts.*

## Adding Waypoints

You can add a waypoint to a navigation route as a destination along your route. You can add up to five waypoints.

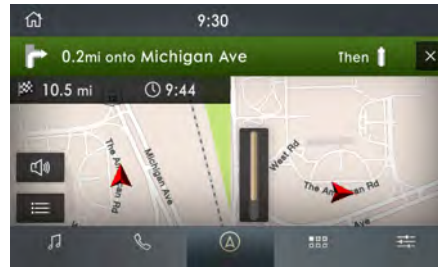
1. Select the search option on the map.
2. Set a destination.
3. Select **Add Waypoint**.
4. Select **Go**.

## Canceling Route Guidance



Select the route guidance menu option on the active guidance screen.

Select **Cancel Route**.



**Note:** *The route guidance menu option is always in the bottom right-hand corner of the main map.*

## cityseeker (If Equipped)

**Note:** *cityseeker point of interest (POI) information is limited to approximately 1,110 cities (1,049 in the United States, 36 in Canada and 15 in Mexico).*



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cityseeker, when available, is a service that provides more information about certain points of interest such as restaurants, hotels and attractions.

When you have selected a point of interest, the location and information appear, such as address, phone number and a star rating.

Press **More Information** to see a photo, a review, a list of services and facilities, the average room or meal price and the web address. This screen displays the point of interest icons.

For restaurants, cityseeker can provide information such as star rating, average cost, review, handicap access, hours of operation, and website address.

For hotels, cityseeker can provide information such as star rating, price category, review, check-in and checkout times, hotel service icons and website address. Hotel service icons include:

- Restaurant
- Business center
- Handicap facilities
- Laundry
- Refrigerator
- 24 hour room service
- Fitness center
- Internet access
- Pool
- Wi-Fi

Attractions include nearby landmarks, amusement parks, historic buildings and more. cityseeker can provide information such as star rating, reviews, hour of operation and admission price.

## **SiriusXM Traffic and Travel Link (If Equipped)**

SiriusXM Traffic and Travel Link is available on vehicles equipped with navigation and only in select markets. You must activate and subscribe to receive SiriusXM Traffic and Travel Link information. It helps you locate the best gas prices, find movie listings, get current traffic alerts, view the weather map, get accurate ski conditions and see current sports scores.

The system calculates a reasonable efficient route based on available speed limits, traffic, and road conditions. You may know a local short cut that is more efficient at a given time than the route provided by SYNC 3, but you should expect a slight difference in minutes or miles with the SYNC 3 route.

## **Michelin Travel Guide (If Equipped)**

The Michelin travel guide is a service which provides additional information about certain places of interest, for example restaurants, hotels and tourist sites. Points of interest that have Michelin travel guide information display a button to show you more information. Push the button to see the additional information. If you have paired your phone with the system, you can press the phone button to directly establish a call with the selected point of interest.

## **Navigation Map Accuracy and Updates**

HERE is the digital map provider for the navigation application. If you find map data errors, you may report them directly to HERE by going to [www.here.com](http://www.here.com). HERE evaluates all reported map errors and responds with the result of their investigation by e-mail.

The navigation system map data may contain inaccurate or incomplete information due to the passage of time, changing circumstances, sources used and the nature of collecting comprehensive geographic data, any of which may lead to incorrect results. Inaccurate speed limit information, turn restrictions and other road attributes may affect the determined route and associated guidance

Annual navigation map updates are available for purchase through your dealership. Depending on your purchase agreement, you might be eligible for free Map update. You can choose to download the Map data update onto a USB, order a USB, or use Wi-Fi to deliver automatic updates. To update your Map data over Wi-Fi, your vehicle must be connected to a Wi-Fi access point. Map Data files are large, so it is highly recommended to perform the update when free Wi-Fi is available otherwise high data rates may apply. For USB updates, free map update eligibility, and other details, contact dealers at 1-866-462-8837 in the United States and Canada or 01-800-557-5539 in Mexico or visit our local website for more information.

## ELECTRIC VEHICLE INFORMATION

### Power Flow



The Power Flow information for your plug-in hybrid vehicle is available through the Home screen or under Apps.

### Vehicle Operational States

Power will flow to or from the front and rear wheels depending on operational state and drive conditions.

- **Idling:** The vehicle is running and in park (P). The engine and, or the high voltage battery are on.
- **Electric Driving:** The vehicle is running and in drive (D) or neutral (N). The high voltage battery provides power to the wheels.
- **Hybrid Driving:** The vehicle is running and in drive (D) or neutral (N). The engine and the high voltage battery provide power to the wheels.

- **Engine Driving:** The vehicle is running and in drive (D) or neutral (N). The engine provides power to the wheels.
- **Regenerative Braking:** The vehicle is running in drive gear (D) and is slowing down. The regenerative braking system captures power and sends it back to the high voltage battery.
- **Charging:** The vehicle is plugged in and the high voltage battery is being charged.

### Engine On Due To

The following conditions help to explain why the engine is on, and what you can do to allow all electric operation.

- **Drive Power:** The engine is on due to accelerator pedal pressure or speed control activation. Reduce pressure on the accelerator pedal or switch off the speed control to return to full electric mode.
- **High Speed:** The engine is on because the vehicle speed exceeds the level for full electric operation. Reduce the speed to return to electric operation.

- **Heater Setting:** The engine is on because of the heater setting. Reduce or switch off the heater setting to return to electric operation.
- **Neutral Gear:** The engine is on because the vehicle is in neutral (N). Shift out of neutral gear to return to electric operation.
- **Engine Cold:** The engine is on because it is cold. The vehicle returns to electric operation once the engine is sufficiently warm.
- **Battery Charging:** The engine is on to charge the high-voltage battery. The vehicle returns to electric operation once the battery is sufficiently charged.
- **Low Gear:** The engine is on because the vehicle is in low gear. Shift out of low gear to return to electric operation.
- **Normal Operation:** The engine is on to optimize vehicle operation. The vehicle returns to electric operation when possible.
- **Low Use:** The engine is on to maintain engine oil quality. The vehicle returns to electric operation when low engine use mode is complete. See **Plug-In Hybrid Vehicle Operation** (page 215).
- **Engine Braking Active:** The engine is on to provide increased powertrain braking. This can occur when you turn on the grade assist feature, when speed control is on or when driving with your foot off the accelerator pedal. Turning off grade assist or speed control may allow the vehicle to return to electric operation.
- **Battery Temperature:** The engine is on due to high or low high-voltage battery temperature. This is a normal operating condition. The vehicle returns to electric operation when possible.
- **Drive Mode:** The engine is on due to the drive mode selection. Select an appropriate drive mode for electric only operation.

## Charge Settings



The Charge Settings information for your plug-in hybrid vehicle is available through the Home screen or under Vehicle Settings. To improve your charging experience, your vehicle has the following convenience features.

## Charge Times

Once you set up Charge Times for a specific charging location, your vehicle prioritizes charging based on your preferred time settings. You can set two preferred charging time windows for weekdays and two for weekends. This feature allows you to take advantage of electric utility rate plans that offer lower pricing during certain times of day. Contact your utility company to see what plans are available.

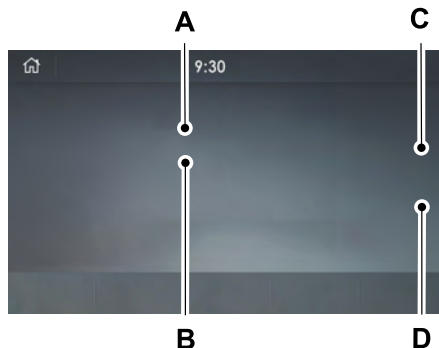
**Note:** *You can also set up and use these features using the Lincoln Way app.*

## Departure Times

Setting Departure Times allows you to control charging schedules and have the vehicle cabin heated or cooled while plugged in, so your vehicle is ready to drive when you are. By setting a departure time your vehicle can use your charge time settings to minimize your electricity costs but still prioritize finishing charging before your scheduled departure. A calendar view allows you to program two departure times per day for each day of the week.

**Note:** *You can also set up and use these features using the Lincoln Way app.*

## Charge Settings Screen



- A Charging status.
- B Charging time information.

- C High voltage battery state of charge.
- D Plug and charging status.

## Charging Status

Displays the present state of the charging system. See **Charging the High Voltage Battery** (page 235).

Charging Status	Description and Action
Will charge when plugged in.	Your vehicle is unplugged and starts charging when plugged in.
Will wait for preferred charge time.	Your vehicle is unplugged at a saved location with Charge Times is enabled. Charging is scheduled to start at the time displayed based on your charge time settings. You must plug in prior to the start time shown for the vehicle to begin charging at that time.
Waiting for preferred charge time.	Your vehicle is plugged in at a saved location with Charge Times enabled. Charging starts at the time displayed, which is based on your Charge Times settings.
Charging.	Your vehicle is plugged in and using power to charge the high voltage battery or run electrical systems.
Charged.	Your vehicle is finished charging.
Vehicle charge fault.	Your vehicle is plugged in and there is a fault within the vehicle charging system. Unplug and plug back in. If the fault is still present, contact your dealer.
Charge station fault.	Your vehicle is plugged in and a fault is detected with the charge station or charging cord. Check the charging cord and the charge station or electrical supply.



Charging Status	Description and Action
Charge station not detected.	A charging coupler is plugged into the vehicle but there is no connection with a charging power source.
Incompatible charge station.	Your vehicle is plugged in but cannot communicate with the charging station. Contact the station provider.
Charge station paused.	Your vehicle is plugged in and charging is paused at the charge station.

## Charging Time Information

Displays estimates of how long your vehicle takes to fully charge when plugged into a high or low power charger.

- High power estimate: The minimum time to a 100% charge using a high power charger.
- Low power estimate: The longest time to a 100% charge using a low power charger.

When charging, the start and estimated end time displays. When your vehicle is not plugged in and at a location with Charge Times enabled, the start and end times display based on known charging power.

**Note:** Charging durations and end times are only estimates. Certain conditions may result in longer charging times. See **Charging the High Voltage Battery** (page 235).

## High Voltage Battery State of Charge

Displays the remaining charge percentage with 100% representing the total amount of energy you can get from an external charge.

## Plug and Charging Status

Displays the plug and charging status icons.



Not plugged in.



Plugged in and not currently charging.



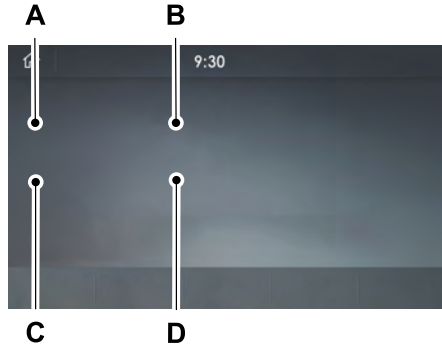
Plugged in and charging.



Plugged in and waiting to charge based on charge time settings.

## Charge Preferences

Touch the button to access Charge Time and Departure Time settings. Additional information and settings are displayed on the charge settings screen once Charge Time or Departure Times are set up.



- A Charge Times on and off switch.
- B Charge Times location name and charging time information.
- C Departure Times on and off switch.
- D Next departure time and cabin temperature.

### Charge Times On and Off Switch

This switch is visible when your vehicle is at a saved Charge Times location. Use the switch to turn your charge time settings on and off for this location.

### Charge Times Location Name and Charging Time Information

The location name displays when your vehicle is at a saved Charge Times location. The charging start time is displayed along with the charging end time and associated charge level.

### Departure Times On and Off Switch

This switch is visible when you have at least one departure time set. Use this switch to turn all departure times on and off. Switching departure times off does not delete your settings.

### Next Departure Times and Cabin Temperature

Displays the next departure time and associated cabin temperature setting.

### Charge Time Settings

Follow these steps to set a preferred charge time for a charging location.

1. Select Charge Preferences on the Charge Settings screen.
  2. Select Charge Time Setup on the Edit Charge Preferences screen.
  3. Select Add New Location on the Charge Times screen. You can also edit settings for previously saved locations from this screen.
  4. Select an address from the Recent Charge Locations screen.
  5. On the Confirm Location for Charge Times screen, you can edit the location name and set a max charge level as desired. Once you have your desired location name and max charge level, select Continue to Schedule.
- Note:** *Charging will stop when your vehicle reaches the max charge level.*
6. Select WEEKDAY or WEEKEND on the Preferred Charge Times screen.

- On the Select preferred WEEKDAY or WEEKEND Charge Times screen, use the circular 24 hour clock to select your charging time windows. You can select up to two time windows by pressing and dragging across the hour buttons. When you have selected your preferred times then press Next to return to the Preferred Charge Times screen. Repeat for WEEKEND or WEEKDAY as desired. Once you are done setting preferred charge times, press Save.

**Note:** *Selecting all or none of the 24 hours results in any time of day given equal priority for charging.*

- Your saved location now shows on the Charge Times screen. Select Done to return to the main charge settings screen. Whenever your vehicle is at a saved charging location, the charge settings screen displays the location name, and the charging times are based on your Charge Time settings for that location plus the next Departure Time.

**Note:** *Reaching your max charge level by your next Departure Time is always the priority. When Charge Times are set, charging outside your preferred charging time windows could be necessary in order to finish by your next Departure Time.*

## Departure Time Settings

- Select Charge Preferences on the Charge Settings screen.
- Select Departure Time Setup on the Edit Charge Preferences screen.
- Two time settings show for each day of the week on the Departure Times schedule screen. Select any one.
- On the Departure Time settings screen, set your desired departure time, cabin temperature and days of the week to repeat. Press Save.
- Your settings are now shown on the Departure Times schedule screen. Press Back two times to return to the main charge settings screen. The next departure time and cabin temperature setting display.

**Note:** *Cabin conditioning can perform differently depending on if you plug in with the included convenience cord or a higher power charging station. The power available for conditioning is limited to the charging station power available.*

**Note:** *Your vehicle may not always reach the set cabin temperature due to charging and ambient temperature conditions. This is normal operation*

## APPS

The system allows you interact with select mobile apps while keeping your eyes on the road. Voice commands, your steering wheel buttons, or a quick tap on your touchscreen give you advanced control of compatible mobile apps. You can also stream your favorite music or podcasts, share your time of arrival with friends, and keep connected safely.

When you start an app through the system for the first time, you could be asked to grant certain permissions. You can review and change the permissions that you have granted at any time when your vehicle is not moving. We recommend that you check your data plan before using your apps through the system. Using them could result in additional charges. We also recommend that you check the app provider's terms and conditions and privacy policy before using their app. Make sure that you have an active account for apps that you want to use through the system. Some apps will work with no setup. Others require you to configure some personal settings before you can use them.

**Note:** For more information about available apps, visit [catalog.ford.com](http://catalog.ford.com).

## Using Apps on an iOS Device



Select the apps option on the feature bar.

1. If your device is connected via USB, switch Apple CarPlay off. See **Phone** (page 536).

2. Connect your device to a USB port or pair and connect using Bluetooth.
3. If prompted to enable CarPlay, select **Disable**.
4. Start the apps on your device that you want to use through SYNC.

**Note:** If you close the apps on your device, you will not be able to use them through the system.

5. Select the app that you want to use on the touchscreen.

**Note:** Connect your device to a USB port if you want to use a navigation app. When using a navigation app, keep your device unlocked and the app open.

## Using Apps on an Android Device



Select the apps option on the feature bar.

1. If your device is connected via USB, switch Android Auto off. See **Phone** (page 536).
2. Pair your device. See **Phone** (page 536).

3. Start the apps on your device that you want to use through SYNC.

**Note:** If you close the apps on your device, you will not be able to use them through the system.

4. Select **Find Mobile Apps**.

**Note:** The system searches and connects to compatible apps that are running on your device.

5. Select the app that you want to use on the touchscreen.

**Note:** Mobile Apps on your device use the USB port to establish a connection with SYNC. Some devices may lose the ability to play music over USB when Mobile Apps are enabled.

## Using Mobile Navigation on an Android Device

1. Connect your device to a USB port.
2. Switch Android Auto off. See **Phone** (page 536).
3. Switch on **Enable Mobile Apps via USB** in the Mobile Apps Settings tile.

4. Select the apps option on the feature bar.
5. Select the navigation app that you want to use on the touchscreen.

**Note:** When using a navigation app, keep your device unlocked and the app open.

### SiriusXM Traffic and Travel Link (if Equipped)



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe

operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

**Note:** SiriusXM Traffic and Travel Link may not be available in all markets.

**Note:** In order to use SiriusXM Traffic and Travel Link, your vehicle must have navigation.

**Note:** A paid subscription is required to access and use these features. Go to [www.siriusxm.com/travellink](http://www.siriusxm.com/travellink) for more information.

**Note:** Visit [www.siriusxm.com/traffic](http://www.siriusxm.com/traffic) and click on Coverage map and details for a complete listing of all traffic areas covered by SiriusXM Traffic and Travel Link.

**Note:** Neither Sirius nor Ford is responsible for any errors or inaccuracies in the SiriusXM Traffic and Travel Link services or its use in vehicles.

When you subscribe to SiriusXM Traffic and Travel Link, it can help you locate the best gas prices, find movie listings, get current traffic alerts, view the current weather map, get accurate ski conditions and see scores to current sports games.

Menu Item	Action and Description
Traffic on Route	Touch these buttons to identify traffic incidents on your route, near your vehicle's current location or near any of your favorite places, if programmed.
Traffic Nearby	
Fuel Prices	Touch this button to view fuel prices at stations close to your vehicle's location or on an active navigation route.

Menu Item	Action and Description	
Movie Listings	Touch this button to view nearby movie theaters and their show times, if available.	
Weather	Touch this button to view the nearby weather, current weather, or the five-day forecast for the chosen area.	
	Map	Select to see the weather map, which can show storms, radar information, charts and winds.
	Area	Select to choose from a listing of weather locations.
Sports Info	Touch this button to view scores and schedules from a variety of sports. You can also save up to 10 favorite teams for easier access. The score automatically refreshes when a game is in progress.	
Ski Conditions	Touch this button to view ski conditions for a specific area.	

## SETTINGS



Press the button to enter the settings menu.



Once you select a tile, press the button next to a menu item to view an explanation of the feature or setting.

## Sound

Select this tile to adjust the sound settings.

## Clock

Select this tile to adjust the clock settings.

## Bluetooth

Select this tile to switch Bluetooth on and off and adjust settings.

## Phone

Select this tile to connect, disconnect, and manage the connected device settings.

## Audio

Select this tile to adjust the audio settings.

## **Driver Assist** (If Equipped)

Select this tile to adjust Driver Assist features like Parking Aids, Lane Keeping system, Pedestrian Detection, and Auto-Start-Stop.

## **Vehicle**

Select this tile to adjust vehicle settings like windows, alarm, lighting, backup starting passcode, and MyKey settings.

## **Lincoln Way**

Select this tile to adjust the Lincoln Way settings.

## **General**

Select this tile to adjust settings like language, measurement units, or to reset the system.

## **911 Assist** (If Equipped)

Select this tile to switch 911 Assist on and off.

## **Automatic Updates**

Select this tile to adjust automatic update settings.

## **Mobile Apps**

Select this tile to adjust permissions, enable, disable, and update mobile apps.

## **Display**

Select this tile to adjust display settings like brightness and auto dim.

## **Charge Settings** (If Equipped)

Select this tile to adjust the electric vehicle charge setting.

## **Voice Control**

Select this tile to adjust voice control settings like command confirmations and displayed lists.

## **Navigation** (If Equipped)

Select this tile to adjust navigation settings like map preferences and route guidance.

## **Seats** (If Equipped)

Select this tile to adjust the lumbar function and massage function of your multi contour seats.

## **Message Center** (If Equipped)

Select this tile to view vehicle messages.

## **Personal Profiles** (If Equipped)

Select this tile to adjust recalled memory features when using personal profiles.

## **Valet Mode** (If Equipped)

Select this tile to enable and disable valet mode.

## **Ambient Lighting** (If Equipped)

Select this tile to change the color or intensity of the interior lighting.

## SYNC™ 3 TROUBLESHOOTING

### Voice Recognition

Symptom	Possible Cause and Resolution
<p>The system does not understand what I am saying.</p>	<ul style="list-style-type: none"> <li>– You might not be using supported voice commands.                             <ul style="list-style-type: none"> <li>• See <b>Using Voice Recognition</b> (page 509).</li> <li>• For a complete list of voice commands, refer to our website.</li> </ul> </li> <li>– You might be speaking too soon.                             <ul style="list-style-type: none"> <li>• Wait for the voice prompt before you speak.</li> </ul> </li> </ul>
<p>The system does not understand the name of a track or artist.</p>	<ul style="list-style-type: none"> <li>– Device limitation. <b>Bluetooth®</b> does not support voice commands.                             <ul style="list-style-type: none"> <li>• Connect your device to a USB port.</li> <li>• If you have an iOS device, press and hold the voice control button on the steering wheel to use Siri to play specific tracks.</li> </ul> </li> <li>– You might not be using supported voice commands.                             <ul style="list-style-type: none"> <li>• See <b>Using Voice Recognition</b> (page 509).</li> <li>• For a complete list of voice commands, refer to our website.</li> </ul> </li> <li>– You might not be saying the name exactly as it appears on your device.                             <ul style="list-style-type: none"> <li>• Say the name of the track or artist exactly as it appears on your device. Spell out any abbreviations in the name.</li> </ul> </li> <li>– The name contains special characters, for example *, - or +.                             <ul style="list-style-type: none"> <li>• Rename the files on your device or use the touchscreen to select and play the track.</li> </ul> </li> </ul>



Symptom	Possible Cause and Resolution
The system does not understand the name of a contact in the phonebook on my device and calls the wrong contact.	<ul style="list-style-type: none"> <li>– You might not be saying the name exactly as it appears on your device.                             <ul style="list-style-type: none"> <li>• Say the first and last name of the contact exactly as it appears on your device. Spell out any abbreviations in the name.</li> </ul> </li> <li>– The name contains special characters, for example *, - or +.                             <ul style="list-style-type: none"> <li>• Rename the contact on your device or use the touchscreen to select and call the contact.</li> </ul> </li> </ul>
The system does not understand certain names of contacts in the phonebook on my device.	<ul style="list-style-type: none"> <li>– You might not be saying the name exactly as it appears on your device.                             <ul style="list-style-type: none"> <li>• Say the first and last name of the contact exactly as it appears on your device. The system applies phonetic pronunciation rules of the selected language to the names of contacts in the phonebook on your device. Select the name of the contact on the touchscreen and use the Hear it option to get an idea of how the system expects you to pronounce it.</li> </ul> </li> </ul>
The system voice prompts and the pronunciation of some words do not seem to be very accurate.	<ul style="list-style-type: none"> <li>– Device limitation.                             <ul style="list-style-type: none"> <li>• The system uses text-to-speech technology and uses a synthetically generated voice rather than pre-recorded human voice.</li> </ul> </li> </ul>

## USB and *Bluetooth*® Audio

Symptom	Possible Cause and Resolution
I cannot connect my device.	<ul style="list-style-type: none"> <li>– Device malfunction.                             <ul style="list-style-type: none"> <li>• Disconnect your device. Switch your device off and on to reset it and try again.</li> </ul> </li> <li>– Cable connection issue.                             <ul style="list-style-type: none"> <li>• Correctly connect the cable to your device and the vehicle USB port.</li> </ul> </li> <li>– Incompatible cable.                             <ul style="list-style-type: none"> <li>• Use the cable recommended by the manufacturer of your device.</li> </ul> </li> </ul>

## SYNC™ 3

Symptom	Possible Cause and Resolution
	<ul style="list-style-type: none"> <li>– Incorrect device settings.                             <ul style="list-style-type: none"> <li>• Make sure that your device does not have an auto-install program or active security settings.</li> <li>• Check that your device is not set only to charge.</li> </ul> </li> <li>– Device lock screen enabled.                             <ul style="list-style-type: none"> <li>• Unlock your device before connecting it.</li> </ul> </li> </ul>
The system does not recognize my device.	<ul style="list-style-type: none"> <li>– Device limitation.                             <ul style="list-style-type: none"> <li>• Do not leave your device in your vehicle during very hot or very cold weather conditions.</li> </ul> </li> <li>– Cable connection issue.                             <ul style="list-style-type: none"> <li>• Correctly connect the cable to your device and the vehicle USB port.</li> </ul> </li> <li>– Incompatible cable.                             <ul style="list-style-type: none"> <li>• Use the cable recommended by the manufacturer of your device.</li> </ul> </li> </ul>
The system does not understand the name of a track or artist.	<ul style="list-style-type: none"> <li>– Device limitation. <b>Bluetooth</b>® does not support voice commands.                             <ul style="list-style-type: none"> <li>• Connect your device to a USB port.</li> <li>• If you have an iOS device, press and hold the voice control button on the steering wheel to use Siri to play specific tracks.</li> </ul> </li> </ul>

## SYNC™ 3

Symptom	Possible Cause and Resolution
I cannot stream audio from my <b>Bluetooth®</b> device.	<ul style="list-style-type: none"> <li>– Incompatible device.               <ul style="list-style-type: none"> <li>• Check the compatibility of your device on our website.</li> </ul> </li> <li>– Device not connected.               <ul style="list-style-type: none"> <li>• Pair your device. See <b>Phone</b> (page 536).</li> </ul> </li> <li>– Media player not running.               <ul style="list-style-type: none"> <li>• Start the media player on your device.</li> </ul> </li> </ul>
The system does not recognize the music on my device.	<ul style="list-style-type: none"> <li>– Missing or incorrect audio file metadata, for example artist, song title, album or genre.               <ul style="list-style-type: none"> <li>• Repair the files on your device.</li> </ul> </li> <li>– Corrupt files.               <ul style="list-style-type: none"> <li>• Repair the files on your device.</li> </ul> </li> <li>– Copyright-protected files.               <ul style="list-style-type: none"> <li>• Use a device that contains files that are not copyright protected.</li> </ul> </li> <li>– Unsupported file format.               <ul style="list-style-type: none"> <li>• Repair or convert the files to a supported format. See <b>Entertainment</b> (page 521).</li> </ul> </li> <li>– Device indexing required.               <ul style="list-style-type: none"> <li>• Re-index your device. See <b>Settings</b> (page 555).</li> </ul> </li> <li>– Device lock screen enabled.               <ul style="list-style-type: none"> <li>• Unlock your device before connecting it.</li> </ul> </li> </ul>

# SYNC™ 3

Symptom	Possible Cause and Resolution
Sometimes I cannot hear a track playing on my device.	<ul style="list-style-type: none"> <li>– Device malfunction.               <ul style="list-style-type: none"> <li>• Disconnect your device. Switch your device off and on to reset it and try again.</li> </ul> </li> </ul>
When I disconnect my iOS device the audio volume is set to maximum.	<ul style="list-style-type: none"> <li>– Device limitation.               <ul style="list-style-type: none"> <li>• Turn the volume down on your device.</li> </ul> </li> </ul>
The system does not play the tracks on my USB drive in the correct order.	<p>If the system does not play the tracks on your USB device in the correct order, the following information could help:</p> <ul style="list-style-type: none"> <li>– If you are selecting USB as the audio source when the system is still indexing, SYNC plays tracks sorted alphabetically by file name in the root directory.</li> <li>– If you are selecting USB as the audio source after the system has finished indexing, SYNC plays all tracks sorted alphabetically by the title in the ID3 tag regardless of where they are located. SYNC uses the file name if the title in the ID3 tag does not exist.</li> <li>– If you are selecting the option to play all tracks from the browsing menu, SYNC plays all tracks sorted alphabetically by the title in the ID3 tag regardless of where they are located. SYNC uses the file name if the title in the ID3 tag does not exist.</li> <li>– If you are selecting a track when using the explore device option, SYNC plays tracks sorted alphabetically by file name in the folder you have selected. SYNC then plays all tracks in any subfolders in the folder you have selected.</li> </ul>

**Phone**

Symptom	Possible Cause and Resolution
During a call, I can hear excessive background noise.	<ul style="list-style-type: none"> <li>– Incorrect cell phone settings.                             <ul style="list-style-type: none"> <li>• Check and adjust the audio settings on your cell phone. Refer to your cell phone's user manual.</li> </ul> </li> </ul>
During a call, I can hear the other person but they cannot hear me.	<ul style="list-style-type: none"> <li>– Cell phone malfunction.                             <ul style="list-style-type: none"> <li>• Switch your cell phone on and off, and vehicle <b>Bluetooth</b>® on and off and try again.</li> </ul> </li> <li>– Cell phone microphone muted.                             <ul style="list-style-type: none"> <li>• Unmute your cell phone microphone.</li> </ul> </li> <li>– Privacy mode is enabled.                             <ul style="list-style-type: none"> <li>• Switch off privacy mode.</li> </ul> </li> </ul>
During a call, I cannot hear the other person and they cannot hear me.	<ul style="list-style-type: none"> <li>– System restart required.                             <ul style="list-style-type: none"> <li>• Switch the ignition off and open the door. Close the door and lock the vehicle. Wait until the touchscreen is off and any illuminated USB ports are not illuminated. Unlock the vehicle, switch the ignition on and try again.</li> </ul> </li> </ul>

Symptom	Possible Cause and Resolution
<p>I cannot download a phonebook.</p>	<ul style="list-style-type: none"> <li>– Incompatible cell phone.                             <ul style="list-style-type: none"> <li>• Check the compatibility of your cell phone on our website.</li> </ul> </li> <li>– Incorrect cell phone settings.                             <ul style="list-style-type: none"> <li>• Allow the system to retrieve contacts from your cell phone. Refer to your cell phone's user manual.</li> </ul> </li> <li>– Incorrect system settings.                             <ul style="list-style-type: none"> <li>• Switch automatic phonebook download on. See <b>Settings</b> (page 555).</li> </ul> </li> <li>– Cell phone malfunction.                             <ul style="list-style-type: none"> <li>• Switch your cell phone off and on to reset it and try again.</li> </ul> </li> </ul>
<p>A message displays suggesting that my phonebook has downloaded but it is empty or it has missing contacts.</p>	<ul style="list-style-type: none"> <li>– Incorrect cell phone settings.                             <ul style="list-style-type: none"> <li>• Allow the system to retrieve contacts from your cell phone. Refer to your cell phone's user manual.</li> <li>• Check the location of the missing contacts on your cell phone. If they are stored on the SIM card, move them to the cell phone memory.</li> </ul> </li> <li>– Incorrect system settings.                             <ul style="list-style-type: none"> <li>• Switch automatic phonebook download on. See <b>Settings</b> (page 555).</li> </ul> </li> </ul>

## SYNC™ 3

Symptom	Possible Cause and Resolution
I cannot connect my cell phone.	<ul style="list-style-type: none"><li>– Incompatible cell phone.<ul style="list-style-type: none"><li>• Check the compatibility of your cell phone on our website.</li></ul></li><li>– Cell phone malfunction.<ul style="list-style-type: none"><li>• Switch your cell phone off and on to reset it and try again.</li><li>• Install the latest cell phone firmware.</li><li>• Delete your device from the system and delete SYNC from your device and try again.</li><li>• Switch automatic phonebook download off. See <b>Settings</b> (page 555).</li></ul></li></ul>
Text messaging does not work.	<ul style="list-style-type: none"><li>– You might not have switched on text message notifications.<ul style="list-style-type: none"><li>• Switch text message notifications on. See <b>Phone</b> (page 536).</li></ul></li><li>– Incompatible cell phone.<ul style="list-style-type: none"><li>• Check the compatibility of your cell phone on our website.</li></ul></li><li>– Cell phone malfunction.<ul style="list-style-type: none"><li>• Switch your cell phone off and on to reset it and try again.</li></ul></li></ul>
I cannot hear text messages.	<ul style="list-style-type: none"><li>– Device message sharing is not enabled.<ul style="list-style-type: none"><li>• Check the permissions on your device to ensure text message sharing is enabled.</li></ul></li><li>– Incompatible cell phone.<ul style="list-style-type: none"><li>• Check the compatibility of your cell phone on our website.</li></ul></li></ul>



## Navigation (If Equipped)

Symptom	Possible Cause and Resolution
I cannot enter a street name when I am abroad.	<ul style="list-style-type: none"> <li>– Incorrect entry method.                             <ul style="list-style-type: none"> <li>• Enter the street name with the country.</li> </ul> </li> </ul>
The system does not recognize coordinates.	<ul style="list-style-type: none"> <li>– Using the wrong coordinates format.                             <ul style="list-style-type: none"> <li>• Use the format <code>##.#####</code>, <code>##.#####</code> (for N/S, E/W). Add a minus before coordinates if the direction is West and keep a positive value if the direction is East, for example 12.5412 means East and -12.5412 means West.</li> </ul> </li> </ul>

## Apps

Symptom	Possible Cause and Resolution
The system cannot find any apps.	<ul style="list-style-type: none"> <li>– Incompatible device.                             <ul style="list-style-type: none"> <li>• You need an Android device with OS 4.3 or higher or an iOS device with iOS 8.0 or higher. Pair and connect your Android device to find compatible apps. Connect your iOS device to a USB port or pair and connect using <b>Bluetooth®</b>.</li> </ul> </li> </ul>
I have a compatible device and it is correctly connected but the system still cannot find any apps.	<ul style="list-style-type: none"> <li>– Compatible apps are not installed on your device.                             <ul style="list-style-type: none"> <li>• Download and install the latest version of the app.</li> </ul> </li> <li>– Compatible apps are not running on your device.                             <ul style="list-style-type: none"> <li>• Start the apps to allow the system to find them and make sure you sign in to any apps if required.</li> </ul> </li> <li>– Incorrect app settings.                             <ul style="list-style-type: none"> <li>• Check and adjust the app settings on your device and allow SYNC to access the app if required.</li> </ul> </li> </ul>
I have a compatible device, it is correctly connected and my apps are running but the system still cannot find any apps.	<ul style="list-style-type: none"> <li>– Apps failed to fully close.                             <ul style="list-style-type: none"> <li>• Restart the apps and try again.</li> <li>• If you have an Android device with apps that have an exit or quit option, use this and then restart the apps. Alternatively, use the force stop option in the settings menu on your device.</li> <li>• If you have an iOS device with iOS 8.0 or higher, tap the home button on your device twice and then swipe the app upward to close it.</li> </ul> </li> </ul>

Symptom	Possible Cause and Resolution
I have an Android device that is correctly connected, I have restarted my apps and they are running but the system still cannot find them.	<ul style="list-style-type: none"> <li>– An issue on some older versions of the Android operating system could result in apps not being found.                             <ul style="list-style-type: none"> <li>• Switch <b>Bluetooth</b>® off and on again to force the system to reconnect to your device.</li> </ul> </li> </ul>
I have an iOS device that is correctly connected, I have restarted my apps and they are running but the system still cannot find them.	<ul style="list-style-type: none"> <li>– Cable connection issue.                             <ul style="list-style-type: none"> <li>• Disconnect the cable from your device, wait for a moment and then connect it again to force the system to reconnect to your device.</li> </ul> </li> </ul>
I have an Android device running a media app which the system has found but I cannot hear the sound or the sound is very quiet.	<ul style="list-style-type: none"> <li>– Device volume is low.                             <ul style="list-style-type: none"> <li>• Turn the volume up on your device.</li> </ul> </li> </ul>
I have an Android device running a number of compatible apps but the system cannot find all of them.	<ul style="list-style-type: none"> <li>– Device limitation. If you have more apps running on your device than the number of available <b>Bluetooth</b>® links, the system cannot find all of them.                             <ul style="list-style-type: none"> <li>• Close some of the apps to allow the system to find those that you want to use.</li> </ul> </li> </ul>

**Wi-Fi Connectivity**

Symptom	Possible Cause and Resolution
I cannot connect to a Wi-Fi network.	<ul style="list-style-type: none"> <li>– Password error.                             <ul style="list-style-type: none"> <li>• Enter the correct network password.</li> </ul> </li> <li>– Weak network signal.                             <ul style="list-style-type: none"> <li>• Move your vehicle closer to the Wi-Fi hotspot or to a place where the network signal is not obstructed.</li> </ul> </li> <li>– Multiple access points in range with the same SSID.                             <ul style="list-style-type: none"> <li>• Use a unique name for your SSID. Do not use the default name unless it contains a unique identifier, for example as part of the MAC address.</li> </ul> </li> </ul>
The Wi-Fi connection disconnects after successful connection.	<ul style="list-style-type: none"> <li>– Weak network signal.                             <ul style="list-style-type: none"> <li>• Move your vehicle closer to the Wi-Fi hotspot or to a place where the network signal is not obstructed.</li> </ul> </li> </ul>
I am close to a Wi-Fi hotspot but the network signal strength is weak.	<ul style="list-style-type: none"> <li>– Obstructed network signal.                             <ul style="list-style-type: none"> <li>• If your vehicle has a heated windshield, position your vehicle so that the windshield is not facing the Wi-Fi hotspot.</li> <li>• If your vehicle has metallic tinting on the windows but not on the windshield, position your vehicle so that the windshield is facing the Wi-Fi hotspot or open the windows that are facing the hotspot.</li> <li>• If your vehicle has metallic tinting on the windows and the windshield, open the windows that are facing the hotspot.</li> </ul> </li> </ul>

## SYNC™ 3

Symptom	Possible Cause and Resolution
	<ul style="list-style-type: none"> <li>• If your vehicle is in a garage and you have the garage door closed, open the garage door.</li> </ul>
I cannot see a network in the list of available networks that I expect to see.	<ul style="list-style-type: none"> <li>– Hidden network.               <ul style="list-style-type: none"> <li>• Make the network visible and try again.</li> </ul> </li> </ul>
I cannot see SYNC when I search for Wi-Fi networks on my cell phone or other device.	<ul style="list-style-type: none"> <li>– System limitation.               <ul style="list-style-type: none"> <li>• SYNC does not provide a Wi-Fi hotspot at this time.</li> </ul> </li> </ul>
Software downloads take too long.	<ul style="list-style-type: none"> <li>– Weak network signal               <ul style="list-style-type: none"> <li>• Move your vehicle closer to the Wi-Fi hotspot or to a place where the network signal is not obstructed.</li> </ul> </li> <li>– Wi-Fi hotspot in high demand or has a slow Internet connection.               <ul style="list-style-type: none"> <li>• Use a more reliable Wi-Fi hotspot.</li> </ul> </li> </ul>
The system seems to connect to a Wi-Fi network and the signal strength is excellent but the software does not update.	<ul style="list-style-type: none"> <li>– No software update available.</li> <li>– Wi-Fi network requires a subscription or acceptance of terms and conditions.               <ul style="list-style-type: none"> <li>• Test the connection using another device. If the network requires a subscription or acceptance of terms and conditions, contact the network service provider.</li> </ul> </li> </ul>

## Personal Profiles (If Equipped)

Symptom	Possible Cause and Resolution
I cannot create a profile.	You might not have set up Personal Profiles.
	You might have entered an invalid profile.
	You might not have selected a memory button when prompted.
	You might not have the ignition on or in park (P), or you shifted out park (P) when creating a profile.
	Personal Profiles has been switched off.
I cannot link a remote control.	You might not have selected the lock button on the remote control.
	The remote control selected was already associated with another profile and the system declined to overwrite.
	The system performed a profile recall when linking a remote control.
	You might not have the ignition on or in park (P), or you shifted out park (P) when creating a profile.
	You might be using the old linking method.
My personalized settings do not save.	Personal Profiles does not support your unsaved settings.
	A different personal profile is active.
	Another user changed the settings for the wrong personal profile.

Symptom	Possible Cause and Resolution
My profile will not recall.	You might not have created a personal profile.
	Personal Profiles is turned off.
	The profile you requested is already active.
	You might not have linked the memory button you are using to a profile.
	You might not have linked the remote control you are using to a profile.
	You might be using the wrong remote control.
	You might be pressing a button other than the unlock or remote start on a linked remote control.
	You might have deleted the personal profile.
My preset positions recall, but my profile does not.	Personal Profiles is turned off.
My profile recalls but my preset positions do not.	The vehicle is in motion.
	The preset positions are the same as the guest or previously active profile.

Symptom	Possible Cause and Resolution
I lost a remote control.	Unlink and relink your remote control in the Personal Profiles menu. You may need to see your authorized dealer.
I lost all profiles.	You might have erased and reprogrammed the remote controls. This could happen if you let a dealership add a new remote control to replace a lost one.
	Someone performed a master reset.

## Resetting the System

1. Simultaneously press and hold the seek up and the audio unit power buttons until the screen goes black.
2. Wait three minutes to allow the system to complete the reset.
3. Press the audio unit power button to switch the system on.

**Note:** *You can reset the system to restore functionality that has stopped working. The system reset is designed to restore functionality and not delete any data that you have stored.*

## Additional Information and Assistance

For additional information and assistance, we recommend that you contact an authorized dealer or refer to our website.



# Accessories

For a complete listing of the accessories that are available for your vehicle, please contact your authorized dealer or visit the online store website:

<b>Web Address (United States)</b>
<a href="https://accessories.lincoln.com/">https://accessories.lincoln.com/</a>

<b>Web Address (Canada)</b>
<a href="http://www.lincolncanada.com">www.lincolncanada.com</a>

We will repair or replace any properly authorized dealer-installed Lincoln Original Accessory found to be defective in factory-supplied materials or workmanship during the warranty period, as well as any component damaged by the defective accessories.

We will warrant your Lincoln Original Accessory through the warranty that provides the greatest benefit:

- 24 months, unlimited mileage.
- The remainder of your new vehicle limited warranty.

## Lincoln Licensed Accessories

The accessory manufacturer designs, develops and therefore warrants Lincoln Licensed Accessories, and does not design or test these accessories to Lincoln engineering requirements. Contact an authorized Lincoln dealer for the accessory manufacturer's limited warranty details and request a copy of the Lincoln Licensed Accessories product limited warranty from the accessory manufacturer. See your warranty guide for more information.

For maximum vehicle performance, keep the following information in mind when adding accessories or equipment to your vehicle:

- When adding accessories, equipment, passengers and luggage to your vehicle, do not exceed the total weight capacity of the vehicle or of the front or rear axle (GVWR or GAWR as indicated on the Safety Compliance Certification label). Ask an authorized dealer for specific weight information.
- The Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulate the use of mobile communications systems that have radio transmitters, for example two-way radios, telephones and theft alarms. Any such equipment installed in your vehicle should comply with Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulations and should only be installed by an authorized dealer.

# Accessories

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- Mobile communications systems may harm the operation of your vehicle, particularly if their manufacturer did not design them specifically for automotive use.
- If you or an authorized Lincoln dealer add any non-Lincoln electrical or electronic accessories or components to your vehicle, you may adversely affect battery performance and durability. In addition, you may also adversely affect the performance of other electrical systems in the vehicle.

# Lincoln Protect

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Protect yourself from the rising cost of vehicle repairs with a Lincoln Protect Extended Service Plan.

## **Lincoln Protect Extended Service Plans - United States Only**

Lincoln Protect means peace of mind. It is the extended service plan backed by Lincoln, and provides more protection beyond the New Vehicle Limited Warranty coverage. When you visit your Lincoln Dealer, insist on genuine Lincoln Protect extended service plans.

## **Lincoln Protect Extended Service Plan Can Quickly Pay for Itself**

One trip to the Service Center could easily exceed the price of your Lincoln Protect extended service plan. With Lincoln Protect you minimize your risk for unexpected repair bills and rising repair costs.

## **Up to 1000+ Covered Vehicle Components**

There are four mechanical Lincoln Protect extended service plans with different levels of coverage. Ask your authorized dealer for details.

1. PremiumCARE - Our most comprehensive coverage. With over 1,000 covered components, this plan is so complete it's probably easier to list what's not covered.
2. ExtraCARE - Covers 113 components, and includes many high-tech items.
3. BaseCARE - Covers 84 components.
4. PowertrainCARE - Covers 29 critical components.

Lincoln Protect extended service plans are honored by all authorized Lincoln dealers in the United States, Canada and Mexico.

That means you get:

- Reliable, quality service at any Lincoln or Ford dealership.
- Repairs performed by factory trained technicians, using genuine parts.

## **Rental Car Reimbursement**

### ***First Day Rental Benefit***

If you bring your car into your dealer for service, we will give you a loaner to use for the day.

### ***Extended Rental Benefits***

If your vehicle is kept overnight for covered repairs, you are eligible for rental car coverage, including bumper to bumper warranty repairs, and Field Service Actions.

## **Roadside Assistance**

Exclusive 24/7 roadside assistance, including:

- Towing, flat-tire change and battery jump starts.
- Out of fuel and lock-out assistance.
- Travel expense reimbursement for lodging, meals and rental car.
- Assistance for taxi, shuttle, rental car coverage and other transportation.

# Lincoln Protect

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## Transferable Coverage

If you sell your vehicle before your Lincoln Protect extended service plan coverage expires, you can transfer any remaining coverage to the new owner. Which should give you and your potential buyer a little more peace of mind.

## Less Cost to Properly Maintain Your Vehicle

The Lincoln Protect extended service plan also offers a Premium Maintenance Plan that covers all scheduled maintenance, and selected wear items. The coverage is prepaid, so you never have to worry about the cost of your vehicle's maintenance.

Covered maintenance includes:

- Windshield wiper blades.
- Spark plugs.
- Clutch disc - if equipped.
- Brake pads and linings.
- Shock absorbers and struts.
- Engine cooling hoses, clamps and o-rings.

- Engine belts.
- Diesel exhaust fluid replenishment - if equipped.

## Interest Free Finance Options

Just a 10% down payment will provide you with an affordable, no interest, no fee payment program allowing you all the security and benefits Lincoln Protect extended service plan has to offer while paying over time. You are pre-approved with no credit check or hassles. To learn more, call our Lincoln Protect extended service plan specialists at 800-367-3377.

Complete the following information and mail to:

Lincoln Protect Extended Service Plan  
P.O. Box 321067  
Detroit, MI 48232

## Lincoln Protect - Canada Only

You can get more protection for your vehicle by purchasing a Lincoln Protect extended service plan. Lincoln Protect extended service plan is the only service contract backed by Lincoln. Depending on the plan you purchase, Lincoln Protect extended service plan provides benefits such as:

- Rental reimbursement.
- Coverage for certain maintenance and wear items.
- Protection against repair costs after your New Vehicle Limited Warranty Coverage expires.
- Roadside Assistance benefits.

# Lincoln Protect

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There are several Lincoln Protect extended service plans available in various time, distance and deductible combinations. Each plan is tailored to fit your own driving needs, including reimbursement for towing and rental. When you purchase Lincoln Protect extended service plan, you receive added peace-of-mind protection throughout Canada, the United States and Mexico, provided by a network of participating authorized Lincoln dealers.

**Note:** *Repairs performed outside of Canada, the United States and Mexico are not eligible for Lincoln Protect extended service plan coverage.*

This information is subject to change. For more information, visit your local Lincoln of Canada dealer or [www.LincolnCanada.com](http://www.LincolnCanada.com) to find the Lincoln Protect extended service plan that is right for you.

# Scheduled Maintenance

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## GENERAL MAINTENANCE INFORMATION

### Why Maintain Your Vehicle?

Carefully following the maintenance schedule helps protect against major repair expenses resulting from neglect or inadequate maintenance and may help to increase the value of your vehicle when you sell or trade it. Keep all receipts for completed maintenance with your vehicle.

We have established regular maintenance intervals for your vehicle based upon rigorous testing. It is important that you have your vehicle serviced at the proper times. These intervals serve two purposes; one is to maintain the reliability of your vehicle and the second is to keep your cost of owning your vehicle down.

It is your responsibility to have all scheduled maintenance performed and to make sure that the materials used meet the specifications identified in this owner's manual. See **Capacities and Specifications** (page 461).

Failure to perform scheduled maintenance invalidates warranty coverage on parts affected by the lack of maintenance.

### Why Maintain Your Vehicle at Your Dealership?

#### Factory-Trained Technicians

Service technicians participate in extensive factory-sponsored certification training to help them become experts on the operation of your vehicle. Ask your dealership about the training and certification their technicians have received.

#### Genuine Ford and Motorcraft® Replacement Parts

Dealerships stock Ford, Motorcraft and Ford-authorized branded re-manufactured replacement parts. These parts meet or exceed our specifications. Parts installed at your dealership carry a nationwide 24-month or unlimited mile (kilometer) parts and labor limited warranty.

If you do not use our authorized parts, they may not meet our specifications and depending on the part, it could affect emissions compliance.

#### Convenience

Many dealerships have extended evening and Saturday hours to make your service visit more convenient and they offer one stop shopping. They can perform any services that are required on your vehicle, from general maintenance to collision repairs.

**Note:** *Not all dealers have extended hours or body shops. Please contact your dealer for details.*

#### Protecting Your Investment

Maintenance is an investment that pays dividends in the form of improved reliability, durability and resale value. To maintain the proper performance of your vehicle and its emission control systems, make sure you have scheduled maintenance performed at the designated intervals.

# Scheduled Maintenance

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Your vehicle has an Intelligent Oil-Life Monitor system, a message appears in the information display at the proper oil change interval. This interval may be up to one year or 10,000 mi (16,000 km), hybrid vehicles may exceed 10,000 mi (16,000 km).

When the oil change message appears in the information display, it is time for an oil change. Make sure you perform the oil change within two weeks or 500 mi (800 km) of the message appearing. Make sure you reset the Intelligent Oil-Life Monitor after each oil change. See **Oil Change Indicator Reset** (page 397).

If your information display resets prematurely or becomes inoperative, you should perform the oil change interval at six months or 5,000 mi (8,000 km) from your last oil change. Never exceed one year or 10,000 mi (16,000 km) between oil change intervals,

Your vehicle is very sophisticated and built with multiple, complex, performance systems. Every manufacturer develops these systems using different specifications and performance features. That is why it is important to rely upon your dealership to properly diagnose and repair your vehicle.

We have recommended maintenance intervals for various parts and component systems based upon engineering testing. We rely upon this testing to determine the most appropriate mileage for replacement of oils and fluids to protect your vehicle at the lowest overall cost to you and recommends against maintenance schedules that deviate from the scheduled maintenance information.

We strongly recommend the use of only genuine Ford, Motorcraft or Ford-authorized re-manufactured replacement parts engineered for your vehicle.

## Additives and Chemicals

This owner's manual and our Workshop Manual list the recommended additives and chemicals for your vehicle. We do not recommend using chemicals or additives not approved by us as part of your vehicle's normal maintenance. Please consult your warranty information.

## Oils, Fluids and Flushing

In many cases, fluid discoloration is a normal operating characteristic and, by itself, does not necessarily indicate a concern or that the fluid needs to be changed. However, a qualified expert, such as the factory-trained technicians at your dealership, should inspect discolored fluids that also show signs of overheating or foreign material contamination immediately.

# Scheduled Maintenance

Make sure to change your vehicle's oils and fluids at the specified intervals or in conjunction with a repair. Flushing is a viable way to change fluid for many vehicle sub-systems during scheduled maintenance.

It is critical that systems are flushed only with new fluid that is the same as that required to fill and operate the system or using a Ford-approved flushing chemical.

## Owner Checks and Services

Make sure you perform the following basic maintenance checks and inspections every month or at six-month intervals.

<b>Check Every Month</b>
Engine oil level.
Function of all interior and exterior lights.
Tires (including spare) for wear and proper pressure.
Windshield washer fluid level.
Fuel and water separator. Drain if necessary (or if indicated by the information display).
Holes and slots in the tail pipe to make sure they are functional and clear of debris.

<b>Check Every Six Months</b>
Battery connections. Clean if necessary.
Body and door drain holes for obstructions. Clean if necessary.
Cooling system fluid level and coolant strength.
Door weatherstrips for wear. Lubricate if necessary.



# Scheduled Maintenance

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<b>Check Every Six Months</b>
Hinges, latches and outside locks for proper operation. Lubricate if necessary.
Parking brake for proper operation.
Seatbelts and seat latches for wear and function.
Safety warning lamps (brake, ABS, airbag and seatbelt) for operation.
Washer spray and wiper operation. Clean or replace blades as necessary.

## Multi-Point Inspection

In order to keep your vehicle running right, it is important to have the systems on your vehicle checked regularly. This can help identify potential issues and prevent major problems. We recommend having the following multi-point inspection performed at every scheduled maintenance interval to help make sure your vehicle keeps running great.

## Scheduled Maintenance

Multi-Point Inspection	
Accessory drive belt(s)	Hazard warning system operation
Battery performance	Horn operation
Engine air filter	Radiator, cooler, heater and air conditioning hoses
Exhaust system	Suspension components for leaks or damage
Exterior lamps operation	Steering and linkage
Fluid levels <sup>1</sup> ; fill if necessary	Tires (including spare) for wear and proper pressure <sup>2</sup>
For oil and fluid leaks	Windshield for cracks, chips or pits
Half-shaft dust boots	Washer spray and wiper operation

<sup>1</sup> Brake, coolant recovery reservoir, automatic transmission and window washer.

<sup>2</sup> If your vehicle comes with a temporary mobility kit, check the tire sealant expiration Use By date on the canister. Replace as needed.

Be sure to ask your dealership service advisor or technician about the multi-point vehicle inspection. It is a comprehensive way to perform a thorough inspection of your vehicle. Your checklist gives you immediate feedback on the overall condition of your vehicle.

# Scheduled Maintenance

## NORMAL SCHEDULED MAINTENANCE

### Intelligent Oil-Life Monitor™

Your vehicle has an Intelligent Oil-Life Monitor that determines when you should change the engine oil based on how you use your vehicle. By using several important

factors in its calculations, the monitor helps reduce the cost of owning your vehicle and reduces environmental waste at the same time.

This means you do not have to remember to change the oil on a mileage-based schedule. Your vehicle lets you know when an oil change is due by displaying a message in the information display.

The following table provides examples of vehicle use and its impact on oil change intervals. It is a guideline only. Actual oil change intervals depend on several factors and generally decrease with severity of use.

When to Expect the OIL CHANGE REQUIRED Message	
Interval <sup>1</sup>	Vehicle Use and Example
7,500–10,000 mi (12,000–16,000 km)	<b>Normal</b>
	Normal commuting with highway driving No, or moderate, load or towing Flat to moderately hilly roads No extended idling
5,000–7,500 mi (8,000–12,000 km)	<b>Severe</b>
	Moderate to heavy load or towing Mountainous or off-road conditions Extended idling Extended hot or cold operation

# Scheduled Maintenance

When to Expect the OIL CHANGE REQUIRED Message	
Interval <sup>1</sup>	Vehicle Use and Example
3,000–5,000 mi (5,000–8,000 km)	<b>Extreme</b>
	Maximum load or towing Extreme hot or cold operation Extended engine idling

<sup>1</sup>Hybrid vehicles may achieve longer distances between oil changes, but do not exceed the one year max oil change interval. Remaining oil life can be accessed through the information display. See **Information Displays** (page 136).

## Maintenance Intervals

At Every Oil Change Interval as Indicated by the Information Display <sup>1</sup>
Change the engine oil and filter. <sup>2</sup>
Rotate the tires.
Perform a multi-point inspection, recommended.
Inspect the automatic transmission fluid level. Consult your dealer for requirements.
Inspect the brake pads, rotors, hoses and the parking brake.
Inspect the engine coolant level and strength and the hoses.

## Scheduled Maintenance

### At Every Oil Change Interval as Indicated by the Information Display <sup>1</sup>

Inspect the exhaust system and heat shields.

Inspect the rear axle and U-joints for all-wheel drive vehicles.

Inspect the half-shaft boots.

Inspect the steering linkage, ball joints, suspension, tie-rod ends, driveshaft and the U-joints.

Inspect the tires, tire wear and measure the tread depth.

Inspect the wheels and related components for abnormal noise, wear, looseness or drag.

<sup>1</sup> Do not exceed one year or 10,000 mi (16,000 km) between service intervals.

<sup>2</sup> Reset the Intelligent Oil-Life Monitor after engine oil and filter changes. See **Oil Change Indicator Reset** (page 397).

### Brake Fluid Maintenance <sup>1</sup>

Every Three Years

Change the brake fluid.<sup>2</sup>

<sup>1</sup> Perform this maintenance item every three years. Do not exceed the designated time for the interval.

<sup>2</sup> Brake fluid servicing requires special equipment available at your authorized dealer.

# Scheduled Maintenance

Other Maintenance Items <sup>1</sup>	
Every 20,000 mi (32,000 km)	Replace the cabin air filter.
Every 30,000 mi (48,000 km)	Replace the engine air filter.
Every 100,000 mi (160,000 km)	Replace the spark plugs.
	Inspect the accessory drive belt or belts. <sup>2</sup>
Every 150,000 mi (240,000 km)	Change the automatic transmission fluid.
	Replace the accessory drive belt or belts. <sup>3</sup>
At 200,000 mi (320,000 km)	Change the engine coolant. <sup>4</sup>

<sup>1</sup> Perform these maintenance items within 3,000 mi (4,800 km) of the last engine oil and filter change. Do not exceed the designated distance for the interval.

<sup>2</sup> After initial inspection, inspect every other oil change until replaced.

<sup>3</sup> If not replaced within the last 100,000 mi (160,000 km).

<sup>4</sup> Initial replacement at 10 years or 200,000 mi (320,000 km), then every 5 years or 100,000 mi (160,000 km).

# Scheduled Maintenance

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## **SPECIAL OPERATING CONDITIONS SCHEDULED MAINTENANCE**

If you operate your vehicle **primarily** in any of the following conditions, you need to perform extra maintenance as indicated. If you operate your vehicle **occasionally** under any of these conditions, it is not necessary to perform the extra maintenance. For specific recommendations, see your dealership service advisor or technician.

Perform the services shown in the following tables when specified or within 3,000 mi (4,800 km) of the message appearing in the information display prompting you to change your oil.

- **Example 1:** The message comes on at 28,750 mi (46,270 km). Perform the 30,000 mi (48,000 km) automatic transmission fluid replacement.
- **Example 2:** The message has **not** come on, but the odometer reads 30,000 mi (48,000 km) (for example, the Intelligent Oil-Life Monitor was reset at 25,000 mi (40,000 km)). Perform the engine air filter replacement.

## Scheduled Maintenance

<b>Towing a Trailer or Using a Car-top Carrier</b>	
As required	Change engine oil and filter as indicated by the information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Inspect rear axle and U-joints (AWD).
Every 30,000 mi (48,000 km)	Change automatic transmission fluid.
Every 60,000 mi (96,000 km)	Replace spark plugs.

<b>Extensive Idling or Low-speed Driving for Long Distances, as in Heavy Commercial Use Such as Delivery, Taxi, Patrol Car or Livery</b>	
As required	Change engine oil and filter as indicated by the information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Replace cabin air filter. <sup>1</sup>
	Replace engine air filter.



# Scheduled Maintenance

<b>Extensive Idling or Low-speed Driving for Long Distances, as in Heavy Commercial Use Such as Delivery, Taxi, Patrol Car or Livery</b>	
Every 30,000 mi (48,000 km)	Change automatic transmission fluid.
Every 60,000 mi (96,000 km)	Replace spark plugs.

<sup>1</sup> This is an optional feature.

<b>Operating in Dusty or Sandy Conditions Such as Unpaved or Dusty Roads</b>	
Inspect frequently, service as required	Replace cabin air filter. <sup>1</sup>
	Replace engine air filter.
Every 5,000 mi (8,000 km)	Inspect the wheels and related components for abnormal noise, wear, looseness or drag.
	Rotate tires, inspect tires for wear and measure tread depth.
Every 5,000 mi (8,000 km) or six months	Change engine oil and filter. <sup>2</sup>

# Scheduled Maintenance

Operating in Dusty or Sandy Conditions Such as Unpaved or Dusty Roads	
	Perform multi-point inspection.
Every 30,000 mi (48,000 km)	Change automatic transmission fluid.

<sup>1</sup> This is an optional feature.

<sup>2</sup> Reset your Intelligent Oil-Life Monitor after engine oil and filter changes. See **Oil Change Indicator Reset** (page 397).

## Exceptions

There are several exceptions to the Normal Schedule:

### Axle and PTU Maintenance

The Power Transfer Unit (PTU) and rear axle (AWD only) in your vehicle does not require any normal scheduled maintenance unless the vehicle has experienced extended periods of extreme/severe duty cycle driving or the PTU and/or the rear axle has been submerged in water. Checking the PTU and rear axle fluid is not necessary unless the unit shows signs of leakage. Contact an authorized dealer for service.

### California Fuel Filter Replacement

If you register your vehicle in California, the California Air Resources Board has determined that the failure to perform this maintenance item does not nullify the emission warranty or limit recall liability before the completion of your vehicle's useful life. We however, urge you to have all recommended maintenance services performed at the specified intervals and to record all vehicle service.

### Engine Air Filter and Cabin Air Filter Replacement

The life of the engine air filter and cabin air filter is dependent on exposure to dusty and dirty conditions. Vehicles operated in these conditions require frequent inspection and replacement of the engine air filter and cabin air filter.

# Customer Information

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**RADIO FREQUENCY CERTIFICATION  
LABELS**

**BLIND SPOT INFORMATION SYSTEM  
SENSORS**

**Argentina**



**Belarus**



**Brazil**



**Canada**

Short Range Radar Sensor SRR3-B

IC ID: 4135A-SRR3B

# Customer Information

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This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Radiofrequency radiation exposure information:

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and the body of any persons, user or bystander.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux rayonnements établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 8 in (20 cm) de distance entre la source de rayonnement et votre corps.

# Customer Information

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## Djibouti

AGREE PAR LE MCPT (REPUBLIQUE DE DJIBOUTI)  
Numéro d'agrément : 240/MCPT/SG/16  
Date d'agrément : 23/05/2016

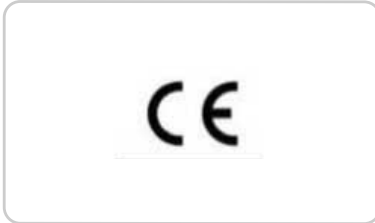
## Ghana

NCA PRODUCT IDENTIFIER: 3R8-8M-7DF-231

## Malaysia



## European Union EU



## Jamaica

This product has been Type Approved  
by Jamaica: SMA - SRR3-B.

RALM/24A/0715/S(15-2272)

# Customer Information

## Mauritania

AGREE PAR L'ANE MAURITANIE  
Numéro d'agrément : 0727/ARE/2018  
Date d'agrément : 10/12/2019

## Moldova



## Paraguay



## Mexico

IFETEL: RLVCSR15-0904

La operación de este equipo está sujeta a las siguientes dos condiciones:

- (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y
- (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

## Pakistan



## Russia



# Customer Information

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## Serbia

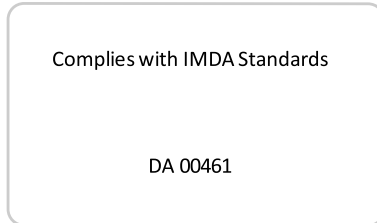


W011 18

## South Africa



## Singapore



## South Korea

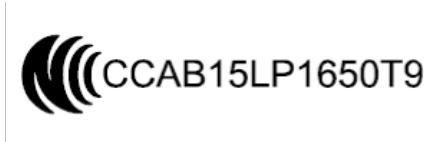


MSIP-CRM-8DC-SRR3B

# Customer Information

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## Taiwan, China



### 警語

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。



# Customer Information

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## Ukraine



справжнім FDC. Automotive Distance Control Systems GmbH заявляє, що тип радіобладнання SRR3 - В відповідає технічному регламенту радіобладнання;

повний текст декларації про відповідність доступний на веб-сайті за такою адресою :

<http://continental.automotive-approvals.com/>

# Customer Information

## United Arab Emirates (U.A.E.)

TRA  
REGISTERED No:  
ER62934

DEALER No:  
DA40068

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### CAUTION TO USERS

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## Vietnam



## United Kingdom



## United States of America

FCC ID: OAYSRR3B

## Zambia




# Customer Information

## REMOTE FUNCTION ACTUATOR

### China

CMIIT ID: 2018DJ4563

### United States and Canada

 **WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: HYQS2NA0

IC: 1551A-S2NA0

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## BODY CONTROL MODULE

### South Korea




R-R-175-P005

### United Arab Emirates (U.A.E.)

TRA  
REGISTERED NO: ER81343/20  
DEALER NO: DA88113/20

### United States and Canada

 **WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: LXPP004

# Customer Information

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IC: 2298A-P004

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## CRUISE CONTROL MODULE

### Argentina



### Brazil



### Djibouti

AGREE PAR LE MCPT (REPUBLIQUE DE DJIBOUTI)  
Numéro d'agrément : 594/dpt/2017  
Date d'agrément : 09/04/2017

### Ghana

NCA PRODUCT IDENTIFIER: OR2-9H-7E1-x4D

# Customer Information

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## Indonesia

SERTIFIKAT NOMOR : 53104/SDPPI/2017  
PLG ID: 4927



## Jamaica

This product has been Type Approved  
by Jamaica: SMA - L2C0065TR.

## Malaysia



RALM/61A/0318/S(18-0852)

## Mauritania

AGREE PAR L'ANE MAURITANIE  
Numéro d'agrément: 0409/ARE/2017  
Date d'agrément: 12/04/2017

## Moldova



# Customer Information

## Morocco

AGREE PAR L'ANRT MAROC  
Numéro d'agrément: MR 13639 ARNT 2017  
Date d'agrément: 28/03/2017

## Paraguay



## Singapore

Complies with IMDA Standards  
DA105753

## Pakistan



## Serbia



## South Africa

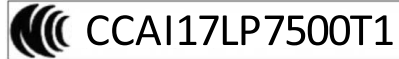


# Customer Information

## South Korea



## Taiwan, China



## United Arab Emirates



R-CMM-DLH-L2C0065TR

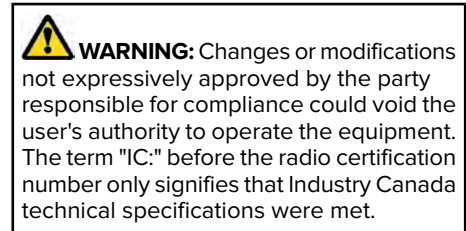
## Syria

SyTRA  
REGISTERED No:  
FR00085-17

## Ukraine



## United States and Canada



FCC ID: L2C0065TR

IC: 3432A-0065TR

# Customer Information

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

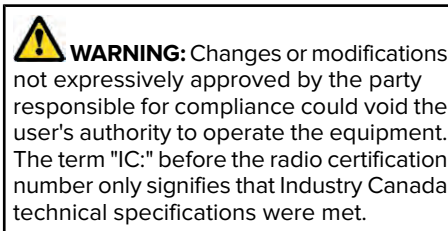
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Zambia



## GARAGE DOOR OPENER

### United States and Canada



FCC ID: NZLSAHL5E

IC: 4112A-SAHL5E

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## KEYS AND REMOTE CONTROLS

### Argentina

CNC: H-16366



CNC ID: H-22290



# Customer Information

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## Brazil



## Ghana

NCA APPROVED: 2R9-8M-7E0-x94

## Jamaica

This product has been Type Approved by Jamaica: SMA – M3N-A2C931426

This product has been Type Approved  
by Jamaica: SMA – A2C97102000

## Jordan

Type Approval No.: TRC/LPD/2016/143  
Equipment Type: Low Power Device (LPD)

## Djibouti

AGREE PAR LE MCPT (REPUBLIQUE DE DJIBOUTI)  
Numéro d'agrément : 287/MCPT/SC/16  
Date d'agrément : 02/07/2016

## Mauritania

AGREE PAR L'ANE MAURITANIE  
Numéro d'agrément : 0324/ARE/2016  
Date d'agrément : 07/03/2016

# Customer Information

## Moldova



## Morocco

AGREE PAR L'ANRT MAROC  
Numéro d'agrément : MR 12432 ANRT 2016  
Date d'agrément : 31/08/2016

## Paraguay



NR: 2016-9-I-000222

## Serbia



## Singapore

Complies with IMDA Standards

DA 00461

# Customer Information

## South Africa

MSIP-CRM-TAL-A2C97102000



## Ukraine



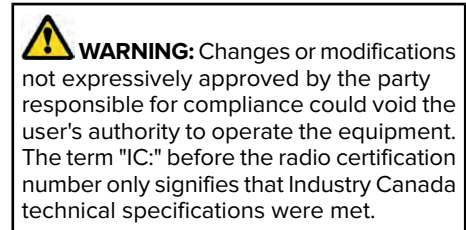
## United Arab Emirates (U.A.E.)

TRA  
REGISTERED No: ER47690/16  
DEALER No: DA37380/15

## South Korea



## United States and Canada



FCC ID: M3N-A2C931426

IC: 7812A-A2C931426

# Customer Information

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Vietnam



## Zambia



## RADIO TRANSCEIVER MODULE

## Argentina



## Brazil



## China

CMIIT ID: 2016DJ0249

## Djibouti

AGREE PAR LE MCPT (REPUBLIQUE DE DJIBOUTI)  
Numéro d'agrément : 033/DDTIC/2020  
Date d'agrément : 07/06/2020

# Customer Information

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## Indonesia

AGREE PAR LE MCPT (REPUBLIQUE DE DJIBOUTI)

Numéros d'agrément : 034/DDTIC/2020

Date d'agrément : 07/06/2020

SERTIFIKAT NOMOR : 44813/SDPPI/2016

PLG ID: 4940

## Mauritania

AGREE PAR L'ANE MAURITANIE

Numéro d'agrément : 0803/ARE/2020

Date d'agrément : 03/06/2020

## Jamaica

## Ghana

This product has been Type Approved by  
Jamaica: SMA – FO3-AM433RX

NCA PRODUCT IDENTIFIER: SRO-1M-7E4-114

AGREE PAR L'ANE MAURITANIE  
Numéro d'agrément : 0802/ARE/2020  
Date d'agrément : 03/06/2020

This product has been Type Approved by  
Jamaica: SMA - FO4-AM902TRB.

NCA PRODUCT IDENTIFIERS: SRO-1M-7E4-108

# Customer Information

## Moldova



## Pakistan



## Serbia



## Morocco

AGREE PAR L'ANE MAROC  
Numéro d'agrément : MR 24102 ANRT 2020  
Date d'agrément : 18/05/2020

## Paraguay



## South Africa



NR: 2016-9-I-00244

# Customer Information

## South Korea



KCC-REM-DDG-FO3

## Syria

SyTRA  
REGISTERED No:  
1508/4NK

## Taiwan




## Ukraine



## United Arab Emirates (U.A.E.)

TRA  
REGISTERED No: ER81341/20  
DEALER No.: DA88113/20

## United States and Canada

 **WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: L2C0062TR

# Customer Information

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Zambia

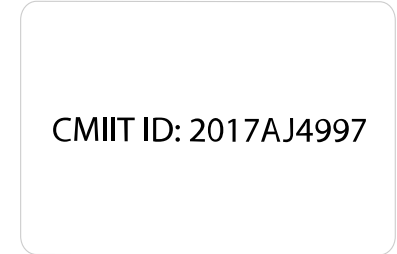


## SYNC

### Argentina



## China



## Brazil



## Djibouti





# Customer Information

## European Union EU



## Jamaica

This product has been Type Approved  
by Jamaica: SMA - FG-185-SG32-MH.

## Malaysia



RBAB/57H/0318/S(18-0624)

## Mauritania

AGREE PAR L'ANE MAURITANIE  
Numéro d'agrément: 0442/ARE/2017  
Date d'agrément: 21/11/2017

## Ghana

NCA PRODUCT IDENTIFIER: BR3-1M-GE2-04F

## Moldova



# Customer Information

## Morocco

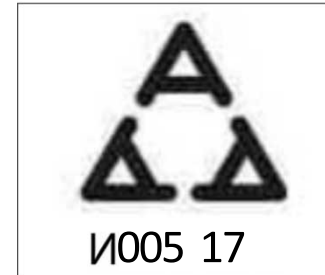
AGREE PAR L'ANRT MAROC  
Numéro d'agrément: MR 15193 ANRT 2017  
Date d'agrément: 22/11/2017

## Paraguay



NR: 2017-12-I-0000413

## Serbia



## Pakistan



## Singapore

Complies with IDA Standards

N4414-17

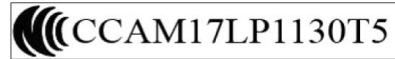
# Customer Information

## South Africa



MSIP-CMM-pAs-FA-170-BCAR-HS

## Taiwan



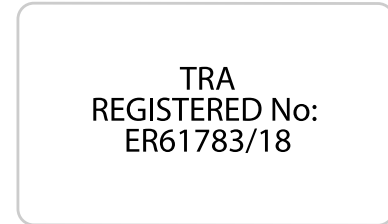
## Ukraine



## South Korea



## United Arab Emirates (U.A.E.)



# Customer Information

## United States and Canada



**WARNING:** Changes or modifications not expressly approved by the party

responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

SYNC Version	FCC Identification Number	IC Identification Number
3.0	ACJ-SYNCG3-L	216B-SYNCG3-L
3.1	ACJ-FA-170-BCARHS	216B-FA170BCARHS
3.2	ACJ-FG-185-SG32MH	216B-FG185SG32MH

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Vietnam



## Zambia



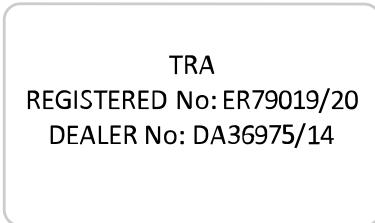
# Customer Information

## TELEMATICS CONTROL UNIT

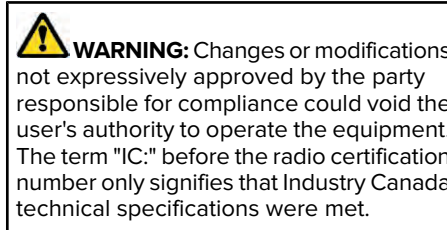
### Brazil



### United Arab Emirates (U.A.E.)



## United States and Canada



FCC ID: LHJ-FB40ND1

IC: 2807E-FB40ND1

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## TIRE PRESSURE MONITORING SYSTEM SENSORS - VEHICLES WITH: 315 MHZ SENSORS

### Brazil



Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

# Customer Information

## Mexico

IFT, RCPS-CAG19-1886  
"La operación de este equipo está sujeta a las siguientes dos condiciones:  
(1) es posible que este  
equipo o dispositivo no cause interferencia perjudicial y  
(2) este equipo o dispositivo debe aceptar  
cualquier interferencia, incluyendo la que pueda causar  
su operación no deseada."

## Singapore

Complies with IMDA Standards

DA 105282

## United States and Canada



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: MRXAG2SM3

IC: 2546A-AG2SM3

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Nigeria

Connection and use of this  
communications  
equipment is permitted by the Nigerian  
Communications Commission

## Taiwan



# Customer Information

## TIRE PRESSURE MONITORING SYSTEM SENSORS - VEHICLES WITH: 433 MHZ SENSORS

### Argentina



### Brazil



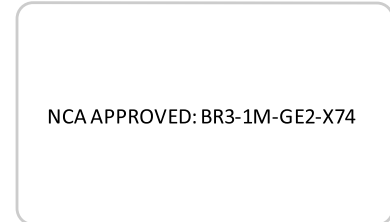
### Djibouti



### European Union EU

Hereby, Schrader Electronics Ltd. declares that the radio equipment type AG2SM4 is in compliance with Directive 2014/53/EU.  
The full text of the EU declaration of conformity is available at the following internet address:  
[http://www.tpmisepro@pp.com/documents/declaration\\_conformite](http://www.tpmisepro@pp.com/documents/declaration_conformite)  
F=433.50MHz  
P<10mW (e.i.r.p)  
Schrader Electronics Ltd. 11 Technology Park, Belfast Road, Antrim BT41 3QS, Northern Ireland United Kingdom

### Ghana



# Customer Information

## Jordan

Model: AG2SM4  
Manufacturer: Schrader Electronics Ltd  
Type Approval No: TRC/LPD/2018/161  
Equipment Type: Low Power Device (LPD)

## Mexico

IFT: RLVSCAG18-1012  
\*La operación de este equipo está sujeta a las siguientes dos condiciones:  
(1) es posible que este equipo o dispositivo no cause interferencia perjudicial y  
(2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.\*

## Morocco

AGREEPAR L'ANRT MAROC  
Numéro d'agrément: MR 16506 ANRT 2018  
Date d'agrément: 09/05/2018

## Mauritania

AGREEPAR L'ANE MAURITANIE  
Numéro d'agrément: 0489/ARE/2018  
Date d'agrément: 04/25/2018

## Moldova



## Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission



# Customer Information

## Oman

OMAN TRA  
R/5505/18  
D172249

## Paraguay



## Philippines



## Pakistan

Pakistan Telecommunication Authority



Approved by PTA 2016

NR: 2018-06-I-000224

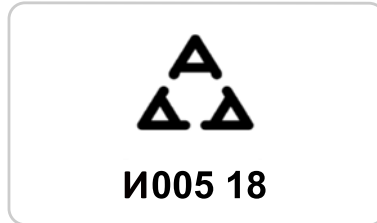
## Russia



# Customer Information

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## Serbia

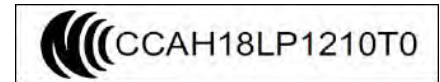


## South Africa

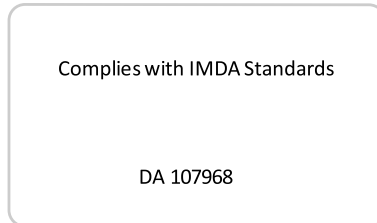


R-CRM-SRD-AG2SM4

## Taiwan



## Singapore



## South Korea

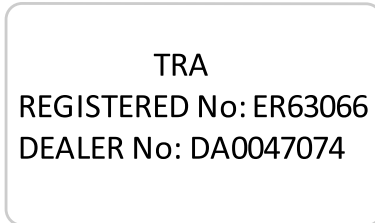


# Customer Information

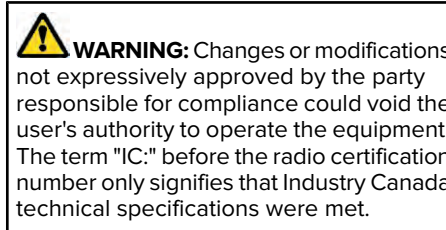
## Ukraine



## United Arab Emirates (U.A.E.)



## United States and Canada



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: 2546A- AG2SM4

IC: MRXAG2SM4

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Vietnam



## Zambia



# Customer Information

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## WIRELESS ACCESSORY CHARGING MODULE

### South Korea



R-R-1Ap-WACM2

### United States and Canada



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: L2C0094TR

IC: 3432A-0074TR

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

# Appendices

## ELECTROMAGNETIC COMPATIBILITY



**WARNING:** Do not place objects or mount equipment on or near the airbag cover, on the side of the front or rear seatbacks, or in areas that may come into contact with a deploying airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.



**WARNING:** Do not fasten antenna cables to vehicle wiring, fuel pipes and brake pipes.



**WARNING:** Keep antenna and power cables at least 4 in (10 cm) from any electronic modules and airbags.

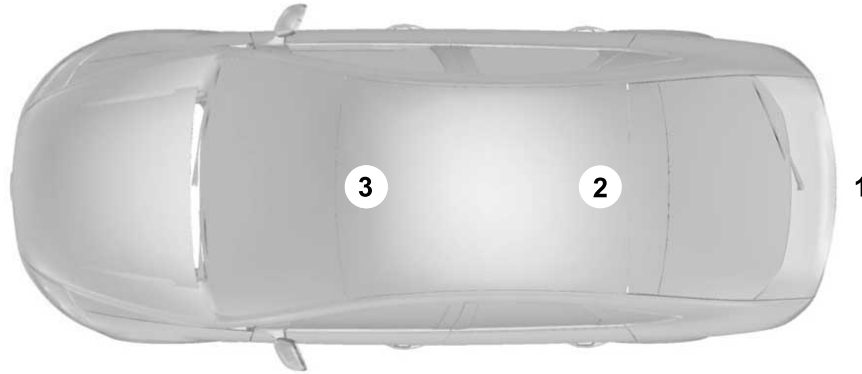
**Note:** We test and certify your vehicle to meet electromagnetic compatibility legislation. It is your responsibility to make sure that any equipment an authorized dealer installs on your vehicle complies with applicable local legislation and other requirements. Installation of some aftermarket electronic devices could degrade the performance of vehicle functions, which use radio frequency signals such as broadcast radio receiver, tire pressure monitoring system, push button start, **Bluetooth**<sup>®</sup> connectivity or satellite navigation.

**Note:** Any radio frequency transmitter equipment in your vehicle (such as cellular telephones and amateur radio transmitters) must keep to the parameters in the following illustrations and table. We do not provide any other special provisions or conditions for installations or use.

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## Car/SUV



# Appendices

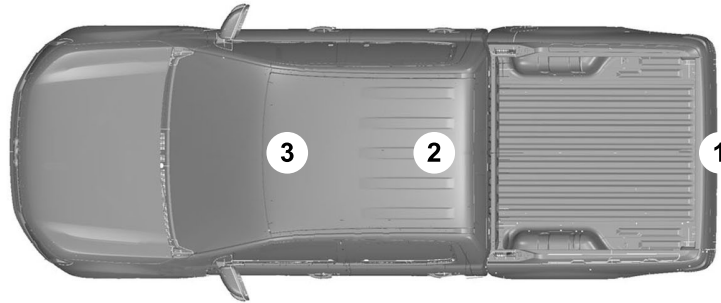
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## Van



# Appendices

## Truck



Frequency Band MHz	Maximum Output Power Watt (Peak RMS)	Antenna Positions
1-30	50	1
50-54	50	2, 3
68-88	50	2, 3



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<b>Frequency Band MHz</b>	<b>Maximum Output Power Watt (Peak RMS)</b>	<b>Antenna Positions</b>
142-176	50	2, 3
380-512	50	2, 3
806-870	10	2, 3

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## END USER LICENSE AGREEMENT

### VEHICLE SOFTWARE END USER LICENSE AGREEMENT (EULA) (If Equipped)

- You ("You" or "Your" as applicable) have acquired a vehicle having several devices, including SYNC ® and various control modules, ("DEVICES") that include software licensed or owned by Ford Motor Company and its affiliates ("FORD MOTOR COMPANY"). Those software products of FORD MOTOR COMPANY origin, as well as associated media, printed materials, and "online" or electronic documentation ("SOFTWARE") are protected by international intellectual property laws and treaties. The SOFTWARE is licensed, not sold. All rights reserved.
- The SOFTWARE may interface with and/or communicate with, or may be later upgraded to interface with and/or communicate with additional software and/or systems provided by FORD MOTOR COMPANY.

**IF YOU DO NOT AGREE TO THIS END USER LICENSE AGREEMENT ("EULA") DO NOT USE THE DEVICES OR COPY THE SOFTWARE. ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DEVICES, WILL CONSTITUTE YOUR AGREEMENT TO THIS EULA (OR RATIFICATION OF ANY PREVIOUS CONSENT).**

**GRANT OF SOFTWARE LICENSE:** This EULA grants you the following license:

- You may use the SOFTWARE as installed on the DEVICES and as otherwise interfacing with systems and/or services provide by or through FORD MOTOR COMPANY or its third party software and service providers.

#### **Description of Other Rights and Limitations**

- **Speech Recognition:** If the SOFTWARE includes speech recognition component(s), you should understand that speech recognition is an inherently statistical process and that recognition errors are inherent in the process. Neither FORD MOTOR COMPANY nor

its suppliers shall be liable for any damages arising out of errors in the speech recognition process. It is your responsibility to monitor any speech recognition functions included in the system.

- **Limitations on Reverse Engineering, Decompilation and Disassembly:** You may not reverse engineer, decompile, translate, disassemble or attempt to discover any source code or underlying ideas or algorithms of the SOFTWARE nor permit others to reverse engineer, decompile or disassemble the SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation or to the extent as may be permitted by the licensing terms governing use of any open source components included with the SOFTWARE.

# Appendices

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- **Limitations on Distributing, Copying, Modifying and Creating Derivative Works:** You may not distribute, copy, make modifications to or create derivative works based on the SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation or to the extent as may be permitted by the licensing terms governing use of any open source components included with the SOFTWARE.
- **Single EULA:** The end user documentation for the DEVICES and related systems and services may contain multiple EULAs, such as multiple translations and/or multiple media versions (e.g., in the user documentation and in the software). Even if you receive multiple EULAs, you are licensed to use only one (1) copy of the SOFTWARE.
- **SOFTWARE Transfer:** You may permanently transfer your rights under this EULA only as part of a sale or transfer of the DEVICES, provided you retain no copies, you transfer all of the SOFTWARE (including all component parts, the media and printed materials, any upgrades, and, if applicable, the Certificate(s) of Authenticity), and the recipient agrees to the terms of this EULA. If the SOFTWARE is an upgrade, any transfer must include all prior versions of the SOFTWARE.
- **Termination:** Without prejudice to any other rights, FORD MOTOR COMPANY may terminate this EULA if you fail to comply with the terms and conditions of this EULA.
- **Internet-Based Services Components:** The SOFTWARE may contain components that enable and facilitate the use of certain Internet-based services. You acknowledge and agree that FORD MOTOR COMPANY, third party software and service suppliers, its affiliates and/or its designated agent may automatically check the version of the SOFTWARE and/or its components that you are utilizing and may provide upgrades or supplements to the SOFTWARE that may be automatically downloaded to your DEVICES.
- **Additional Software/Services:** The SOFTWARE may permit FORD MOTOR COMPANY, third party software and service suppliers, its affiliates and/or its designated agent to provide or make available to you SOFTWARE updates, supplements, add-on components, or Internet-based services components of the SOFTWARE after the date you obtain your initial copy of the SOFTWARE ("Supplemental Components"). SOFTWARE updates may cause you to incur additional charges from your wireless service provider. If FORD MOTOR COMPANY or third party software and services suppliers provide or make available to you Supplemental Components and no other EULA terms are provided along with the Supplemental Components, then the terms of this EULA shall apply. FORD

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MOTOR COMPANY, its affiliates and/or its designated agent reserve the right to discontinue without liability any Internet-based services provided to you or made available to you through the use of the SOFTWARE.

# Appendices

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- **Links to Third Party Sites:** The SOFTWARE may provide you with the ability to link to third party sites. The third party sites are not under the control of FORD MOTOR COMPANY, its affiliates and/or its designated agent. Neither FORD MOTOR COMPANY nor its affiliates nor its designated agent are responsible for (i) the contents of any third party sites, any links contained in third party sites, or any changes or updates to third party sites, or (ii) webcasting or any other form of transmission received from any third party sites. If the SOFTWARE provides links to third party sites, those links are provided to you only as a convenience, and the inclusion of any link does not imply an endorsement of the third party site by FORD MOTOR COMPANY, its affiliates and/or its designated agent.
- **Obligation to Drive Responsibly:** You recognize your obligation to drive responsibly and keep attention on the road. You will read and abide with the DEVICES operating instructions particularly as they pertain to safety and you agree to assume any risk associated

with the use of the DEVICES.

**UPGRADES AND RECOVERY MEDIA:** If the SOFTWARE is provided by FORD MOTOR COMPANY separate from the DEVICES on media such as a ROM chip, CD ROM disk(s) or via web download or other means, and is labeled "For Upgrade Purposes Only" or "For Recovery Purposes Only" you may install one (1) copy of such SOFTWARE onto the DEVICES as a replacement copy for the existing SOFTWARE, and use it in accordance with this EULA, including any additional EULA terms accompanying the upgrade SOFTWARE.

**INTELLECTUAL PROPERTY RIGHTS:** All title and intellectual property rights in and to the SOFTWARE (including but not limited to any images, photographs, animations, video, audio, music, text and "applets" incorporated into the SOFTWARE), the accompanying printed materials, and any copies of the SOFTWARE, are owned by FORD MOTOR COMPANY, or its affiliates or suppliers. The SOFTWARE is licensed, not sold. You may not copy the printed materials accompanying the SOFTWARE. All title and intellectual property rights in and to the content which

may be accessed through use of the SOFTWARE is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content outside its intended use. All rights not specifically granted under this EULA are reserved by FORD MOTOR COMPANY, its affiliates, and third party software and service providers and suppliers. Use of any on-line services which may be accessed through the SOFTWARE may be governed by the respective terms of use relating to such services. If this SOFTWARE contains documentation that is provided only in electronic form, you may print one copy of such electronic documentation.

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**EXPORT RESTRICTIONS:** You acknowledge that the SOFTWARE is subject to U.S. and European Union export jurisdiction. You agree to comply with all applicable international and national laws that apply to the SOFTWARE, including the U.S. Export Administration Regulations, as well as end-user, end-use and destination restrictions issued by U.S. and other governments.

**TRADEMARKS:** This EULA does not grant you any rights in connection with any trademarks or service marks of FORD MOTOR COMPANY, its affiliates, and third party software and service providers.

The **Bluetooth**<sup>®</sup> word mark and logos are registered trademarks owned by **Bluetooth SIG, Inc.** and any use of such marks by Ford Motor Company is under license. Other trademarks and trade names are those of their respective owners.

**PRODUCT SUPPORT:** Please refer to FORD MOTOR COMPANY instructions provided in the documentation for the DEVICES product support, such as the vehicle owner guide.

Should you have any questions concerning this EULA, or if you desire to contact FORD MOTOR COMPANY for any other reason, please refer to the address provided in the documentation for the DEVICES.

**No Liability for Certain Damages:** EXCEPT AS PROHIBITED BY LAW, FORD MOTOR COMPANY, ANY THIRD PARTY SOFTWARE OR SERVICES SUPPLIERS, AND THEIR AFFILIATES SHALL HAVE NO LIABILITY FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE SOFTWARE. THIS LIMITATION SHALL APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE. THERE ARE NO WARRANTIES OTHER THAN THOSE THAT MAY BE EXPRESSLY PROVIDED FOR YOUR NEW VEHICLE.

## **SYNC<sup>®</sup> Automotive Important Safety Information Read and follow instructions:**

- Before using your SYNC<sup>®</sup> system, read and follow all instructions and safety information provided in this end user manual ("Owner Guide"). Not following precautions found in the Owner Guide can lead to an accident or other serious injuries.

### General Operation

- **Voice Command Control:** Certain functions within the SYNC<sup>®</sup> system may be accomplished using voice commands. Using voice commands while driving helps you to operate the system without removing your hands from the wheel or eyes from the road.
- **Prolonged Views of Screen:** Do not access any function requiring a prolonged view of the screen while you are driving. Pull over in a safe and legal manner before attempting to access a function of the system requiring prolonged attention.

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- **Volume Setting:** Do not raise the volume excessively. Keep the volume at a level where you can still hear outside traffic and emergency signals while driving. Driving while unable to hear these sounds could cause an accident.
- **Navigation Features:** Any navigation features included in the system are intended to provide turn by turn instructions to get you to a desired destination. Please make certain all persons using this system carefully read and follow instructions and safety information fully.
- **Distraction Hazard:** Any navigation features may require manual (non-verbal) setup. Attempting to perform such set-up or insert data while driving can distract your attention and could cause an accident or other serious injury. Stop the vehicle in a safe and legal manner before attempting these operations.
- **Let Your Judgment Prevail:** Any navigation features are provided only as an aid. Make your driving decisions based on your observations of local conditions and existing traffic regulations. Any such feature is not a substitute for your personal judgment. Any route suggestions made by this system should never replace any local traffic regulations or your personal judgment or knowledge of safe driving practices.
- **Route Safety:** Do not follow the route suggestions if doing so would result in an unsafe or illegal maneuver, if you would be placed in an unsafe situation, or if you would be directed into an area that you consider unsafe. The driver is ultimately responsible for the safe operation of the vehicle and therefore, must evaluate whether it is safe to follow the suggested directions.
- **Potential Map Inaccuracy:** Maps used by this system may be inaccurate because of changes in roads, traffic controls or driving conditions. Always use good judgment and common sense when following the suggested routes.
- **Emergency Services:** Do not rely on any navigation features included in the system to route you to emergency services. Ask local authorities or an emergency services operator for these locations. Not all emergency services such as police, fire stations, hospitals and clinics are likely to be contained in the map database for such navigation features.

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Your Responsibilities and Assumptions of  
Risk



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- You agree to each of the following:(a) Any use of the SOFTWARE while driving an automobile or other vehicle in violation of applicable law or otherwise driving in an unsafe manner presents a significant risk of distracted driving and should not be attempted under any circumstances;(b) Use of the SOFTWARE at excessive volume poses a significant risk of hearing damage and should not be attempted under any circumstances;(c) The SOFTWARE may not be compatible with new or different versions of an operating system, third party software, or third party services, and the SOFTWARE may potentially cause a critical failure of an operating system, third party software, or third party service.(d) Any third party service accessed by or third party software used with the SOFTWARE (i) may charge an additional fee for access, (ii) may not work correctly, on an uninterrupted basis, or error free, (iii) may change streaming formats or discontinue operation, (iv) may contain adult, profane or offensive content; and (v) may contain inaccurate, false or misleading traffic, weather,

financial or safety information or other content; and (e) Use of the SOFTWARE may cause you to incur additional charges from your wireless service provider (WSP) and any data or minute calculators that may be included in the software program are for reference only, are not warranted in any way and should not be relied upon in anyway.

- When using the SOFTWARE, you agree to be responsible for and assume the entire risk to the items set forth in Section (a) – (e) above.

## **Disclaimer of Warranty**

YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE DEVICES AND SOFTWARE IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, COMPATIBILITY, ACCURACY AND EFFORT IS WITH YOU. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE SOFTWARE AND ANY THIRD PARTY SOFTWARE OR THIRD-PARTY SERVICES ARE PROVIDED "AS IS" AND "AS AVAILABLE", WITH ALL FAULTS AND

WITHOUT WARRANTY OF ANY KIND, AND FORD MOTOR COMPANY HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE SOFTWARE, THIRD PARTY SOFTWARE, AND THIRD-PARTY SERVICES, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR AN ARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, AND NON-INFRINGEMENT OF THIRD-PARTY RIGHTS. FORD MOTOR COMPANY DOES NOT WARRANT (a) AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES, (b) THAT THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL MEET YOUR REQUIREMENTS, (c) THAT THE OPERATION OF THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL BE UNINTERRUPTED OR ERROR-FREE, (d) OR THAT DEFECTS IN THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL BE CORRECTED. NO ORAL

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OR WRITTEN INFORMATION OR ADVICE GIVEN BY FORD MOTOR COMPANY OR ITS AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY. SHOULD THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. SOME JURISDICTIONS DO NOT ALLOW THE DISCLAIMER OF IMPLIED WARRANTIES OR LIMITATIONS ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE DISCLAIMER MAY NOT FULLY APPLY TO YOU. THE SOLE WARRANTY PROVIDED BY FORD MOTOR COMPANY SHALL BE FOUND IN THE WARRANTY INFORMATION INCLUDING WITH YOUR OWNER GUIDE. TO THE EXTENT THAT THERE IS ANY CONFLICT BETWEEN THE TERMS OF THIS SECTION AND THE WARRANTY BOOKLET, THE WARRANTY BOOKLET SHALL CONTROL.

## **Applicable Law, Venue, Jurisdiction**

- The laws of the State of Michigan govern this EULA and Your use of the SOFTWARE. Your use of the SOFTWARE may also be subject to other local, state, national, or international laws. Any litigation arising out of or related to this EULA shall be brought and maintained exclusively in a court of the State of Michigan located in Wayne County or in the United States District Court for the Eastern District of Michigan. You hereby consent to submit to the personal jurisdiction of a court in the State of Michigan located in Wayne County and the United States District Court for the Eastern District of Michigan for any dispute arising out of or relating to this EULA.

## **Binding Arbitration and Class Action Waiver**

**(a) Application.** This Section applies to any dispute EXCEPT IT DOES NOT INCLUDE A DISPUTE RELATING TO COPYRIGHT INFRINGEMENT, OR TO THE ENFORCEMENT OR VALIDITY OF YOUR, FORD MOTOR COMPANY, OR ANY OF

FORD MOTOR COMPANY'S LICENSORS' INTELLECTUAL PROPERTY RIGHTS. Dispute means any dispute, action, or other controversy between You and FORD MOTOR COMPANY, other than the exceptions listed above, concerning the SOFTWARE (including its price) or this EULA, whether in contract, warranty, tort, statute, regulation, ordinance, or any other legal or equitable basis.

**(b) Notice of Dispute.** In the event of a Dispute, You or FORD MOTOR COMPANY must give the other a "Notice of Dispute", which is a written statement of the name, address, and contact information of the party giving it, the facts giving rise to the dispute, and the relief requested. You and FORD MOTOR COMPANY will attempt to resolve any dispute through informal negotiation within 60 days from the date the Notice of Dispute is sent. After 60 days, You or FORD MOTOR COMPANY may commence arbitration.

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**(c) Small claims court.** You may also litigate any dispute in small claims court in your county of residence or FORD MOTOR COMPANY'S principal place of business, if the dispute meets all requirements to be heard in the small claims court. You may litigate in small claims court whether or not You negotiated informally first.

**(d) Binding arbitration.** If You and FORD MOTOR COMPANY, do not resolve any dispute by informal negotiation or in small claims court, any other effort to resolve the dispute will be conducted exclusively by binding arbitration. You are giving up the right to litigate (or participate in as a party or class member) all disputes in court before a judge or jury. Instead, all disputes will be resolved before a neutral arbitrator, whose decision will be final except for a limited right of appeal under the Federal Arbitration Act. Any court with jurisdiction over the parties may enforce the arbitrator's award.

**(e) Class action waiver.** Any proceedings to resolve or litigate any dispute in any forum will be conducted solely on an individual basis. Neither you nor FORD MOTOR COMPANY, will seek to have any dispute heard as a class action, as a private attorney general action, or in any other proceeding in which any party acts or proposes to act in a representative capacity. No arbitration or proceeding will be combined with another without the prior written consent of all parties to all affected arbitrations or proceedings.

**(f) Arbitration procedure.** Any arbitration will be conducted by the American Arbitration Association (the "AAA"), under its Commercial Arbitration Rules. If You are an individual and use the SOFTWARE for personal or vehicle use, or if the value of the dispute is \$75,000 or less whether or not You are an individual or how You use the SOFTWARE, the AAA Supplementary Procedures for Consumer-Related Disputes will also apply. To commence arbitration, submit a Commercial Arbitration Rules Demand for Arbitration form to the AAA. You may request a telephonic or in-person hearing by following the AAA rules. In a

dispute involving \$10,000 or less, any hearing will be telephonic unless the arbitrator finds good cause to hold an in-person hearing instead. For more information, see [adr.org](http://adr.org) or call 1-800-778-7879. You agree to commence arbitration only in your county of residence or FORD MOTOR COMPANY'S principal place of business. The arbitrator may award the same damages to You individually as a court could. The arbitrator may award declaratory or injunctive relief only to You individually, and only to the extent required to satisfy Your individual claim.

**(g) Arbitration fees and incentives.**

- I. Disputes involving \$75,000 or less. FORD MOTOR COMPANY will promptly reimburse your filing fees and pay the AAA's and arbitrator's fees and expenses. If you reject FORD MOTOR COMPANY'S last written settlement offer made before the arbitrator was appointed ("last written offer"), your dispute goes all the way to an arbitrator's decision (called an "award"), and the arbitrator awards you more than the last written offer, FORD MOTOR COMPANY will give

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you three incentives: (1) pay the greater of the award or \$1,000; (2) pay twice your reasonable attorney's fees, if any; and (3) reimburse any expenses (including expert witness fees and costs) that your attorney reasonably accrues for investigating, preparing, and pursuing your claim in arbitration. The arbitrator will determine the amounts.

- ii. Disputes involving more than \$75,000. The AAA rules will govern payment of filing fees and the AAA's and arbitrator's fees and expenses.
- iii. Disputes involving any amount. In any arbitration you commence, FORD MOTOR COMPANY will seek its AAA or arbitrator's fees and expenses, or Your filing fees it reimbursed, only if the arbitrator finds the arbitration frivolous or brought for an improper purpose. In any arbitration FORD MOTOR COMPANY commences, it will pay all filing, AAA, and arbitrator's fees and expenses. It will not seek its attorney's fees or expenses from you in any arbitration. Fees and expenses are not counted in determining how much a dispute involves.

**(h) Claims or disputes must be filed within one year.** To the extent permitted by law, any claim or dispute under this EULA to which this Section applies must be filed within one year in small claims court (Section c) or in arbitration (Section d). The one-year period begins when the claim or dispute first could be filed. If such a claim or dispute is not filed within one year, it is permanently barred.

**(I) Severability.** If the class action waiver (Section e) is found to be illegal or unenforceable as to all or some parts of a dispute, then that portion of Section e will not apply to those parts. Instead, those parts will be severed and proceed in a court of law, with the remaining parts proceeding in arbitration. If any other provision of that portion Section e is found to be illegal or unenforceable, that provision will be severed with the remainder of Section e remaining in full force and effect.

## **Telenav Software End User License Agreement**

Please read these terms and conditions carefully before you use the TeleNav Software. Your use of the TeleNav Software indicates that you accept these terms and conditions. If you do not accept these terms and conditions, do not break the seal of the package, launch, or otherwise use the TeleNav Software. TeleNav may revise this Agreement and the privacy policy at any time, with or without notice to you. You agree to visit <http://www.telenav.com> from time to time to review the then current version of this Agreement and of the privacy policy.

### **1. Safe and Lawful Use**

You acknowledge that devoting attention to the TeleNav Software may pose a risk of injury or death to you and others in situations that otherwise require your undivided attention, and you therefore agree to comply with the following when using the TeleNav Software:

- (a) observe all traffic laws and otherwise drive safely;

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(b) use your own personal judgment while driving. If you feel that a route suggested by the TeleNav Software instructs you to perform an unsafe or illegal maneuver, places you in an unsafe situation, or directs you into an area that you consider to be unsafe, do not follow such instructions;

(c) do not input destinations, or otherwise manipulate the TeleNav Software, unless your vehicle is stationary and parked;

(d) do not use the TeleNav Software for any illegal, unauthorized, unintended, unsafe, hazardous, or unlawful purposes, or in any manner inconsistent with this Agreement;

(e) arrange all GPS and wireless devices and cables necessary for use of the TeleNav Software in a secure manner in your vehicle so that they will not interfere with your driving and will not prevent the operation of any safety device (such as an airbag).

You agree to indemnify and hold TeleNav harmless against all claims resulting from any dangerous or otherwise inappropriate use of the TeleNav Software in any moving vehicle, including as a result of your failure to comply with the directions above.

## 2. Account Information

You agree: (a) when registering the TeleNav Software, to provide TeleNav with true, accurate, current, and complete information about yourself, and (b) to inform TeleNav promptly of any changes to such information, and to keep it true, accurate, current and complete.

## 3. Software License

- Subject to your compliance with the terms of this Agreement, TeleNav hereby grants to you a personal, non-exclusive, non-transferable license (except as expressly permitted below in connection with your permanent transfer of the TeleNav Software license), without the right to sublicense, to use the TeleNav Software (in object code form only) in order to access and use the TeleNav Software. This license shall terminate upon any termination or expiration of this Agreement. You agree that you will use the TeleNav Software only for your personal business or leisure purposes, and not to provide commercial navigation services to other parties.

## 3.1 License Limitations

- **(a)** reverse engineer, decompile, disassemble, translate, modify, alter or otherwise change the TeleNav Software or any part thereof; **(b)** attempt to derive the source code, audio library or structure of the TeleNav Software without the prior express written consent of TeleNav; **(c)** remove from the TeleNav Software, or alter, any of TeleNav's or its suppliers' trademarks, trade names, logos, patent or copyright notices, or other notices or markings; **(d)** distribute, sublicense or otherwise transfer the TeleNav Software to others, except as part of your permanent transfer of the TeleNav Software; or **(e)** use the TeleNav Software in any manner that
  - i. infringes the intellectual property or proprietary rights, rights of publicity or privacy or other rights of any party,
  - ii. violates any law, statute, ordinance or regulation, including but not limited to laws and regulations related to spamming, privacy, consumer and child protection, obscenity or defamation, or

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iii. is harmful, threatening, abusive, harassing, tortuous, defamatory, vulgar, obscene, libelous, or otherwise objectionable; and (f) lease, rent out, or otherwise permit unauthorized access by third parties to the TeleNav Software without advanced written permission of TeleNav.

## **4. Disclaimers**

- To the fullest extent permissible pursuant to applicable law, in no event will TeleNav, its licensors and suppliers, or agents or employees of any of the foregoing, be liable for any decision made or action taken by you or anyone else in reliance on the information provided by the TeleNav Software. TeleNav also does not warrant the accuracy of the map or other data used for the TeleNav Software. Such data may not always reflect reality due to, among other things, road closures, construction, weather, new roads and other changing conditions. You are responsible for the entire risk arising out of your use of the TeleNav Software. For example but without limitation, you agree not to rely

on the TeleNav Software for critical navigation in areas where the well-being or survival of you or others is dependent on the accuracy of navigation, as the maps or functionality of the TeleNav Software are not intended to support such high risk applications, especially in more remote geographical areas.

- TELENAV EXPRESSLY DISCLAIMS AND EXCLUDES ALL WARRANTIES IN CONNECTION WITH THE TELENAV SOFTWARE, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES WHICH MAY ARISE FROM COURSE OF DEALING, CUSTOM OR TRADE AND INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS WITH RESPECT TO THE TELENAV SOFTWARE.
- Certain jurisdictions do not permit the disclaimer of certain warranties, so this limitation may not apply to you.

## **5. Limitation of Liability**

- TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, UNDER NO CIRCUMSTANCES SHALL TELENAV OR ITS LICENSORS AND SUPPLIERS BE LIABLE TO YOU OR TO ANY THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES (INCLUDING IN EACH CASE, BUT NOT LIMITED TO, DAMAGES FOR THE INABILITY TO USE THE EQUIPMENT OR ACCESS DATA, LOSS OF DATA, LOSS OF BUSINESS, LOSS OF PROFITS, BUSINESS INTERRUPTION OR THE LIKE) ARISING OUT OF THE USE OF OR INABILITY TO USE THE TELENAV SOFTWARE, EVEN IF TELENAV HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING ANY DAMAGES THAT YOU MIGHT INCUR FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DAMAGES REFERENCED HEREIN AND ALL DIRECT OR GENERAL DAMAGES IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR

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OTHERWISE), THE ENTIRE LIABILITY OF TELENAV AND OF ALL OF TELENAV'S SUPPLIERS SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU FOR THE TELENAV SOFTWARE. SOME STATES AND/OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

## **6. Arbitration and Governing Law**

- You agree that any dispute, claim or controversy arising out of or relating to this Agreement or the TeleNav Software shall be settled by independent arbitration involving a neutral arbitrator and administered by the American Arbitration Association in the County of Santa Clara, California. The arbitrator shall apply the Commercial Arbitration Rules of the American Arbitration Association, and the judgment upon the award rendered by the arbitrator may be entered by any court having jurisdiction. Note that there is no judge or jury in an

arbitration proceeding and the decision of the arbitrator shall be binding upon both parties. You expressly agree to waive your right to a jury trial. This Agreement and performance hereunder will be governed by and construed in accordance with the laws of the State of California, without giving effect to its conflict of law provisions. To the extent judicial action is necessary in connection with the binding arbitration, both TeleNav and you agree to submit to the exclusive jurisdiction of the courts of the County of Santa Clara, California. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

## **7. Assignment**

- You may not resell, assign, or transfer this Agreement or any of your rights or obligations, except in totality, in connection with your permanent transfer of the TeleNav Software, and expressly conditioned upon the new user of the TeleNav Software agreeing to be bound by the terms and conditions of this

Agreement. Any such sale, assignment or transfer that is not expressly permitted under this paragraph will result in immediate termination of this Agreement, without liability to TeleNav, in which case you and all other parties shall immediately cease all use of the TeleNav Software. Notwithstanding the foregoing, TeleNav may assign this Agreement to any other party at any time without notice, provided the assignee remains bound by this Agreement.

## **8. Miscellaneous**

### **8.1**

This Agreement constitutes the entire agreement between TeleNav and you with respect to the subject matter hereof.

### **8.2**

Except for the limited licenses expressly granted in this Agreement, TeleNav retains all right, title and interest in and to the TeleNav Software, including without limitation all related intellectual property rights. No licenses or other rights which are

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not expressly granted in this Agreement are intended to, or shall be, granted or conferred by implication, statute, inducement, estoppel or otherwise, and TeleNav and its suppliers and licensors hereby reserve all of their respective rights other than the licenses explicitly granted in this Agreement.

## **8.3**

By using the TeleNav Software, you consent to receive from TeleNav all communications, including notices, agreements, legally required disclosures or other information in connection with the TeleNav Software (collectively, "Notices") electronically. TeleNav may provide such Notices by posting them on TeleNav's Website or by downloading such Notices to your wireless device. If you desire to withdraw your consent to receive Notices electronically, you must discontinue your use of the TeleNav Software.

## **8.4**

TeleNav's or your failure to require performance of any provision shall not affect that party's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Agreement constitute a waiver of any subsequent breach or default or a waiver of the provision itself.

## **8.5**

If any provision herein is held unenforceable, then such provision will be modified to reflect the intention of the parties, and the remaining provisions of this Agreement will remain in full force and effect.

## **8.6**

The headings in this Agreement are for convenience of reference only, will not be deemed to be a part of this Agreement, and will not be referred to in connection with the construction or interpretation of this Agreement. As used in this Agreement, the words "include" and "including" and variations thereof, will not be deemed to be terms of limitation, but rather will be deemed to be followed by the words "without limitation".

## **9. Other Vendors Terms and Conditions**

- The Telenav Software utilizes map and other data licensed to Telenav by third party vendors for the benefit of you and other end users. This Agreement includes end-user terms applicable to these companies (included at the end of this Agreement), and thus your use of the Telenav Software is also subject to such terms. You agree to comply with the following additional terms and conditions, which are applicable to Telenav's third party vendor licensors:



# Appendices

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## **9.1 End User Terms Required by HERE North America, LLC**

The data (“Data”) is provided for your personal, internal use only and not for resale. It is protected by copyright, and is subject to the following terms and conditions which are agreed to by you, on the one hand, and Telenav (“Telenav”) and its licensors (including their licensors and suppliers) on the other hand.

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The Data for areas of Canada includes information taken with permission from Canadian authorities, including: © Her Majesty the Queen in Right of Canada, © Queen's Printer for Ontario, © Canada Post Corporation, GeoBase®, © Department of Natural Resources Canada.

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The Data for Mexico includes certain data from Instituto Nacional de Estadística y Geografía.

## **9.2 End User Terms Required by NAV2 (Shanghai) Co., Ltd**

The data (“Data”) is provided for your personal, internal use only and not for resale. It is protected by copyright, and is subject to the following terms and conditions which are agreed to by you, on the one hand, and NAV2 (Shanghai) Co., Ltd (“NAV2”) and its licensors (including their licensors and suppliers) on the other hand. 20xx. All rights reserved

## **Terms and Conditions**

**Permitted Use.** You agree to use this Data together with the Telenav Software solely for the internal business and personal purposes for which you were licensed, and not for service bureau, time-sharing or other similar purposes. Accordingly, but subject to the restrictions set forth in the following paragraphs, you agree not to otherwise reproduce, copy, modify, decompile, disassemble, create any derivative works of, or reverse engineer any portion of this Data, and may not transfer or distribute it in any form, for any purpose, except to the extent permitted by mandatory laws.

**Restrictions.** Except where you have been specifically licensed to do so by Telenav, and without limiting the preceding paragraph, you may not use this Data (a) with any products, systems, or applications installed or otherwise connected to or in communication with vehicles, capable of vehicle navigation, positioning, dispatch, real time route guidance, fleet management or similar applications; or (b) with or in

# Appendices

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communication with any positioning devices or any mobile or wireless-connected electronic or computer devices, including without limitation cellular phones, palmtop and handheld computers, pagers, and personal digital assistants or PDAs.

**Warning.** The Data may contain inaccurate or incomplete information due to the passage of time, changing circumstances, sources used and the nature of collecting comprehensive geographic data, any of which may lead to incorrect results.

**No Warranty.** This Data is provided to you “as is,” and you agree to use it at your own risk. Telenav and its licensors (and their licensors and suppliers) make no guarantees, representations or warranties of any kind, express or implied, arising by law or otherwise, including but not limited to, content, quality, accuracy, completeness, effectiveness, reliability, fitness for a particular purpose, usefulness, use or results to be obtained from this Data, or that the Data or server will be uninterrupted or error-free.

**Disclaimer of Warranty:** TELENAV AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) DISCLAIM ANY WARRANTIES, EXPRESS OR IMPLIED, OF QUALITY, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. Some States, Territories and Countries do not allow certain warranty exclusions, so to that extent the above exclusion may not apply to you.

**Disclaimer of Liability:** TELENAV AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) SHALL NOT BE LIABLE TO YOU: IN RESPECT OF ANY CLAIM, DEMAND OR ACTION, IRRESPECTIVE OF THE NATURE OF THE CAUSE OF THE CLAIM, DEMAND OR ACTION ALLEGING ANY LOSS, INJURY OR DAMAGES, DIRECT OR INDIRECT, WHICH MAY RESULT FROM THE USE OR POSSESSION OF THE INFORMATION; OR FOR ANY LOSS OF PROFIT, REVENUE, CONTRACTS OR SAVINGS, OR ANY OTHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF YOUR USE OF OR INABILITY TO USE

THIS INFORMATION, ANY DEFECT IN THE INFORMATION, OR THE BREACH OF THESE TERMS OR CONDITIONS, WHETHER IN AN ACTION IN CONTRACT OR TORT OR BASED ON A WARRANTY, EVEN IF TELENAV OR ITS LICENSORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some States, Territories and Countries do not allow certain liability exclusions or damages limitations, so to that extent the above may not apply to you.

**Export Control.** You shall not export from anywhere any part of the Data or any direct product thereof except in compliance with, and with all licenses and approvals required under, applicable export laws, rules and regulations, including but not limited to the laws, rules and regulations administered by the Office of Foreign Assets Control of the U.S. Department of Commerce and the Bureau of Industry and Security of the U.S. Department of Commerce. To the extent that any such export laws, rules or regulations prohibit HERE from complying with any of its obligations hereunder to deliver or distribute Data, such failure shall be excused and shall not constitute a breach of this Agreement.

# Appendices

**Entire Agreement.** These terms and conditions constitute the entire agreement between Telenav (and its licensors, including their licensors and suppliers) and you pertaining to the subject matter hereof, and supersedes in their entirety any and all written or oral agreements previously existing between us with respect to such subject matter.

**Governing Law.** The above terms and conditions shall be governed by the laws of the State of Illinois [insert “Netherlands” where European HERE Data is used], without giving effect to (i) its conflict of laws provisions, or (ii) the United Nations Convention for Contracts for the International Sale of Goods, which is explicitly excluded. You agree to submit to the jurisdiction of the State of Illinois [insert “The Netherlands” where European HERE Data is used] for any and all disputes, claims and actions arising from or in connection with the Data provided to you hereunder.

**Government End Users.** If the Data is being acquired by or on behalf of the United States government or any other entity seeking or applying rights similar to those customarily claimed by the United States government, this Data is a “commercial item” as that term is defined at 48 C.F.R. (“FAR”) 2.101, is licensed in accordance with these End-User Terms, and each copy of Data delivered or otherwise furnished shall be marked and embedded as appropriate with the following “Notice of Use,” and shall be treated in accordance with such Notice:

NOTICE OF USE
CONTRACTOR (MANUFACTURER/ SUPPLIER) NAME: HERE
CONTRACTOR (MANUFACTURER/ SUPPLIER) ADDRESS: c/o Nokia, 425 West Randolph Street, Chicago, Illinois 60606
This Data is a commercial item as defined in FAR 2.101 and is subject to these End- User Terms under which this Data was provided.
© 1987 – 2014 HERE – All rights reserved.

If the Contracting Officer, federal government agency, or any federal official refuses to use the legend provided herein, the Contracting Officer, federal government agency, or any federal official must notify HERE prior to seeking additional or alternative rights in the Data.

## I. US/Canada Territory

A. United States Data. The End-User Terms for any Application containing Data for the United States shall contain the following notices:

“HERE holds a non-exclusive license from the United States Postal Service® to publish and sell ZIP+4® information.”

“©United States Postal Service® 20XX. Prices are not established, controlled or approved by the United States Postal Service®. The following trademarks and registrations are owned by the USPS: United States Postal Service, USPS, and ZIP+4.”

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B. Canada Data. The following provisions apply to the Data for Canada, which may include or reflect data from third party licensors (“Third Party Data”), including Her Majesty the Queen in Right of Canada (“Her Majesty”), Canada Post Corporation (“Canada Post”) and the Department of Natural Resources of Canada (“NRCan”):

1. Disclaimer and Limitation: Client agrees that its use of the Third Party Data is subject to the following provisions:

a. Disclaimer: The Third Party Data is licensed on an “as is” basis. The licensors of such data, including Her Majesty, Canada Post and NRCan, make no guarantees, representations or warranties respecting such data, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy or fitness for a particular purpose.

b. Limitation on Liability: The Third Party Data licensors, including Her Majesty, Canada Post and NRCan, shall not be liable: (i) in respect of any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action alleging any loss, injury or damages, direct or indirect, which may result from the use or possession of such Data; or (ii) in any way for loss of revenues or contracts, or any other consequential loss of any kind resulting from any defect in the Data.

2. Copyright Notice: In connection with each copy of all or any portion of the Data for the Territory of Canada, Client shall affix in a conspicuous manner the following copyright notice on at least one of: (i) the label for the storage media of the copy; (ii) the packaging for the copy; or (iii) other materials packaged with the copy, such as user manuals or end user license agreements: “This data includes information taken with permis-

sion from Canadian authorities, including © Her Majesty the Queen in Right of Canada, © Queen’s Printer for Ontario, © Canada Post Corporation, GeoBase®, © The Department of Natural Resources Canada. All rights reserved.”

3. End-User Terms: Except as otherwise agreed by the parties, in connection with the provision of any portion of the Data for the Territory of Canada to End-Users as may be authorized under the Agreement, Client shall provide such End-Users, in a reasonably conspicuous manner, with terms (set forth with other end user terms required to be provided

# Appendices

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under the Agreement, or as otherwise may be provided, by Client) which shall include the following provisions on behalf of the Third Party Data licensors, including Her Majesty, Canada Post and NRCan:

The Data may include or reflect data of licensors, including Her Majesty the Queen in the Right of Canada (“Her Majesty”), Canada Post Corporation (“Canada Post”) and the Department of Natural Resources Canada (“NRCan”). Such data is licensed on an “as is” basis. The licensors, including Her Majesty, Canada Post and NRCan, make no guarantees, representations or warranties respecting such data, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy or fitness for a particular purpose. The licensors, including Her Majesty, Canada Post and NRCan, shall not be liable in respect of any claim, demand or action, irrespective of the nature of the cause of the claim, demand or

action alleging any loss, injury or damages, direct or indirect, which may result from the use or possession of the data or the Data. The licensors, including Her Majesty, Canada Post and NRCan, shall not be liable in any way for loss of revenues or contracts, or any other consequential loss of any kind resulting from any defect in the data or the Data. End User shall indemnify and save harmless the licensors, including Her Majesty, Canada Post and NRCan, and their officers, employees and agents from and against any claim, demand or action, irrespective of the nature of

the cause of the claim, demand or action, alleging loss, costs, expenses, damages or injuries (including injuries resulting in death) arising out of the use or possession of the data or the Data.

4. Additional Provisions: The terms contained in this Section are in addition to all of the rights and obligations of the parties under the Agreement. To the extent that any of the provisions of this Section are inconsistent with, or conflict with, any other provisions of the Agreement, the provisions of this Section shall prevail.

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II. Mexico. The following provision applies to the Data for Mexico, which includes certain data from the Instituto Nacional de Estadística y Geografía (“INEGI”):

A. Any and all copies of the Data and/or packaging containing Data for Mexico shall contain the following notice: “Fuente: INEGI (Instituto Nacional de Estadística y Geografía)”

## III. Latin America Territory

A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Territory	Notice
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Argentina	IGN “INSTITUTO GEOGRAFICO NACIONAL ARGENTINO”
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Ecuador	“INSTITUTO GEOGRAFICO MILITAR DEL ECUADOR AUTORIZACION N° IGM-2011-01- PCO-01 DEL 25 DE ENERO DE 2011” “source: © IGN 2009 - BD TOPO ®”
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Guadeloupe, French Guiana and Martinique Mexico	“Fuente: INEGI (Instituto Nacional de Estadística y Geografía)”
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## IV. Middle East Territory

A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Country	Notice
Jordan	“© Royal Jordanian Geographic Centre”. The foregoing notice requirement for Jordan Data is a material term of the Agreement. If Client or any of its permitted sublicensees (if any) fail to meet such requirement, HERE shall have the right to terminate Client’s license with respect to the Jordan Data.

B. Jordan Data. Client and its permitted sublicensees (if any) are restricted from licensing and/or otherwise distributing HERE’s database for the country of Jordan (“Jordan Data”) for use in Enterprise Applications to (i) non-Jordanian entities for use of the Jordan Data solely in Jordan or (ii) Jordan-based customers. In addition, Client, its permitted sublicensees (if any) and End-Users are restricted from using the Jordan Data in Enterprise Applications if such party is (i) a non-Jordanian entity using the Jordan Data solely in Jordan or (ii) a Jordan-based customer. For purposes

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of the foregoing, “Enterprise Applications” shall mean Geomarketing applications, GIS applications, mobile business asset management applications, call center applications, telematics applications, public organization Internet applications or for providing geocoding services.

## V. Europe Territory

### A. Use of Certain Traffic Codes in Europe

1. General Restrictions Applicable to Traffic Codes. Client acknowledges and agrees that in certain countries of the Europe Territory, Client will need to obtain rights directly from third party RDS-TMC code providers to receive and use the Traffic Codes in the Data and to deliver to End-Users Transactions in any way derived from or based on such Traffic Codes. For such countries, HERE shall deliver the Data incorporating Traffic Codes to Client only after receiving certification from Client of its having obtained such rights.

2. Display of Third Party Rights Legends for Belgium. Client shall, for each Transaction that uses Traffic Codes for Belgium, provide the following notice to the End-User: “Traffic Codes for Belgium are provided by the Ministerie van de Vlaamse Gemeenschap and the Ministère de l’Équipement et des Transports.”

B. Paper Maps. With respect to any license granted to Client relating to making, selling or distributing paper maps (i.e., a map fixed on a paper or paper-like medium): (a) such license with respect to Data for the Territory of Great Britain is conditioned on Client’s entering into and complying with a separate written agreement with the Ordnance Survey (“OS”) to create and sell paper maps, Client’s paying to the OS any and all applicable paper map royalties, and Client’s complying with the OS copyright notice requirements; (b) such license for selling or otherwise distributing for charge with respect to Data for the Territory of Czech Republic is conditioned on Client’s obtaining prior written consent from

Kartografie a.s.; (c) such license for selling or distributing with respect to Data for the Territory of Switzerland is conditioned on Client’s obtaining a permit from Bundesamt für Landestopografie of Switzerland; (d) Client is restricted from using Data for the Territory of France to create paper maps with a scale between 1:5,000 and 1:250,000; and (e) Client is restricted from using any Data to create, sell or distribute paper maps that are the same or substantially similar, in terms of data content and specific use of color, symbols and scale, to paper maps published by the European national mapping agencies, including without limitation, Landervermessungämter of Germany, Topografische Dienst of the Netherlands, Nationaal Geografisch Instituut of Belgium, Bundesamt für Landestopografie of Switzerland, Bundesamt für Eich-und Vermessungswesen of Austria, and the National Land Survey of Sweden.

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C. OS Enforcement. Without limiting Section IV(B) above, with respect to Data for the Territory of Great Britain, Client acknowledges and agrees that the Ordnance Survey (“OS”) may bring a direct action against Client to enforce compliance with the OS copyright notice (see Section IV(D) below) and paper map requirements (see Section IV(B) above) contained in this Agreement.

D. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Country(ies)	Notice
Austria	“© Bundesamt für Eich- und Vermessungswesen”
Croatia Cyprus, Estonia, Latvia, Lithuania,	“© EuroGeographics”

Moldova, Poland, Slovenia and/or Ukraine	
France	“source: © IGN 2009 – BD TOPO ®”
Germany	“Die Grundlagendaten wurden mit Genehmigung der zuständigen Behörden entnommen”
Great Britain	“Contains Ordnance Survey data © Crown copyright and database right 2010 Contains Royal Mail data © Royal Mail copyright and database right 2010”
Greece	“Copyright Geomatics Ltd.”
Hungary	“Copyright © 2003; Top-Map Ltd.”

Italy	“La Banca Dati Italiana è stata prodotta usando quale riferimento anche cartografia numerica ed al tratto prodotta e fornita dalla Regione Toscana.”
Norway	“Copyright © 2000; Norwegian Mapping Authority”
Portugal	“Source: IgeoE – Portugal”
Spain	“Información geográfica propiedad del CNIG”
Sweden	“Based upon electronic data © National Land Survey Sweden.”
Switzerland	“Topografische Grundlage: © Bundesamt für Landestopographie.”

E. Respective Country Distribution. Client acknowledges that HERE has not received approvals to distribute map data for the following countries in such respective countries: Albania, Belarus, Kyrgyzstan, Moldova and Uzbekistan. HERE may



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update such list from time to time. The license rights granted to Client under this TL with respect to the Data for such countries are contingent upon Client's compliance with all applicable laws and regulations, including, without limitation, any required licenses or approvals to distribute the Application incorporating such Data in such respective countries.

## VI. Australia Territory

A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Copyright. Based on data provided under license from PSMA Australia Limited ([www.pasma.com.au](http://www.pasma.com.au)).

Product incorporates data which is © 20XX Telstra Corporation Limited, GM Holden Limited, Intelematics Australia Pty Ltd and Continental Pty Ltd.

B. Third Party Notices for Australia. In addition to the foregoing, the End-User Terms for any Application containing RDS-TMC Traffic Codes for Australia shall contain the following notice: "Product incorporates traffic location codes which is © 20XX Telstra Corporation Limited and its licensors."

### **AT&T Vehicle Network Carrier Telematics Disclosure**

END USER FOR PURPOSES OF THIS SECTION MEANS YOU AND YOUR HEIRS, EXECUTORS, LEGAL PERSONAL REPRESENTATIVES AND PERMITTED ASSIGNS. FOR PURPOSES OF THIS SECTION "UNDERLYING WIRELESS SERVICE CARRIER" INCLUDES ITS AFFILIATES AND CONTRACTORS AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, SUCCESSORS AND ASSIGNS. END USER HAS NO CONTRACTUAL RELATIONSHIP

WITH THE UNDERLYING WIRELESS SERVICE CARRIER AND END USER IS NOT A THIRD PARTY BENEFICIARY OF ANY AGREEMENT BETWEEN FORD AND UNDERLYING CARRIER. END USER UNDERSTANDS AND AGREES THAT THE UNDERLYING CARRIER HAS NO LEGAL, EQUITABLE, OR OTHER LIABILITY OF ANY KIND TO END USER. IN ANY EVENT, REGARDLESS OF THE FORM OF THE ACTION, WHETHER FOR BREACH OF CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, END USER'S EXCLUSIVE REMEDY FOR CLAIMS ARISING IN ANY WAY IN CONNECTION WITH THIS AGREEMENT, FOR ANY CAUSE WHATSOEVER, INCLUDING BUT NOT LIMITED TO ANY FAILURE OR DISRUPTION OF SERVICE PROVIDED HEREUNDER, IS LIMITED TO PAYMENT OF DAMAGES IN AN AMOUNT NOT TO EXCEED THE AMOUNT PAID BY END USER FOR THE SERVICES DURING THE TWO-MONTH PERIOD PRECEDING THE DATE THE CLAIM AROSE.

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(ii) END USER AGREES TO INDEMNIFY AND HOLD HARMLESS THE UNDERLYING WIRELESS SERVICE CARRIER AND ITS OFFICERS, EMPLOYEES, AND AGENTS AGAINST ANY AND ALL CLAIMS, INCLUDING WITHOUT LIMITATION CLAIMS FOR LIBEL, SLANDER, OR ANY PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, ARISING IN ANY WAY, DIRECTLY OR INDIRECTLY, IN CONNECTION WITH THIS AGREEMENT OR THE USE, FAILURE TO USE, OR INABILITY TO USE THE DEVICE EXCEPT WHERE THE CLAIMS RESULT FROM THE UNDERLYING CARRIER'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. THIS INDEMNITY WILL SURVIVE THE TERMINATION OF THE AGREEMENT.

(iii) END USER HAS NO PROPERTY RIGHT IN ANY NUMBER ASSIGNED TO THE DEVICE.

(iv) END USER UNDERSTANDS THAT FORD AND THE UNDERLYING CARRIER CANNOT GUARANTY THE SECURITY OF WIRELESS TRANSMISSIONS, AND WILL NOT BE LIABLE FOR ANY LACK OF SECURITY RELATING TO THE USE OF THE SERVICES

THE SERVICE IS FOR [END USER'S] USE ONLY AND END USER MAY NOT RESELL THE SERVICE TO ANY OTHER PARTY END USER UNDERSTANDS THAT THE UNDERLYING CARRIER DOES NOT GUARANTEE ANY END USER UNINTERRUPTED SERVICE OR COVERAGE. THE UNDERLYING CARRIER DOES NOT WARRANT THAT END USERS CAN OR WILL BE LOCATED USING THE SERVICE. THE UNDERLYING CARRIER MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY, OR PERFORMANCE REGARDING ANY SERVICES OR GOODS, AND IN NO EVENT SHALL AT&T BE LIABLE, WHETHER OR NOT DUE TO ITS OWN NEGLIGENCE, FOR ANY: (A) ACT OR OMISSION OF A THIRD PARTY; (B) MISTAKES, OMISSIONS, INTERRUPTIONS, ERRORS, FAILURES TO TRANSMIT, DELAYS, OR DEFECTS IN THE SERVICE PROVIDED BY OR THROUGH THE UNDERLYING CARRIER; (C) DAMAGE OR INJURY CAUSED BY SUSPENSION OR TERMINATION BY THE UNDERLYING CARRIER; OR (D) DAMAGE OR INJURY CAUSED BY A FAILURE OR DELAY IN CONNECTING A CALL TO ANY ENTITY,

INCLUDING 911 OR ANY OTHER EMERGENCY SERVICE. TO THE FULL EXTENT ALLOWED BY LAW, THE END USER RELEASES, INDEMNIFIES AND HOLDS THE UNDERLYING CARRIER HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS OF ANY PERSON OR ENTITY FOR DAMAGES OF ANY NATURE ARISING IN ANY WAY FROM OR RELATING TO, DIRECTLY OR INDIRECTLY, SERVICES PROVIDED BY THE UNDERLYING CARRIER OR ANY PERSON'S USE THEREOF, INCLUDING CLAIMS ARISING IN WHOLE OR IN PART FROM THE ALLEGED NEGLIGENCE OF THE UNDERLYING CARRIER.

## **VII. China Territory**

### ***Personal Use Only***

You agree to use this Data together with [insert name of Client Application] for the solely personal, non-commercial purposes for which you were licensed, and not for service bureau, time-sharing or other similar purposes. Accordingly, but subject to the restrictions set forth in the following paragraphs, you may copy this Data only as necessary for your personal use to (i) view

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it, and (ii) save it, provided that you do not remove any copyright notices that appear and do not modify the Data in any way. You agree not to otherwise reproduce, copy, modify, decompile, disassemble or reverse engineer any portion of this Data, and may not transfer or distribute it in any form, for any purpose, except to the extent permitted by mandatory laws.

## **Restrictions**

Except where you have been specifically licensed to do so by NAV2 , and without limiting the preceding paragraph, you may not (a) use this Data with any products, systems, or applications installed or otherwise connected to or in communication with vehicles, capable of vehicle navigation, positioning, dispatch, real time route guidance, fleet management or similar applications; or (b) with or in communication with any positioning devices or any mobile or wireless-connected electronic or computer

devices, including without limitation cellular phones, palmtop and handheld computers, pagers, and personal digital assistants or PDAs. You agree to cease using this Data if you fail to comply with these terms and conditions.

## **Limited Warranty**

NAV2 warrants that (a) the Data will perform substantially in accordance with the accompanying written materials for a period of ninety (90) days from the date of receipt, and (b) any support services provided by NAV2 shall be substantially as described in applicable written materials provided to you by NAV2, and NAV2's support engineers will make commercially reasonable efforts to solve any problem issues.

## **Customer Remedies**

NAV2 and its suppliers' entire liability and your exclusive remedy shall be, at NAV2's sole discretion, either (a) return of the price paid, if any, or (b) repair or replacement of the Data that do not meet NAV2's Limited Warranty and that are returned to NAV2 with a copy of your receipt. This Limited Warranty

is void if failure of the Data has resulted from accident, abuse, or misapplication. Any replacement Data will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer. Neither these remedies nor any product support services offered by NAV2 are available without proof of purchase from an authorized international source.

## **No Other Warranty:**

EXCEPT FOR THE LIMITED WARRANTY SET FORTH ABOVE AND TO THE EXTENT PERMITTED BY APPLICABLE LAW, NAV2 AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) DISCLAIM ANY WARRANTIES, EXPRESS OR IMPLIED, OF QUALITY, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OWNERSHIP OR NON-INFRINGEMENT. Certain warranty exclusions may not be permitted under applicable law, so to that extent the above exclusion may not apply to you.

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## ***Limited Liability:***

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NO CIRCUMSTANCES SHALL NAV2'S OR ITS SUPPLIERS' LIABILITY HEREUNDER EXCEED THE PRICE PAID. Certain liability exclusions may not be permitted under applicable law, so to that extent the above exclusion may not apply to you.

## ***Export Control***

You agree not to export to anywhere any part of the Data provided to you or any direct product thereof except in compliance with, and with all licenses and approvals required under, applicable export laws, rules and regulations.

## ***IP Protection***

The Data are owned by NAV2 or its suppliers and are protected by applicable copyright and other intellectual property law and treaties. The Data are provided solely on the basis of a license to use, not sale.

## ***Entire Agreement***

These terms and conditions constitute the entire agreement between NAV2 (and its licensors, including their licensors and suppliers) and you pertaining to the subject matter hereof, and supersedes in their entirety any and all written or oral agreements previously existing between us with respect to such subject matter.

## ***Governing Law.***

The above terms and conditions shall be governed by the laws of the People's Republic of China, without giving effect to (i) its conflict of laws provisions, or (ii) the United Nations Convention for Contracts for the International Sale of Goods, which is explicitly excluded. Any dispute arising from or in connection with the Data provided to you hereunder shall be submitted to the Shanghai International Economic and Trade Arbitration Commission for arbitration.

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## ***Radio Frequency Statement***

FCC ID: ACJ-SYNCG3-L

IC: 216B-SYNCG3-L

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

- (1)** This device may not cause harmful interference, and
- (2)** this device must accept any interference received, including interference that may cause undesired operation.



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

# Appendices

## **Taiwan Territory**

Note: In accordance with the management approach of low-power radio wave radiation motors:

Article 12: For approved and certified low-power radiation motor models, companies, firms or users must not alter the frequency, increase the power or change the characteristics and functions of the original design without authorization.

Article 14: The usage of low-power radio-frequency motors must not affect aviation safety and interfere with legal telecommunications. Should interference be detected, immediately stop using the device and only resume usage after ensuring that there is no longer any interference. For the legal telecommunication and wireless telecommunication of the telco, the low-power radio frequency motor must be able to tolerate legal limits of interference from telecommunication, industrial, scientific and radio wave equipment.

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# Appendices

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Great care has been taken in preparing this manual. Constant product development may mean that some information is not entirely up-to-date. The information in this document is subject to change without notice.





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