



CELESTIQ
OWNER'S MANUAL

2025



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Introduction

California Proposition 65 Warning



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 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.

Introduction



The names, logos, emblems, slogans, vehicle model names, and vehicle body designs appearing in this manual including, but not limited to, GM, the GM logo, the CADILLAC Emblem, CADILLAC, and CELESTIQ are trademarks and/or service marks of General Motors LLC, its subsidiaries, affiliates, or licensors.

For vehicles first sold in Canada, substitute the name “General Motors of Canada Company” for Cadillac Motor Car Division wherever it appears in this manual.

This manual describes features that may or may not be on the vehicle because of optional equipment that was not purchased on the vehicle, model variants, country specifications, features/applications that may not be available in your region, or

changes subsequent to this publication’s release, including changes in standard or optional content.

Refer to the purchase documentation relating to your specific vehicle to confirm the features.

Canadian Vehicle Owners

A French language manual can be obtained from your dealer, at www.helminc.com, or from:

Propriétaires Canadiens

On peut obtenir un exemplaire de ce guide en français auprès du concessionnaire ou à l'adresse suivante:

Helm, Incorporated
Attention: Customer Service
47911 Halyard Drive
Plymouth, MI 48170
USA

Danger, Warning, and Caution

Warning messages found on vehicle labels and in this manual describe hazards and what to do to avoid or reduce them.

Danger

Danger indicates a hazard with a high level of risk which will result in serious injury or death.

Warning

Warning indicates a hazard that could result in injury or death.

Caution


Caution indicates a hazard that could result in property or vehicle damage.





A circle with a slash through it is a safety symbol which means “Do not,” “Do not do this,” or “Do not let this happen.”

Symbols

The vehicle has components and labels that use symbols instead of text. Symbols are shown along with the text describing the operation or information relating to a specific component, control, message, gauge, or indicator.


 : Shown when the owner's manual has additional instructions or information.


 : Shown when the service manual has additional instructions or information.

 : Shown when there is more information on another page — “see page.”

Vehicle Symbol Chart


Here are some additional symbols that may be found on the vehicle and what they mean. See the features in this manual for information.


 : Air Conditioning System


 : Air Conditioning Refrigerant Oil


 : Airbag Readiness Light

 : Antilock Brake System (ABS)


 : Brake System Warning Light

 : Dispose of Used Components Properly

 : Do Not Apply High Pressure Water

 : Energy Usage and Charge Mode Selection

 : Flame/Fire Prohibited

 : Flammable


 : First Responder

 : Forward Collision Alert

 : Fuse Block Cover Lock Location

 : Fuses


 : High Voltage

 : ISOFIX/LATCH System Child Restraints

 : Keep Fuse Block Covers Properly Installed


 : Lane Change Alert

 : Lane Departure Warning

 : Lane Keep Assist

 : Park Assist


 : Pedestrian Ahead Indicator

 : Power

 : Rear Cross Traffic Alert

 : Registered Technician


 : Remote Start


 : Risk of Electrical Fire

 : Seat Belt Reminders

 : Service Vehicle Soon

 : Side Blind Zone Alert

 : Tire Pressure Monitor

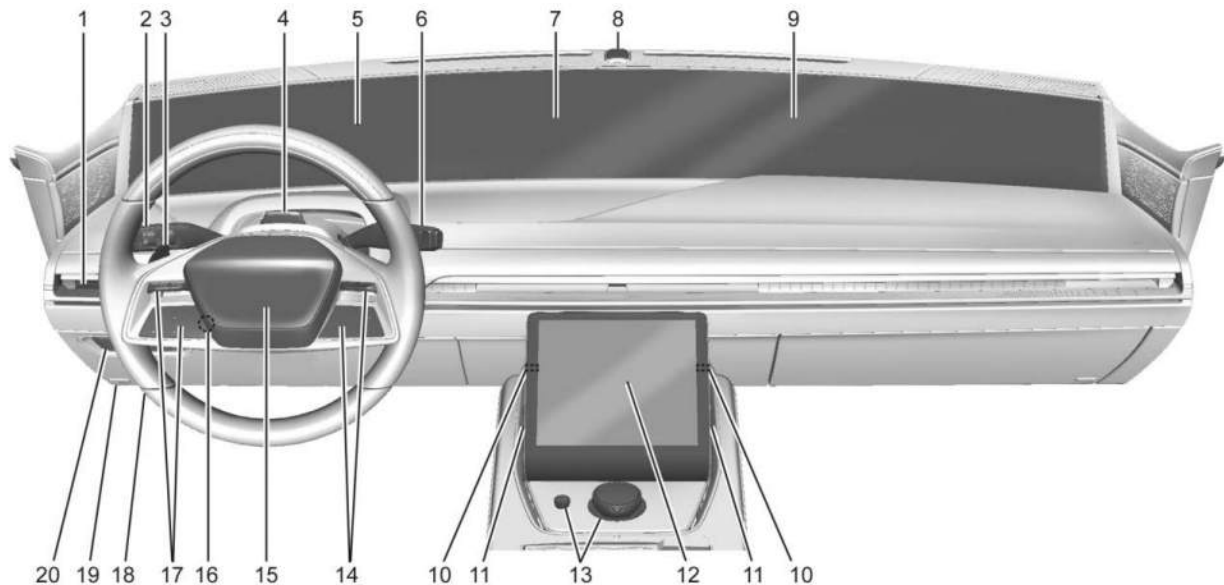
 : Traction Control/StabiliTrak/Electronic Stability Control (ESC)

 : Under Pressure

 : Vehicle Ahead Indicator

 : Vehicle Ready

Instrument Panel Overview



1. *Air Vents* ⇨ 162.

2. *Turn Signal Lever. See Turn and Lane-Change Signals* ⇨ 122.

Windshield Wiper/Washer ⇨ 89.

3. *Regenerative Braking* ⇨ 186.

4. *Driver Attention Assist* ⇨ 242.

5. *Instrument Cluster* ⇨ 93.

- Driver Information Center (DIC)* ⇨ 111.
6. *Shift Lever*. See *Electric Drive Unit* ⇨ 179.
7. *Infotainment Display*. See *Using the System* ⇨ 129.
Hood ⇨ 267.
8. *Light Sensor*. See *Automatic Headlamp System* ⇨ 120.
Charging Status Feedback ⇨ 252.
9. *Passenger Display*. See *Front Media System (Passenger)* ⇨ 135.
10. *USB Port* ⇨ 134 (Out of View).
11. *Wireless Charging* ⇨ 91 (Out of View).
12. *Center Console Display*. See *Using the System* ⇨ 129.
Climate Control Systems ⇨ 158.
Lane Keep Assist (LKA) ⇨ 244.
13. *Infotainment Controls*. See *Overview* ⇨ 128.
Radio Controls.
14. *Radio Controls*. See *Steering Wheel Controls* ⇨ 129.
15. *Horn* ⇨ 88.
16. *Steering Wheel Adjustment* ⇨ 88 (Out of View).
17. *Adaptive Cruise Control* ⇨ 194.
Super Cruise ⇨ 203 (If Equipped).
Forward Collision Alert (FCA) System ⇨ 228.
Heated Steering Wheel ⇨ 88.
V Mode. See *Driver Mode Control* ⇨ 188.
18. *Hood Release Strap*. See *Hood* ⇨ 267.
19. *Data Link Connector (DLC) (Out of View)*. See *Service Vehicle Soon Light* ⇨ 99.
20. *Electric Parking Brake* ⇨ 183.
Ride Height. See *Air Suspension* ⇨ 190.
Hood ⇨ 267.
Liftgate ⇨ 20.
Instrument Panel Illumination Control ⇨ 123.

Keys, Doors, and Windows

Keys and Locks

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Keys and Locks

Keys



Warning

Leaving children in a vehicle with a remote key is dangerous and children or others could be seriously injured or killed. They could operate the power windows or other controls or make the vehicle move. The windows will function with the remote key in the vehicle, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with a remote key.



The mechanical key that is inside of the remote key can be used for all locks.



To remove the mechanical key, press the button near the bottom of the remote key, and pull the key out. Never pull the mechanical key out without pressing the button.

If it becomes difficult to turn the key, inspect the key blade for debris. Periodically, clean the key with a brush or a pick.

See your dealer if a new key is needed.

If locked out of the vehicle, see *Roadside Assistance Program* ⇨ 339.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ⇨ 348.

Remote Key

See *Radio Frequency Statement* ⇨ 344.

If there is a decrease in the remote key operating range:

- Check the distance. The remote key may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.
- Check the remote key's battery. See "Battery Replacement" under *Remote Key Operation* ⇨ 7.

- If the remote key is still not working correctly, see your dealer or a qualified technician for service.


Remote Key Operation

The Keyless Access system allows for vehicle entry when the remote key is within 1 m (3 ft). See "Keyless Access Operation" later in this section.


The remote key functions may work up to 60 m (197 ft) away from the vehicle.

Other conditions can impact the performance of the remote key. See *Remote Key* ⇨ 7.





 : Press to lock all doors.

If enabled, the turn signal indicators may flash and/or the horn may sound on the second press. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.


If you press  when the driver door is open, all doors will lock and the driver door will immediately unlock, if enabled. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.



If you press , all doors lock.



To arm the alarm system, press . See *Vehicle Alarm System* ⇨ 23.


: Press to unlock the driver door. Press unlock again within three seconds to unlock all doors. The remote key can be programmed to unlock all doors on the first button press. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.


If enabled, the turn signal lights flash twice to indicate the doors are unlocked. You can also program the exterior lights to turn on. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.


Pressing  will disarm the alarm system. See *Vehicle Alarm System* ⇨ 23.


If auto folding mirrors is enabled, press  to unfold the mirrors. Press  to fold the mirrors. To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience. See *Folding Mirrors* ⇨ 26.



If remote window operation is enabled, press  twice and hold until the windows fully open. Press  twice and hold until the windows fully close. To view available settings from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start. See *Power Windows* ⇨ 30.


: Press twice to open or close the liftgate. Press once to stop the liftgate from moving. The vehicle must be in P (Park).

: Press twice to open the hood. Press once to stop the hood from moving. double-press and hold until the hood closes. Releasing the button before the hood closes will stop the motion. The vehicle must be in P (Park).

: Press twice to open the driver door. Press again to stop. Press twice to close the driver door. The vehicle must be in P (Park).

: Press and release once to initiate vehicle locator. The exterior lights flash and the horn chirps three times.

Press and hold  for at least three seconds to sound the panic alarm. The horn sounds and the turn signals flash for about 30 seconds or until you press  again or start the vehicle.

: Press twice from outside the vehicle to remote start the vehicle. The vehicle cannot be started if a remote key is left inside the vehicle. See *Remote Start* ⇨ 12.

Keyless Access Operation

The Keyless Access system allows the doors and liftgate to be unlocked without pressing the remote key button. The remote key must be within 1 m (3 ft) of the liftgate or door being opened.

Doors can be programmed to lock after exiting the vehicle through passive locking or delayed locking. See “Passive Locking” later in this section. The remote key can also be used to lock the doors.

Keyless Access can be programmed to unlock all doors when the exterior driver door switch is pressed. All doors will unlock when any non-driver exterior door switch is pressed

regardless of the current setting. To view available settings from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.



Keyless Unlocking from Passenger Doors

When the doors are locked and the remote key is within 1 m (3 ft) of the door, pressing the exterior door switch will unlatch the door and unlock all doors.



Disable/Enable Keyless Unlocking of Exterior Door Switches and Liftgate

Keyless unlocking of the exterior door switches and liftgate can be disabled and enabled.

Disabling Keyless Unlocking

With the vehicle off, press and hold  and  on the remote key at the same time for approximately three seconds. The turn signal lights will flash four times quickly to indicate access is disabled. Using any exterior door switch to unlock the doors or open the liftgate will cause the turn signal lights to flash four times quickly, indicating access is disabled. If disabled, disarm the alarm system before starting the vehicle.

Enabling Keyless Unlocking

With the vehicle off, press and hold  and  on the remote key at the same time for approximately three seconds. The turn signal lights will flash twice quickly to indicate access is enabled.

Passive Locking


The Keyless Access system will lock the vehicle several seconds after all doors are closed, if the vehicle is off and at least one remote key has been removed from the interior or none remain in the interior.


If other electronic devices interfere with the remote key signal, the vehicle may not detect the remote key inside the vehicle.

If passive locking is enabled, the doors may lock with the remote key inside the vehicle. Do not leave the remote key in an unattended vehicle.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Power Door Locks.

Temporary Disable of Passive Locking

Temporarily disable passive locking by pressing and holding  on the interior door switch with a door open for at least four

seconds, or until three chimes are heard. Passive locking will remain disabled until you press  on the interior door or start the vehicle.

Remote Left In Vehicle Alert

When the vehicle is turned off and a remote key is left in the vehicle, the horn will chirp three times after all doors are closed.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

Remote Removed From Vehicle Alert

If the vehicle is on with a door open, and then all doors are closed, the vehicle will check for remote keys inside. If a remote key is not detected, the Driver Information Center will display NO KEY FOUND and the horn will chirp three times.

This occurs only once each time the vehicle is driven.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

Keyless Liftgate Opening

Press the Cadillac emblem below the liftgate to open if the remote key is within 1 m (3 ft) and the doors are locked. If the doors are unlocked, the remote key is not required to open the liftgate. See *Liftgate* ⇨ 20.

Key Access

To access a vehicle with a weak remote key battery, see *Door Locks* ⇨ 13.

Programming Remote Keys to the Vehicle

Only remote keys programmed to the vehicle will work. If a remote key is lost or stolen, a replacement can be purchased and programmed through your dealer. The vehicle can be reprogrammed so that lost or stolen remote keys no longer work. Any remaining remote keys will need to be reprogrammed. Each vehicle can have up to eight remote keys matched to it.

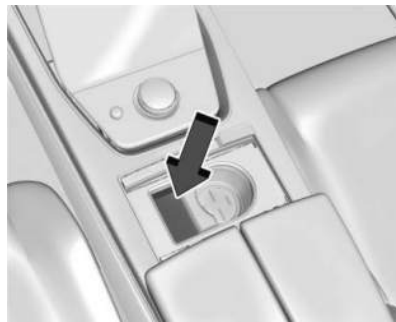
Starting the Vehicle with a Low Remote Key Battery

For improved vehicle security, the remote key is equipped with a motion sensor. When starting the vehicle, if the remote key has been idle for an extended period of time, the Driver

Information Center may display **KEY IN SLEEP MODE, MOVE KEY, THEN START**. Move the remote key slightly and try starting the vehicle.

If the remote key battery is weak or if there is interference with the signal, the Driver Information Center may display **NO KEY FOUND, REPLACE BATTERY IN KEY** or **NO REMOTE KEY WAS DETECTED PLACE KEY IN KEY POCKET THEN START YOUR VEHICLE** when starting the vehicle.

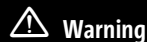
To start the vehicle:



1. Place the remote key on the mat to the left of the cupholder with the buttons facing down.

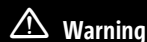
2. With the vehicle in P (Park) or N (Neutral), press the brake or close the door. See *Power Modes* ⇨ 175. Replace the remote key battery as soon as possible.

Battery Replacement



Warning

Never allow children to play with the remote key. The remote key contains a small battery, which can be a choking hazard. If swallowed, internal burns can occur, resulting in severe injury or death. Seek medical attention immediately if a battery is swallowed.



Warning

To avoid personal injury, do not touch metal surfaces on the remote key when it has been exposed to extreme heat. These surfaces can be hot to the touch at temperatures above 59 °C (138 °F).

Caution

When replacing the battery, do not touch any of the circuitry on the remote key. Static from your body could damage the remote key.

Caution

Always replace the battery with the correct type. Replacing the battery with an incorrect type could potentially create a risk of battery explosion. Dispose of used batteries according to instructions and local laws. Do not attempt to burn, crush, or cut the used battery, and avoid exposing the battery to environments with extremely low air pressures or high temperatures.

Caution

If the remote key is not reassembled properly, liquids could enter the housing and damage the circuitry, resulting in a remote key malfunction and/or failure. To

(Continued)

Caution (Continued)

prevent damage, always follow the steps for remote key reassembly in this manual to ensure the remote key is sealed properly whenever the remote key is opened.

Replace the battery if the Driver Information Center displays REPLACE BATTERY IN KEY.

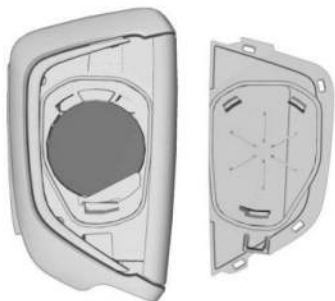
The battery is not rechargeable. To replace the battery:



1. Press the button on the side of the remote key near the bottom and pull the mechanical key out. Never pull the mechanical key out without pressing the button.



2. Use the mechanical key blade in the slot to remove the battery cover by hand.




3. Remove the battery cover.
4. Pull the seal by pulling on the tab to access the battery.
5. Remove the old battery. Do not use a metal object.
6. Insert the new battery, positive side facing up. Replace with a CR2450 Lithium or equivalent battery.
7. Place the seal back into the groove around the battery compartment.
8. Replace the battery cover by snapping it back into the remote key.
9. Reinsert the mechanical key.

Remote Start

This feature starts the heating or air conditioning systems and the rear window defogger from outside the vehicle.

If the outside temperature is below 7 °C (45 °F), and the rear window defogger is on, the area of the windshield beneath the windshield wipers will warm up to melt accumulated snow or ice.

Use remote start to heat or cool the interior when the vehicle is plugged in to maximize electric range by utilizing electricity from the electrical outlet. Normal system operation will return after the vehicle has been turned on.

: This button is on the remote key.

The climate control system will use the previous settings during a remote start. The rear defog may come on during a remote start based on cold ambient conditions. The rear defog indicator light will not come on during a remote start.

Laws in some local communities may restrict the use of remote starters. For example, some laws require a person using remote start to have the vehicle in view. Check local regulations for any requirements.

The vehicle cannot be remote started if:


- The remote key is in the vehicle.
- The total 60 minutes of remote start time has been used.
- The hazard flashers are on.
- The vehicle is not in P (Park).
- The vehicle is already started.

If the battery level is low, do not use the remote start feature. The battery may fully deplete.

The remote key range may be less while the vehicle is running.

Other conditions may affect the range and performance of the remote key. See *Remote Key* ⇨ 7.

Starting the Vehicle Using Remote Start

Press  twice on the remote key. The turn signal lamps will flash to confirm the remote start request was received. During the remote start, the parking lamps will remain on as long as the vehicle is on.

The vehicle will turn off after 60 minutes, unless you stop the remote start before remote start cycle has completed or the vehicle is turned on.

To drive, start the vehicle. See *Power Modes* ⇨ 175.


Extending Remote Start Time

Remote start can be used for up to 60 minutes of total remote start time.

After a remote start of 60 minutes, or multiple shorter starts totaling 60 minutes, the vehicle must be started and then turned off before the remote start can be used again.

Canceling a Remote Start

To cancel a remote start, do one of the following:

- Press . The parking lamps will turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then off.

Door Locks



Warning

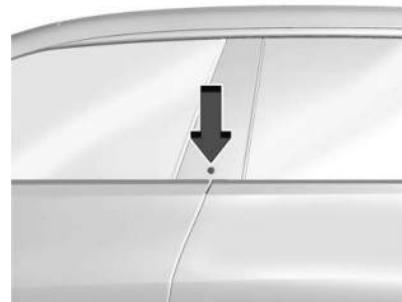
Unlocked doors can be dangerous.

(Continued)

Warning (Continued)

- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- Do not pull the door handles while the vehicle is in motion. The door may open with only a single pull. Always use safety locks when children are in the rear seats. See *Safety Locks* ⇨ 15.
- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock the vehicle whenever leaving it.
- Outsiders can easily enter through an unlocked door when you slow down or stop the vehicle. Locking the doors can help prevent this from happening.

To lock or unlock the doors from outside the vehicle, press  or  on the remote key. See *Remote Key Operation* ⇨ 7.





Press the exterior door switch to power operate the door. For more information on how to power operate the doors, see *Door Operation* ⇨ 15.

If the vehicle battery is dead, unlock the liftgate with the mechanical key. See *Liftgate* ⇨ 20.

To lock or unlock the doors from inside the vehicle:

- Press the  or  on the interior switch. See *Power Door Locks* ⇨ 14.

- Use the front or rear center console displays.
- Press  or  on the remote key. See *Remote Key Operation* ⇨ 7.


If the vehicle loses power, the door can still be opened by fully pulling the handle on the door trim.


Manual Operation

If electrical power is lost, fully pull the interior release handle to unlatch the front doors and manually open them the rest of the way. Fully pull the interior release handles once to unlock and twice to unlatch the rear doors and manually open them the rest of the way. The exterior door switch can also be pressed to manually open the door. See *Door Operation* ⇨ 15.

Power Door Locks




 : Press to unlock the doors.

 : Press to lock the doors.



Locking and unlocking the doors will also unlock the liftgate. See *Liftgate* ⇨ 20.

Delayed Locking

This feature delays the locking of the doors until five seconds after all doors are closed.

When  is pressed on the power door lock switch while the door is open, a chime will sound three times indicating delayed locking is active.

The doors will lock automatically five seconds after all doors are closed. If a door is reopened before that time, the five-second timer will reset when all doors are closed again.

Press  on the door lock switch again or press  on the remote key to lock the doors immediately.


This feature can be programmed. To view available settings from the infotainment screen, touch Settings > Vehicle > Doors & Locks.

Automatic Door Locks

The doors will lock automatically when all doors are closed, the vehicle is on, and the vehicle is shifted out of P (Park).

If a vehicle door is unlocked, and then opened and closed, the doors will lock either when your foot is removed from the brake or the vehicle speed becomes faster than 13 km/h (8 mph).

To unlock the doors:

- Press  on the power door lock switch.
- Shift the vehicle into P (Park).


Automatic door locking cannot be disabled. Automatic door unlocking can be programmed. To view available settings from the infotainment screen, touch Settings > Vehicle > Doors & Locks.

Lockout Protection

This feature protects you from locking remote keys in the vehicle.

When the lock button is pressed and the vehicle is on, with the driver door open, all of the doors will lock and then the driver door will unlock.

If the vehicle is off and locking is requested while a door is open, when all doors are closed the vehicle will check for remote keys inside. If a remote key is detected and the number of remote keys inside has not reduced, the driver door will unlock and the horn will sound three times.

This can be manually overridden by pressing and holding  on the power door lock switch.

Safety Locks

Child Safety Locks prevent passengers from opening the rear doors from inside the vehicle, as well as lock out motion for the rear seats. To adjust the rear seats in the vehicle, see *Rear Seats* ⇨ 43.

There are three paths to access and activate/deactivate the Child Safety Locks from the front center display screen:

- Controls > Doors & Windows > Child Safety Locks > Off or On
- Controls > Safety > Child Safety Locks > Off or On

or

- Controls > Doors > Child Safety Locks > Off or On

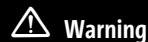
It is recommended to turn child safety locks on when a child restraint is present in the rear seats.

Rear Control Lock prevents rear passengers from using the rear center display screen.

To activate/deactivate the Rear Control Lock, on the front center display screen select Controls > Safety > Rear Control Lock > On or Off.

Doors

Door Operation



Warning

Unlocked doors can be dangerous.

- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock the vehicle whenever leaving it.
- Outsiders can easily enter through an unlocked door when you slow down or stop the vehicle. Locking the doors can help prevent this from happening.

Warning


Always pay attention to your surroundings when using the power doors. The power doors system may not always detect small objects, objects on the edge, or objects outside of the field of view. The system also may not work correctly when the sensors are blocked, such as in adverse weather conditions. Keep your hands, feet, and other objects away from moving parts to avoid vehicle damage and personal injury.

Opening a Door from the Outside

Lock or unlock the doors by:

- Pressing  or  on the remote key. See *Remote Key Operation* ⇨ 7.

Power operate the door by:

- Double pressing  on the remote key to open the driver door. Press again to stop. Double press again to close. See *Remote Key Operation* ⇨ 7 and *Radio Frequency Statement* ⇨ 344.
- Approaching the driver door with the remote key, if equipped with passive opening on approach. To view available

settings from the infotainment home screen, touch Settings > Vehicle > Doors and Locks.







- Pressing one of the exterior door switches. If the door is in motion, press again to stop the door, or to close it if already open and stopped.

If resistance is detected when the door is opening, such as in icy conditions, a mechanism inside the door will extend to attempt to force the door open.

Operating the Doors from the Inside

Lock or unlock the doors by:

- Pressing the  or  switch above the interior door handle.
- Using the front or rear center console displays.
- Pressing  or  on the remote key. See *Remote Key Operation* ⇨ 7.

Power operate the doors by:

- Lightly pulling and releasing an interior release handle located on the door trim. When the doors are locked, pull the handle fully to unlock the door and pull it a second time and the door will manually unlatch and then automatically open the rest of the way.
- Using the front or rear center console displays. The front center console display can open or close all doors individually or simultaneously. The rear center console display can open or close the rear doors.
- Pressing the brake pedal once to close the driver door. To view available settings from the infotainment home screen, select Settings > Vehicle > Doors and Locks.

Manual Operation

The doors are always power assisted even when being operated manually. The doors will automatically slow down prior to fully opening or closing. If a door is left open, the power assist will hold the door at the same position on flat ground or on an incline.

Softly push the outside of a door to close it. The power assist will close the door the rest of the way automatically.

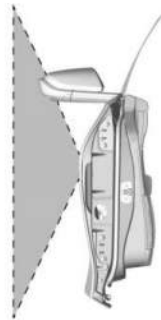
If electrical power is lost, fully pulling the interior release handle will unlatch the door and allow it to be manually opened the rest of the way. It may be more difficult to open the door without the power assist.

For the rear door, if locked and electrical power is lost, pull the interior handle once to unlock, then pull a second time to unlatch the door, allowing it to be opened.

Obstacle Detection

Caution

The sensors only detect objects within range of the door swing path. Always watch for external traffic, people, and other obstacles when operating the power doors to avoid vehicle damage and personal injury.



If equipped, a door will automatically stop if it detects an obstacle in its path during a power open cycle. The power door system cannot prevent a collision that is caused by an obstacle

moving toward the door during a power open cycle. During a power close cycle, the door will only stop if it detects intended resistance.

Hood

Warning

You or others could be injured if caught in the path of the power hood. Always supervise the operation of the power hood until it is fully opened or closed and keep hands and other body parts away from the hood when in use.

This vehicle is equipped with a power hood to cover the front underhood compartment. The power hood opens and closes with the press of a button or in hands-free mode. You can customize settings or disable this feature on the lower display screen at Settings > Vehicle > Comfort and Convenience > Power Hood Opening.

If the battery is disconnected or has low voltage, the hood will not open. The hood will resume operation when the battery is

reconnected and charged. See “Operating the Hood When There is No Electrical Power” later in this section.

Safety Features

Warning

Do not drive the vehicle if the hood is not latched completely. The hood could open fully, block your vision, and cause a crash. You or others could be injured. Always close the hood completely before driving. When the hood is not closed, the vehicle will not exceed 42 km/h (26 mph). Close the hood to drive faster than 42 km/h (26 mph).

Shift Lockout Conditions

If the hood is not closed, the electronic drive unit lockout prevents the vehicle from shifting out of P (Park). Close the hood to shift out of P (Park). Confirm the hood is closed by checking that the hood is flush with the surrounding components.

When the hood is not latched, a message will display on the Driver Information Center (DIC) and the vehicle will not be able to shift out of

P (Park). To override this function, press and hold the shift button and brake pedal until the DIC message SHIFTER UNLOCK COMPLETE is displayed. The vehicle’s speed will be limited to 42 km/h (26 mph) when the hood is not completely closed.

If the hood is closed but the ajar message is present, the electronic drive unit lockout can be overridden. Hold the brake for 20 seconds and then shift into D (Drive). The vehicle will not exceed 42 km/h (26 mph). See your dealer for service.

Obstacle Detection Features

If the hood encounters an obstacle during a power open or close cycle, a warning chime may sound and the hood will automatically reverse direction and move away from the obstacle. After removing the obstruction, the power hood operation can be used again.

If the vehicle is locked while the hood is closing and an obstacle is encountered that prevents the hood from completely closing, the horn will sound an alert that the hood did not close.

Falling Hood Detection

If the power hood encounters excess weight or a possible mechanical failure, a repetitive chime will sound and the hood will automatically lower to a stable position. If the hood stops before fully closing, carefully push the hood closed while keeping hands away from the edges of the hood.

If the hood continues to automatically close after opening, see your dealer for service before using the power hood.

Interfering with the power hood motion or manually closing the hood too quickly may activate the falling hood detection feature, or may resemble a support strut failure. Allow the hood to complete its operation and wait a few seconds before manually closing the hood.

Opening the Power Hood

Warning


You or others could be injured if caught in the path of the power hood. Make sure there is no one in the way of the hood as it is opening and closing.


To open the front hood, the vehicle must be in P (Park) and the doors unlocked. Clear any objects or snow from the hood before opening.

Use any of the methods below to open the power hood.

Settings

- To disable, enable, or customize power hood operation, select Settings > Vehicle > Comfort and Convenience > Power Hood Opening.
- To customize how far the power hood opens, see “Hood Angle Settings” later in this section.


Interior Hood Release Button: To open the hood, press  on the instrument panel to the left of the steering wheel.


Remote Key: To open the hood with the remote key, double-press . See *Remote Key Operation* ⇨ 7.


If Vehicle Has No Power: If the vehicle has lost power, the power hood and power latch will not operate. Use the manual release cable under the instrument panel instead. See “Operating the Hood When There is No Electrical Power” later in this section.

Closing the Power Hood

Before closing the hood, make sure all cargo is properly stowed and does not go above or across the top of the front underhood compartment.

Interior Power Hood Close Button: To close the hood, press and hold  on the instrument panel to the left of the steering wheel until the hood closes.

Underhood Power Hood Close Button: Press the  button in the underhood area.

Remote Key: To close the hood with the remote key, double-press  and hold. See *Remote Key Operation* ⇨ 7.


Tip-to-Close: To close the hood without pushing any buttons, pull down on the hood until the power assist engages to close the rest of the way. A chime will sound to indicate power assist activation. The power assist will only activate when the hood is above a minimum open position.

If Vehicle Has No Power: If the vehicle has lost power, the power hood and power closing latch will not operate. See “Operating the Hood When There is No Electrical Power” later in this section.

Hood Angle Settings

To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience > Power Hood Opening.

Maximum: The hood opens to the full open position. Use caution in this mode to avoid hitting overhead obstructions.

Custom: To adjust the hood open angle, manually adjust the hood to the desired angle, then press and hold the underhood switch  until the exterior lights flash and a chime sounds.

Pulling the hood too quickly may cause power assist to engage and close the hood. The hood cannot be set below the preset minimum programmable height. If no exterior lights flash or sound, then the height adjustment may be too low.

The hood is restricted to only open to a default height when the vehicle is on a steep downhill grade.

Operating the Hood When There is No Electrical Power

Warning

Do not drive the vehicle if the hood is not latched completely. The hood could open fully, block your vision, and cause a crash. You or others could be injured. Always close the hood completely before driving.

If the vehicle has lost power, the power hood and power closing latch will not operate.

The manual release cable should only be used for service or emergency use, such as loss of vehicle electrical power. Do not store any cargo in the area near the hood release cable.

Opening the Hood

The hood release cable must be pulled twice to release the hood. This process will be easier if a second person stands at the front of the vehicle to perform the second step while the first person performs the third step in the following procedure.

To open the hood:

1. Firmly pull the hood release cable on the lower left side of the instrument panel once to release the hood from its initial latched position.



2. Go to the front of the vehicle and grab the center of the hood, just above the latch. Lift the hood up until it can no longer be moved upward.
3. Return to the hood release cable and firmly pull it a second time to release the hood completely.
4. Go to the front of the vehicle and lift the hood to the desired height.



To close the hood:

1. Pull the hood down until it is secured in the latch.
2. Check to make sure the hood is latched completely. Push down on the hood to latch if it does not latch completely. Repeat this step with additional force if necessary.

Liftgate

Caution

To avoid damage to the liftgate or liftgate glass, make sure the area above and behind the liftgate is clear before opening it.

To lock or unlock the liftgate, press  or  on the remote key or the Driver Information Center (DIC).

Power Liftgate Operation

Warning

You or others could be injured if caught in the path of the power liftgate. Make sure there is no one in the way of the liftgate as it is opening and closing.

Caution

Driving with an open and unsecured liftgate may result in damage to the power liftgate components.


Power Liftgate Mode Selection

To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience > Power Rear Gate Opening.

Choose from the following settings:

Maximum: Opens to the maximum height.

Custom: Opens to a pre-programmed reduced height that is lower than the maximum open height.

To adjust the liftgate open angle, manually adjust the liftgate to the desired angle, then press and hold the liftgate switch  until the exterior lights flash and a chime sounds.


Pulling the liftgate too quickly may cause power assist to engage and close the liftgate. The hood cannot be set below the preset minimum programmable height. If no exterior lights flash or sound, then the height adjustment may be too low.

Use custom settings to prevent the liftgate from opening into overhead obstructions, such as a garage door, roof-mounted cargo, or storage areas. The liftgate can be manually opened all the way.

Off: Opens manually only.

Operating the Power Liftgate



To open or close the liftgate, press .

Keyless Liftgate Operation

Caution

Manually operating the liftgate during a power open or close can damage the liftgate system. Always wait for the power operation to complete before manually operating the liftgate.

The remote key must be within 1 m (3 ft), when the doors are locked, to open the liftgate. If the doors are unlocked, the remote key is not required to open the liftgate.





Press the Cadillac emblem below the liftgate to power open or close the liftgate when the power liftgate mode is set to Maximum or Custom.

Press the Cadillac emblem below the liftgate and lift up to open when the power liftgate mode is set to Off.

See “Power Liftgate Mode Selection” earlier in this section.

To open the liftgate, press the Cadillac emblem.

Press any liftgate button, the Cadillac emblem, or  on the remote key while the liftgate is moving to stop it.

Pressing any liftgate button or pressing  twice quickly on the remote key restarts the operation in the reverse direction. Pressing the Cadillac emblem will restart the motion, but only in the opening direction.

The power liftgate may be temporarily disabled in extremely low temperatures, or after repeated opening and closings over a short period of time. If this occurs, the liftgate can still be operated manually.

If the vehicle is shifted out of P (Park) while the power liftgate operation is in progress, the operation will continue to completion. If the vehicle is driven before the liftgate has completed moving, the liftgate may stop or reverse direction. Check for DIC messages, and make sure that the liftgate is closed and latched before driving.

Falling Liftgate Detection

If the power liftgate automatically closes after a power opening cycle, there may be excess weight on the liftgate or a possible support strut failure. A repetitive chime will sound. Remove any excess weight. If the liftgate

continues to automatically close after opening, see your dealer for service before using the power liftgate.

Interfering with the power liftgate motion or manually closing the liftgate too quickly after power opening may activate the falling liftgate detection feature. Allow the liftgate to complete its operation and wait a few seconds before manually closing the liftgate.

Obstacle Detection Features

If the liftgate encounters an obstacle during a power open or close cycle, the liftgate will automatically reverse direction and move a short distance away from the obstacle. After removing the obstruction, the power liftgate operation can be used again. If the liftgate encounters multiple obstacles on the same power cycle, the power function will deactivate. After removing the obstructions, manually close the liftgate. This will allow normal power operation functions to resume.

If the vehicle is locked while the liftgate is closing, and an obstacle is encountered that prevents the liftgate from completely closing, the horn will sound as an alert that the liftgate did not close.

Liftgate Key Lock Cylinder Access (In Case of Dead Battery)



To access the liftgate key lock cylinder, insert the mechanical key into the cylinder and turn to unlock. See *Keys* ⇨ 6.

Free-Turning Locks

The key cylinder turns freely when either the wrong key is used, or the correct key is not fully inserted. The free-turning lock feature prevents the lock cylinder from being forced open. To reset the lock cylinder, ensure the correct key is fully inserted into the lock cylinder and then rotate the key until you feel the lock

cylinder click back into place. Remove the key and reinsert fully. Rotate the key to unlock the vehicle.

Vehicle Security

This vehicle has theft-deterrent features; however, they do not make the vehicle impossible to steal.



Vehicle Alarm System



The indicator light indicates the status of the system.

Arming the Alarm System


1. Turn off the vehicle.

2. Lock the vehicle in one of three ways:
 - Use the remote key.
 - Use the Keyless Access system.
 - With a door open, press  on the interior of the door.
3. After 30 seconds the alarm system will arm, and the indicator light will begin to slowly flash. Pressing  on the remote key a second time will bypass the 30-second delay and immediately arm the alarm system.

The alarm will also be activated if a passenger door, the tailgate, or the hood is opened without first disarming the system. When the alarm is activated, the turn signals flash and the horn sounds for about 30 seconds. The alarm system will then re-arm to monitor for the next unauthorized event.

Disarming the Alarm System

To disarm the alarm system or turn off the alarm if it has been activated:


- Press  on the remote key.
- Unlock the vehicle using the Keyless Access system.

- Start the vehicle.

To avoid setting off the alarm by accident:

- Lock the vehicle after all occupants have exited.
- Always unlock a door with the remote key, or use the Keyless Access system.

How to Detect a Tamper Condition

If  is pressed on the remote key and the horn sounds three times, an alarm occurred previously while the alarm system was armed.

If the alarm has been activated, a message will appear on the Driver Information Center.

Power Sounder, Inclination Sensor, and Intrusion Sensor

In addition to the standard theft-deterrent system features, this system may also have inclination and intrusion sensors.

The power sounder provides an audible alarm which is distinct from the vehicle horn. It has its own power source and can sound an alarm if the vehicle's battery is compromised.

The inclination sensor can set off the alarm if it senses movement of the vehicle, such as a change in vehicle orientation.

The intrusion sensor monitors the vehicle interior, and can activate the alarm if it senses unauthorized entry into the vehicle interior. Do not allow passengers or pets to remain in the vehicle when the intrusion sensor is activated.


Before arming the theft-deterrent system and activating the intrusion sensor:

- Make sure all doors and windows are completely closed.
- Secure any loose items such as sunshades.
- Make sure there are no obstructions blocking the sensors in the front overhead console.

Intrusion and Inclination Sensors Disable Switch

It is recommended that the inclination and intrusion sensors are deactivated if pets are left in the vehicle or the vehicle is being transported.

The default state of the intrusion and inclination sensors is on.

When the vehicle is turned on, from the front center console display, select Controls  > Park > Motion Sensor to activate or deactivate the intrusion and inclination sensors.

The indicator light may come on momentarily, or a message may display on the instrument cluster, indicating that the sensor has been deactivated until the next time the system is armed.

Steering Column Lock

The steering column lock is a theft-deterrent device. This feature locks the steering column when the vehicle is turned off and the driver door is opened, or when the driver door is opened and then the vehicle is turned off. The steering column unlocks when the vehicle is turned on.

The Driver Information Center may display one of these messages:

- A message to service the steering column lock indicates that an issue has been detected with the column lock feature and the vehicle should be serviced.
- A message that the steering column is locked indicates that the vehicle is on, but the steering column is still locked. It is normal for the column to be locked during a remote start, but the column should

unlock after the brake pedal is pressed and the vehicle is started. No message will display during a remote start.

- A message that the steering wheel must be turned and the vehicle must be started again indicates that the column lock mechanism is bound, the column locking device was unable to unlock the steering column, and the vehicle did not start. If this happens, immediately turn the steering wheel from side to side to unbind the column lock. If this does not unlock the steering column, turn the vehicle off and open the driver door to reset the system. Then turn the vehicle on and immediately turn the steering wheel side to side for about 15 seconds. In some cases, it may take significant force to unbind the column.

To keep the steering column from binding, straighten the front wheels before turning off the vehicle.

Immobilizer

See *Radio Frequency Statement* ⇨ 344.

Immobilizer Operation

This vehicle has a passive theft-deterrent system.

The system does not have to be manually armed or disarmed.

The vehicle is automatically immobilized when the vehicle is turned off.

The immobilization system is disarmed when the vehicle is turned on and a valid remote key is present in the vehicle.



The security light, in the instrument cluster, comes on if there is a problem with arming or disarming the theft-deterrent system.

The system has one or more remote keys matched to an immobilizer control unit in the vehicle. Only a correctly matched remote key will start the vehicle. If the remote key is ever damaged, you may not be able to start your vehicle.

When trying to start the vehicle, the security light may come on briefly.

If the vehicle does not start and the security light stays on, there is a problem with the system. Turn the vehicle off and try again.

If the vehicle will not turn on or off, and the remote key appears to be undamaged, try another remote key. Or, you may try placing the remote key in the backup location. See “Starting the Vehicle with a Low Remote Key Battery” in *Remote Key Operation* ⇨ 7.

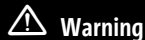
If the vehicle will not turn on or off with the other remote key or in the backup location, the vehicle needs service. If the vehicle does turn on or off, the first remote key may be faulty. See your dealer.

It is possible for the immobilizer system to learn new or replacement remote keys. Up to eight remote keys can be programmed for the vehicle. To program additional remote keys, see “Programming Remote Keys to the Vehicle” under *Remote Key Operation* ⇨ 7.

Do not leave the remote key or device that disarms or deactivates the theft-deterrent system in the vehicle.

Exterior Mirrors

Convex Mirrors



Warning

A convex mirror can make things, like other vehicles, look farther away than they really are. If you cut too sharply into the next lane, you could hit a vehicle that is driving next to you. Check the inside mirror or glance over your shoulder before changing lanes.

Convex mirrors are curved so that more can be seen from the driver seat.





The driver side mirror is flat.



The passenger side mirror is convex shaped.

Power Mirrors



To adjust the mirrors:



1. Press  or  to choose the driver or passenger mirror. An indicator will show the selected mirror.
2. Press one of the four arrows on the control pad while the indicator light on button  or  is illuminated, to move the mirror in the desired direction.
3. Adjust each outside mirror so that a little of the vehicle and the area behind it can be seen.

4. Press  or  again to deselect the mirror. If you do not deselect the mirror, the mirror adjustment will turn off after about one minute.

Folding Mirrors



To adjust power folding mirrors:

1. Press  to fold the mirrors inward.
2. Press  again to return the mirrors to the driving position.

The outside mirrors may automatically unfold when the vehicle is driven above 20 km/h (12 mph), but may be folded with the power folding mirror switch. If the vehicle speed is

driven above 40 km/h (25 mph), they may automatically unfold and may not be refolded with the power folding mirror switch.

Resetting the Power Folding Mirrors

Reset the power folding mirrors if:

- The mirrors are accidentally obstructed while folding.
- They are accidentally manually folded/unfolded.
- The mirrors do not stay in the unfolded position.
- The mirrors vibrate at normal driving speeds.
- One mirror folds while the other unfolds.

Fold and unfold the mirrors one time using the mirror controls to reset them to their normal position. A noise may be heard during the resetting of the power folding mirrors. This sound is normal after a manual folding operation.



If one mirror folds while the other unfolds, fold and unfold the mirrors three times using the mirror controls to reset them to their normal position. A noise may be heard

during the resetting of the power folding mirrors. This sound is normal after a manual folding operation.

Remote Mirror Folding

If the mirrors have been folded with the power folding mirror switch, they may not be unfolded by use of remote key.

If the mirrors have not been folded with the power folding mirror switch and the vehicle is in P (Park), they may be automatically folded/unfolded as follows:

- If doors are locked by pressing  on the remote key, the mirrors will fold. If doors are unlocked by pressing  on the remote key, the mirrors will unfold. See *Remote Key Operation* ⇨ 7.
- If doors are unlocked by pressing the exterior door switch, the mirrors will unfold. See “Keyless Unlocking/Locking from the Driver Door” in *Remote Key Operation* ⇨ 7.
- If passive locking is enabled and doors are locked by that feature, the mirrors will fold. See “Passive Locking” in *Remote Key Operation* ⇨ 7.


Lane Change Alert (LCA)

The vehicle may have LCA. See *Lane Change Alert (LCA)* ⇨ 238.


Turn Signal Indicator


The vehicle may have a turn signal indicator on the mirror housings. The indicator will flash when a turn signal or the hazard warning flashers are used.

Heated Mirrors

If equipped with heated mirrors,  will be present on both side mirrors. The symbol does not illuminate when the heated mirrors are active.

The rear window defogger also heats the outside mirrors.

 : If equipped, the rear window defogger also heats the outside mirrors. See “Rear Window Defogger” under *Climate Control Systems* ⇨ 158.

 REAR : If equipped, press to heat the outside rearview mirrors.

Reverse Tilt Mirrors

If equipped with reverse tilt mirrors and memory seats, the passenger and/or driver mirror tilts to a preselected position when the vehicle is in R (Reverse). This allows the curb to be seen when parallel parking.

The mirror(s) may move from their tilted position when:

- The vehicle is shifted out of R (Reverse) or remains in R (Reverse) for about 30 seconds.
- The vehicle is turned off.
- The vehicle is driven in R (Reverse) above a set speed.

To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience.

Interior Mirrors

Interior Rearview Mirrors

Adjust the rearview mirror for a clear view of the area behind your vehicle.

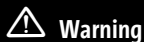
Do not spray glass cleaner directly on the mirror. Use a soft towel dampened with water.

Automatic Dimming Rearview Mirror

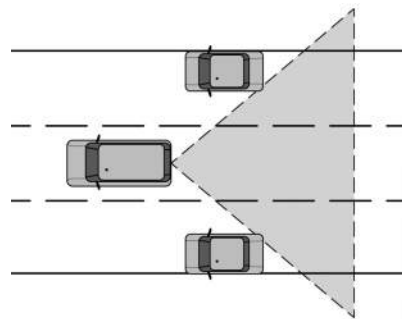
Mirror

If equipped, automatic dimming reduces the glare of headlights from behind. The dimming feature comes on when the vehicle is started.

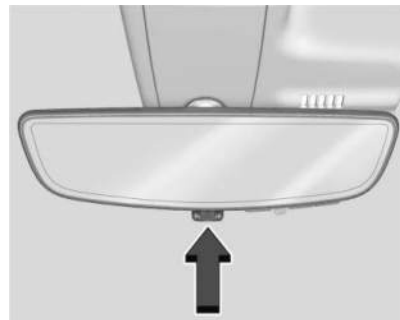
Rear Camera Mirror



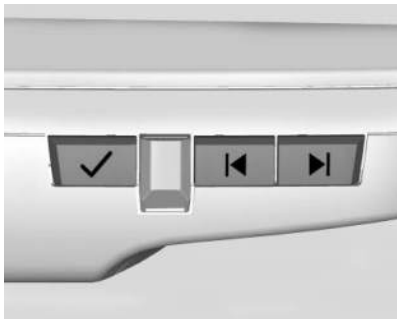
The Rear Camera Mirror (RCM) has a limited view. Portions of the road, vehicles, and other objects may not be seen. Do not drive or park the vehicle using only this camera. Objects may appear closer than they are. Check the outside mirrors or glance over your shoulder when making lane changes or merging. Failure to use proper care may result in injury, death, or vehicle damage.






If equipped, this automatic dimming mirror provides a wide angle camera view of the area behind the vehicle.



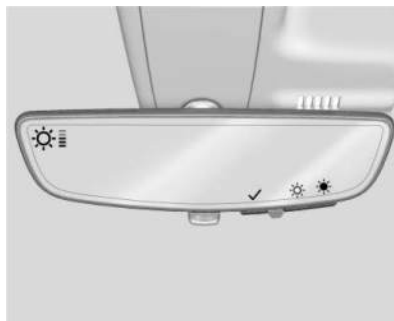
Pull the tab to turn on the display. Push the tab to turn it off. When off, the mirror is automatic dimming. Adjust the mirror for a clear view of the area behind the vehicle while the display is off.



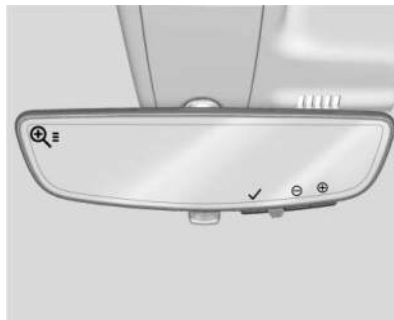
Press  to scroll through the adjustment options.

Press  and  to adjust the settings using the indicators on the mirror. The indicators will remain visible for five seconds after the last button activation, and the settings will remain saved.

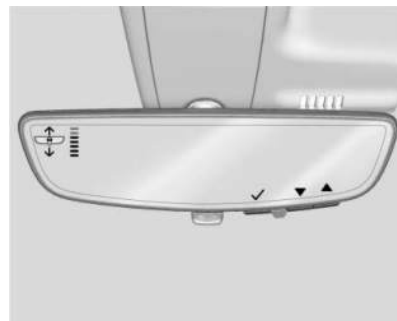
The adjustment options are:



- Brightness

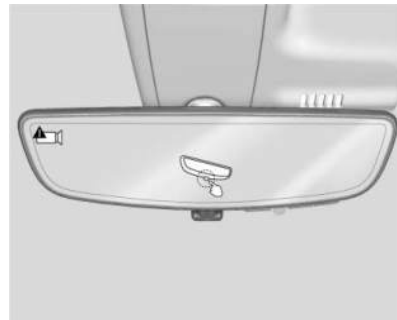



- Zoom



- Tilt

Troubleshooting



See your dealer for service if a blue screen and  are displayed in the mirror, and the display shuts off. Also, push the tab as indicated to return to the automatic dimming mode.

The Rear Camera Mirror may not work properly or display a clear image if:

- There is glare from the sun or headlights. This may obstruct objects from view. If needed, push the tab to turn off the display.
- Dirt, snow, or other debris blocks the camera lens. To clean the rear camera, see *Windshield Wiper/Washer* ⇨ 89 or clean the lens with a soft damp cloth.



- The camera's mounting on the vehicle has been damaged, and/or the position or the mounting angle of the camera has changed.

Windows

Warning

Never leave a child, a helpless adult, or a pet alone in a vehicle, especially with the windows closed in warm or hot weather. They can be overcome by the extreme heat and suffer permanent injuries or even death from heat stroke.



The vehicle aerodynamics are designed to improve electric range performance. This may result in a pulsing sound when either rear window is down and the front windows are up. To reduce the sound, open a front window.

Power Windows

Warning

Children could be seriously injured or killed if caught in the path of a closing window. Never leave the remote key in a vehicle with children. When there are children in the rear seat, use the window lockout switch to prevent operation of the windows. See *Keys* ⇨ 6.



The power windows work when the vehicle is on.

Using the window switch, press to open or pull to close the window.

The windows may be temporarily disabled if they are used repeatedly within a short time.

Window Lockout

If equipped, this feature prevents rear seat passengers from opening the rear windows.

To enable or disable this feature from the infotainment home screen, Controls App > Power Window Lockout quick control.

Window Express Movement

This feature allows you to open all windows fully without holding the switches down. Press the switch down fully, then release to express open the window.

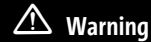
If equipped, pull the window switch up fully and quickly release to express close the window.

Briefly press or pull the window switch in the same direction to stop that window's express movement.

Window Automatic Reversal System

If equipped, the window automatic reversal system reverses and stops window movement if it detects an object in its path. Extreme cold or ice may cause the window to auto-reverse. The window will operate normally after the object or condition is removed.

Automatic Reversal System Override



Warning

If automatic reversal system override is active, the window will not reverse automatically. You or others could be injured and the window could be damaged. Before using automatic reversal system override, make sure that all people and obstructions are clear of the window path.

When the vehicle is on, override the automatic reversal system by pulling and holding the window switch if conditions prevent the window from closing.

Programming the Power Windows

Programming may be necessary if the vehicle battery is disconnected or discharged. To program an express-close window:


1. Close all doors.
2. Turn the vehicle on.
3. Partially open the window you want to program, then close it and continue to pull the switch briefly after the window has fully closed.


4. Open the window and continue to press the switch briefly after the window has fully opened.

Remote Window Operation

If equipped and enabled, this feature allows you to open all the windows remotely.

To view available settings and enable Remote Window Operation, from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

To open the windows remotely, double-press and hold  on the remote key.

If equipped, all windows can also be closed using the remote key. To close all windows remotely, double-press and hold  on the remote key.

Automatic Window Sealing

If equipped, the automatic window sealing feature prevents window damage.

When the window is fully closed, the window automatically lowers a small amount when the door is opened. The window raises when the door closes.

Power Loss

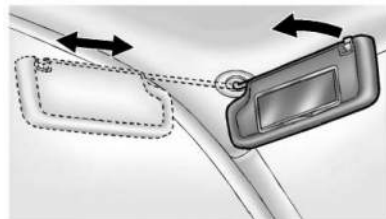
If a window does not raise or lower properly, it could be due to loss of power. See “Programming the Power Windows.”

Frozen Windows

Freezing temperatures may prevent windows from lowering a small amount. If the window will not open:

1. Clear any snow/ice from the door and window.
2. Open the door.
3. Grasp the top of the window, and carefully push and pull until ice between the window and rubber seal breaks.
4. Press the window switch down to lower the window completely and then pull the switch to raise the window up partially.
5. Close the door. The window should raise up to its fully closed position.

Sun Visors



Pull the sun visor down to block glare. Detach the sun visor from the center mount to pivot to the side window or, if equipped, extend along the rod.

Visor Vanity Mirror

The vehicle may have vanity mirrors and card holders on the back of the sun visors. Swing down the sun visor to expose the vanity mirror.

Roof

Smart Glass Roof

Smart Glass Panoramic Roof

The panoramic glass roof is equipped with additional settings which allow you to change the tint level. The roof is divided into multiple zones which can be controlled independently or all at once, as desired.

The system is accessed through Controls & Safety > Tint on the front and rear center display screens, or with the physical switch on the overhead console (1). Options allow you to manually set the tint to any of the five pre-defined tint levels, and an automatic mode that sets the roof tint to maximum during the day and minimum at night.



The system only operates when the vehicle is on, or when Retained Accessory Power (RAP) is active. See *Power Modes* ⇨ 175. When the vehicle is off, the roof will darken to its maximum tint. Your last settings will be saved and restored upon reactivating the vehicle.

Colder outside temperatures will slow the speed at which the system is able to operate.

Tinting Levels

The system has five levels of tint: A maximum clear, maximum dark, and three intermediate tint levels.

Tinting Modes

Individual: The tint level can be selected by tapping the individual panel to the desired tint level, of the available options listed above.

All Clear or All Dark: Select All Clear to set all panels to maximum clear. Select All Dark to set all panels maximum dark.

Automatic: The system will change to All Clear at night, or All Dark during the day.

Absolute Opacity: Will set all panels to All Clear or All Dark. This can also be activated by the overhead console switch (1).

Synchronous: The system can be adjusted via a tint slider. This mode will set all panels to an intermediate tint level and can then be adjusted to the desired levels.

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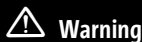
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Head Restraints

Front Seats



Warning

With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

The front seats have adjustable head restraints in the outboard seating positions.



Adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head. This position reduces the chance of a neck injury in a crash.

The height of the head restraint can be adjusted. To raise or lower the head restraint, touch > Position on the front center display screen, then select the desired adjustment on the head restraint image.

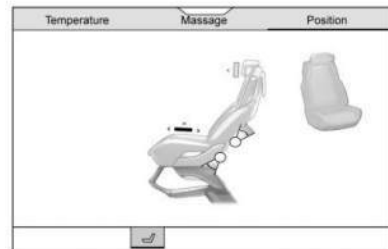
The seat is equipped with a memory function. See *Memory Seats* ⇨ 39 for more information.

The front seat outboard head restraints are not removable.

Rear Seats

Adjusting the Rear Head Restraint

The rear seats have adjustable head restraints.



The fore/aft position of the head restraints can be adjusted. To move the head restraint, touch on the rear center display screen, then select the head restraint fore/aft adjustment under the Position tab. The rear head restraints can also be adjusted from the front center display screen. See *Power Seat Adjustment* ⇨ 36.

The seat is equipped with a memory function. See *Memory Seats* ⇨ 39.

The rear head restraints are not removable.

Front Seats

Power Seat Adjustment

Warning

You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.

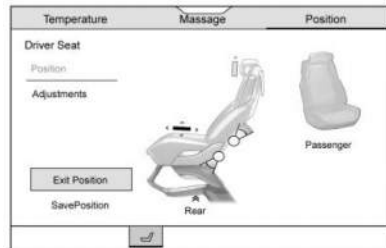
Warning

The power seats will work with the vehicle off. Children could operate the power seats and be injured. Never leave children alone in the vehicle.




To adjust the seat with the manual control:

- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the entire seat by moving the rear of the control up or down.



To adjust the seat from the front center display screen:

- Select  > Position and then touch the desired adjustment on the seat image.
- To adjust the rear seats, select Rear Right or Rear Left.

Warning


If equipped, the second row passenger can create more legroom by moving the front passenger seat with controls located on the rear center display screen. To prevent serious injury or death in a crash,


(Continued)


Warning (Continued)

do not permit a rear seat passenger to move the front seat if someone is seated there. Disable the controls by activating Rear Control Lock from the front center display screen.

To adjust the front passenger seat on the front or rear center display screen:

- Select  > Position > Rear Right > Legroom.

To activate the Rear Control Lock on the front center display screen to prevent rear passengers from using the rear center display screen, select  > Safety > Rear Control Lock.

Reclining Seatbacks** Warning**

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the seat belts cannot do their job.

(Continued)

Warning (Continued)

The shoulder belt will not be against your body. Instead, it will be in front of you. In a crash, you could go into it, receiving neck or other injuries.

The lap belt could go up over your abdomen. The belt forces would be there, not at your pelvic bones. This could cause serious internal injuries.

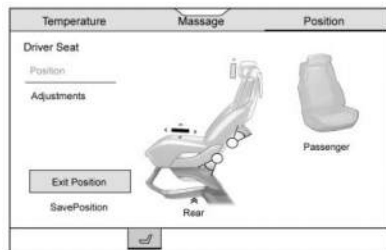
For proper protection when the vehicle is in motion, have the seatback upright. Then sit well back in the seat and wear the seat belt properly.



Do not have a seatback reclined if the vehicle is moving.



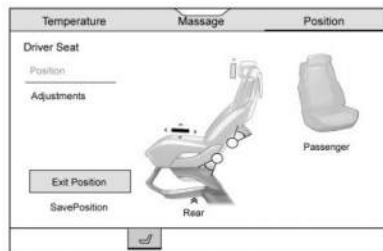
- Move the control back to recline.
- Move the control forward to raise.



Front Center Display Screen

To adjust the reclining seatbacks from the front center display screen, select > Position and then select the desired adjustment on the seat image.

Lumbar Adjustment

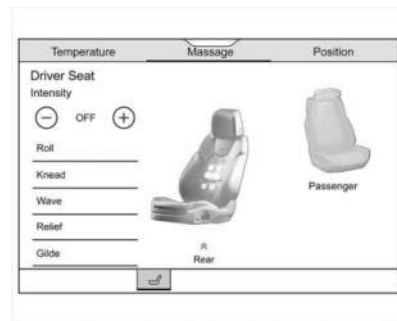


To adjust the lumbar feature from the front center display screen, select > Position and then touch the desired adjustment on the seat image.

Bolster Support

To adjust the back or cushion bolster from the front center display screen, select > Adjustments and then touch the desired adjustment on the seat image.

Massage



To enable the massage feature from the front center display screen, select > Massage and then select the desired massage type and intensity on the seat image.

Memory Seats



Overview

The memory seat feature allows drivers to save their unique driving positions and a shared exit position. See “Saving Seating Positions” later in this section. The saved positions can be recalled manually by all drivers. See “Manually Recalling Seating Positions” later in this section. Drivers with remote key 1 and 2 can also recall them automatically. See “Auto Seat Entry Memory Recall” or “Auto Seat Exit Memory Recall” later in this section. To enable automatic recalls, turn on Seat Entry Memory and/or Seat Exit Memory. See “Enabling Automatic Recalls” later in this

section. The memory recalls may be canceled at any time during the recall. See “Cancel Memory Seating Recalls” later in this section.

Identifying Driver Number

The vehicle identifies the current driver by their remote key number 1–8. The current remote key number may be identified by Driver Information Center (DIC) welcome message, “You are driver x for memory recalls.” This message is displayed the first few times the vehicle is turned on when a different remote key is used. For Seat Entry Memory to work properly, save positions to the 1 or 2 memory button matching the driver number of this welcome message. To aid in identifying remote key IDs, it is recommended to only carry one remote key when entering the vehicle. Perform the following if the welcome message is not displayed:

1. Move all remote keys away from the vehicle.
2. Turn the vehicle on with another remote key. A DIC welcome message should display indicating the driver number of the other remote key. Turn the vehicle off and remove the other remote key from the vehicle.

3. Turn the vehicle on with the initial remote key. The DIC welcome message should display the driver number of the initial remote key.



Saving Seating Positions

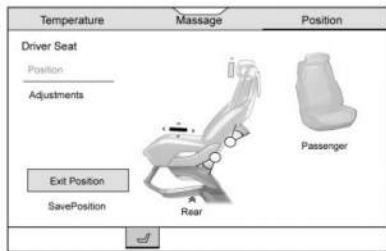
Read these instructions completely before saving memory positions.

To save preferred driving positions to 1 and 2:


1. Turn the vehicle on. A DIC welcome message may indicate the driver number of the current remote key. See “Identifying Driver Number” previously in this section.
2. Adjust all available memory features to the desired driving position.
3. Press and release SET; a chime will sound.
4. Immediately upon releasing SET, press and hold memory button 1 or 2 matching the current driver’s remote key number until two chimes sound. If too much time passes between releasing SET and pressing 1 or 2, the two chimes will not sound indicating memory position were not saved. Repeat Steps 3 and 4 to try again.
5. Repeat Steps 1–4 for the other remote key 1 or 2 using the other 1 or 2 memory button.

It is recommended to save the preferred driving positions to both 1 and 2 if you are the only driver.

To save the common exit seating position to  that is used by all drivers for Manually Recalling Seating Positions and Auto Seat Exit Memory Recall features, repeat Steps 1–4 using , the exit button.





Center Display Screens

The seat positions can also be adjusted and saved from the front or rear center display screens. Select  on the display, select the Position tab, then touch and hold the desired position type. The rear seat positions can be


adjusted and saved from the front center display screen by selecting Rear. See *Power Seat Adjustment* ⇨ 36.

Manually Recalling Seating Positions

Press and hold 1, 2, or  button until the recall is complete, to recall the positions previously saved to that button.

Manual Memory recall movement for 1, 2 or  buttons may be initiated and will complete to the saved memory position if the vehicle is in or out of P (Park).

Enabling Automatic Recalls

- Seat Entry Memory moves the driver seat to the selected 1 or 2 position when the vehicle is started. Select Settings > Vehicle > Seating Position > Seat Entry Memory > ON or OFF. See “Auto Seat Entry Memory Recall” later in this section.
- Seat Exit Memory moves the driver seat to the preferred exit position of the  button when the vehicle is turned off and the door is opened. Select Settings > Vehicle > Seating Position > Seat Exit Memory > ON or OFF. See “Auto Seat Exit Memory Recall” later in this section.

Auto Seat Entry Memory Recall

Seat Entry Memory will automatically begin movement to the seating positions of the 1 or 2 button corresponding to the driver’s remote key number 1 or 2 detected by the vehicle when:

- The vehicle is turned ON.
- Seating positions have been previously saved to the same 1 or 2 button. See “Saving Seating Positions” previously in this section.
- Seat Entry Memory is enabled. See “Enabling Automatic Recalls” previously in this section.
- The vehicle is in P (Park).

Seat Entry Memory Recall will continue if the vehicle is shifted out of P (Park) prior to reaching the saved memory position.


If the saved memory seat position does not automatically recall, verify the recall is enabled. See “Enabling Automatic Recalls” previously in this section.


If the memory seat recalls to the wrong position, the driver’s remote key number 1 or 2 may not match the memory button number positions they were saved to. Try the other

remote key or try saving the positions to the other 1 or 2 memory button. See “Saving Seating Positions” previously in this section.


Automatic Seat Entry Memory recalls are only available for driver’s remote key numbers 1 and 2. Remote keys 3–8 will not provide Seat Entry Memory recalls.

Auto Seat Exit Memory Recall




Seat Exit Memory will begin movement to the seating position of the  button when:

- The vehicle is turned off and the driver door is open or opened within a short time.
- A seating position has been previously been saved to the  memory button. See “Saving Seating Positions” previously in this section.
- Seat Exit Memory is enabled. See “Enabling Automatic Recalls” previously in this section.
- The vehicle is in P (Park).

Seat Exit Memory recall will continue if the vehicle is shifted out of P (Park) prior to reaching the saved memory position.

Seat Exit Memory is not linked to the driver’s remote key. The seating position saved to  is used for all drivers.

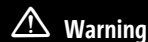
Cancel Memory Seating Recalls

- During any memory recall:
Press a power seat control
Press SET memory button
- During Manual memory recall:
Release 1, 2, or  memory button
- During Auto Seat Entry Memory Recall:
Turn the vehicle off
Press SET, 1, 2, or  memory buttons
- During Auto Seat Exit Memory Recall:
Press SET, 1, 2, or  memory buttons

Obstructions

If something has blocked the seat while recalling a memory position, the recall may stop. Remove the obstruction and try the recall again. If the memory position still does not recall, see your dealer.

Heated and Cooled Front Seats







Warning



If temperature change or pain to the skin cannot be felt, the seat heater may cause burns. To reduce the risk of burns, use care when using the seat heater, especially for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket, cushion, cover, or similar item. This may cause the seat heater to overheat. An overheated seat heater may cause a burn or may damage the seat.



The buttons are located on the door panel. To operate, the vehicle must be on.

Press  or  to heat the driver or passenger seatback and cushion.

Press  or  to heat the driver or passenger seatback.


Press  or  to cool the driver or passenger seat.

When this feature is off, the heated and cooled seat symbols on the buttons are white. When a heated seat is on, the symbol is red. When a cooled seat is on, the symbol is blue.

Press the button once for the highest setting. With each press of the button, the seat will change to the next lower setting, and then to the off setting. The indicator lights next to the buttons indicate three for the highest setting and one for the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

The passenger seat may take longer to heat up.

Front Center Display Screen

The heated and cooled front seat controls can be accessed on the front center display screen. Select  > Temperature. Additional heated and cooled seat options can be selected by touching the seat image.

To sync the heated arm rest and seat options, select Settings > Vehicle > Climate and Air Quality > Sync Heated Arm Rest/Seat.

Auto Heated and Cooled Seats

When the vehicle is on, this feature will automatically activate the heated and cooled seats at the level required by the vehicle's interior temperature.

The active high, medium, low, or off heated and cooled seat level will be indicated by the manual heated and cooled seat buttons. Use the manual heated and cooled seat buttons to turn auto heated and cooled seats off. If the passenger seat is unoccupied, the auto heated and cooled seats feature will not activate that seat. To enable or disable auto heated and cooled seats, select Settings > Vehicle > Climate and Air Quality > Cooled/Ventilated Seats on Startup > ON or OFF.

Remote Start Heated and Cooled Seats

During a remote start the heated and cooled seats can be turned on automatically. When it is cold outside, the heated seats turn on, and when it is hot outside the cooled seats turn on. If the auto heated and cooled seats feature is not turned on, the heated and cooled seats may be canceled when the vehicle is turned on. If necessary, press the heated and cooled seat button to use the heated and cooled seats after the vehicle is started.

The heated and cooled seat indicator lights may turn on during a remote start.

The temperature performance of an unoccupied seat may be reduced. This is normal.

To enable or disable remote start heated and cooled seats, select Settings > Vehicle > Remote Lock, Unlock, and Start > Remote Start Auto Heated Seats or Remote Start Auto Cooled/Ventilated Seats > ON or OFF. See *Remote Start* ⇨ 12.

Rear Seats

Rear Seat Reminder

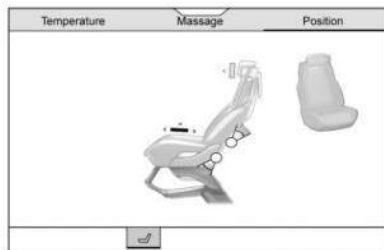
The message REAR SEAT REMINDER LOOK IN REAR SEAT displays under certain conditions indicating there may be an item or passenger in the rear seat. Check before exiting the vehicle.

This feature will activate when a second row door is opened while the vehicle is on or up to 10 minutes before the vehicle is turned on. There will be an alert when the vehicle is turned off. The alert does not directly detect objects in the rear seat; instead, under certain conditions, it detects when a rear door is opened and closed, indicating that there may be something in the rear seat.

The feature is active only once each time the vehicle is turned on and off, and will require reactivation by opening and closing the second row doors. There may be an alert even when there is nothing in the rear seat; for example, if a child entered the vehicle through the rear door and left the vehicle without the vehicle being shut off.

The feature can be turned on or off. Select Settings > Vehicle > Rear Seat Reminder > ON or OFF.

Rear Seat Adjustment



To adjust the rear seats from the rear center display screen, select > Position and then touch the desired adjustment on the seat image.

The rear seats can also be adjusted from the front center display screen. See *Power Seat Adjustment* ⇨ 36.

Rear Seat Lockout

The Child Safety Locks can be enabled to lock out the rear executive seats. This will prevent motion of the rear seats. See *Safety Locks* ⇨ 15.

Massage

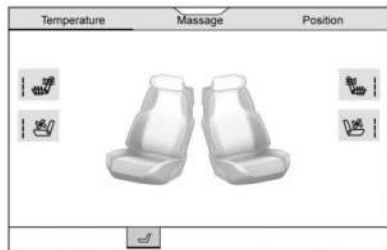
To enable the massage feature from the rear center display screen, select > Massage and then select the desired massage type and intensity on the seat image.

The rear seat massage feature can also be enabled from the front center display screen. See *Massage* ⇨ 38.

Heated and Cooled Rear Seats

Warning

If temperature change or pain to the skin cannot be felt, the seat heater may cause burns. See the Warning under *Heated and Cooled Front Seats* ⇨ 41.



You can turn on the heated and cooled rear seats from the center display screens.

- From the rear center display screen, select > Temperature.
- From the front center display screen, see *Heated and Cooled Front Seats* ⇨ 41.

Select or to heat the seats.

Select or to cool the seats.

Touch once for the highest setting. With each touch, the seat will change to the next lower setting, and then to the off setting. The indicators next to the icon indicate three for the highest setting and one for the lowest. If

the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

Additional heated and cooled seat options can be selected by touching the seat image.

Auto and Remote Start Heated and Cooled Seats

The heated and cooled rear seats can be automatically enabled. See *Heated and Cooled Front Seats* ⇨ 41.

Seat Belts

This section describes how to use seat belts properly, and some things not to do.

Warning

Do not let anyone ride where a seat belt cannot be worn properly. In a crash, if you or your passenger(s) are not wearing seat belts, injuries can be much worse than if you are wearing seat belts. You can be seriously injured or killed by hitting things inside the vehicle harder or by being ejected from

(Continued)

Warning (Continued)

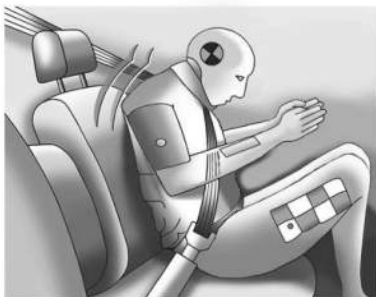
the vehicle. In addition, anyone who is not buckled up can strike other passengers in the vehicle.

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, passengers riding in these areas are more likely to be seriously injured or killed. Do not allow passengers to ride in any area of the vehicle that is not equipped with seats and seat belts.

Always wear a seat belt, and check that all passenger(s) are restrained properly too.

This vehicle has indicators as a reminder to buckle the seat belts. See *Seat Belt Reminders* ⇨ 95.

Why Seat Belts Work



When riding in a vehicle, you travel as fast as the vehicle does. If the vehicle stops suddenly, you keep going until something stops you. It could be the windshield, the instrument panel, or the seat belts!

When you wear a seat belt, you and the vehicle slow down together. There is more time to stop because you stop over a longer distance, and when worn properly, your strongest bones take the forces from the seat belts. That is why wearing seat belts makes such good sense.

Questions and Answers About Seat Belts

- Q:** Will I be trapped in the vehicle after a crash if I am wearing a seat belt?
- A:** You *could* be — whether you are wearing a seat belt or not. Your chance of being conscious during and after a crash, so you *can* unbuckle and get out, is *much* greater if you are belted.
- Q:** If my vehicle has airbags, why should I have to wear seat belts?
- A:** Airbags are supplemental systems only. They work *with* seat belts — not instead of them. Whether or not an airbag is provided, all occupants still have to buckle up to get the most protection.
- Also, in nearly all states and in all Canadian provinces, the law requires wearing seat belts.

Buckle To Drive

This feature delays the vehicle from shifting out of P (Park) when the driver seat belt is not buckled. The Buckle to Drive feature must be turned ON in the infotainment system to work.

To turn the Buckle to Drive feature on or off, select Settings > Vehicle > Buckle to Drive. See *Teen Driver* ⇨ 153 for more information.

If the vehicle is on and the brake pedal is pressed with the vehicle in P (Park) but the driver seat belt is not buckled, a message displays in the Driver Information Center (DIC) and the vehicle will be delayed from shifting out of P (Park). Buckle the driver seat belt to clear the message and shift out of P (Park). Shifting from P (Park) will be delayed once for each time the vehicle is started.

On this model, Buckle to Drive may also delay shifting out of P (Park) if a front passenger seat belt is unbuckled. A message displays in the DIC. Buckle the front passenger seat belt to shift out of P (Park). This feature may delay the vehicle from shifting out of P (Park) if an object, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, is on the front passenger seat. If this happens, remove the object from the seat or buckle the seat belt to shift out of P (Park).

If the driver, or the present front passenger remains unbuckled, the DIC message will turn off after several seconds and the vehicle can

be shifted out of P (Park). See “Seat Belts” and “Child Restraints” in the Index for information about the importance of proper restraint use.

If the driver seat belt or the front passenger seat belt is unbuckled when driving, the seat belt reminder chime and light(s) will come on. See *Seat Belt Reminders* ⇨ 95. This feature may not function properly if the airbag readiness light is on. See *Airbag Readiness Light* ⇨ 96.

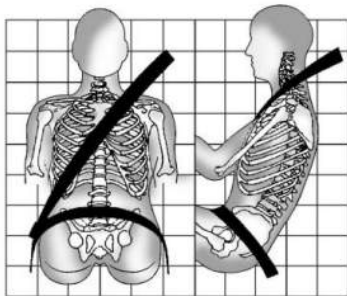
How to Wear Seat Belts Properly

Follow these rules for everyone's protection.

There are additional things to know about seat belts and children, including smaller children and infants. If a child will be riding in the vehicle, see *Older Children* ⇨ 62 or *Infants and Young Children* ⇨ 64. Review and follow the rules for children in addition to the following rules.

It is very important for all occupants to buckle up. Statistics show that unbelted people are hurt more often in crashes than those who are wearing seat belts.

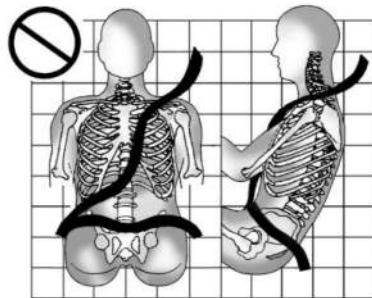
There are important things to know about wearing a seat belt properly.

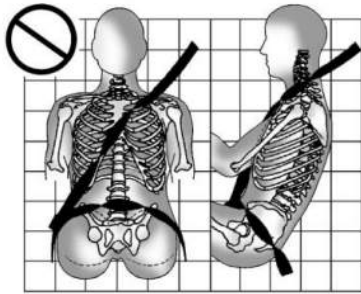


- Sit up straight and always keep your feet on the floor in front of you (if possible).
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones and you would be less likely to slide under the lap belt. If you slid under it, the belt would apply force on your abdomen. This could cause serious or even fatal injuries.
- Wear the shoulder belt over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces. The shoulder belt locks if there is a sudden stop or crash.

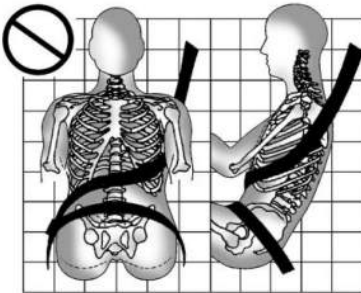
Warning

You can be seriously injured, or even killed, by not wearing your seat belt properly.

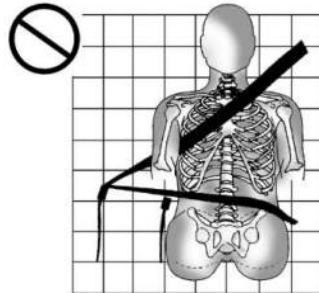




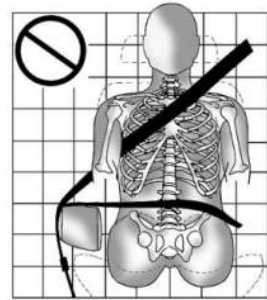
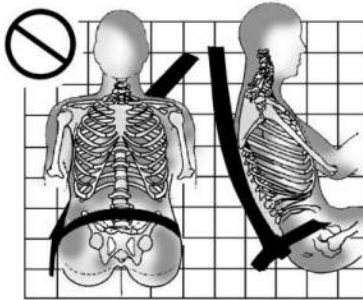
Never allow the lap or shoulder belt to become loose or twisted.



Never wear the shoulder belt under both arms or behind your back.



Always use the correct buckle for your seating position.



Never route the lap or shoulder belt over an armrest.

Warning

The seat belt can be pinched if it is routed under plastic trim on the seat, such as trim around the rear seatback folding handle or side airbag. In a crash, pinched seat belts might not provide adequate protection. Never allow seat belts to be routed under plastic trim pieces.

Warning

You can be seriously injured or killed if the shoulder belt is worn behind your back, under your legs, or wrapped around your neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around you. You may have to cut the seat belt if it is locked and tightened around you.

Lap-Shoulder Belt

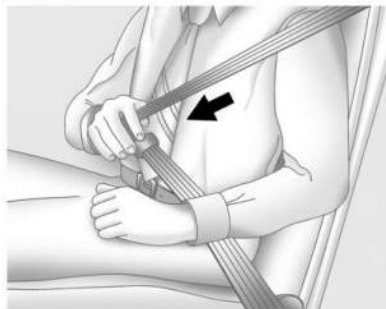
All seating positions in the vehicle have a lap-shoulder belt.

The following instructions explain how to wear a lap-shoulder belt properly.

Warning

If equipped, the second row passenger can create more legroom by moving the front passenger seat with controls located on the rear center display screen. To prevent serious injury or death in a crash, do not permit a rear seat passenger to move the front seat if someone is seated there. Disable the controls by activating Rear Control Lock from the front center display screen.

1. Adjust the seat, if the seat is adjustable, so you can sit up straight. To see how, see “Seats” in the Index.

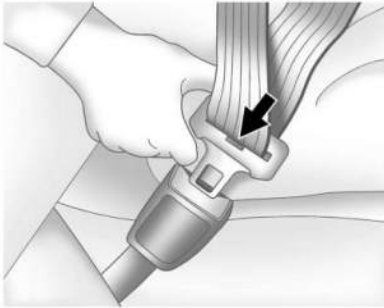


2. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

The lap-shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. See *Child Restraint Systems* ⇨ 66. If this occurs, let the belt go back all the way and start again. If the locking feature stays engaged after letting the belt go back to stowed position on the seat, move the seat rearward or recline the seat until the shoulder belt retractor lock releases.

Engaging the child restraint locking feature in the front outboard seating position may affect the passenger sensing system. See *Passenger Sensing System* ⇨ 57.

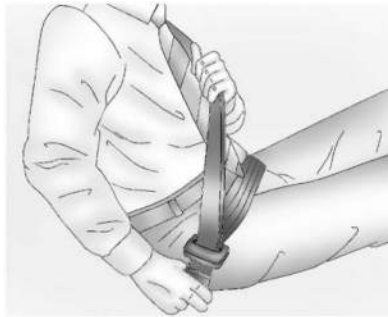


3. Push the latch plate into the buckle until it clicks.

Pull up on the latch plate to make sure it is secure. If the belt is not long enough, see *Seat Belt Extender* ⇨ 51.

Position the release pushbutton on the buckle so that the seat belt could be quickly unbuckled if necessary.

4. If equipped with a shoulder belt height adjuster, move it to the height that is right for you. See “Shoulder Belt Height Adjuster” later in this section for instructions on use and important safety information.



5. To make the lap part tight, pull up on the shoulder belt.



To unlatch the belt, push the release pushbutton on the buckle. The belt should return to its stowed position.

Always stow the seat belt slowly. If the seat belt webbing returns quickly to the stowed position, the retractor may lock and cannot be pulled out. If this happens, pull the seat belt straight out firmly to unlock the webbing, and then release it. If the webbing is still locked in the retractor, see your dealer.

Before a door is closed, be sure the seat belt is out of the way. If a door is slammed against a seat belt, damage can occur to both the seat belt and the vehicle.

Shoulder Belt Height Adjuster

The vehicle has a shoulder belt height adjuster for the driver and front outboard passenger seating positions.

Adjust the height so that the shoulder portion of the belt is on the shoulder and not falling off of it. The belt should be close to, but not contacting, the neck. Improper shoulder belt height adjustment could reduce the effectiveness of the seat belt in a crash. See *How to Wear Seat Belts Properly* ⇨ 46.



Press and hold the release buttons while raising or lowering the height adjuster to the desired position.

After the height adjuster is set to the desired position, try to move it down without pressing the release button to make sure it has locked into position.

Seat Belt Pretensioners

This vehicle has seat belt pretensioners for the front and rear outboard occupants. Although the seat belt pretensioners cannot be seen, they are part of the seat belt assembly. They can help tighten the seat belts during the early stages of a moderate to severe frontal, near frontal, or rear crash if the threshold conditions

for pretensioner activation are met. Seat belt pretensioners can also help tighten the seat belts in a side crash or a rollover event.

Pretensioners work only once. If the pretensioners activate in a crash, the pretensioners and probably other parts of the vehicle seat belt system will need to be replaced. See *Replacing Seat Belt System Parts After a Crash* ⇨ 51.

Do not sit on the outboard seat belt while entering or exiting the vehicle or at any time while sitting in the seat. Sitting on the seat belt can damage the webbing and hardware.

Rear Seat Belt Comfort Guides

Rear seat belt comfort guides may provide added seat belt comfort for older children who have outgrown booster seats and for some adults. When installed on a shoulder belt, the comfort guide positions the shoulder belt away from the neck and head.

Comfort guides are available through your dealer for the rear outboard seating positions. Instructions are included with the guides.

Seat Belt Use During Pregnancy

Seat belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they do not wear seat belts.



A pregnant woman should wear a lap-shoulder belt, and the lap portion should be worn as low as possible, below the rounding, throughout the pregnancy.

The best way to protect the fetus is to protect the mother. When a seat belt is worn properly, it is more likely that the fetus will not be hurt in a crash. For pregnant women, as for anyone, the key to making seat belts effective is wearing them properly.

Seat Belt Extender

If the vehicle seat belt will fasten around you, you should use it.

But if a seat belt is not long enough, your dealer will order you an extender. Only a GM issued extender should be used. When you go in to order it, take the heaviest coat you will wear, so the extender will be long enough for you. To help avoid personal injury, do not let someone else use it, and use it only for the seat it is made to fit. The extender has been designed for adults. Never use it for securing child restraints. For more information on the proper use and fit of seat belt extenders see the instruction sheet that comes with the extender.

Safety System Check

Periodically check the seat belt reminder, seat belts, buckles, latch plates, retractors, shoulder belt height adjusters (if equipped), and seat belt anchorages to make sure they are all in working order. Look for any other loose or damaged seat belt system parts that might keep a seat belt system from performing properly. See your dealer to have it repaired. Torn, frayed, or twisted seat belts may not protect you in a crash. Torn or frayed seat belts

can rip apart under impact forces. If a belt is torn or frayed, have it replaced immediately. If a belt is twisted, it may be possible to untwist by reversing the latch plate on the webbing. If the twist cannot be corrected, ask your dealer to fix it.

Make sure the seat belt reminder light is working. See *Seat Belt Reminders* ⇨ 95.

Keep seat belts clean and dry. See *Seat Belt Care* ⇨ 51.

Seat Belt Care

Keep belts clean and dry.

Seat belts should be properly cared for and maintained.

Seat belt hardware should be kept dry and free of dust or debris. As necessary exterior hard surfaces and seat belt webbing may be lightly cleaned with mild soap and water. Ensure there is not excessive dust or debris in the mechanism. If dust or debris exists in the system after proper cleaning please see the dealer. Parts may need to be replaced to ensure proper functionality of the system.

Warning

Do not bleach or dye seat belt webbing. It may severely weaken the webbing. In a crash, they might not be able to provide adequate protection. Clean and rinse seat belt webbing only with mild soap and lukewarm water. Allow the webbing to dry.

Replacing Seat Belt System Parts After a Crash

Warning

A crash can damage the seat belt system in the vehicle. A damaged seat belt system may not properly protect the person using it, resulting in serious injury or even death in a crash. To help make sure the seat belt systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

After a minor crash, replacement of seat belts may not be necessary. But the seat belt assemblies that were used during any crash

may have been stressed or damaged. See your dealer to have the seat belt assemblies inspected or replaced.

New parts and repairs may be necessary even if the seat belt system was not being used at the time of the crash.

Have the seat belt pretensioners checked if the vehicle has been in a crash, or if the airbag readiness light stays on after you start the vehicle or while you are driving. See *Airbag Readiness Light* ⇨ 96.

Airbag System

The vehicle has the following airbags:

- A frontal airbag for the driver
- A frontal airbag for the front outboard passenger
- A knee airbag for the driver
- A knee airbag for the front outboard passenger
- A seat-mounted side impact airbag for the driver
- A seat-mounted side impact airbag for the front outboard passenger

- A roof-rail airbag for the driver and the passenger seated directly behind the driver
- A roof-rail airbag for the front outboard passenger and the passenger seated directly behind the front outboard passenger

All vehicle airbags have the word AIRBAG on the trim or on a label near the deployment opening.

For frontal airbags, the word AIRBAG is on the center of the steering wheel for the driver and on the instrument panel for the front outboard passenger.

For knee airbags, the word AIRBAG is on the lower part of the instrument panel.

For seat-mounted side impact airbags, the word AIRBAG is on the side of the seatback or side of the seat closest to the door.

For roof-rail airbags, the word AIRBAG is on the ceiling or trim.

Airbags are designed to supplement the protection provided by seat belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating bag, all airbags must inflate very quickly to do their job.

Here are the most important things to know about the airbag system:

Warning

You can be severely injured or killed in a crash if you are not wearing your seat belt, even with airbags. Airbags are designed to work with seat belts, not replace them. Also, airbags are not designed to inflate in every crash. In some crashes seat belts are the only restraint. See *When Should an Airbag Inflate?* ⇨ 55.

Wearing your seat belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Airbags are “supplemental restraints” to the seat belts. Everyone in the vehicle should wear a seat belt properly, whether or not there is an airbag for that person.

Warning

Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to, any airbag

(Continued)

Warning (Continued)

when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any airbag, as you would be if sitting on the edge of the seat or leaning forward. Seat belts help keep you in position before and during a crash. Always wear a seat belt, even with airbags. The driver should sit as far back as possible while still maintaining control of the vehicle. The seat belts and the front outboard passenger airbags are most effective when you are sitting well back and upright in the seat with both feet on the floor.

Occupants should not lean on or sleep against the door or side windows in seating positions with seat-mounted side impact airbags and/or roof-rail airbags.



Warning

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Always secure

(Continued)

Warning (Continued)

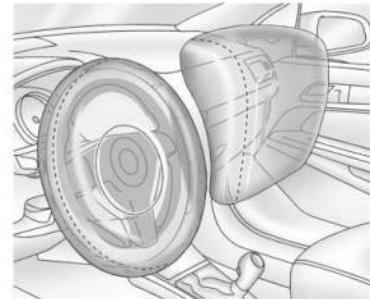
children properly in the vehicle. To read how, see *Older Children* ⇨ 62 or *Infants and Young Children* ⇨ 64.



There is an airbag readiness light on the instrument cluster, which shows the airbag symbol.

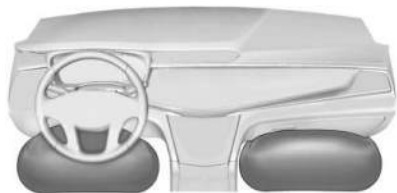
The system checks the airbag electrical system for malfunctions. The light tells you if there is an electrical problem. See *Airbag Readiness Light* ⇨ 96.

Where Are the Airbags?



The driver frontal airbag is in the center of the steering wheel.

The front outboard passenger frontal airbag is in the passenger side instrument panel.



The driver knee airbag is below the steering column. The front outboard passenger knee airbag is below the glove box.



Driver Side Shown, Passenger Side Similar

The driver and front outboard passenger seat-mounted side impact airbags are in the side of the seatbacks closest to the door.



Driver Side Shown, Passenger Side Similar

The roof-rail airbags for the driver, front outboard passenger, and second row outboard passengers are in the ceiling above the side windows.

Warning

If something is between an occupant and an airbag, the airbag might not inflate properly or it might force the object into that person causing severe injury or even death. The path of an inflating airbag must be kept clear. Do not put anything

(Continued)

Warning (Continued)

between an occupant and an airbag, and do not attach or put anything on the steering wheel hub or on or near any other airbag covering.

Do not use seat accessories that block the inflation path of a seat-mounted side impact airbag.

Never secure anything to the roof of a vehicle with roof-rail airbags by routing a rope or tie-down through any door or window opening. If you do, the path of an inflating roof-rail airbag will be blocked.

When Should an Airbag Inflate?

This vehicle is equipped with airbags. See *Airbag System* ⇨ 52. Airbags are designed to inflate if the impact exceeds the specific airbag system's deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants. The vehicle has electronic sensors that help the airbag system determine the severity of the impact. Deployment thresholds can vary with specific vehicle design.

Frontal airbags are designed to inflate in moderate to severe frontal crashes to help reduce the potential for severe injuries, mainly to the driver's or front outboard passenger's head and chest.

Whether the frontal airbags will or should inflate is not based primarily on how fast the vehicle is traveling. It depends on what is hit, the direction of the impact, and how quickly the vehicle slows down.

Frontal airbags may inflate at different crash speeds depending on whether the vehicle hits an object straight on or at an angle, and whether the object is fixed or moving, rigid or deformable, narrow or wide.

Frontal airbags are not intended to inflate during vehicle rollovers, in rear impacts, or in many side impacts.

In addition, the vehicle has advanced technology frontal airbags. Advanced technology frontal airbags adjust the restraint according to either crash severity or occupant interaction.

Knee airbags are designed to inflate in moderate to severe frontal impacts. Knee airbags are not designed to inflate during vehicle rollovers, in rear impacts, or in many side impacts.

Seat-mounted side impact airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. These airbags may also inflate in some moderate to severe frontal impacts. Seat-mounted side impact airbags are not designed to inflate in rollovers or rear impacts. A seat-mounted side impact airbag is designed to inflate on the side of the vehicle that is struck.

Roof-rail airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags may inflate during a rollover or in a severe frontal impact. Roof-rail airbags are not designed to inflate in rear impacts. Both roof-rail airbags may inflate when either side of the vehicle is struck or if the sensing system predicts that the vehicle is about to roll over on its side, or in a severe frontal impact.

In any particular crash, no one can say whether an airbag should have inflated simply because of the vehicle damage or repair costs.

What Makes an Airbag Inflate?

In a deployment event, the sensing system sends an electrical signal triggering a release of gas from the inflator. Gas from the inflator fills the airbag causing the bag to break out of the cover. The inflator, the airbag, and related hardware are all part of the airbag module.

For airbag locations, see *Where Are the Airbags?* ⇨ 53.

How Does an Airbag Restrain?

In moderate to severe frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. In moderate to severe side collisions, even belted occupants can contact the inside of the vehicle.

Airbags supplement the protection provided by seat belts by distributing the force of the impact more evenly over the occupant's body.

Rollover capable roof-rail airbags are designed to help contain the head and chest of occupants in the outboard seating positions in the first and second rows. The rollover capable roof-rail airbags are designed to help reduce the risk of full or partial ejection in rollover events, although no system can prevent all such ejections.

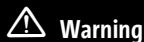
But airbags would not help in many types of collisions, primarily because the occupant's motion is not toward those airbags. See *When Should an Airbag Inflate?* ⇨ 55.

Airbags should never be regarded as anything more than a supplement to seat belts.

What Will You See After an Airbag Inflates?

After frontal, knee, and seat-mounted side impact airbags inflate, they quickly deflate, so quickly that some people may not even realize the airbags inflated. Roof-rail airbags may still be at least partially inflated for some time after they inflate. Some components of the airbag module may be hot for several minutes. For location of the airbags, see *Where Are the Airbags?* ⇨ 53.


The parts of the airbag that come into contact with you may be warm, but not too hot to touch. There may be some smoke and dust coming from the vents in the deflated airbags. Airbag inflation does not prevent people from leaving the vehicle.



Warning

When an airbag inflates, there may be dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but cannot get out of the vehicle after an airbag inflates, then get fresh air by opening a window or a door. If you experience breathing problems following an airbag deployment, you should seek medical attention.

The vehicle has a feature that may automatically unlock the doors, turn on the interior lamps and hazard warning flashers after the airbags inflate. The feature may also activate, without airbag inflation, after an event that exceeds a predetermined threshold. After turning the vehicle off and then on again, the doors can be locked, the interior lamps can be turned off, and the hazard warning flashers can be turned off using the controls for those features. If any of these systems are damaged in the crash they may not operate as normal.

 **Warning**

A crash severe enough to inflate the airbags may have also damaged important functions in the vehicle, such as the brake and steering systems, etc. Even if the vehicle appears to be drivable after a moderate crash, there may be concealed damage that could make it difficult to safely operate the vehicle.

Use caution if attempting to restart the vehicle after a crash has occurred.

Plug-in vehicles have a high voltage battery and a standard 12-volt battery.

If an airbag inflates or the vehicle has been in a crash, the sensing system may shut down the high voltage system. When this occurs, the high voltage battery is disconnected and the vehicle will not start. Before the vehicle can be operated again, it must be serviced at your dealer.

In many crashes severe enough to inflate the airbag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the front outboard passenger airbag.

- Airbags are designed to inflate only once. After an airbag inflates, you will need some new parts for the airbag system. If you do not get them, the airbag system will not be there to help protect you in another crash. A new system will include airbag modules and possibly other parts. The service manual for the vehicle covers the need to replace other parts.
- The vehicle has a crash sensing and diagnostic module which records information after a crash. See *Vehicle Data Recording and Privacy* ⇨ 346 and *Event Data Recorders* ⇨ 346.
- Let only qualified technicians work on the airbag system. Improper service can mean that an airbag system will not work properly. See your dealer for service.

Passenger Sensing System

The vehicle has a passenger sensing system for the front outboard passenger position. The passenger airbag status indicator will light in the infotainment display when the vehicle is started.

PASSENGER AIR BAG



United States



Canada

The words ON and OFF, or the symbols for on and off, will be visible during the system check. When the system check is complete, either the word ON or OFF, or the symbol for on or off, will be visible. See *Passenger Airbag Status Indicator* ⇨ 97.

The passenger sensing system turns off the front outboard passenger frontal airbag and knee airbag under certain conditions. No other airbag is affected by the passenger sensing system.

The passenger sensing system works with sensors that are part of the front outboard passenger seat and seat belt. The sensors are designed to detect the presence of a properly seated occupant and determine if the front outboard passenger frontal airbag and knee airbag should be allowed to inflate or not.

According to accident statistics, children are safer when properly secured in a rear seat in the correct child restraint for their weight and size.

Whenever possible, children aged 12 and under should be secured in a rear seating position.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag inflates.



Warning

A child in a rear-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be

(Continued)

Warning (Continued)

seriously injured or killed if the passenger frontal airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the front outboard passenger airbag(s), no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though the airbag(s) are off.

Never put a rear-facing child restraint in the front seat, even if the airbag is off. If securing a forward-facing child restraint in the front outboard passenger seat, always move the seat as far back as it will go. It is better to secure child restraints in the rear seat. Consider using another vehicle to transport the child when a rear seat is not available.

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag and knee airbag if:

- The front outboard passenger seat is unoccupied.

- The system determines an infant is present in a child restraint.
- A front outboard passenger takes his/her weight off of the seat for a period of time.

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag, the OFF indicator will light and stay lit as a reminder that the airbags are off. See *Passenger Airbag Status Indicator* ⇨ 97.

The passenger sensing system is designed to turn on the front outboard passenger frontal airbag and knee airbag, anytime the system senses that a person of adult size is sitting properly in the front outboard passenger seat.

When the passenger sensing system has allowed the airbags to be enabled, the ON indicator will light and stay lit as a reminder that the airbags are active.

For some children, including children in child restraints, and for very small adults, the passenger sensing system may or may not turn off the front outboard passenger frontal airbag and knee airbag, depending upon the person's seating posture and body build. Everyone in

the vehicle who has outgrown child restraints should wear a seat belt properly — whether or not there is an airbag for that person.

Warning

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 96 for more information, including important safety information.

If the On Indicator Is Lit for a Child Restraint

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag and knee airbag, if the system determines that an infant is present in a child restraint. If a child restraint has been installed and the ON indicator is lit:

1. Turn the vehicle off.
2. Remove the child restraint from the vehicle.
3. Remove any additional items from the seat such as blankets, cushions, seat covers, seat heaters, or seat massagers.

4. Reinstall the child restraint following the directions provided by the child restraint manufacturer and refer to *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ 76 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 78.

Make sure the seat belt retractor is locked by pulling the shoulder belt all the way out of the retractor when installing the child restraint, even if the child restraint is equipped with a seat belt lock off. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.

5. If, after reinstalling the child restraint and restarting the vehicle, the ON indicator is still lit, turn the vehicle off. Then slightly recline the vehicle seatback and adjust the seat cushion, if adjustable, to make sure that the vehicle seatback is not pushing the child restraint into the seat cushion. Also make sure the child restraint is not trapped under the vehicle head restraint. If this happens, adjust the head restraint. See *Head Restraints* ⇨ 35.
6. Restart the vehicle.

The passenger sensing system may or may not turn off the airbags for a child in a child restraint depending upon the child's size. It is better to secure the child restraint in a rear seat. Never put a rear-facing child restraint in the front seat, even if the ON indicator is not lit.

If the Off Indicator Is Lit for an Adult-Sized Occupant



If a person of adult size is sitting in the front outboard passenger seat, but the OFF indicator is lit, it could be because that person is not sitting properly in the seat or that the child restraint locking feature is engaged. Use the

following steps to allow the system to detect that person and enable the front outboard passenger frontal airbag and knee airbag:

1. Turn the vehicle off.
2. Remove any additional material from the seat, such as blankets, cushions, seat covers, seat heaters, or seat massagers.
3. Place the seatback in the fully upright position.
4. Have the person sit upright in the seat, centered on the seat cushion, with legs comfortably extended.
5. If the shoulder portion of the belt is pulled out all the way, the child restraint locking feature will be engaged. This may unintentionally cause the passenger sensing system to turn the airbag off for some adult-sized occupants. If this happens, unbuckle the belt, let the belt go back all the way, and then buckle the belt again without pulling the belt out all the way.
6. Restart the vehicle and have the person remain in this position for two to three minutes after the ON indicator is lit.



Warning

If the front outboard passenger airbag is turned off for an adult-sized occupant, the airbag will not be able to inflate and help protect that person in a crash, resulting in an increased risk of serious injury or even death. An adult-sized occupant should not ride in the front outboard passenger seat, if the passenger airbag OFF indicator is lit.

Additional Factors Affecting System Operation

Seat belts help keep the passenger in position on the seat during vehicle maneuvers and braking, which helps the passenger sensing system maintain the passenger airbag status. See “Seat Belts” and “Child Restraints” in the Index for additional information about the importance of proper restraint use.

A thick layer of additional material, such as a blanket or cushion, or aftermarket equipment such as seat covers, seat heaters, and seat massagers can affect how well the passenger sensing system operates. We recommend that you not use seat covers or other aftermarket equipment except when approved by GM for

your specific vehicle. See *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 61 for more information about modifications that can affect how the system operates.

The ON indicator may be lit if an object, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, is put on an unoccupied seat. If this is not desired, remove the object from the seat.




Warning

Stowing articles under the passenger seat or between the passenger seat cushion and seatback may interfere with the proper operation of the passenger sensing system.

Servicing the Airbag-Equipped Vehicle

Airbags affect how the vehicle should be serviced. There are parts of the airbag system in several places around the vehicle. Your dealer and the service manual have information about servicing the vehicle and the airbag system. To purchase a service manual, see *Publication Ordering Information* ⇨ 344.

 **Warning**

For up to 10 seconds after the vehicle is turned off and the battery is disconnected, an airbag can still inflate during improper service. You can be injured if you are close to an airbag when it inflates. Avoid yellow connectors. They are probably part of the airbag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

Adding Equipment to the Airbag-Equipped Vehicle

Adding accessories that change the vehicle's frame, bumper system, height, front end, or side sheet metal may keep the airbag system from working properly.

The operation of the airbag system can also be affected by changing, including improperly repairing or replacing, any parts of the following:

- Airbag system, including airbag modules, front or side impact sensors, sensing and diagnostic module, or airbag wiring

- Front seats, including stitching, seams or zippers
- Seat belts
- Steering wheel, instrument panel, overhead console, ceiling trim, or pillar garnish trim
- Inner door seals, including speakers

Your dealer and the service manual have information about the location of the airbag modules and sensors, sensing and diagnostic module, and airbag wiring along with the proper replacement procedures.

In addition, the vehicle has a passenger sensing system for the front outboard passenger position, which includes sensors that are part of the passenger seat. The passenger sensing system may not operate properly if the original seat trim is replaced with non-GM covers, upholstery, or trim; or with GM covers, upholstery, or trim designed for a different vehicle. Any object, such as an aftermarket seat heater or a comfort-enhancing pad or device, installed under or on top of the seat fabric, could also interfere with the operation of the passenger sensing system. This could either prevent proper deployment of the passenger airbag(s) or prevent the passenger

sensing system from properly turning off the passenger airbag(s). See *Passenger Sensing System* ⇨ 57.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels* ⇨ 309 for additional important information.

If the vehicle must be modified because you have a disability and have questions about whether the modifications will affect the vehicle's airbag system, or if you have questions about whether the airbag system will be affected if the vehicle is modified for any other reason, call Customer Assistance. See *Customer Assistance Offices* ⇨ 338.

Airbag System Check

The airbag system does not need regularly scheduled maintenance or replacement. Make sure the airbag readiness light is working. See *Airbag Readiness Light* ⇨ 96.

Caution

If an airbag covering is damaged, opened, or broken, the airbag may not work properly. Do not open or break the airbag coverings. If there are any opened or broken airbag coverings, have the airbag covering and/or airbag module replaced. For the location of the airbags, see *Where Are the Airbags?* ⇨ 53. See your dealer for service.

Replacing Airbag System Parts After a Crash

Warning

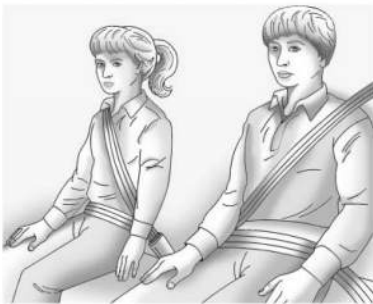
A crash can damage the airbag systems in the vehicle. A damaged airbag system may not properly protect you and your passenger(s) in a crash, resulting in serious injury or even death. To help make sure the airbag systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

If an airbag inflates, you will need to replace airbag system parts. See your dealer for service.

If the airbag readiness light stays on after the vehicle is started or comes on when you are driving, the airbag system may not work properly. Have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 96.

Child Restraints

Older Children



Older children who have outgrown booster seats should wear the vehicle seat belts. See *How to Wear Seat Belts Properly* ⇨ 46.

The manufacturer instructions that come with the booster seat state the weight and height limitations for that booster. Use a booster seat with a lap-shoulder belt until the child passes the fit test below:

- Sit all the way back on the seat. Do the knees bend at the seat edge? If yes, continue. If no, return to the booster seat.
- Buckle the lap-shoulder belt. Does the shoulder belt rest on the shoulder? If yes, continue. If no, try using the rear seat belt comfort guide, if available. See “Rear Seat Belt Comfort Guides” under *Lap-Shoulder Belt* ⇨ 48. If a comfort guide is not available, or if the shoulder belt still does not rest on the shoulder, then return to the booster seat.
- Does the lap belt fit low and snug on the hips, touching the thighs? If yes, continue. If no, return to the booster seat.
- Can proper seat belt fit be maintained for the length of the trip? If yes, continue. If no, return to the booster seat.


Q: What is the proper way to wear seat belts?

A: An older child should wear a lap-shoulder belt and get the additional restraint a shoulder belt can provide. The shoulder belt should not cross the face or neck. The lap belt should fit snugly below the hips, just touching the top of the thighs. This applies belt force to the child's pelvic bones in a crash. It should never be worn over the abdomen, which could cause severe or even fatal internal injuries in a crash.

Also see "Rear Seat Belt Comfort Guides" under *Lap-Shoulder Belt* ⇨ 48.


According to accident statistics, children are safer when properly restrained in a rear seating position.

In a crash, children who are not buckled up can strike other people who are buckled up, or can be thrown out of the vehicle. Older children need to use seat belts properly.

 **Warning**


Never allow more than one child to wear the same seat belt. The seat belt cannot properly spread the impact forces. In a crash, they can be crushed together and seriously injured. A seat belt must be used by only one person at a time.



 **Warning**

Never allow a child to wear the seat belt shoulder belt under both arms or behind their back. A child can be seriously injured by not wearing the lap-shoulder belt properly. In a crash, the child would not be restrained by the shoulder belt. The child could move too far forward increasing the chance of head and neck injury. The child might also slide under the lap belt. The belt force would then be applied right on the abdomen. That could cause serious or fatal injuries. The shoulder belt should go over the shoulder and across the chest.




 **Warning**

Children can be seriously injured or killed if the shoulder belt is worn behind their back, under their legs, or wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around the child. Never leave children unattended in a vehicle and never allow children to improperly wear, or play with, the seat belts.

Infants and Young Children


Everyone in a vehicle needs protection! This includes infants and all other children. Neither the distance traveled nor the age and size of the traveler changes the need, for everyone, to use safety restraints. In fact, the law in every state in the United States and in every Canadian province says children up to some age must be restrained while in a vehicle.

 **Warning**

Children can be seriously injured or killed if the shoulder belt is worn behind their back, under their legs, or wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around the child. Never leave children unattended in a vehicle and never allow children to improperly wear, or play with, the seat belts.


Every time infants and young children ride in vehicles, they should have the protection provided by appropriate child restraints. Neither the vehicle seat belt system nor its airbag system is designed for them.

Children who are not restrained properly can strike other people, or can be thrown out of the vehicle.

 **Warning**

Never hold an infant or a child while riding in a vehicle. Due to crash forces, an infant or a child will become so heavy it is not possible to hold it during a crash. For example, in a crash at only 40 km/h (25 mph), a 5.5 kg (12 lb) infant will suddenly become a 110 kg (240 lb) force on a person's arms. An infant or child should be secured in an appropriate child restraint.



 **Warning**

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Never put a rear-facing child restraint in the front outboard seat. Secure a rear-facing child restraint in a rear seat. It is also better to secure a forward-facing child restraint in a rear seat. If you must secure a forward-facing child restraint in the front outboard seat, always move the front passenger seat as far back as it will go.



Child restraints are devices used to restrain, seat, or position children in the vehicle and are sometimes called child seats or car seats.


There are three basic types of child restraints:

- Forward-facing child restraints
- Rear-facing child restraints
- Belt-positioning booster seats


The proper child restraint for your child depends on their size, weight, and age, and also on whether the child restraint is compatible with the vehicle in which it will be used.

For each type of child restraint, there are many different models available. When purchasing a child restraint, be sure it is designed to be used in a motor vehicle and is designed by a genuine child restraint manufacturer. If it is, the child restraint will have a label saying that it meets federal motor vehicle safety standards.

The instruction manual that is provided with the child restraint states the weight and height limitations for that particular child restraint. In addition, there are many kinds of child restraints available for children with special needs.

 **Warning**

To reduce the risk of neck and head injury in a crash, infants and toddlers should be secured in a rear-facing child restraint until age two, or until they reach the maximum height and weight limits of their child restraint.

 **Warning**

A young child's hip bones are still so small that the vehicle seat belt may not remain low on the hip bones, as it should. Instead, it may settle up around the child's abdomen. In a crash, the belt would apply force on a body area that is unprotected by any bony structure. This alone could cause serious or fatal injuries. To reduce the risk of serious or fatal injuries during a crash, young children should always be secured in an appropriate child restraint.

Child Restraint Systems



Rear-Facing Infant Restraint

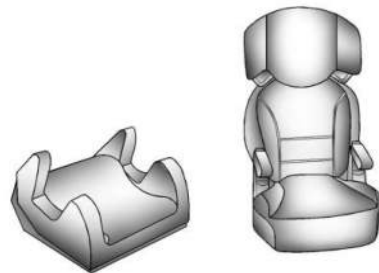
A rear-facing child restraint provides restraint with the seating surface against the back of the infant.

The harness system holds the infant in place and, in a crash, acts to keep the infant positioned in the restraint.



Forward-Facing Child Restraint

A forward-facing child restraint provides restraint for the child's body with the harness.



Booster Seats

A belt-positioning booster seat is used for children who have outgrown their forward-facing child restraint. Boosters are designed to improve the fit of the vehicle seat belt system until the child is large enough for the vehicle seat belts to fit properly without a booster seat. See the seat belt fit test in *Older Children* ⇨ 62.



Backless Booster

Backless booster fitment requirement:

Some backless booster seats are not suitable for rear seats that have oversized side seat bolsters, as they can push the backless booster forward from the seat back.

To use a backless booster:

1. Center the booster on the seat cushion.
2. Ensure the backless booster seat contacts the seat back.

If the backless booster does not meet the fit test described in Steps 1–2, select another booster seat.

Securing an Add-On Child Restraint in the Vehicle

Warning

Each top-tether anchor is designed to anchor only one child restraint. Do not attach more than one child restraint to a single top-tether anchor. The anchor may come loose or break, potentially causing personal injury, property damage, or death.

Warning

A child can be seriously injured or killed in a crash if the child restraint is not properly secured in the vehicle. Secure the child restraint properly in the vehicle using the vehicle seat belt or LATCH system, following the instructions that came with that child restraint and the instructions in this manual.

To help reduce the chance of injury, the child restraint must be secured in the vehicle. Child restraints must be secured in vehicle seats by the lap belt portion of a lap-shoulder belt, or by the LATCH system. See *Lower Anchors and*

Tethers for Children (LATCH System) ⇨ 70 for more information. Never use a seat belt extender when installing a child restraint. Never use non-regulated aftermarket anchors or attachments to secure a child restraint. Children can be endangered in a crash if the child restraint is not properly secured in the vehicle.

When securing an add-on child restraint, see the following:

- Instruction labels provided on the child restraint
- Instruction manual provided with the child restraint
- This vehicle owner's manual

The child restraint instructions are important, so if they are not available, obtain a replacement copy from the manufacturer.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

In some areas Certified Child Passenger Safety Technicians (CPSTs) are available to inspect and demonstrate how to correctly

use and install child restraints. In the U.S., see the National Highway Traffic Safety Administration (NHTSA) website to locate the nearest child safety seat inspection station. For CPST availability in Canada, check with Transport Canada or the Provincial Ministry of Transportation office.

Securing the Child Within the Child Restraint

Warning

A child can be seriously injured or killed in a crash if the child is not properly secured in the child restraint. Secure the child properly following the instructions that came with that child restraint.

Where to Put the Restraint

According to accident statistics, children and infants are safer when properly restrained in an appropriate child restraint secured in a rear seating position.

Whenever possible, children aged 12 and under should be secured in a rear seating position.

Never put a rear-facing child restraint in the front. This is because the risk to the rear-facing child is so great if the airbag deploys.

Warning

A child in a rear-facing child restraint can be seriously injured or killed if the front passenger airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the front passenger airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the front passenger frontal airbag, no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though it is turned off.

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a forward-facing child restraint in the front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

(Continued)

Warning (Continued)

See *Passenger Sensing System* ⇨ 57 for additional information.

When securing a child restraint with the seat belts in a rear seat position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

Child restraints and booster seats vary considerably in size, and some may fit in certain seating positions better than others. Do not install a child restraint in any rear seating position where it cannot be installed securely.

Depending on where you place the child restraint and the size of the child restraint, you may not be able to access adjacent seat belts or LATCH anchors for additional passengers or child restraints. Adjacent seating positions should not be used if the child restraint prevents access to or interferes with the routing of the seat belt.

Caution

Child restraints can scratch the surface and cause damage to the screens. Avoid contacting the screens with the child restraint.

Adjust the seat in front of a child restraint to ensure proper installation according to the child restraint manual. Move the front seat forward to avoid contact between the child restraint and the seat or any accessories mounted to the seat.

When installing a child restraint in an adjustable second row seating position, the seat should be adjusted as follows:

- Cushion length adjuster to the closed position
- Lower lumbar adjusted to the fully retracted position
- Head restraint adjusted to the fully retracted position, this vehicle's head restraints are not removable.
- Adjust the seat forward or rearward to achieve proper installation per the child restraint manual. See *Rear Seats* ⇨ 43.

**Warning**

Do not use the folding tray table with any type of child restraint or booster installation in the rear seats. Contact with the folding tray table could result in injury. Return folding tray tables to the correct storage position before installing any child restraint or booster.

**Warning**

To reduce risk of injury, adjust the reclining rear seat back to a near upright seating position according to the child restraint manufacturer instructions. The child restraint must rest against the seat back.

Wherever a child restraint is installed, be sure to follow the instructions that came with the child restraint and secure the child restraint properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

Lower Anchors and Tethers for Children (LATCH System)

The LATCH system secures a child restraint during driving or in a crash. LATCH attachments on the child restraint are used to attach the child restraint to the anchors in the vehicle. This system is designed to make installation of a child restraint easier.

In order to use the LATCH system in your vehicle, you need a child restraint that has LATCH attachments. LATCH-compatible rear-facing and forward-facing child seats can be properly installed using either the LATCH anchors or the vehicle's seat belts. Do not use both the seat belts and the LATCH anchorage system to secure a rear-facing or forward-facing child restraint.

Booster seats use the vehicle's seat belts to secure the child and the booster seat. If the manufacturer recommends that the booster seat be secured with the LATCH system, this

can be done as long as the booster seat can be positioned properly and there is no interference with the proper positioning of the lap-shoulder belt on the child.

Make sure to follow the instructions that came with the child restraint, and also the instructions in this manual.

When installing a child restraint with a top tether, you must also use either the lower anchors or the seat belts to properly secure the child restraint. A child restraint must never be attached using only the top tether.

For a forward-facing 5-pt harness child restraint where the combined weight of the child and restraint are up to 29.5 kg (65 lb), use either the lower LATCH anchorages with the top tether anchorage, or the seat belt with the top tether anchorage. Where the combined weight of the child and restraint are greater than 29.5 kg (65 lb), use the seat belt with the top tether anchorage only.

Recommended Methods for Attaching Child Restraints

Restraint Type	Combined Weight of the Child + Child Restraint	Use Only Approved Attachment Methods Shown with an X			
		LATCH – Lower Anchors Only	Seat Belt Only	LATCH – Lower Anchors and Top Tether Anchor	Seat Belt and Top Tether Anchor
Rear-Facing Child Restraint	Up to 29.5 kg (65 lb)	X	X		
Rear-Facing Child Restraint	Greater than 29.5 kg (65 lb)		X		
Forward-Facing Child Restraint	Up to 29.5 kg (65 lb)			X	X
Forward-Facing Child Restraint	Greater than 29.5 kg (65 lb)				X

See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ 76 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 78.

Child restraints built after March 2014 are labeled with the maximum child weight, with which the LATCH system can be used for installing the child restraint.

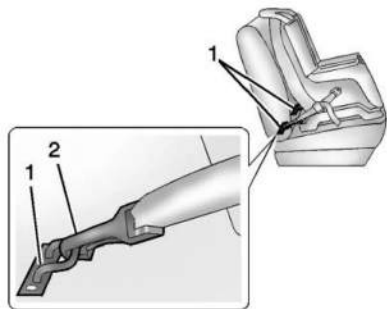
The following explains how to attach a child restraint with these attachments in the vehicle.

Not all vehicle seating positions have lower anchors. In this case, the seat belt must be used (with top tether where available) to secure the child restraint. See *Securing Child*

Restraints (With the Seat Belt in the Rear Seat)

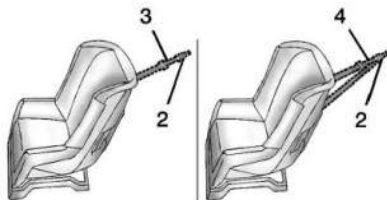
⇨ 76 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 78.

Lower Anchors



Lower anchors (1) are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a child restraint with lower attachments (2).

Top Tether Anchor



A top tether (3, 4) is used to secure the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment hook (2) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child restraint during driving or in the event of a crash.


The child restraint may have a single tether (3) or a dual tether (4). Either will have a single attachment hook (2) to secure the top tether to the anchor.


Some child restraints with a top tether are designed for use with or without the top tether being attached. Others require the top tether always to be attached. In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached. Be sure to read and follow the instructions for your child restraint.

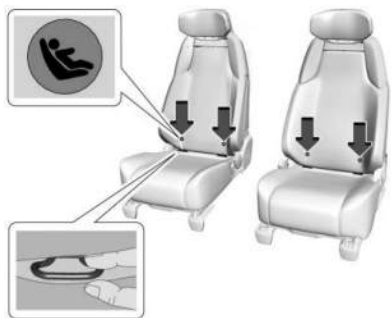
Lower Anchor and Top Tether Anchor Locations



Rear Seats

 : Seating positions with top tether anchors.

 : Seating positions with two lower anchors.



Executive seating lower anchors are in the crease between the seatback and the seat cushion. Push the seatback trim up at the crease to access the lower anchor.



The top tether anchors are on the wall behind the vehicle seat. Rotate the rear seatback forward or slide the seat forward to access the anchor. Be sure to use the anchor located directly behind the seating position where the child restraint will be placed. See *Rear Seats* ⇨ 43.

Do not secure a child restraint in a position without a top tether anchor if a national or local law requires that the top tether be attached, or if the instructions that come with the child restraint say that the top tether must be attached.

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position. See *Where to Put the Restraint* ⇨ 68 for additional information.

Securing a Child Restraint Designed for the LATCH System

Warning

A child could be seriously injured or killed in a crash if the child restraint is not properly attached to the vehicle using either the LATCH anchors or the vehicle seat belt. Follow the instructions that came with the child restraint and the instructions in this manual.

Warning

To reduce the risk of serious or fatal injuries during a crash, do not attach more than one child restraint to a single anchor. Attaching more than one child restraint to a single anchor could cause the anchor or attachment to come loose or even break during a crash. A child or others could be injured.

Warning

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around a child's neck. If the shoulder belt is locked and tightened around a child's neck, the only way to loosen the belt is to cut it.

Buckle any unused seat belts behind the child restraint so children cannot reach them. Pull the shoulder belt all the way out of the retractor to set the lock, and tighten the belt behind the child restraint after the child restraint has been installed.

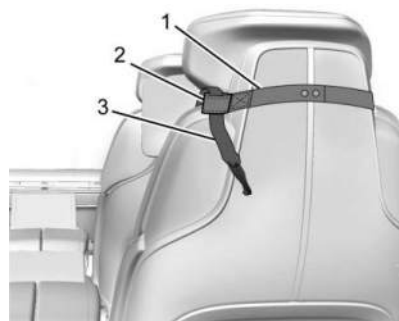
Caution

Do not let the LATCH attachments rub against the vehicle's seat belts. This may damage these parts. If necessary, move buckled seat belts to avoid rubbing the LATCH attachments.

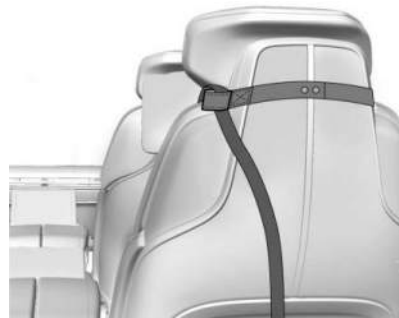
Do not fold the rear seatback when the seat is occupied. Do not fold the empty rear seat with a seat belt buckled. This could damage the seat belt or the seat. Unbuckle and return the seat belt to its stowed position, before folding the seat.

If you need to secure more than one child restraint in the rear seat, see *Where to Put the Restraint* ⇨ 68.

This executive seat has a GM Genuine Top Tether Accessory Strap that must be used when using a child restraint with a top tether. This strap is available as a GM Genuine part and one is provided with the vehicle. Additional top tether strap guides are available through your dealer for other rear seating positions with top tethers.

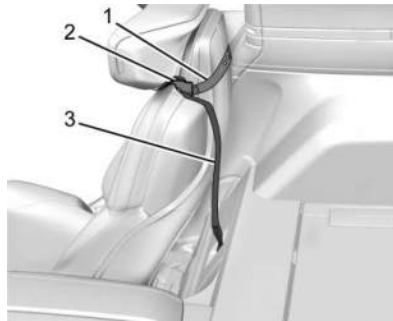


1. GM Genuine Top Tether Accessory Strap
2. Small guide loop
3. Child restraint system top tether strap



1. Adjust the vehicle head restraint full forward to secure the GM Genuine Top Tether Accessory Strap (1) around the top of seat, just below the head restraint as shown in the illustration.
 - 1.1 The small guide loop (2) shall be on the inboard shoulder of the seat.
 - 1.2 The snap of the accessory strap (1) shall be along the centerline of the seat back.
 - 1.3 Ensure the accessory guide snap is secure.
 - 1.4 Adjust the head restraint to full rear position when complete.
2. Attach and tighten the lower attachments to the lower anchors. If the child restraint does not have lower attachments or the desired seating position does not have lower anchors, secure the child restraint with the top tether and the seat belt. Refer to the child restraint manufacturer instructions and the instructions in this manual.
 - 2.1 Find the lower anchors for the desired seating position.
 - 2.2 Put the child restraint on the seat.

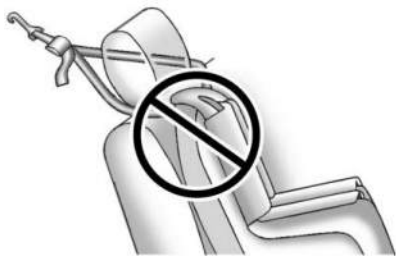
- 2.3 Attach and tighten the lower attachments on the child restraint to the lower anchors.



3. If the child restraint manufacturer recommends that the top tether be attached, adjust the top tether to its full length and follow the steps below to attach it to the anchor. Refer to the child restraint instructions and the following steps:
 - 3.1 Find the top tether anchor behind the vehicle seat.
 - 3.2 Route, attach and tighten the top tether according to your child restraint instructions and the following instructions:

If you are using a single strap top tether:

- 3.2.1 Route the tether strap (3) through the small guide loop (2) on the GM Genuine Top Tether Accessory Strap guide (1). See illustration for proper routing.
- 3.2.2 Attach the top tether hook to the anchor and make sure the top tether hook is completely closed and secured to the anchor.
- 3.2.3 While maintaining this routing around the head restraint and through the accessory top tether strap loop, remove all slack from the top tether strap.
- 3.2.4 If you are using a child restraint with a dual V-shaped top tether strap, this is not permitted in this vehicle, and it is necessary to find a child restraint with a single strap tether and follow the steps above.



Do not use the Dual V-shape tether strap style in this vehicle.

4. Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the LATCH path and attempt to move it side to side and back and forth. There should be no more than 2.5 cm (1 in) of movement, for proper installation.

Replacing LATCH System Parts After a Crash

Warning

A crash can damage the LATCH system in the vehicle. A damaged LATCH system may not properly secure the child restraint, resulting in serious injury or even death in a crash. To help make sure the LATCH system is working properly after a crash, see your dealer to have the system inspected and any necessary replacements made as soon as possible.

If the vehicle has the LATCH system and it was being used during a crash, new LATCH system parts may be needed.

New parts and repairs may be necessary even if the LATCH system was not being used at the time of the crash.

Securing Child Restraints (With the Seat Belt in the Rear Seat)

When securing a child restraint with the seat belts in a rear seat position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

If the child restraint has the LATCH system, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 70 for how and where to install the child restraint using LATCH. If a child restraint is secured in the vehicle using a seat belt and it uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 70 for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored. Refer to the instructions that came with the child restraint and see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 70.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

If the child restraint or vehicle seat position does not have the LATCH system, you will be using the seat belt to secure the child restraint. Be sure to follow the instructions that came with the child restraint.

If more than one child restraint needs to be installed in the rear seat, be sure to read *Where to Put the Restraint* ⇨ 68.

1. Put the child restraint on the seat.
2. Pick up the latch plate and run the lap and shoulder portions of the vehicle seat belt through or around the child restraint. Ensure the seat belt webbing is routed as directly as possible and is not caught on seat handles or plastic trim. The child restraint instructions will show you how.



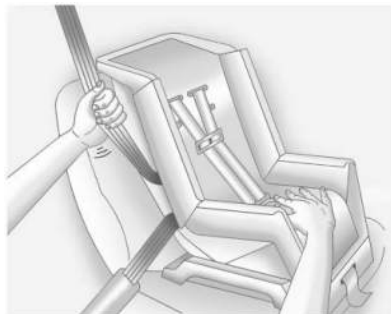
3. Push the latch plate into the buckle until it clicks.

Position the release pushbutton on the buckle, away from the child restraint, so that the seat belt could be quickly unbuckled if necessary.

The rear seat should be adjusted to the rearmost position before using the locking retractor or child restraint lock off devices.



4. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.



- To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

There must not be direct contact of the child restraint to the buckle release pushbutton. If there is contact, reposition the child restraint using the instructions that came with the child restraint. If there is still contact, use another seating position or child restraint.

Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 4 and 5.

- Tighten the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 70.
- If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 70.

- Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the seat belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

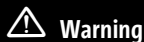
To remove the child restraint, unbuckle the vehicle seat belt and let it return to the stowed position. If the top tether is attached to a top tether anchor, disconnect it.

Securing Child Restraints (With the Seat Belt in the Front Seat)

This vehicle has airbags. A rear seat is a safer place to secure a forward-facing child restraint. See *Where to Put the Restraint* ⇨ 68.

In addition, the vehicle has a passenger sensing system which is designed to turn off the front outboard passenger frontal airbag and knee airbag under certain conditions. See *Passenger Sensing System* ⇨ 57 and *Passenger Airbag Status Indicator* ⇨ 97 for more information, including important safety information.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag deploys.



Warning

A child in a rear-facing child restraint can be seriously injured or killed if the front outboard passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the front outboard passenger frontal airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the front outboard passenger airbag(s), no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though the airbag(s) are off.

Secure rear-facing child restraints in a rear seat, even if the airbag(s) are off. If you secure a forward-facing child restraint in the front outboard passenger seat, always move the seat as far back as it will go. It is better to secure the child restraint in a rear seat.

See *Passenger Sensing System* ⇨ 57 for additional information.

If the child restraint uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 70 for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top tether must be anchored.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

When using the lap-shoulder belt to secure the child restraint in this position, follow the instructions that came with the child restraint and the following instructions:

Warning

If equipped, the second row passenger can create more legroom by moving the front passenger seat with controls located on the rear center display screen. To prevent serious injury or death in a crash, do not permit a rear seat passenger to move the front seat if someone is seated

(Continued)

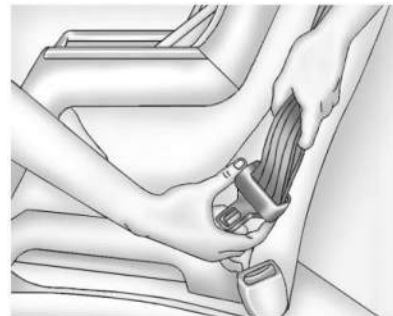
Warning (Continued)

there. Disable the controls by activating Rear Control Lock from the front center display screen.

1. Move the seat as far back as it will go before securing the forward-facing child restraint. Move the seat upward or the seatback to an upright position, if needed, to get a tight installation of the child restraint.

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag, the OFF indicator on the passenger airbag status indicator should light and stay lit when you start the vehicle. See *Passenger Airbag Status Indicator* ⇨ 97.

2. Put the child restraint on the seat.
3. Pick up the latch plate and run the lap and shoulder portions of the vehicle seat belt through or around the restraint. Ensure the seat belt webbing is routed as direct as possible and is not caught on seat handles or plastic trim. The child restraint instructions will show you how.



Tilt the latch plate to adjust the belt if needed.

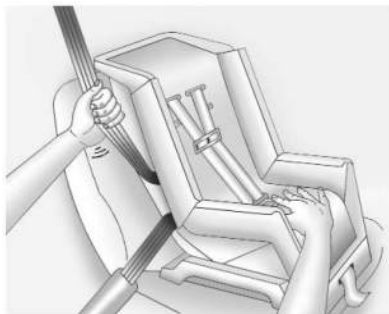


4. Push the latch plate into the buckle until it clicks.

Position the release pushbutton on the buckle, away from the child restraint, so that the seat belt could be quickly unbuckled if necessary.



5. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.



6. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor.

When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

There must not be direct contact of the child restraint to the buckle release pushbutton. If there is contact, move the seat upward and repeat prior installation steps. If there is still contact, reposition the child restraint

using the instructions that came with the child restraint. If there is still contact, use another seating position or child restraint.

Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 5 and 6.

7. Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the seat belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

If the airbags are off, the off indicator in the passenger airbag status indicator will come on and stay on when the vehicle is started.

If a child restraint has been installed and the on indicator is lit, see "If the On Indicator Is Lit for a Child Restraint" under *Passenger Sensing System* ⇨ 57.

To remove the child restraint, unbuckle the vehicle seat belt and let it return to the stowed position.

Storage

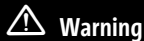
Storage Compartments

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Storage Compartments



Do not store heavy or sharp objects in storage compartments. In a crash, these objects may cause the cover to open and could result in injury.

Glove Box

To open the glove box:

- From the infotainment home screen, press the Quick Controls Menu > Glove Box Release or press Controls > Doors & Windows > Glove Box Release.
- If the vehicle is in P (Park), a Glove Box Release icon appears on the infotainment home screen. Tap the icon to open the glove box.
- If the vehicle is off, you can still open the glove box. Press the volume button on the Multi-function Controller (MFC) to wake the infotainment home screen and access the virtual Glove Box Release button.

- If the 12-volt battery is dead, the glove box will not open. See *Jump Starting - North America* ⇨ 313.

To close the glove box, push the glove box up until it latches.

Cupholders

Front Cupholder



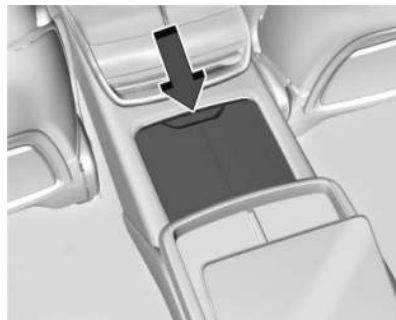


To access the front cupholder, open the split doors.



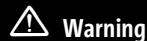
To access the second front cupholder, slide the armrest rearward until it latches. To close, pull the armrest rearward and release. The armrest will automatically slide forward.

Rear Cupholders



The rear cover can be opened partially to access the small storage bin or fully to access the small storage bin and rear cupholders. To close, pull the cover rearward and release.

Underhood Storage



Warning

To avoid personal injury or death, always keep the hood fully closed and latched when storing the vehicle. If the hood is not latched, a person could climb into the underhood compartment and

(Continued)

Warning (Continued)

inadvertently close the hood. People should never climb inside the underhood compartment. Never shut the hood when a person is inside.

Caution

Heavy, hard, or sharp items can damage eTrunks with soft finish materials, such as suede. Do not place such items in a soft-finish eTrunk.



There is storage in the front, under the hood. See *Hood* ⇨ 267.

To access the eTrunk, open the hood. The eTrunk can hold up to 20 kg (44 lbs).


Center Console Storage**Front Console**

To access the storage area, push the button and lift. Push the armrest shut to close.


Rear Console**Warning**

Do not use the folding tray table with any type of child restraint or booster installation in the rear seats. Contact with the folding tray table could result in injury. Return folding tray tables to the correct storage position before installing any child restraint or booster.


See *Where to Put the Restraint* ⇨ 68 for more information about installing a child restraint or booster.

 **Warning**

The folding tray table can press into the abdomen, harming a pregnant woman and fetus and putting them at risk for injury. Pregnant women should not use the folding tray tables.

 **Warning**


Fingers can be pinched when opening and closing the folding tray tables. To reduce the risk of pinching, open and close the folding tray tables carefully.

 **Warning**

Open folding tray tables may be damaged or cause injury to rear seat passengers when the front seats are moved rearward. Be careful when adjusting the front seats to avoid passenger injury or damage to the folding tray tables or seats. If necessary, stow the folding tray tables when moving the front seats rearward.

 **Warning**

The folding tray tables are not designed to sit/stand on and cannot hold more than 40 kg (89 lb.). Do not sit/stand on the folding tray tables, as this could result in possible injury or damage to the tray table.

 **Warning**

Objects placed on, or attached to, the folding tray tables may cause injury to you or others or damage the vehicle in the event of a crash or sudden braking/maneuvering.

Caution

Overloading the folding tray tables can damage them. When using the folding tray tables, do not exceed the maximum load rating of 40 kg (89 lb).

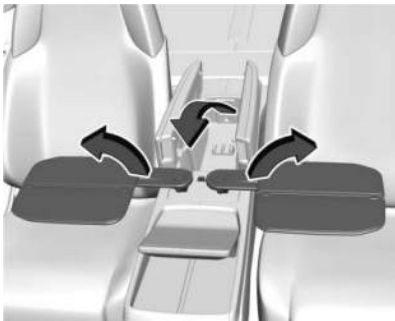
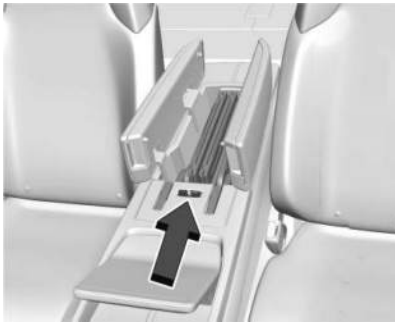
Caution

Objects placed in the rear center console bin when the folding tray tables are open could be damaged when the folding tray tables are closed. Remove all objects from the rear center console bin before closing the folding tray tables.

Caution

The folding tray tables are intended to be opened one at a time. Opening both folding tray tables at the same time could damage the tables. Do not open both folding tray tables simultaneously.

If equipped, there are two folding trays tables in the rear center console.



To access the stowed folding tray tables:

1. Open the rear console split doors.

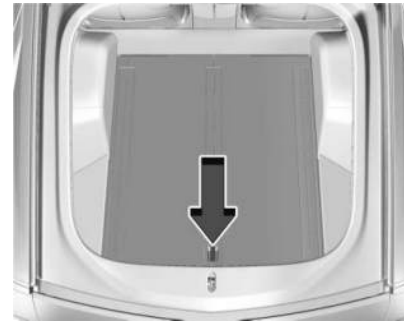
2. Press the button in front of the armrest. The folding tray tables must be released one at a time.
3. Pull the folding tray table arm upright.
4. Rotate the folding tray table horizontally.
5. Slide the folding tray table outward.
6. Unfold the tray table.

When deployed, the folding tray tables can rotate forward to allow entry and exit into the vehicle.

To stow the folding tray tables:

1. Fold the tray table. The folding tray tables must be stowed one at a time.
2. Slide the folding tray table inward.
3. Pull the folding tray table arm upright.
4. Press the button in front of the armrest.
5. Release the latch and press the folding tray table down.
6. Close the rear console split doors.

Additional Storage Features Cargo Management System



There is storage under the load floor.



Pull the strap and lift the load floor to access.

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Controls

Steering Wheel Adjustment

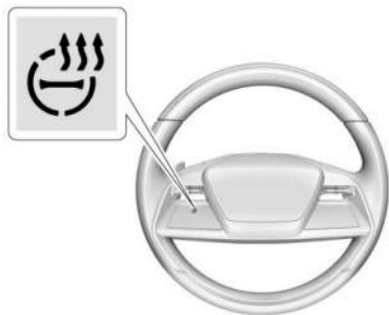



To adjust the steering wheel:

1. Press the control up or down to tilt the steering wheel up or down.
2. Press the control rearward or forward to move the steering wheel closer or away from you.

Do not adjust the steering wheel while driving.

Heated Steering Wheel




Press  once to heat the steering wheel to the highest setting. It will take several minutes to heat fully.

With each additional press of the button, the heat setting lowers until it turns off. An indicator on the Driver Information Center (DIC) will display the heat level.

Remote Start Automatic Operation


After a remote start in cold weather, the heated steering wheel and heated seats will turn on and then automatically drop to the next lowest setting. The heated steering wheel indicator

on the DIC will display the heat setting (high, medium, or low). You can turn off the auto feature by pressing .

See *Heated and Cooled Front Seats* ⇨ 41.

To turn this feature on or off, select Settings > Vehicle > Comfort and Convenience > Heated Steering Wheel > Select ON or OFF.

Horn

To sound the horn, press  on the steering wheel.

Pedestrian Safety Signal

The vehicle is equipped with automatic sound generation. The automatic sound is generated to indicate the vehicle presence to pedestrians. The sound changes if the vehicle is speeding up or slowing down. It is activated when the vehicle is driving or shifted into a forward gear, N (Neutral), or R (Reverse), up to driving speeds of 25 km/h (15 mph) or 35 km/h (22 mph), depending on region of sale.

Windshield Wiper/Washer

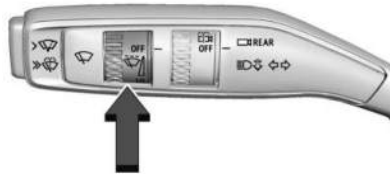
Warning

In freezing weather, do not use the washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

Warning

Before driving the vehicle, always clear snow and ice from the hood, windshield, washer nozzles, roof, and rear of the vehicle, including all lights and windows. Reduced visibility from snow and ice buildup could lead to a crash.

Keep the windshield clear of debris to allow for best system performance.



With the vehicle on, turn the windshield wiper band to select the wiper speed.

OFF: Use to turn the wipers off.

LO: Use for slow wipes.

HI: Use for fast wipes.

Turn the band to select the frequency of intermittent wipes between OFF and LO.

Clear any snow and ice from the wiper blades and windshield before using them. If frozen to the windshield, carefully loosen or thaw them. Damaged blades should be replaced. See *Wiper Blade Replacement* ⇨ 279.

Wiper Arm Assembly Protection


When using an automatic car wash, turn the windshield wiper band to OFF to disable the automatic Rain Sense windshield wipers.


If the vehicle is in N (Neutral) and the vehicle is moving slowly, the wipers will automatically stop at the base of the windshield.

The wiper operations return to normal when the vehicle is no longer in N (Neutral) or the vehicle speed increases.

Windshield Washer



 : For a single wipe, push the button on the side of the windshield to the first stop position briefly and then release. For several wipes, keep holding at the first stop position and then release.

 : Push the button on the side of the windshield wiper lever all the way to the end, beyond the first stop position, to spray washer fluid and activate the wipers. When the button is released, additional wipes may occur depending on how long the windshield washer

had been activated. See *Washer Fluid* ⇨ 273 for information on filling the windshield washer fluid reservoir.

Wiper Parking

If the vehicle is turned off while the wipers are on LO or HI, they will immediately stop.

If the windshield wiper lever is moved to OFF before the driver door is opened, the wipers will restart and move to the base of the windshield.

If the vehicle is turned off while the wipers are performing wipes due to windshield washing or Rain Sense, the wipers continue to run until they reach the base of the windshield.

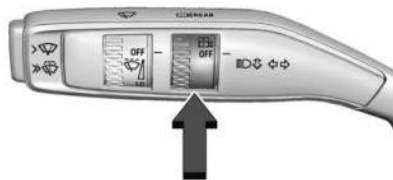
Rain Sense


If equipped with Rain Sense and the feature is turned on, a sensor near the top center of the windshield detects the amount of water on the windshield and controls the frequency of the windshield wiper based on the current sensitivity setting.

To turn the Rain Sense feature on or off, see “Rain Sense Wipers” under *Settings* > *Vehicle* > *Comfort and Convenience* > *Rain Sense* > *Enable/Disable*.

If Rain Sense is enabled in *Settings*, turning the wiper lever to INT will activate Rain Sense.

Rear Camera Washer



If equipped, turn the band to  to spray washer fluid on the rear camera lens. Release the band when done. See *Rear Camera Mirror* ⇨ 28.

Night Vision Camera Washer

To clean the night vision camera sensor, activate the front windshield washer five times when the system is operating.

See *Night Vision System* ⇨ 235 for information on using the night vision system.

Compass

The vehicle may have a compass display on the Driver Information Center (DIC). The compass receives its heading and other information from the Global Positioning System (GPS) antenna, StabiliTrak/Electronic Stability Control (ESC), and vehicle speed information.

The compass system can operate for a limited distance or degrees of turn before needing an update from the GPS satellites. When the compass display shows CAL, drive the vehicle to a clear or open area. The system will automatically search for a GPS signal and provide a heading again when the link to the satellites is re-established.

Clock

Set the time and date using the infotainment system. See “Date/Time” under *Settings* ⇨ 150.

Wireless Charging

Warning

Wireless charging may affect the operation of an implanted pacemaker or other medical devices. If you have one, it is recommended to consult with your doctor before using the wireless charging system.

Warning

Remove all objects from the charger before charging your compatible smartphone. Objects, such as coins, keys, rings, paper clips, or cards, between the smartphone and charger may become very hot.

On the rare occasion that the charging system does not detect an object, and the object gets wedged between the smartphone and charger, remove the smartphone and allow the object to cool before removing it from the charger, to prevent burns.

If equipped, the vehicle has up to four wireless chargers, two in the front and two in the rear of the center console storage bin. The system operates at 127.7 kHz and can charge one Qi compatible smartphone per charger at a rate of up to 3 amp (15 W). See *Radio Frequency Statement* ⇨ 344.

To begin charging, the vehicle must be on or Retained Accessory Power (RAP) must be active. The wireless charging feature may not correctly indicate charging when the vehicle is in RAP, during a Bluetooth phone call, or when phone projection is active. See *Power Modes* ⇨ 175.

The operating temperature is -40°C (-40°F) to 85°C (185°F) for the charging system and 0°C (32°F) to 35°C (95°F) for the phone. An alert will display on the infotainment screen if the wireless charger or smartphone are outside of normal operating temperature. Charging will automatically resume when a normal operating temperature is reached.



Front Console Dual Charger




Rear Console Dual Charger

To charge a smartphone:

1. Confirm the smartphone is capable of wireless charging.
2. Remove all objects from the charging pocket. The system may not charge if there are any objects between the smartphone and charger.
3. Place the smartphone face up against the rear of the charger.


A smartphone case may prevent the charger from working, or reduce the charging performance.


4. A green  appears on the infotainment display next to the phone icon when the smartphone is detected.


For optimal charging, place the smartphone in the center of the charging area, with the bottom of the phone aligned to the charging base.

The smartphone may become warm during charging. This is normal. In warmer temperatures, your phone may take longer to charge.

Troubleshooting Wireless Charging

If a smartphone is placed on the charger and  appears, remove the smartphone and any objects from the pocket. Turn the smartphone 180 degrees and wait a few seconds before placing/aligning it on the pocket again.

If a smartphone is placed on the charger and  appears, the charger and/or the smartphone is overheated. Remove the smartphone and any objects from the charger in order to cool the system.

For vehicles with wireless phone projection, the smartphone may overheat during wireless charging. The smartphone may slow down, stop charging, or shut down to protect the battery. The phone may need to be removed from its case to prevent overheating. The  may flash while the phone is cooling down enough for wireless charging to automatically resume. This is normal. Individual phone performance may vary.

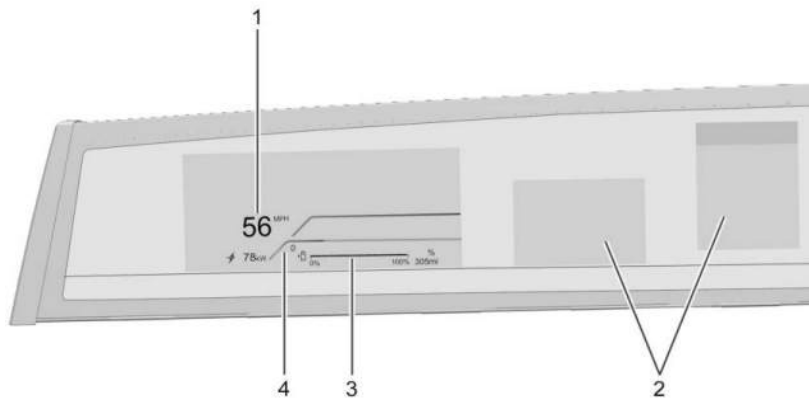
Certain vehicle and smartphone accessories may not be compatible with the wireless charging system. See your dealer for additional information.

Warning Lights, Gauges, and Indicators

Warning lights and gauges can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to the warning lights and gauges could prevent injury.

Some warning lights come on briefly when the propulsion system is started to indicate they are working. When one of the warning lights comes on and stays on while driving, or when one of the gauges shows there may be a problem, check the section that explains what to do. Waiting to do repairs can be costly and even dangerous.

Instrument Cluster



English Linear View Shown, Others and Metric Similar

1. Speedometer. See *Speedometer* ↪ 94.
2. Driver Information Center (DIC). See *Driver Information Center (DIC)* ↪ 111.
3. Battery Gauge. See *Battery Gauge (High Voltage)* ↪ 94.
4. Power Indicator Gauge. See *Power Indicator Gauge* ↪ 95.

Reconfigurable Instrument Cluster

The following are selectable views:

Gauge: Displays the power indicator gauge and the battery gauge near the speedometer. There are two information zones that are located to the right of the speedometer.

Map: Displays a navigation map.

Driver Assistance: If equipped, displays information for Adaptive Cruise Control (ACC), Follow Distance, Lane Keep Assist (LKA), Forward Collision Alert (FCA), and Super Cruise.

Night Vision: If equipped, displays the Night Vision camera onto the instrument cluster. See *Night Vision System* ↪ 235.

Minimalist: If equipped, displays no information zones.



Use the right steering wheel control to open and scroll through the different items and displays.

To change the cluster configuration, press \wedge or \vee on the right steering wheel control.

Select the desired option from the list. Press \checkmark on the right steering wheel control to select the desired option from the list.

Selecting a different view could hide the vehicle status displayed in the information zones on the cluster. Once a view with information zones is selected, the last selected vehicle status will be displayed. See *Driver Information Center (DIC)* \hookrightarrow 111 and *Vehicle Status* \hookrightarrow 112.

Display Settings

The following options can be turned on or off using the infotainment display. Some may not be available for your particular vehicle. See *Settings* \hookrightarrow 150.

Speed Sign

Shows sign information from a roadway database in the onboard navigation. The sign will show “--” when there is no detected speed limit or the system is unavailable.

Turn-by-Turn Graphics

Provides Turn-by-Turn navigation graphics during an active route in your driver display.

Traffic Sign Recognition

Displays the detected speed limit in your driver display.

Speedometer

The speedometer shows the vehicle speed in either kilometers per hour (km/h) or miles per hour (mph).

Odometer

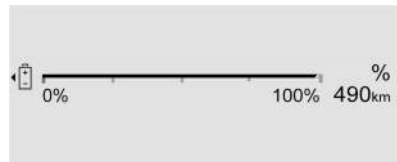
The odometer shows how far the vehicle has been driven, in either kilometers or miles.

Trip Odometer

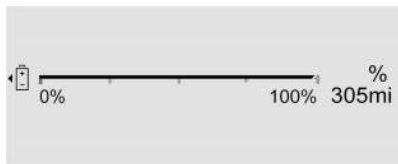
The trip odometer shows how far the vehicle has been driven since the trip odometer was last reset.

The trip odometer is accessed and reset through the Vehicle Status. See *Vehicle Status* \hookrightarrow 112.

Battery Gauge (High Voltage)



Metric Linear View Shown, Others Similar



English Linear View Shown, Others Similar

This displays the high voltage battery state of charge. The value displayed is an estimate of how far the vehicle can be driven on the remaining charge based on recent driving habits, conditions, and HVAC usage.

The fill bars shown inside of the gauge indicate the percentage range as estimated from current vehicle conditions and climate settings. The range estimate may be affected by climate settings, current vehicle conditions, and ambient conditions. Estimated range may increase and decrease based on climate control energy consumption.

Driving aggressively through hard acceleration and/or braking events, excessive HVAC usage, using heated or cooled seats, battery preconditioning, and performance modes can affect vehicle range estimates.

When the high voltage battery state of charge level gets low, the gauge will change color to amber. When the charge is very low, the estimated range value will change to LOW. Additional alerts may display and a sound may also be heard at low state of charge.

Power Indicator Gauge



Linear View Shown, Others Similar

The power indicator gauge is in the center of the display to the left of the speedometer in the Linear view.

This gauge displays the instantaneous charge and consumption power of the high voltage battery. Maximum power consumption is available when the high voltage battery is fully charged. During normal operation, a slight reduction in consumption power may occur as the high voltage battery state of charge decreases.

Regenerative Braking

When regenerative (regen) braking is active, the regen battery icon displays and will fill the lower section of the gauge. The power indicator gauge value shows the amount of instantaneous power being regenerated.

Regenerative Power Limited

Regenerative power may be limited when the high voltage battery is near full charge or cold. This will affect the vehicle's maximum regenerative braking power.

Seat Belt Reminders

Driver Seat Belt Reminder Light

There is a driver seat belt reminder light on the instrument cluster.



When the vehicle is started, this light flashes and a chime may come on to remind the driver to fasten their seat belt.

Then the light stays on solid until the belt is buckled. This cycle may continue several times if the driver remains or becomes unbuckled while the vehicle is moving.

If the driver seat belt is buckled, neither the light nor the chime comes on.

Front Passenger Seat Belt Reminder Light

The vehicle may have a front passenger seat belt reminder light near the passenger airbag status indicator. See *Passenger Sensing System* ⇨ 57.



When the vehicle is started, this light flashes and a chime may come on to remind passengers to fasten their seat belt.

Then the light stays on solid until the belt is buckled. This cycle continues several times if the front passenger remains or becomes unbuckled while the vehicle is moving.

If the front passenger seat belt is buckled, neither the chime nor the light comes on.

The front passenger seat belt reminder light and chime may come on if an object is put on the seat such as a briefcase, handbag, grocery bag, laptop, or other electronic device. To turn off the reminder light and/or chime, remove the object from the seat or buckle the seat belt.

Second Row Passenger Seat Belt Reminder Lights

The vehicle may have second row passenger seat belt reminder lights. The vehicle has one of the following displays.



- A shaded or green light indicates the seat belt is buckled.



- An X indicates the seat belt is not buckled. A check mark indicates the seat belt is buckled.

For information on the front seat belt reminder lights, see "Driver Seat Belt Reminder Light" and "Front Passenger Seat Belt Reminder Light" listed previously in this section.

When the vehicle is started, these lights come on solid to remind rear passengers to fasten their seat belts. Then each light may stay on solid or flash, and a chime may come on if the rear passenger remains unbuckled, or becomes unbuckled, when the vehicle is moving.

If all rear seat positions are buckled, neither the chime nor the lights will come on.

Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system. It is located in the instrument cluster. The system check includes the airbag sensor(s), the passenger sensing system, the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module. For more information on the airbag system, see *Airbag System* ⇨ 52.



The airbag readiness light comes on for several seconds when the vehicle is started. If the light does not come on then, have it fixed immediately.

Warning

If the airbag readiness light stays on after the vehicle is started or comes on while driving, it means the airbag system might not be working properly. The airbags in the vehicle might not inflate in a crash, or they could even inflate without a crash. To help avoid injury, have the vehicle serviced right away.

If there is a problem with the airbag system, a Driver Information Center (DIC) message may also come on.

Passenger Airbag Status Indicator

The vehicle has a passenger sensing system. See *Passenger Sensing System* ⇨ 57 for important safety information. The infotainment display has a passenger airbag status indicator.



United States



Canada

When the vehicle is started, the passenger airbag status indicator will light ON and OFF, or the symbols for on and off, for several seconds as a system check. Then, after several more seconds, the status indicator will light either

ON or OFF, or either the symbol for on or off, to let you know the status of the front outboard passenger frontal airbag and knee airbag.

If the word ON, or the on symbol, are lit on the passenger airbag status indicator, it means that the front outboard passenger frontal airbag and knee airbag are allowed to inflate.

If the word OFF, or the off symbol, are lit on the passenger airbag status indicator, it means that the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag.

If, after several seconds, both status indicator lights remain on, or if there are no lights at all, or if the airbag readiness light is on, there may be a problem with the lights or the passenger sensing system. See your dealer for service right away.

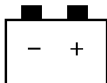
Warning

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have

(Continued)

Warning (Continued)

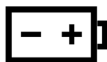
the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 96 for more information, including important safety information.

Charging System Light (12-Volt Battery)

The charging system light comes on briefly when the vehicle is started, as a check to show the light is working.

If the light stays on, or comes on while driving, there could be a problem with the electrical charging system. Have it checked by your dealer. Driving while this light is on could drain the 12-volt battery.

If a short distance must be driven with the light on, be sure to turn off all accessories, such as the radio. Find a safe place to stop the vehicle.

Low State of Charge Light

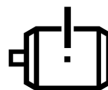
This light is amber when the vehicle state of charge is low. Proceed to a charging station to charge the vehicle.

Charge Cord Connected Light

This light comes on when a charge cord is connected to the vehicle.

Battery Fault Light

This light indicates a fault with the high voltage battery. A message may also display in the Driver Information Center (DIC). See your dealer for service.

Propulsion Power is Limited Light

These lights display when the vehicle propulsion power is limited, which may affect the vehicle's ability to accelerate. The vehicle may be driven while these lights are on, but maximum acceleration and speed may be limited.

Service Vehicle Soon Light



This light comes on if a condition exists that may require the vehicle to be taken in for service.

If the light comes on, take the vehicle to your dealer for service as soon as possible.

Brake System Warning Light



BRAKE

Metric

English



Warning

The brake system might not be working properly if the brake system warning light is on. Driving with the brake system warning light on can lead to a crash. If the light is still on after the vehicle has been pulled off the road and carefully stopped, have the vehicle towed for service.

This light comes on briefly when the vehicle is turned on to show that the light is working. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

If the light comes on and stays on, there is a brake problem. Have the brake system inspected right away. This light may come on if the brake fluid is low. See *Brake Fluid* ⇨ 274.

If the light comes on while driving, pull off the road and stop carefully. The brake system has electric brake boost. Vehicle speed may be limited when the brake system warning light comes on. The brake pedal might be harder to push, or the brake pedal may go closer to the floor. It could take longer to stop. If the light is still on, have the vehicle towed for service. See *Transporting a Disabled Vehicle* ⇨ 316.

Electric Parking Brake Light



PARK

Metric

English

This light comes on when the parking brake is applied. If the light continues flashing after the parking brake is released, or while driving, there is a problem with the Electric Parking Brake system. A message may also display in the Driver Information Center (DIC).

If the light does not come on, or remains flashing, see your dealer.

Service Electric Parking Brake Light



This light should come on briefly when the vehicle is turned on. If it does not come on, have it fixed so it will be ready to warn if there is a problem.

If this light stays on or comes on while driving, there is a problem with the Electric Parking Brake (EPB). Take the vehicle to a dealer as soon as possible. In addition to the parking brake, other safety functions that utilize the EPB may also be degraded. A message may also display in the Driver Information Center (DIC). See *Electric Parking Brake* ⇨ 183.

Antilock Brake System (ABS) Warning Light



This light comes on briefly when the vehicle is turned on to show that the light is working. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

If the ABS warning light stays on, or comes on again while driving, the vehicle needs service. A chime may also sound when the light stays on.

If the ABS warning light is the only light on, the vehicle has regular brakes, but ABS is not functioning.

If both the ABS warning light and the brake system warning light are on, ABS is not functioning and there is a problem with the regular brakes. See your dealer for service.

See *Brake System Warning Light* ⇨ 99.

All-Wheel-Drive Light



This light is amber when the electric all-wheel drive (eAWD) system is limited, and will turn off when the system is working normally.

If this light is red, there may be a malfunction. See your dealer.

See *All-Wheel Drive* ⇨ 183.

Automatic Vehicle Hold (AVH) Light



This light comes on when AVH is turned on and turns green when AVH is actively holding the vehicle. See *Automatic Vehicle Hold (AVH)* ⇨ 185.

Lane Keep Assist (LKA) Light



The Lane Keep Assist Light may display the following colors:

- Blank: LKA is disabled.
- White: Appears when the vehicle starts. A steady white light indicates that LKA is not ready to assist.

- **Green:** Appears when LKA is turned on and ready to assist. LKA will gently turn the steering wheel if the vehicle approaches a detected lane marking.
- **Amber:** Appears when LKA is active. The light flashes amber as a Lane Departure Warning (LDW) alert to indicate that the lane marking has been unintentionally crossed. If the system detects you are steering intentionally (to pass or change lanes), the LDW alert may not display. The amber light also appears when the Blind Zone Steering Assist detects a potential crash with a moving vehicle in the lane you are entering. See *Blind Zone Steering Assist (BZSA)* ⇨ 240.

LKA will not assist or alert if the turn signal is active in the direction of lane departure, or if LKA detects that you are accelerating, braking, or actively steering. See *Lane Keep Assist (LKA)* ⇨ 244.

Automatic Emergency Braking (AEB) Disabled Light



This indicator displays when you turn off Automatic Emergency Braking (AEB) or Front Pedestrian Braking (FPB).

This indicator will also display if AEB or FPB is unavailable due to malfunction, weather conditions, or if the windshield is not clean.

See *Automatic Emergency Braking (AEB)* ⇨ 230.

See *Front Pedestrian Braking (FPB) System* ⇨ 233.

Vehicle Ahead Indicator



This indicator will display green when a vehicle is detected ahead and amber when you are following a vehicle ahead much too closely.

See *Forward Collision Alert (FCA) System* ⇨ 228.

Pedestrian Ahead Indicator



This indicator will display amber when a nearby pedestrian is detected in front of the vehicle.

See *Front Pedestrian Braking (FPB) System* ⇨ 233.

Traction Off Light



This light comes on briefly when the vehicle is turned on to show that the light is working. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

The traction off light comes on when the Traction Control System (TCS) has been turned off. If StabiliTrak/Electronic Stability Control (ESC) is turned off, TCS is also turned off. To turn TCS and ESC off and on, see *Traction Control/Electronic Stability Control* ⇨ 187.

If TCS is off, wheel slip during acceleration is not limited unless necessary to help protect the driveline from damage. Adjust driving accordingly.

Traction Control System (TCS)/ Electronic Stability Control Light



This light comes on briefly when the vehicle is turned on to show that the light is working. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

If the light is on and not flashing, the TCS and potentially the StabiliTrak/ESC system are not fully operational and may not assist in maintaining control. Adjust driving accordingly. If the condition persists, see your dealer as soon as possible. A Driver Information Center (DIC) message may display.

The light flashes when the TCS and/or the StabiliTrak/ESC system is actively working.

See *Traction Control/Electronic Stability Control* ⇨ 187.

Electronic Stability Control (ESC) Off Light



This light comes on briefly when the vehicle is turned on to show that the light is working. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

This light comes on when the StabiliTrak/Electronic Stability Control (ESC) system is turned off. If StabiliTrak/ESC is off, the Traction

Control System (TCS) is also off. To turn ESC off and on, see *Traction Control/Electronic Stability Control* ⇨ 187.

If ESC and TCS are off, the systems do not assist in controlling the vehicle. Adjust driving accordingly.

Driver Mode Control Light



This light comes on when Sport mode is selected.



This light comes on when Snow/Ice mode is selected.



This light comes on when My mode is selected.



If equipped, this light comes on when Velocity Max mode is selected.

See *Driver Mode Control* ⇨ 188.

Four-Wheel Steering Light



This light is amber when Rear-Wheel Steering is off.

See *Four-Wheel Steering* ⇨ 190.

Air Suspension Light



This light comes on when the air suspension is raised to maximum height.



This light comes on when the air suspension is raised to increased ground clearance height.

It will flash green when the vehicle is changing to a higher ride height.



This light comes on when the vehicle is lowered in ride height.

It will flash green when the vehicle is changing to a lower ride height.



This light comes on when the air suspension is in Service mode or Alignment mode.



This light comes on when the vehicle is lowered to Show mode.

See *Air Suspension* ⇨ 190.

Tire Pressure Light



This light comes on briefly when the vehicle is started. It provides information about tire pressures and the TPMS.

When the Light Is On Steady

This indicates that one or more of the tires are significantly underinflated.

A Driver Information Center (DIC) tire pressure message may also display. Stop as soon as possible, and inflate the tires to the pressure value shown on the Tire and Loading Information label. See *Tire Pressure* ⇨ 300.

When the Light Flashes First and Then Is On Steady

If the light flashes for about a minute and then stays on, there may be a problem with the TPMS. If the problem is not corrected, the light will come on every time the vehicle is started. See *Tire Pressure Monitor Operation* ⇨ 304.

Security Light



The security light should come on briefly as the vehicle is started. If it does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

If the light stays on and the vehicle does not start, there could be a problem with the theft-deterrent system.

Vehicle Ready Light



The vehicle ready light comes on whenever the vehicle is ready to be driven.

High-Beam On Light



This light comes on when the high-beam headlamps are in use. See *Headlamp High/Low-Beam Changer* ⇨ 120.

IntelliBeam Light



This light comes on when the IntelliBeam system is enabled. See *High-Beam Systems* ⇨ 118.

Adaptive Forward Lighting (AFL) Light



This light comes on solid when there is a problem with the AFL system.

See *Adaptive Forward Lighting (AFL)* ⇨ 121.

Lamps On Reminder



This light comes on when the exterior lamps are in use, except when only the Daytime Running Lamps (DRL) are active. See *Exterior Lamp Controls* ⇨ 118.

Cruise Control Light



The cruise control light is white when the cruise control is on and ready, and turns green when the cruise control is set and active.

The light turns off when the cruise control is turned off. See *Adaptive Cruise Control* ⇨ 194.

Adaptive Cruise Control Light



This light is white when the Adaptive Cruise Control (ACC) is on and ready, and turns green when the ACC is set and active.

Curve Speed Control Light



If equipped, this light may illuminate green when ACC is actively controlling the vehicle speed and detects a sharp curve on the road ahead.

ACC automatically slows the vehicle down while navigating the curve and may increase speed out of the curve, but will not exceed the set speed.

See *Adaptive Cruise Control* ⇨ 194.

Super Cruise Light



If equipped, this light comes on to show the status of Super Cruise. See *Super Cruise* ⇨ 203.

Driver Attention Assist Light



If equipped, this light displays amber when:

- Drowsiness assistance is not available
- Driver Attention Assist has been disabled

See *Driver Attention Assist* ⇨ 242.

Door Ajar Light



This light comes on when a door is open or not securely latched. Before driving, check that all doors are properly closed.

Information Displays

Charging

Important Information about Electric Vehicle Charging

Danger

Improper use of portable electric vehicle charge cords may cause a fire, electrical shock, or burns, and may result in damage to property, serious injury, or death.

- Do not use extension cords, multi-outlet power strips, splitters, grounding adapters, surge protectors, or similar devices.
- Do not use an electrical outlet that is worn or damaged, or will not hold the plug firmly in place.
- Do not use an electrical outlet that is not properly grounded.
- Do not use an electrical outlet that is on a circuit with other electrical loads.


- Charging an electric vehicle (EV) and increased charging rates can stress a building's electrical system more than a typical household appliance.
- Before plugging the charge cord into an electrical outlet for the first time, have a qualified electrician inspect and verify the electrical system (electrical outlet, wiring, junctions, and protection devices) for heavy-duty service at a 12 amp continuous load.
- Check electrical outlets often, as they may wear out with normal use or become damaged over time, making them unsuitable for EV charging.
- Check the electrical outlet/plug while charging. If the electrical outlet/plug appears hot, discontinue using it immediately and have the electrical outlet serviced by a qualified electrician.
- When charging outdoors, use an electrical outlet that is weatherproof.
- Mount the charging cord to reduce strain on the electrical outlet/plug.
- Do not place the charge cord in a position where there is risk of it being submerged in water.

Charging App

The Charging app provides access to features which help you to review and manage charging preferences.

To launch the Charging app from the infotainment home screen, select the Charging icon. There are four selections to choose from: Next Charge, Charge Assist, Schedule, and Settings. When you launch Charging for the first time, the Next Charge screen will display.

Next Charge

To view the current charging status in the infotainment screen, select .

On the Next Charge screen, you can review information for the next charging session and specify if you want to Charge Now or Charge Later.

Charge Now

Charge Now is the default charging mode for your vehicle. The vehicle begins charging immediately when it is plugged in and authenticated at the charging location.

With Charge Now selected, the screen displays:

- Text indicating that the vehicle will charge immediately when plugged in.

- The estimated time at which the vehicle will reach the desired charge level.
- Target Charge Level Gauge: The percentage at which the vehicle will stop charging. The gauge also displays an estimate of the vehicle's range upon completing the charging session.

Warning

Do not charge your vehicle's battery above an 80% charge if you are going to drive down long, steep grades such as mountain passes. This provides room in the battery for regenerative braking to supplement your conventional brakes during the descent. This is especially important when towing a trailer, which puts additional stress on your vehicle's braking system.

See *Hill and Mountain Roads* ⇨ 170 for important information about driving on grades.

The default charge level is 80% when plugged in to protect battery life. To set a different charge level, drag the circular marker on the Target Charge Level Gauge to the preferred

value. To lower the desired charge level, drag the Charge Level marker counterclockwise, and to increase it drag the marker clockwise. The charge level can also be changed by selecting \wedge and \vee inside the gauge on the screen. The Multi-Function Controller (MFC) on the center console can also be used to set the charge level by rotating it clockwise or counterclockwise when the Target Charge Level Gauge is highlighted. The range estimate updates once the desired charge level is set. To optimize battery health, the minimum allowable charge level is determined by the vehicle.

Charge Later

Instead of charging immediately to a desired charge level, you may choose to delay the charge to the vehicle and have it completed by your desired departure time. This may be a more economical choice and a more efficient use of energy when charging at home. To use this mode, touch Charge Later on the Next Charge screen.

With Charge Later selected, the screen displays:

- Text indicating that your vehicle will delay charging to be ready by the time specified.

- The ability to set the desired time at which the vehicle will finish charging and be ready for departure.
- **Target Charge Level Gauge:** Ability to set the percentage at which the vehicle will stop charging. The gauge also displays an estimate of the vehicle's range upon completing the charging session.
- **Preconditioning:** Ability to heat or cool the cabin to your desired temperature using energy from the charger. Energy from the battery is not used to condition the cabin, ensuring the vehicle gets the maximum range from the charging session. Preconditioning happens at the end of the charge, and right before the departure time.

To set the time at which the vehicle will complete the charge and be ready for departure:

Drag each value up or down within the time selector until the preferred time is selected. The time selector can also be modified using the MFC on the center console by turning the knob when the preferred value is highlighted. If the

desired charge level cannot be reached by the selected time, a message will display that one of the two preferences must be adjusted.

To adjust the desired charge level in Charge Later mode, see “Charge Now” earlier in this section.

Setting the Preconditioning preference:

Select the switch to turn on Preconditioning. The Preconditioning temperature can be adjusted by selecting Preconditioning on this screen, or in Settings.

Active Charging

For information on the vehicle battery and charging, see *Plug-In Charging* ⇨ 247.

During an active charging session, the Charging screen displays and continuously updates the following items:

- The current charging status.
- The range the vehicle is capable of driving at the current charge level.
- Range accumulation per hour of charging.
- The estimated time at which the vehicle will reach the desired charge level.

- **Target Charge Level Gauge:** The current charge level value represented as a percentage and a colored section of the circular gauge.

To update the desired charge level for the active charging session, drag the marker on the Target Charge Level Gauge.

If the charge coupler is locked, the Stop Charge button will display. Selecting the Stop Charge button at any time ends the active charging session.

For Level 1 chargers, you can also select the appropriate charge cord limit for your location. This determines how much current can flow from an electrical outlet to the vehicle battery. It also ensures proper charge time estimates.

When the charge cord limit is changed to the highest setting on a 120-volt circuit a notification is displayed.

If no Home Location is set, the Level 1 cord limit will revert to the lowest setting every time the vehicle is shifted out of (P) Park.


Range and charge time estimates fluctuate depending on a number of factors such as charge cord level/limit, battery temperature, and outside air temperature.


The peek-in charging screen can be used to monitor your vehicle's charge status when the vehicle is off or anytime a charge cord is plugged into the charge port, see *Instrument Cluster* ⇨ 93. To monitor the charging status remotely, download the myCadillac app on your mobile device.

Fast Charging

If equipped, the vehicle will immediately begin charging when plugged into a fast charge station. While fast charging, the vehicle will bypass any schedule or departure time selection. See *Plug-In Charging* ⇨ 247.

Charge Assist

To find a charge station with the infotainment display, select .

The choices available for Charge Assist include Nearby, Favorites, Routes, or Accounts. Additionally you can filter the list of shown charge stations by selecting  above the list.

Nearby

Displays nearby stations. When a station name is selected, details of the selected charge station displays on the screen.

Station Details displays Station Info, Connectors and Station Photos.

With Station Info selected, the screen displays:

- Name of the charge station
- Number of ports available
- Estimated charge percentage remaining upon arrival
- Charge station address
- Favorites button
- Navigation button

The Connector screen displays the connector types and availability. From here you can select a connector to see pricing details and charging speed. You can start a charging session by selecting the Start Charging button.

The Station Photos screen displays photos of the selected charge station.

Favorites

Displays a list of your favorited stations. You can favorite stations from the Station Details screen.


Routes

This screen allows you to access routes planned and saved on the myCadillac app. To activate a route, touch the navigation icon to start route guidance.

Accounts

Allows you to view charge provider accounts that you have linked in the myCadillac app, and pre-pay for charging. You can also choose to be notified when you are approaching one of your providers' stations.

Schedule

Select  to schedule a custom charging plan for each day of the week. When the vehicle is plugged in at the Home Location, the Schedule feature will automatically charge to the desired charge level and precondition the cabin by the time set in the Schedule. This feature acts as a more customizable Charge Later setting than the one on the Next Charge screen.

Creating a Schedule

To create a schedule, touch Create Schedule. If there is no Home Location set, you will be prompted to create one.

The Charging Schedule dialog displays:

- Days of the week
- A value selector for setting the desired charge level
- A time selector for setting the time the vehicle will reach the desired charge level
- Preconditioning: Allows the vehicle to heat or cool the cabin to the desired temperature by using energy from the charger.
- An **X** allowing you to close the Charging Schedule screen
- Save & Close button: Applies any changes made and exits the dialog.

Days can be assigned to the schedule. Days of the week are represented in toggles containing their first letter. Touching each day illuminates the graphic, confirming that day is assigned that to the schedule. Touching a second time unassigns days from this schedule, dimming the toggle once again. Select all days you wish to adhere to the settings in this schedule. If there are multiple charge schedules, days must be unassigned from their current schedule before they can be assigned to a new one.

Once completed with the charging schedule, select the Save & Close button to finish creating the schedule.

On days that are not assigned a schedule, the vehicle will begin charging to 80% as soon as it is plugged in, unless otherwise specified on the Next Charge screen.

Home Charge Schedule can be turned ON or OFF. To enable or disable all charging schedules, select the toggle switch next to Home Charge Schedule on the Schedule screen.

Modifying and Deleting Charge Schedules

To modify a schedule, select the card on the Schedule screen. This will open a screen. Make the desired changes and select the Save & Close button when finished. To delete the schedule, select the Delete Schedule button and confirm your decision when prompted.

Charge Settings

To view and change the Charge Settings, select



Use this screen to set vehicle charging preferences. Touching any item will display options for specifying their behavior.

The Settings screen displays:

Home Location

With a Home Location set, the vehicle can determine whether it is plugged in at home and will charge according to any existing schedules. The Home Location can be changed or deleted at this screen.

The wireless service and GPS satellite technologies must be available and operating for features to function properly. These systems may not operate if the battery is disconnected, or if the vehicle has been off for an extended period. If GPS is unavailable, a message displays on the infotainment screen. GPS functionality may resume after the next time you drive the vehicle.

Preferred Charge Times

Allows you to enable preferred charge time windows for the Home Location during both weekday and weekend planned charging sessions. It does so whether the vehicle is set to Charge Later or observing a scheduled charge. This allows for charging at a lower cost by prioritizing charging during the electrical provider's off-peak period. The vehicle will use these times to reach the desired charge level by the scheduled time. If the vehicle cannot

reach the desired charge level within these times, it will charge as needed outside of this time window.

Notifications

This section contains on/off preferences for multiple notifications triggered during the Charging session.

Charge Status Feedback: When on, your vehicle will chirp to accompany changes in the charging status.

Charge Cord Unplugged Alert: When on and your vehicle is locked and connected to a portable cord (120-volt) charger, the horn will sound and the headlamps will flash if the charge cord becomes unplugged.


Charge Power Loss Alert: When on, your vehicle will chirp for an extended period if charging power is cut off.

Headlamp Charge Status Indicator: When on, your vehicle's headlamps will show the charging status. As the battery charges, more LED bars within the headlamps will turn on. The headlamps will automatically turn off when charging is complete.

Fast Charge Prep

If equipped, adjusts the battery to the optimal temperature for quicker Fast Charging. This should be done before charging at a Fast Charger.

Depending on the outside and battery temperature, battery conditioning could take longer to reach the optimal temperature.

When using Google Maps, the Fast Charge Prep feature begins automatically when a Fast Charge station is added to your route via the  on the infotainment screen.

Preconditioning Temperature

Allows you to set the preferred cabin temperature. During a planned charging session at the Home Location, the vehicle cabin is warmed or cooled to this temperature if set to ON in either the Charge Later screen or in an active Schedule.

Driver Information Center (DIC)



The DIC is displayed in the instrument cluster. It shows the status of many vehicle systems.


DIC information is broken down into two main zones:

Left Zone: Displays on the instrument cluster to the right of the speedometer.

Right Zone: Displays on the instrument cluster to the right of the left zone.



 or  : Use to scroll to the previous or next selection.

 : Press to open a menu or select a menu item. Press and hold to reset certain displays.

DIC Information Display Options

Select which info display to view on the DIC by selecting Add to Driver Display in the Vehicle Status on the infotainment display. See *Vehicle Status* ⇨ 112.

DIC Information Displays

The following is the list of all possible DIC information displays and their locations. Some of the information displays may not be available for your particular vehicle.

Left Zone

Audio Now Playing: Displays the actively playing audio.

Navigation: Displays a variety of navigation information.

Phone: Displays a variety of call information.

Right Zone

Time & Temperature: Displays the current time and the current outside air temperature.

Trip Information: The Trip 1 or 2 display shows the current distance traveled, in either kilometers (km) or miles (mi), since the trip

odometer was last reset. To reset the current trip, touch and hold the touchscreen display when trip odometer is displayed.

The Average Efficiency shows the approximate average kWh per 100 kilometers (kWh/100 km), kilometers per kilowatt hour kWh (mi/kWh), or miles per kilowatt hour kWh(mi/kWh). This number is calculated based on the number of kWh/100 km, km/kWh, or mi/kWh recorded since the last time this menu item was reset. This number only reflects the approximate average electrical energy economy that the vehicle has at that moment, and changes as driving conditions change.

Current Trip: Displays distance driven, average efficiency, and time elapsed since vehicle startup. It resets when you turn your vehicle off.

Date: Displays current date information. If Add to Driver Display is selected, Air Quality information is shown below date and time information. Air Quality shows the measured Particulate Matter (PM_{2.5}), along with the status of the air quality. This indicates how clean or polluted outdoor air is. Higher numbers indicate more pollutants and a greater potential for adverse health effects.

Tire Pressure: Displays the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 303 and *Tire Pressure Monitor Operation* ⇨ 304.

Energy Usage: Displays energy usage of the Driving, Remote Climate, and Climate and Fast Charge Prep vehicle systems as percentages of overall vehicle energy use.

Energy Efficiency: Displays a graph showing the energy efficiency that has been used by the vehicle over a recently driven distance.

Vehicle Status

To access the menu select the Vehicle Status icon from the infotainment home screen. Vehicle status content is grouped together and shown on the infotainment display.

Selecting vehicle status content on the infotainment display shows the available options. Follow any message or alerts that may display. Some options may be unavailable while driving.

Touch Add to Driver Display to send the desired content to the Driver Information Center (DIC) on the instrument cluster. Touch Remove from Display to remove the selected content from the instrument cluster. See *Driver Information Center (DIC)* ⇨ 111.

Options

The following is the list of all possible vehicle status content and location. Some but not all of the content and options may be available for your particular vehicle.

Overview

Displays an interactive image of your vehicle that shows performance and health information.

Tire Pressure

Displays the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 303 and *Tire Pressure Monitor Operation* ⇨ 304.

The following options may be chosen: Relearn Sensors, and Add to Driver Display.

Energy Info

Energy Usage: Displays how energy is being used for the current drive since the last time the vehicle was started. Percentages of the Driving, Remote Climate, and Climate and Fast Charge Prep vehicle systems as overall vehicle energy use are shown. When selected, distance driven, total energy, energy usage bar diagram, and selectable categories are displayed. Select a category to learn more about how your vehicle uses energy from the battery.

Add to Driver Display may be chosen.

Energy Efficiency: Displays a graph showing the energy efficiency that has been used by the vehicle over a recently driven distance. When selected, regenerated range, and instant efficiency is shown along with average efficiency in the dialog.

Add to Driver Display may be chosen.

Trip

Trip Information: Trip 1 or 2 displays the current distance traveled, in either kilometers (km) or miles (mi), since the trip odometer was last reset.

Average Efficiency shows the approximate average kilometers per kilowatt hour kWh (km/kWh) or miles per kilowatt hour kWh (mi/kWh). This number is calculated based on the number of km/kWh or mi/kWh recorded since the last time this menu item was reset. This number only reflects the approximate average electrical energy economy that the vehicle has at that moment, and changes as driving conditions change.

To reset these values, touch reset on the touchscreen display when the Trip Information dialog is selected.

The following options may be chosen: Reset Trip 1, Reset Trip 2, and Add to Driver Display.

Current Trip: Displays distance driven, average efficiency, and time elapsed since vehicle startup. It resets when you turn your vehicle off.

Add to Driver Display may be chosen.

Air Quality


Displays the measured Particulate Matter (PM_{2.5}), along with the status of the air quality. This indicates how clean or polluted outdoor air is. Higher numbers indicate more pollutants and a greater potential for adverse health effects. When Air Quality Index numbers are


high, close your vehicle's windows and doors, set your climate system to Auto, and turn on air recirculation. Air Quality Index displays all of the possible measurement ranges, along with the status that is attributed to those ranges.

The following options may be chosen: Air Quality Index, and Add to Driver Display.

Vehicle Messages

Messages displayed on the Driver Information Center (DIC) indicate the status of the vehicle or some action that may be needed to correct a condition. Multiple messages may appear one after another.

If equipped, vehicle status notifications are also sent to the infotainment display. Touching  on the infotainment home screen displays active messages. Depending on the message, you can schedule a service, find the nearest dealer, or find the nearest charging station. When there are active messages that can be viewed, a red dot appears on top of the notification icon on the infotainment display.

The messages that do not require immediate action can be acknowledged and cleared by pressing . The messages that require immediate action cannot be cleared until that action is performed.

All messages should be taken seriously; clearing the message does not correct the problem.

If a SERVICE message appears, see your dealer.

Follow the instructions given in the messages. The system displays messages regarding the following topics:

- Service Messages
- Fluid Levels
- Vehicle Security
- Brakes
- Ride Control Systems
- Advanced Driver Assistance Systems
- Cruise Control
- Lighting and Bulb Replacement
- Wiper/Washer Systems
- Doors and Windows
- Seat Belts

- Airbag Systems
- Propulsion
- Tire Pressure
- Battery
- Steering

Propulsion Power Messages

REDUCED ACCELERATION DRIVE WITH CARE

This message displays when the vehicle's propulsion power is reduced. A reduction in propulsion power can affect the vehicle's ability to accelerate. If this message is on, but there is no observed reduction in performance, proceed to your destination. Under certain conditions, the performance may be reduced the next time the vehicle is driven. The vehicle may be driven while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, or displays repeatedly, the vehicle should be taken to your dealer for service as soon as possible.

This message can be displayed when the high voltage battery charge level is low. This is normal behavior as the vehicle is limiting power due to reduced battery capability.

Under certain operating conditions propulsion will be disabled. Try restarting after the vehicle has been off for two minutes.

PROPULSION POWER REDUCED DUE TO TEMPERATURE

This message displays when the vehicle is on, the battery temperature is low, and when the vehicle's performance is limited. The duration of the limited vehicle performance depends, in part, on the high voltage battery charge level. If the high voltage battery charge level is relatively high, as the vehicle is driven, the battery temperature will increase, and the vehicle will return to normal operation. If the high voltage battery charge level is relatively low the vehicle will not return to normal operation until charged.

Keep the vehicle plugged in, even when fully charged, to keep the high voltage battery temperature ready for the next drive. This is important when outside temperatures are extremely hot or cold.

Vehicle Speed Messages

SPEED LIMITED TO XXX KM/H (MPH)

This message shows that the vehicle speed has been limited to the speed displayed. The limited speed is a protection for various propulsion and vehicle systems, such as lubrication; thermal; brake; suspension; tire; or, if equipped, Teen Driver.

Universal Remote System

See *Radio Frequency Statement* ⇨ 344.

Universal Remote System Programming

If equipped, the Universal Remote (e.g., garage door) controls are located in the Controls menu on the infotainment screen.

This system can replace up to eight hand-held transmitters (remote controls), such as garage door openers, security systems, and home automation devices. The following instructions address garage door openers, but can be used for other devices.

Do not use the Universal Remote system with any garage door opener that does not have the stop and reverse feature. This includes any garage door opener model manufactured before April 1, 1982.

Keep the original hand-held transmitter for use in other vehicles and future programming. Ensure the Universal Remote system is erased when vehicle ownership is terminated. See "Erasing Universal Remotes."

Programming the Universal Remote System

Programming involves time-sensitive actions and may time out, requiring the procedure to be repeated. Read these instructions completely before programming the Universal Remote system. It may help to have another person assist with the programming process.

If your garage door opener includes a hand-held transmitter, make sure it has a new battery for quick and accurate transmission of the radio-frequency signal.


Clear all people and objects away from the garage door.

Park the vehicle outside and directly facing the garage door opener receiver. The vehicle must remain in P (Park) for the entire duration of programming.

1. From the infotainment home screen, select Controls > See More Controls > Universal Remotes. Then select the “Add Remote” option.
2. If you have a hand-held transmitter, press “Yes” to the question on the screen and proceed to Step 3.

If your garage door opener does not include a hand-held transmitter, press either “D-Mode” (mostly used in North America), or “UR-Mode” (mostly used in Europe, Mideast, and Asia), on the screen and skip to Step 6.

3. While the infotainment screen shows “Searching for Signal,” press and hold the hand-held transmitter button about 3 to 8 cm (1 to 3 in) away from the rear-view mirror. Do not release the button until “Signal Found” appears on the infotainment screen.


If the signal is not detected after 30 seconds, press  and return to Step 1 to try again.

Some garage door openers require a modification of Step 3. See “Radio Signals for Some Gate Operators” later in this section.

4. Once the signal is found, test the Universal Remote System by pressing the Test button. You may need to press the Test button several times, as some garage door openers require multiple valid signals when programming. If your garage door moves, then programming was successful. Press the It Worked button to validate programming was successful and end the process. Continue to Steps 5–8 only if programming was not successful.
5. If your garage door does not move during testing, press the It Didn’t Work button.
6. Locate the Learn or Smart button on the garage door opener receiver in the garage. The name and color may vary by manufacturer, but is usually located near the antenna wire. If you have any difficulty finding the button, refer to the garage door opener manufacturer’s instructions.
7. Press and release the Learn or Smart button on the garage door opener receiver. Step 8 must be completed within 30 seconds


of pressing this button. If it takes longer than 30 seconds, you will need to press this button again.


8. Return to the vehicle and press the Test button on the infotainment screen. You may need to press the Test button several times. If your garage door moves, then programming was successful. Press the It Worked button to validate programming was successful and end the process.
9. If programming is not successful, press It Didn’t Work button and repeat Steps 6–8.

After your Universal Remote has been successfully programmed, you can change the name of the remote on the screen as desired by pressing .

For questions or programming help, visit www.homelink.com/gm for self-help videos or call 1-800-355-3515. For calls placed outside the U.S., Canada, or Puerto Rico, international rates will apply and may differ based on landline or mobile phone.

Erasing Universal Remotes

To erase a programmed Universal Remote, press  next to the remote from the list on the infotainment screen, and then select “Delete.”

To erase ALL programmed Universal Remotes, press  next to any remote from the list on the infotainment screen, and then select “Delete All.”

Radio Signals for Some Gate Operators

Some gate operators and radio-frequency laws require transmitter signals to time out or quit after several seconds of transmission. This may not be long enough for the Universal Remote system to pick up the signal during programming.

If programming did not work, replace Step 3 under “Programming the Universal Remote System,” with the following:

Press and release the hand-held transmitter button every two seconds until the signal has been found by the Universal Remote System. Proceed to Step 4 under “Programming the Universal Remote System” to complete programming.

Using Universal Remotes

Each successfully programmed remote will create a shortcut icon on the infotainment Controls screen. Tapping these shortcut icons will operate the garage door opener. Pressing and dragging an icon allows it to be repositioned on the screen as desired.

These shortcut icons may appear in the smart controls area of the infotainment screen when your vehicle is in close proximity to the area in which the Universal Remote System was programmed, e.g., your home.

Universal Remote System Operation

Using the Universal Remote System

Press the desired Universal Remote button on the infotainment screen or the front center console, depending on the vehicle.

Reprogramming a Single Universal Remote System Button

To reprogram any of the system buttons:

1. Select the universal remote to be reprogrammed.
2. Select “Delete.”

3. Select “Add Remote.” Follow the instructions in *Universal Remote System Programming* ⇨ 115.

Lighting

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Interior Lighting


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Exterior Lighting

Exterior Lamp Controls


The headlight control is located along the bottom edge of the center console display. Touch the  symbol, then select any of the following options.


Off : Turns off the exterior lights.

For vehicles first sold in Canada, the Daytime Running Lamps (DRL) automatically activate when the vehicle is shifted out of P (Park). See *Daytime Running Lamps (DRL)* ⇨ 120.



Auto: Enables the automatic headlamp system, which controls the exterior lights and instrument panel lights depending on outside lighting. See *Automatic Headlamp System* ⇨ 120.

 : Turns on the parking lights. If the vehicle is not in P (Park), the DRL also come on.

 : Turns on the exterior lights such as headlights, taillights, parking lights, and license plate lights, plus the instrument panel lights.

Headlights can also be activated in the Controls & Safety app. Touch the Controls icon , then select See More Controls > Lights > Headlights.

Optional Reminder If Headlights Are Off


You can set a reminder for the vehicle to display a message if it is dark outside and the headlights are off. On the infotainment home screen, touch  > See More Controls > Lights > Headlights, then touch  in the upper corner of the Headlights menu. Touch the box next to Turn Headlight Reminder On to enable or disable the option.

High-Beam Systems



IntelliBeam System



If equipped, this system turns the high-beam headlamps on and off according to surrounding traffic conditions.


The system turns the high-beam headlamps on when it is dark enough and there is no other traffic present.

This light  appears on the instrument cluster when the IntelliBeam system is enabled.

Turning the IntelliBeam System On and Off

To enable the IntelliBeam system, from the infotainment home screen, select Controls App  > Auto High Beams > On. The system can also be enabled at  > See More Controls > Lights > Auto High Beams > On.

The system engages only when the Headlights control  is set to  or Auto.


To disable the system, select  > Auto High Beams > Off.

Driving with IntelliBeam

Warning

Using high beams in dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions can cause a glare, obstructing your vision. This reduction in visibility can result in a crash. Never use high beams in dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.

The system only activates the high beams when driving over 40 km/h (25 mph).

The blue High-Beam On light  appears on the instrument cluster when the high beams are on.

There is a sensor near the top center of the windshield that automatically detects the lights of oncoming and preceding vehicles. Keep this area of the windshield clear of debris to allow for best system performance.

The high-beam headlamps remain on, under the automatic control, until one of the following situations occurs:

- The vehicle speed drops below 20 km/h (12 mph).
- The outside light is bright enough that high-beam headlamps are not required.
- The system detects an approaching vehicle's headlamps.
- The system detects a preceding vehicle's taillamps.

The high-beam headlamps may not turn off automatically if the system cannot detect another vehicle's lamps because of any of the following:

- The other vehicle's lamps are missing, damaged, obstructed from view, or otherwise undetected.

- The other vehicle's lamps are covered with dirt, snow, and/or road spray.
- The other vehicle's lamps cannot be detected due to dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.
- The vehicle windshield is dirty, cracked, or obstructed by something that blocks the view of the light sensor.
- The vehicle is loaded such that the front end points upward, causing the light sensor to aim high and not detect headlamps and taillamps.
- The vehicle is being driven on winding or hilly roads.

The IntelliBeam system may need to be disabled if any of the above conditions exist.

Exterior Lamps Off Reminder

A warning chime sounds if the driver door is opened while the vehicle is off and the exterior lamps are on.

Headlamp High/Low-Beam Changer

Push the turn signal lever away from you and release, to turn the high beams on. To return to low beams, push the lever again or pull it toward you and release.



This indicator light turns on in the instrument cluster when the high-beam headlamps are on.


Flash-to-Pass

To flash the high beams, pull the turn signal lever toward you and release.

Daytime Running Lamps (DRL)

Daytime Running Lamps (DRL) can make it easier for others to see the front of your vehicle during the day. Fully functional DRL are required on all vehicles first sold in Canada.

The DRL are turned on and off by the Automatic Headlamp System. The DRL come on when all of the following conditions are met:

- The vehicle is on.
- The  control is set to Auto.
- The light sensor determines it is daytime.

The taillamps, instrument panel lights, and other lamps do not turn on when DRL are activated.

When DRL Turn Off

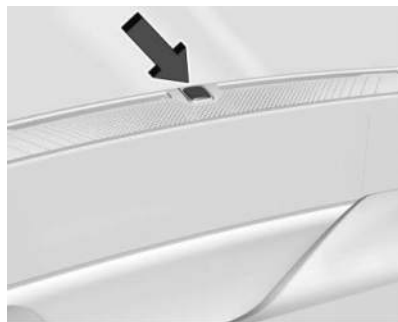
When it begins to get dark, the automatic headlamp system switches from DRL to the headlamps.

The DRL turn off when either the headlamps turn on or the vehicle is turned off.

For vehicles first sold in Canada, the DRL turn off only when the vehicle is parked. The DRL automatically reactivate when the vehicle is shifted out of P (Park).

Automatic Headlamp System

When the exterior lamp control is set to Auto and it is dark enough outside, the headlamps come on automatically.



There is a light sensor on top of the instrument panel. Do not cover the sensor.

The system may also turn on the headlamps when driving through a parking garage or tunnel.

If the vehicle is started in a dark garage, the automatic headlamp system comes on immediately. If it is light outside when the vehicle leaves the garage, there is a slight delay before the automatic headlamp system changes to the Daytime Running Lamps (DRL). During that delay, the instrument cluster may not be as bright as usual. Make sure the instrument panel brightness control is in the full bright position. See *Instrument Panel Illumination Control* ⇨ 123.

When it is bright enough outside, the headlamps will turn off or may change to DRL. The automatic headlamp system turns off when the exterior lamp control is set to On or the vehicle is off.

Lamps On with Wipers

If the windshield wipers are activated in daylight with the vehicle on and the exterior lamp control is set to Auto, the headlamps, parking lamps, and other exterior lamps come on. The transition time for the lamps coming on varies based on wiper speed. When the wipers are not operating, these lamps turn off. Set the exterior lamp control to On or Off to disable this feature.

Adaptive Forward Lighting (AFL)

The Adaptive Forward Lighting (AFL) system automatically modifies the low-beam lighting patterns to the situation to enable optimal light performance for the driver. Light distribution and intensity of low-beam light are controlled based on exterior lighting conditions, vehicle location, and driving situations.

To activate AFL, set the headlight control to Auto to engage the automatic headlight system. See *Exterior Lamp Controls* ⇨ 118.

To deactivate AFL, selecting a value other than Auto on the headlight control.

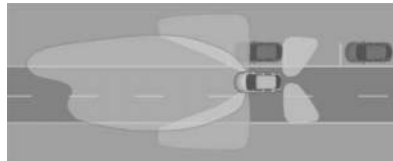
Country Light



The country lighting pattern activates automatically at a speed above 55 km/h (34 mph).

The illumination of the current lane and the side of the road is improved, reducing glare to oncoming and preceding vehicles.

Maneuvering



The maneuvering lighting pattern activates automatically at speeds less than 7 km/h (4 mph) when the vehicle is in R (Reverse). This lighting pattern improves parking and maneuvering situations.

Cornering

When turning the steering wheel, the cornering lamps come on to provide greater illumination around curves. See *Cornering Lamps* ⇨ 122.

Headlamp Leveling Control

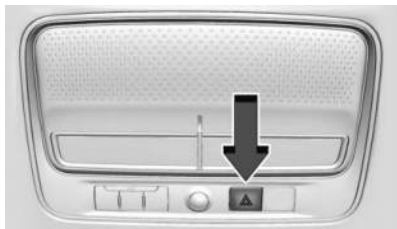
Automatic Headlamp Leveling Control


If equipped, automatic headlamp leveling control adjusts headlamps, based on the vehicle load, to reduce the glare for oncoming drivers.

Dynamic Automatic Headlamp Leveling Control

If equipped, dynamic automatic headlamp leveling control adjusts headlamps—based on the incline of the front and rear axle, acceleration or deceleration, and vehicle speed—to reduce the glare for oncoming drivers.

Hazard Warning Flashers



: Press this button on the overhead console to make the front and rear turn signal lamps flash on and off. This warns others that you are having trouble. Press again to turn the flashers off.

The turn signals do not work while the hazard warning flashers are on.

The hazard warning flashers turn on automatically if the airbags deploy.

Turn and Lane-Change Signals

Raise or lower the turn signal lever until the arrow on the instrument cluster starts to flash in the corresponding direction. See *Instrument Panel Overview* ⇨ 4.

Changing Lanes: Hold the lever in place until you complete the lane change. Let go of the lever and it returns to its starting position.

If you raise or lower the lever quickly then release it, the turn signal flashes three times.

If you change lanes without using the turn signal, the Lane Keep Assist system, if equipped, may respond. See *Lane Keep Assist (LKA)* ⇨ 244.

Turning Corners: Move the lever all the way up or down so that it stays in place when you let go. When you complete the turn, bringing the steering wheel back to center will automatically turn off the turn signal.

If the steering wheel did not turn far enough, the turn signal will remain flashing until you move the lever back to its starting position.

Turn Signal On Chime

If the turn signal is left on for more than 1.2 km (0.75 mi), a chime sounds at each flash of the turn signal. The message TURN SIGNAL ON will also appear in the Driver Information Center (DIC). To turn off both the chime and message, move the turn signal lever back to its starting position.

Turn Signal Not Working Normally

If the indicator arrow flashes rapidly when using the turn signal, an exterior LED may have burned out. See your dealer for service.

If the exterior LED is not burned out, check the fuse. See *Instrument Panel Fuse Block* ⇨ 286.

Cornering Lamps

If equipped, cornering lamps automatically come on when all of the following occur:

- The low-beam headlamps are on.
- The turn signals are activated or you turn the steering wheel to turn a corner.
- The vehicle speed is below 40 km/h (25 mph).

Interior Lighting

Instrument Panel Illumination Control



This feature adjusts the brightness of all illuminated controls.

: Move the thumbwheel up or down to brighten or dim the lights.

The thumbwheel is functional at night, or when the headlamps or parking lamps are on.

The display brightness automatically adjusts based on outdoor lighting.

Stealth Mode

Stealth mode is only available at night. To enable Stealth mode, turn the thumbwheel to the OFF position.

In Stealth mode, all graphics will not be visible on the instrument cluster except coolant temperature, energy usage, digital speed, and any active telltales or alerts.

Dome Lamps

Dome lights provide overhead interior lighting, plus lighting in the rear cargo compartment.

The dome light control is located on the infotainment screen. Touch the Controls app , then touch to turn the dome lights on or off.

Auto Mode

You can set the dome lights to come on automatically, or to not come on, when any door is opened.

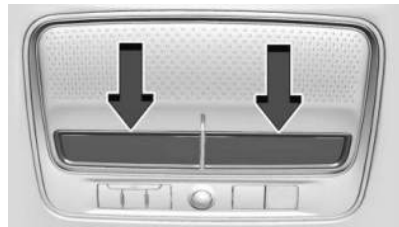
Touch the Controls app , then touch See More Controls > Lights.

Touch in the upper corner of the Dome Light menu.

Touch the box for the Auto option to enable or disable this feature.

Reading Lamps

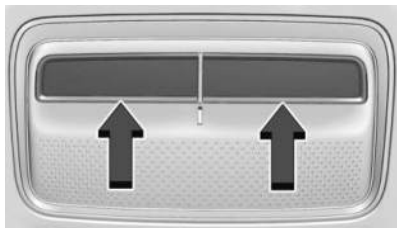
There are reading lamps on the overhead console and over the rear seats. These lamps come on when any door is opened.



Front Reading Lamps

The front reading lamps are in the overhead console.

Press the lamp lens to turn the front reading lamps on or off.




Rear Reading Lamps


The rear reading lamps are over the rear seats. Press the lamp lens to turn the rear reading lamps on or off.


Lighting Features

Entry Lighting

The interior lamps may turn on when pressing  on the remote key or opening any doors.

For interior lamps to turn on, the Auto option for the dome lamps must be enabled. See *Dome Lamps* ⇨ 123.

Some exterior lamps also turn on when pressing  on the remote key. Low-beam headlamps will only turn on briefly at night, or in areas with limited lighting.

All lamps will eventually turn off automatically, or can be turned off manually right away by pressing  on the remote key or starting the vehicle.

This feature can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.

Approach Detection

If equipped, entry lighting will automatically turn on when the remote key is detected within approximately 2 m (6 ft) of the vehicle.

If the vehicle has remained parked for an extended period of time with no use of remote key or keyless access, approach detection will be disabled. To reactivate approach detection, press any button on the remote key or open and close all vehicle doors.

Exit Lighting

Some exterior lamps and interior lamps turn on when the driver door is opened after the vehicle is turned off.

The exterior and interior lamps remain on for a set amount of time, then automatically turn off.

The interior lights turn on when the vehicle is turned off.

The exterior lamps turn off immediately by turning the exterior lamp control off.

This feature can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.


Ambient Lighting

If equipped, this feature enables you to customize the colors of the ambient lighting throughout the passenger cabin. The ambient lighting app can be accessed from either the infotainment home screen or the rear center console display.

Only one copy of the Ambient Lighting app can be in use at the same time. For example, if the app is open on the infotainment screen, the app will not display on the rear center console display.

Disabling Access from the Rear Display

If desired, the rear center console display can be disabled so that rear seat passengers cannot adjust any settings on that display.

On the front center console display, select  > Safety > Rear Control Lock.

Overview

To enable or disable the ambient lighting, slide the on-screen toggle to the opposite position.

Styles: Styles are a series of presets. Swipe the row of boxes to display more choices. Touch a box to change all cabin ambient lighting to the same style.

Current Lighting: Touch the effect name to apply it to all cabin ambient lighting.

Customize



This screen enables selection of different colors and effects for multiple areas of the cabin.

Tap a dot to select which cabin area to change, then select the effect name. Color variants will display. Touch the desired color swatch to apply that color, then touch Confirm to keep the selection.

- Touch Sync to apply the same selection to all cabin areas at once.
- Touch Undo to revert to the previous selection.

To save your set of selections to use another time, touch Save to Styles. To find your custom style, go to the Styles tab and swipe the row of presets.

Brightness

To customize the brightness of each effect, tap the  or  icons, or drag your finger across the slider bar.

Sync Brightness: Select this option to apply the same adjustment to all effects at the same time.

Styles

Styles are a series of presets for all cabin ambient lighting. Swipe the row of tiles to display more choices. Touch a box to change all cabin ambient lighting to that saved style.

Modes


Link to Theme: If equipped, this mode assigns a predefined color to ambient lighting based on the theme selected in the infotainment Themes app. When you select a different theme, the ambient lighting color changes automatically to complement the theme.

When you unlink from a theme, the ambient lighting retains the theme color until you select another color, link to theme again, or link to Drive mode.

Link to Drive Mode: This mode enables a predefined set of colors, one for each mode on the Driver Mode Control. When you change modes — for example, from Tour to Sport — the ambient lighting automatically changes to the assigned color.

To unlink from Drive Mode and revert to the default lighting, leave the Modes tab then go back to it. A prompt to unlink will be displayed. Touch Unlink to confirm.

Custom: This mode enables the selections on the other screens of the Ambient Lighting app.

Demo Mode: If equipped, this mode automatically cycles through the available colors and effects. The vehicle must be in P (Park) to use Demo Mode. See *Electric Drive Unit*  179.

Battery Load Management

The vehicle has Electric Power Management (EPM) that estimates the battery temperature and state of charge. It then adjusts the voltage for best performance and extended life of the 12-volt battery.

When the battery state of charge is low, the voltage is raised slightly to quickly increase the charge. When the state of charge is high,

the voltage is lowered slightly to prevent overcharging. As this adjustment occurs, you may see the voltage move up or down on the voltmeter gauge or voltage display on the Driver Information Center (DIC), if equipped. This is normal. If a problem occurs, an alert will be displayed.

If the electrical loads are too high, the battery can be discharged when the vehicle is stationary. A high electrical load occurs when several features are on, such as: headlamps, high beams, rear window defogger, climate control fan at high speed, heated seats, motor cooling fans, trailer loads, and loads plugged into accessory power outlets.

EPM works to prevent excessive discharge of the battery by balancing the electrical system output and the vehicle's electrical needs. In some cases, it can temporarily reduce the power demands of some accessories.




These actions occur in steps or levels without being noticeable. In rare cases at the highest levels of corrective action, this action may be noticeable to the driver. If so, a DIC battery voltage and charging message displays. It is recommended that the driver reduce the electrical loads as much as possible. See *Driver Information Center (DIC)* ↗ 111.

Battery Power Protection

This feature helps prevent the battery from being drained if the interior courtesy lamps or reading lamps are accidentally left on. If any of these lamps are left on, they automatically turn off after 10 minutes when the vehicle is turned off. The lamps will not come back on again until one of the following occurs:

- The vehicle is started.
- The doors are closed and then re-opened.

Exterior Lighting Battery Saver

The exterior lamps turn off about 10 minutes after the vehicle is turned off, if the parking lamps or headlamps have been manually left on. This protects against draining the battery. To restart the 10-minute timer, turn the exterior lamp control to the  position and then back to the  or  position.

To keep the lamps on for more than 10 minutes, the vehicle must be on.

Infotainment System

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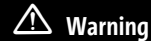
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Introduction

Read the following pages to become familiar with the features.



Warning

Taking your eyes off the road for too long or too often while using any infotainment feature can cause a crash. You or others could be injured or killed. Do not give extended attention to infotainment tasks while driving. Limit your glances at the vehicle displays and focus your attention on driving. Use voice commands whenever possible.

The infotainment system has built-in features intended to help avoid distraction by disabling some features when driving. These features may become disabled when they are unavailable. Many infotainment features are also available through the instrument cluster and steering wheel controls.

Before driving:

- Become familiar with the operation, center stack controls, steering wheel controls, and infotainment display.

- Set up the audio by presetting favorite stations, setting the tone, and adjusting the speakers.
- Set up phone numbers in advance so they can be called easily by pressing a single control or by using a single voice command.

See *Distacted Driving* ⇨ 166.

Overview

Infotainment System

The infotainment system is controlled by using the infotainment display, Multi-Function Controller (MFC) on the center console, steering wheel controls, and voice recognition, if available.

Infotainment Controls on the Multi-Function Controller (MFC)



1. (Power/Volume)
 - Press to turn the power on.
 - Press and hold when the system is on to turn the power off.
 - Press to mute/unmute the system when on.
 - Turn to increase or decrease the volume.
2. ↶ (Back)

Select to return to the previous display in a menu.
3. 🏠 (Home Page)

Select to access the Home Page. See “Home Page” later in this section.
4. Primary Knob
 - Turn to highlight a feature. Press to activate the highlighted feature.
 - Move right/left or up/down to change the highlighted area on the display screen.
5. 🎵 (Radio/Audio)

Select to open the active audio source page.

6. ▲ (Navigation)

Select to access the navigation screen (if equipped).

Home Page

The Home Page is where vehicle application icons are accessed. Some applications are disabled when the vehicle is moving.

Swipe left or right across the display or use the MFC to move the home page. Move the knob right/left to change the page.

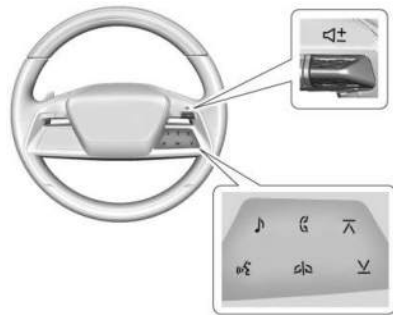
Managing Home Page Icons

1. Touch and hold any of the Home Page icons to enter edit mode. Edit mode is not available when the vehicle is moving.
2. Continue holding the icon and drag it to the desired position.
3. Release your finger to drop the icon in the desired position.
4. To move an application to another page, drag the icon to the edge of the display toward the desired page
5. Continue dragging and dropping application icons as desired.

There will always be 10 icons per page except on the last page. If an icon is moved from the first page to the second, then the next available icon will automatically readjust to fill the open space on the first page.

Steering Wheel Controls

If equipped, some audio controls can be adjusted at the steering wheel.



⏮ or ⏭: Toggle up or down to increase or decrease the volume.

🎵: Press to show the audio sources list.

☎: Press to answer an incoming phone call or show the recent phone call list when not in a call.

⏮ or ⏭: Press to go to the next or previous favorite when listening to the radio. Press to go to the next or previous track when listening to a media source.

📞: Press to reject an incoming phone call, end an active phone call, end a voice recognition session, or mute the audio when there is no phone call.

🗣: Press to initiate voice assistant.

Using the System

Audio

Touch the Audio icon on the infotainment display or 🎵 on the Multifunction Controller (MFC) to display the active audio source page. Examples of available sources may include AM, FM, SiriusXM (if equipped), USB, and Bluetooth.

Phone

Touch the Phone icon on the infotainment display or ☎ on the MFC to display the Phone menu. See *Bluetooth (Pairing and Using a Phone)* ⇨ 147 *Bluetooth (Overview)* ⇨ 146.

Maps

Touch the Maps icon to display the Google Maps screen. See *Using the Navigation System* ⇨ 140.

Google Assistant

Touch the Google Assistant icon to open the Google Assistant app. See *Voice Recognition* ⇨ 144.

Google Play

Touch to download some of your favorite apps in your vehicle. Downloading apps on Google Play require you to sign into a Google Account with an active service plan with data. Some third-party apps require a separate account and, in some cases, a paid subscription for in-vehicle access.

Settings

Touch the Settings icon to display the Settings menu. See *Settings* ⇨ 150.

Controls

Touch the Controls icon to display the Controls menu.

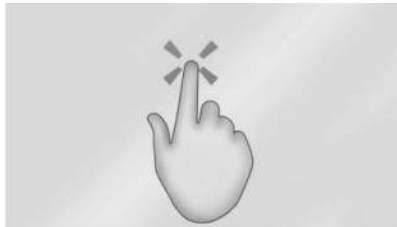
Application Tray

The Application Tray is along the bottom of the display. It shows up to six applications.

Infotainment Gestures

Use the following finger gestures to control the infotainment system.

Touch/Tap



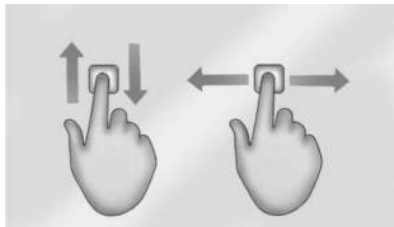
Touch/tap is used to select an icon or option, activate an application, or change the location inside a map.

Touch and Hold



Touch and hold can be used to move or delete an application.

Drag



Drag is used to move applications on the infotainment home screen, or to pan the map. To drag the item, it must be held and moved along the display to the new location. This can

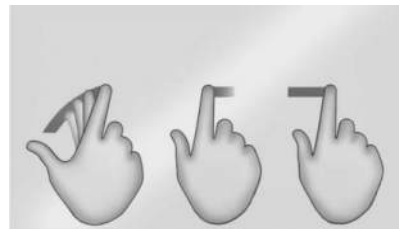
be done up, down, right, or left. This feature is only available when vehicle is parked and not in motion.

Nudge



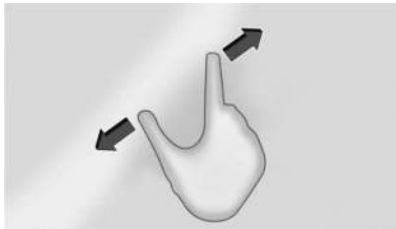
Nudge is used to move items a short distance on a list or a map. To nudge, hold and move the selected item up or down to a new location.

Fling or Swipe



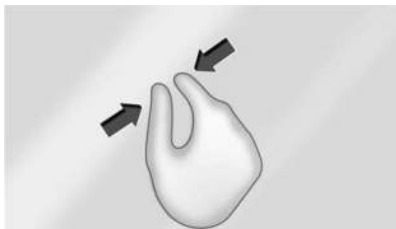
Fling or swipe is used to scroll through a list, pan the map, or change page views. Do this by placing a finger on the display then moving it rapidly up and down or right and left.

Spread



Spread is used to zoom in on a map, certain images, or a web page. Place finger and thumb together on the display, then move them apart.

Pinch



Pinch is used to zoom out on a map, certain images, or a web page. Place finger and thumb apart on the display, then move them together.

Cleaning High Gloss Surfaces or Vehicle and Radio Displays

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents. Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

Software Updates

Over-the-Air Software Updates

If equipped, see “Updates” under *Settings*
 ⇨ 150 for details on software updates.

Radio

FM Radio

Playing the Radio


From the infotainment home screen, touch the Audio icon to display the active audio source screen. Touch the Source icon from the top of the page to choose from FM, SiriusXM, or Bluetooth.

Finding a Station


Seeking a Station

From the FM screen, touch ◀◀ or ▶▶ on the infotainment display to search for the previous or next strong station.

Tune

Touch  on the infotainment display to display the Tune screen. Enter a station using the keypad.

The keypad will gray out entries that do not contribute to a valid frequency and will automatically place a decimal point within the frequency number.

Touch  to delete one number at a time.

Touch and hold  to delete all numbers.

A valid FM station will automatically tune to the new frequency and display the now playing screen.

The list of all available stations are on the right side of the Tune display to browse. Touch to go to that station or touch  to save the station as a favorite.


Storing Radio Station Favorites

Favorites show in the area on the left of the display.

FM or SiriusXM : Favorites can be stored by touching Hold to Set on the left side of the screen.

The number of favorites is displayed automatically.

Audio Settings

From the now playing screen, touch  and the following may display:

Equalizer : Touch to adjust Bass, Midrange, or Treble using the options on the infotainment display.

Fade/Balance : Touch to adjust by using the controls on the infotainment display.

Sound Mode : Touch to select Front or Rear to provide the best sound for the front or rear seating positions.

Adjust the Surround controls to change from Stereo to Surround mode.

Adaptive Volume : Touch to turn On or Off.

Manage Radio Favorites : Touch to display a list of Audio favorites.

Favorites can be moved or deleted.

To move, touch and hold the move icon, and then drag up or down to rearrange the position.

Radio Text : This allows the Radio Data System (RDS) to be turned on or off.

Touch Off or On.

Radio Text (RDS) Categories : When on, category information about current radio content will be shown.

Radio Text–Radio Data System (RDS)

RDS relies on receiving specific RDS information from radio stations and only works when the information is available. It is possible that a radio station could broadcast information that causes the radio to work improperly.

In addition, RDS features are region and country of sale specific. This means specific RDS content may not be available in your listening area or in the country you operate the vehicle.

To turn RDS features on or off, see "Audio Settings" previously in this section.

The following RDS features may be supported by radio broadcasters in your listening area:

Core Radio Text (RDS) Features

- Display radio station call letters
- Display messages from radio stations
- Provide radio station category information (when available)

Dolby Atmos

If equipped, Dolby Atmos is a spatial audio technology that creates an immersive sound experience in your vehicle. You just need entertainment created in Dolby Atmos on a compatible app to play content. Use or download a compatible app from the Google Play Store to get started.

Satellite Radio

SiriusXM Radio Service

If equipped, vehicles with a valid SiriusXM radio subscription can receive SiriusXM programming.

SiriusXM radio has a wide variety of programming and commercial-free music, coast to coast, in digital-quality sound. In the U.S., see www.siriusxm.com or call 1-888-601-6296. In Canada, see www.siriusxm.ca or call 1-877-438-9677.

When SiriusXM is active, the channel name, number, song title, and artist appear on the display.

SiriusXM with 360L





SiriusXM with 360L interface has enhanced in-vehicle listening experience for subscribers. The experience now offers more categories and system learned recommendations toward discovering more personalized content.

To use the full SiriusXM 360L program, including streaming content and listening recommendations, OnStar Connected Access is required and Terms and Conditions accepted.



Connected vehicle services vary by model and require a complete working electrical system, cell reception, and GPS signal.

Reference the SiriusXM user guide for use and subscription information.

Playing SiriusXM Content


Touch , ,  or  on the now playing screen to rewind, pause, play, or fast forward content.

Finding a Channel

From the SiriusXM now playing screen, touch  CH or CH  to open the SiriusXM tuner channel list.

To directly tune to a channel, touch the Tune icon to enter a channel number using the keypad.

Browsing Content

Touch  to view different browsing content.

Browse will include Channels, Music, On Demand shows and episodes, Sports and News content.

SiriusXM Settings

From the SiriusXM now playing screen, touch the user settings icon to display the SiriusXM settings.

The settings include subscription information, help and support, and listener preferences.

Radio Reception

Unplug electronic devices from the accessory power outlets if there is interference or static in the radio.

FM

FM signals only reach about 16 to 65 km (10 to 40 mi). Although the radio has a built-in electronic circuit that automatically works to reduce interference, some static can occur, especially around tall buildings or hills, causing the sound to fade in and out.

SiriusXM Satellite Radio Service

If equipped, SiriusXM Satellite Radio Service provides digital radio reception. Tall buildings or hills can interfere with satellite radio signals, causing the sound to fade in and out. In addition, traveling or standing under heavy foliage, bridges, garages, or tunnels may cause

loss of the SiriusXM signal for a period of time. Some cellular services may interfere with SXM reception causing loss of signal.

Mobile Device Usage

Mobile device usage, such as making or receiving calls, charging, or just having the mobile device on may cause static interference in the radio. Unplug the mobile device or turn it off if this happens.

Multi-Band Antenna

The multi-band roof antenna may be used for radio, navigation, and other communication systems, depending on the equipped options. To ensure clear reception, keep the antenna clear of obstructions, such as snow and ice. Reception can be affected by an open sunroof or roof-mounted cargo.

Audio Players

Avoiding Untrusted Media Devices

Only use trusted media devices. Avoid untrusted mobile and USB media devices that may contain files that affect system operation or performance.

USB Port

The vehicle may be equipped with multiple USB ports. Music may be played from a connected USB device. Ports may also be used for charging.

Caution

To avoid vehicle damage, unplug all accessories and disconnect all accessory cables from the vehicle when not in use. Accessory cables left plugged into the vehicle, unconnected to a device, could be damaged or cause an electrical short if the unconnected end comes in contact with liquids or another power source such as the accessory power outlet.

USB Audio

To play music via USB:

1. On the audio now playing screen, touch source and select USB.
2. If there is no device connected, follow the screen prompts to connect the device.
3. Supported media content will appear on the display.

Bluetooth Audio

Music may be played from a connected Bluetooth mobile device.

Volume and song selection may be controlled by using the infotainment controls. If Bluetooth is selected and no volume is present, check the volume setting on the infotainment system or the connected mobile device.

To play music via Bluetooth:

1. On the audio now playing page, touch source and select the desired Bluetooth mobile device.
2. If there is no mobile device connected, follow the screen prompts to pair the device.

- Supported media content will appear on the display.

Manage Bluetooth Devices

Managing Bluetooth devices allows you to add, delete, or select another paired mobile device.

Only one Bluetooth mobile device can be active at a time.

Some mobile devices support sending Bluetooth music information to display on the radio. For more information about supported Bluetooth features, visit your brand website. See *Online Account and Customer Support* ⇨ 338 for details.

See *Radio Frequency Statement* ⇨ 344.

Media System


Front Media System (Passenger)

See *Radio Frequency Statement* ⇨ 344

The Front Media System (FMS) includes one HDMI port, Bluetooth headphone support, and video support.

FMS operates best in temperatures above -20°C (-4°F) and below 55°C (131°F).

System Operation

- Tap anywhere on the screen to power on and view the home screen.
- Touch  on the navigation bar to turn the screen off.

The screen can be turned on and off through the entertainment hub on the infotainment home screen or on the passenger screen.

Playback of any media playing through that specific screen is paused when the screen is turned off.

The passenger screen can be locked via the infotainment home screen.

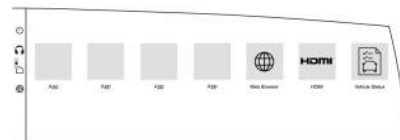
Quick Remote

A remote may be used to navigate the front passenger media screen while the vehicle is parked or in motion. This remote will appear on a mobile device.

To connect the remote, connect to the vehicle's hot spot, follow on-screen prompts and scan the QR code. Once connected, a trackpad will be available to navigate the passenger screen.





Additional remote features may also be available depending on the app selected from the home screen.

Sources



- Applications (if equipped)
- Web Browser (if equipped)
- HDMI
- Vehicle Status

Status Bar

- : Touch to turn off the screen. Tap anywhere on the screen to turn the screen on again.
- : Touch to access Bluetooth Headphones volume and settings. See "Settings" later in this section.
- : Touch to go to the home screen.
- : Touch to go to the Settings menu.

Applications and Web Browser

Touch to stream media and/or view web content.


HDMI Input

An HDMI cable is required to connect an HDMI device to the FMS hub. The FMS HDMI inputs allow connection to video games, disc players, cameras, smartphones, tablets, streaming devices, and A/V dongles that have HDMI (version 1.4a) outputs.

Vehicle Status

Touch to view information about the vehicle. See *Vehicle Status* ⇨ 112

Settings

Touch  to access the Settings menu. The menu may contain the following:

Screen Brightness

Select Screen Brightness. Move the bar left or right to adjust the display brightness.

Customer Owned Bluetooth Headphones

To pair Bluetooth headphones to the FMS:

1. Touch “Bluetooth Headphones” from the Settings menu.
2. Select Add New Headphones.

3. Make sure the Bluetooth headphones are in pairing mode. Once recognized by the system, the Bluetooth headphones are displayed on the list of Available Headphones.
4. Select the Bluetooth headphones from the list. Once connected, touch OK at the Pairing Successful pop-up.

To disconnect headphones, select Bluetooth Headphones, then select the headphone you want to disconnect, and select the disconnect button.

Voice-Over

Select to hear audio descriptions of information.

Factory Reset Screen

Select to reset the screen to factory settings.

Open Source License

Select to show the license information.

Legal

Select to view the terms of use.

Consumer Ports

If equipped with FMS, the Consumer Ports are located in the glove box. This includes an HDMI port and a USB-C charge port only.

The HDMI input allows an HDMI A/V cable to be connected from an auxiliary device such as a camcorder, video game system, or Apple device. A cable from Apple is required for Apple devices.

Touch the HDMI port that the external device was connected to on the home screen.

For HDMI devices that support USB charging, the USB port can be used as a power source.

Content from this HDMI port is not accessible through the infotainment display.


To use the HDMI input of FMS:

1. Connect the auxiliary device with an HDMI cable.
2. Power on both the auxiliary device and the front passenger screen.
3. Select HDMI as the source.

Entertainment Hub

The Entertainment Hub allows the driver to control the passenger screens. To access, touch the Entertainment Hub icon on the infotainment home screen.

The passenger screen may be powered on or off from the Entertainment Hub. In the Overview, Touch Front Passenger Screen.

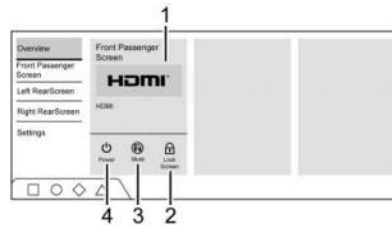
Touching the  icon on the highlighted screen turns that screen on or off.

The audio can be muted by the front user by pressing the mute icon associated with the left or right rear screen on the Entertainment Hub screen.

Source Selecting from the Entertainment Hub

Sources may be selected for the passenger screens. Select the desired screen > Source button > select source.

Summary View



1. Current passenger source screen.
2. Touch to lock the screen from touch inputs.
3. Touch to mute the screen audio.
4. Touch to power screen on or off.

Entertainment Hub Settings

Touch Settings on the Entertainment Hub Overview screen to access the Settings menu. The menu may contain the following:

Remember Screen Power Status

Select to have screens automatically power on when the vehicle is started.

Voice-Over

If equipped, the media system has a Voice-Over feature to benefit the visually and hearing impaired.

When activated, Voice-Over provides audible feedback to the user about which area on the screen they are touching.

Touch Voice-Over to select Off, Left Rear Screen, or Right Rear Screen to select which screen will use Voice-Over. Voice-Over turns off every time the vehicle is turned off.

Factory Reset Passenger Screens

Select to reset the screen to factory settings.

Restart Passenger Screens

Select to restart passenger screens.

Account

Select to show the vehicle data plan.

Legal

Select to view the terms of use.

Video Distortion

Video distortion can occur when operating cellular phones, scanners, CB radios, Global Positioning Systems (GPS), two-way radios, mobile faxes, or walkie talkies.

It might be necessary to turn off the video player when operating one of these devices in or near the vehicle.

Troubleshooting

No power: The vehicle might not be on.

There is no sound from the headphones with the indicator light on: The vehicle might not be on.

- Make sure the headphones have sufficient charge. Plug the headphones to a USB-C port to charge.
- Check to see if headphones are paired to the screen.

If the steps above do not work, then unpair the headphones from the screen, turn the headphones off, turn them back on, and attempt to pair them. See “Customer Owned Bluetooth Headphones” previously in this section.

Rear Media System


See *Radio Frequency Statement* ↪ 344.

The Rear Media System includes two HDMI ports, two Bluetooth headphones, and video touchscreen displays in back of the driver and passenger seats.

The Rear Media System may not operate properly until the temperature is above -20°C (-4°F) and below 55°C (131°F).

System Operation

To use:

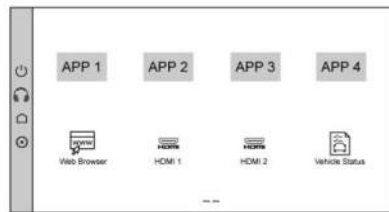
1. Tap anywhere on either screen to power on and view the home screen.
2. Touch  on the status bar to turn the screen off.

The screens can be turned on and off through each individual touchscreen, independently from the other, and through the infotainment home screen entertainment hub.

Playback of any media playing through that specific screen is paused when the screen is turned off.





Screens can be locked via the infotainment home screen entertainment hub.


Sources



- Apps (If Equipped)
- Web Browser (If Equipped)
- HDMI 1
- HDMI 2
- Vehicle Status

Status Bar

- : Touch to turn off the screen. Tap anywhere on the screen to turn the screen on again.
- : Touch to go to Bluetooth Headphones volume and settings menu. See “Settings” later in this section.
- : Touch to go to the home screen.
- : Touch to go to the Settings menu.

- : Touch to screen share with the other rear screen.

Applications and Web Browser

If equipped, touch to stream media and/or view web content.


HDMI Input

An HDMI cable is required to connect an HDMI device to the Rear Media System hub. The Rear Media System HDMI inputs allow connection to video games, disc players, cameras, smartphones, tablets, streaming devices, and A/V dongles that have HDMI (version 1.4a) outputs.

Vehicle Status

Touch to view information about the vehicle. See *Vehicle Status* ⇨ 112.

Settings

From the rear home screen, touch  to access the Settings menu.

The menu may contain the following:

Screen Brightness

Select Screen Brightness. Move the bar left or right to adjust the display brightness. Each screen may be uniquely adjusted.

Customer Owned Bluetooth Headphones

The Rear Media System supports Bluetooth headphones. Up to four Bluetooth headphones can be paired to each rear screen. This screen provides a list of all Bluetooth headphones that have been paired to the Rear Media System, as well as control over their use and settings. New Bluetooth headphones can be connected, or the Bluetooth headphone settings can be changed from or on this screen.

To pair Bluetooth headphones to one of the rear screens:

1. Touch Bluetooth Headphones from the Settings menu.
2. Select Add New Headphones.
3. Make sure the Bluetooth headphones are in pairing mode. Once recognized by the system, the Bluetooth headphones are displayed on the list of Available Headphones.

4. Select the Bluetooth headphones from the list. The headphones may need to be unpaired from your phone before pairing to the Rear Media System.

To disconnect headphones, select the Bluetooth headphones, then select the option button of the headphone you want to disconnect, and select the disconnect button.

Voice-Over

Select to hear audio descriptions of information. See *Front Media System (Passenger)* ⇨ 135.

Factory Reset Screen

Select to reset the screen to factory settings.

Open Source License

Select to show the license information.

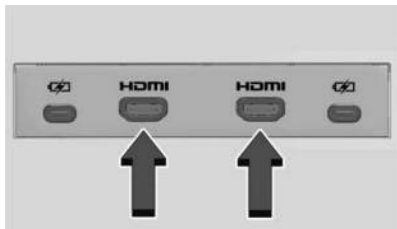
Legal

If equipped, select to show the legal information.

Rear Consumer Ports

If equipped with the Rear Media System, the rear Consumer Ports (RCP) are in the rear of the center console. These include two HDMI ports and two USB-C charge only ports.

HDMI










The HDMI input allows an HDMI A/V cable to be connected from an auxiliary device such as a camcorder, video game system, or Apple device. A cable from Apple is required for Apple devices.

Touch the HDMI port that the external device was connected to on the rear home screen.

For HDMI devices that support USB charging, the USB ports can be used as a power source.

Content from these HDMI ports are not accessible through the infotainment display.

To use the HDMI input of the Rear Media System:

1. Connect the auxiliary device with an HDMI cable.
 2. Power on both the auxiliary device and the Rear Media System screen.
 3. Touch  on the desired display and select HDMI as the source.
- : Touch  to return to the Rear Media System home screen.
 - : Touch  to access the Bluetooth Headphone Setup menu. See “Settings” later in this section.
 - : Touch  to share the screen with the other rear screen. The screen can be shared through the connected device.

Video Distortion

Video distortion can occur when operating cellular phones, scanners, CB radios, Global Positioning Systems (GPS), two-way radios, mobile faxes, or walkie talkies.

It might be necessary to turn off the video player when operating one of these devices in or near the vehicle.

Troubleshooting

No power: The vehicle might not be on.

There is no sound from the headphones with the indicator light on: The vehicle might not be on.

- Make sure the headphones have sufficient charge. Plug the headphones to a USB-C port to charge.
- Check to see if headphones are paired to the screen.

If the steps above do not work, then unpair the headphones from the screen, turn the headphones off, turn them back on, and attempt to pair them. See “Customer Owned Bluetooth Headphones” previously in this section.

Navigation

Using the Navigation System

The Navigation software is provided by Google Maps. The information provided in this section is a general overview and is subject to change. For the latest functional information, see g.co/mapsincar.

Accept the Terms and Conditions to use.

Internet Connectivity

Google Maps relies on a subscription data plan for full functionality, including availability of offline maps. With an applicable connected services plan, Google Maps can be used offline when driving through connectivity dead zones by auto-downloading offline maps prior to going offline.

Profiles

Sign in to a Google Account for personalized service. Information available in the Google Account will be shown.

To log into a profile, see Accounts under *Settings* ⇨ 150.

Voice Assistant

If equipped, Google Maps can be controlled by voice commands, see Google Assistant under *Voice Recognition* ⇨ 144.

Language and Units

To change the language and units, see *Settings* ⇨ 150.

Mute Settings

During active route guidance, Google Maps can give audible voice directions, traffic alerts, or can be muted. In the Google Maps app, touch Settings, then Mute settings to access the options. Alternatively, audible voice directions and traffic alerts can be muted by touching the sound icon on the navigation map screen during active navigation.

Compass

The Google Maps orientation can be changed between the direction currently traveling, pointing north, and route overview. Touch the compass to switch between these options.

To recenter the map to the current location, touch the location icon.

Super Cruise

If equipped, Super Cruise highlights routes in a specific outline. See *Super Cruise* ⇨ 203.

Electric Vehicle (EV) Features with Google Maps

When vehicle data is shared with Google, some of the Maps features for EVs are as follows:

- Estimated battery charge level at arrival

- Estimated minimum charging time in order to reach destination

If the vehicle needs to be charged to reach a destination, charging stations may automatically be added to a route.

Maps

Auto-Downloaded Maps

Google Maps downloads maps automatically for use when not connected to the Internet. Offline maps make map data available to vehicle features regardless of connectivity.

To turn on auto-download:

1. Open Google Maps.
2. Touch the Settings icon.
3. Touch Privacy center, then select Offline maps.
4. Select Auto-download offline maps.
5. Check the Internet connection and wait for the download to finish.

Downloading Offline Maps

1. Open Google Maps.
2. Touch Settings, then Offline maps.

3. Touch the Select your own map square icon.
4. Adjust the map to cover the desired area to download.
5. Touch Download.

Navigation Symbols

The following are the most common symbols that may appear in Google Maps.



This indicates the vehicle's current location and direction on the map.



The destination pin marks the location of the final destination. Touch the pin to view the destination address or to add it or remove it

from the Favorites list. Hide the information by touching the pin one more time. It will automatically time out if no action is taken. A second pin in the menu is the route overview. Touch this pin to show more details of the destination or to remove the destination.

Destination

Searching for a Destination

A destination can be searched using Google Assistant.

To search for a destination without Google Assistant:

1. Open Google Maps.
2. Touch the Search field.
3. Enter the destination.
4. Touch the Navigation icon.

Alternate Routes

Alternate routes are displayed as separate lines. While in either Turn-by-Turn navigation or on the route overview, touch the suggested alternate route.

Adding a Stop on Route by Voice

1. While in Turn-by-Turn navigation, touch the Search icon at the bottom.
2. Touch the Google Assistant mic icon and say the destination to search by voice.
3. Select the desired search result from the list.
4. Touch the Add stop icon.

Adding a Stop on Route by Category

1. While in Turn-by-Turn navigation, touch the Search icon at the bottom.
2. Select a category.
3. Select the desired search result from the list.
4. Touch the Add stop icon.

Adding a Home or Work Address

To edit a home or work address, an account must be logged in. See Accounts under *Settings* ⇨ 150.

1. Open Google Maps.
2. Touch Settings, then touch Edit home or work.
3. Enter the address.

Search by Category

Destinations can be searched by category, such as restaurant or grocery store.

1. Open Google Maps.
2. Touch the search bar.
3. Touch Categories, then select a category.
4. Touch the desired location, then touch the Navigation icon.

Avoid Tolls, Highways, or Ferries

1. Open Google Maps.
2. Touch the Settings icon.
3. Select Route options.
4. Select the desired options and then touch X to close.

An Alternative Way for General Route Options

1. During active route guidance, touch Route Overview.
2. Select Route options.
3. Select the desired option and then touch X to close.

Traffic Layers

1. Open Google Maps.

2. Touch the Settings icon.
3. Touch Traffic to turn on or off.

Global Positioning System (GPS)

The current position of the vehicle is determined by using satellite signals and various vehicle signals.

At times, other interference such as the satellite condition, road configuration, condition of the vehicle, and/or other circumstances can affect the navigation system's ability to determine the accurate position of the vehicle.

This system might not be available or interference can occur if any of the following are true:

- Signals are obstructed by tall buildings, trees, large trucks, or a tunnel.
- Satellites are being repaired or improved.

For more information if the GPS is not functioning properly, see *Problems with Route Guidance* ⇨ 144.

Vehicle Positioning

At times, the position of the vehicle on the map could be inaccurate due to one or more of the following reasons:

- The road system has changed.
- The vehicle is driving on slippery road surfaces such as sand, gravel, or snow.
- The vehicle is traveling on winding roads or long, straight roads.
- The vehicle is approaching a tall building or a large vehicle.
- The surface streets run parallel to a freeway.
- The vehicle has been transferred by a vehicle carrier or a ferry.
- The current position calibration is set incorrectly.
- The vehicle is traveling at high speed.
- The vehicle changes directions more than once, or the vehicle is turning on a turn table in a parking lot.
- The vehicle is entering and/or exiting a parking lot, garage, or a lot with a roof.
- The GPS signal is not received.

- A roof carrier is installed on the vehicle.
- Tire traction devices are installed on the vehicle.
- The tires are replaced or worn.
- The tire pressure for the tires is incorrect.
- This is the first navigation use after the map data is updated.
- The 12-volt battery has been disconnected for several days.
- The vehicle is driving in heavy traffic where driving is at low speeds, and the vehicle is stopped and started repeatedly.

Problems with Route Guidance

Inappropriate route guidance can occur under one or more of the following conditions:


- The turn was not made on the road indicated.
- Route guidance might not be available when using automatic rerouting for the next right or left turn.
- The route might not be changed when using automatic rerouting.

- There is no route guidance when turning at an intersection.
- Automatic rerouting might display a route returning to the set waypoint if heading for a destination without passing through a set waypoint.
- The route prohibits the entry of a vehicle due to a regulation by time or season or any other regulation which may be given.
- Some routes might not be searched.
- The route to the destination might not be shown if there are new roads, if roads have recently changed, or if certain roads are not listed in Maps.

To recalibrate the vehicle's position on the map, park with the vehicle running for two to five minutes, until the vehicle position updates. Make sure the vehicle is parked in a location that is safe and has a clear view of the sky and away from large obstructions.

Voice Recognition



If equipped, the vehicle's built in Google Assistant allows for hands-free use of media and messaging, navigation and climate control functionality in the vehicle. To activate, quickly

press and release  on the steering wheel, touch Google Assistant on the infotainment home screen, or use the wake up words "Hey Google" or "OK Google." Google Assistant must be set as the default assistant for steering wheel and wake word activation to work.


However, not all features within these areas are supported by voice commands and requires the user to have a valid data subscription plan or be able to connect to an external WiFi in order to use the Google Assistant features.

Using Voice Recognition

Voice recognition becomes available once the system is initialized. This begins when the vehicle is turned on. Initialization may take a few moments.

1. Quickly press and release  on the steering wheel controls, touch Google Assistant on the infotainment home screen, or use the wake up words "Hey Google" or "OK Google" to activate voice recognition. Google Assistant must be set as the Default Assistant for the  and the wake word options to work.
2. Clearly speak one of the commands described later in this section.

Canceling Google Assistant

- Press  on the steering wheel controls to cancel the Google Assistant request.

Helpful Hints for Speaking Commands

Voice recognition identifies commands that are naturally stated in sentence form, or direct commands that state the application and the task.

For best results:

- Speak the command naturally, not too fast, not too slow.
- Use direct commands without a lot of extra words. For example, “Call <name> at work,” “Play” followed by the artist or song name, or “Play” followed by the radio station number.

Direct commands are more clearly understood by the system. An example of a direct command is “Call <number>.”

If a cell phone number was saved with a name and a place, the direct command should include both. For example “Call <name> at work.”

Voice Recognition for the Radio

When voice is started, the voice recognition commands for AM, FM, SiriusXM (if equipped), and media apps (if supported) are available.

“Play <AM frequency> AM”: Tune to the radio station frequency identified in the command (like “nine fifty”).

“Play <FM frequency> FM”: Tune to the radio station frequency identified in the command (like “one oh one point one”).

“Play channel <SiriusXM channel number> on SiriusXM”: Tune to the SiriusXM radio station channel number identified in the command. This command may require an online connection.

“Play <SiriusXM channel name> on Sirius XM”: Tune to the SiriusXM radio station channel name identified in the command. This command may require an online connection.

“Play <Media> on <Audio Source>”: Play media like a song or channel using a specified audio source such as Pandora or Spotify. This command may require an online connection.

Voice Recognition for the Phone

Make sure the phone is paired using Bluetooth to use the phone related voice commands.

“Call <contact name>”: Initiate a call to a stored contact. The command may include location if the contact has location numbers stored.

“Call < phone number>”: Initiate a call to a phone number of seven digits or 10 digits.

“Send a message to <contact name>”: Send a message to a stored contact.

Voice Recognition for Navigation

Navigation commands can be used to start, cancel route, or add way points/POI.

“Navigate to <destination address>”: Initiate navigation to the address in the command.

“Find a <Place of Interest>”: Find and initiate navigation to a POI in the command.

“Add <destination> on my way”: Adds a way-point to the current route.

“Take me home”: Starts navigation to Home location set in Google maps.


Onboard Vehicle Commands

These commands can be used to adjust vehicle temperature, control window defrosters, etc.

“Turn on the A/C”: Turns on the air conditioning.

“Set temperature to <desired number> degrees”: Set to a specific temperature inside your vehicle.

Phone Assistant Voice Recognition

While a mobile phone is connected via Bluetooth, press and hold  on the steering wheel controls until you hear a response from the phone's voice assistant, which will launch the Voice Assistant on the connected mobile phone (e.g., Google Assistant, Siri, etc.).

Phone

Bluetooth (Overview)

The vehicle's Bluetooth system can interact with a mobile device to:

- Place and receive calls in a hands-free mode.
- Share the device's address book or contact list with the vehicle.
- Stream audio (music, podcasts).
- Notify receipt of text messages.

To minimize driver distraction, before driving, and with the vehicle parked:


- Become familiar with the features of the mobile device. Organize the phone book and contact lists clearly and delete duplicate or rarely used entries.
- Review the controls and operation of the infotainment system.
- Pair mobile device(s) to the vehicle. The system may not work with all mobile devices. See “Pairing” later in this section.


Vehicles with a Bluetooth system can use a Bluetooth-capable mobile device with a Hands-Free Profile to make and receive phone calls. The infotainment system and voice recognition are used to control the system. The system can be used while the vehicle is on. The range of the Bluetooth system can be up to 9.1 m (30 ft). Not all mobile devices support all functions and not all mobile devices work with the Bluetooth system. See *Online Account and Customer Support* ⇨ 338 for more information about compatible mobile devices.

Controls

Use the controls on the infotainment display and the steering wheel to operate the Bluetooth system.

Steering Wheel Controls

 : Press and release to answer incoming calls on your connected Bluetooth mobile device. Press and hold for mobile device assistant.

 : Press to end a call, decline a call, or cancel an operation. Press to mute or unmute the infotainment system when not on a call.

Infotainment System Controls

For information about how to navigate the menu system using the infotainment controls, see *Using the System* ⇨ 129.

Audio System

When using the Bluetooth mobile device system, sound comes through the vehicle's front audio system speakers and overrides the audio system. The volume level while on a mobile device call can be adjusted by pressing the steering wheel controls or the volume controls for the infotainment system.

The adjusted volume level remains in memory for later calls. The volume cannot be lowered beyond a certain level.

Bluetooth (Pairing and Using a Phone)

Pairing

A Bluetooth-enabled mobile device must be paired to the Bluetooth system and then connected to the vehicle before it can be used. See the mobile device manufacturer's user guide for Bluetooth functions before pairing the device.

Pairing Information

- Select the phone icon on the infotainment home screen.
- If no mobile device has been paired, a message on the infotainment display will show the Manage Phones option. Select this option and the Phones screen will display. See "Pairing a Phone" later in this section.
- A Bluetooth mobile device with music capability can be paired to the vehicle as a phone and a music player at the same time.

- Up to 10 devices can be paired to the Bluetooth system.
- The pairing process is disabled when the vehicle is moving.
- Pairing only needs to be completed once, unless the pairing information on the mobile device changes or the phone is deleted from the system.
- If a previously paired mobile device is not connecting to the Bluetooth system, try forgetting the mobile device on the vehicle's infotainment system and also forgetting the vehicle in the Bluetooth settings of the mobile device. Then repeat the pairing process.
- If multiple paired mobile devices are within range of the system, the system connects to the paired mobile device that is set to First to Connect. If there is no mobile device set to First to Connect, it will connect to the mobile device which was used last. To connect to a different paired mobile device, see "Connecting to a Different Phone" later in this section.

Pairing a Phone

1. Make sure Bluetooth has been enabled on the phone before starting the pairing process.
2. Select the phone icon on the infotainment home screen.
3. If a phone has been previously added, select Settings > Connections > Phones to reach the device manager. From the device manager, select "Add Phone." If a phone has been previously added, the "Add Phone" card will just be a "+" button.
4. Select Manage Phones to display the Phones screen.
5. Select Add Phone.
If a phone has been previously added or disconnected, the "Add Phone" card will just be a "+" card.
6. The code on both the phone and infotainment display need to be acknowledged for pairing to be successful.
7. Follow the instructions on the phone to confirm the six-digit code showing on the infotainment display and select Pair.

The code on the phone and infotainment display need to be acknowledged for pairing to be successful.

8. If a previously paired mobile device is not connecting to the Bluetooth system, try forgetting the mobile device on the vehicle's infotainment system and also forgetting the vehicle in the Bluetooth settings of the mobile device.
9. If the vehicle name does not appear on your phone under the "other devices" or "available devices" menu, there are a few ways to start the pairing process over:
 - Turn Bluetooth off then back on, on your phone.
 - Go back to the beginning of the Phone menus on the infotainment display and restart the pairing process.
 - Turn the phone off and then back on.
 - Reset the phone, but this step should be done as a last effort.
10. If the phone prompts to accept connection or allow phone book download, select Always Accept and Allow. The phone book may not be available if not accepted.

11. To pair additional phones, select Settings > Connections > Phones.

First to Connect Paired Phones

If multiple paired phones are within range of the system, the system connects to the paired phone that is set as First to Connect. To enable a paired phone as the First to Connect phone:

1. Make sure the phone is turned on.
2. Select the Settings icon on the infotainment home screen.
3. Select Connections.
4. Select Phone.
5. Select Options under the connected phone.
6. Select First to Connect from the phone's settings menu and set First to Connect to On.

Phones and mobile devices can be added, removed, connected, and disconnected. A sub-menu will display whenever a request is made to add or manage phones and mobile devices.


Accessing the Device List Screen

There are two ways to access the device list screen:

Using the Settings Icon

1. Select the Settings icon on the infotainment home screen or the Settings icon on the application tray near the left of the display.
2. Select Connections.
3. Select Phones.

Using the Phone Icon

1. Select the Phone icon on the infotainment home screen or the Phone icon on the application tray near the left of the display.
2. Select  on the Phones screen.
3. Select Connected Phone.

Disconnecting a Connected Phone

To disconnect a phone:

1. Open the Device List Screen. See "Accessing the Device List Screen" previously in this section.
2. Select Option on the phone card to show the phone's or mobile device's settings.
3. Select Disconnect.

Deleting a Paired Phone

To delete a paired phone:

1. Open the Device List Screen. See “Accessing the Device List Screen” previously in this section.
2. Select Option on the phone card to show the phone’s or mobile device’s settings.
3. Select Forget Phone.

Connecting to a Different Phone

To connect to a different phone, the new phone must be in the vehicle and paired to the Bluetooth system.

To connect to a different phone:

1. Open the Device List Screen. See “Accessing the Device List Screen” previously in this section.
2. Select the new phone you want to connect to from the list of available phones. See “First to Connect Paired Phones” previously in this section.

Switching to Handset or Hands-Free Mode

To switch between handset or hands-free mode:

- While the active call is hands-free, select the Audio Output option, then select Phone to switch to the handset mode.

The mute icon will not be available or functional while Handset mode is active.

- While the active call is on the handset, select the Audio Output option, then select Car Speakers to switch to the hands-free mode.

Making a Call Using Contacts

Calls can be made through the Bluetooth system using personal phone contact information for all phones that support the Phone Book feature. Become familiar with the phone settings and operation and that the phone is set to allow the sharing of contacts over Bluetooth with the vehicle. Verify the phone supports this feature and that the phone is set to allow the sharing of contacts over Bluetooth with the vehicle.

The Contacts menu accesses the phone book stored in the phone.

To make a call using the Contacts menu:

1. Select the Phone icon on the infotainment home screen or on the application tray near the left of the display.
2. Select Contacts.
3. There are two methods to search for contacts:

- Search bar – Select the search icon on the top right of the Phones window and type the name or number of the contact on the keyboard. Search results will be displayed corresponding to the user input. Select the name to call.
- Scroll – Select the list and scroll, or use the scrollbar on the left side of the Phones window. Select the name to call.

Making a Call Using the Recents Menu

The Recents menu accesses the recents call list from your phone.

To make a call using the Recents menu:

1. Select the Phone icon on the infotainment home screen or on the application tray near the left of the display.
2. Select Recents.
3. Select the name or number to call.

Making a Call Using the Keypad

To make a call by dialing the numbers:

1. Select the Phone icon on the infotainment home screen or on the application tray near the left of the display.
2. Select Keypad and enter a phone number.
3. Select the phone icon on the infotainment display to start dialing the number.

Searching Contacts Using the Keypad

To search for contacts using the keypad:

1. Select the Phone icon on the infotainment home screen.
2. Select Keypad and enter partial phone numbers or contact names using the digits on the keypad to search.


Results appear on the right side of the display. Select one to place a call.

Accepting or Declining a Call

When an incoming call is received, the infotainment system mutes and a ring tone is heard in the vehicle.


Accepting a Call

There are two ways to accept a call:

- Press  on the steering wheel controls.
- Select Answer on the infotainment display.

Declining a Call


There are two ways to decline a call:

- Press  on the steering wheel controls.
- Select Decline on the infotainment display.


Call Waiting

Call waiting must be supported on the Bluetooth phone and enabled by the wireless service carrier to work.

Accepting a Call

Press  to answer, then select Switch on the infotainment display.



Declining a Call

Press  to decline, then select Decline on the infotainment display.

Switching Between Calls (Call Waiting Calls Only)

To switch between calls, select Phone on the infotainment home screen to display Call View. While in Call View, select the call information of the call on hold to change calls.

Ending a Call


- Press  on the steering wheel controls.
- Select  on the infotainment display, next to a call, to end only that call.

Dual Tone Multi-Frequency (DTMF) Tones

The in-vehicle Bluetooth system can send numbers during a call. This is used when calling a menu-driven phone system. Use the Keypad to enter the number.

Settings

To access the Settings menus:

1. Touch Settings on the infotainment home screen.
2. Touch the desired feature setting.
3. Touch the options on the infotainment display to change a setting.
4. Touch  to go back.

The Settings menu may contain the following:

Connections

The menu may contain the following:

Phones

Allows connecting to a different cell phone or mobile device source, disconnecting a cell phone or media device, or deleting a cell phone or media device.

Wi-Fi Networks

Shows connected and available Wi-Fi networks.

Wi-Fi Hotspot

Allows adjustment of different Wi-Fi features.

Vehicle-to-Phone Sharing

Allows GM apps to use vehicle data on the listed phones shown.

Trusted Device

Allows for setting a phone as your trusted device to establish a secure communication channel between your phone and vehicle that enables convenient features like instant profile unlocking and account sign in. When nearby, your trusted device is recognized automatically via a unique Bluetooth connection. Requires MyBrand app.

Vehicle

The menu may contain the following:

Audio Settings

Allows adjustment of different audio settings.

Driver Mode Customization

See *Driver Mode Control* ⇨ 188.

Teen Driver

See *Teen Driver* ⇨ 153.

Doors and Locks

Allows adjustment of different door lock settings.

Valet Mode

Allows adjustment of the valet mode settings.

Rear Seat Reminder

Allows for a chime and a message when the rear door has been opened before or during operation of the vehicle.

Occupant Left Behind Reminder

Allows adjustment of occupant left behind reminder settings.

Buckle to Drive

This feature can prevent shifting out of (P) Park when the driver's, and if applicable the front passenger's, seat belt is not buckled. See *Buckle To Drive* ⇨ 45.

Super Cruise Lane Change

See *Super Cruise* ⇨ 203.

Climate and Air Quality

Allows adjustment of different climate settings.

Collision/Detection Systems

Allows adjustment of different driver assistance system settings.

Comfort and Convenience

Allows adjustment of different comfort and convenience settings.

Driver Attention Assist

Allows adjustment of different sensitivity levels for drowsiness attention settings.

Lighting

Allows adjustment of different lighting settings.

Remote Lock, Unlock, and Start

Allows adjustment of different remote lock settings.

Phone Call Audio

Allows adjustment of phone call audio settings.

Seating Position

Allows adjustment of different seating position settings.

Suspension

Allows adjustment of different suspension settings.

Transport Mode

Allows adjustment of transport mode settings.

Apps and Permissions

Shows a list of installed apps and the permissions used.

Date/Time

Allows setting of the clock.

Display

Allows adjustment of the infotainment display.

Sounds

Allows adjustment of the infotainment system sounds.

Profiles and Accounts

Modifies the infotainment system's profiles and provides access to the accounts assigned to the currently active profile.

Privacy

This menu allows adjustment of the infotainment privacy settings.

Accessibility

This menu shows the accessibility information on the infotainment system.

Storage

This menu shows the storage info on the infotainment system.

Security

This menu allows adjustment of the infotainment security settings.

System

The menu may contain the following:

Language

This will set the display language used on the infotainment display.

Keyboard and Speech

Touch to change keyboard and speech settings.

Units

Touch to change units settings.

Reset Options

Touch to change reset settings.

TTY Mode

Touch to turn off or on.

About

Touch to view the infotainment system software information.

Legal Information

Touch to view legal and license information.

Updates

This menu allows adjustment of the vehicle update settings.

Google

This menu allows adjustment of the Google settings.

Teen Driver

If equipped, this allows multiple keys to be registered for beginner drivers to encourage safe driving habits. When the vehicle is started with a Teen Driver key, it will automatically activate certain safety systems, allow setting of some features, and limit the use of others. The Report Card will record vehicle data about driving behavior that can be viewed later. When the vehicle is started with a Teen Driver key, the Driver Information Center (DIC) displays a message that Teen Driver is active.

To access:

1. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
2. Create a Personal Identification Number (PIN) by choosing a four-digit PIN. Re-enter the PIN to confirm. To change the PIN, touch Change PIN.

The PIN is required to:

- Set up/Add or remove keys.

- Change Teen Driver settings.
- Change or clear the Teen Driver PIN.
- Access or delete Report Card data.

Set up/Add keys to activate Teen Driver and assign restrictions to the key:

Any vehicle key can be registered, up to a maximum of eight keys. Label the Teen Driver key to tell it apart from the other keys.

For a pushbutton start system:

1. Start the vehicle.
2. The vehicle must be in P (Park).
3. From the Settings menu, touch Vehicle and then Teen Driver.
4. Enter the PIN.
5. Place the remote key you wish to register in the transmitter pocket. The key does not need to be the one that started the vehicle.
6. From the Teen Driver menu, touch Setup Keys or Add/Remove Teen Driver Keys.

- If the remote key has not previously been registered, the option to add the key displays. Touch Add and a confirmation message displays. Teen Driver restrictions will be applied whenever this remote key is used to operate the vehicle.
- If the remote key has already been registered, the option to remove the key displays. If Remove is touched, the remote key is no longer registered. A confirmation message displays, and Teen Driver restrictions will not be applied if this remote key is used to operate the vehicle.

In vehicles with a pushbutton start system, if a Teen Driver and a non-Teen Driver key are both present at start up, the vehicle will recognize the non-Teen Driver key to start the vehicle. The Teen Driver settings will not be active.

Manage Settings or Teen Driver Settings

Depending on the options of your vehicle, the following menu items may be displayed:

Buckle to Drive : When turned ON, Buckle to Drive prevents the driver from shifting out of P (Park) for a period of time after the

brake pedal is pressed if the driver, or on some vehicles the detected passenger, has not buckled their seat belt. On some vehicles, Buckle to Drive is always ON when Teen Driver is active and is not configurable.

Audio Volume Limit : Allows a maximum audio volume to be set. Turn the audio volume limit on or off. Use the arrows to choose the maximum allowable level for the audio volume. On some infotainment systems, touch Set Audio Volume Limit to choose the maximum allowable audio volume level.

Set Audio Volume Limit : Use the arrows to choose the maximum allowable level for the audio volume.

Teen Driver Speed Limiter : Limits the maximum speed of the vehicle. When the speed limiter is turned on and the vehicle is started with a Teen Driver key, the DIC displays a message that the top speed is limited.

On certain vehicles, when the Speed Limiter is turned ON, the vehicle's maximum acceleration will be limited. The DIC will display a message that the acceleration is limited.

Teen Driver Speed Warning : Displays a warning in the DIC when exceeding a selectable speed. Turn the speed warning on or off and choose the desired speed warning

level. The speed warning does not limit the speed of the vehicle. On some infotainment systems, touch Set Teen Driver Speed Warning to set the warning speed.

Set Teen Driver Speed Warning : Choose the desired speed warning level. The speed warning does not limit the speed of the vehicle.

When Teen Driver is Active:

- If equipped, the radio will mute when the driver seat belt, and in some vehicles the front passenger seat belt, is not buckled. The audio from any device paired to the vehicle will also be muted.
- An object placed on the front passenger seat, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, could cause the passenger sensing system to falsely sense an unbuckled front passenger and mute the radio. If this happens, remove the object from the seat.
- Some safety systems, such as Automatic Emergency Braking, if equipped, cannot be turned off.
- The gap setting for Adaptive Cruise Control and alert timing for Forward Collision Alert, if equipped, cannot be changed.

- When trying to change a safety feature that is not configurable in Teen Driver, the feature may be grayed out or removed from the infotainment menu, or the DIC will display a message indicating that Teen Driver is active and the action is not available.
- Super Cruise, if equipped, is not available.
- Do not tow a trailer if equipped with Automatic Emergency Braking.

Report Card

The vehicle owner must secure the driver's consent to record certain vehicle data when the vehicle is driven with a registered Teen Driver key. There is one Report Card per vehicle. Data is only recorded when a registered Teen Driver key is used to operate the vehicle.

The Report Card data is collected from the time Teen Driver is activated or the last time the Report Card was reset. The following items may be recorded:

- Distance Driven – the total distance driven.
- Maximum Speed – the maximum vehicle speed detected.
- Overspeed Warnings – the number of times the speed warning setting was exceeded.

- **Wide Open Throttle** – the number of times the accelerator pedal was pressed nearly all the way down.
- **Forward Collision Alerts (if equipped)** – the number of times the driver was notified when approaching a vehicle ahead too quickly and at potential risk for a crash.
- **Forward Automatic Braking, also called Automatic Emergency Braking (if equipped)** – the number of times the vehicle detected that a forward collision was imminent and applied the brakes.
- **Reverse Automatic Braking (if equipped)** – the number of times the vehicle detected that a rearward collision was imminent and applied the brakes.
- **Traction Control** – the number of times the Traction Control System activated to reduce wheel spin or loss of traction.
- **Stability Control** – the number of events which required the use of electronic stability control.
- **Antilock Braking System Active** – The number of Antilock Brake System activations.

- **Tailgating Alerts (if equipped)** – the number of times the driver was alerted for following a vehicle ahead too closely.

Report Card Data

Cumulative Data is saved for all trips until the Report Card is reset or until the maximum count is exceeded. If the maximum count is exceeded for a Report Card line item, that item will no longer be updated in the Report Card until it is reset. Each item will report a maximum of 1,000 counts. The distance driven will report a maximum of 64,374 km (40,000 mi).

To delete Report Card data, do one of the following:

- From the Report Card display, touch **Reset**.
- Touch **Clear PIN** and **All Teen Driver Keys** from the Teen Driver menu. This will also unregister any Teen Driver keys and delete the PIN.

Forgotten PIN

See your dealer to reset the PIN.

Trademarks and License Agreements

FCC Information

See *Radio Frequency Statement* ⇨ 344.



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Climate Controls

Climate Control Systems

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Air Vents

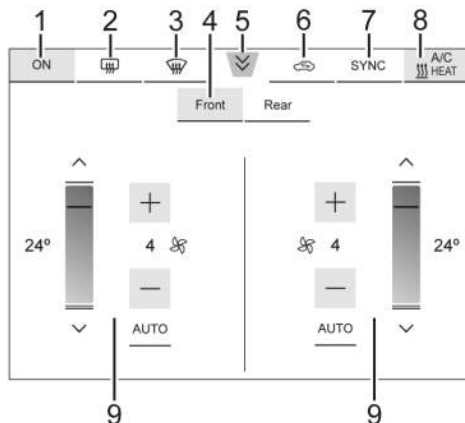
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Climate Control Systems

The fan speed, air delivery, and recirculation to heat or cool the vehicle can be controlled from the front console. Choose from available options:



1. ON/OFF
2. Rear Window Defogger
3. Max Defrost
4. Front/Rear Climate Zone Selection
5. Climate Zone Selection Launch Button
6. Recirculation
7. SYNC (Synchronized Temperature)
8. A/C (Air Conditioning)/HEAT Selection
9. Driver and Passenger Temperature, Fan, and AUTO Control


Automatic Operation

The system automatically controls the fan speed, air delivery, and recirculation to heat or cool the vehicle to the desired temperature.

When AUTO is selected, the system is in full automatic operation. A/C or HEAT will be underlined to indicate the system is automatically cooling or heating. If the air delivery mode or fan setting is manually adjusted, the auto indicator turns off and the display shows the selected settings. Auto operation can be turned off individually for climate settings.



For automatic operation:

1. Press AUTO.
2. Set the temperature. Allow the system time to stabilize. Then adjust the temperature as needed for best comfort.

To improve efficiency and to warm or cool the vehicle faster, recirculation is automatically selected. The recirculation light will not come on. Press  to select recirculation; press it again to select outside air.




English units can be changed to metric units through the instrument cluster. Select Settings > Time, Date, and Unit > US or Metric.

ON/OFF: Press to turn the fan on or off. When OFF is selected, the system stops air from flowing into the cabin. If ON is selected or any other buttons are pressed, the climate control system will turn on and operate at the current setting.

 /  : The temperature can be adjusted separately for the driver and the passenger. Press to decrease or increase the temperature. Press and hold to rapidly increase or decrease the temperature. Press SYNC reset the passenger temperature to the driver temperature.

Rear: Touch to open the rear climate control screen. The rear climate control settings can now be adjusted from the front passenger area.

Manual Operation

   : Press to decrease or increase the fan speed. Press and hold the fan controls to adjust speed more quickly. The fan speed setting displays. Any adjustment of the fan speed cancels automatic fan control and the fan can be controlled manually. Press AUTO to return to automatic operation.

To turn off the fan and climate control system, press OFF on the center stack climate controls. The airflow will be blocked from entering in all air delivery modes, except defrost.


The maximum automatic fan speed can be set to low, medium, or high. To adjust Auto Fan Speed, select Settings > Climate and Air Quality > Auto Fan Speed.



Vents and Air Distribution: See *Air Vents* ⇨ 162.


A/C: Press to turn the air conditioning on or off. An indicator light comes on to show that the air conditioning is enabled. If the fan is turned off, the air conditioner will not run.

Press AUTO to return to automatic operation and the air conditioner runs as needed.

If fogging reoccurs while in vent or in a combination mode with mild temperature throughout the vehicle, turn on the air conditioner to reduce windshield fogging.

 **HEAT:** Press to turn the heater on or off. The air conditioning compressor is used to provide heat to the cabin and may run when heat is enabled.


 : Clears the windshield of fog or frost more quickly. Air is directed to the windshield. Press  to turn on or off. Changing the air delivery mode also turns the defrost off.

 : Press to alternate between recirculating air inside the vehicle or pulling in outside air. The indicator light on the button is lit when recirculation mode is active. This helps to quickly cool the air inside the vehicle and reduce the entry of outside air and odors.

Pressing this button cancels automatic recirculation. Press AUTO to return to automatic operation; recirculation runs automatically as needed.

Manual recirculation mode is not available when Defrost is active.

The climate control system uses a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply, turn on the heater and air conditioner, increase fan and temperature, and direct more air to the windshield. When the climate control system does not detect possible window fogging, it returns to normal operation. To turn Auto Defog off or on, select Settings > Climate and Air Quality > Auto Defog

> Select ON or OFF. If Auto Defog is turned off, or fogging does not clear quickly enough, select  to more quickly clear the windshield.

ECO Climate

When ECO Climate is on, airflow to unoccupied seats will be reduced to improve energy efficiency of the vehicle. To turn ECO Climate on or off:


1. On the driver dashboard display, press Settings > Vehicle > Climate and Air Quality > ECO Climate. Your selection will be set until it is changed.
2. On the center console display, press the ECO Climate icon, or change either the temperature or airflow vent settings. This will turn off ECO Climate until the next drive cycle. Changing the setting in this manner will affect only the section selected.

When ECO Climate is on, cabin temperature changes will be slowed depending on outside weather conditions. Turn off ECO Climate to reach desired cabin temperature more quickly.

Rear Window Defogger

Caution

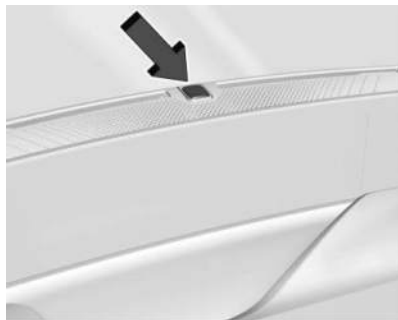
Do not try to clear frost or other material from the inside of the front windshield and rear window with a razor blade or anything else that is sharp. This may damage the rear window defogger grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

 : Press to turn the rear window defogger on or off. An indicator on the button comes on to show that the rear window defogger is on. The rear window defogger only works when the vehicle is on.

The rear window defogger can be set to automatic operation. When Auto Rear Defog is selected, the rear window defogger turns on automatically when the vehicle is first started in cold weather and turns off when the vehicle is warmed. To turn Auto Rear Defog off or on, select Settings > Climate and Air Quality > Auto Rear Defog > Select ON or OFF.

The heated outside rearview mirrors turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirrors.

Sensor



The solar sensor, on top of the instrument panel near the windshield, monitors the solar heat.

The climate control system uses the sensor information to adjust the temperature, fan speed, recirculation, and air delivery mode for best comfort.

If the sensor is covered, the automatic climate control system may not work properly.

Remote Start Climate Control Operation: The climate control system may run when the vehicle is started remotely. The system uses the driver's previous settings to heat or cool the inside of the vehicle. The rear defog may come on during remote start based on cold ambient conditions. The rear defog indicator light does not come on during a remote start. If equipped with heated or cooled seats, they may come on during a remote start. See *Remote Start* ⇨ 12 and *Heated and Cooled Front Seats* ⇨ 41.

Afterblow Feature

If equipped, under certain conditions, the fan may stay on or may turn on and off several times after you turn off and lock the vehicle. This is normal.

Rear Climate Control System

The rear climate controls can be adjusted from the rear console. Choose from the available options:

ON/OFF: Touch ON/OFF on the display to turn the rear climate control on or off.

▲ / ▼ : The temperature can be adjusted separately for the left and right side seating areas. Press to decrease or increase the temperature. Press and hold to rapidly increase or decrease the temperature.

▼ ⌘ ▲ : Press to decrease or increase the fan speed. Press and hold the fan controls to adjust speed more quickly. Any adjustment of the fan speed cancels automatic fan control and the fan can be controlled manually. Press AUTO to return to automatic operation.

AUTO: Press to turn on or off. The air delivery is controlled automatically. Adjusting fan speed cancels full automatic operation.

SYNC: Touch to match the rear climate control settings to the front climate control driver settings. The SYNC button is highlighted.

The rear climate controls can also be adjusted on the front climate control display. See *Climate Control Systems* ⇨ 158.

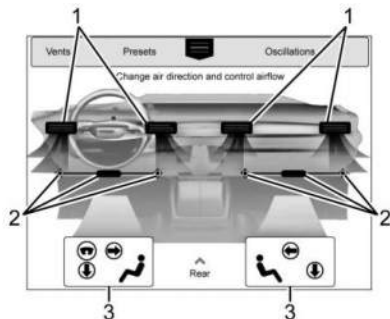
ECO Climate

When ECO Climate is on, airflow to unoccupied rear seats is reduced for energy efficiency. To turn ECO Climate on or off, select Settings > Vehicle > Climate and Air Quality > ECO Climate.

Air Vents

To adjust the vents and air distribution, touch the vents and air distribution launch button.

See *Climate Control Systems* ⇨ 158.




Air Distribution Control – Vents Tab


1. Instrument Panel Vent
 2. Vertical Aiming Handles
 3. Mode Control
- Touch and drag the aiming control for each vent to adjust the airflow direction.

- Adjust the amount of airflow to each vent by touching the vent airflow control icon. The setting will change each time the icon is pressed
- Touch REAR open the rear vent control.

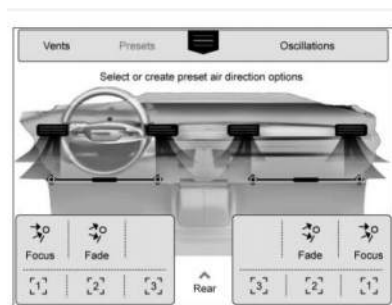
Air Delivery Mode Control: Touch the desired air delivery mode to change the direction of the airflow. The selected air delivery mode button is lit. Pressing any of the air delivery buttons cancels automatic air delivery control and the direction of the airflow can be controlled manually. Press AUTO to return to automatic operation.

To change the current mode, select one or more of the following:

 : Air is directed to the windshield, outboard instrument panel vents, and side window vents.

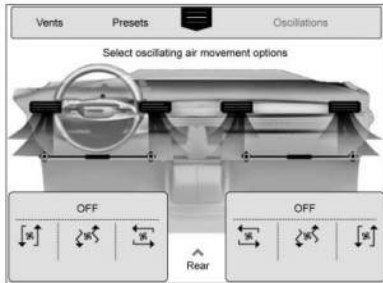
 : Air is directed to the instrument panel vents.

 : Air is directed to the floor vents.



Air Distribution Control – Presets Tab

- Touch Focus to adjust the direction of the airflow directly at the occupant.
- Touch Fade to adjust the direction of the airflow away from the occupant.
- The current adjustment can be saved by touching and holding 1, 2, or 3.



Air Distribution Control – Oscillations Tab

- Select one of the Oscillation icons to enable automatic vent movement in selected directions.
- Touch OFF to place the vents in a fixed position.

Operation Tips

- Clear away any ice, snow, or leaves from air inlets at the base of the windshield that could block the flow of air into the vehicle.
- Clear snow off the hood to improve visibility and help decrease moisture drawn into the vehicle.

- Keep the path under the front seats clear of objects to help circulate the air inside of the vehicle more effectively.
- Use of non-GM approved hood deflectors can adversely affect the performance of the system. Check with your dealer before adding equipment to the outside of the vehicle.
- Do not attach any devices to the air vent slats. This will restrict airflow and may cause damage to the air vents.

Maintenance

Passenger Compartment Air Filter

The filter reduces dust, pollen, and other airborne irritants from outside air that is pulled into the vehicle. The filter should be replaced as part of routine scheduled maintenance.

See your dealer for filter replacement.

Service

All vehicles have a label underhood that identifies the refrigerant used in the vehicle. The refrigerant system should only be serviced by trained and certified technicians. The air conditioning evaporator should never be

repaired or replaced by one from a salvage vehicle. It should only be replaced by a new evaporator to ensure proper and safe operation.

During service, all refrigerants should be reclaimed with proper equipment. Venting refrigerants directly to the atmosphere is harmful to the environment and may also create unsafe conditions based on inhalation, combustion, frostbite, or other health-based concerns.

The air conditioning system requires periodic maintenance. See *Maintenance Schedule* ⇨ 329.

Driving and Operating

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Driving Information

Driving for Better Energy Efficiency

Use the tips in the categories below to help maximize energy efficiency and range.

In colder temperatures, while these efficiency tips will help, the electric vehicle driving range will be lower due to higher energy usage including energy spent heating the cabin.

The Energy Info feature available on the Vehicle Status app estimates the influence of the main factors impacting vehicle range. It displays how energy is being used for the current drive since the last time the vehicle was started and over a recently driven distance. See *Vehicle Status* ⇨ 112.

Acceleration, Braking, and Coasting

Avoid rapid accelerations and decelerations.

Use cruise control when appropriate.

Plan ahead for decelerations, and coast whenever possible. Do not rush to traffic signals, and do not shift to N (Neutral) to coast.

Use the One-Pedal Driving feature when appropriate to help recover energy during coasting and braking. One-Pedal mode recovers more energy while coasting and braking than D (Drive) mode. See *One-Pedal Driving* ⇨ 182.

Use the Regen on Demand feature during deceleration to help recover energy. See *Regenerative Braking* ⇨ 186.

Terrain and Vehicle Speed

Higher speeds and grade changes use more energy and can significantly reduce electric range.

Managing the Interior Temperature Climate Setting

Using the heat and air conditioning systems decreases the energy available for electric driving. Optimal energy efficiency is achieved when the heat, air conditioning, and fan are turned off.

Use the heated and cooled seat features (if equipped) instead of the climate control system. Heating and cooling the seat uses less energy than heating and cooling the interior of the vehicle. See *Heated and Cooled Front Seats* ⇨ 41 and *Heated and Cooled Rear Seats* ⇨ 43.

Use the Remote Start Climate Control feature to heat or cool the interior while the vehicle is plugged in to use electricity from the electrical outlet instead of using energy from the battery. See *Remote Start* ⇨ 12.

On colder days, it is best to plug in the vehicle overnight, and then remote start the vehicle.

Use the Battery Gauge on the Instrument Cluster to view the effect of climate control settings on your estimated range. See *Battery Gauge (High Voltage)* ⇨ 94.

Other Ways to Affect Cabin Temperature

In hot weather, avoid parking in direct sunlight. Use sunshades inside the vehicle.

Keep the inside of the windows clean to reduce fogging. Turn off the front defroster and rear defogger when they are not needed.

Avoid driving with the windows open at highway speeds.

Vehicle Charging and Maintenance

Charging

Keep the vehicle plugged in, even when fully charged, to keep the battery temperature ready for the next drive. This is important when outside temperatures are extremely hot or cold.

If possible, use a 240 volt high power charge station for best results. This allows the interior of the vehicle and high voltage battery to warm to optimal temperature.

Allow the vehicle to warm up for 20 minutes before driving. This helps to optimize the high voltage battery temperature before driving.

Maintenance

Always keep the tires properly inflated and the vehicle properly aligned.

Avoid unnecessary use of electrical accessories. Power used for functions other than propelling the vehicle will reduce the available range.

Cargo Weight

The weight of excess cargo in the vehicle affects efficiency and range. Avoid carrying more than is needed.

Using a rooftop carrier will reduce efficiency due to additional weight and drag.

Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgment and do not let other activities divert your attention away from the road. Many local governments have enacted laws regarding driver distraction. Become familiar with the local laws in your area.

To avoid distracted driving, keep your eyes on the road, keep your hands on the steering wheel, and focus your attention on driving.

- Do not use a mobile phone in demanding driving situations. Use a hands-free method to place or receive necessary phone calls.
- Watch the road. Do not read, take notes, or look up information on mobile phones or other electronic devices.
- Designate a front seat passenger to handle potential distractions.
- Become familiar with vehicle features before driving, such as programming favorite radio stations and adjusting

climate control and seat settings. Program all trip information into any navigation device prior to driving.

- Wait until the vehicle is parked to retrieve items that have fallen to the floor.
- Stop or park the vehicle to tend to children.
- Keep pets in an appropriate carrier or restraint.
- Avoid stressful conversations while driving, whether with a passenger or on a mobile phone.

Warning

Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Refer to the Infotainment section for more information on using that system, including pairing and using a mobile phone.

Defensive Driving

Defensive driving means “always expect the unexpected.” The first step in driving defensively is to wear the seat belt. See *Seat Belts* ⇨ 44.

- Assume that other road users (pedestrians, bicyclists, and other drivers) are going to be careless and make mistakes. Anticipate what they may do and be ready.
- Allow enough following distance between you and the driver in front of you.
- Focus on the task of driving.

Impaired Driving

Death and injury associated with impaired driving is a global tragedy.

Warning

Drinking alcohol or taking drugs and then driving is very dangerous. Your reflexes, perceptions, attentiveness, and judgment can be affected by even a small amount of alcohol or drugs. You can have a serious — or even fatal — collision if you drive after drinking or taking drugs.

Do not drive while under the influence of alcohol or drugs, or ride with a driver who has been drinking or is impaired by drugs. Find alternate transportation home; or if you are with a group, designate a driver who will remain sober.

Control of a Vehicle

Braking, steering, and accelerating are important factors in helping to control a vehicle while driving.

Braking

Braking action involves perception time and reaction time. Deciding to push the brake pedal is perception time. Actually doing it is reaction time.

Average driver reaction time is about three-quarters of a second. In that time, a vehicle moving at 100 km/h (60 mph) travels 20 m (66 ft), which could be a lot of distance in an emergency.

Helpful braking tips to keep in mind include:

- Keep enough distance between you and the vehicle in front of you.
- Avoid needless heavy braking.
- Keep pace with traffic.

If a brake fault occurs, the brakes may lose power assist. More effort will be required to stop the vehicle and it may take longer to stop.

If the vehicle loses propulsion power while driving, the brake boost system, which is powered by the 12-volt vehicle battery, will maintain the power assist for as long as the battery has sufficient voltage. Steer the vehicle out of the roadway and stop as soon as it is safe to do so. See *Electric Brake Boost* ⇨ 183.

Steering

Caution

To avoid damage to the steering system, do not drive over curbs, parking barriers, or similar objects at speeds greater than 3 km/h (1 mph). Use care when driving over other objects such as lane dividers and speed bumps. Damage caused by misuse of the vehicle is not covered by the vehicle warranty.

Electric Power Steering

The vehicle is equipped with an electric power steering system, which reduces the amount of effort needed to steer the vehicle. It does not have power steering fluid. Regular maintenance is not required.

If the vehicle experiences a system malfunction and loses power steering, greater steering effort may be required. Power steering assist also may be reduced if you turn the steering wheel as far as it can turn and hold it there with force for an extended period of time.

See your dealer if there is a problem.

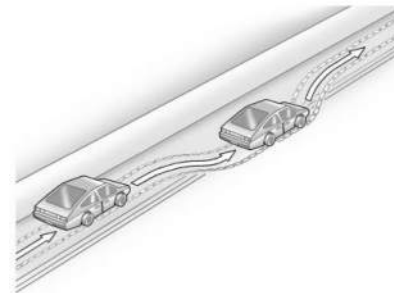
Curve Tips

- Take curves at a reasonable speed.
- Reduce speed before entering a curve.
- Maintain a reasonable steady speed through the curve.
- Wait until the vehicle is out of the curve before accelerating gently into the straightaway.

Steering in Emergencies

- There are some situations when steering around a problem may be more effective than braking.
- Holding both sides of the steering wheel allows you to turn 180 degrees without removing a hand.
- The Antilock Brake System (ABS) allows steering while braking.

Off-Road Recovery



The vehicle's right wheels can drop off the edge of a road onto the shoulder while driving. Follow these tips:

1. Ease off the accelerator and then, if there is nothing in the way, steer the vehicle so that it straddles the edge of the pavement.
2. Turn the steering wheel about one-eighth of a turn, until the right front tire contacts the pavement edge.
3. Turn the steering wheel to go straight down the roadway.

Loss of Control

Skidding

There are three types of skids that correspond to the vehicle's three control systems:

- **Braking Skid** — wheels are not rolling.
- **Steering or Cornering Skid** — too much speed or steering in a curve causes tires to slip and lose cornering force.
- **Acceleration Skid** — too much throttle causes the driving wheels to spin.

Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not overdriving those conditions. But skids are always possible.

If the vehicle starts to slide, follow these suggestions:

- Ease your foot off the accelerator pedal and steer the way you want the vehicle to go. The vehicle may straighten out. Be ready for a second skid if it occurs.
- Slow down and adjust your driving according to weather conditions. Stopping distance can be longer and vehicle control can be affected when traction is reduced by water, snow, ice, gravel, or other material

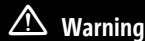
on the road. Learn to recognize warning clues — such as enough water, ice, or packed snow on the road to make a mirrored surface — and slow down when you have any doubt.

- Try to avoid sudden steering, acceleration, or braking, including reducing vehicle speed by shifting to a lower gear. Any sudden changes could cause the tires to slide.

Remember: Antilock brakes help avoid only the braking skid.

Driving on Wet Roads

Rain and wet roads can reduce vehicle traction and affect your ability to stop and accelerate. Always drive slower in these types of driving conditions and avoid driving through large puddles and deep-standing or flowing water.



Warning

Wet brakes can cause crashes. They might not work as well in a quick stop and could cause pulling to one side. You could lose control of the vehicle.

(Continued)

Warning (Continued)

After driving through a large puddle of water or a car/vehicle wash, lightly apply the brake pedal until the brakes work normally.

Flowing or rushing water creates strong forces. Driving through flowing water could cause the vehicle to be carried away. If this happens, you and other vehicle occupants could drown. Do not ignore police warnings and be very cautious about trying to drive through flowing water.

Hydroplaning

Hydroplaning is dangerous. Water can build up under the vehicle's tires so they actually ride on the water. This can happen when the road is wet and you are driving fast. When the vehicle is hydroplaning, it has little or no contact with the road.

There is no hard and fast rule about hydroplaning. The best advice is to slow down when the road is wet.

Other Rainy Weather Tips

Besides slowing down, other wet weather driving tips include:

- Allow extra following distance.
- Pass with caution.
- Keep windshield wiping equipment in good shape, and keep the windshield washer fluid reservoir filled.
- Ensure the tires are maintained and have proper tread depth. See *Tires* ⇨ 295.
- Turn off any cruise control, if equipped. See *Adaptive Cruise Control* ⇨ 194 or *Super Cruise* ⇨ 203.
- Turn off One-Pedal Driving mode. See *One-Pedal Driving* ⇨ 182.
- Turn on the Traction Control System (TCS) and the Electronic Stability Control (ESC). See *Traction Control/Electronic Stability Control* ⇨ 187.

Hill and Mountain Roads

Driving on steep hills or through mountains is different than driving on flat or rolling terrain. Be sure to:

- Use regenerative braking to help slow the vehicle or maintain speed by keeping the vehicle in gear and limiting the initial battery charge to 80% or less. See *Regenerative Braking* ⇨ 186.

Warning

Do not charge your vehicle's battery above an 80% charge if you are going to drive down long, steep grades such as mountain passes. This provides room in the battery for regenerative braking to supplement your conventional brakes during the descent.

If the battery becomes full, regenerative braking will be limited or unavailable. The brakes will have to do all the work of slowing down the vehicle and could become too hot. Hot brakes may not be able to slow the vehicle enough to maintain speed and control. To help avoid the risk

(Continued)

Warning (Continued)

of a crash, limit the battery's charge and, if you experience brake fade or receive a brake warning, stop the vehicle and allow the brakes to cool.

See "Charge Now" under *Charging* ⇨ 106 for information on setting charge limits.

- When braking is necessary, use frequent light taps of the brake pedal. This maximizes regenerative braking and minimizes the load on the vehicle brake system.
- Keep the vehicle serviced and in good shape.
- Check all fluid levels, brakes, tires, and cooling system.
- Drive at speeds that keep the vehicle in its own lane. Do not swing wide or cross the center line.
- Be alert on top of hills where the road contour may reduce visibility in case anything unexpected is in your lane (e.g., stalled car, crash, debris).

- Pay attention to special road signs (e.g., falling rocks area, winding roads, long grades, passing or no-passing zones) and take appropriate action.

Winter Driving

Driving on Snow or Ice

Caution
To avoid damage to the wheels and brake components, always clear snow and ice from inside the wheels and underneath the vehicle before driving.

Snow or ice between the tires and the road creates less traction or grip, so drive carefully. Wet ice can occur at about 0°C (32°F) when freezing rain begins to fall. Avoid driving on wet ice or in freezing rain until roads can be treated.

For Slippery Road Driving:

- Turn off cruise control.
- If enabled, turn off One-Pedal Driving. See *One-Pedal Driving* ⇨ 182.

- If turned off, turn on the Traction Control System (TCS) and Electronic Stability Control (ESC). See *Traction Control/Electronic Stability Control* ⇨ 187.
- Select the Snow/Ice driver mode. See *Driver Mode Control* ⇨ 188.
- Accelerate gently. Accelerating too quickly causes the wheels to spin and makes the surface under the tires slick.
- Allow greater following distance and watch for slippery spots. Icy patches can occur on otherwise clear roads in shaded areas. The surface of a curve or an overpass can remain icy when the surrounding roads are clear. Avoid sudden steering maneuvers and braking while on ice.
- The Antilock Brake System (ABS) improves vehicle stability during hard stops, but the brakes should be applied sooner than when on dry pavement. See *Antilock Brake System (ABS)* ⇨ 183.
- Avoid using the Regen on Demand paddle. See *Regenerative Braking* ⇨ 186.

Blizzard Conditions

If you become stranded or cannot continue driving due to winter storm conditions, stop the vehicle in a safe place and signal for help. If possible, use *Roadside Assistance Program* ⇨ 339. Stay with the vehicle unless there is help nearby.

If you stay in your vehicle while waiting, signal for help and keep everyone in the vehicle safe by turning on the hazard warning flashers and tying a red cloth to an outside mirror.

To conserve battery energy while waiting for help, run the vehicle for only short periods as needed to warm the vehicle and then shut the vehicle off and partially close the window. Moving about to keep warm also helps. For additional tips to help conserve battery energy in cold weather, see *Driving for Better Energy Efficiency* ⇨ 165.

If the Vehicle Is Stuck

Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

The traction control system can often help to free a stuck vehicle. See *Traction Control/Electronic Stability Control* ⇨ 187. If you cannot free the vehicle with traction control enabled, try “rocking” the vehicle as described below.

Rocking the Vehicle to Get It Out

Warning

If the vehicle’s tires spin at high speed, they can explode, and you or others could be injured. Spin the wheels as little as possible and avoid going above 56 km/h (35 mph).

Turn the steering wheel left and right to clear the area around the front wheels. Turn off traction control. Shift back and forth between R (Reverse) and D (Drive), spinning the wheels as little as possible. To prevent electric drive unit wear, wait until the wheels stop spinning before shifting gears. Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle. If that does not get the vehicle out after a few tries, it might need to be towed out. See *Transporting a Disabled Vehicle* ⇨ 316.

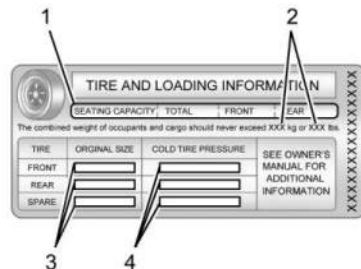
Vehicle Load Limits

It is very important to know how much weight the vehicle can carry. This weight is called the vehicle capacity weight and includes the weight of all occupants, cargo, and all nonfactory-installed options. Two labels on the vehicle may show how much weight it may properly carry: the Tire and Loading Information label and the Certification/Tire label.

Warning

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. This could cause loss of control and a crash. Overloading can also reduce stopping performance, damage the tires, and shorten the life of the vehicle.

Tire and Loading Information Label



Example Label

A vehicle-specific Tire and Loading Information label is attached to the center pillar (B-pillar). The tire and loading information label shows the number of occupant seating positions (1), and the maximum vehicle capacity weight (2) in kilograms and pounds.

The Tire and Loading Information label also shows the size of the original equipment tires (3) and the recommended

cold tire inflation pressures (4). For more information on tires and inflation see *Tires* ⇨ 295 and *Tire Pressure* ⇨ 300.

There is also important loading information on the vehicle Certification/Tire label. It may show the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) for the front and rear axle. See "Certification/Tire Label" later in this section.

Steps for Determining Correct Load Limit

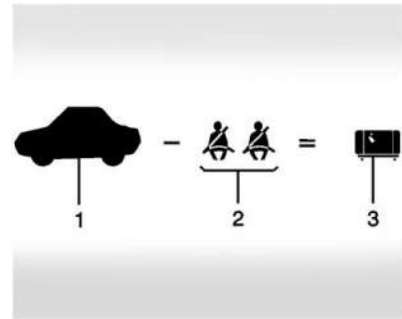
1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX"

amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.)

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.

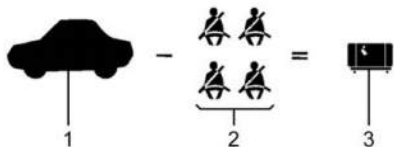
This vehicle is neither designed nor intended to tow a trailer or receive a rooftop carrier.

If aftermarket accessories are installed on the vehicle, be sure to add the weight of all installed accessories to the combined weight of luggage and cargo.



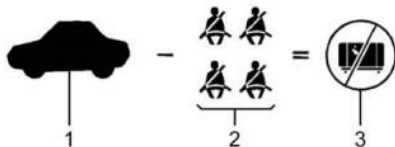
Example 1

1. Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lb)
Then subtract Accessory Weight = 15.8 kg (35 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb) × 2 = 136 kg (300 lb)
3. Remaining available capacity for Cargo Weight = 301.2 kg (665 lb)



Example 2

1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lb)
Then subtract Accessory Weight = 18.1 kg (40 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb) \times 5 = 340 kg (750 lb)
3. Remaining available capacity for Cargo Weight = 94.9 kg (210 lb)



Example 3

1. Vehicle Capacity Weight for Example 3 = 453 kg (1,000 lb)
2. Subtract Occupant Weight @ 91 kg (200 lb) \times 5 = 453 kg (1,000 lb)
3. Available Cargo Weight = 0 kg (0 lb)

Refer to the Tire and Loading Information label for specific information about the vehicle's capacity weight and seating positions. The combined weight of the driver, passengers, accessories, and cargo should never exceed the vehicle's capacity weight.

Certification/Tire Label

The diagram shows a rectangular label with several fields. At the top, there are three columns of weight ratings: GVWR, GAWR FRT, and GAWR RR. Each column has two rows of input fields, one for kilograms (KG) and one for pounds (LB). Below these are two larger rectangular boxes. At the bottom, there are two rows of input fields labeled 'TYPE:' and 'MODEL:'.

Label Example

A vehicle-specific Certification/Tire label is attached to the front pillar (A-pillar).

The label may show the size of the vehicle's original tires and the inflation pressures needed to obtain the gross weight capacity of the vehicle. The label shows the gross weight capacity of the vehicle. This is called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, and cargo.

The Certification/Tire label may also show the maximum weights for the front and rear axles, called the Gross Axle Weight Rating (GAWR). To find out the actual loads on the front and rear axles, weigh the vehicle at a weigh station. Your dealer can help with this. Be sure to spread the load equally on both sides of the centerline.

Caution

Overloading the vehicle may cause damage. Repairs would not be covered by the vehicle warranty. Do not overload the vehicle.

Warning

Things inside the vehicle can strike and injure people in a sudden stop or turn, or in a crash.

(Continued)

Warning (Continued)

- Put things in the cargo area of the vehicle. In the cargo area, put them as far forward as possible. Try to spread the weight evenly.
- Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.
- Do not leave an unsecured child restraint in the vehicle.
- Secure loose items in the vehicle.
- Do not leave a seat folded down unless needed.

Starting and Operating

New Vehicle Break-In

Caution

Avoid making hard stops for the first 1 600 km (1,000 mi). During this time the new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings. Following break-in, vehicle speed and load can be gradually increased.

Power Modes

Powering On

This vehicle is equipped with Hands-Free Start, which automatically starts the vehicle when you enter with a remote key, press the brake, or close the driver door.

If a remote key was left in the vehicle after the last power cycle, closing the driver door will not turn on the vehicle. The brake pedal

must be pressed to turn the vehicle on. Driver Information Center messages will display explaining how to turn on the vehicle.

If the remote key is not in the vehicle or something is interfering with the remote key, a message displays in the Driver Information Center.

If the vehicle does not turn on due to a low remote key battery, the vehicle can still be driven. See *Remote Key Operation* ⇨ 7.

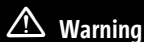


A vehicle ready light displays on the instrument cluster when the vehicle is ready to be driven. This could take up to 15 seconds at extremely cold temperatures.

The instrument cluster also displays an active battery gauge when the vehicle is ready to be driven.


A chime will sound if the driver door is opened while the vehicle is on.

Powering Off




Warning

Turning off the vehicle while moving may disable the airbags. While driving, only shut the propulsion system off in an emergency.

When the drive cycle has been completed and the vehicle is shifted to P (Park), the vehicle will turn off when a driver exit is detected. The vehicle can also be turned off by pressing  on the infotainment display.



Retained Accessory Power will remain active until the driver door is opened.

If the vehicle has not been shifted out of P (Park), it will not turn off based on driver exit detection and will need to be turned off through  or waiting for the automatic shutdown timeout.

If the vehicle must be shut off in an emergency:

1. Brake using firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.

2. Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. After shifting to N (Neutral), firmly apply the brakes and steer the vehicle to a safe location.
3. Come to a complete stop, shift to P (Park), and turn the vehicle off.
4. Set the parking brake. See *Electric Parking Brake* ⇨ 183.

If a drive mode is entered where  is present while moving, the vehicle can be shut off while driving. Press  and follow the instructions displayed in the Driver Information Center to confirm that vehicle off mode is desired.

Climate control functions, such as defrost, heating, and air conditioning are only available while the vehicle is powered on. Turning the vehicle off will turn off all climate controls.


If a collision is detected an additional emergency vehicle off display will be shown and can be pressed to turn the vehicle off.



Keeping Vehicle On After Driver Exit


Warning



It is dangerous to get out of the vehicle if the P (Park) button is not pressed with the parking brake set. The vehicle can roll.


Do not leave the vehicle when the propulsion system is running. If you have left the propulsion system running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and press the P (Park) button.

Press  on the infotainment display to keep the vehicle on after a driver exit is detected.

 needs to be selected each time the vehicle is shifted to P (Park) to be active. The vehicle will remain on for a set time displayed in a notification upon activation. Reselect  to restart the time interval.

Before exiting the vehicle, press the P (Park) button and the parking brake switch, then activate . See *Shifting Into Park* ⇨ 178.

Using  will reduce the charge level of the high voltage battery. Ensure your battery has sufficient charge before activating . See *Battery Gauge (High Voltage)* ⇨ 94.

 should only be used when the vehicle is attended. A horn chirp will sound if the vehicle turns off during the set time interval.

Service Mode

Caution


Placing the vehicle in Service Mode will use the 12-volt battery. Do not use Service Mode for an extended period, or the vehicle may not start.

This mode is available for service and diagnostics, and to verify the proper operation of the service vehicle soon light as may be required for inspection or maintenance purposes.

To place the vehicle in Service Mode:

1. Ensure the vehicle is off, the driver door is open, and the brake pedal is not applied.

2. Press and release the accelerator pedal three times within five seconds, keeping the accelerator pressed on the third time.

The instrument cluster and infotainment systems will operate normally, but the vehicle will not be able to be driven. The propulsion system will not be active in Service Mode. Press the brake pedal to turn the vehicle on or press  OFF on the infotainment display to turn the vehicle off.

Spoiler

This vehicle is equipped with an active rear spoiler that will raise and lower to several different heights depending on vehicle speed and other factors. Minor noises may be heard in the vehicle during spoiler movement. This is normal.

The spoiler can be controlled by touching Spoiler on the infotainment home screen.

The active rear spoiler will automatically lower and stay lowered if the rear liftgate is open.

For cleaning instructions, see "Washing the Vehicle" under *Exterior Care* ⇨ 318.

Shifting Into Park

Warning

Parking on grades with poor traction such as ice, snow, mud, or gravel may cause the vehicle to unintentionally move and could result in injury, death, and/or vehicle damage. Be sure to apply the parking brake. See *Electric Parking Brake* ⇨ 183.

To shift into P (Park):

1. Hold the brake pedal down and set the parking brake. See *Electric Parking Brake* ⇨ 183.
2. Press the P (Park) switch at the end of the shift lever. See *Electric Drive Unit* ⇨ 179.
3. The P indicator on the shift lever will turn red when the vehicle is in P (Park).

If the vehicle is shifted into P (Park) on a hill, the Electric Parking Brake (EPB) may apply automatically. The driver may not be able to release the EPB using the EPB switch. It should automatically release when the vehicle is shifted out of P (Park).

Leaving the Vehicle with the Propulsion System On

Warning

It is dangerous to get out of the vehicle if the vehicle is not in P (Park) with the parking brake set. The vehicle can roll.

Do not leave the vehicle when the propulsion system is on. If you have left the propulsion system on, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and press the P (Park) button. See *Shifting Into Park* ⇨ 178.

If the vehicle must be left with the propulsion system on, be sure that the vehicle is in P (Park) with the EPB set, before leaving the vehicle. After pressing the P (Park) button, hold down the regular brake pedal. If you cannot see the P (Park) indicator in the instrument cluster, it means that the vehicle has not shifted to P (Park).

Shifting out of Park

This vehicle is equipped with an electric drive unit. To shift out of P (Park) the vehicle must be on, the brake pedal applied, and the charge cord unplugged.

Parking the vehicle in extreme cold for several days without the charge cord connected may cause the vehicle not to start. Plug the vehicle in to allow the high voltage battery to be warmed sufficiently.

To shift out of P (Park):

1. Verify that the vehicle is unplugged and the vehicle ready light is on.
2. Apply the brake pedal.
3. Move the shift lever to the desired position.

After releasing the shift lever, it will return to the center position.

The P indicator will turn white and the gear indicator on the shift lever will turn red when the vehicle is no longer in P (Park).

If the vehicle cannot shift from P (Park), a Driver Information Center (DIC) message may be displayed. Check that the vehicle is on, the vehicle ready light is on, and the brake pedal is applied when you are attempting to shift out of

P (Park). If all of these are met but the vehicle will not shift out of P (Park), see your dealer for service.

The Buckle to Drive feature may prevent shifting from P (Park). See *Buckle To Drive* ⇨ 45.

Electric Drive Unit



The vehicle uses an electric drive unit. The shift pattern is displayed on the front of the shift lever. The selected gear position will illuminate red on the shift lever, while all others will be displayed in white. If the shift is not immediate, as in very cold conditions, the indicator on the shift switch may blink until it is fully engaged.



P: This position locks the drive wheels. Use P (Park) when starting the vehicle to ensure the vehicle does not move.

Warning

It is dangerous to get out of the vehicle if the P (Park) button is not pressed with the parking brake set. The vehicle can roll.


Do not leave the vehicle when the propulsion system is running. If you have left the propulsion system running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will


(Continued)

Warning (Continued)

not move, even when you are on fairly level ground, always set the parking brake and press the P (Park) button.

If the vehicle is on, the vehicle can be shifted into P (Park).

If  is pressed twice while at a relatively high speed, the vehicle will turn off and automatically shift to N (Neutral). Once the vehicle is stopped, P (Park) can be selected.

When the vehicle is stopped, press  to turn off the vehicle. The vehicle will shift to P (Park) automatically unless the vehicle is in N (Neutral), see “Car Wash Mode” later in this section.

The vehicle will not shift into P (Park) if it is moving too fast. Stop the vehicle and shift into P (Park).

To shift in and out of P (Park), see *Shifting Into Park* ⇨ 178 and *Shifting out of Park* ⇨ 178.

Service Shift Lever Message

If the message SERVICE SHIFTER SEE OWNER'S MANUAL appears in the Driver Information Center (DIC), the shifter needs service. Have the vehicle serviced as soon as possible. If the vehicle is automatically shifting into P (Park), check to see if the P (Park) button is stuck.

To operate the vehicle, hold the shift lever in the desired gear, R (Reverse) or D (Drive), until vehicle speeds exceed 16 km/h (10 mph), then release the shift lever.

R: This position is used to back up.

If the vehicle is shifted from either R (Reverse) to D (Drive) or D (Drive) to R (Reverse) while the speed is too high, the vehicle may shift to N (Neutral). Reduce the vehicle speed and try the shift again.

To shift into R (Reverse):

1. Bring the vehicle to a complete stop.
2. From the center position, move the shift lever rearward toward you, and then up. R is illuminated in red.
3. After releasing the shift lever, it will return to the center position.

To shift out of R (Reverse):

1. Bring the vehicle to a complete stop.

2. Shift to the desired gear.
3. After releasing the shift lever, it will return to the center position.

At low vehicle speeds, R (Reverse) can be used to rock the vehicle back and forth to get out of snow, ice, or sand without damaging the electric drive unit. See *If the Vehicle Is Stuck* ⇨ 171.

N: In this position, the propulsion system is inactive. If the vehicle is moving and turned off, restart the propulsion system in N (Neutral) only.

Caution

The vehicle is not designed to stay in N (Neutral) for extended periods of time. It will automatically shift into P (Park).

To shift into N (Neutral):

1. Move the shift lever rearward toward the driver.
 - If the vehicle is in P (Park), apply the brake pedal while moving the shift lever rearward.
 - The N indicator will illuminate red.

2. After releasing the shift lever, it will return to the center position.

To shift out of N (Neutral):

1. Bring the vehicle to a complete stop.
2. Hold the brake pedal down.
3. Shift into the desired gear.

If the brake pedal is not applied, the vehicle may remain in N (Neutral).

Car Wash Mode

This vehicle includes a Car Wash Mode that allows the vehicle to remain in N (Neutral) for use in automatic car washes.

The vehicle was neither designed nor intended to be towed with any of its wheels on the ground. If your vehicle is disabled and needs to be towed, see *Transporting a Disabled Vehicle* ⇨ 316.

Caution

The vehicle is not designed to stay in N (Neutral) for extended periods of time. It will automatically shift into P (Park).

Car Wash Mode (Vehicle Off) – Driver In Vehicle

To place the vehicle in N (Neutral) with the vehicle off and occupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Shift to N (Neutral).
4. Turn off the vehicle and release the brake pedal.
5. The indicator should continue to show N. If it does not, repeat Steps 2–4.
6. The vehicle is now ready for the car wash.

Car Wash Mode (Vehicle Off) – Driver Out of Vehicle

To place the vehicle in N (Neutral) with the vehicle off and unoccupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Open the door.
4. Shift to N (Neutral).
5. Turn off the vehicle and release the brake pedal.

6. The indicator should continue to show N. If it does not, repeat Steps 2–5.
7. Exit the vehicle and close the door. The vehicle is now ready for the car wash.
8. The vehicle may automatically shift into P (Park) upon re-entry.

Car Wash Mode (Vehicle On) – Driver In Vehicle

To place the vehicle in N (Neutral) with the vehicle on and occupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Shift to N (Neutral).
4. Release the brake pedal. The vehicle is now ready for the car wash.

Car Wash Mode (Vehicle On) – Driver Out of Vehicle

To place the vehicle in N (Neutral) with the vehicle on and unoccupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Open the door.
4. Shift to N (Neutral), then release the brake pedal.

5. The indicator should continue to show N. If it does not, repeat Steps 2–4.
6. Exit the vehicle and close the door. The vehicle is now ready for the car wash.
7. The vehicle may automatically shift into P (Park) upon re-entry.

D: This position is for normal driving. If more power is needed for passing, press the accelerator pedal down.

Caution

Spinning the tires excessively may damage the electric drive unit. The repair will not be covered by the vehicle warranty. If you are stuck, do not spin the tires.

To shift into D (Drive):

1. Bring the vehicle to a complete stop.
2. From the center position, move the shift lever rearward toward you and then down.
 - If the vehicle is in P (Park), press the brake pedal while moving the shift lever.
 - D will illuminate red.

3. After releasing the shift lever, it will return to the center position.

To shift out of D (Drive):

1. Bring the vehicle to a complete stop.
2. Shift to the desired gear.

When stopping on a steep hill, use the brakes to hold the vehicle in place.

When shifting to P (Park) on a hill, use the brakes to hold the vehicle then shift to P (Park).

One-Pedal Driving

One-Pedal Driving allows the use of the accelerator pedal to control the deceleration of the vehicle to a complete stop. Completely releasing the accelerator pedal will result in aggressive deceleration. Partially lifting off the accelerator pedal allows the deceleration of the vehicle to be adjusted as desired.

Use the brake pedal if emergency braking is required.

To view and configure One-Pedal Driving, from the infotainment display home screen, Select Controls > See More Controls > Drive > One-Pedal Driving.

Select Off to disable One-Pedal Driving for traditional two-pedal driving, similar to a gasoline vehicle.


Select Normal to enable One-Pedal Driving where a moderate level of braking is applied when the accelerator pedal is released while driving.

Select High to enable One-Pedal Driving where a strong level of braking is applied when the accelerator pedal is released while driving.

When enabled, One-Pedal Driving applies in D (Drive). This feature remains enabled until manually disabled by the driver. Press the accelerator pedal to the desired speed. The brake lights will come on during substantial deceleration and when the vehicle is stopped.

If One-Pedal Driving is turned off while stopped, the vehicle will stay stopped. Press the accelerator pedal to return to two-pedal driving.

For faster access, One-Pedal Driving can be toggled in the Smart Controls tray. The Smart Controls button can be enabled in the One-Pedal Driving Settings menu to allow a change of level from most infotainment screens.

Touch  to toggle One-Pedal Driving on or off. When turned on, One-Pedal Driving returns to the previously selected level. To change the level, press the Settings link in the pop-up box to go to the full One-Pedal Driving selection.

When possible, One-Pedal Driving uses regenerative braking to slow the vehicle for energy efficiency. Friction brakes may be used in some cases when regenerative braking is reduced. Friction brakes will be used to hold the vehicle after coming to a stop, and a noise may be noticed when the brakes apply.

When driving on slippery roads, it is recommended to turn off One-Pedal Driving. See *Winter Driving* ⇨ 171.

While using One-Pedal Driving, the parking brake may apply in some circumstances. This can occur when:

- The driver exits the vehicle.
- The vehicle has remained stationary for five minutes.

To resume driving, press the accelerator pedal, and the parking brake will automatically disengage.

Drive Systems

All-Wheel Drive

This vehicle has advanced electric All-Wheel Drive. The electric All-Wheel Drive system delivers power to all four wheels, and the system adjusts automatically to the driving conditions. The system continuously varies the drive power to the front and rear wheels to maximize driving efficiency and improve driving dynamics. Your vehicle has exceptional driving capability, but care must always be taken to adjust driving style to the traffic and road conditions.

The electric All-Wheel Drive settings may be customized for the driver mode selected. See *Driver Mode Control* ⇨ 188 for more information.

Brakes

Electric Brake Boost

Vehicles equipped with electric brake boost have hydraulic brake circuits that are electronically controlled when the brake pedal is applied during normal operation. The system performs routine tests and turns off within a few minutes after the vehicle is turned off.

Noise may be heard during this time. If the brake pedal is pressed during the tests or when the electric brake boost system is off, a noticeable change in pedal force and travel may be felt. This is normal.

Antilock Brake System (ABS)

The Antilock Brake System (ABS) helps prevent a braking skid and maintain steering while braking hard.



If there is a problem with ABS, this warning light stays on. See *Antilock Brake System (ABS) Warning Light* ⇨ 100.

ABS does not change the time needed to get a foot on the brake pedal and does not always decrease stopping distance. If you get too close to the vehicle ahead, there will not be enough time to apply the brakes if that vehicle suddenly slows or stops. Always leave enough room ahead to stop, even with ABS.

Using ABS

Do not pump the brakes. Just hold the brake pedal down firmly. Hearing and feeling ABS operate is normal.

Braking in Emergencies

ABS allows steering and braking at the same time. In many emergencies, steering can help even more than braking.

Electric Parking Brake



The Electric Parking Brake can always be applied, even if the vehicle is off. In case of insufficient electrical power, the Electric Parking Brake cannot be applied or released.

To prevent draining the battery, avoid unnecessary repeated cycles of the Electric Parking Brake.

The system has a red parking brake status light and an amber service parking brake warning light. See *Electric Parking Brake Light* ⇨ 99 and *Service Electric Parking Brake Light* ⇨ 99. There are also parking brake-related Driver Information Center (DIC) messages.

Before leaving the vehicle, check the red parking brake status light to ensure that the parking brake is applied.

Electric Parking Brake Apply

Caution

Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Make sure that the parking brake is fully released and the brake warning light is off before driving.

To apply the Electric Parking Brake:

1. Be sure the vehicle is at a complete stop.

2. Press the Electric Parking Brake switch momentarily.

The red parking brake status light will flash and then stay on once the Electric Parking Brake is fully applied. If the red parking brake status light flashes continuously, then the Electric Parking Brake is only partially applied or there is a problem with the Electric Parking Brake. A DIC message will display. Release the Electric Parking Brake and try to apply it again. If the light does not come on, or keeps flashing, have the vehicle serviced. Do not drive the vehicle if the red parking brake status light is flashing. See your dealer.

If the amber service parking brake warning light is on, press the Electric Parking Brake switch. Continue to hold the switch until the red parking brake status light remains on. If the amber service parking brake warning light is on, see your dealer.

If the Electric Parking Brake is applied while the vehicle is moving, the vehicle will decelerate as long as the switch is pressed. If the switch is pressed until the vehicle comes to a stop, the Electric Parking Brake will remain applied.

The vehicle may automatically apply the Electric Parking Brake in some situations when the vehicle is not moving. This is normal,

and is done to periodically check the correct operation of the Electric Parking Brake system, or at the request of other safety functions that utilize the Electric Parking Brake.

If the Electric Parking Brake fails to apply, block the rear wheels to prevent vehicle movement.

Electric Parking Brake Release

To release the Electric Parking Brake:

1. Turn the vehicle on.
2. Apply and hold the brake pedal.
3. Press the Electric Parking Brake switch momentarily.

The Electric Parking Brake is released when the red parking brake status light is off.

If the amber service parking brake warning light is on, release the Electric Parking Brake by pressing and holding the Electric Parking Brake switch. Continue to hold the switch until the red parking brake status light is off. If either light stays on after release is attempted, see your dealer.

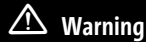
Automatic Electric Parking Brake Release

The Electric Parking Brake will automatically release if the vehicle is running, placed into gear, and an attempt is made to drive away. Avoid rapid acceleration when the Electric Parking Brake is applied, to preserve parking brake lining life.

Brake Assist

Brake Assist detects rapid brake pedal applications due to emergency braking situations and provides additional braking to activate the Antilock Brake System (ABS) if the brake pedal is not pushed hard enough to activate ABS normally. Minor noise, brake pedal pulsation, and/or pedal movement during this time may occur. Continue to apply the brake pedal as the driving situation dictates. Brake Assist disengages when the brake pedal is released.

Hill Start Assist (HSA)



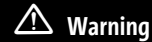
Warning

Do not rely on the HSA feature. HSA does not replace the need to pay attention and drive safely. You may not hear or feel alerts or warnings provided by this system. Failure to use proper care when driving may result in injury, death, or vehicle damage. See *Defensive Driving* ↪ 167.

When the vehicle is stopped on a grade, Hill Start Assist (HSA) prevents the vehicle from rolling in an unintended direction during the transition from brake pedal release to accelerator pedal apply. The brakes release when the accelerator pedal is applied. The brakes may also release under other conditions. Do not rely on HSA to hold the vehicle.

HSA is available when the vehicle is facing uphill in a forward gear, or when facing downhill in R (Reverse). The vehicle must come to a complete stop on a grade for HSA to activate.

Automatic Vehicle Hold (AVH)



Warning

Do not rely on this feature. It does not replace the need to pay attention and drive safely. You may not hear or feel alerts or warnings provided by this system. Failure to use proper care when driving may result in injury, death, or vehicle damage.

When Automatic Vehicle Hold (AVH) is turned on and the vehicle is braked to a stop, AVH prevents the vehicle from moving during the transition from brake pedal release to accelerator pedal apply. The brakes release when the accelerator pedal is applied. The brakes may also release under other conditions. Do not rely on AVH to hold the vehicle.

If the accelerator pedal is not applied within a few minutes, the Electric Parking Brake will apply. The parking brake will also apply if the driver door is opened or the driver seat belt is unfastened while AVH is holding the vehicle.

To enable or disable AVH from the front center display screen, select Controls > Drive > Auto Hold. The AVH indicator light will come

on. While AVH is holding the vehicle, the AVH indicator light will change to green. See *Automatic Vehicle Hold (AVH) Light* ⇨ 100.

Regenerative Braking

Regenerative braking takes some of the energy from the moving vehicle and turns it back into electrical energy. This energy is then stored back into the high voltage battery system, contributing to increased energy efficiency.

Regenerative power may be limited when the battery is near full charge or cold. See “Regenerative Power Limited” under *Power Indicator Gauge* ⇨ 95. Regenerative braking supplements your vehicle’s conventional brakes, especially when going downhill. See *Hill and Mountain Roads* ⇨ 170.



Warning

Do not charge your vehicle’s battery above an 80% charge if you are going to drive down long, steep grades such as mountain passes. This provides room

(Continued)

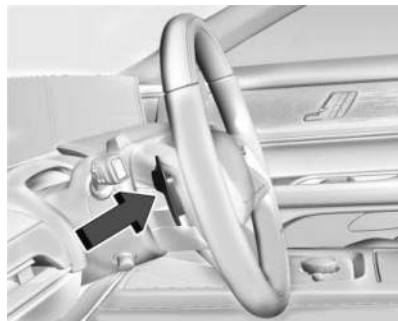
Warning (Continued)

in the battery for regenerative braking to supplement your conventional brakes during the descent.

See “Charge Now” under *Charging* ⇨ 106 for information on setting charge limits. See *Hill and Mountain Roads* ⇨ 170 for important information about driving on grades.

The brake system uses regenerative braking, conventional hydraulic braking, or a combination of both as appropriate.

Regen on Demand



Applying the Regen on Demand steering wheel paddle requests additional deceleration using regenerative braking. The deceleration request increases as the paddle is applied more. It works in D (Drive). The accelerator pedal can be used to manage deceleration while using Regen on Demand. See *One-Pedal Driving* ⇨ 182.

If the vehicle is brought to a complete stop while the Regen on Demand paddle is applied, the vehicle will not creep forward when the paddle is released. The accelerator pedal must be pressed to move the vehicle forward.

If the vehicle is on a steep grade, the brake pedal must be used to hold the vehicle.

When available regenerative braking power is limited, the hydraulic brakes may be applied to make up the difference.

Cruise control will turn off and the brake lamps may come on when this feature is activated.

Avoid using Regen on Demand under slippery road conditions. Use the brake pedal as the primary braking device.

Ride Control Systems

Traction Control/Electronic Stability Control

The vehicle has a Traction Control System and a StabiliTrak/Electronic Stability Control system. These systems help limit wheel spin and assist the driver in maintaining control, especially on slippery road conditions. Both systems come on automatically when the vehicle is started and begins to move.

The Traction Control System activates if it senses any of the drive wheels are spinning or beginning to lose traction. When this happens, the traction system applies the brakes to the spinning wheels and reduces vehicle power to limit wheel spin.

The StabiliTrak/Electronic Stability Control system activates when the vehicle senses a difference between the intended path and the direction the vehicle is actually traveling. The stability control system selectively applies braking pressure to one or more of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

If cruise control is being used and the traction control or stability control system begins to limit wheel spin, cruise control will disengage. Cruise control may be turned back on when road conditions allow.

The systems may be heard or felt while they are operating or while performing diagnostic checks. This is normal and does not mean there is a problem with the vehicle.


It is recommended to leave both systems on for normal driving conditions, but it may be necessary to turn the Traction Control System off if the vehicle gets stuck in sand, mud, ice, or snow. See *If the Vehicle Is Stuck* ⇨ 171 and “Turning the Systems Off and On” later in this section.




The indicator light for both systems is in the instrument cluster. This light:

- Flashes when the Traction Control System is limiting wheel spin
- Flashes when the StabiliTrak/Electronic Stability Control system is activated
- Turns on and stay on when either system is not working


See *Traction Control System (TCS)/Electronic Stability Control Light* ⇨ 102.

If either system fails to turn on or to activate, a message displays in the Driver Information Center, and  comes on and stays on to indicate that the system is inactive and is not assisting the driver in maintaining control. Adjust driving accordingly.

If  comes on and stays on:

1. Stop the vehicle.
2. Turn the vehicle off and wait 15 seconds.


3. Start the vehicle.
4. Drive the vehicle.

If  comes on and stays on, see your dealer as soon as possible.


Turning the Systems Off and On


Caution

Do not repeatedly brake or accelerate heavily when the Traction Control System is off. The vehicle driveline could be damaged.



To turn the Traction Control System on and off, on the front command center home screen, select Controls > Drive > Traction Control. To turn the StabiliTrak/Electronic Stability Control system on or off, select  next to the Traction Control menu. The following options appear:

- Traction Control Off
- StabiliTrak/ESC Off and Traction Control Off
- StabiliTrak/ESC On and Traction Control On

The Traction Off light  displays in the instrument cluster when the Traction Control System is turned off. When the Traction Control

System is turned back on, the Traction Off light  displayed in the instrument cluster will turn off. See *Traction Off Light* ⇨ 101.

If the traction system is actively limiting wheel spin when disabled, the system will not turn off until the wheels stop spinning.

To turn the StabiliTrak/Electronic Stability Control system off, select  next to the Traction Control menu. Select the StabiliTrak/ESC Off and Traction Control Off option. The StabiliTrak/Electronic Stability Control Off light  will display in the instrument cluster. See *Electronic Stability Control (ESC) Off Light* ⇨ 102.

The Traction Control System cannot be on when the StabiliTrak/Electronic Stability Control system is off.

Entering Teen Driver will automatically enable both the Traction Control System and the StabiliTrak/Electronic Stability Control system, and prevent these safety features from being turned off. See *Teen Driver* ⇨ 153.

Adding accessories can affect the vehicle performance. See *Accessories and Modifications* ⇨ 266.

Driver Mode Control

Driver Mode Control allows the driver to adjust the overall driving experience by selecting different modes. Driver Mode Control is equipped with the following modes: Tour, Sport, Snow/Ice, Velocity Max, and one customizable mode: My Mode. These modes adjust multiple systems to fit specific driving needs. Driver mode availability and affected vehicle subsystems are dependent upon trim level, region, and optional features.

If the vehicle is in Tour mode, My Mode, or Sport mode, it will stay in that mode through future on/off cycles. If the vehicle is in any other mode, it will return to Tour mode when the vehicle is restarted. When selected, each mode displays a unique and persistent indicator in the instrument cluster. See *Driver Mode Control Light* ⇨ 102.

Mode Activation

To activate each mode, open the Drive Mode app on the infotainment home screen. Activate each mode by selecting the mode icon.

Mode Descriptions

Tour Mode: Use for normal city and highway driving to provide a smooth ride. This setting provides balance between comfort and handling.

Sport Mode: Use where road conditions or personal preference demand a more controlled response. Sport mode improves vehicle handling and acceleration on dry pavement. When active, Sport mode modifies steering efforts, pedal tuning, Electric Vehicle Sound Enhancement (EVSE), and Adaptive Cruise Control.

Snow/Ice Mode: Use for snow covered roads to improve vehicle acceleration. When active, Snow/Ice mode adjusts pedal tuning to optimize traction on slippery surfaces. This can compromise the acceleration on dry asphalt. Snow/Ice mode also modifies electric All-Wheel Drive and steering.

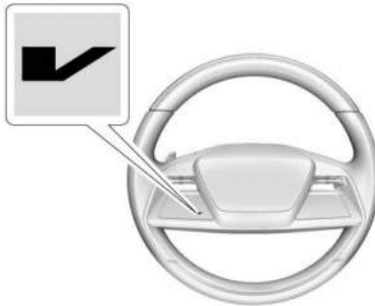
This feature is not intended for use when the vehicle is stuck in sand, mud, ice, snow, or gravel. If the vehicle becomes stuck, see *If the Vehicle Is Stuck* ⇨ 171.

Velocity Max: Use this mode for short durations. It is not intended for daily use. Velocity Max provides maximum propulsion. Engaging

Velocity Max will not change the currently active drive mode, but will provide additional propulsion torque for maximum acceleration.

Remaining in this mode will reduce the range of the vehicle. Velocity Max will not function when the vehicle battery is low.

Velocity Max adjusts the acceleration pedal map.



To activate/deactivate Velocity Max, press the Velocity Max button on the steering wheel.

My Mode: Use to personalize everyday driving. This mode allows the driver to configure the vehicle subsystem settings to their driving preferences. My Mode remains active across on/off cycles.

Through the infotainment screen, the following vehicle subsystems may be available for customization in this mode:

Acceleration Feel: Relaxed, Tour, Sport

Brake Feel: Tour, Sport

Motor Sound: Tour, Sport

Steering: Tour, Sport

Suspension: Tour, Sport

For a more detailed description of each selectable option, refer to “Drive Mode Customization.”

Drive Mode Customization

The vehicle is equipped to modify the following settings based on vehicle content. Through the infotainment home screen, select Settings > Vehicle > Drive Mode Customization to personalize My Mode. These settings retain over each on/off cycle, and do not have to be reset each time the vehicle is started.

Acceleration Feel: Choose how responsive you want acceleration to feel. You can adjust the accelerator pedal to provide increased power.

Brake Feel: Brake response settings adjust the brake pedal response. Brake pedal feel is less sensitive at lower settings and more sensitive at higher settings.

Motor Sound: Customize how your vehicle sounds when you are accelerating. Your electric motor remains quiet outside but the sound you hear inside changes as you drive faster or slower.

Steering: Choose how responsive you want the steering to feel. You can set the steering wheel to provide more feedback, which requires more steering effort.

Suspension: Choose how responsive you want the suspension to feel. You can make the suspension stiffer or more comfortable.

Four-Wheel Steering

This vehicle is equipped with four-wheel steering. This feature steers the vehicle with all four wheels, which reduces the vehicle turn diameter and improves maneuverability of the vehicle.

At slower speeds the front and rear wheels will turn in opposite directions. This helps the vehicle make tighter turns, such as during parking, cornering, and turning into tight spaces. At higher speeds the front and rear wheels will turn in the same direction. This improves stability of the vehicle during lane changes and wide turns.

When the vehicle is shut-off, the rear steering angle will automatically return to the forward position.

Four-wheel steering is not operational when Super Cruise is active. See *Super Cruise* ⇨ 203.

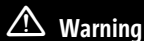
Maximum vehicle speed may be limited if the four-wheel steering system becomes inoperable.

Four-Wheel Steering Behavior at 0 MPH

The rear wheels may not steer to full travel when the vehicle is stationary. Additional travel may be achieved once the vehicle begins to move.

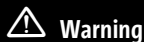
Care should be taken to ensure the vehicle path is clear of obstacles if the rear tires steer once the vehicle is moving.

Air Suspension



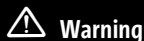
Warning

To help avoid personal injury or death, make sure the area underneath the vehicle and inside the wheel wells is clear when lowering the vehicle.



Warning

To help avoid personal injury or death, always select the lowest ride height for the current driving conditions. Higher ride heights raise the vehicle's center of gravity, increasing the chance of a rollover during extreme maneuvers.





Warning

Heavy loads on the roof rack will make the vehicle's center of gravity higher, increasing the possibility of a rollover. To avoid losing control of the vehicle, always select the normal height setting and avoid high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers when carrying cargo on the roof rack.

The air suspension feature provides leveling capability depending on the vehicle load along with the benefit of adjusting ride height for increased convenience and capability.

Changing Ride Height



Press either  or  on the Ride Height button to open the Ride Height menu. Use the button to select the desired ride height. After a brief pause, the selection finalizes and unavailable ride heights are disabled in the menu.

The Ride Height menu contains the option to select either Maximum Ground Clearance or Automatic. Maximum Ground Clearance raises the vehicle to maximum height if the vehicle conditions are correct. Automatic adjusts the vehicle to the ride height associated with the current driver mode. See “Ride Height Descriptions” for more information.

The air suspension light flashes while the ride height is changing and remains solid once the vehicle is raised or lowered. See *Air Suspension Light* ⇨ 103.

Ride Height Descriptions

Normal Height

Normal height is the standard vehicle height used for everyday driving.

If the My mode customization settings for Suspension is set to Tour, then the vehicle maintains Normal height when My mode is selected. For additional information, see *Driver Mode Control* ⇨ 188.

Increased Height

Increased height is 15 mm (0.6 in) higher than Normal height. This ride height raises the vehicle for additional ground clearance.

Snow/Ice mode will automatically raise to Increased height when the vehicle speed is less than 80 km/h (50 mph). If the vehicle speed exceeds 80 km/h (50 mph), the vehicle will lower to Normal height. When the vehicle speed is slowed to less than 24 km/h (15 mph),

the vehicle will automatically raise back to Increased height. See *Driver Mode Control* ⇨ 188.

Maximum Height

Maximum height is 25 mm (1 in) higher than Normal height. This ride height raises the vehicle for additional ground clearance.

Maximum height is only available for selection in the Ride Height menu while vehicle speed is less than 38 km/h (24 mph). If the vehicle speed exceeds 38 km/h (24 mph), the vehicle will lower to the ride height associated with the current driver mode.

Aerodynamic Height

Aerodynamic height is 10 mm (0.4 in) lower than Normal height. This ride height lowers the vehicle at higher vehicle speeds to improve aerodynamics.

The vehicle will lower to Aerodynamic height when the vehicle speed exceeds 105 km/h (65 mph) for a period of time. The vehicle will raise to Normal height when the vehicle slows to less than 48 km/h (30 mph).

Lowered Height

Lowered height is 10 mm (0.4 in) lower than Normal height. This ride height lowers the vehicle to enhance handling.


Sport mode will automatically lower to Lowered height when enabled. See *Driver Mode Control* ⇨ 188.

If the My mode customization settings for Suspension is set to Sport, then the vehicle maintains Lowered height when My mode is selected. For additional information, see *Driver Mode Control* ⇨ 188.


Show Mode

Show mode is 20 mm (0.75 in) lower than Normal height. This ride height lowers the vehicle for aesthetics when parked. The vehicle will immediately raise from Show mode when the vehicle is turned on.

To lower the vehicle to Show mode:

1. Hold  on the Ride Height button for 3 to 10 seconds to queue Show mode.
2. Turn off the vehicle.
3. Exit the vehicle and shut the door.

Cancelling Show mode after it has been queued:

- Hold  on the Ride Height button for 3 to 10 seconds to cancel Show mode manually.
- Show mode will be cancelled automatically if it remains queued for an extended period of time.
- Changing the vehicle's height while Show mode is queued will not cancel show mode.
- When Show mode is canceled successfully, a message will appear on the Driver Information Center (DIC).

Location-Based Ride Height



Caution

Driving when the vehicle height is too high or low could cause damage to the vehicle. The air suspension adjustment lights will flash when ride height is changing. Make sure the vehicle has adjusted to the requested ride height by verifying the air suspension adjustment light is solid. See *Air Suspension Light* ⇨ 103.

If equipped, Location-Based Ride Height automatically changes vehicle heights based on saved locations. Using GPS, the vehicle will automatically raise or lower at saved locations, such as a speed bump or a steep driveway.

Saving a Location

To save a location for automatic height changes:

1. When approaching the location that you want to save, press either  or  on the Ride Height button to open the menu and select the desired ride height. After a brief pause, the selection finalizes and the ride height begins to change. Ride heights may be disabled in the menu due to driving conditions.
2. When prompted on the confirmation screen, select Save to save the location or Cancel.

Up to 1,000 locations can be saved.

Stored locations may not work with different user profiles. For more information, see “Profiles and Accounts” in *Settings* ⇨ 150.

Approaching a Saved Location

Location-Based Ride Height is available 60 seconds after the vehicle is first started.

When the vehicle approaches a saved location, the vehicle will automatically change ride height to the saved vehicle height.

When a Location-Based Ride Height change occurs, select Delete on the notification on the center screen to permanently remove this specific stored location, or ignore the notification to keep the saved location.

After the ride height changes at a saved location, the vehicle will automatically return to its previous height when the vehicle is about 60 m (197 ft) from the saved location.

The ride height may not automatically change when approaching a saved location if:

- The desired height is unavailable because the vehicle speed is too high.
- The height change raises the vehicle and the compressor is temporarily unavailable due to overheating.
- The saved location is approached less than 60 seconds after the vehicle is first started.

Customization Settings

Location-Based Ride Height has two customization settings. To access them, on the infotainment home screen, select Settings > Vehicle > Ride Height > Location-Based Ride Height or Ask About Deleting Ride Height.

Select Location-Based Ride Height to turn the feature on or off.

Select Ask About Deleting Ride Height to remove the notification that appears every time you approach a saved location.

Deleting All Saved Locations

To delete all saved locations, on the infotainment home screen, select Settings > System > Reset Options to perform a factory reset. See *Settings* ⇨ 150.

Suspension Modes

The air suspension has two special modes, Service mode and Alignment mode, located in the infotainment screen under Settings > Vehicle > Suspension.

Service Mode

Service mode disables all air suspension operation including ride height adjustments and operation of the air compressor. This mode is useful when the vehicle is being towed on a flat bed or when any work under the vehicle is being performed.

Service mode is recommended if a floor jack is used to raise a corner. Service mode automatically disables once the vehicle speed exceeds 32 km/h (20 mph).

Alignment Mode

Alignment mode will optimize the vehicle height to provide the most accurate wheel alignment. This mode should be enabled when your vehicle is being serviced to ensure proper alignment.

To enable Alignment mode, ensure the vehicle is at Normal height. Alignment mode automatically disables when vehicle speed exceeds 16 km/h (10 mph).

Air Suspension Operation with Door(s) or Hood Open

Air suspension operation will suspend all height changes while the hood or any door is open. Height changes will resume once the

hood and doors are closed. The air suspension resumes height changes once the hood and all doors are closed. An open rear liftgate does not suspend the air suspension operation.

System Over-Temperature

If the air suspension is under heavy use, the system may temporarily suspend all height changes to allow compressor cooldown. When this occurs and a height change is requested, a “Leveling System Unavailable” message will be displayed in the instrument cluster.

Air Suspension Service

If a “Service Leveling System” message is displayed in the instrument cluster, see your dealer immediately.

Cruise Control

Adaptive Cruise Control

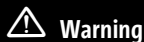
Adaptive Cruise Control (ACC) allows the cruise control set speed and following gap to be selected. Read this entire section before using this system. The following gap is the following time (or distance) between your vehicle and a vehicle detected directly ahead in your path, moving in the same direction. If no vehicle is detected in your path, ACC works like regular

cruise control. ACC uses a camera and radar sensor(s) to detect other vehicles. See *Radio Frequency Statement* ⇨ 344.

If a vehicle is detected in your path, ACC can apply acceleration or limited, moderate braking to maintain the selected following gap. To disengage ACC, apply the brake. If ACC is controlling the vehicle speed when the Traction Control System (TCS) or StabiliTrak/Electronic Stability Control (ESC) system activates, ACC may automatically disengage. See *Traction Control/Electronic Stability Control* ⇨ 187. When road conditions allow ACC to be safely used, ACC can be turned back on.

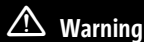
Disabling the TCS or StabiliTrak/ESC system will disengage and prevent engagement of ACC.

ACC can reduce the need for you to frequently brake and accelerate, especially when used on expressways, freeways, and interstate highways. When used on other roads, you may need to take over the control of braking or acceleration more often.



Warning

ACC has limited braking ability and may not have time to slow the vehicle down enough to avoid a collision with another vehicle you are following. This can occur when vehicles suddenly slow or stop ahead, or enter your lane. Also see “Alerting the Driver” later in this section. Complete attention is always required while driving and you should be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 167.



Warning

ACC will not detect or brake for children, pedestrians, animals, or other objects.

Do not use ACC when:


- On winding and hilly roads or when the sensors are blocked by snow, ice, or dirt. The system may not detect a vehicle ahead. Keep the entire front of the vehicle clean.

(Continued)

Warning (Continued)

- Visibility is poor due to rain, snow, fog, dirt, insect residue, or dust; when other foreign objects obscure the camera and/or radar; or when the vehicle in front or oncoming traffic causes additional environmental obstructions, such as road spray. ACC performance is limited under these conditions.
- On slippery roads where fast changes in tire traction can cause excessive wheel slip.




 : Press to turn the system on or off. The indicator turns white on the instrument cluster when ACC is turned on.

RES+ : Press briefly to resume the previous set speed or to increase vehicle speed if ACC is already activated. To increase speed by about 1 km/h (1 mph), press RES+ to the first detent. To increase speed to the next 5 km/h (5 mph) mark on the speedometer, press RES+ to the second detent.

SET- : Press briefly to set the speed and activate ACC or to decrease vehicle speed if ACC is already activated. To decrease speed by about 1 km/h (1 mph), press SET- the first detent. To decrease speed to the next 5 km/h (5 mph) mark on the speedometer, press SET- to the second detent.

³ : Press to disengage ACC without erasing the selected set speed.

 : Press to select a following gap setting for ACC of Far, Medium, or Near.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster* ⇨ 93. The increment value used depends on the units displayed.

Switching Between ACC and Regular Cruise Control



To switch between ACC and regular cruise control, press and hold ³. A Driver Information Center (DIC) message displays. See *Vehicle Messages* ⇨ 114.



ACC Indicator




Regular Cruise Control Indicator

When ACC is engaged, a green  indicator will be lit on the instrument cluster and the following gap will be displayed. When the regular cruise control is engaged, a green  indicator will be lit on the instrument cluster; the following gap will not display.

It is recommended to switch from ACC to regular cruise control only, when there are no vehicles ahead of your vehicle.

When the vehicle is turned on, the cruise control mode will be set to the last mode used before the vehicle was turned off.

 **Warning**

Always check the cruise control indicator on the instrument cluster to determine which mode cruise control is in before using the feature. If ACC is not active, the vehicle will not automatically brake for other vehicles, which could cause a crash if the brakes are not applied manually. You and others could be seriously injured or killed.

Setting Adaptive Cruise Control

If ACC is on when not in use, the thumbwheel could be pressed to SET- or RES+ and activate ACC when not desired. Keep ACC off when it is not being used.

Select the set speed desired for ACC. This is the vehicle speed when no vehicle is detected in your path.

While the vehicle is moving, ACC will not set at a speed below a minimum speed, although it can be resumed. If equipped with Super Cruise, this minimum speed is 5 km/h (3 mph), otherwise, it is 25 km/h (15 mph). The minimum allowable set speed is 25 km/h (15 mph).

To set ACC while moving:

1. Press .

2. Accelerate to the desired speed.
3. Press and release SET-.
4. Remove your foot from the accelerator pedal.

After ACC is set, it may immediately apply the brakes if a vehicle ahead is detected closer than the selected following gap.

ACC can also be set while the vehicle is stopped if ACC is on and the brake pedal is applied.



The ACC indicator displays on the instrument cluster and Head-Up Display (HUD), if equipped. When ACC is turned on, the indicator will be lit white. When ACC is active, the indicator will turn green.

Be mindful of speed limits, surrounding traffic speeds, and weather conditions when selecting the set speed.

Resuming a Set Speed

If the ACC is set at a desired speed and then the brakes are applied, ACC is disengaged without erasing the set speed from memory.

To begin using ACC again, press RES+ up briefly.

If the vehicle is moving more than 5 km/h (3 mph), it returns to the previous set speed.

If the vehicle is stopped with the brake pedal applied, press RES+ and release the brake pedal. ACC will hold the vehicle until RES+ or the accelerator pedal is pressed.

A green ACC indicator and the set speed display on the instrument cluster. The vehicle ahead indicator may be flashing if a vehicle ahead was present and moved. See “Approaching and Following a Vehicle” later in this section.

Once ACC has resumed, the vehicle speed will increase to the set speed under the following conditions:

- There is no vehicle ahead.
- The vehicle ahead is beyond the selected following gap.
- The vehicle speed is not being limited because of a sharp turn.

Increasing Speed While ACC Is at a Set Speed

If ACC is already activated, do one of the following:

- Use the accelerator to get to the higher speed. Briefly press and release SET- and release the accelerator pedal. The vehicle will now cruise at the higher speed. When the accelerator pedal is pressed, ACC will not brake because it is overridden. While overridden, the ACC indicator will turn blue on the instrument cluster or Head Up Display.
- Press and hold RES+ until the desired set speed is displayed, then release it.
- To increase speed in smaller increments, press RES+ to the first position. For each press, the vehicle goes about 1 km/h (1 mph) faster.
- To increase speed in larger increments, press RES+ to the second position. For each press, the vehicle speed increases to the next 5 km/h (5 mph) mark on the speedometer.

The set speed can also be increased while the vehicle is stopped:

- If stopped, with the brake pedal applied, press RES+ until the desired set speed is displayed.
- If ACC is holding the vehicle at a stop and there is another vehicle directly ahead, pressing RES+ will increase the set speed.
- Pressing RES+ there is no longer a vehicle ahead or the vehicle ahead is pulling away and the brake is not applied with cause the ACC to resume.

When it is determined that there is no vehicle ahead or the vehicle ahead is beyond the selected following gap, then the vehicle speed will increase to the set speed.

Reducing Speed While ACC Is at a Set Speed

If ACC is already activated, do one of the following:

- Use the brake to get to the desired lower speed. Release the brake and press SET-. The vehicle will now cruise at the lower speed.
- Press and hold SET- until the desired lower speed is reached, then release it.


- To decrease speed in smaller increments, press SET- to the first position. For each press, the vehicle goes about 1 km/h or (1 mph) slower.
- To decrease speed in larger increments, press SET- to the second position. For each press, the vehicle speed decreases to the next 5 km/h (5 mph) mark on the speedometer.

The set speed can also be decreased while the vehicle is stopped.

If stopped with the brake applied, press or hold SET- until the desired set speed is displayed.

Selecting the Follow Distance Gap

When a slower moving vehicle is detected ahead within the selected following gap, ACC will adjust the vehicle's speed and attempt to maintain the follow distance gap selected.

Press  on the steering wheel to adjust the following gap. Each press cycles the gap button through three settings: Far, Medium, or Near.

When pressed, the current gap setting displays briefly on the instrument cluster and HUD (if equipped). The gap setting will be maintained until it is changed.

Gap Adjust



Far Gap Setting

Gap Adjust



Medium Gap Setting

Gap Adjust





Near Gap Setting

Since each gap setting corresponds to a following time (Far, Medium, or Near), the following distance will vary based on vehicle speed. The faster the vehicle speed, the further back your vehicle will follow a vehicle detected ahead. Consider traffic and weather conditions when selecting the following gap. The range of selectable gaps may not be appropriate for all drivers and driving conditions.

Changing the gap setting automatically changes the alert timing sensitivity (Far, Medium, or Near) for the Forward Collision Alert (FCA) feature. See *Forward Collision Alert (FCA) System* ⇨ 228.

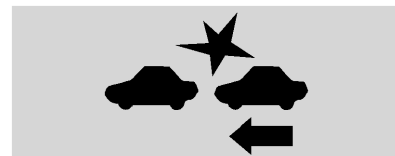
Courtesy Gap

Press and hold  on the steering wheel when vehicle is moving to temporarily increase the gap with the vehicle ahead to allow for merging traffic.

Press and hold  when stopped to cancel ACC from resuming automatically (if the stop is brief) and to remain stationary. This can be used to allow traffic to merge between you and the vehicle ahead. Press RES+ or the accelerator pedal to resume ACC.

Following distance gap will return to the original selection after hold.

Alerting the Driver



If ACC is engaged, driver action may be required when ACC cannot apply sufficient braking because of approaching a vehicle too rapidly.

When this condition occurs, the collision alert symbol will flash on the windshield. Either eight beeps will sound from the front, or

both sides of the Safety Alert Seat will pulse five times. On the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems to change settings.

See *Defensive Driving* ⇨ 167.

Approaching and Following a Vehicle



The vehicle ahead indicator is in the instrument cluster and HUD (if equipped). It only displays when a vehicle is detected in your vehicle's path moving in the same direction. If this symbol is not displaying, ACC will not respond to or brake for vehicles ahead.

ACC automatically slows the vehicle down and adjusts vehicle speed to follow a detected vehicle ahead at the selected following gap. The vehicle speed increases or decreases to follow a detected vehicle in front of your vehicle when that vehicle is traveling slower than your vehicle set speed. It may apply limited braking, if necessary. When braking is active, the brake lamps will come on. The

automatic braking may feel or sound different than if the brakes were applied manually. This is normal.

Passing a Vehicle While Using ACC

If the set speed is high enough, and the left turn signal is used to pass a vehicle ahead in the selected following gap, ACC may assist by gradually accelerating the vehicle prior to the lane change.

Warning

When using ACC to pass a vehicle or perform a lane change, the following distance to the vehicle being passed may be reduced. ACC may not apply sufficient acceleration or braking when passing a vehicle or performing a lane change. Always be ready to manually accelerate or brake to complete the pass or lane change.

Stationary or Very Slow-Moving Objects

Warning

ACC may not detect and react to stopped or slow-moving vehicles ahead of you. For example, the system may not brake for a vehicle it has never detected moving. This can occur in stop-and-go traffic or when a vehicle suddenly appears due to a vehicle ahead changing lanes. Your vehicle may not stop and could cause a crash. Use caution when using ACC. Your complete attention is always required while driving and you should be ready to take action and apply the brakes.

Irregular Objects Affecting ACC

ACC may have difficulty detecting the following objects:

- Vehicles with cargo extending from the back end.
- Non-standard shaped vehicles, such as vehicle transport, vehicles with a side car fitted, or horse carriages.
- Objects that are close to the front of your vehicle.

ACC Automatically Disengages

ACC may automatically disengage and the driver will need to manually apply the brakes to slow the vehicle if:

- The sensors are blocked.
- The TCS or StabiliTrak/ESC system has activated or been disabled.
- There is a fault in the system.
- The radar falsely reports blockage when driving in a desert or remote area with no other vehicles or roadside objects.
- A DIC message may display to indicate that ACC is temporarily unavailable.

The ACC indicator will turn white when ACC is no longer active.

In some cases, when ACC is temporarily unavailable, regular cruise control may be used. See “Switching Between ACC and Regular Cruise Control” previously in this section. Always consider driving conditions before using either cruise control system.

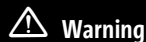
Notification to Resume ACC

ACC will maintain a follow gap behind a detected vehicle and slow your vehicle to a stop behind that vehicle.

If the stopped vehicle ahead has driven away and ACC has not resumed, the vehicle ahead indicator will flash as a reminder to check traffic ahead before proceeding. In addition, the left and right sides of the Safety Alert Seat will pulse three times, or three beeps will sound. On the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems > Alert Type and Adaptive Cruise Go Notifier to change settings.

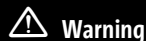
If equipped with Driver Attention System (DAS), when the vehicle ahead drives away, and DAS determines that the driver's attention is on the road ahead, ACC resumes automatically. See “Attention to the Road” under *Super Cruise* ⇨ 203. If necessary, press RES+ or the accelerator pedal to resume ACC. If stopped for more than two minutes or if the driver door is opened and the driver seat belt is unbuckled, the ACC automatically applies the Electric Parking Brake (EPB) to hold the vehicle. The EPB status light will turn on. See *Electric Parking Brake* ⇨ 183.

A DIC warning message may display indicating to shift to P (Park) before exiting the vehicle. See *Vehicle Messages* ⇨ 114.



Warning

If ACC has stopped the vehicle, and if ACC is disengaged, turned off, or canceled, the vehicle will no longer be held at a stop. The vehicle can move. When ACC is holding the vehicle at a stop, always be prepared to manually apply the brakes.



Warning

Leaving the vehicle without placing it in P (Park) can be dangerous. Do not leave the vehicle while it is being held at a stop by ACC. Always place the vehicle in P (Park) and turn it off before leaving the vehicle.

ACC Override

If using the accelerator pedal while ACC is active, the ACC indicator turns blue on the instrument cluster or HUD (if equipped) indicating ACC braking will not occur. ACC will resume operation when the accelerator pedal is not being pressed.

Warning

The ACC will not automatically apply the brakes if your foot is resting on the accelerator pedal. You could crash into a vehicle ahead of you.

Curves in the Road

Warning

On curves, ACC may not detect a vehicle ahead in your lane. You could be startled if the vehicle accelerates up to the set speed, especially when following a vehicle exiting or entering exit ramps. You could lose control of the vehicle or crash. Do not use ACC while driving on an entrance or exit ramp. Always be ready to use the brakes if necessary.

Warning


On curves, ACC may respond to a vehicle in another lane, or may not have time to react to a vehicle in your lane. You could crash

(Continued)

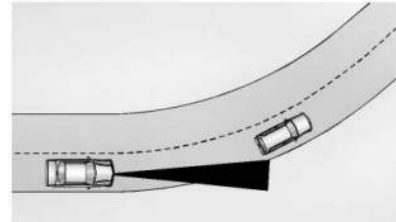
Warning (Continued)

into a vehicle ahead of you, or lose control of your vehicle. Give extra attention in curves and be ready to use the brakes if necessary. Select an appropriate speed while driving in curves.

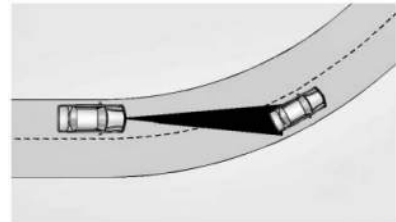
ACC may operate differently in a sharp curve. It may briefly reduce the vehicle speed if the curve is too sharp.

The curve speed control indicator  may illuminate green when ACC is actively controlling the vehicle speed and detects a sharp curve on the road ahead.

ACC automatically slows the vehicle down while navigating the curve and may increase speed out of the curve, but will not exceed the set speed.



When following a vehicle and entering a curve, ACC may not detect the vehicle ahead and accelerate to the set speed. When this happens, the vehicle ahead indicator will not appear.

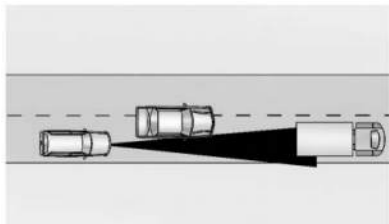


ACC may detect a vehicle that is not in your lane and apply the brakes.

ACC may occasionally provide an alert and/or braking that is considered unnecessary. It could respond to vehicles in different lanes

or stationary objects when entering or exiting a curve. This is normal operation. The vehicle does not need service.

Other Vehicle Lane Changes



ACC will not detect a vehicle ahead until it is completely in the lane. The brakes may need to be manually applied.

Objects Not Directly in Front of Your Vehicle

The detection of objects in front of the vehicle may not be possible if:

- The vehicle or object ahead is not within your lane.
- The vehicle ahead is shifted, not centered, or is shifted to one side of the lane.

Driving in Narrow Lanes

Vehicles in adjacent traffic lanes or roadside objects may be incorrectly detected when located along the roadway.


Do Not Use ACC on Hills




Do not use ACC when driving on steep hills. ACC will not detect a vehicle ahead.

Disengaging ACC

There are four ways to disengage ACC:

- Press ³.
- Press the brake pedal.
- Press the Regen On Demand paddle.
- Press .

Erasing Speed Memory

The ACC set speed is erased from memory if  is pressed or if the vehicle is turned off.

Weather Conditions Affecting ACC

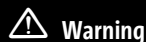
System operation may be limited under snow, heavy rain, or road spray conditions.

Accessory Installations and Vehicle Modifications

Do not install or place any object around the front camera windshield area that would obstruct the front camera view.

Do not install objects on top of the vehicle that overhang and obstruct the front camera, such as a canoe, kayak, or other items that can be transported.

Do not modify the hood, headlamps, or fog lamps, as this may limit the camera's ability to detect an object.



Warning

Stickers or accessories attached on or around the front or rear fascia of your vehicle can impair the radar sensors

(Continued)

Warning (Continued)

resulting in vehicle damage or personal injury. Your vehicle could brake suddenly. Do not attach anything on or around the front or rear fascia, including the license plate, the bumper, or the grille. Use only GM genuine accessories.

Do not attach anything to the front or rear fascia as this may interfere with the radar sensor operation.

Cleaning the Sensing System

The camera sensor on the windshield behind the rearview mirror, and the sensors on the front of the vehicle can become blocked by snow, ice, dirt, mud, or debris. This area needs to be cleaned for ACC to operate properly.

If ACC will not operate, regular cruise control may be available. See “Switching Between ACC and Regular Cruise Control” previously in this section. Always consider driving conditions before using either cruise control system.

For cleaning instructions, see “Washing the Vehicle” under *Exterior Care* ⇨ 318.

Super Cruise

If equipped, Super Cruise can steer to maintain lane position under certain conditions on Super Cruise-compatible roads.


An active Connected Service plan that includes Super Cruise Services is required to use Super Cruise.

Super Cruise can also steer to perform a lane change under certain conditions on Super Cruise-compatible roads. A lane change can be initiated by the driver using the turn signal lever.

If equipped with Automatic Lane Change, the Super Cruise system may initiate a lane change maneuver in following scenarios:

- To pass slower traffic
- When the current lane is ending ahead
- To return to the initial lane
- To provide space for vehicles merging from an ending lane

See “Super Cruise Lane Change” later in this section and *Turn and Lane-Change Signals* ⇨ 122.

 **Warning**

Super Cruise can only assist to maintain lane position, or steer to change lanes, when driving on compatible roads. You must supervise the driving task and monitor the road conditions. You may need to respond to traffic events by steering, braking, or accelerating. See Defensive Driving.

Super Cruise is:

- Not a self-driving system
- Not a crash avoidance or warning system
- Not a substitute for proper supervision of the driving task

Super Cruise uses the following to detect the current lane position and lane markings ahead on compatible roads under certain conditions:

- Cameras
- Global Positioning System (GPS) sensing
- A high-precision map
- GPS-enhancement data downloaded through OnStar

Super Cruise works with Adaptive Cruise Control (ACC), which controls acceleration and braking while Super Cruise is enabled and operating. Review and understand this section and the ACC section before using Super Cruise. See *Adaptive Cruise Control* ⇨ 194.

Warning

Super Cruise does not perform all aspects of driving, nor does it do everything a driver can do. Super Cruise only steers to maintain vehicle position in the current lane or, under some circumstances, to change lanes. Super Cruise can only be used with Adaptive Cruise Control.

Super Cruise does:

- Not prevent crashes or warn of possible crashes.
- Not steer to avoid stopped or slow-moving vehicles, cross-traffic, construction barriers or cones, motorcycles, children, pedestrians, animals, or other objects on the road.

(Continued)

Warning (Continued)

- Not steer in response to vehicles or objects next to your vehicle, including vehicles attempting to enter your lane.
- Not respond to traffic lights, stop signs, or other traffic control devices.
- Not respond to crossing traffic.
- Not make turns.
- Not steer to merge onto or to exit highways.
- Not steer to avoid, or steer through construction zones.
- Not function on surface streets.
- Not respond to oncoming traffic.
- Not function in city driving conditions.

Warning

Some state and local laws may require hands to be kept on the steering wheel at all times. Only remove your hands from the

(Continued)

Warning (Continued)

steering wheel if Super Cruise is engaged, it is safe to do so, and it is permitted by state and local laws.

Warning

Failure to supervise the driving task and to respond appropriately, even while Super Cruise is operating, can cause a crash. Super Cruise may not respond as you would to all driving situations and may not maintain lane position under all conditions.

It is extremely important to pay attention to the operation of the vehicle, even while using Super Cruise. Do not use a hand-held device while driving, even with Super Cruise engaged. To prevent serious injury or death:

- Always remain properly seated in the driver seat with your seat belt fastened.
- Never remove your hands from the steering wheel when Super Cruise is not operating.

(Continued)

Warning (Continued)

- Always make sure traffic conditions are safe before using Super Cruise.
- Always keep the entire vehicle and the sensors clean. Sensors are on the front, sides, and rear of the vehicle.
- Always observe posted speed limits. Only use Super Cruise at or below the posted speed limit.

Super Cruise should not be used in complex or uncertain driving conditions, including:

- Not in construction zones.
- Not when approaching or exiting toll plazas.
- Not when approaching an intersection that is controlled with a traffic light, stop sign, or other traffic control device.
- Not when lane markings are not present or cannot be detected. For example, there is too much glare, weather conditions are poor, or lanes are poorly marked.
- Not on slippery or icy roads.

(Continued)

Warning (Continued)

- Not in adverse weather conditions, including rain, sleet, fog, ice, or snow.
- Not on winding or hilly roads.
- Not for city driving.
- Not during heavy or emergency braking.
- Not on surface streets.
- Not on a road shoulder, service drive, or under an elevated freeway.
- Not when towing a trailer.
- Not in a highway exit lane.

When Super Cruise is Available**Super Cruise Indicator**

Super Cruise is designed to operate only when:

- ACC is on. See *Adaptive Cruise Control* ↗ 194.

- Teen Driver is not active.
- The GPS detects the vehicle is on a compatible highway.
- Both the camera and the radar sensors are functioning and not covered, obstructed, or damaged.
- The Driver Attention System (DAS) detects the driver's head and eyes are directed toward the road.
- The lane markings are clearly visible and able to be detected by the system.






Poor Conditions

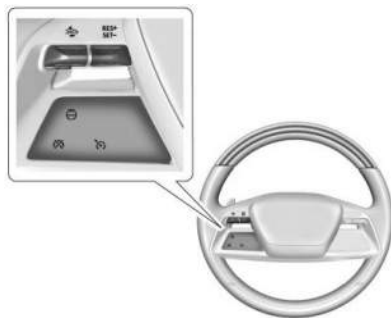


Poor Conditions



Using Super Cruise


Warning


Super Cruise may not begin steering immediately, even when Super Cruise is available and  has been pressed. To prevent serious injury or death, only remove your hands from the steering wheel if the steering wheel light bar, the Super Cruise light , and the Adaptive Cruise Control (ACC) light  are green.



To engage Super Cruise:

1. Press  to turn on ACC. Make sure the white  indicator displays in the instrument cluster. See *Adaptive Cruise Control* ⇨ 194.


When Super Cruise is available, the white Super Cruise indicator light  will display in the instrument cluster.


2. Press . ACC will set the speed at the current vehicle speed. If ACC has a previously set speed stored in memory, it may resume at that speed.

If equipped, when Auto Set Speed is enabled and a new road speed limit is detected, ACC will automatically change the set speed to the new road speed limit (+/- the selected offset). For more information about Auto Set Speed customization, see *Adaptive Cruise Control* ⇨ 194.

Warning

Always monitor the vehicle speed and make sure that you are following the speed limit, regardless of the Auto Set Speed status.

When engaged and not steering the vehicle, the steering wheel light bar flashes blue, and  indicator light will display blue. The driver is in control of steering and Super Cruise is not steering the vehicle.

When the vehicle is positioned in the center of the lane, the steering wheel light bar and  indicator light will display green, indicating Super Cruise is steering the vehicle.

When Super Cruise controls the steering, traffic and other conditions and laws permit, and it is safe to do so, your hands can be taken off the steering wheel.


Always pay attention to the road and the operation of the vehicle. Always monitor and be attentive of surrounding traffic, including vehicles that may cross the road in front of your vehicle.

Super Cruise steering can be overridden with manual steering at any time. When Super Cruise is engaged, always be prepared to take immediate action — including steering, accelerating, and braking quickly, if necessary.

Super Cruise, when engaged, will enable Forward Collision System to Alert and Brake. See *Forward Collision Alert (FCA) System* ⇨ 228.

Steering Manually and Changing Lanes

The vehicle can always be manually steered, even with Super Cruise engaged; for example, when changing lanes.

When the steering wheel is moved manually, the steering wheel light bar pulses blue and the  indicator light on the instrument cluster turns blue to indicate Super Cruise is not steering the vehicle.

When ready to allow Super Cruise to resume steering again, position the vehicle in the center of the lane, hold the steering wheel until

the steering wheel light bar turns green, and then release the steering wheel when it is safe to do so.

Warning

To help prevent crashes before making a lane change:

- Always check mirrors.
- Glance over your shoulder.
- Use the turn signals.

Super Cruise Lane Change

On Demand Lane Changes

Super Cruise can steer to perform a single lane change under certain conditions when initiated by the driver or initiated by the Super Cruise system.

To initiate a lane change:

1. Verify the lane next to your vehicle is clear and conditions are safe to make a lane change.
2. Use the turn signal lever to activate the turn signal in the direction of the desired lane change.

3. Return the turn signal lever to the neutral position after the lane change. See *Turn and Lane-Change Signals* ⇨ 122.

To cancel a lane change, return the turn signal lever to the neutral position, move the lever in the opposite direction of the lane change, or steer manually at any time.

Automatic Lane Changes

If equipped with Automatic Lane Change, Super Cruise may initiate a single lane change when enabled through vehicle settings under the following conditions:

- To the left to pass a slower moving vehicle ahead and then a subsequent lane change to right to return to your original lane.
- To the left or right when current lane is ending ahead.
- To the left or right when a slower moving vehicle is detected in the adjacent ending lane to provide space for merging vehicle.

To cancel a Super Cruise lane change, move the turn signal lever or steer manually at any time.

If Super Cruise detects that traffic is clear, it will steer the vehicle to perform the lane change. A message appears on the Driver

Information Center (DIC) during the lane change to provide more information on the status of the lane change.

Super Cruise Lane Change functionality is only available on Super Cruise-compatible divided roads.

Super Cruise Lane Change functionality is not available when a construction zone is detected.

Super Cruise Lane Change may be disabled when accessories (e.g. bike rack, cargo tray, etc.) are detected.

The Super Cruise Lane Change feature can be customized to be Off, On Demand Lane Change, or On Demand Lane Change & Automatic Lane Change through the vehicle personalization menu. To view available settings from the infotainment screen, touch Settings > Vehicle > Super Cruise Lane Change.

Warning

Super Cruise Lane Change may not detect a vehicle in an adjacent lane. Always supervise the driving task and monitor traffic conditions when using the Super Cruise Lane Change feature. Only request

(Continued)

Warning (Continued)

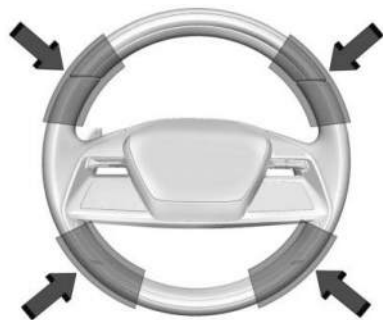
a lane change when traffic conditions are safe for a lane change, and always be ready to manually steer the vehicle. See “Steering Manually and Changing Lanes” listed previously in this section.


Take Over Alert

Warning

Super Cruise will not maintain the vehicle’s speed while the steering wheel light bar is flashing red. If the steering wheel light bar flashes red, immediately resume manual steering to prevent serious injury or death. If you do not resume manual steering, the vehicle will begin to slow in the same lane and eventually come to a complete stop on the road.

Any time the steering wheel light bar flashes red, resume manual steering immediately.



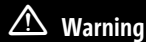
To begin steering manually, hold the steering wheel firmly with both hands using the highlighted regions. The Super Cruise light  will turn red and a message will display in the DIC, beeps will sound, or the Safety Alert Seat will vibrate. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems. After you begin steering manually, then Super Cruise will disengage.

The red flashing steering wheel light bar could occur under any of the following conditions:

- Lane markings are poor, or visibility is limited.

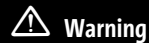
- The DAS does not detect that the driver's head and eyes are directed toward the road.
- ACC has been canceled.
- The vehicle is on a tight curve, or the lanes are too wide, or the vehicle goes into a curve too fast.
- The road speed limit of the Super Cruise-compatible, non-divided road is below 72 km/h (45 mph).
- The compatible road ends.
- The vehicle is approaching an intersection controlled by a traffic light, stop sign, or other traffic control device.
- A Super Cruise system fault occurs.
- Super Cruise is unable to complete the lane change maneuver.
- Super Cruise detects a very cold outside air temperature.

Attention to the Road



Warning

Super Cruise is a driver assistance system and cannot accurately detect or predict all situations. Super Cruise is not a crash avoidance system. To prevent serious injury or death, you must supervise the driving task and monitor the road conditions. You may need to respond to traffic events by steering, braking, or accelerating. See *Defensive Driving* ⇨ 167. Super Cruise also cannot determine whether you are awake, asleep, impaired, or properly focused on safe driving. The vehicle could crash into other vehicles, drive out of the lane, or drive off the road. Complete attention is always required while driving, even while using Super Cruise. Be prepared to take over steering or apply the brakes at any time.




Warning

To prevent serious injury or death, be alert and pay special attention when passing highway exits, entrances, and crossings with Super Cruise, and be ready to take control of the vehicle when necessary. Changes in lane markings around exits and entrances can momentarily cause Super Cruise to not detect the correct lane. If this occurs, Super Cruise may attempt steering inputs to bring the vehicle back into the correct lane and, in rare circumstances, could over-correct and cause the vehicle to momentarily cross into a lane next to your vehicle unless you manually steer to maintain your lane position.

The DAS camera on the steering column continually monitors driver head and eye position to estimate driver attention to the road. The camera does not record or share pictures, audio, or video.

Sunglasses, hats, or other types of clothing that change the shape of the head may interfere with camera performance. To improve camera performance, raise or lower the steering wheel, or change the seat position.

Pay close attention to the road ahead to avoid these three increasing alerts:

First Alert	<ul style="list-style-type: none"> • If the steering wheel light bar flashes green, the system has detected that your head and eyes may not be directed toward the road. • The flashing will stop when the system detects that your head and eyes appear to be directed toward the road.
Second Alert	<ul style="list-style-type: none"> • If the steering wheel light bar flashes green for too long, Super Cruise will alert the driver to take control of steering immediately by flashing the light bar red. Also, either beeps will sound or the Safety Alert Seat will vibrate. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems. • Take over steering, then Super Cruise may disengage or the steering wheel light bar will flash blue to indicate driver override. Do not take hands off the steering wheel until the steering wheel light bar is green. • To re-engage Super Cruise after disengagement, press . See “Using Super Cruise” previously in this section.
Third Alert	<ul style="list-style-type: none"> • If the steering wheel light bar flashes red for too long, a voice command will tell you to take control of the vehicle. • Take control of the steering immediately; ACC and Super Cruise will disengage. • A DIC message will indicate that Super Cruise is locked out. Super Cruise cannot be re-engaged until the vehicle is turned off and back on. • Continued failure to take over steering will cause the vehicle to brake to a stop and OnStar will be called. The brake lamps and hazard warning flashers will come on. • Take control of the vehicle and continue driving.

Stationary or Very Slow-Moving Objects; Cross-Traffic

Warning

Super Cruise is not a crash avoidance system and will not steer or brake to avoid a crash. Super Cruise does not steer to prevent a crash with stopped or slow-moving vehicles. You must supervise the driving task and may need to steer and brake to prevent a crash, especially in stop-and-go traffic or when a vehicle suddenly enters your lane. Always pay attention when using Super Cruise. Failure to do so could result in a crash involving serious injury or death.

Curves in the Road

Warning

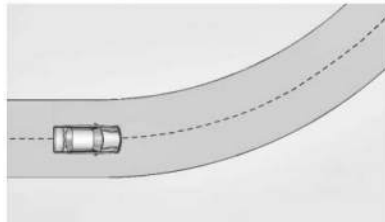
The vehicle could drift out of your lane of travel. To prevent crashes, always be ready to manually steer. Super Cruise may not detect your lane on curves in the road. Super Cruise may not detect the markings

(Continued)

Warning (Continued)

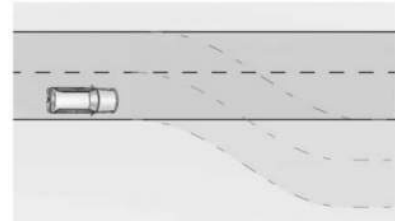
that show your lane. You may not have time to react to a vehicle in the lane next to your vehicle while on curves in the road. Super Cruise may hand control back to the driver more often driving around a sharp curve.

Super Cruise may operate differently in sharp curves. It may drift out of your lane of travel if the curve is too sharp.



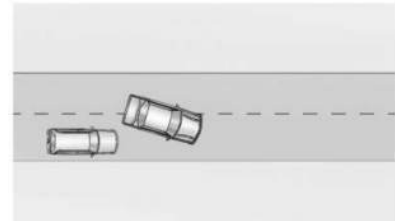
When entering a curve, Super Cruise may not detect the lane markings and may not adjust the steering enough to stay in your lane of travel. When this happens, you will need to steer the vehicle.

Super Cruise may detect other lane markings that are not in your lane and may or may not steer appropriately to maintain your lane.



Super Cruise may occasionally provide an alert and/or steering that is considered unnecessary. It could respond to lane markings in different lanes, signs, guardrails, and other stationary objects when entering or exiting a curve. This is normal operation. The vehicle does not need service.

Other Vehicles Entering Your Lane



Super Cruise may not detect a vehicle that enters your lane, or may not brake fast enough to avoid a crash. You must manually brake and steer the vehicle.

Intersections and Vehicles Crossing the Road Ahead

Super Cruise will not brake the vehicle when approaching an intersection that is controlled by a traffic light or stop sign. Super Cruise will not detect vehicles crossing the road ahead, including at intersections, and will not automatically steer or brake to prevent a collision. You must manually brake and steer the vehicle.

Super Cruise on Hills

Do not use Super Cruise while driving on steep hills.

Super Cruise on Non-Divided Roads

Super Cruise may be available on non-divided roads that are mapped, outside of urbanized areas, and have a road speed limit above 72 km/h (45 mph).

Super Cruise Indicator Light Summary




The steering wheel light bar and instrument cluster light provide the following important information about Super Cruise operation:


Steering Wheel Light Bar	Instrument Cluster Light	Super Cruise Description
Off	Off	Super Cruise is off. There is no automatic steering. Operate the vehicle manually.
Off	White	Super Cruise is available and can be engaged.
Solid Green	Solid Green	Super Cruise is steering. Pay attention to the road and vehicle operation.
Flashing Blue	Solid Blue	Super Cruise is not steering. Operate the vehicle manually. See “Steering Manually and Changing Lanes” previously in this section.
Flashing Green	Solid Green	Super Cruise has detected you are not paying sufficiently close attention to the road. Pay attention to the road. See “Attention to the Road” previously in this section.
Flashing Red	Solid Red	Take over steering immediately. Super Cruise will disengage. See “Take Over Alert” previously in this section.


Disengaging Super Cruise

There are two ways to disengage Super Cruise:

- Press  while your hands are on the steering wheel. Super Cruise steering will disengage.
- Press the brake pedal or the Regen on Demand paddle while your hands are on the steering wheel. Both Super Cruise steering and ACC will disengage.

Super Cruise Messages

If the Super Cruise indicator light does not appear in the instrument cluster, press  to display a DIC message as to why the system is unavailable.

Immediately after a disengagement, pressing  within 10 seconds will display a DIC message with the reason for Super Cruise disengagement.

Super Cruise Message Summary

Subscription Required - Press OnStar Button	<ul style="list-style-type: none"> • The owner's required Connected Services subscription may have ended. • Press the Blue OnStar button in your vehicle to speak with an OnStar representative, who can help determine the issue and what actions to take
Unavailable Turn on Adaptive Cruise Control	<p>ACC must be on before Super Cruise can be enabled.</p> <ul style="list-style-type: none"> • Set speed is not required before enabling Super Cruise. • ACC is not required to be engaged before enabling Super Cruise.
Unavailable Lane Ending	<p>Super Cruise is disabled because the driving lane is ending.</p>
Unavailable No Road Information	<ul style="list-style-type: none"> • There is no map information available for that portion of the road. Recent road reconstruction may turn off Super Cruise for that section of road until new map information is available. • The vehicle is not on the correct type of road. A controlled access freeway or compatible divided or non-divided road is required for Super Cruise. • There are lanes entering or exiting on both the left and right side of the road.
Unavailable Sensors Can't Find Lane Lines	<ul style="list-style-type: none"> • Rain or snow is inhibiting the system's ability to see lane lines. • Direct sunlight is on the front camera at dawn or dusk. • There are missing or poor lane line markings on the road. • There is sun glare on the road surface. • There is heavy rain, puddles, road spray, or inclement weather conditions that are affecting system performance.

Unavailable Sensor Can't See Face Clearly	<ul style="list-style-type: none">• Sun is shining into the DAS camera.• Dawn or dusk sun glare is on the driver's face.• Cups, food, hands, or other objects are obscuring the DAS view of the driver's face.• The steering column is pointed too high or low for the DAS to see the driver. Adjust the steering column or the seat if the message occurs frequently.
Unavailable Looking Away From Road for Too Long	The DAS system detects that the driver is not looking at the road.
Unavailable Driving Too Fast	The vehicle is traveling faster than 137 km/h (85 mph). The maximum Super Cruise speed in curves will vary based on how sharp the curve is. The vehicle will automatically decrease speed if needed.
Unavailable Driving in Exit Lane	The Super Cruise system has detected that the vehicle is in an exit lane.
Unavailable GPS Signal Lost	<ul style="list-style-type: none">• There is poor reception in isolated areas.• Reception is being blocked by buildings or other large structures.
Unavailable You Have Taken Vehicle Control	<ul style="list-style-type: none">• The brake pedal is being pressed.• ACC has been canceled or turned off.
Unavailable Sensor Blocked	Clear snow, ice, dirt, or other contaminants from the front and rear areas of the vehicle.
Unavailable Sharp Curve	Some curves are too sharp to be navigated by the Super Cruise system. Super Cruise will be available after the curve is traveled.

Super Cruise Unavailable	Super Cruise is unavailable for reasons not described in other messages.
Super Cruise Locked Out See Owner's Manual	The driver did not take control of the vehicle when prompted by the Super Cruise system. The Super Cruise system will be disabled until the vehicle is turned off and back on.
Unavailable Seat Belt Not Fastened	The driver seat belt is not fastened.
Unavailable Teen Driver Mode Active	Teen Driver mode is active.
Unavailable Snow Mode	A snow plow is attached.
Unavailable Unsupported Intersection	Super Cruise has detected an unsupported intersection.
Unavailable Approaching Toll Booth	Super Cruise has detected that there is a toll booth ahead.
Unavailable Ride Height Out of Range	The vehicle ride height is out of Super Cruise operational range.
Caution Construction Zone - Drive With Care	Super Cruise has detected a construction zone.

Map Updates

Super Cruise map information must be periodically updated at least once every seven months to determine whether Super Cruise is available on certain roads.

Turn on the vehicle's built-in Wi-Fi hotspot to receive automatic updates via OnStar, or see your dealer. For additional information about the Wi-Fi hotspot, see *Settings* ⇨ 150.

Disabling the vehicle's Wi-Fi, Share Hotspot Data, or Location Services will disable automatic map updates. Super Cruise will stop functioning after seven months or less depending on the time of the last map update.

Data Download

If the vehicle is equipped with OnStar and has an active service plan, additional data may be collected through the OnStar system. This includes information about: the vehicle's operation; a crash involving the vehicle; the use of the vehicle and its features; and, in certain situations, the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

Location Services

This setting enables or disables sharing of vehicle location outside the vehicle for certain purposes. Even if the Location Services setting is disabled, vehicle location information will continue to be shared for emergency services and Super Cruise, if equipped.

System Care

The camera on the steering column has a lens cover that may become dirty over time and affect camera performance. Clean the lens cover with a soft cloth sprayed with glass cleaner. Wipe the lens gently, then dry it. Never use abrasive cloths/cleaners or corrosive chemicals of any kind on the lens cover.

Super Cruise uses the front radar, front camera, and 360-degree cameras for its operation. Clean surfaces are required for Super Cruise operation. See *Adaptive Cruise Control* ⇨ 194, *Assistance Systems for Parking or Backing* ⇨ 219, and *Lane Keep Assist (LKA)* ⇨ 244 for care information.

Caution

The Super Cruise system is a highly sophisticated system and should only be serviced by technicians with the proper training, tools, and safety instructions, which your dealer has. Without proper training and tools the vehicle may become damaged.

Advanced Driver Assistance Systems

This vehicle may have features that work together to help avoid crashes or reduce crash damage while driving, backing, and parking. Read this entire section before using these systems.

Warning

Do not rely on the Driver Assistance Systems. These systems do not replace the need for paying attention and driving safely. You may not hear or see alerts or warnings provided by these systems.

(Continued)

Warning (Continued)

Failure to use proper care when driving may result in injury, death, or vehicle damage. See *Defensive Driving* ⇨ 167.

Under many conditions, these systems will not:

- Detect children, pedestrians, bicyclists, or animals.
- Detect vehicles or objects outside the area monitored by the system.
- Work at all driving speeds.
- Warn you or provide you with enough time to avoid a crash.
- Work under poor visibility or bad weather conditions.
- Work if the detection sensor is not cleaned or is covered by ice, snow, mud, or dirt.
- Work if the detection sensor is covered up, such as with a sticker, magnet, or metal plate.

(Continued)

Warning (Continued)

- Work if the area surrounding the detection sensor is damaged or not properly repaired.

Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

**Warning**

Stickers or accessories attached on or around the front or rear fascia of your vehicle can impair the radar sensors resulting in vehicle damage or personal injury. Your vehicle could brake suddenly. Do not attach anything on or around the front or rear fascia, including the license plate, the bumper, or the grille. Use only GM genuine accessories.

Audible Alert or Safety Alert Seat

Some driver assistance features alert the driver of obstacles by beeping. To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience.

If equipped with the Safety Alert Seat, the driver seat cushion may provide a vibrating pulse alert instead of beeping. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/ Detection Systems.

Cleaning

Depending on vehicle options, keep these areas of the vehicle clean to ensure the best driver assistance feature performance. Driver Information Center (DIC) messages may display when the systems are unavailable or blocked.





- Front and rear bumpers and the area below the bumpers
- Front grille and headlamps
- Front camera lens in the front grille or near the front emblem
- Front side and rear side panels
- Outside of the windshield in front of the rearview mirror
- Side camera lens on the bottom of the outside mirrors
- Rear side corner bumpers
- Rear Vision Camera above the license plate


Radio Frequency

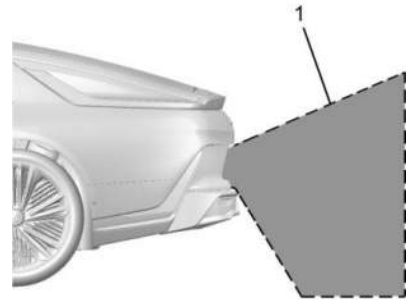
This vehicle may be equipped with driver assistance systems that operate using radio frequency. See *Radio Frequency Statement* ⇨ 344.

Assistance Systems for Parking or Backing

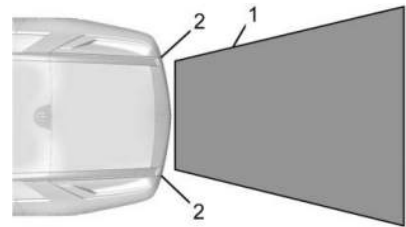
If equipped, the Rear Vision Camera (RVC), Rear Park Assist (RPA), Surround Vision, Side Bicycle Detection, and Rear Cross Traffic Alert (RCTA) may help the driver park or avoid objects. Always check around the vehicle when parking or backing.

Rear Vision Camera (RVC)

When the vehicle is shifted into R (Reverse), the RVC displays an image of the area behind the vehicle in the infotainment display. The previous screen displays when the vehicle is shifted out of R (Reverse) after a short delay. To return to the previous screen sooner, press  on the center stack, shift into P (Park), or reach a vehicle speed of approximately 12 km/h (8 mph).




1. View Displayed by the Camera



1. View Displayed by the Camera
2. Corners of the Rear Bumper

Displayed images may be farther or closer than they appear. The area displayed is limited and objects that are close to either corner of the bumper or under the bumper do not display.

A warning triangle may display to show that RPA has detected an object. This triangle changes from amber to red and increases in size the closer the object.

If  or a service message appears on the infotainment display, there may be a camera malfunction. See your dealer.

Warning

The camera(s) do not display children, pedestrians, bicyclists, crossing traffic, animals, or any other object outside of the cameras' field of view, below the bumper, or under the vehicle. Shown distances may be different from actual distances. Do not drive or park the vehicle using only these camera(s). Always check behind and around the vehicle before driving. Failure to use proper care may result in injury, death, or vehicle damage.

Surround Vision System

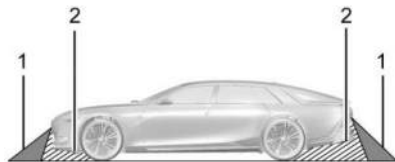
Warning

The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.

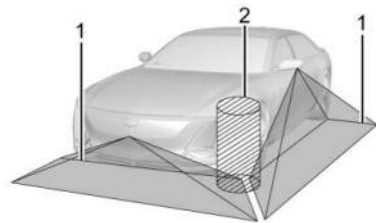
Warning

The camera(s) do not display children, pedestrians, bicyclists, crossing traffic, animals, or any other object outside of the cameras' field of view, below the bumper, or under the vehicle. Shown distances may be different from actual distances. Do not drive or park the vehicle using only these camera(s). Always check behind and around the vehicle before driving. Failure to use proper care may result in injury, death, or vehicle damage.

If equipped, the Surround Vision system can display various views surrounding the vehicle in the infotainment display. See later in this section for camera view descriptions and more information.



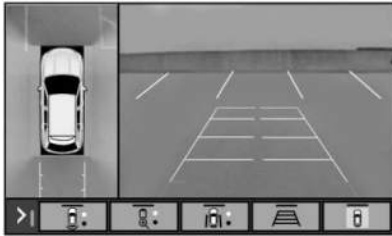
1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown



1. Views Displayed by the Surround Vision Cameras

2. Area Not Shown

Camera Views



Touch the camera view buttons along the bottom of the infotainment display to access each view:

Front/Rear Standard View: Displays an image of the area in front or behind the vehicle. To select, touch Front/Rear Standard View on the infotainment display when a camera view is active.

When the hitch guidance is selected, Rear Standard View will remain visible across gear changes, otherwise the view will toggle between Front and Rear Standard View based on gear position. If equipped, the Front

Standard View also displays when the Park Assist system detects an object in front of the vehicle.

To access the Rear Standard View, select CAMERA on the infotainment display and select Rear Standard View. The view can be closed by selecting X, Home, or Back on the infotainment display.

Front/Rear Top-Down View: Displays a front or rear overhead view of the vehicle. To view, select Front/Rear Top-Down View on the infotainment display when the camera app is active.

Front/Rear Side View: Displays a view that shows objects next to the front or rear sides of the vehicle. To select, touch Front/Rear Side View on the infotainment display when a camera view is active. Touch the button to toggle between front and rear camera views. Park Assist and Rear Cross Traffic Alert (RCTA) overlays are not available when Front/Rear Side View is active.

Guidance Lines: The guidance lines icon may appear as a selection on the screen when a view supports guidance lines. To change the guidance mode, select the appropriate guidance icon. Depending on the guidance

mode and view selected, different guidance lines may appear. If the icon is grayed-out, guidance lines are not available.

Top Down View: Displays an image of the area surrounding the vehicle, along with other views in the infotainment display. Top Down can be enabled or disabled by touching the Top Down View button multiple times.

Bowl View: Displays a selectable view from different viewing angles around the vehicle. Touch Bowl View on the infotainment display when a camera view is active. Touch a circle button to change the viewing angle.

Park Assist

Warning

The Park Assist System is no substitute for careful and attentive driving. The Park Assist system does not detect children, pedestrians, bicyclists, animals, or objects located below the bumper or that are too close or too far from the vehicle. It is not available at speeds greater than 9 km/h (6 mph). To prevent injury, death, or vehicle

(Continued)

Warning (Continued)

damage, even with Park Assist, always check the area around the vehicle and check all mirrors before moving forward or backing.

The vehicle may be equipped with Front and Rear Park Assist (FRPA). Under certain conditions, the Park Assist system can assist the driver during backing and parking maneuvers when the vehicle is driven at no more than 9 km/h (6 mph). An illuminated indicator in the Park Assist button indicates the system is ready.

Sensors located in the bumpers measure the distance between the vehicle and objects using sonar technology. These sensors are designed to detect certain objects up to 1.8 m (6 ft) behind and 1.2 m (4 ft) in front of your vehicle that are taller than 25 cm (10 in).

Different environmental conditions may affect whether and how far the Park Assist system can detect objects. Keep the sensors clean of mud, dirt, snow, ice, and slush; and clean sensors after a car wash in freezing temperatures.

Sensors that are not clean may not detect objects or may cause the system to alert when not required.

How the System Works

The vehicle may have a Park Assist amphitheater-like display on the cluster with bars that represent the estimated location of a detected object and the vehicle's distance from the object. As a detected object becomes closer, more bars light up and change color from yellow to amber to red.

When an object is first detected in the rear, one beep will be heard from the rear, or the driver's seat will pulse two times, if equipped with Safety Alert Seat. When an object is very close, five beeps will sound from the front or rear (depending on the object's location), or the driver's seat will pulse five times. Beeps for front are higher pitched than the rear.

**Turning the System On and Off**

The Park Assist System can be turned on or off using the front center console display.

When the system is turned off, a system off message is shown on the display. This message disappears after a short period of time.

When the System Does Not Seem to Work Properly

If a service message displays, check the following conditions:

- The sensors may not be clean. Keep the vehicle's front and rear bumpers free of mud, dirt, snow, ice, and slush. For cleaning instructions, see *Exterior Care* ⇨ 318.
- The Park Assist sensors may be covered by frost or ice. Frost or ice can form around and behind the sensors and may not always

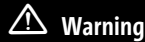
be seen; this can occur after washing the vehicle in cold weather. The message may not clear until the frost or ice has melted.

If a service message displays and the above conditions do not exist, take the vehicle to your dealer for repairs.

If the Park Assist System does not activate due to a temporary condition, a system off message is shown on the display. This can occur under the following conditions:

- The driver has disabled the system.
- An object is currently blocking the rear sensors (for example, bike rack, tailgate, etc.). Once the object is removed, Park Assist will return to normal operation.
- The bumper is damaged. Take the vehicle to your dealer for repairs.
- Other conditions, such as vibrations from a jackhammer or the compression of air brakes on a very large truck, are affecting system performance.

Automatic Parking Assist (APA) Enhanced Automatic Parking Assist (APA)




APA may not always detect objects in the parking space, objects that are not rigid (e.g. shrubs and chain-link fences), objects below the bumper, objects high off the ground (e.g. flatbed trucks), hanging objects, objects below ground level (e.g. large potholes), or moving objects (e.g. pedestrians, cyclists, vehicles). Always verify that the parking space is appropriate for parking a vehicle. APA may not respond to changes in the parking space, such as movement of an adjacent vehicle, or a person or object entering the parking space. APA does not detect or avoid traffic that is behind or alongside of the vehicle. Always be prepared to stop the vehicle during the parking maneuver.

Under certain conditions APA with Braking can use sensors based on sonar technology along the vehicle's front, rear and sides to detect a parking spot, and automatically park or unpark the vehicle with some driver assistance.

The vehicle will automatically maneuver into a detected spot moving at or near idle speed. It does this by automatically steering, braking, accelerating, and gear shifting. The driver must always be prepared to apply braking or additional acceleration, as needed. A display and audible beeps help to guide the parking maneuvers.

How to Activate Automatic Parking

To activate APA, press  on the infotainment screen for the system to begin searching for a parking space while driving forward at no greater than 30 km/h (18 mph). APA searches for parking spaces, to the left or right of the vehicle, up to the sensors' ranges of 1.5 m (5 ft). To search for a parking space to the left, turn on the left turn signal or, if available, change the side selection in the front center console display. To choose or change the parking mode, make a selection on the front center console display.

APA cannot park in all empty parking spots. The parking spot must:

- Be sufficiently large to fit the vehicle comfortably.
- Have an adjacent vehicle, wall, or pillar for the system to align to.



After completely passing an eligible parking spot, a beep sounds and a notification to stop the vehicle is displayed in the driver information center. Generally, APA selects the nearest empty parking spot behind the vehicle, but under some conditions may select a space that is further back. Slow down and bring the vehicle to a complete stop to begin.


Follow the displayed instructions. When the vehicle is ready to begin the maneuver, the steering wheel will vibrate briefly as a reminder to remove hands from the steering wheel. After the vibration stops, check your surroundings and release the brakes to begin automatic parking. As the vehicle automatically steers, brakes, accelerates, and shifts gears into the parking spot, continue to check your surroundings. Be prepared to stop to avoid vehicles, pedestrians, or objects.

A progress bar displays the status of the parking maneuver. Once automatic parking is finished and the vehicle has come to a full stop, APA will beep and display a message indicating parking is complete.



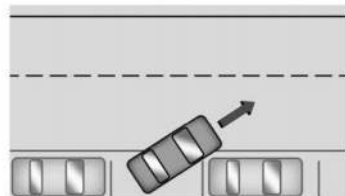
Automatic Parking

How to Activate Automatic Unparking

To activate APA, press  on the infotainment screen after turning the vehicle on and leaving it in P (Park). A screen will be displayed with unparking options. Similar to automatic parking, follow the displayed instructions and check surroundings as the vehicle unparks.


Once automatic unparking is finished and the vehicle has come to a full stop, FINAL POSITION - PRESS BRAKES will display. Press and hold

the brakes. APA will beep and display TAKE CONTROL. The vehicle is now ready to exit the parking spot free of obstructions. Take control to drive away.



Automatic Unparking

How to Cancel Automatic Parking/Unparking

To cancel automatic parking or automatic unparking at any time, press  or X on the front center console display. Be prepared to resume full control of the vehicle. APA holds the vehicle until the parking brake or brake is applied, or the vehicle is shifted into P (Park). To start driving away, press the brakes and shift into D (Drive).

Certain vehicle conditions and driver interferences may also cancel automatic parking:

- The driver manually steers the vehicle.

- The maximum allowed speed is exceeded.
- There is a failure with the APA system.
- Electronic stability control or antilock brakes are activated.
- The parking brake is applied.
- Driver unbuckles the seat belt and opens the door.

System Limitations

Automatic Parking Assist has certain limitations. The system cannot:

- Continue to operate if the maneuver speed exceeds 5 km/h (3 mph).
- Detect whether a parking space is legal or restricted.
- Detect pavement markings or lines.
- Park the vehicle closely lined up with the vehicle next to it, particularly if the spot is approached at an angle or if the parking space is angled.
- Park exactly centered in a very large spot.
- Always detect short curbs.

When the System Does Not Seem to Work Properly

If the vehicle does not reverse into the expected parking space, the system could be maneuvering the vehicle into a previously detected space.

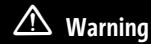
Reverse Automatic Braking (RAB)

Backing Warning and RAB

If enabled, when in R (Reverse), Backing Warning alerts of rear objects at vehicle speeds greater than 8 km/h (5 mph) and RAB may automatically brake hard at speeds between 1–32 km/h (0.5–20 mph).

To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.


The Backing Warning System will beep once from the rear when an object is first detected, or pulse twice on both sides of the Safety Alert Seat. When the system detects a potential crash, beeps will be heard from the rear, or five pulses will be felt on both sides of the Safety Alert Seat. There may also be a brief, sharp application of the brakes.



Warning


The Backing Warning System only operates at speeds greater than 8 km/h (5 mph). It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. In some situations, such as at higher backing speeds, there may not be enough time for the short, sharp application of the vehicle brake system to occur. To prevent injury, death, or vehicle damage, even with the Backing Warning System, always check the area around the vehicle and check all mirrors before backing.

When the vehicle is in R (Reverse), if the system detects the vehicle is backing too fast to avoid a crash with a detected object behind your vehicle in your path, it may automatically brake hard to a stop to help avoid or reduce the harm caused by a backing crash.

 **Warning**

RAB may not avoid many types of backing crashes. Do not wait for the automatic braking to apply. This system is not designed to replace driver braking and only works in R (Reverse) when an object is detected directly behind the vehicle. It may not brake or stop in time to avoid a crash. It will not brake for objects when the vehicle is moving at very low speeds. It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. To prevent injury, death, or vehicle damage, even with RAB, always check the area around the vehicle before and while backing.

Pressing the brake pedal after the vehicle comes to a stop will release RAB. If the brake pedal is not pressed soon after the stop, the Electric Parking Brake (EPB) may be set. When it is safe, press the accelerator pedal firmly at any time to override RAB.


 **Warning**

There may be instances where unexpected or undesired automatic braking occurs. If this happens, either press the brake pedal or firmly press the accelerator pedal to release the brakes from the RAB system. Before releasing the brakes, check the RVC and check the area around the vehicle to make sure it is safe to proceed.

Unexpected braking events are possible with a static installed accessory, such as a bike rack or hitch-mounted cargo carrier.

Rear Pedestrian Alert

If equipped, and under certain conditions, this feature provides alerts to the driver that a pedestrian may be behind the vehicle. This feature only works in R (Reverse) below 12 km/h (8 mph) when the pedestrian is directly behind the vehicle and within the system's range of up to 8 m (26 ft) away during daytime driving. During nighttime driving, feature performance is very limited.

 **Warning**

Rear Pedestrian Alert does not automatically brake the vehicle. It also does not provide an alert unless it detects a pedestrian, and it may not detect all pedestrians if:

- The pedestrian is not directly behind the vehicle, fully visible to the Rear Vision Camera (RVC), or standing upright.
- The pedestrian is part of a group.
- The pedestrian is a child.
- Visibility is poor, including nighttime conditions, fog, rain, or snow.
- The RVC is blocked by dirt, snow, or ice.
- The RVC, taillamps, or back-up lamps are not cleaned or in proper working condition.
- The vehicle is not in R (Reverse).

To help avoid death or injury, always check for pedestrians around the vehicle before backing up. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 167. Keep the RVC, taillamps, and back-up lamps clean and in good repair.



Rear Pedestrian Alert Indicator

When a pedestrian is detected within the system's range directly behind the vehicle, this symbol flashes amber on the infotainment display, along with five beeps from the rear, or if equipped, two pulses from both sides of the driver seat. When a pedestrian is detected close to the vehicle, the symbol flashes red on the infotainment display, along with ten beeps from the rear, or if equipped, seven pulses from both sides of the driver seat.

Rear Pedestrian Alert can be set to Off or Alert. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

If equipped, alerts can be set to beeps or seat pulses. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

Rear Cross Traffic Alert (RCTA) System

Rear Cross Traffic Alert (RCTA) displays a red warning triangle with a left or right pointing arrow on the infotainment display to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, either three chimes sound from the left or right, or three Safety Alert Seat pulses occur on the left or right side, depending on the direction of the detected vehicle.

Rear Cross Traffic Braking (RCTB)

RCTB displays a red warning triangle with a left or right pointing arrow on the infotainment screen to warn of traffic coming from the left or right. The system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, three chimes sounds from the left or right, depending on the direction of the detected vehicle. RCTB will bring the vehicle to a full stop if a collision is imminent.

Turning the Features On or Off

RCTA can be turned on or off using the infotainment system. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Assistance Systems for Driving

If equipped, when driving the vehicle in a forward gear, Forward Collision Alert (FCA), Lane Departure Warning (LDW), Lane Keep Assist (LKA), Blind Zone Steering Assist (BZSA), Lane Change Alert (LCA), Side Bicyclist Detection, Automatic Emergency Braking (AEB), Intersection Automatic Emergency Braking (I-AEB), and/or the Front Pedestrian Braking (FPB) System can help to avoid a crash or reduce crash damage.

Forward Collision Alert (FCA) System

Warning

FCA is a warning system and does not apply the brakes. When approaching a slower-moving or stopped vehicle ahead too rapidly, or when following a vehicle too closely, FCA may not provide a warning with enough time to help avoid a crash. It also may not provide any warning at all. FCA does not warn of pedestrians, animals, signs, guardrails, bridges, construction barrels, or other objects. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 167.

The FCA system may help to avoid or reduce the harm caused by front-end crashes. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the windshield and rapidly beeps or pulses the driver seat. FCA also lights an amber visual alert if following another vehicle much too closely.

FCA detects vehicles within a distance of approximately 110 m (360 ft) and operates at all speeds.

FCA can be disabled through vehicle settings. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

Detecting the Vehicle Ahead

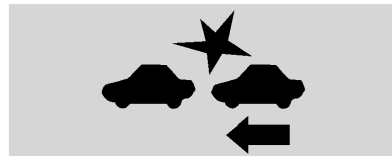
Warning

FCA does not provide a warning to help avoid a crash, unless it detects a vehicle. FCA may not detect a vehicle ahead if the FCA sensor is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and FCA sensors clean and in good repair.



FCA warnings will not occur unless the FCA system detects a vehicle ahead. When a vehicle is detected, the vehicle ahead indicator will display green. Vehicles may not be detected on curves, highway exit ramps, or hills, due to poor visibility; or if a vehicle ahead is partially blocked by pedestrians or other objects. FCA will not detect another vehicle ahead until it is completely in the driving lane.

Collision Alert



With Head-Up Display



Without Head-Up Display

When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this collision alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed.


Tailgating Alert



The vehicle ahead indicator will display amber when you are following a vehicle ahead much too closely.

Selecting the Alert Timing



The Collision Alert control is on the steering wheel. Press  to set the FCA timing to Far, Medium, or Near. The first button press shows the current setting on the DIC. Additional button presses will change this setting. The chosen setting will remain until it is changed and will affect the timing of both the Collision Alert and the Tailgating Alert features. The timing of both alerts will vary based on vehicle speed. The faster the vehicle speed, the farther away the alert will occur. Consider traffic and weather conditions when selecting the alert timing. The range of selectable alert timings may not be appropriate for all drivers and driving conditions.

If your vehicle is equipped with Adaptive Cruise Control (ACC), changing the FCA timing setting automatically changes the following gap setting (Far, Medium, or Near).

Following Distance Indicator

If equipped, the following distance to a moving vehicle ahead in your path is indicated in following time in seconds on the Driver Information Center (DIC). The minimum following time is 0.5 seconds away. If there is no vehicle detected ahead, or the vehicle ahead is out of sensor range, dashes will be displayed.

Unnecessary Alerts

FCA may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

Cleaning the System

If the FCA system does not seem to operate properly, this may correct the issue:

- Clean the outside of the windshield in front of the rearview mirror.
- Clean the entire front of the vehicle.

- Clean the headlamps.

Automatic Emergency Braking (AEB)

Warning

AEB is an emergency crash preparation feature and is not designed to avoid crashes. Do not rely on AEB to brake the vehicle. AEB will not brake outside of its operating speed range and only responds to detected vehicles.

AEB may not:

- Detect a vehicle ahead on winding or hilly roads.
- Detect all vehicles, especially vehicles with a trailer, tractors, muddy vehicles, etc.
- Detect a vehicle when weather limits visibility, such as in fog, rain, or snow.
- Detect a vehicle ahead if it is partially blocked by pedestrians or other objects.

(Continued)

Warning (Continued)

Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

Warning

AEB may automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could respond to a turning vehicle ahead, guardrails, signs, and other non-moving objects. To override AEB, firmly press the accelerator pedal, if it is safe to do so.

AEB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, AEB may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB or firmly press the accelerator pedal.

The AEB system may help avoid or reduce the harm caused by front-end crashes. AEB also includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is traveling in the same direction


that you may be about to crash into, it can provide a boost to braking or automatically brake the vehicle. This can help avoid or lessen the severity of crashes when driving in a forward gear. Depending on the situation, the vehicle may automatically brake moderately or hard. Always wear a seat belt and ensure that all passengers are properly restrained. This automatic emergency braking can only occur if a vehicle is detected. This is shown by the FCA vehicle ahead indicator being lit. See *Forward Collision Alert (FCA) System* ⇨ 228.

The system works when driving in a forward gear above 4km/h (2 mph). It can detect vehicles up to approximately 60 m (197 ft).

Intelligent Brake Assist (IBA)

Warning

IBA may increase vehicle braking in situations when it may not be necessary. You could block the flow of traffic. If this occurs, take your foot off the brake pedal and then apply the brakes as needed.

 **Warning**

Using AEB or IBA while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

IBA may activate when the brake pedal is applied quickly by providing a boost to braking based on the speed of approach and distance to a vehicle ahead.

Minor brake pedal pulsations or pedal movement during this time is normal and the brake pedal should continue to be applied as needed. IBA will automatically disengage only when the brake pedal is released.

AEB and IBA can be disabled through vehicle settings. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.


A system unavailable message may display if:

- The front of the vehicle or windshield is not clean.
- Heavy rain or snow is interfering with object detection.

- There is a problem with the StabiliTrak/ Electronic Stability Control (ESC) system.

The AEB system does not need service.

Intersection Automatic Emergency Braking (I-AEB) System

 **Warning**

I-AEB is an emergency crash preparation feature. Do not rely on I-AEB to brake or avoid crashes. I-AEB will not brake outside of its operating speed range and only responds to detected intersecting vehicles. I-AEB may not:

- detect a crossing or oncoming vehicle on winding or hilly roads.
- detect all vehicles, especially vehicles with a trailer, tractors, muddy vehicles, etc.
- detect a vehicle when weather limits visibility, such as in fog, rain, or snow.
- detect a vehicle ahead if it is partially blocked by pedestrians or other objects.

(Continued)

Warning (Continued)

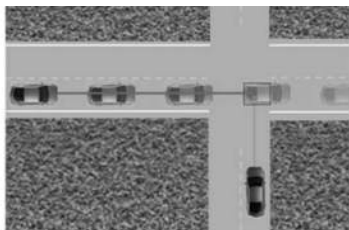
Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

If equipped, the I-AEB system may help avoid or reduce the harm caused by front-end crashes with crossing vehicles.

The system works when driving in a forward gear above 15 km/h (9 mph) and less than 80 km/h (50 mph). It can detect oncoming vehicles up to approximately 60 m (197 ft).

Vehicle Crossing the Path Ahead

When there is a crossing vehicle detected approaching from the right or the left side that may lead to a collision, I-AEB provides a red flashing alert on the windshield and rapidly beeps or pulses the Safety Alert Seat. See *Advanced Driver Assistance Systems* ⇨ 217. I-AEB can provide a boost to braking or automatically brake the vehicle.



I-AEB can be set to Off, Alert, or Alert and Brake. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Crossing Traffic Alert

When your vehicle approaches an intersecting vehicle too rapidly and there is risk of a collision, a red warning graphic will flash on the windshield. Also, eight rapid high-pitched beeps will sound, or the driver seat will pulse five times. The side of the seat that is pulsed and the location of the beeps will depend on the direction that the intersecting vehicle is detected from. When this collision alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed.



With Head-Up Display



Without Head-Up Display

Turning Across Oncoming Traffic Alert

When your vehicle approaches another detected vehicle too rapidly, a red graphic will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Collision Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed.

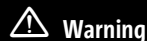


With Head-Up Display




Without Head-Up Display

Automatic Braking



Warning

I-AEB may automatically brake or increase vehicle braking in situations when it may not be necessary or desired. Your vehicle could block the flow of traffic. I-AEB may respond to stationary or parked vehicles, signs, and other non-moving objects. To override AEB, firmly press the accelerator pedal, if it is safe to do so.

 **Warning**

Using I-AEB while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

If I-AEB detects it is about to crash into an intersecting vehicle, and the brakes have not been applied, I-AEB may automatically brake moderately or hard. This can help to avoid some crashes or lessen impact by reducing the speed of the vehicle. Always wear a seat belt and check that all passengers are properly restrained. I-AEB can automatically brake between 15 km/h (9 mph) and 80 km/h (50 mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds.

I-AEB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, I-AEB may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB or firmly press the accelerator pedal to continue driving.


I-AEB may also apply the brakes automatically when there is an intersecting vehicle at risk of collision and the system determines that the driver is not braking with sufficient force.

Minor brake pedal pulsations or pedal movement during this time is normal and the brake pedal should continue to be applied as needed.

Cleaning the System

If I-AEB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

Front Pedestrian Braking (FPB) System

 **Warning**


FPB does not provide an alert or automatically brake the vehicle, unless it detects a pedestrian or bicyclist. FPB may not detect pedestrians, including children, or bicyclists:

(Continued)

Warning (Continued)

- When the pedestrian or bicyclist is not directly ahead, fully visible, or standing upright, or when part of a group.
- Due to poor visibility, including nighttime conditions, fog, rain, or snow.
- If the FPB sensor is blocked by dirt, snow, or ice.
- If the headlamps or windshield are not cleaned or in proper condition.

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 167. Keep the windshield, headlamps, and FPB sensor clean and in good repair.

The FPB system may help avoid or reduce the harm caused by front-end crashes with pedestrians and bicyclists near the forward path of the vehicle when driving in a forward gear. FPB displays an amber indicator, , when a nearby pedestrian or bicyclist is detected ahead. When approaching a detected pedestrian too quickly, FPB provides a red flashing alert on the windshield and rapidly

beeps or pulses the driver seat. FPB can provide a boost to braking or automatically brake the vehicle. This system includes Intelligent Brake Assist (IBA), and the Automatic Emergency Braking (AEB) system may also respond to pedestrians or bicyclists. See *Automatic Emergency Braking (AEB)* ⇨ 230. Always wear a seat belt and ensure that all passengers are properly restrained.

The FPB system can detect and alert to pedestrians or bicyclists in a forward gear at speeds between 8 km/h (5 mph) and 80 km/h (50 mph). During daytime driving, the system detects pedestrians or bicyclists up to a distance of approximately 40 m (131 ft). During nighttime driving, system performance is very limited.

FPB can be set to Off, Alert, or Alert and Brake through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/ Detection Systems.

Detecting the Pedestrian Ahead



FPB alerts and automatic braking will not occur unless the FPB system detects a pedestrian or bicyclist. When a pedestrian or bicyclist that may enter the forward path of the vehicle is detected, the pedestrian ahead indicator will display amber.

Front Pedestrian Alert



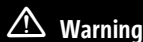
With Head-Up Display



Without Head-Up Display

When the vehicle approaches a pedestrian or bicyclist ahead too rapidly, the red FPB alert display will flash on the windshield. Eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Pedestrian Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Front Pedestrian Alert occurs.

Automatic Braking




Warning

FPB may alert or automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could falsely

(Continued)

Warning (Continued)

alert or brake for objects similar in shape or size to pedestrians or bicyclists, including shadows. This is normal operation and the vehicle does not need service. To override Automatic Braking, firmly press the accelerator pedal, if it is safe to do so.

 **Warning**

Using the Front Pedestrian Braking system while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

If FPB detects it is about to crash into a pedestrian or bicyclist directly ahead, and the brakes have not been applied, FPB may automatically brake moderately or brake hard. This can help to avoid some very low speed pedestrian or bicyclist crashes or reduce pedestrian injury. FPB can automatically brake to detected pedestrians or bicyclist between 8 km/h (5 mph) and 80 km/h (50


mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds.

FPB may slow the vehicle to a complete stop to try to avoid a potential collision with a pedestrian or bicyclist. If this happens, Automatic Braking may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB. A firm press of the accelerator pedal will also release Automatic Braking and the EPB.

Automatic Braking can be disabled through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Cleaning the System

If FPB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

Night Vision System **Warning**

The Night Vision system does not automatically brake the vehicle. It does not provide alerts unless it detects a pedestrian or large animal. The system may not detect pedestrians, including children, or animals:

- If they are less than 10 m (33 ft) away.
- If they are not directly ahead in the sensor coverage area, fully visible, standing upright, or part of a group.
- If the person or animal is moving too quickly through the field of view, such as a bicyclist.
- If the pedestrian is wearing insulated clothing.
- If headlamps are off, except when parked.
- If the outside temperature is above 30 °C (86 °F).
- Due to poor visibility, including in heavy fog, rain, or snow.

(Continued)

Warning (Continued)

- If the sensor is blocked by dirt, snow, rain, or ice.
- When traveling faster than 113 km/h (70 mph).

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 167. Keep the Night Vision sensor clean and in good repair.

Warning

The system does not detect all objects or the vehicle distance from objects. The system may not provide a warning with enough time to help avoid a crash.

Caution

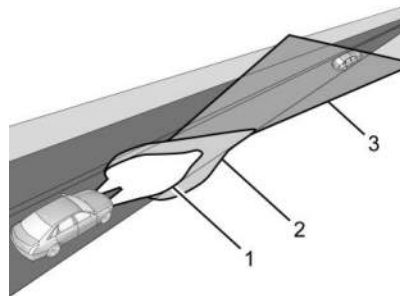
Do not use the Night Vision System during heavy precipitation if you are prone to photosensitivity. The image on the Driver Information Center (DIC) may flash or strobe.

If equipped, during the night, this system can help the driver see and alert the driver to pedestrians or large animals ahead of the vehicle beyond the area lit by the headlamps. A thermal heat image of the view ahead is displayed when it is dark enough outside. If a pedestrian or large animal is detected more than 25 m (82 ft) away, an amber pedestrian or animal icon displays and a box appears around the pedestrian or animal. When the system detects that the vehicle is approaching a pedestrian or large animal ahead too quickly, the box changes to red.



With the Front Pedestrian Braking system turned on, Night Vision provides a red Head-Up Display (HUD) alert, if equipped, when the system detects that the vehicle is approaching a pedestrian or large animal ahead too quickly.

In addition, an alert beeps or the Safety Alert Seat pulses, if equipped. See *Front Pedestrian Braking (FPB) System* ⇨ 233.



1. Low-Beam Headlamps
2. High-Beam Headlamps
3. Night Vision System


By selecting a view on the instrument cluster, the Night Vision image can be displayed. See *Instrument Cluster* ⇨ 93. The Night Vision system can detect objects only if:

- The ignition is on.
- The vehicle is in P (Park) or a forward gear.
- It is dark enough outside.

- The headlamps are on, except when parked.

Warning




Do not stare at the image while driving as this might cause important objects ahead not to be seen. You could crash, and you or others could be injured.


The thermal image will still appear during the day, however detections will be unavailable and  will display on the instrument cluster.

Adjust the instrument panel brightness to make the image no brighter than necessary. Turn the image off by selecting another view on the instrument cluster.


Warm objects, such as pedestrians, animals, and other moving vehicles, should appear whiter on the Night Vision display. Cold objects, such as the sky, trees, and parked vehicles, should appear darker. Night Vision only shows objects that are warmer or colder than the surroundings. It does not detect brake lamps, turn signals, emergency flashers, traffic lights, or sign information.

Use this system as an aid by occasionally glancing at the image. Do not stare at the image or use the image under well-lit conditions.

When a pedestrian or large animal is detected, an amber box displays around the pedestrian or animal on the Night Vision display and an amber pedestrian icon, , or animal icon, , displays on the instrument cluster. This pedestrian icon is also shown on the Head-Up Display (HUD), if equipped. When the system detects the vehicle is approaching a pedestrian too quickly, the amber pedestrian icon and box turns red, and a red flashing icon, , displays on the HUD, if equipped, with rapid beeping or pulsing of the Safety Alert Seat, if equipped.

When the system detects the vehicle is approaching an animal too quickly, the amber animal icon and box turns red, and a red flashing icon, , displays on the HUD, if equipped, with rapid beeping or pulsing of the Safety Alert Seat, if equipped.

System pedestrian icons, beeps, and (if equipped) Safety Alert Seat pulses can be set to Off through vehicle settings by turning off the Front Pedestrian Braking system. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems > Front Pedestrian Detection.

Pedestrian detection may not be available in high outside temperatures. An icon, , displays. The system does not need service.

In rain, snow, or fog the image may not be clear and the direction of the road ahead may not be seen. In more severe weather conditions, the image may be unclear and unusable. The system does not need service.

Keep the system sensor clean by activating the front window washer five times when it is dark enough for the system to operate. If the Night Vision image still looks blurry, use a soft wet cloth to gently clean the sensor camera lens and dry thoroughly. The sensor is behind the lower front grille below the driver side headlamp.

The camera must also be aligned to work correctly. If the camera needs adjustment, see your dealer. Do not attempt to adjust the camera yourself.

If the vehicle displays SERVICE NIGHT VISION, do not attempt to adjust camera yourself. See your dealer.

If the night vision camera gets blocked while driving, the system will attempt to detect the blockage and automatically clean the camera lens. This will happen a maximum of three

times per drive. In the event the system cannot clear the blockage the system will display a message on the DIC saying NIGHT VISION TEMP. UNAVAILABLE. The system does not need service. Please manually clean the lens following the instructions in this section.

Side Blind Zone Alert (SBZA)

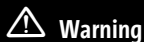
The SBZA system is a lane-changing aid that assists drivers with avoiding crashes that occur with moving vehicles in the side blind zone (or spot) areas. When the vehicle is in a forward gear, the left or right side mirror display will light up if a moving vehicle is detected in that blind zone. If the turn signal is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. Since this system is part of the Lane Change Alert (LCA) system, read the entire LCA section before using this feature.

Lane Change Alert (LCA)

The LCA system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with moving vehicles in the side blind zone (or spot) areas or with vehicles rapidly approaching these areas from behind.

The LCA warning display will light up in the corresponding outside mirror and will flash if the turn signal is on.

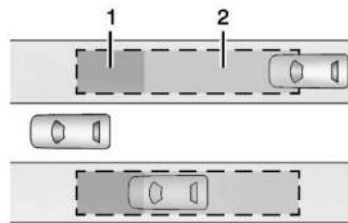
Side Blind Zone Alert (SBZA) is included as part of the LCA system.



Warning

LCA does not alert the driver to vehicles outside of the system detection zones, pedestrians, bicyclists, or animals. It may not provide alerts when changing lanes under all driving conditions. Failure to use proper care when changing lanes may result in injury, death, or vehicle damage. Before making a lane change, always check mirrors, glance over your shoulder, and use the turn signals.

LCA Detection Zones



1. SBZA Detection Zone
2. LCA Detection Zone

The LCA sensor covers a zone of approximately one lane over from both sides of the vehicle, or 3.5 m (11 ft). The height of the zone is approximately between 0.5 m (1.5 ft) and 2 m (6 ft) off the ground. The Side Blind Zone Alert (SBZA) warning area starts at approximately the middle of the vehicle and goes back 5 m (16 ft). Drivers are also warned of vehicles rapidly approaching from up to 70 m (230 ft) behind the vehicle.

How the System Works

The LCA symbol lights up in the side mirrors when the system detects a moving vehicle in the next lane over that is in the side blind zone or rapidly approaching that zone from behind.

A lit LCA symbol indicates it may be unsafe to change lanes. Before making a lane change, check the LCA display, check mirrors, glance over your shoulder, and use the turn signals.



Left Side Mirror
Display



Right Side Mirror
Display

When the vehicle is started, both outside mirror LCA displays will briefly come on to indicate the system is operating. When the vehicle is in a forward gear, the left or right side mirror display will light up if a moving vehicle is detected in the next lane over in that blind zone or rapidly approaching that zone. If the turn signal is activated in the same direction as a detected vehicle, this display will flash as an extra warning not to change lanes.

LCA can be disabled through vehicle personalization. To view available settings from the infotainment screen, touch Settings

> Vehicle > Collision/Detection Systems. If LCA is disabled by the driver, the LCA mirror displays will not light up.

When the System Does Not Seem to Work Properly

The LCA system requires some driving for the system to calibrate to maximum performance. This calibration may occur more quickly if the vehicle is driven on a straight highway road with traffic and roadside objects (e.g., guardrails, barriers). During a trip, the LCA system is not operational until the vehicle first reaches a speed of 24 km/h (15 mph).

LCA displays may not come on when passing a vehicle quickly or for a stopped vehicle. LCA may alert to objects attached to the vehicle, such as a bicycle, or object extending out to either side of the vehicle. Attached objects may also interfere with the detection of vehicles. This is normal system operation; the vehicle does not need service.

LCA may not always alert the driver to vehicles in the next lane over, especially in wet conditions or when driving on sharp curves. The system does not need to be serviced. The system may light up due to guardrails, signs,

trees, shrubs, and other non-moving objects. This is normal system operation; the vehicle does not need service.

LCA may not operate when the LCA sensors in the left or right corners of the rear bumper are covered with mud, dirt, snow, ice, or slush, or in heavy rainstorms. For cleaning instructions, see "Washing the Vehicle" under *Exterior Care* ⇨ 318. If the Driver Information Center (DIC) still displays the system unavailable message after cleaning both sides of the vehicle toward the rear corners of the vehicle, see your dealer.

If the LCA displays do not light up when moving vehicles are in the side blind zone or rapidly approaching this zone and the system is clean, the system may need service. Take the vehicle to your dealer.

Side Bicycle Detection

If equipped, the system may detect a bicyclist approaching from the side or rear of the vehicle.

If this occurs, a chime will sound in the direction of the detection, and the Safety Alert Seat will pulse if enabled through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Bicyclist Detection is available when the vehicle is in D (Drive), P (Park), and for a short time after the vehicle is turned off.

If the vehicle detects a bicyclist when it is off, a DIC message may display and alert to the direction of the detection. In some cases, an Unavailable message may display. This is normal and does not mean that the system is broken.

Detection Zones

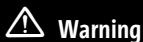
When the vehicle is in P (Park) or is turned off, a bicyclist can be detected 11 m (36 ft) behind the vehicle or 10 m (33 ft) to the side of the vehicle.

When the vehicle is in D (Drive), a bicyclist can be detected 3 m (10 ft) behind the vehicle or to the side of the vehicle.

Turning the Feature On or Off

Bicyclist Detection can be turned on or off through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Blind Zone Steering Assist (BZSA)



Warning




Do not rely on Blind Zone Steering Assist (BZSA) to prevent crashes. This system does not replace the need to pay attention and drive safely. Failure to use proper care when driving may result in vehicle damage, injury, or death.

- BZSA performance may be affected by weather and road conditions.
- BZSA does not provide steering assistance to avoid a vehicle that is in, or has entered, your lane of travel.
- BZSA will not prevent a towed trailer from crossing into the adjacent lane. Always monitor the trailer position while towing to ensure it is in the same lane as your vehicle. BZSA is only designed to detect when your vehicle unintentionally crosses detected lane lines.

The Blind Zone Steering Assist (BZSA) system can detect a potential crash with a moving vehicle in the lane you are entering. It provides a brief, urgent turn of the steering wheel to alert you to take action to avoid a collision.

BZSA works with Lane Keep Assist (LKA) and Lane Change Alert (LCA). BZSA operates when the vehicle is in a forward gear, and only when LKA and LCA are enabled and able to assist. See *Lane Keep Assist (LKA)* ⇨ 244. See *Lane Change Alert (LCA)* ⇨ 238.

BZSA will provide a steering correction when your vehicle is about to leave the current lane of travel, with the possibility of a collision with a vehicle in the adjacent lane. This steering correction happens closer to the center of the lane and has a stronger steering correction than LKA. Unlike LKA, the steering correction with BZSA will happen even if your turn signal is on in the direction of lane departure.

In addition to the BZSA steering intervention, the  will turn amber, six beeps or six seat pulses will occur, if equipped with Safety Alert Seat, and  or  will flash on the outside rear view mirror.

Traffic Sign Assistant

Traffic Sign Assistant recognizes designated traffic signs via the front camera located behind the windshield in front of the interior rear view mirror, and displays the detected speed limit in the Driver Information Center (DIC). Traffic Sign Assistant requires an active OnStar subscription. Additionally, speed limit information from the navigation system map database may be used.

Caution

The system is intended to assist the driver within a defined speed range to discern certain traffic signs. Always pay attention to posted speed limit signs.

Do not ignore traffic signs which are not displayed by the system.

The system does not discern any signs other than the conventional traffic signs that might give or end a speed limit. It may not detect some electronic speed signs.

(Continued)

Caution (Continued)

Depending on the weather conditions or problems with traffic signs, a traffic sign may not be recognized or a sign different from the actual traffic sign may be displayed.

Do not let this special feature tempt you into taking risks when driving.

Always adapt vehicle speed to the road conditions.

Driver assistance systems do not relieve the driver from full responsibility for vehicle operation.

Traffic signs that are detected are:

- Speed Limit
- Constraint Signs

Display Indication

The currently detected speed limit is displayed in the DIC until the next speed limit or end of speed limit sign is detected. Depending on the vehicle, the current valid speed limit is permanently displayed on the DIC or in the upper left of the instrument cluster.

A (--) symbol in a frame indicates there is a sign detected which cannot be clearly identified by the system.

A (J) symbol in a frame indicates that the feature is turned off or has failed.

See *Instrument Cluster* ⇨ 93.

Alert Function

If equipped, a chime may sound when you have exceeded the indicated speed limit, or if a new speed limit is detected.

The alert function can be turned on or off. To view available settings from the infotainment screen, touch Settings > Display > Instrument Cluster.

Each time the vehicle is started, the customization options will be turned on.

System Reset

The content of the traffic sign display can be cleared. To view available settings from the infotainment screen, touch Settings > Display > Instrument Cluster.

Upon successful reset, a (→) symbol displays until the next traffic sign is detected or provided by the navigation system map data. In some cases, traffic sign memory is cleared automatically by the system.

Alert function will automatically be turned on when the system is reset.

Navigation System Traffic Sign Detection

The currently displayed sign can either originate from sign detection using the camera, or from the navigation system map data. If the currently displayed sign originates from map data and the map information changes, a new sign will be displayed. This may lead to detection of a new sign although no sign on the road may have been passed. If the map data is unavailable, Traffic Sign Assistant will turn off automatically.

Traffic Sign Map Data Update

In order for the system to keep operating correctly, the traffic sign map data must be updated on at least an annual basis. Periodic updates will be made available to you at no cost for 14 years from the manufacturing date of the vehicle.

Your vehicle will remind you to update the traffic sign map data once a year. Check for new updates at www.gmnavdisc.navigation.com/speedsignmap.

To update:

1. Download the map updates to a USB-C flash drive.
2. Insert USB-C flash drive into the vehicle's USB port. See *USB Port* ⇨ 134.
3. From the infotainment home screen, touch Settings > Display > Instrument Cluster > Traffic Sign Recognition > Traffic Sign Data and follow the prompts on screen.

Do not plug anything else into the USB ports while the transfer is in progress. A message will appear on the infotainment screen when the transfer is complete.

Limitations

Traffic sign memory may not operate correctly if:

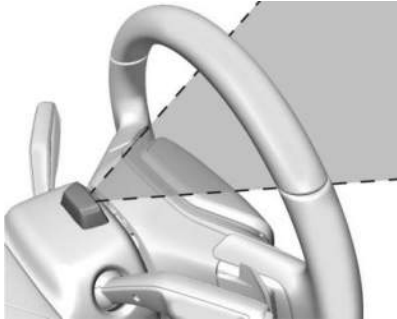
- The area of the windshield, where the front camera is located, is not clean or is affected by foreign objects, e.g. stickers, window tinting, etc.

- Traffic signs are completely or partially covered, are too low or high or difficult to discern.
- Traffic signs are incorrectly mounted or are damaged.
- Traffic signs do not comply with the approved traffic sign standards.
- The speed limit is displayed by certain types of electronic speed signs.
- There are adverse environmental conditions, e.g. heavy rain, snow, direct sunlight or shadows.
- The headlights are dirty or not correctly aligned when driving at night.
- The navigation map data is out of date.
- The navigation map is unavailable.

Driver Attention Assist

If equipped, Driver Attention Assist alerts the driver to pay closer attention to the road ahead. Driver Attention Assist uses a camera-based Driver Monitoring System. The Driver Monitoring System on the steering column continually monitors the driver's head movements and eye gaze location to determine if the driver is drowsy or

fatigued. Depending on the level of the driver's distraction or drowsiness, Driver Attention Assist will provide visual warnings, chimes, and, if equipped, haptic movements to gently guide the driver to look back at the road.



Sunglasses, hats, or other types of clothing that change the shape of the head may interfere with camera performance. To improve camera performance, raise or lower the steering wheel, or change the seat position.

Driver Attention Assist does not record video or audio. It is only active while driving with the feature enabled.

How to Activate Driver Attention Assist

Driver Attention Assist turns on automatically every time the vehicle is started. The feature can be enabled or disabled through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Driver Attention Assist > Drowsiness Detection.

Drowsiness Alerts

Depending on the drowsiness level, Driver Attention Assist will display escalating alerts in the instrument cluster. These alerts progress as the drowsiness level increases. Each level is designated by a coffee cup and a Driver Information Center (DIC) message recommending that the driver consider taking a rest break. Depending on the driver's drowsiness level, the system will also send chimes or haptic alerts, if equipped with Safety Alert Seat. The higher alerts will be seen more frequently. Not all alerts may occur during a drowsy event.

When the maximum drowsiness alert occurs, the driver will be presented with the following options on the infotainment screen:

- Phone a Friend

- Open a Playlist
 - Navigate to Nearest Point of Interest (POI)
- Select an option from the list and follow the instructions displayed on infotainment screen.

Cleaning the Camera

The camera lens cover on the steering column may become dirty over time. If this occurs, clean the lens cover with a soft cloth sprayed with glass cleaner. Wipe the lens gently, then dry it. Never use abrasive cloths, cleaners, or corrosive chemicals of any kind on the lens cover.

Limitations

Some factors can impact the performance of the Driver Attention Assist feature, causing it to not to function as intended. These include (but are not limited to):

- Damage to the Driver Monitoring System, camera, or lens.
- The camera being blocked by the steering wheel, hands, or objects.

If there is a problem with the system, a DIC message or icon in the instrument cluster may display.

Lane Keep Assist (LKA)

Warning

The LKA system does not continuously steer the vehicle. It may not keep the vehicle in the lane or give a Lane Departure Warning (LDW) alert, even if a lane marking is detected.

The LKA and LDW systems may not:

- Provide an alert or enough steering assist to avoid a lane departure or crash.
- Detect lane markings under poor weather or visibility conditions. This can occur if the windshield or headlamps are blocked by dirt, snow, or ice, if they are not in proper condition, or if the sun shines directly into the camera.
- Detect road edges.
- Detect lanes on winding or hilly roads.

If LKA only detects lane markings on one side of the road, it will only assist or provide an LDW alert when approaching the lane on the side where it has detected

(Continued)

Warning (Continued)

a lane marking. Even with LKA and LDW, you must steer the vehicle. Always keep your attention on the road and maintain proper vehicle position within the lane, or vehicle damage, injury, or death could occur. Always keep the windshield, headlamps, and camera sensors clean and in good repair. Do not use LKA in bad weather conditions.

Warning


Using LKA while towing a trailer or on slippery roads could cause loss of control of the vehicle and a crash. Turn the system off.

LKA may help avoid crashes due to unintentional lane departures. This system uses a camera to detect lane markings. The LKA system can be ready to assist above approximately 50 km/h (31 mph). LKA may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking. It may also provide a Lane Departure Warning (LDW) alert if the vehicle unintentionally crosses a detected lane




marking. LKA will not assist or alert if the turn signal is active in the direction of the lane departure, or if it detects that you are accelerating, braking, or actively steering. LKA can be overridden by turning the steering wheel. If the system detects you are steering intentionally across a lane marker, the LDW may not be given. Do not expect the LDW to occur when you are intentionally crossing a lane marker.

How the System Works

The LKA camera sensor is on the windshield ahead of the rearview mirror.

To turn LKA on and off, press  on the front center console display..

LKA may not be available in extremely cold temperatures of less than approximately -30° F (-34° C).

When on,  is white and changes green if LKA is available to assist and provide LDW alerts. It may assist by gently turning the steering wheel and display  as amber if the vehicle approaches a detected lane marking without using a turn signal in that direction. It may also provide an LDW alert by flashing  as amber as the lane marking is crossed.

Additionally, there may be three chimes on the right or left, depending on the lane departure direction.

Take Steering

The LKA system does not continuously steer the vehicle. If LKA does not detect active driver steering, an alert, chime, or Driver Information Center (DIC) message may be provided. Move the steering wheel to dismiss.

When the System Does Not Seem to Work Properly

The system performance may be affected by:

- Close vehicles ahead.
- Sudden lighting changes, such as when driving through tunnels.
- Banked roads.
- Roads with poor lane markings, such as two-lane roads.

If the LKA system is not functioning properly when lane markings are clearly visible, cleaning the windshield may help.

A system unavailable message may display if the camera is blocked. The LKA system does not need service.

LKA assistance and/or LDW alerts may occur due to tar marks, shadows, cracks in the road, temporary or construction lane markings, or other road imperfections. This is normal system operation; the vehicle does not need service. Turn LKA off if these conditions continue.

Surround Vision Recorder

If equipped, this system records video from the surround vision cameras to a USB flash drive. Audio is not recorded.

Continuous use of the Surround Vision Recorder will degrade the USB flash drive and reduce its longevity. A replacement flash drive will eventually be needed.

Insert a USB flash drive into one of four USB ports in the driver armrest or behind the front center console display. Eject the USB flash drive using the button in the settings menu before removing the USB flash drive from the vehicle. To access settings, select Surround Vision Recorder on the infotainment home screen. Removing it without using the eject button could corrupt the video file and/or the USB flash drive.

Activate: After inserting a USB flash drive, tap Surround Vision Recorder on the infotainment home screen and follow the prompts. Once completed, recording will start automatically when the app is closed. Recording continues until it is turned off in the settings screen, the app is reopened, or the vehicle is turned off.

Deactivate: Tap Surround Vision Recorder on the infotainment home screen. Toggle off Continuous Recording in settings.

Select from the following when the vehicle is in P (Park) and the video player is open:

Exit: Tap the infotainment home screen button to return to the home screen.

Video Timeline: Tap to view the video timeline. The video timeline displays video thumbnails from each drive that can be played back. Drag the timeline to the desired date/time to begin playback.

Rewind: Tap to return to the previous video.

Play/Pause: Tap to play or pause a recorded video.

Fast Forward: Tap to advance to the next video.

Camera Views: Tap the camera icon buttons on the vehicle image to switch between camera views. The default camera view shows the front of the vehicle.

In addition:

- The recorded video is stored on the USB flash drive in five-minute-long files.
- All files can be viewed on the playback app or when the USB flash drive is read by a personal computer (PC).
- Once the USB flash drive has recorded two hours of video, the oldest files will be overwritten.

Delete Data: Remove the USB flash drive from the vehicle and insert into a PC to manually delete the file.

Surround Vision Recorder may not work if:

- No USB flash drive is present. Make sure you have inserted a USB flash drive meeting the specifications. If already inserted, remove it and insert again.
- The USB flash drive or video files are corrupt. Remove the USB flash drive, format it on a computer, and try again.
- The USB flash drive does not have enough capacity. If previous data exists, remove it from the USB flash drive.
- There is a system error. Follow the prompts on screen to resolve the error.

Connected Cameras


If equipped, Connected Cameras may record video of the vehicle surroundings in the following situations:

- If a crash is detected.
- If the vehicle alarm system is triggered.
- When the user activates the system for mobile streaming.

With an active OnStar subscription, recordings can be uploaded to your OnStar account. See *OnStar Overview* ⇨ 348. Vehicle crash and anti-theft alarm recordings will upload a recorded file under certain conditions.

Recordings can be viewed on a connected mobile device using the myCadillac app.

Configuring the System

To access the settings, select  on the infotainment home screen.


Always review the settings carefully before use. Some settings allow you to choose which cameras are enabled. You can also make changes to the settings from your connected mobile device when the vehicle is off through the myCadillac app. If the settings were changed while the vehicle was off, the

driver will be informed of the changes the next time the vehicle is turned on through a vehicle message.

Crash Recording

If equipped and enabled, Connected Cameras automatically records the exterior of the vehicle briefly before and after a crash occurs. Some vehicle crashes may impact or inhibit the ability to record and upload video files to an OnStar account.

Security Recording

If Security Recording is equipped and enabled, Connected Cameras automatically records the vehicle's exterior and, when selected in Settings, the interior, if the anti-theft alarm is activated. To access the settings, select  on the infotainment home screen.

Security Recording must be turned on every time the vehicle is started, and may impact vehicle range. It can be activated remotely through the myCadillac app.

Live View

If equipped and enabled, live video can be sent or received through a mobile streaming request.

When the vehicle is on, the driver will be prompted to accept or reject a mobile streaming request. When the vehicle is off, the infotainment screen will turn on with the same request, but will automatically accept after a short time.

Streaming sessions may be saved by the user, and are available to view or download from the connected OnStar account.

Limitations

Connected Cameras may not be available in all locations or under all vehicle conditions. Recordings uploaded to a connected mobile device will be available in your account for a limited time.

Features are subject to change. Some features may be enabled with an additional subscription service.

Privacy Statement

Connected Cameras requires acceptance of the Connected Cameras Terms and Conditions, as well as the OnStar Connected Services Terms and Privacy Statement.

Every streaming and recording attempt requires the customer's permission, either in settings or by request. Only mobile devices,

which are linked to your vehicle, are able to request mobile streaming. The customer is responsible to inform others that recording is taking place, and to follow all laws and safety regulations while using Connected Cameras. GM will not access these videos unless required to do so by law or for purposes of customer service support.

Charging

When to Charge

When the high voltage battery is low, the following charging messages may display on the Driver Information Center (DIC):

CHARGE VEHICLE SOON : The battery needs to be charged soon.

REDUCED ACCELERATION DRIVE WITH CARE : The accelerator pedal response is reduced and the remaining range value changes to **LOW**, charge the vehicle immediately. See *Propulsion Power Messages* ⇨ 114.

OUT OF ENERGY, CHARGE VEHICLE NOW : The battery charge is fully depleted. The vehicle will slow to a stop. Brake and steering assist will continue operating. Once stopped, turn the vehicle off.

Plug-In Charging

Caution

To avoid damage to the vehicle, make sure the charging cord plug is in good condition, is not worn or damaged, and is connected securely to the vehicle's charging port. If vehicle charging is intermittent, disconnect the cord and inspect for damage. An excessively worn or damaged AC or DC charging cord plug may result in an intermittent connection and potential damage to the vehicle's charging port.

Plug-in charge times vary based on the battery condition, charge level, and the outside temperature. See *Charging* ⇨ 106 for charge mode selection.

Do not allow the vehicle to remain in temperature extremes for long periods without being driven or plugged in. When temperatures are below 0 °C (32 °F) and above 32 °C (90 °F), plug in the vehicle to maximize high voltage battery life.

In extreme temperature conditions, a full charge will take additional time.

Charging will slow down as the battery fills up. Charge the battery to 80% for daily driving, or when driving in mountainous terrain. The vehicle can be charged above 80% for long trips when not driving in mountainous terrain.

GM recommends the following:

- Unless your drive requires a full charge, charge the high voltage battery to 80% or less.
- Avoid allowing the high voltage battery to fall below 20% charged, if possible. See *Battery - North America* ⇨ 275.
- If your route includes steep mountain terrain, it is important that your battery charge level is 80% or less to maximize regenerative braking performance.

It is normal to hear fans, pumps, and electrical devices clicking while the vehicle is turned off and charging.

The vehicle does not require indoor charging area ventilation before, during, or after charging.

The vehicle cannot be driven while the charge cord is plugged into the vehicle.

If 12-volt battery power is lost, do not attempt to manually open the charge port door.

The charge port does not charge the 12-volt battery. Once the 12-volt battery is recharged or jumped, the charge port door can be opened and the vehicle can be charged.

Warning

Use of charge cord adaptors may cause electrical overheating, resulting in vehicle damage or personal injury. Only use GM approved adaptors with the charge cord.



To charge your vehicle, it may be necessary to use a special adapter to match the format of the charger you intend to use. The most common adapter for GM vehicles is a North American Charging Standard on a DC Fast Charger to CCS (the connector on your vehicle). If you use an adapter which is not sold, provided,

or approved by General Motors and it causes damage to your vehicle's battery, said damage would not be covered under warranty.

There are several infotainment screens that will display depending on the current charging status. See *Charging* ⇨ 106.

Charging Override

A CHARGING OVERRIDE/INTERRUPTION OCCURRED message may display to indicate that a charging override or interruption has occurred due to one or more of the following events:

- Override of the charge settings by the owner.
- Unintended interruption of AC power at the vehicle's charge port.
- Interruption of charging by the utility company.

AC Charging

If equipped, a loss of AC power alert may sound for a short time if AC power is lost for over one minute. This sound alert can be turned off. See *Charging* ⇨ 106.



AC Charge Cord Vehicle Plug

To Start AC Charging

1. Put the vehicle in P (Park).



2. Push the button to open the charge port door.

3. Open the liftgate, lift the load floor cover, and remove the charge cord.
4. Plug the charge cord into the electrical outlet. To verify the charge cord status, see *Electrical Requirements for Battery Charging* ⇨ 263 and *Charge Cord* ⇨ 255. For instructions to set cord limit settings for a charge session, see *Charging* ⇨ 106.
5. Plug in the AC charge cord into the vehicle charge port. Make sure the AC vehicle plug is fully connected to the AC charge port. If it is not properly connected, the vehicle may not be charged.
6. Verify that the charge status light turns on and an audible chirp occurs. See *Charging Status Feedback* ⇨ 252.

To End AC Charging

1. Unlock the charge cord from the vehicle by pressing the button on the top of the charge cord plug. Unplug the charge cord from the vehicle. The charge port door will automatically close when the charge cord is unplugged.



2. Press the button to manually close the charge port door.
3. Unplug the charge cord from the electrical outlet.
4. Place the charge cord into the storage compartment.

DC Charging

DC Charging Station Hardware

Warning

Do not use the charging station if the handle has defects such as cracks, exposed wires, burnt or missing pins, or any other damage. A damaged handle may result in personal injury and/or damage to the vehicle, the charging port or other property.

Caution

Do not attempt to disconnect the DC vehicle plug while charging is active. This action may damage the vehicle or charging station hardware.

The vehicle can be charged using DC charging equipment typically found at service stations and other public locations.

Check the charging station DC vehicle plug for compatibility with the DC charge port on this vehicle. This vehicle is compatible with a Combined Charging System 1 (CCS1) connector.

When recharging at a DC charge station, the charging cable connected to the vehicle must be less than 10 m (33 ft) in length to meet functionality and regulatory requirements.

For maximum charging performance, and to prevent charging interruptions or damage to the high voltage battery and vehicle:

- Remove your hands from the charging handle once it has been plugged in. If not done, this can cause a charging interruption.
- Ensure that the charge cord plug clicks.

Follow the steps listed on the charging station to perform a DC vehicle charge.

If for any reason DC charging does not begin or is interrupted, check the DC charging station display for messages. Unplug the cord to restart the DC charging process.

To Start DC Charging

1. Put the vehicle in P (Park).



2. Push the button to open the charge port door.

In cold weather conditions, ice may form around the charge port door. The charge port door may not open on the first attempt. Remove ice from the area and repeat attempting to open the charge port door.



3. Unlatch the DC charging dust cover and lower it fully.
4. Plug in the DC charge cord into the vehicle charge port. Make sure that the DC vehicle plug is fully connected to the DC charge port. If it is not properly connected, the vehicle may not be charged. Check the Driver Information Center (DIC) to make sure the vehicle plug is connected properly.
5. Follow the steps listed on the charging station to start charging.
6. When charging is active, the DC vehicle plug is locked to the DC charge port and cannot be disconnected.

7. Verify that the charge status light turns on and an audible chirp occurs. See *Charging Status Feedback* ⇨ 252.

To End DC Charging

When the vehicle is fully charged, charging automatically stops and the plug unlocks. You can also manually stop charging using the button on the DC vehicle plug, the controls at the charging station or by tapping "Stop" on the Charging page on your infotainment screen.

If the vehicle plug does not unlock from the vehicle charge port after a charge, contact Roadside Assistance. See *Roadside Assistance Program* ⇨ 339.

1. Unplug the DC vehicle plug from the DC charge port on the vehicle and close the dust cover.
2. The charge port door will automatically close when the charge cord is unplugged.

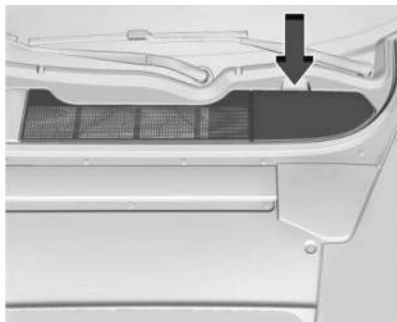


3. Press the button to manually close the charge port door.
4. Manually disengage the Electric Parking Brake (EPB) before driving the vehicle.

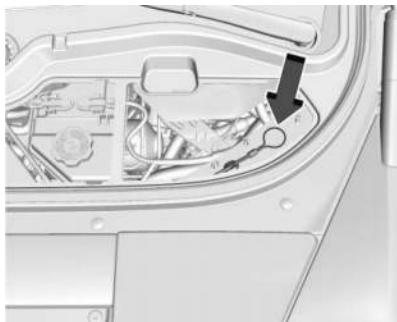
Emergency Manual Charge Cord Release

The vehicle is equipped with an emergency manual charge cord release in the event the DC vehicle plug cannot be released normally.

1. Open the hood. See *Hood* ⇨ 267.



2. The emergency manual charge cord release is below the underhood access covers. To remove, see *Underhood Access Covers* ⇨ 268.



3. Pull the emergency manual charge cord release handle. The DC charge cord will release.

To Stop AC or DC Charging

Controls on the charging station can be used to stop the charge process at any time.

To stop charging when inside the vehicle, use the Stop Charge button on the Charging screen. See “Active Charging” under *Charging* ⇨ 106.

Delayed Charging Override

To temporarily override a delayed charge event, unplug the charge cord from the charge port and then plug it back in within five seconds. A single audible chirp will sound and charging will begin immediately.

To cancel a temporary override, unplug the charge cord, wait for 10 seconds, and then plug the charge cord back in. A double audible chirp will sound and charging will be delayed.

See *Charging* ⇨ 106 for advanced charge scheduling options.

Charging Status Feedback

This vehicle is equipped with a charge port light and a headlight Charge Status Indicator.



When the charge cord is plugged in, a color appears and a sound indicates the charging status.

The headlight Charge Status Indicator bar is located on the headlights. As charging occurs, the blue light bars on the headlamps fill towards the center of the vehicle.

Refer to the table for charging status feedback once the charge cord is plugged in:

Charge Port Light Color	Headlight Charge Status Indicator	Sound	Description
Solid Blue	None	None	Initial connection is successful.
Pulsing Blue	Single light bar flashing	Two audible chirps	Charging is delayed by the charging screen or by a total utility interruption. Charging will begin later. See <i>Utility Interruption of Charging</i> ⇨ 263. Utility Override (“Demand Response”).
Blinking Green (the longer the blink, the higher the state of charge)	Solid light bars represent the available state of charge. The remaining light bars build in a swipe pattern towards the center of the vehicle.	One audible chirp	Vehicle is actively charging.
Solid Green	All light bars are solid	None	Charging is complete.
Pulsing Red	Off	None	Error Check the charge cord connection. There may be no power supplied to the vehicle.
None (upon plug-in)	None	None	Check the charge cord connection.

Charge Port Light Color	Headlight Charge Status Indicator	Sound	Description
None (after blue and green lights up)	None	None	Check the charge cord connection. If the connection is good, this may indicate a power failure or a total utility interruption, and charging will begin later. It may also occur if a high voltage charging system fault is detected. See <i>Utility Interruption of Charging</i> ⇨ 263 or <i>Service Vehicle Soon Light</i> ⇨ 99.
None	None	Three audible chirps when the driver door is opened	The charge port door is open.
Flashing Green (the longer the blink, the higher the state of charge)	None	Four audible chirps	The currently set departure time cannot be met. This may be due to charging power level or charge schedule setting factors. Refer to the charging screen for actual charge completion time. See <i>Charging</i> ⇨ 106.

Charge Port Light Color	Headlight Charge Status Indicator	Sound	Description
Pulsing Green	None	One audible chirp	The vehicle is actively discharging through the vehicle to vehicle cord.
None	None	Four audible chirps	When using Persistent Power, the vehicle is approaching the Range Reserve Limit or the Timer (if enabled) to end the session.

Once charging is completed and all the blue light bars are filled on the headlights, they will remain lit for five minutes and then turn off.

To turn off the headlight Charge Status Indicator light bars, see "Charging Settings" section under *Charging* ⇨ 106.

Charge Cord

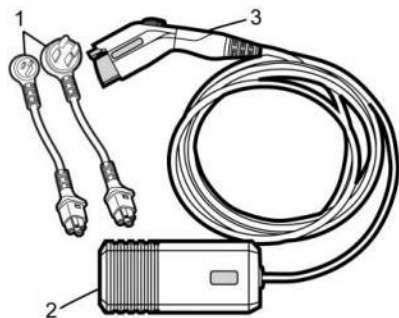
INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK IMPORTANT SAFETY INSTRUCTIONS



This symbol indicates risk of electrical shock.

The portable charge cord is used to charge the high voltage battery. When used correctly, the charge cord provides a safe connection between a standard electrical outlet and your vehicle's on-board charger.

When storing the charge cord in the vehicle, ensure the charge cord bag is secured. Depending on the storage location, tether the charge cord bag to vehicle.



1. 120-volt and 240-volt Connectors
2. Charge Cord Control Box and Charge Cord Status Indicator
3. Charge Cord Vehicle Plug

Important Information about Portable Electric Vehicle (EV) Charging

Warning

When using electric products, basic precautions should always be followed, including the following:

(Continued)

Warning (Continued)

- Read all the safety warnings and instructions before using this product. Failure to follow the warnings and the instructions may result in electric shock, fire, and/or serious injury.
- Never leave children unattended near the vehicle while the vehicle is charging and never allow children to play with the charge cord.
- If the plug provided does not fit the electrical outlet, do not modify the plug. Arrange for a qualified electrician to inspect the electrical outlet.
- Do not put fingers into the electric vehicle connector.


Warning

Improper use of portable electric vehicle charge cords may cause a fire, electrical shock, or burns, and may result in damage to property, serious injury, or death.

(Continued)

Warning (Continued)

- Do not use extension cords, multi-outlet power strips, splitters, grounding adapters, surge protectors, or similar devices.
- Do not use an electrical outlet that is worn or damaged, or will not hold the plug firmly in place.
- Do not use an electrical outlet that is not properly grounded.
- Do not use an electrical outlet that is on a circuit with other electrical loads.
- Do not wrap the charge cord around the housing of the control box.


 **Warning**

- To reduce the risk of fire, installations shall comply with the requirements of National Electric Code, ANSI/NFPA 70 (USA), Canadian Electrical Code CSA 22.1 and IEC 60364 – Electrical installations in buildings, depending on the region in which the unit is being installed. The installer shall comply with any additional local requirements mandated by the country and/or municipality.
- Do not use this product if the flexible power cord or the electric vehicle cable is frayed, has broken insulation, or shows any other signs of damage.
- For Canada only: Not for use in commercial garages.
- Do not use this product if the enclosure or the vehicle plug is broken, cracked, open, or shows any other indication of damage.

(Continued)

Warning (Continued)


- The plug must be plugged into an appropriate electrical outlet that is properly installed in accordance with all local codes and ordinances. Do not modify the plug provided with the product. If the plug does not fit the electrical outlet, have a proper electrical outlet installed by a qualified electrician. If ground is missing, the charge cord indicators will indicate an electrical system fault and the vehicle may not charge.

 **Warning**

Connecting charging components incorrectly or to a damaged outlet can cause vehicle or property damage, personal injury, or death. When charging your vehicle, ensure all components are connected properly, there is no damage, and the outlet has power.

 **Warning**

Disconnecting the charge cord from the grid outlet while charging can result in damage and/or injury. Do not disconnect while the vehicle while charging.

 **Warning**

Water, moisture, and other foreign objects can pose a risk when using the charge cord. When charging outdoors, plug into an electrical outlet that is weatherproof and avoid situations where water can run along the charge cord to the vehicle inlet or the grid outlet. Do not place the control box and charge cord in a location where it may be submerged in water. Do not use the charge cord in severe weather conditions.

 **Warning**

Check the electrical outlet/plug while charging and discontinue use if the electrical outlet/plug appears hot. Using a hot electrical outlet/plug could result

(Continued)

Warning (Continued)

in vehicle or property damage, personal injury, or death. Have the electrical outlet serviced by a qualified electrician.

Warning

Water, moisture, and other foreign objects can damage the portable charge cord. Damage to the charge cord could result in electrical malfunction, vehicle damage, electrical shock, or death. Protect the portable charge cord against water, moisture and foreign objects at all times.

Caution

Coiling or storing the charge cord in a location it may be crushed or forced into space to form a circle smaller than 178 mm (7 in) can damage the cord. Avoid restricting the charge cord rotation or applying excessive pulling force while wrapping.

Caution

Using non-approved electrical sources to charge can cause damage to the charging system. Do not attempt to use the charge cord with non-utility supplied electrical power sources such as backup generating equipment.

Caution

Electrical outlets may wear out with normal usage or may be damaged over time making them unsuitable for electric vehicle charging. Regularly inspect outlets for wear and tear. Do not use if worn or damaged.

Before plugging the charge cord into any electrical outlet, have a qualified electrician inspect and verify the electrical system (electrical outlet, wiring, junctions, and protection devices) is suitable for a heavy-duty service.

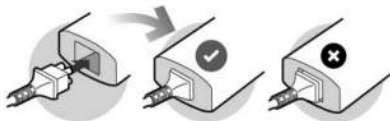
Installing and Operating the Portable Charge Cord

The charge cord must be on a dedicated individual branch circuit. A dedicated circuit ensures that there is enough power available without overloading the system.

If a dedicated circuit is not used, the circuit breaker could trip or open. If a dedicated circuit is not available, contact a qualified electrician. See “Grounding Instructions” later on in this section.

The charge cord must operate at a temperature between -30 °C (-22 °F) and 50 °C (122 °F).

1. Snap the desired connectors into the control box before making any other connections.

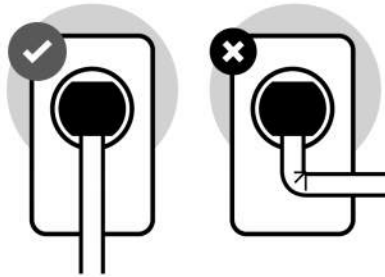


Ensure the connectors are fully inserted into the control box or the charge cord will not work properly.



2. Mount the charge cord to reduce strain on the electrical outlet/plug. Mount the control box in a suitable location to prevent physical stress on the electrical outlets and charge cord components.

Mount the control box directly to the wall or stud near a suitable electrical outlet. The retention eyelets on the control box are optimized for use with #10 drywall screws.



3. Handle electrical cables with care. Do not sharply bend, pull, or crush cables.
4. Connect the attachment plug to the electrical outlet. Refer to the “Charge Cord Status Indicator” section to ensure the charge cord is working properly.
5. Insert the vehicle plug into the vehicle charge port to initiate charging.
6. To disconnect the charge cord, press and hold the latch release button on the vehicle plug. Once disconnected from the vehicle, the charge cord can be unplugged from the wall.

Charge Cord Status Indicator

After plugging in the charge cord, it will perform a quick self test.

Verify the charge cord status on the charge cord control box. The charge cord uses a combination of red and green indicators to display the status of the charge cord.

Green	Red	Reason	Action
–	–	The charge cord has no power.	Verify all components are connected properly, there is no damage, and the outlet has power. If the error continues, contact your dealer.
On	–	The charge cord is ready to use.	Plug the charge cord into the vehicle charge port to begin charging.
Blinking	–	Vehicle is actively charging.	No action needed.
Blinking	Blinking	An error has occurred and the charge cord is rebooting.	Wait for the charge cord to return to a solid green. If it reboots two or three more times, unplug the charge cord from the vehicle. If the error continues, contact your dealer.
Blinking	Three blinks	Due to internal overheating from the charge cord control box, charging is at a reduced rate.	If unplugging and plugging back in does not work, move the charge cord away from direct sunlight and/or hot surfaces such as asphalt paving.
Blinking	One blink	Due to overheating on the AC plug or electrical outlet, charging is at a reduced rate.	Disconnect from the electrical outlet. If the error persists, have a qualified electrician inspect and repair the issue.

Green	Red	Reason	Action
–	One blink	The charger is troubleshooting after an error and requires a reboot.	Try the following actions to restore the full charging rate: <ul style="list-style-type: none"> – Verify all components are connected properly. Ensure the connectors are fully inserted into the control box or the charge cord will not work properly. – Unplug and plug in the connector. – If the charge cord is in a warm environment, try charging in a cooler area. – Try a different outlet or connector, if available. If the error continues, contact your dealer.
–	Two blinks	There is a Ground Fault Circuit Interruption (GFCI) fault.	After 15 minutes, it will auto-reset. Try a different connector, if available. If the error continues, contact your dealer.
–	On	There is a cordset internal fault.	Immediately disconnect from the electrical outlet and the vehicle. Contact your dealer for a replacement.

If the charge cord status indicator is not lit, ensure the electrical outlet has power.

Charge Cord Auto-Restart

Your charge cord set is equipped with the auto-restart feature. When charging your vehicle, if there is an error detected, the auto-restart feature works to eliminate the error and resume charging.

If the error is caused by a Ground Fault Circuit Interruption (GFCI) fault, the charger attempts to restart for a 15 minute interval. After the fourth attempt to restart, the charger shuts down and the red indicator stays on. Unplug and plug the charge cord back in to reset the charging. If this error continues, stop charging your vehicle. See your dealer for service.

Charge Level Selection

Warning

Using a vehicle charge level that exceeds the electrical circuit or electrical outlet capacity may start a fire or damage the electrical circuit. Use the lowest vehicle charge level until a qualified electrician inspects the electrical circuit capacity. Use the lowest vehicle charge level if the electrical circuit or electrical outlet capacity is not known.

Charge level selection can be made using the Settings tab in the Charging app on the infotainment display. For instructions to set vehicle charge level settings for a charge session, see *Charging* ⇨ 106.

Troubleshooting

Disconnect the charge cord from the vehicle and confirm that the attachment plug is not too hot to grasp before removing.

If it is not hot, manually reboot the charge cord by unplugging and plugging the attachment plug back into the electrical outlet. If the same fault reoccurs, test the charge cord with a different electrical outlet.

The charge cord monitors temperature at several locations and may reduce charging power or interrupt charging if temperatures become too high. The charge cord status indicators illuminate and identify this fault. In hot climates, move the charge cord away from direct sunlight and/or hot surfaces such as asphalt pavement for approximately 30 minutes.

If there are signs of melting or scorching, do not touch the charge cord or attachment plug. Have a qualified electrician inspect and repair the issue.

If there are no signs of damage, check how firm the fit of the plug is. If the plug easily pulls away from the electrical outlet, test the plug on a known good electrical outlet. If the fault condition returns, have your charge cord inspected by your dealership. If the fault does not return, stop using the suspected circuit and have a qualified electrician inspect and repair the issue.

Grounding Instructions

Warning

Improper connection of the charge cord ground may cause electrical shock. Check with a qualified electrician if there is doubt as to whether the charge circuit is properly grounded. Do not modify the plug provided with the product. If it will not fit the electrical outlet, have a proper electrical outlet installed by a qualified electrician.

The charge circuit must be grounded. If the charge circuit should malfunction or break down, grounding provides a path of least resistance for the electric current to reduce the risk of electric shock. This product is equipped with a cord that has an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

User Maintenance

The portable charge cord is not serviceable. Do not attempt to perform maintenance on the charge cord, see your dealer for replacement

parts. Clean the charge cord and control box with a dry cloth and do not use any cleaning products.

Moving and Storage

When moving the charge cord equipment, use care to prevent damage to the equipment. Do not twist, pull, or drag the charge cord. Do not lift or carry the equipment by the charge cord only.

Keep the charge cord mounted and plugged into the electrical outlet for daily use. If the charge cord will not be used for a long period, unplug it and store in a clean, temperature controlled location between -40 °C (-40 °F) and 85 °C (185 °F).

FCC Information

See *Radio Frequency Statement* ⇨ 344.

Charge Cord Specifications

Voltage: 85–265 volts, AC single phase/split phase only

Frequency: 45–66 Hz

Enclosure: NEMA 4X

Current: Max 32 amps (Grid plug specific)

NEMA 5–15P Max Cordset: 12 amps

NEMA 14–50P Max Cordset: 32 amps

SAVE THESE INSTRUCTIONS

Utility Interruption of Charging

This vehicle responds to requests through the utility company to limit or completely block electrical power grid use. This feature is inactive during DC charging. A utility interruption will lengthen the vehicle charge time.

When electrical grid power is completely blocked, the vehicle will not charge until the utility interruption has expired. The vehicle should be left plugged in so that the vehicle will automatically resume charging.

Changing the charge mode to Charge Now or performing a delayed charging override will not disable a utility interruption.

A message will display on the instrument cluster indicating that a utility interruption has occurred.

Electrical Requirements for Battery Charging

This vehicle is designed for compatibility with most standard vehicle charging equipment in the region of sale. Check for charger compatibility before purchasing a charger.

See *Charge Cord* ⇨ 255.

Trailer Towing

General Towing Information



Never tow a trailer with your vehicle. It was not designed or intended to tow a trailer.

Conversions and Add-Ons

Add-On Electrical Equipment

Warning

The Data Link Connector (DLC) is used for vehicle service and Emission Inspection/Maintenance testing. See *Service Vehicle Soon Light* ⇨ 99. A device connected to the DLC — such as an aftermarket fleet or driver-behavior tracking device — may interfere with vehicle systems. This could affect vehicle operation and cause a crash. Such devices may also access information stored in the vehicle's systems.

Caution

Some electrical equipment can damage the vehicle or cause components to not work and would not be covered by the vehicle warranty. Always check with your dealer before adding electrical equipment.

Add-on equipment can drain the vehicle's 12-volt battery, even if the vehicle is not operating.

When adding electrical equipment, it should only be connected using the accessory power outlets. The maximum power that can be supplied by one accessory power outlet or spread across all three is 200 watts or 15 amps. Exceeding 200 watts or 15 amps may cause erratic vehicle operation.

The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see *Servicing the Airbag-Equipped Vehicle* ⇨ 60 and *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 61.

Vehicle Care

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General Information

For service and parts needs, visit your dealer. You will receive genuine GM parts and GM-trained and supported service people.

Genuine GM parts have one of these marks:



The logo features the word 'ACDelco' in a stylized, italicized, bold font with a horizontal line underneath.

California Perchlorate Materials Requirements

Certain types of automotive applications, such as airbag initiators, seat belt pretensioners, and lithium batteries contained in electronic keys, may contain perchlorate

materials. Perchlorate Material – special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

Accessories and Modifications

Caution

When adding accessories or other equipment after the purchase of your vehicle, ensure you are not exceeding the vehicle axle weight ratings or overall weight ratings. Overloading the vehicle may cause damage. Repairs would not be covered by the vehicle warranty. Do not overload the vehicle. See *Vehicle Load Limits* ⇨ 172 for specific weight ratings.

Adding non-GM approved accessories or making vehicle modifications can affect performance and safety with airbags, braking, stability, ride and handling, emissions systems, aerodynamics, durability, Advanced Driver Assistance Systems, and electronic systems like antilock brakes, traction control, and stability control. These accessories or modifications could cause malfunction or damage not covered by the vehicle warranty.

Damage to suspension components caused by modifying vehicle height outside of factory settings will not be covered by the vehicle warranty.

Damage to vehicle components resulting from modifications or the installation or use of non-GM certified parts, including control module or software modifications, is not covered under the terms of the vehicle warranty and may affect remaining warranty coverage for affected parts.

Also, see *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 61.

Vehicle Checks

Doing Your Own Service Work

Warning

Never try to do your own service on high voltage battery components. You can be injured and the vehicle can be damaged if you try to do your own service work. Service and repair of these high voltage battery

(Continued)

Warning (Continued)

components should only be performed by a trained dealer technician with the proper knowledge and tools.

Exposure to high voltage can cause shock, burns, and even death. The high voltage components in the vehicle can only be serviced by technicians with special training.

High voltage components are identified by labels. Do not remove, open, take apart, or modify these components. High voltage cable or wiring has orange covering. Do not probe, tamper with, cut, or modify high voltage cable or wiring.



Warning

Unexpected wheel motion and/or direction when one or more wheels are off the ground for service work may result in injury. The vehicle may:

(Continued)

Warning (Continued)

- Allow the wheels to rotate unexpectedly in either direction regardless of mode selection.
- Allow the wheels to rotate in reaction to attempts to rotate the tire(s) manually.
- Resist attempts to rotate the wheels manually.

Before lifting the vehicle to do your own service work, turn the vehicle off or place the vehicle in the Service Mode. To place the vehicle in Service Mode, with the vehicle off and the brake pedal not applied, press and hold POWER for more than five seconds.



Warning

It can be dangerous to work on your vehicle if you do not have the proper knowledge, service manual, tools, or parts. Always follow owner's manual procedures and consult the service manual for your vehicle before doing any service work.

If doing some of your own service work, use the proper service manual. It tells you much more about how to service the vehicle than this manual can. To order the proper service manual, see *Publication Ordering Information* ⇨ 344.

This vehicle has an airbag system. Before attempting to do your own service work, see *Servicing the Airbag-Equipped Vehicle* ⇨ 60.

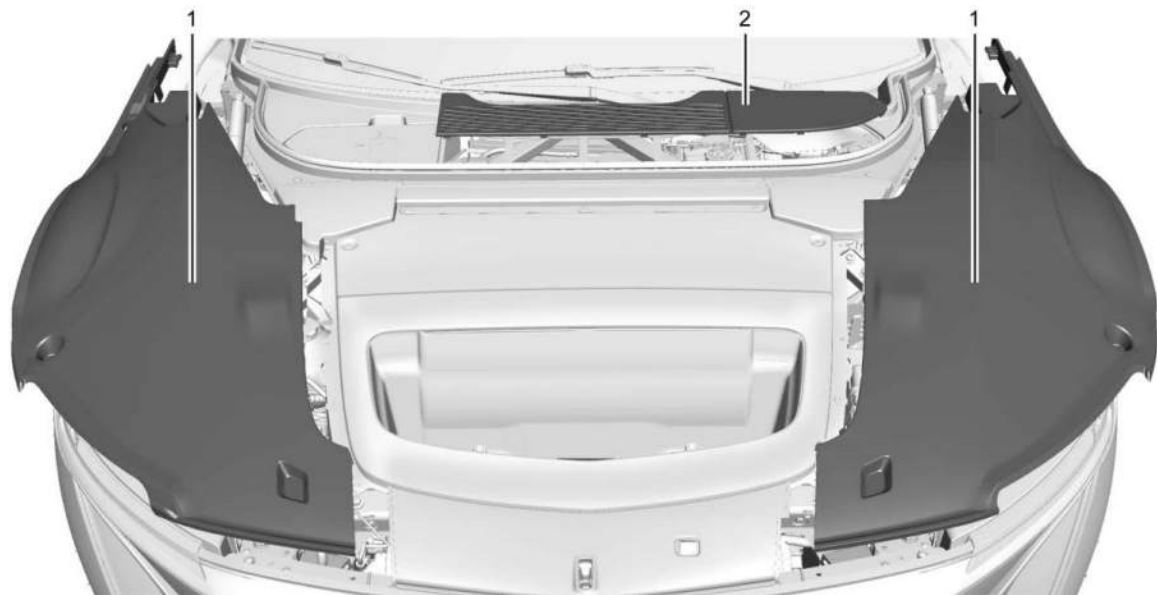
Keep a record with all parts receipts and list the mileage and the date of any service work performed. See *Maintenance Records* ⇨ 333.

Hood

This vehicle is equipped with a power hood to cover the front underhood compartment. The power hood opens and closes with the press of a button or in hands-free mode. You can customize settings or disable this feature on the lower display screen at Settings > Vehicle > Comfort and Convenience > Power Hood Opening.

If the battery is disconnected or has low voltage, the hood will not open. The hood will resume operation when the battery is reconnected and charged. See *Hood* ⇨ 17 in the Doors section.

Underhood Access Covers



1. Sight Shield Access Covers
2. Air Inlet Panel Cover

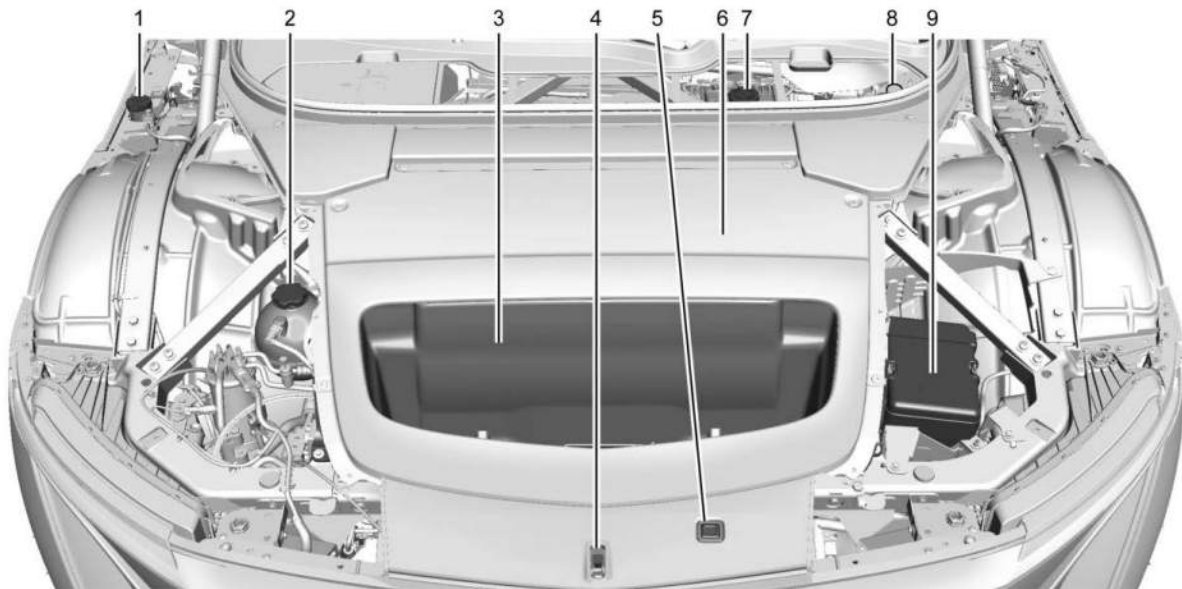
The underhood access covers conceal various reservoirs and maintenance items. You may need to remove one or more access covers to reach what you need.

Carefully lift the sight shield access covers to prevent damaging the clips that secure them.

The air inlet panel cover has a handle on the side facing the windshield. Grip the handle and lift to remove it.

Ensure all access covers are attached securely before closing the hood.

Underhood Compartment Overview



Curate Model (Uplevel)

1. Windshield Washer Fluid Reservoir. See *Washer Fluid* ⇨ 273.
2. EV Coolant Reservoir (under cover). See *Cooling System* ⇨ 271.
3. eTrunk™. See *Underhood Storage* ⇨ 82.
4. Hood Latch.
5. Power Hood Close Button. See *Hood* ⇨ 267.
6. Battery (under cover). No access to battery. See *Battery - North America* ⇨ 275.
Terminal connections for jump starting are under the rear liftgate. See *Jump Starting - North America* ⇨ 313.
7. Brake Fluid Reservoir. See *Brake Fluid* ⇨ 274.
8. Charging Port Manual Cord Release (under cover). See “Emergency Manual Charge Cord Release” on *Plug-In Charging* ⇨ 247.
9. Fuse Block. See *Underhood Compartment Fuse Block* ⇨ 282.

Cooling System

Warning

If the coolant inside the surge tank is boiling, do not do anything else until the cooling system cools down. You or others could be burned. You should have your vehicle checked by your GM dealer.

Warning

The coolant system hoses and related components become hot during vehicle operation. To avoid potential burns, do not touch these components while they are still hot.

Electric vehicles have one or more independent cooling systems designed to control the temperature of the high voltage battery, power electronic modules, and cabin heating. These cooling systems are complex and should only be serviced by a qualified technician.

The following explains the cooling systems and how to check coolant levels.

High Voltage Battery Cooling System

The high voltage battery cooling system works to keep the vehicle battery within a normal operating temperature range. If the temperature rises above this range, the battery cooling system turns on the air conditioning compressor to regulate the temperature. If the temperature falls below this temperature, a high voltage heater, located outside the battery on a cradle, heats the coolant until the correct temperature is reached.

Single Power Inverter Module, Accessory Power Module, and Charger Module

The Single Power Inverter Module (SPIM), Accessory Power Module (APM), and charger module are cooled using a separate coolant loop. These modules are kept below a maximum temperature. If the temperature rises above this temperature, the electric cooling fan will turn on to cool the coolant.

Cabin Heating

Cabin heating is maintained by coolant heated by the Coolant Heater Control Module (CHCM), separate from the power electronics and

battery coolant loops. This module heats the coolant based on temperature inputs from the cabin climate control systems.

Cooling System Pressure Caps

Caution

If the pressure caps are not secured and tightened properly, coolant loss and damage to the vehicle and/or its electrical systems may occur. Always visit your local GM dealer/retailer for service to the electric vehicle cooling systems.

Electric vehicle cooling system pressure caps are tamper-resistant and must be fully installed on the coolant surge tanks at all times. The coolant should only be serviced by a qualified technician.

Coolant

Caution

GM electric vehicle cooling systems require a 50/50 mix of DEXCOOL and de-ionized water. Use only ACDelco Premix (50/50 mixture of DEXCOOL and de-ionized water), which is available from your dealer. Do not use DEXCOOL mixed with tap water or distilled water in an electric vehicle cooling system as it could damage and/or contaminate the cooling system and related components. The vehicle could become disabled.

The electric vehicle cooling systems are filled with coolant that meets GM Standards GMW18270 and GMW3420 (DEXCOOL). This coolant is designed to remain in the vehicle for five years or 240,000 km (150,000 miles), whichever occurs first.

Checking Coolant

Warning

Do not drive the vehicle if there is a coolant leak. Coolant loss can indicate a problem. All the coolant could leak out, causing the vehicle to suddenly lose propulsion while driving, which could result in a crash causing vehicle damage or personal injury/death. Always visit your local GM dealer/retailer for electric vehicle cooling systems service.

The coolant needs to be replaced at the appropriate interval. See *Maintenance Schedule* ⇨ 329.

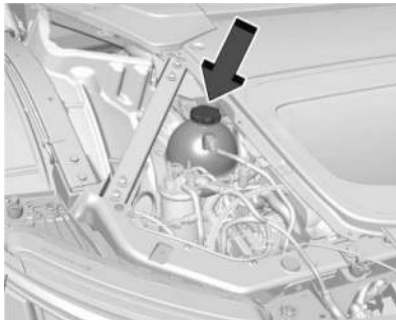
The coolant reservoir is in the underhood compartment. See *Underhood Compartment Overview* ⇨ 270.

How to Add Coolant to the Coolant Surge Tank

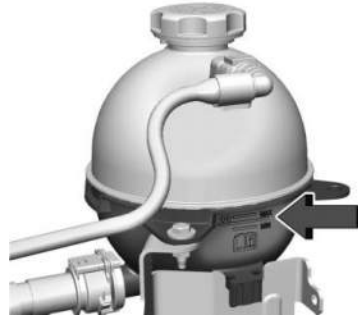
Warning

Use only ACDelco Premix (50/50 mixture of DEXCOOL and de-ionized water), which is available from your dealer. Do not use any other coolant or mixture. Plain water or other liquid may cause cooling system corrosion and/or cooling system being frozen which eventually may cause a loss of propulsion while driving.

1. Park on a level surface and turn the vehicle off.
2. Open the hood. See *Hood* ⇨ 267.



3. After the system has completely cooled, check that the coolant level in the reservoir.



4. If the coolant level is not visible or needs to be adjusted within the reservoir, contact your dealer.

Washer Fluid

What to Use

When windshield washer fluid is needed, be sure to read the manufacturer's instructions before use. If operating the vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing.

Adding Washer Fluid

Caution

- Do not use washer fluid that contains any type of water repellent coating. This can cause the wiper blades to chatter or skip.
- Do not use engine coolant (antifreeze) in the windshield washer. It can damage the windshield washer system and paint.
- Do not mix water with ready-to-use washer fluid. Water can cause the solution to freeze and damage the washer fluid tank and other parts of the washer system.
- When using concentrated washer fluid, follow the manufacturer instructions for adding water.
- Fill the washer fluid tank only three-quarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.

When the washer fluid reservoir is low, a message displays on the Driver Information Center (DIC). See *Driver Information Center (DIC)* ⇨ 111 for more information.



Open the cap with the washer symbol on it. Add washer fluid until the tank is full. See *Underhood Compartment Overview* ⇨ 270 for reservoir location.

Brakes

Disc brake linings have built-in wear indicators that make a high-pitched warning sound when the brake linings are worn and new linings are needed. The sound can come and go or can be heard all the time when the vehicle is moving, except when applying the brake pedal firmly.

Warning

The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

Caution

Continuing to drive with worn-out brake linings could result in costly brake repairs.

Some driving conditions or climates can cause a brake squeal when the brakes are first applied, clearing up following several applications. This does not mean something is wrong with the brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake linings for wear and evenly tighten wheel nuts in the proper sequence to torque specifications. See *Capacities and Specifications* ⇨ 334.

Brake pads should be replaced as complete axle sets.

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required.

Replacing Brake System Parts

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking performance can change in many ways if the wrong brake parts are installed or if parts are improperly installed.

Brake Fluid



The brake master cylinder reservoir is filled with GM approved DOT 4 brake fluid as indicated on the reservoir cap. See *Underhood Compartment Overview* ⇨ 270 for the location of the reservoir.

Checking Brake Fluid

With the vehicle in P (Park) on a level surface, the brake fluid level should be between the minimum and maximum marks on the brake fluid reservoir.

There are only two reasons why the brake fluid level in the reservoir may go down:

- Normal brake lining wear. When new linings are installed, the fluid level goes back up.
- A fluid leak in the brake hydraulic system. Have the brake hydraulic system fixed. With a leak, the brakes will not work well.

Always clean the brake fluid reservoir cap and the area around the cap before removing it.

Do not top off the brake fluid. Adding fluid does not correct a leak. If fluid is added when the linings are worn, there will be too much fluid when new brake linings are installed. Add or remove fluid, as necessary, only when work is done on the brake hydraulic system.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light* ⇨ 99.

Brake fluid absorbs water over time which degrades the effectiveness of the brake fluid. Replace brake fluid at the specified intervals to prevent increased stopping distance. See *Maintenance Schedule* ⇨ 329.

What to Add

Use only GM approved DOT 4 brake fluid from a clean, sealed container. See *Recommended Fluids and Lubricants* ⇨ 332.

Warning

The wrong or contaminated brake fluid could result in damage to the brake system. This could result in the loss of braking leading to a possible injury. Always use the proper GM approved brake fluid.

Caution

If brake fluid is spilled on the vehicle's painted surfaces, the paint finish can be damaged. Immediately wash off any painted surface.

Battery - North America

This vehicle has a high voltage battery and a standard 12-volt battery.

See your dealer if either the 12-volt or high voltage battery needs service.


12-Volt Battery

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

Do not disconnect the 12-volt battery during storage.

Refer to the replacement number shown on the original battery label when a new 12-volt battery is needed. The vehicle has an Absorbent Glass Mat (AGM)/Valve regulated lead acid battery (VRLA) 12-volt battery. Installation of a standard 12-volt battery will result in reduced 12-volt battery life.

Some 12-volt chargers have an AGM battery setting. This setting limits the charge voltage to 14.8 volts and helps extend the battery life. If available, use the AGM setting when charging the battery.


 **Warning**

WARNING: Battery posts, terminals and related accessories can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. For more information go to www.P65Warnings.ca.gov.

See *California Proposition 65 Warning* ⇨ 1.

High Voltage Battery

Only a trained service technician should inspect, test, or replace the high voltage battery. The dealer has information on how to recycle the high voltage battery. There is also information available at <https://www.recyclemybattery.com>.

 **Warning**

Damage to the high voltage battery or high voltage system can create a risk of electric shock, overheating, or fire.

(Continued)

Warning (Continued)

If the vehicle is damaged from a moderate to severe crash, flood, fire, or other event, the vehicle should be inspected as soon as possible. Until the vehicle has been inspected, store it outside at least 15 m (50 ft) from any structure or anything that can burn. Ventilate the vehicle by opening a window or a door.

Contact Customer Assistance as soon as possible to determine whether an inspection is needed. See *Customer Assistance Offices* ⇨ 338.


If the vehicle is in a crash, the sensing system may shut down the high voltage system. When this occurs, the high voltage battery is disconnected and the vehicle will not start. The SERVICE VEHICLE SOON message in the Driver Information Center (DIC) will display. Before the vehicle can operate again, it must be serviced at your dealer. If a crash occurs or an airbag(s) inflates, see “If a Crash Occurs” under *Collision Damage Repair* ⇨ 342 and *What Will You See After an Airbag Inflates?* ⇨ 56 for additional information.

Battery Temperature

Keep the vehicle plugged in, even when fully charged, to keep the high voltage battery temperature ready for the next drive. This is important when outside temperatures are extremely hot or cold.

Propulsion power may be reduced in extremely cold temperatures, or if the high voltage battery is too cold. The message BATTERY TOO COLD, PLUG IN TO WARM will display. If the message displays, a level 2 charger is required to heat the battery to a minimum temperature to enable propulsion or charging.

A vehicle cover, which can reduce sun loading on the vehicle and improve high voltage battery life, is available from your dealer.

 **Warning**

This vehicle is equipped with high voltage battery thermal detection, mitigation, and notification software. If the high voltage battery overheats, it may create a risk of a vehicle fire and may result in damage to property, serious injury, or death.

(Continued)

Warning (Continued)

If the high voltage battery overheats, an audible alarm may sound, a message may display on the Driver Information Center (DIC), and OnStar may be called. To alert others outside your vehicle, the horn may sound, and the lights may flash.

If driving, pull over as soon as possible to a safe location at least 50 feet (15 m) away from any structure or anything that may burn. Park your vehicle, set the parking brake, and turn the vehicle off. Open a window or door for ventilation.

Remove the remote key and move yourself and others to a safe, upwind location away from the vehicle. Do not return to the vehicle or attempt to restart or drive the vehicle.

Call emergency services and inform them that an electrical vehicle high voltage battery is overheating.

Never attempt to put out a vehicle fire.

(Continued)

Warning (Continued)

Your vehicle must be towed to an authorized dealer to have the high voltage battery inspected before the vehicle can be operated again.

See *Radio Frequency Statement* ⇨ 344.

Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment has been evaluated to be installed and operated at a minimum distance of 5.7 cm (2.2 in) between the device and your body. The vehicle design ensures this distance is maintained during normal use. Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Innovation, Science, and Economic Development (ISED) Radiation Exposure Statement

This equipment complies with RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 5.7 cm (2.2 in) between

the radiator and any part of your body. The vehicle design ensures this distance is maintained during normal use. Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Vehicle Storage

The best way to store the vehicle for any length of time is to plug in the charge cord and leave it plugged in. The vehicle monitors and maintains the 12-volt battery daily. It is okay to leave the vehicle plugged in for extended periods of time. Once charged to full, very little energy is required to maintain the 12-volt battery and high voltage battery.

If it is not possible to charge the vehicle with the charge cord left plugged in, be sure to fully charge the high voltage battery before storing. The vehicle will stop maintenance of the 12-volt battery if the high voltage battery state of charge gets too low.

When storing the vehicle on a long-term basis:

- Keep the high voltage battery state of charge at 30%.

- Attach an AGM/VRLA compatible battery tender or trickle charger to the 12-volt battery.
- Keep the remote key more than 3 m (10 ft) away from the vehicle.

12-Volt Battery

Warning

Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you are not careful. Always wear eye protection. See *Jump Starting - North America* ⇨ 313 for tips on working around a battery without getting hurt.

Do not disconnect the 12-volt battery during storage.

A trickle charger may be attached to the 12-volt outlet in the rear cargo area, the 12-volt battery terminals, or trickle charge from the remote positive (+) and negative (-) terminals in the trunk. See *Jump Starting - North America* ⇨ 313 for location of these terminals.

Caution

The vehicle is equipped with an AGM/VRLA 12-volt battery, which can be damaged by using the incorrect type of trickle charger. An AGM/VRLA-compatible charger must be used, with the appropriate setting selected. Follow the trickle charger manufacturer instructions.

With a trickle charger connected to the 12-volt battery, the vehicle will still monitor the 12-volt battery daily, but it will not use energy from the high voltage battery for maintenance.

High Voltage Battery

After extended storage, it is possible that the vehicle may not operate. If this happens, the high voltage battery may need to be plugged in and charged.

Park Brake and P (Park) Mechanism Check

Warning

When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of the vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the Electric Parking Brake.

- To check the Electric Parking Brake's holding ability: With the propulsion system active and the electric drive unit in N (Neutral), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the Electric Parking Brake only.
- To check the P (Park) mechanism's holding ability: With the propulsion system active, shift to P (Park). Then release the Electric Parking Brake and slowly remove foot pressure from the regular brake pedal.

Contact your dealer if service is required.

Wiper Blade Replacement

Windshield wiper blades should be replaced periodically. See the *Maintenance Schedule* ⇨ 329.

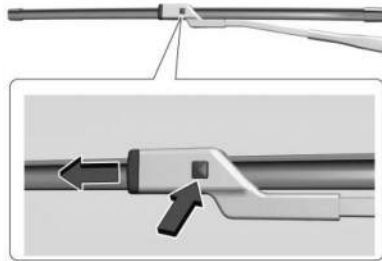
Replacement blades come in different types and are removed in different ways. For proper type and length, see your dealer.

Caution

Allowing the wiper arm to touch the windshield when no wiper blade is installed could damage the windshield. Any damage that occurs would not be covered by the vehicle warranty. Do not allow the wiper arm to touch the windshield.

To replace the windshield wiper blade:

1. Pull the windshield wiper assembly away from the windshield.



2. Press the button in the middle of the wiper arm connector, and pull the wiper blade away from the arm connector.
3. Remove the wiper blade.
4. Reverse Steps 1–3 for wiper blade replacement.

Windshield Replacement

Acoustic and Heated Windshield

This vehicle is equipped with an acoustic and heated windshield. If the windshield needs replacement, use a GM compatible acoustic and heated windshield to retain its features.

Advanced Driver Assistance Systems

If equipped with a front camera sensor, see your dealer to replace the windshield. Your dealer will ensure the windshield is installed according to GM specifications for proper alignment, and that the Advanced Driver Assistance Systems work. If the windshield is installed incorrectly, error messages may display, or these systems may not work properly or at all.

Headlamp Aiming

Front Headlamp Aiming

Headlamp aim has been preset and should need no further adjustment.

If the vehicle is damaged in a crash, the headlamp aim may be affected. If adjustment to the headlamps is necessary, see your dealer.

Bulb Replacement

LED Lighting

This vehicle is equipped with LED light sources for all exterior lamps.

The lamp assemblies do not contain any serviceable light sources (e.g., incandescent bulbs).

For replacement of any LED lighting assembly, contact your dealer.

Electrical System

High Voltage Devices and Wiring

Warning

Exposure to high voltage can cause shock, burns, and even death. The high voltage components in the vehicle can only be serviced by technicians with special training.

High voltage components are identified by labels. Do not remove, open, take apart, or modify these components. High voltage cable or wiring has orange covering or labels. Do not probe, tamper with, cut, or modify high voltage cable or wiring.

Electrical System Overload

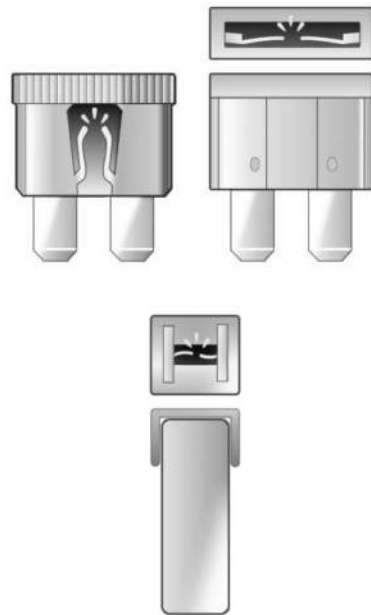
The vehicle has fuses and circuit breakers to protect against an electrical system overload.

When the current electrical load is too heavy, the circuit breaker opens and closes, protecting the circuit until the current load returns to normal or the problem is fixed. This greatly reduces the chance of circuit overload and fire caused by electrical problems.

Fuses and circuit breakers protect the wires that provide the power to the devices in your vehicle.

If there is a problem on the road and a fuse needs to be replaced, the same amperage fuse can be borrowed. Choose some feature of the vehicle that is not needed to use and replace it as soon as possible.

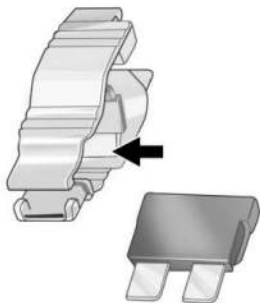
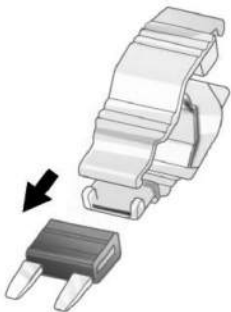
To check a fuse, look at the band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a fuse of the identical size and rating.



Replacing a Blown Fuse

1. Turn off the vehicle.

2. Locate the fuse puller in the underhood compartment fuse block.



- Use the fuse puller to remove the fuse from the top or side, as shown above.
- If the fuse must be replaced immediately, borrow a replacement fuse with the same amperage from the fuse block. Choose a vehicle feature that is not needed to safely operate the vehicle. Repeat Steps 2–3.
- Insert the replacement fuse into the empty slot of the blown fuse.

At the next opportunity, see your dealer to replace the blown fuse.

Headlamp Wiring

An electrical overload may cause the lamps to go on and off, or in some cases to remain off. Have the headlamp wiring checked right away if the lamps go on and off or remain off.

Windshield Wipers

If the wiper motor overheats due to heavy snow or ice, the windshield wipers will stop until the motor cools and will then restart.

Although the circuit is protected from electrical overload, overload due to heavy snow or ice may cause wiper linkage damage. Always clear ice and heavy snow from the windshield before using the windshield wipers.

If the overload is caused by an electrical problem and not snow or ice, be sure to get it fixed.


Fuses and Circuit Breakers

The wiring circuits in the vehicle are protected from short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of damage caused by electrical problems.

⚠ Danger

Fuses and circuit breakers are marked with their ampere rating. Do not exceed the specified amperage rating when replacing fuses and circuit breakers. Use of an oversized fuse or circuit breaker can result in a vehicle fire. You and others could be seriously injured or killed.



 **Warning**

Installation or use of fuses that do not meet GM's original fuse specifications is dangerous. The fuses could fail, and result in a fire. You or others could be injured or killed, and the vehicle could be damaged.

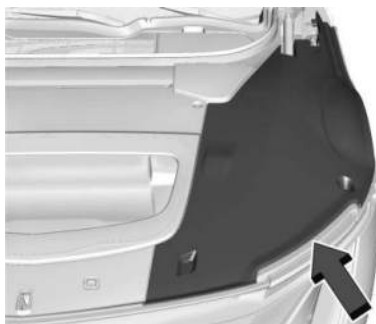
See *Accessories and Modifications* ⇨ 266 and *General Information* ⇨ 266.

To check or replace a blown fuse, see *Electrical System Overload* ⇨ 280.

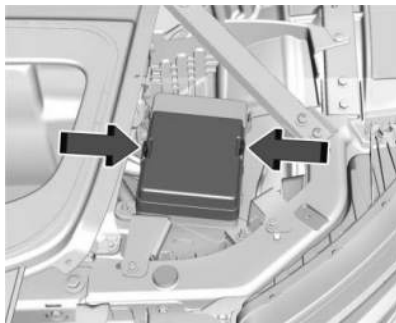
Underhood Compartment Fuse Block

To Access:

1. Open the hood. See *Hood* ⇨ 267.



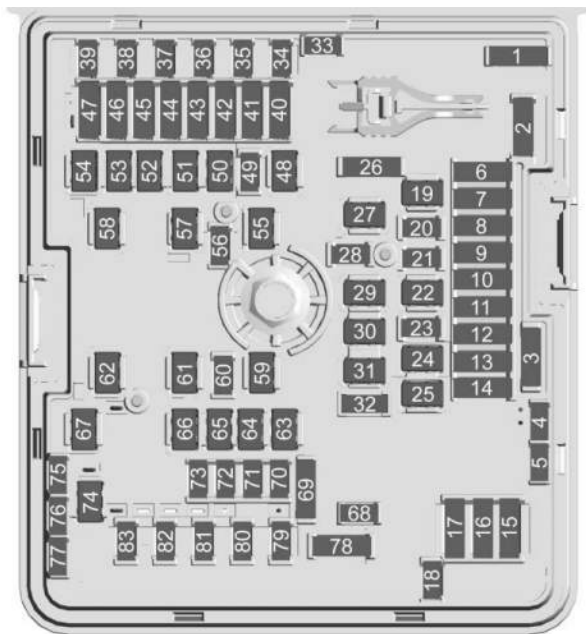
2. The Underhood Compartment Fuse Block is below the underhood access covers. To remove, see *Underhood Access Covers* ⇨ 268.



3. To open the fuse block cover, press the clips at the side and back and pull the cover up.

Caution

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.



A fuse puller is in the underhood compartment fuse block.

The vehicle may not be equipped with all of the fuses and features shown.

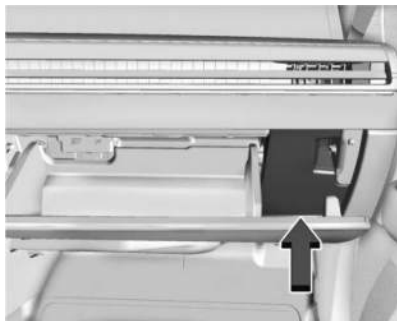
Fuses	Usage
F01	Spare
F02	–
F03	Spare
F04	Spare
F05	Spare
F06	MODULE – Vehicle Integration Control MODULE – Lithium-Ion Battery 48 Volt
F07	MOTOR-Primary Chiller Expansion Valve
F08	–
F09	–
F10	–
F11	–
F12	MODULE – On Board Charging

Fuses	Usage	Fuses	Usage	Fuses	Usage
F13	–	F27	–	F39	MODULE – Exterior Lighting_BAT 3
F14	–	F28	Charge Port Door Lamp		MODULE – Heated Console Armrest DRIVER
F15	–	F29	–	F40	MODULE – Heated Console Armrest CO_DRIVER
F16	–	F30	MOTOR – Energy Storage System Coolant Pump		MODULE – Heated Neck Scarf DRIVER
F17	MODULE – Active Roll Control FRONT	F31	–	F41	MODULE – Heated Neck Scarf CO_DRIVER
F18	MOTOR – Glove Box Door Release	F32	Spare		SWITCH – Seat Position CO_DRIVER_0
F19	–	F33	Spare	F42	SWITCH – Seat Position DRIVER_0
F20	–	F34	MODULE – Exterior Lighting_BAT 5		MOTOR – Main Coolant Valve
F21	MOTOR – Charge Port Door	F35	MODULE – Exterior Lighting_BAT 4	F43	MOTOR – Aero Shutter
F22	–	F36	MODULE – Power Front Closure	F44	MOTOR – Primary Evaporator Expansion Valve
F23	MOTOR – Power Electronics Coolant Pump	F37	–		
F24	–	F38	MODULE – Exterior Lighting_BAT 7		
F25	–				
F26	Spare				

Fuses	Usage	Fuses	Usage	Fuses	Usage
	SENSOR-Virtual Key	F55	–	F69	Spare
F45	MOTOR–Condensing Heater Flow Valve	F56	–	F70	RELAYS COIL GROUND
	MOTOR – External Condenser Flow Valve	F57	MODULE – Electronic Brake Control_BAT 2	F71	LAMP – Park Emblem LAMP – Park GRILL
F46	MODULE – Charge Interface	F58	–	F72	–
	MODULE – Power Sounder	F59	–	F73	NIGHT_VISION Camera
F47	MODULE – Power Line Communication	F60	Horn	F74	–
F48	MODULE – Side Access RIGHT_FRONT_BAT 2	F61	–	F75	Spare
F49	–	F62	–	F76	Spare
F50	MODULE – Side Access RIGHT_FRONT_BAT 1	F63	–	F77	Spare
F51	–	F64	MODULE – Side Access RIGHT_REAR_BAT 2	F78	–
F52	–	F65	MODULE – Side Access RIGHT_REAR_BAT 1	F79	–
F53	FRT WPR – Front Wiper	F66	MODULE – Cooling Fan ONE	F80	–
F54	–	F67	HEATER – Wiper De-Ice	F81	–
		F68	Spare	F82	Wash Pump (Front)
				F83	Camera Wash Pump

Instrument Panel Fuse Block

The instrument panel fuse block is behind the glove box.

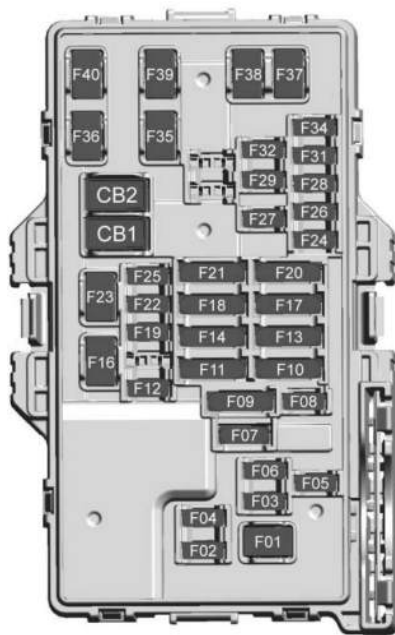


To Access the Fuses:

1. Open the glovebox. See *Glove Box* ⇨ 81.
2. Remove the panel, starting at the bottom.
3. Once the panel clips disengage, the tabs along the bottom of the door can disengage from the instrument panel to remove the door.

To reinstall the door, place the bottom tabs into the slots, and rotate the door into position, engaging the clips.

See your dealer if additional assistance is needed.



The vehicle may not be equipped with all of the fuses and features shown.

Fuse	Usage
F01	MOTOR – Blower FRONT
F02	MODULE – Virtual Cockpit Unit BAT 2
F03	ASSEMBLY – Steering Column Lock
F04	MODULE – Exterior Lighting BAT 2
F05	MODULE – Body Control_BAT 2
F06	MODULE – Virtual Cockpit Unit BAT 1
F07	ASSEMBLY Steering Wheel Control
F08	MODULE – Telematics Control Platform MODULE – HVAC Outlet
F09	MODULE – ETRS Shifter SWITCH –Switchbank

Fuse	Usage	Fuse	Usage	Fuse	Usage
	MODULE – Universal Garage Door Opener	F12	ASSEMBLY – Steering Column Lock_Accessory		Short Range Radar
	MODULE – Electronic Toll Collection	F13	Spare	F17	Front Camera Module
	SENSOR – Rain Light Humidity		MODULE – Integrated Power Electronics_0		Long Range Radar
F10	MODULE – Front Passenger Infotainment		MODULE – Lithium Ion Battery 48 Volt_0		MODULE – Sensing & Diagnostic
	MODULE – Multi Function Control	F14	MODULE – Electronic Brake Control_0	F18	MODULE – Exterior Lighting
	SENSOR – Indicator Light and Solar		SENSOR – Air Quality EXTERIOR_0		MODULE – Electronic Toll Collection
	MODULE – Heated Door Armrest DRIVER_1		MODULE – Integrated Chassis Control_0	F19	MODULE – Traction Power Inverter 1
	MODULE – Heated Door Armrest DRIVER_0		MIRROR – Inside Rear View_0	F20	MODULE – Central Gateway
F11	MODULE – Heated Door Armrest CO_DRIVER_0	F15	–		MODULE – Air Quality Ionizer
	MODULE – Heated Door Armrest CO_DRIVER_1	F16	MODULE – AC Electric Compressor	F21	DISPLAY – Front Command Center
					SWITCH – High Voltage System Lockout

Fuse	Usage
F22	MODULE – Vehicle Integration Control
F23	POWER OUTLET – Auxiliary USB ROW 1 POWER OUTLET – Auxiliary USB ROW 2 MODULE – Wireless Charger TWO
F24	MODULE – Wireless Charger MODULE – Virtual Key CONNECTOR – Data Link
F25	Spare
F26	MODULE – Exterior Lighting_BAT 1

Fuse	Usage
F27	MODULE – Auxiliary Audio/Video DISPLAY – Virtual Cockpit JACK – Auxiliary Audio/Video CONNECTOR – USB TVR
F28	MODULE – Exterior Lighting_BAT 6
F29	MODULE – Body Control_BAT 1
F30	–
F31	MODULE – Body Control_BAT 3
F32	Heated Steering Wheel
F33	–
F34	MODULE – Steering Column Position
F35	MODULE – Side Access LEFT_FRONT_BAT 2

Fuse	Usage
F36	MODULE – Blower Motor Control REAR
F37	LAMP – Headlamp RIGHT
F38	LAMP – Headlamp LEFT
F39	MODULE – Body Control_BAT 4
F40	MODULE – Side Access LEFT_FRONT_BAT 1
Relays	Usage
CB1	Spare
CB2	Spare

Rear Compartment Fuse Block

The rear compartment fuse block is behind a cover on the driver side of the rear compartment.

To Access:

1. Open the liftgate. See *Liftgate* ⇨ 20.



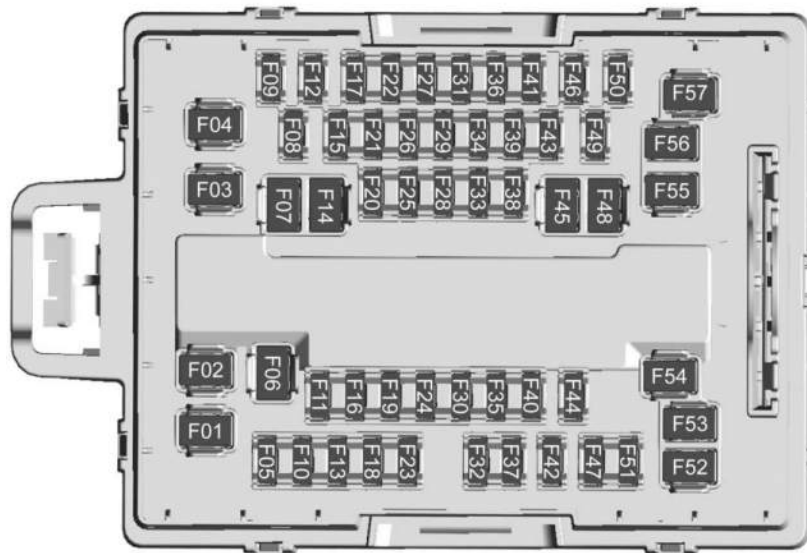
2. Remove the panel, starting at the bottom. Once the panel clips disengage, the tabs along the bottom of the door can disengage from the instrument panel to remove the door.

Caution

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.

A fuse puller is in the underhood compartment fuse block.

The vehicle may not be equipped with all of the fuses and features shown.



Rear Compartment Fuse Block — Top

Fuses	Usage
F01	MODULE – Memory Seat DRIVER
F02	MODULE – Memory Seat CO_DRIVER
F03	MODULE – Memory Seat LEFT_REAR
F04	MODULE – Vehicle Leveling
F05	MODULE – Integrated Chassis Control
F06	AMPLIFIER – Audio ONE_BAT 1
F07	MOTOR – Window RIGHT_FRONT MOTOR – Window RIGHT_REAR
F08	DISPLAY – HVAC REAR
F09	LAMP – Tail RIGHT
F10	MODULE – Heated Door Armrest RIGHT

Fuses	Usage
F11	Spare
F12	MODULE – Side Access LEFT_REAR_BAT 2
F13	LAMP – Tail LEFT
F14	MODULE – Heated Seat LEFT_Rear
F15	MODULE – Traction Power Inverter BAT 1 SWITCH – Door Panel Sunshade
F16	Spare
F17	MODULE – Night Vision
F18	MODULE – Traction Power Inverter BAT 2
F19	Spare
F20	SENSOR – Side Access Door Object Detection

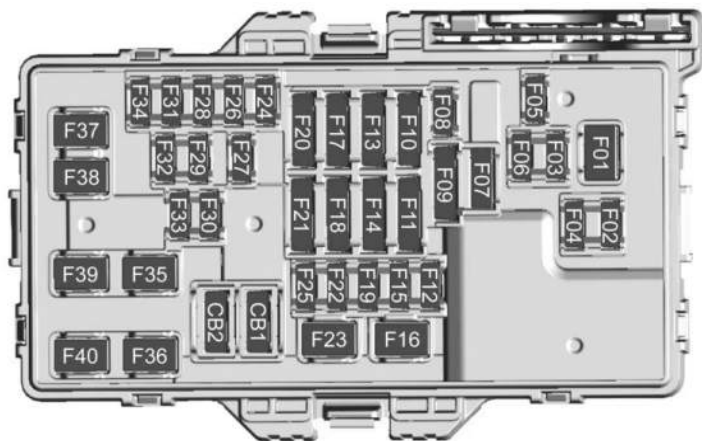
Fuses	Usage
F21	MODULE – Remote Function Receiver
F22	SENSOR – Virtual Key
F23	MODULE – Suspension Control
F24	MODULE – Traction Power Inverter BAT 3
F25	MODULE – Automatic Lighting AMPLIFIER – Audio THREE
F26	MODULE – Vehicle Leveling
F27	MODULE – Park Assist
F28	AMPLIFIER THREE_BAT 2
F29	Right Rear Seat Infotainment
F30	Spare

Fuses	Usage
F31	MODULE – Auxiliary Alarm Sensor MODULE – Pedestrian Friendly Alert
F32	MODULE – Memory Seat LEFT_ROW2 MODULE – Memory Seat RIGHT_ROW2
F33	MODULE – Sensing & Diagnostic MODULE – Automatic Occupant Sensing CO_DRIVER
F34	MODULE – Virtual Key Backup MODULE – Rear Seat Infotainment

Fuses	Usage
F35	MODULE – Accessory Power 48 Volt
F36	MODULE – Vehicle Data Monitor
F37	MODULE – Rear Spoiler
F38	MODULE – Heated Console Armrest RIGHT_ROW2
F39	Spare
F40	MODULE – Memory Seat CO_DRIVER
F41	MODULE – Memory Seat DRIVER
F42	Spare
F43	Left Rear Seat Infotainment
F44	MODULE – Active Roll Control REAR_0

Fuses	Usage
F43	MODULE – Wireless Charger FOUR
F44	MODULE – Wireless Charger THREE
F45	Spare
F46	MOTOR – Window LEFT_FRONT
F47	MOTOR – Window LEFT_REAR
F48	MODULE – ADAS Compute Platform ACP3
F49	AMP – Ambient Color
F50	MODULE – Heated Seat LEFT_ROW2
F51	MODULE – Heated Console Armrest LEFT_ROW2
F52	MODULE – Heated Door Armrest LEFT_ROW2

Fuses	Usage
F51	MODULE – On-Board Charging TWO
F52	MODULE – Memory Seat RIGHT_ROW2
F53	MODULE – Heated Seat RIGHT_ROW2
F54	AMPLIFIER – Audio ONE_BAT 2
F55	MODULE – Heated Seat RIGHT_ROW2
F56	MODULE – Side Access LEFT_REAR
F57	Spare



Rear Compartment Fuse Block — Bottom

Fuses	Usage
F01	MODULE – Heated Seat DRIVER
F02	Spare
F03	MODULE – Memory Bolster CO_DRIVER MODULE – Memory Bolster DRIVER
F04	BATT Tender APO – Battery Tender Auxiliary Power Outlet
F05	AMPLIFIER – Audio TWO_BAT 2
F06	SWITCH – Door Panel LEFT_FRONT
F07	–
F08	–

Fuses	Usage	Fuses	Usage	Fuses	Usage
F09	MODULE – Memory Bolster RIGHT_ROW2	F17	MODULE – Heated/Cooled Seat Back CO_DRIVER	F23	Spare
F10	–	F18	MODULE – Heated/Cooled Seat Cushion CO_DRIVER	F24	–
F11	MODULE – Heated/Cooled Seat Cushion RIGHT_ROW2	F19	MOTOR – Seat Headrest CO_DRIVER	F25	Spare
F12	Spare	F20	MOTOR – Seat Headrest DRIVER	F26	MODULE – Heated Neck Scarf RIGHT_ROW2
F13	MODULE – Heated/Cooled Seat Back DRIVER	F21	MOTOR – Seat Headrest LEFT_ROW2	F27	SWITCH – Door Panel RIGHT_FRONT
F14	Spare	F22	MOTOR – Seat Headrest RIGHT_ROW2	F28	MODULE – Heated Neck Scarf LEFT_ROW2
F15	Spare	F29	MODULE – Heated/Cooled Seat Back LEFT_ROW2	F29	MODULE – Heated/Cooled Seat Cushion LEFT_ROW2
F16	–	F30	–	F30	–
		F31	JACK – Front Passenger Infotainment	F31	AMPLIFIER – Audio TWO BAT1
		F32	JACK – Rear Seat Infotainment_0	F32	–
		F33	Spare	F33	–

Fuses	Usage
F34	MODULE – Variable Light Transmission Sunshade MODULE – Window Sunshade BACK_0
F35	MODULE – Heated Seat DRIVER
F36	MODULE – Power Tailgate
F37	Spare
F38	Spare
F39	MODULE – Heated Seat CO_DRIVER_BAT1
F40	MODULE – Heated Seat CO_DRIVER_BAT2
Relays	Usage
CB1	–
CB2	–

Wheels and Tires

Tires

Every new GM vehicle has high-quality tires made by a leading tire manufacturer. See the warranty manual for information regarding the tire warranty and where to get service. For additional information refer to the tire manufacturer.

Warning

- Poorly maintained and improperly used tires are dangerous.
- Overloading the tires can cause overheating as a result of too much flexing. There could be a blowout and a serious crash. See *Vehicle Load Limits* ⇨ 172.
- Underinflated tires pose the same danger as overloaded tires. The resulting crash could cause serious injury. Check all tires frequently

(Continued)

Warning (Continued)

to maintain the recommended pressure. Tire pressure should be checked when the tires are cold.

- Overinflated tires are more likely to be cut, punctured, or broken by a sudden impact — such as when hitting a pothole. Keep tires at the recommended pressure.
- Worn or old tires can cause a crash. If the tread is badly worn, replace them.
- Replace any tires that have been damaged by impacts with potholes, curbs, etc.
- Improperly repaired tires can cause a crash. Only your dealer or an authorized tire service center should repair, replace, dismount, and mount the tires.

(Continued)

Warning (Continued)

- Do not spin the tires in excess of 56 km/h (35 mph) on slippery surfaces such as snow, mud, ice, etc. Excessive spinning may cause the tires to explode.

See *Tire Pressure for High-Speed Operation* ⇨ 302 for inflation pressure adjustment for high-speed driving.

Winter Tires

This vehicle was not originally equipped with winter tires. Winter tires are designed for increased traction on snow and ice-covered roads. Consider installing winter tires on the vehicle if frequent driving on ice or snow covered roads is expected. See your dealer for details regarding winter tire availability and proper tire selection. Also, see *Buying New Tires* ⇨ 308.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y, and ZR speed rated tires. If winter tires with a lower speed rating are chosen, never exceed the tire's maximum speed capability.

Self-Sealing Tires

This vehicle may have self-sealing tires. These tires have a material inside that can seal punctures from common road hazards, such as nails and screws, in the tread area. The tire may lose air pressure if the sidewall is damaged or the tread puncture is too large. If the Tire Pressure Monitor System indicates the tire pressure is low, inspect the tire for

damage and inflate it to the recommended pressure. If the tire is unable to maintain the recommended pressure, contact the nearest authorized GM servicing facility immediately for inspection and repair or replacement. To locate the nearest GM servicing facility, call GM Customer Assistance.

Caution

Do not drive on a deflated self-sealing tire as this could damage the tire. Make sure the tire is inflated to the recommended pressure or have it immediately repaired or replaced.

When tire replacement is needed, replace with a self-sealing tire, because the vehicle does not come with a spare tire or tire changing equipment.

Noise Reducing Tires

This vehicle may be equipped with tires that have noise-absorbing foam technology to reduce road and interior noise levels.

To maintain overall vehicle performance, replace damaged or worn tires with Tire Performance Criteria Specification (TPC Spec) original equipment tires equipped with noise-absorbing foam. See *Buying New Tires* ⇨ 308.

Low-Profile Tires

If the vehicle has 285/40R22 or 285/35R23 size tires, they are classified as low-profile tires.

Caution

Low-profile tires are more susceptible to damage from road hazards or curb impact than standard profile tires. Tire and/or wheel assembly damage can occur when coming into contact with road hazards like potholes, or sharp edged objects, or when sliding into a curb. The warranty does not cover this type of damage. Keep tires set to the correct inflation pressure and when possible, avoid contact with curbs, potholes, and other road hazards.

Summer Tires

This vehicle may come with 285/40R22 110V or 285/35R23 107V high performance summer tires. These tires have a special tread and compound that are optimized for maximum dry and wet road performance. This special tread and compound will have decreased performance in cold climates, and on ice and snow. It is recommended that winter tires be installed on the vehicle if frequent driving at temperatures below approximately 5 °C (40 °F) or on ice or snow covered roads is expected. See *Winter Tires* ⇨ 296.

Caution

High performance summer tires have rubber compounds that lose flexibility and may develop surface cracks in the tread area at temperatures below -7 °C (20 °F). Always store high performance summer tires indoors and at temperatures above -7 °C (20 °F) when not in use. If the tires have been subjected to -7 °C (20 °F) or less, let them warm up in a heated space to at least 5 °C (40 °F) for 24 hours or more before

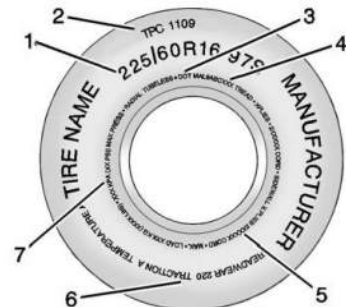
(Continued)

Caution (Continued)

being installed or driving a vehicle on which they are installed. Do not apply heat or blow heated air directly on the tires. Always inspect tires before use. See *Tire Inspection* ⇨ 306.

Tire Sidewall Labeling

Useful information about a tire is molded into its sidewall. The example shows a typical passenger tire sidewall.



Passenger Tire Example

(1) Tire Size : The tire size is a combination of letters and numbers used to define a particular tire's width, height, aspect ratio, construction type, and service description. See the "Tire Size" illustration later in this section.

(2) TPC Spec (Tire Performance Criteria Specification) : Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

(3) DOT (Department of Transportation) : The Department of Transportation (DOT) code indicates that the tire is in compliance with the U.S. Department of Transportation Motor Vehicle Safety Standards.

DOT Tire Date of Manufacture : The last four digits of the TIN indicate the tire manufactured date. The first two digits represent the week and the last two digits, the year. For example, the third week of

the year 2020 would have a 4-digit DOT date of 0320. Week 01 is the first full week (Sunday through Saturday) of each year.

(4) Tire Identification Number (TIN) : The letters and numbers following the DOT code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

(5) Tire Ply Material : The type of cord and number of plies in the sidewall and under the tread.

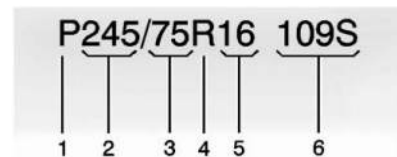
(6) Uniform Tire Quality Grading (UTQG) : Tire manufacturers are required to grade tires based on three performance factors: treadwear, traction, and temperature resistance. For more information, see *Uniform Tire Quality Grading* ⇨ 310.

(7) Maximum Cold Inflation Load Limit : Maximum load that can be carried and the maximum pressure needed to support that load.

Tire Designations

Tire Size

The example shows a typical passenger vehicle tire size.



Passenger (P-Metric) Tire

(1) Passenger (P-Metric) Tire : The United States version of a metric tire sizing system. The letter "P" as the first character in the tire size means a passenger vehicle tire engineered to standards set by the U.S. Tire and Rim Association.

(2) Tire Width : The 3-digit number indicates the tire section width in millimeters from sidewall to sidewall.

(3) Aspect Ratio : A 2-digit number that indicates the tire height-to-width measurements. For example, if the tire size aspect ratio is 75, as shown in item (3)

of the illustration, it would mean that the tire's sidewall is 75 percent as high as it is wide.

(4) Construction Code : A letter code is used to indicate the type of ply construction in the tire. The letter "R" means radial ply construction; the letter "D" means diagonal or bias ply construction.

(5) Rim Diameter : Diameter of the wheel in inches.

(6) Service Description : These characters represent the load index and speed rating of the tire. The load index represents the load carrying capacity a tire is certified to carry. The speed rating is the maximum speed a tire is certified to carry a load.

Tire Terminology and Definitions

Air Pressure : The amount of air inside the tire pressing outward on each square inch of the tire. Air pressure is expressed in kPa (kilopascal) or psi (pounds per square inch).

Aspect Ratio : The relationship of a tire's height to its width.

Belt : A rubber coated layer of cords that is located between the plies and the tread. Cords may be made from steel or other reinforcing materials.

Bead : The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

Bias Ply Tire : A pneumatic tire in which the plies are laid at alternate angles less than 90 degrees to the centerline of the tread.

Cold Tire Pressure : The amount of air pressure in a tire, measured in kPa (kilopascal) or psi (pounds per square inch) before a tire has built up heat from driving. See *Tire Pressure* ⇨ 300.

DOT Markings : A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation (DOT) Motor Vehicle Safety Standards. The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand, and date of production.

GVWR : Gross Vehicle Weight Rating. See *Vehicle Load Limits* ⇨ 172.

GAWR FRT : Gross Axle Weight Rating for the front axle. See *Vehicle Load Limits* ⇨ 172.

GAWR RR : Gross Axle Weight Rating for the rear axle. See *Vehicle Load Limits* ⇨ 172.

Intended Outboard Sidewall : The side of an asymmetrical tire, that must always face outward when mounted on a vehicle.

Kilopascal (kPa) : The metric unit for air pressure.

Light Truck (LT-Metric) Tire : A tire used on light duty trucks and some multipurpose passenger vehicles.

Load Index : An assigned number ranging from 1 to 279 that corresponds to the load carrying capacity of a tire.

Maximum Inflation Pressure : The maximum air pressure to which a cold tire can be inflated. The maximum air pressure is molded onto the sidewall.

Maximum Load Rating : The load rating for a tire at the maximum permissible inflation pressure for that tire.

Occupant Distribution : Designated seating positions.

Outward Facing Sidewall : The side of an asymmetrical tire that has a particular side that faces outward when mounted on a vehicle. The side of the tire that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same moldings on the other sidewall of the tire.

Passenger (P-Metric) Tire : A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

Recommended Inflation Pressure : Vehicle manufacturer's recommended tire inflation pressure as shown on the tire placard. See *Tire Pressure* ⇨ 300 and *Vehicle Load Limits* ⇨ 172.

Radial Ply Tire : A pneumatic tire in which the ply cords that extend to the beads are laid at 90 degrees to the centerline of the tread.

Rim : A metal support for a tire and upon which the tire beads are seated.

Sidewall : The portion of a tire between the tread and the bead.

Speed Rating : An alphanumeric code assigned to a tire indicating the maximum speed at which a tire can operate.

Traction : The friction between the tire and the road surface. The amount of grip provided.

Tread : The portion of a tire that comes into contact with the road.

Treadwear Indicators : Narrow bands, sometimes called wear bars, that show across the tread of a tire when only 1.6 mm (1/16 in) of tread remains. See *When It Is Time for New Tires* ⇨ 308.

UTQGS (Uniform Tire Quality Grading Standards) : A tire information system that provides consumers with ratings for a tire's traction, temperature, and

treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire. See *Uniform Tire Quality Grading* ⇨ 310.


Vehicle Capacity Weight : The number of designated seating positions multiplied by 68 kg (150 lbs) plus the rated cargo load. See *Vehicle Load Limits* ⇨ 172.

Vehicle Maximum Load on the Tire : Load on an individual tire due to curb weight, accessory weight, occupant weight, and cargo weight.

Vehicle Placard : A label permanently attached to a vehicle showing the vehicle's capacity weight and the original equipment tire size and recommended inflation pressure. See "Tire and Loading Information Label" under *Vehicle Load Limits* ⇨ 172.

Tire Pressure

Tires need the correct amount of air pressure to operate effectively.

 **Warning**

Neither tire underinflation nor overinflation is good. Underinflated tires, or tires that do not have enough air, can result in:

- Tire overloading and overheating, which could lead to a blowout
- Premature or irregular wear
- Poor handling
- Reduced fuel economy for internal combustion engine vehicles
- Reduced range for electric vehicles

Overinflated tires, or tires that have too much air, can result in:

- Unusual wear
- Poor handling
- Rough ride
- Needless damage from road hazards

The Tire and Loading Information label on the vehicle indicates the original equipment tires and the correct cold tire inflation pressures. The recommended pressure is the minimum air pressure needed to support the vehicle's maximum load carrying capacity. See *Vehicle Load Limits* ⇨ 172.

How the vehicle is loaded affects vehicle handling and ride comfort. Never load the vehicle with more weight than it was designed to carry.

When to Check

Check the pressure of the tires once a month or more.

How to Check


Use a good quality pocket-type gauge to check tire pressure. Proper tire inflation cannot be determined by looking at the tire. Check the tire inflation pressure when the tires are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the Tire and Loading Information label, no further adjustment is necessary. If the inflation pressure is low, add air until the recommended pressure is reached. If the inflation pressure is high, press on the metal stem in the center of the tire valve to release air.

Recheck the tire pressure with the tire gauge.

Put the valve caps back on the valve stems to keep out dirt and moisture. Use only valve caps designed for the vehicle by GM. TPMS sensors could be damaged and would not be covered by the vehicle warranty.

Tire Pressure for High-Speed Operation

 **Warning**

Driving at high speeds, 160 km/h (100 mph) or higher, puts additional strain on tires. Sustained high-speed driving causes excessive heat buildup and can cause sudden tire failure. This could cause a crash, and you or others could be killed. Some high-speed rated tires require inflation pressure adjustment for high-speed operation. When speed limits and road conditions allow the vehicle to be driven at high speeds, make sure the tires are rated for high-speed operation, are in excellent condition, and are set to the correct cold tire inflation pressure for the vehicle load.

Vehicles with tire sizes listed in the High Speed Operation Inflation Pressures table require inflation pressure adjustment when driving the vehicle at speeds of 160 km/h (100 mph) or higher. Set the cold tire inflation pressure to the corresponding value in the table for the tire size on the vehicle.

High Speed Operation Inflation Pressures	
Tire Size	Cold Inflation Pressure kPa (psi)
285/35R23	290 kPa (42 psi) (Rear Tire Only)

Return the tires to the recommended cold tire inflation pressure when high-speed driving has ended. See *Vehicle Load Limits* ⇨ 172 and *Tire Pressure* ⇨ 300.

Tire Pressure Monitor System

The Tire Pressure Monitor System (TPMS) uses radio and sensor technology to check tire pressure levels. The TPMS sensors monitor the air pressure in your tires and transmit tire pressure readings to a receiver located in the vehicle.

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. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces energy 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.

See *Tire Pressure Monitor Operation* ⇨ 304.

See *Radio Frequency Statement* ⇨ 344.

Tire Pressure Monitor Operation

This vehicle may have a Tire Pressure Monitor System (TPMS). The TPMS is designed to warn the driver when a low tire pressure condition exists. TPMS sensors are mounted onto each tire and wheel assembly, excluding the spare tire and wheel assembly. The TPMS sensors monitor the air pressure in the tires and transmit the tire pressure readings to a receiver located in the vehicle.



When a low tire pressure condition is detected, the TPMS illuminates the low tire pressure warning light located on the instrument cluster. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ 172.

A message to check the pressure in a specific tire displays in the Driver Information Center (DIC). The low tire pressure warning light and the DIC warning message come on each time the vehicle is started until the tires are inflated to the correct inflation pressure. If the vehicle has DIC buttons, tire pressure levels can be viewed. For additional information and details about the DIC operation and displays, see *Driver Information Center (DIC)* ⇨ 111.

The low tire pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is

driven. This could be an early indicator that the air pressure is getting low and needs to be inflated to the proper pressure.

A Tire and Loading Information label shows the size of the original equipment tires and the correct inflation pressure for the tires when they are cold. See *Vehicle Load Limits* ⇨ 172, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure* ⇨ 300.

The TPMS can warn about a low tire pressure condition but it does not replace normal tire maintenance. See *Tire Inspection* ⇨ 306, *Tire Rotation* ⇨ 307, and *Tires* ⇨ 295.

Caution

Tire sealant materials are not all the same. A non-approved tire sealant could damage the TPMS sensors. TPMS sensor damage caused by using an incorrect tire sealant is not covered by the vehicle warranty. Always use only the GM approved tire sealant available through your dealer or included in the vehicle.

TPMS Malfunction Light and Message

The TPMS will not function properly if one or more of the TPMS sensors are missing or inoperable. When the system detects a malfunction, the low tire pressure warning light flashes for about one minute and then stays on for the remainder of the time the vehicle is on. A DIC warning message also displays. The malfunction light and DIC warning message will come on each time the vehicle is turned on until the problem is corrected. Some of the conditions that can cause these to come on are:

- One of the road tires has been replaced with the spare tire. The spare tire does not have a TPMS sensor. The malfunction light and the DIC message should go off after the road tire is replaced and the sensor matching process is performed successfully. See "TPMS Sensor Matching Process — Auto Learn Function" later in this section.
- The TPMS sensor matching process was not done or not completed successfully after rotating the tires. The malfunction light and the DIC message should go off after successfully completing the sensor

matching process. See "TPMS Sensor Matching Process — Auto Learn Function" later in this section.

- One or more TPMS sensors are missing or damaged. The malfunction light and the DIC message should go off when the TPMS sensors are installed and the sensor matching process is performed successfully. See your dealer for service.
- Replacement tires or wheels do not match the original equipment tires or wheels. Tires and wheels other than those recommended could prevent the TPMS from functioning properly. See *Buying New Tires* ⇨ 308.
- Operating electronic devices or being near facilities using radio wave frequencies similar to the TPMS could cause the TPMS sensors to malfunction.

If the TPMS is not functioning properly, it cannot detect or signal a low tire pressure condition. See your dealer for service if the TPMS malfunction light and DIC message come on and stay on.

Tire Fill Alert (If Equipped)

This feature provides visual and audible alerts outside the vehicle to help when inflating an underinflated tire to the recommended cold tire pressure.

When the low tire pressure warning light comes on:

1. Park the vehicle in a safe, level place.
2. Set the parking brake firmly.
3. Place the vehicle in P (Park).
4. Add air to the tire that is underinflated. The turn signal light will flash.
When the recommended pressure is reached, the horn sounds once and the turn signal light will stop flashing and briefly turn solid.

Repeat these steps for all underinflated tires that have illuminated the low tire pressure warning light.

**Warning**

Overinflating a tire could cause the tire to rupture and you or others could be injured. Do not exceed the maximum pressure listed on the tire sidewall. See *Tire Sidewall Labeling* ⇨ 297 and *Vehicle Load Limits* ⇨ 172.

If the tire is overinflated by more than 35 kPa (5 psi), the horn will sound multiple times and the turn signal light will continue to flash for several seconds after filling stops. To release and correct the pressure, while the turn signal light is still flashing, briefly press the center of the valve stem. When the recommended pressure is reached, the horn sounds once.

If the turn signal light does not flash within 15 seconds after starting to inflate the tire, the tire fill alert has not been activated or is not working.

If the hazard warning flashers are on, the tire fill alert visual feedback will not work properly.

The TPMS will not activate the tire fill alert properly under the following conditions:

- There is interference from an external device or transmitter.

- The air pressure from the inflation device is not sufficient to inflate the tire.
- There is a malfunction in the TPMS.
- There is a malfunction in the horn or turn signal lights.
- The TPMS sensor identification code is not registered to the system.
- The TPMS sensor battery is low.

If the tire fill alert does not operate due to TPMS interference, move the vehicle about 1 m (3 ft) back or forward and try again. If the tire fill alert feature is not working, use a tire pressure gauge.

TPMS Sensor Matching Process — Auto Learn Function

Each TPMS sensor has a unique identification code. The identification code needs to be matched to a new tire/wheel position after rotating the tires or replacing one or more of the TPMS sensors. When a tire is installed, the vehicle must be stationary for about 20 minutes before the system recalculates. The following relearn process takes up to 10 minutes, driving at a minimum speed of 20 km/h (12 mph). A dash (-) or pressure value will display in the DIC. See *Driver Information*

Center (DIC) ⇨ 111. A warning message displays in the DIC if a problem occurs during the relearn process.

Tire Inspection

We recommend that the tires, including the spare tire, if the vehicle has one, be inspected for signs of wear or damage at least once a month.

Replace the tire if:

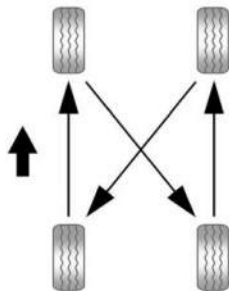
- The indicators at three or more places around the tire can be seen.
- There is cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge, or split.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

Tire Rotation

Tires should be rotated according to the interval listed in the maintenance schedule. See *Maintenance Schedule* ⇨ 329.

Tires are rotated to achieve a more uniform wear for all tires. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damaged tires or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See *When It Is Time for New Tires* ⇨ 308 and *Wheel Replacement* ⇨ 311.



Use this rotation pattern when rotating the tires.

Adjust the front and rear tires to the recommended inflation pressure on the Tire and Loading Information label after the tires have been rotated. See *Tire Pressure* ⇨ 300 and *Vehicle Load Limits* ⇨ 172.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation* ⇨ 304.

Check that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications* ⇨ 334.

Warning

Rust or dirt on a wheel, or on the parts to which it is fastened, can cause wheel nuts to become loose over time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

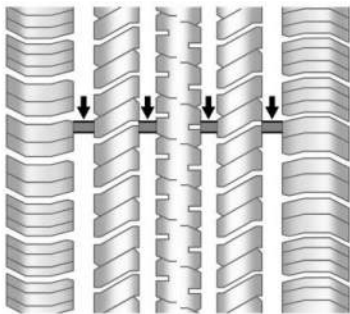
Lightly coat the inner diameter of the wheel hub opening with wheel bearing grease after a wheel change or tire rotation to prevent corrosion or rust build-up.

Warning

Do not apply grease to the wheel mounting surface, wheel conical seats, or the wheel nuts or bolts. Grease applied to these areas could cause a wheel to become loose or come off, resulting in a crash.

When It Is Time for New Tires

Factors, such as maintenance, temperatures, driving speeds, vehicle loading, and road conditions affect the wear rate of the tires.



Treadwear indicators are one way to tell when it is time for new tires. Treadwear indicators appear when the tires have only 1.6 mm (1/16 in) or less of tread remaining. See *Tire Inspection* ⇨ 306 and *Tire Rotation* ⇨ 307.

The rubber in tires ages over time. This also applies to the spare tire, if the vehicle has one, even if it is never used. Multiple factors including temperatures, loading conditions, and inflation pressure maintenance affect how fast aging takes place. GM recommends

that tires, including the spare if equipped, be replaced after six years, regardless of tread wear. To identify the age of a tire, use the tire manufacture date, which is the last four digits of the DOT Tire Identification Number (TIN) molded into one side of the tire sidewall. The last four digits of the TIN indicate the tire manufacture date. The first two digits represent the week and the last two digits, the year. For example, the third week of the year 2020 would have a 4-digit DOT date of 0320. Week 01 is the first full week (Sunday through Saturday) of each year.

Vehicle Storage

Tires age when stored normally mounted on a parked vehicle. Park a vehicle that will be stored for at least a month in a cool, dry, clean area away from direct sunlight to slow aging. This area should be free of grease, gasoline, or other substances that can deteriorate rubber.

Parking for an extended period can cause flat spots on the tires that may result in vibrations while driving. When storing a vehicle for at least a month, remove the tires or raise the vehicle to reduce the weight from the tires.


Buying New Tires

GM has developed and matched specific tires for the vehicle. The original equipment tires installed were designed to meet General Motors Tire Performance Criteria Specification (TPC Spec) system rating. When replacement tires are needed, GM strongly recommends buying tires with the same TPC Spec rating.


GM's exclusive TPC Spec system considers over a dozen critical specifications that impact the overall performance of the vehicle, including brake system performance, ride and handling, traction control, and tire pressure monitoring performance. GM's TPC Spec number is molded onto the tire's sidewall near the tire size.

GM recommends replacing worn tires in complete sets of four. Uniform tread depth on all tires will help to maintain the performance of the vehicle. Braking and handling performance may be adversely affected if all the tires are not replaced at the same time. If proper rotation and

maintenance have been done, all four tires should wear out at about the same time. However, if it is necessary to replace only one axle set of worn tires, place the new tires on the rear axle. See *Tire Rotation* ⇨ 307.

 **Warning**

Tires could explode during improper service. Attempting to mount or dismount a tire could cause injury or death. Only your dealer or authorized tire service center should mount or dismount the tires.

 **Warning**

Mixing tires of different sizes (other than those originally installed on the vehicle), brands, tread patterns, or types may cause loss of vehicle control, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tire on all wheels.

 **Warning**


Using bias-ply tires on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving. A tire and/or wheel could fail suddenly and cause a crash. Use only radial-ply tires with the wheels on the vehicle.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y and ZR speed rated tires. Never exceed the winter tires' maximum speed capability when using winter tires with a lower speed rating.

If the vehicle tires must be replaced with a tire that does not have a TPC Spec number, make sure they are the same size, load range, speed rating, and construction (radial) as the original tires.

The Tire and Loading Information label indicates the original equipment tires on the vehicle. See *Vehicle Load Limits* ⇨ 172.

Different Size Tires and Wheels

 **Warning**

If different sized wheels are used, there may not be an acceptable level of performance and safety if tires not recommended for those wheels are selected. This increases the chance of a crash and serious injury. Only use GM specific wheel and tire systems developed for the vehicle, and have them properly installed by a GM certified technician.

If wheels or tires are installed that are a different size than the original equipment wheels and tires, vehicle performance, including its braking, ride and handling characteristics, stability, and resistance to rollover may be affected. If the vehicle has electronic systems such as antilock brakes, rollover airbags, traction control, electronic stability control, or all-wheel drive, the performance of these systems can also be affected.

See *Buying New Tires* ⇨ 308 and *Accessories and Modifications* ⇨ 266.

Uniform Tire Quality Grading

The following information relates to the system developed by the United States National Highway Traffic Safety Administration (NHTSA), which grades tires by treadwear, traction, and temperature performance. This applies only to vehicles sold in the United States. The grades are molded on the sidewalls of most passenger car tires. The Uniform Tire Quality Grading (UTQG) system does not apply to deep tread, winter tires, compact spare tires, tires with nominal rim diameters of 10 to 12 inches (25 to 30 cm), or to some limited-production tires.

While the tires available on General Motors passenger cars and light trucks may vary with respect to these grades, they must also conform to federal safety requirements and additional General Motors Tire Performance Criteria (TPC) standards.

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
All Passenger Car Tires Must Conform to Federal Safety Requirements In Addition To These 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 (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

The traction grades, from highest to lowest, are AA, A, B, and C. Those 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. 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.

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. Sustained high temperature can cause 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 Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. **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.

Wheel Alignment and Tire Balance

The tires and wheels were aligned and balanced at the factory to provide the longest tire life and best overall performance. Adjustments to wheel alignment and tire balancing are not necessary on a regular basis. Consider an alignment check if there is unusual tire wear or the vehicle is significantly pulling to one side or the other. Some slight pull to the left or right, depending on the slope of the road and/or other road surface variations such as troughs or ruts, is normal. If the vehicle is vibrating when

driving on a smooth road, the tires and wheels may need to be rebalanced. See your dealer for proper diagnosis.

Road Imperfections/Slope Effects

The vehicle's precise steering and handling make it very responsive to road surface feedback. A slight pull may be felt in the steering depending on the slope of the road and/or other road surface variations such as troughs or ruts. This is normal and the vehicle does not require service.

Wheel Replacement

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced. If the wheel leaks air, replace it. Some aluminum wheels can be repaired. See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel that is needed.

Each new wheel should have the same load-carrying capacity, diameter, width, offset, and be mounted the same way as the one it replaces.

Replace wheels, wheel bolts, wheel nuts, or Tire Pressure Monitor System (TPMS) sensors with new GM original equipment parts.

Warning


Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tires can lose air and cause loss of control, resulting in a crash. Always use the correct wheel, wheel bolts, and wheel nuts for replacement.

Warning

Replacing a wheel with a used one is dangerous. How it has been used or how far it has been driven may be unknown. It could fail suddenly and cause a crash. When replacing wheels, use a new GM original equipment wheel.

Caution

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis.

Tire Traction Devices **Warning**

Do not use tire chains. There is not enough clearance. Tire chains used on a vehicle without the proper amount of clearance can cause damage to the brakes, suspension, or other vehicle parts. The area damaged by the tire chains could cause loss of control and a crash.

Use another type of traction device only if its manufacturer recommends it for the vehicle's tire size combination and road conditions. Follow that manufacturer's instructions. To avoid vehicle damage, drive slow and readjust or remove the traction

(Continued)

Warning (Continued)

device if it contacts the vehicle. Do not spin the wheels. If traction devices are used, install them on the tires of the front axle only.

If a Tire Goes Flat


It is unusual for a tire to blow out while driving, especially if the tires are maintained properly. It is much more likely for a tire to experience a slow leak. See *Tires* ⇨ 295.

In the event of a blowout, follow these tips:

- A front tire blowout causes the vehicle to pull toward the side of the flat. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop.
- A rear blowout, particularly on a curve, acts much like a skid and may require the same correction as used in a skid. Stop pressing the accelerator pedal and steer to straighten the vehicle. It may be very bumpy and noisy. Gently brake to a stop.

The vehicle has no spare tire, no tire changing equipment, and no place to store a tire.

If the vehicle has self-sealing tires, see *Self-Sealing Tires* ⇨ 296. Tread punctures typically will not cause tires to lose air. However, if the vehicle does get a flat tire, there is no spare tire, tire changing equipment, or place to store a tire. Contact Roadside Assistance for help.

 **Warning**

Driving on a flat tire will cause permanent damage to the tire. Re-inflating a tire after it has been driven on while severely underinflated or flat may cause a blowout and a serious crash. Never attempt to re-inflate a tire that has been driven on while severely underinflated or flat. Have your dealer or an authorized tire service center repair or replace the flat tire as soon as possible.

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place, well off the road, if possible. Turn on the hazard warning flashers. See *Hazard Warning Flashers* ⇨ 122.

Jump Starting

Jump Starting - North America

For more information about the vehicle battery, see *Battery - North America* ⇨ 275.

If the battery has run down, try to use another vehicle and some jumper cables to start your vehicle. Be sure to use the following steps to do it safely.

Warning

WARNING: Battery posts, terminals and related accessories can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. For more information go to www.P65Warnings.ca.gov.

See *California Proposition 65 Warning* ⇨ 1.

Warning

Batteries can hurt you. They can be dangerous because:

- They contain acid that can burn you.
- They contain gas that can explode or ignite.
- They contain enough electricity to burn you.

Use eye protection when handling the battery. If you do not follow these steps exactly, some or all of these things can hurt you.

Warning

Charging the 12-volt battery and the high voltage battery at the same time may result in overheating or failure. Do not attempt to charge the 12-volt battery and the high voltage battery at the same time. If jumpstarting fails, see your dealer for service.

Caution

The vehicle is equipped with an AGM/VRLA 12-volt battery, which can be damaged by using the incorrect type of trickle charger. An AGM/VRLA-compatible charger must be used, with the appropriate setting selected. Follow the trickle charger manufacturer instructions.

Caution

Ignoring these steps could result in costly damage to the vehicle that would not be covered by the vehicle warranty. Trying to start the vehicle by pushing or pulling it will not work, and it could damage the vehicle.

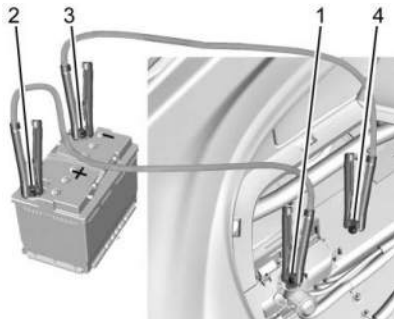
Caution

If the jumper cables are connected or removed in the wrong order, electrical shorting may occur and damage the vehicle. The repairs would not be covered by the vehicle warranty. Always connect

(Continued)

Caution (Continued)

and remove the jumper cables in the correct order, making sure that the cables do not touch each other or other metal.

**Connection Points and Sequence**

1. Discharged Battery Positive (+) Terminal
2. Good Battery Positive (+) Terminal
3. Good Battery Negative (-) Terminal
4. Discharged Battery Negative (-) Grounding Point

The discharged battery positive (+) terminal and the discharged battery negative (-) grounding point are on the driver side of the vehicle.

The good battery negative (-) terminal and the good battery positive (+) terminal are on the battery of the vehicle providing the jump start.

The discharged battery positive (+) terminal and the discharged Battery Negative (-) Grounding Point are under the cargo management system in the rear of the vehicle. Remove the compartment on the driver side to expose the terminal.

Caution

If the other vehicle does not have a 12-volt system with a negative ground, both vehicles can be damaged. Only use a vehicle that has a 12-volt system with a negative ground for jump starting.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

Caution

If the vehicles touch each other while jump starting, a ground connection may occur that disables your vehicle and/or damages the electrical systems of one or both vehicles.

2. Get the vehicles close enough so the jumper cables can reach, but make sure the vehicles are not touching each other.
3. To avoid the possibility of the vehicles rolling, set the parking brake firmly on both vehicles involved in the jump start procedure. Put the vehicles into P (Park). If the other vehicle has a manual transmission, put the vehicle in N (Neutral) before setting the parking brakes.

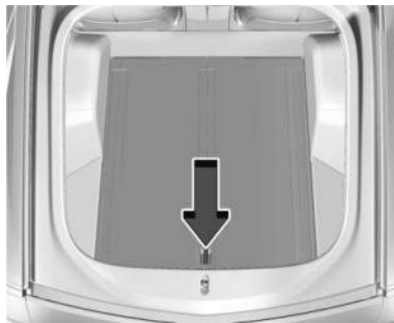
Caution

If any accessories are left on or plugged in during the jump starting procedure, they could be damaged. The repairs would not be covered by the vehicle warranty. Whenever possible, turn off or unplug all accessories on either vehicle when jump starting.

- Turn off both vehicles. Unplug unnecessary accessories plugged into the cigarette lighter or the accessory power outlet. Turn off the radio and all lamps that are not needed.
- Open the liftgate. See *Liftgate* ⇨ 20.



- Pull the strap and lift the load floor to access the storage bins.



- Remove the storage bin on the driver side by unscrewing the wing nut screw in the bottom of the bin.



- Remove the cover on the positive terminal.
- Locate the battery positive (+) terminal and negative (-) grounding point.

Warning

Always inspect jumper cables prior to use. Jumper cables with loose or missing insulation could shock you or cause vehicle damage. Do not use jumper cables that appear damaged.

- Check that the jumper cables do not have loose or missing insulation.
- Connect one end of the red positive (+) cable to the discharged battery positive (+) terminal. Do not let the other end touch metal.
- Connect the other end of the red positive (+) cable to the good battery positive (+) terminal.
- Connect one end of the black negative (-) cable to the good battery negative (-) terminal.
Do not let the other end touch anything until the next step.

14. Connect the other end of the negative (-) cable to the discharged battery negative (-) grounding point.
15. Start the vehicle with the good battery and keep the vehicle running for a while.
16. Try to start the vehicle that had the dead battery. If it will not start after a few tries, it probably needs service.

Jumper Cable Removal

To remove the jumper cables, reverse Steps 11–14 in exact order.

After starting the disabled vehicle and removing the jumper cables, allow it to idle for several minutes.

Towing the Vehicle

Transporting a Disabled Vehicle

Caution

Incorrectly transporting a disabled vehicle may cause damage to the vehicle. Use proper tire straps to secure the vehicle to the flatbed tow truck. Do not strap or hook

(Continued)

Caution (Continued)

to any frame, underbody, or suspension component not specified below. Do not move vehicles with drive axle tires on the ground. Damage is not covered by the vehicle warranty.

Caution

The vehicle may be equipped with an Electric Parking Brake (EPB) and/or an electronic shifter. In the event of a loss of 12-volt battery power, the EPB cannot be released, and the vehicle cannot be shifted to N (Neutral). Tire skates or dollies must be used under the non-rolling tires to prevent damage while loading/unloading the vehicle. Dragging the vehicle will cause damage not covered by the vehicle warranty.

Caution

The vehicle may be equipped with a tow eye. Improper use of the tow eye may cause damage to the vehicle and is not covered by the vehicle warranty. If equipped, use the tow eye to load the vehicle onto a flatbed tow truck from a flat road surface, or to move the vehicle a very short distance at a walking pace. The tow eye is not designed for off-road recovery. The vehicle must be in N (Neutral) with the Electric Parking Brake (EPB) released when using the tow eye.

Contact a professional towing service if the disabled vehicle must be transported. GM recommends a flatbed tow truck to transport a disabled vehicle. Use ramps to help reduce approach angles, if necessary.

If equipped, a tow eye may be located in the rear storage compartment. Do not use the tow eye to pull the vehicle from snow, mud, sand, or a ditch. Tow eye threads may have right- or left-hand threads. Use caution when installing or removing the tow eye.

The vehicle must be in N (Neutral) and the Electric Parking Brake (EPB) must be released when loading the vehicle onto a flatbed tow truck.

- If the vehicle will not start but still has 12-volt battery power, press and hold the brake pedal for 60 seconds and shift into N (Neutral).
- If the vehicle is equipped with car wash mode and has 12-volt battery power, see “Car Wash Mode” under *Electric Drive Unit* ⇨ 179 to place the vehicle in N (Neutral).
- If the 12-volt battery is dead and/or the vehicle will not start, the vehicle will not move. Try to jump start the vehicle. See *Jump Starting - North America* ⇨ 313, and if the jump start is successful, retry the “Car Wash Mode” procedure.
- If jump starting is unsuccessful, the vehicle will not move. Tire skates or dollies must be used under the non-rolling tires to prevent vehicle damage.

Front Tow Eye Attachment Point



1. Carefully open the cover on the fascia by using the small notch that conceals the tow eye socket.



2. Install the tow eye into the socket and turn it until it is fully tightened. When the tow eye is removed, reinstall the cover with the notch in the original position.

Rear Tow Eye Attachment Point



1. Carefully open the cover on the fascia by using the small notch that conceals the tow eye socket.



2. Install the tow eye into the socket and turn it until it is fully tightened. When the tow eye is removed, reinstall the cover with the notch in the original position.

Recreational Vehicle Towing

Caution

Dolly towing or dinghy towing may damage the vehicle. Always put the vehicle on a flatbed truck or trailer.

This vehicle was neither designed nor intended to be towed with any of its wheels on the ground. If your vehicle is disabled and needs to be towed, see *Transporting a Disabled Vehicle* ⇨ 316.


Appearance Care

Exterior Care

Locks

Locks are lubricated at the factory. Use a de-icing agent only when absolutely necessary, and have the locks greased after using. See *Recommended Fluids and Lubricants* ⇨ 332.

Washing the Vehicle

 **Warning**

Do not power wash any part of the vehicle's interior, including the vinyl floor covering. This could damage safety and other systems in the vehicle, which would not be covered by the vehicle warranty.

Caution

Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, or plastic parts. If damage occurs, it would not be covered by the vehicle warranty. Approved cleaning products can be obtained from your dealer. Follow all manufacturer directions regarding correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.

Caution

Avoid using high-pressure washers closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.

To preserve the exterior finish, wash it often and out of direct sunlight.

When handwashing the exterior, press Rear Spoiler on the infotainment screen to raise the rear spoiler.

Cleaning Underhood Components**Caution**

Do not power wash any component under the hood. This could cause damage that would not be covered by the vehicle warranty.

Use only water to clean underhood components. Solvents or aggressive cleaners may cause damage.

Automatic Car Wash**Caution**

Some automatic car washes can cause damage to the vehicle, wheels, and ground effects. Automatic car washes are not recommended, due to lack of clearance for the undercarriage and/or wide rear tires and wheels.

Caution

To avoid damage to a matte paint finish, do not use an automatic car wash equipped with brushes or scrubbers. Only use touchless automatic car washes.

Caution

The rear spoiler may not be cleaned properly or could be damaged if it is raised during an automatic car wash. Before using an automatic car wash, press Rear Spoiler on the infotainment screen to lower the rear spoiler.

If using an automatic car wash, follow the instructions carefully. The windshield wiper must be turned off. Remove any accessories that can be damaged or interfere with the car wash equipment.

Rinse the vehicle well, before washing and after, to remove all cleaning agents completely. If they are allowed to dry on the surface, they could stain.

Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

Finish Care

Caution

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, or matte paint as damage can occur.

Caution

Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only non-abrasive waxes and polishes that are made for a basecoat/clearcoat paint finish on the vehicle.

Application of aftermarket clearcoat sealant/wax materials is not recommended. If painted surfaces are damaged, see your dealer to have the damage assessed and repaired. Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals

from industrial chimneys, etc., can damage the vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Perform occasional hand waxing or mild polishing to remove residue from the paint finish. See your dealer for approved cleaning products.

To keep the paint finish looking new, keep the vehicle garaged or covered whenever possible.

Protecting Exterior Bright Metal Moldings

Caution

Failure to clean and protect the bright metal moldings can result in a hazy white finish or pitting. This damage would not be covered by the vehicle warranty.

The bright metal moldings on the vehicle are aluminum, chrome, or stainless steel. To prevent damage always follow these cleaning instructions:

- Be sure the molding is cool to the touch before applying any cleaning solution.

- Use only approved cleaning solutions for aluminum, chrome, or stainless steel. Some cleaners are highly acidic or contain alkaline substances and can damage the moldings.
- Always dilute a concentrated cleaner according to the manufacturer's instructions.
- Do not use cleaners that are not intended for automotive use.
- Use a nonabrasive wax after washing to protect and extend the molding finish.

Cleaning Exterior Lamps/Lenses, Emblems, Decals, and Stripes

Caution

Failure to clean lamps properly can cause damage to the lamp cover that would not be covered by the vehicle warranty.

Caution

Using wax on low gloss black finish stripes can increase the gloss level and create a non-uniform finish. Clean low gloss stripes with soap and water only.

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lamps, lenses, emblems, decals, and stripes. Follow instructions under "Washing the Vehicle" previously in this section.

Lamp covers are made of plastic, and some have a UV protective coating. Do not clean or wipe them while they are dry.

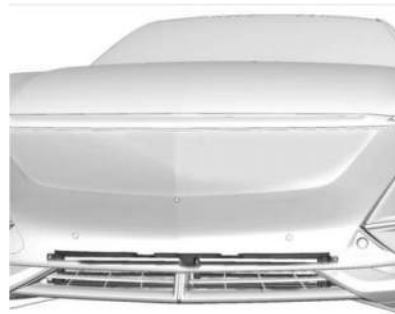
Do not use any of the following on lamp covers:

- Abrasive or caustic agents.
- Washer fluids and other cleaning agents in higher concentrations than suggested by the manufacturer.
- Solvents, alcohols, fuels, or other harsh cleaners.
- Ice scrapers or other hard items.
- Aftermarket appearance caps or covers while the lamps are illuminated, due to excessive heat generated.

Air Intakes

Clear debris from the air intakes, between the hood and windshield, when washing the vehicle.

Shutter System



The vehicle may have a shutter system that automatically closes the frontal cooling openings. This system promotes airflow around the vehicle, reducing drag and providing energy savings. Ensure the shutter system is clear of any visible debris, snow, or ice. If the Service Vehicle Soon light activates and remains after clearing the shutter system, see *Service Vehicle Soon Light* ⇨ 99.

Windshield and Wiper Blades

Clean the outside of the windshield with glass cleaner.

Clean rubber blades using a lint-free cloth or paper towel soaked with windshield washer fluid or a mild detergent. Wash the windshield thoroughly when cleaning the blades. Bugs, road grime, sap, and a buildup of vehicle wash/wax treatments may cause wiper streaking.

Replace the wiper blades if they are worn or damaged. Damage can be caused by extreme dusty conditions, sand, salt, heat, sun, snow, and ice.

Weatherstrips

Apply weatherstrip lubricant on weatherstrips to make them last longer, seal better, and not stick or squeak. Lubricate weatherstrips once a year. Hot, dry climates may require more frequent application. Black marks from rubber material on painted surfaces can be removed by rubbing with a clean cloth.

Tires**Caution**

Using petroleum-based tire dressing products on the vehicle may damage the paint finish and/or tires. When applying a tire dressing, always wipe off any overspray from all painted surfaces on the vehicle.

Use a stiff brush with tire cleaner to clean the tires.

Wheels and Wheel Trim**Caution**

Chrome wheels and chrome wheel trim may be damaged if the vehicle is not washed after driving on roads that have been sprayed with magnesium chloride or calcium chloride. These are used on roads for conditions such as dust control. Always wash the chrome with soap and water after exposure.

Caution

To avoid surface damage on wheels and wheel trim, do not use strong soaps, chemicals, abrasive polishes, cleaners, or brushes. Use only GM approved cleaners. Do not drive the vehicle through an automatic car wash that uses silicon carbide tire/wheel cleaning brushes. Damage could occur and the repairs would not be covered by the vehicle warranty.

Use a soft, clean cloth with mild soap and water to clean the wheels. After rinsing thoroughly with clean water, dry with a soft, clean towel. A wax may then be applied.

Brake System

Visually inspect brake lines and hoses for proper hook-up, binding, leaks, cracks, chafing, etc. Inspect disc brake pads for wear, and rotors for surface condition. Inspect drum brake linings/shoes for wear or cracks. Inspect all other brake parts.

Steering, Suspension, and Chassis Components**Caution**

Lubrication of applicable suspension points should not be done unless the temperature is -12°C (10°F) or higher, or damage could result.

Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear at least once a year.

Inspect power steering for proper attachment, connections, binding, cracks, chafing, etc.

Visually check constant velocity joint boots and axle seals for leaks.

Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, liftgate hinges, and the steel charge port door hinge unless the components are plastic.

Underbody Maintenance

Caution

For electric or hybrid vehicles, perform regular care around the high voltage system. Do not direct high pressure spray at or around connectors, cables, or any of the vents. High pressure can damage the seals and battery components.

At least twice a year, spring and fall, use plain water to flush any corrosive materials from the underbody. Take care to thoroughly clean any areas where mud and other debris can collect.

Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

Sheet Metal Damage

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Use original manufacturer replacement parts to maintain the vehicle warranty.

Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Chemical Paint Spotting

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ring-shaped discolorations, and small, irregular dark spots etched into the paint surface. Refer to "Finish Care" previously in this section.

Interior Care

Caution

Immediately remove cleaners, hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

Caution

Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage to the vehicle. Apply all cleaners directly to a cleaning cloth. Do not spray cleaners on any switches or controls.

Caution

To prevent damage:

- Never use a razor or any other sharp object to remove soil from any interior surface.
- Never use a brush with stiff bristles.
- Never rub any surface aggressively or with too much pressure.
- Do not get any exposed electrical components wet.
- Do not use laundry detergents or dishwashing soaps with degreasers. Do not use solutions that contain strong or caustic soap.

(Continued)

Caution (Continued)

- Do not heavily saturate the upholstery when cleaning.
- Do not use solvents or cleaners containing solvents.
- Do not use disinfecting wipes that are scented or contain bleach. Do not use wipes or cleaners that show a color transfer to the wipe or change the appearance of the interior surface when used.
- Do not use scented or gel-type hand sanitizers. If hand sanitizer comes in contact with interior surfaces of the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap and water solution.

To prevent dirt particle abrasions to the vehicle's interior, regularly clean it. Before using cleaners, read and follow all safety instructions on the label. While cleaning the interior, open the doors and windows for proper ventilation. Newspapers or dark garments can transfer color to the vehicle's interior.

When using liquid soap cleaners, follow the directions on the specific cleaner or soap solution for dilution instructions.

Interior Glass**Caution**

To prevent scratching, never use abrasive cleaners on automotive glass and panoramic roof glass. Use of abrasive cleaners or aggressive cleaning may damage the vehicle's glass surfaces.

Use a microfiber cloth fabric dampened with water to clean interior glass. Wipe droplets left behind with a clean dry cloth. If necessary, use a commercial glass cleaner after cleaning with plain water.

Cleaning the interior windshield with water during the first three to six months of ownership will reduce tendency to fog.

Speaker Covers

Vacuum gently around speaker covers to prevent damage. Clean spots with water and mild soap.

Coated Moldings

When cleaning coated moldings:

- When lightly soiled, wipe with a sponge or soft, lint-free cloth dampened with water.
- When heavily soiled, use warm soapy water.

Care of Builder's Badge**Caution**

Failure to clean the Builder's Badge can result in rust. Clean regularly with an approved stainless steel cleaner.

Clean the Builder's Badge regularly. It is located on the bottom of the driver side b-pillar.

Fabric/Carpet/Suede

Before cleaning, remove as much solid soils as possible, then gently vacuum the surface using a soft brush attachment. If a rotating vacuum brush attachment is used, only use it on the floor carpet.

Gently blot liquids with a paper towel. Continue blotting until no more soil can be removed.

To clean:

1. Saturate a clean, lint-free colorfast cloth with water. Microfiber cloth is recommended to prevent lint transfer to the fabric or carpet.
2. Remove excess moisture by gently wringing until water does not drip from the cleaning cloth.
3. Start on the outside edge of the soil and gently rub toward the center. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil into the fabric.
4. Continue gently rubbing the soiled area until there is no longer any color transfer from the soil to the cleaning cloth.
5. If the soil is not completely removed, use a mild soap solution followed only by plain water.
6. After cleaning, use a paper towel to blot excess moisture.

Stubborn stains may require the use of a commercial upholstery cleaner or spot lifter. Test a small hidden area for colorfastness before using a commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

Cleaning High Gloss Surfaces, Vehicle Information, and Radio Displays

Caution

Do not attach a device with a suction cup to the display. This may cause damage and would not be covered by the vehicle warranty.

1. Use a soft bristle brush to remove any dirt from the high gloss surface/display.
2. Gently clean the surface/display with a clean microfiber cloth that has not been bleached or washed with fabric softener. Never use window cleaners or solvents.

Instrument Panel, Leather, Vinyl, Plastic Surfaces, Low Gloss Paint Surfaces, and Natural Open Pore Wood Surfaces

Caution

Soaking or saturating leather, especially perforated leather, as well as other interior surfaces, may cause permanent damage.

(Continued)

Caution (Continued)

Wipe excess moisture from these surfaces after cleaning and allow them to dry naturally. Never use heat, steam, or spot removers. Do not use liquids that contain alcohol or solvents on leather seats. Do not use cleaners that contain silicone or wax-based products. Cleaners containing these solvents can permanently change the appearance and feel of leather or soft trim and are not recommended.

Caution

Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with any plastic or painted surface in the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap solution. Damage caused by air fresheners would not be covered by the vehicle warranty.

Use compressed air or a vacuum to remove liquid or dust under the Multi-Functional Controller (MFC) cap, if equipped.

To remove dust and dirt from knobs and crevices on the instrument cluster:

1. Use a soft bristle brush.
2. Wipe with a soft microfiber cloth dampened with water. Use a mild soap and water solution for more thorough cleaning.

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

Care of Seat Belts

Warning

Do not bleach or dye seat belt webbing. It may severely weaken the webbing. In a crash, they might not be able to provide adequate protection. Clean and rinse seat belt webbing only with mild soap and lukewarm water. Allow the webbing to dry.

Keep belts clean and dry.

Floor Mats

Warning

If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

Use the following guidelines for proper floor mat use:

- The original equipment floor mats are designed for your vehicle. If the floor mats need to be replaced, it is recommended that GM-certified floor mats are purchased. Non-GM floor mats may not fit properly and may interfere with the pedals. Always check that the floor mats do not interfere with the pedals.
- Do not use a floor mat if the vehicle is not equipped with a floor mat retainer on the driver side floor.
- Use the floor mat with the correct side up. Do not turn it over.

- Do not place anything on top of the driver side floor mat.
- Use only a single floor mat on the driver side.
- Do not place one floor mat on top of another.

Removing and Replacing the Floor Mats

The driver side floor mat is held in place by two button-type retainers.

The passenger side floor mat is held in place by two button-type retainers.



1. Pull up on the rear of the floor mat to unlock each retainer and remove.

2. Reinstall by lining up the floor mat retainers over the carpet retainer openings and snapping them into position.
3. Make sure the floor mat is properly secured in place. Verify the floor mat does not interfere with the pedals.

Protecting the Metal Plates in the Floor Mats

Caution
Failure to clean and protect the metal plates in the floor mats can result in a hazy white finish or pitting. This damage would not be covered by the vehicle warranty.

The metal plates in the floor mats are stainless steel. To prevent damage always follow these cleaning instructions:

- Use only approved cleaning solutions for stainless steel. Some cleaners are highly acidic or contain alkaline substances and can damage the metal plates.
- Always dilute a concentrated cleaner according to the manufacturer's instructions.

- Do not use cleaners that are not intended for automotive use.

Service and Maintenance

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General Information

Your vehicle is an important investment. This section describes the required maintenance for the vehicle. Follow this schedule to help protect against major repair expenses resulting from neglect or inadequate maintenance. It may also help to maintain the value of the vehicle if it is sold. It is the responsibility of the owner to have all required maintenance performed.

Your dealer has trained technicians who can perform required maintenance using genuine replacement parts. They have up-to-date tools and equipment for fast and accurate diagnostics. Many dealers have extended evening and Saturday hours, courtesy transportation, and online scheduling to assist with service needs.

Your dealer recognizes the importance of providing competitively priced maintenance and repair services. With trained technicians, the dealer is the place for routine maintenance such as tire rotations and additional maintenance items like tires, brakes, batteries, and wiper blades.

Caution

Damage caused by improper maintenance can lead to costly repairs and may not be covered by the vehicle warranty. Maintenance intervals, checks, inspections, recommended fluids, and lubricants are important to keep the vehicle in good working condition.

Do not have chemical flushes that are not approved by GM performed on the vehicle. The use of flushes, solvents, cleaners, or lubricants that are not approved by GM could damage the vehicle, requiring expensive repairs that are not covered by the vehicle warranty.

The Tire Rotation and Required Services are the responsibility of the vehicle owner. It is recommended to have your dealer perform these services every 12 000 km/7,500 mi. Proper vehicle maintenance helps to keep the vehicle in good working condition.

The Additional Required Services are for vehicles that:

- Carry passengers and cargo within recommended limits on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ 172.
- Are driven on reasonable road surfaces within legal driving limits.

Warning

Performing maintenance work can be dangerous and can cause serious injury. Perform maintenance work only if the required information, proper tools, and equipment are available. If they are not, see your dealer to have a trained technician do the work. See *Doing Your Own Service Work* ⇨ 266.

Maintenance Schedule

Rotate Tires and Perform Required Services Every 12 000 km (7,500 mi)

- Rotate the tires. Rotating the tires helps achieve a more uniform wear. The first rotation is the most important. Anytime

you notice unusual tire wear, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damage to tires or wheels. If unusual wear continues after a rotation, check the wheel alignment.

See *When It Is Time for New Tires* ⇨ 308 and *Wheel Replacement* ⇨ 311.

- Perform the Multi-Point Vehicle Inspection. See *Multi-Point Vehicle Inspection (MPVI)* ⇨ 330.
- Lubricate body components. See *Exterior Care* ⇨ 318.

Additional Required Services — Normal Service

Every 12 000 km (7,500 mi)

Replace the passenger compartment air filter. Or every 12 months, whichever comes first. More frequent passenger compartment air filter replacement may be needed if driving in areas with heavy traffic, poor air quality, high dust levels, or environmental allergens. Passenger compartment air filter replacement may also be needed if there is reduced airflow, window fogging, or odors. Your GM dealer can help determine when to replace the filter.

Every 240 000 km (150,000 mi)

Drain and fill the coolant circuits. Or every five years, whichever comes first. See *Cooling System* ⇨ 271.

Severe Conditions Requiring More Frequent Maintenance

- Mainly driven in heavy city traffic in hot weather.
- Mainly driven in hilly or mountainous terrain.
- Used for high speed or competitive driving.
- Used for taxi, police, or delivery service.

Additional Required Services — Severe Service

Every 72 000 km (45,000 mi)

- Change electric drive unit fluid. See *Recommended Fluids and Lubricants* ⇨ 332.

Owner Checks and Services

Every Five Years

Replace the brake fluid every five years. See *Brake Fluid* ⇨ 274.

Every Seven Years

Replace the air conditioning desiccant every seven years. This service helps the longevity and efficient operation of the air conditioning system. This service can be complex. See your dealer.

Multi-Point Vehicle Inspection (MPVI)

A Multi Point Vehicle Inspection (MPVI) completed by a trained technician is a maintenance assessment of your vehicle. The benefit of the MPVI is to identify service items that require immediate attention and those that may require attention in the future.

The technician will perform the following checks on your vehicle. You can obtain a copy of the appropriate MPVI checklist on your country's GM Certified Service website. For a complete list of checks, inspections, and services, see your dealer.

Some items may not apply to your vehicle and/or region.

Diagnostics

- OnStar active, if equipped

- Service history/recall check

Exterior Lights

- Visual inspection

Windshield and Wipers

- Visual inspection

12 Volt Battery

- Battery visual inspection
- Battery test results
- Battery cables and connections

Systems, Fluids, and Visible Leak Inspection

- Electric Drive Unit
- Drive axle
- Transfer case
- Power electronics cooling system
- Windshield washer fluid

Tire Inspection

- Tire pressure, tread depth, and wear
- Rotation, if applicable
- Alignment check, optional

- Reset tire pressure monitor
- Check tire sealant expiration date, if equipped
- Check spare tire, if equipped

Brakes

- Check brake system

Visible and Functional Inspections

- Seat belt components
- Accelerator pedal
- Passenger compartment air filter, if equipped
- Hoses
- Shocks and struts
- Steering components
- Axle boots or driveshaft and u-joints
- Compartment lift struts, if equipped
- Floor mats secured, no interference with pedals
- Horn
- Starter switch

Lubricate

- Chassis components

Owner Checks and Services

- At least twice a year, have underbody flushing service performed. See "Underbody Maintenance" in *Exterior Care* ⇨ 318.

Recommended Fluids, Lubricants, and Parts

Recommended Fluids and Lubricants

Fluids and lubricants identified below by name or specification, including fluids or lubricants not listed here, can be obtained from your dealer.

Usage	Fluid/Lubricant
Electric Drive Unit	DEXRON ULV Automatic Transmission Fluid.
Hydraulic Brake System	GM approved DOT 4 Hydraulic Brake Fluid.
Key Lock Cylinders, Hood and Liftgate Hinges	Multi-Purpose Lubricant, Superlube. See your dealer.
Vehicle Coolant Circuits	Use only ACDelco Premix (50/50 mixture of de-ionized water and DEX-COOL Coolant). See your dealer.
Windshield Washer	Automotive windshield washer fluid that meets regional freeze protection requirements.

Technical Data

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Vehicle Identification

Vehicle Identification Number (VIN)



This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification label and certificates of title and registration.

Service Parts Identification

There may be a large barcode on the certification label on the front pillar (A-pillar) that you can scan for the following information:

- Vehicle Identification Number (VIN)
- Model designation
- Paint information

- Production options

If there is not a large barcode on this label, then you will find this same information on a label inside of the trunk.

Vehicle Data

Capacities and Specifications

The following approximate capacities are given in metric and English conversions.

Refer to *Recommended Fluids and Lubricants* ⇨ 332 for more information.

Application	Capacities	
	Metric	English
Air Conditioning Refrigerant	For the air conditioning system refrigerant charge type and amount, see the refrigerant label under the hood. See your dealer for more information.	
Cooling Systems*	See your dealer.	
Wheel Nut Torque	190 N•m	140 lb ft
All capacities are approximate. When adding, be sure to fill to the approximate level, as recommended in this manual. Recheck fluid level after filling.		
*The refilling or adding coolant procedures can be complex. See your dealer.		

Customer Information

Customer Information

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Customer Satisfaction Procedure

Your satisfaction and goodwill are important to your dealer and to Cadillac. Normally, any concerns with the sales transaction or the operation of the vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

STEP ONE: Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service or parts manager, contact the owner of your dealership or the general manager

STEP TWO: If after contacting a member of dealership management, it appears your concern cannot be resolved by your dealership without further help, in the U.S., call the Cadillac Customer Assistance Center at 1-800-333-4223. In Canada, call the Canadian Cadillac Customer Care Centre at 1-888-446-2000.

We encourage you to call the toll-free number in order to give your inquiry prompt attention. Have the following information available to give the Customer Assistance representative:

- Vehicle Identification Number (VIN). This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.
- Dealership name and location.
- Vehicle delivery date and present mileage.

When contacting Cadillac, remember that your concern will likely be resolved at a dealer's facility. That is why we suggest following Step One first.

STEP THREE — U.S. Owners: Both GM and your GM dealer are committed to making sure you are completely satisfied with your new vehicle. However, if you continue to remain unsatisfied after following the procedure outlined in Steps One and Two, you can file with the Better Business Bureau (BBB) AUTO LINE Program to enforce any additional rights you may have.

The BBB AUTO LINE Program is an out-of-court program administered by BBB National Programs, Inc. to settle automotive disputes regarding vehicle repairs or the interpretation

of the New Vehicle Limited Warranty. Although you may be required to resort to this informal dispute resolution program prior to filing a court action, use of the program is free of charge and your case will generally be heard within 40 days. If you do not agree with the decision given in your case, you may reject it and proceed with any other venue for relief available to you. When contacting the BBB AUTO LINE, you will need to provide the following information: Owner's name and address, Vehicle identification number (VIN), the Year, Make, Model, mileage of the vehicle and provide a description of the concern.

Contact the BBB AUTO LINE Program using the toll-free telephone number or write them at the following address:

BBB AUTO LINE Program
BBB National Programs, Inc.
1676 International Drive
Suite 550
McLean, VA 22102
Telephone: 1-800-955-5100
www.bbbauto.com

This program is available in all 50 states and the District of Columbia. Eligibility is limited by vehicle age, mileage, and other factors. General

Motors reserves the right to change eligibility limitations and/or discontinue its participation in this program.

STEP THREE — Canadian Owners: In the event that you do not feel your concerns have been addressed after following the procedure outlined in Steps One and Two, General Motors of Canada Company wants you to be aware of its participation in a no-charge mediation/arbitration program. General Motors of Canada Company has committed to binding arbitration of owner disputes involving factory-related vehicle service claims. The program provides for the review of the facts involved by an impartial third party arbiter, and may include an informal hearing before the arbiter. The program is designed so that the entire dispute settlement process, from the time you file your complaint to the final decision, should be completed in about 70 days. We believe our impartial program offers advantages over courts in most jurisdictions because it is informal, quick, and free of charge.

For further information concerning eligibility in the Canadian Motor Vehicle Arbitration Plan (CAMVAP), call toll-free 1-800-207-0685, or call the Cadillac Customer Care Centre, 1-888-446-2000, or write to:

General Motors Cadillac Customer Care Centre

General Motors of Canada Company
500 Wentworth Street W
Oshawa, ON L1J 0C5

Your inquiry should be accompanied by the Vehicle Identification Number (VIN).

Customer Assistance Offices

Cadillac is committed to assisting customers. Visit us online at www.cadillac.com/support (U.S.) or www.cadillaccanada.ca/en/owners (Canada) to chat with us or find answers to commonly asked questions, tips, vehicle how-to instructions, and available support services.

Need more help? Use the phone numbers or mailing addresses below for additional assistance.

United States and Puerto Rico

Cadillac Customer Assistance Center
Cadillac Motor Car Division
P.O. Box 33169
Detroit, MI 48232-5169
1-800-333-4223

TTY: Dial 711 relay service and contact 1-800-833-2438

Roadside Assistance: 1-800-224-1400

Canada

Cadillac Customer Care Centre
General Motors of Canada Company
500 Wentworth Street W
Oshawa, ON L1J 0C5

1-888-446-2000 (English/French)

Cadillac Roadside Assistance: 1-800-882-1112

Overseas

Contact the local General Motors Business Unit.

Customer Assistance for Text Telephone (TTY) Users







To assist customers who are deaf, hard of hearing, or speech-impaired and/or who use Text Telephones (TTYs), please dial the national 711 relay service and contact 1-800-833-2438. TTY users in Canada can dial 1-800-263-3830.

Online Account and Customer Support


Create a Cadillac Account (U.S.) at cadillac.com

Learn more about your vehicle features, shop for and manage your connected services and OnStar plans, and access diagnostic information specific to your vehicle.

Membership Benefits

-  : Download owner's manuals and view vehicle-specific how-to videos.
-  : View maintenance schedules, alerts, and Vehicle Diagnostic Information. Schedule service appointments.
-  : View service records from your dealership and add your own.
-  : Select a dealer and view locations, maps, phone numbers, and hours.
-  : Track your vehicle's warranty information.
-  : View active recalls or search by Vehicle Identification Number (VIN). See *Vehicle Identification Number (VIN)* ⇨ 334.

 : Manage your profile and payment information. View your GM Rewards Card earnings and My Cadillac Rewards points.

 : Chat with online help representatives. Visit cadillac.com and create an account today.

Cadillac Account (Canada)

Visit your Cadillac Account at cadillaccanada.ca/en (English) or cadillaccanada.ca/fr (French) to access similar benefits.

GM Mobility Reimbursement Program (U.S. Only)

GENERAL MOTORS MOBILITY



This program is available to qualified applicants for cost reimbursement, up to certain limits, of eligible aftermarket adaptive equipment required for the vehicle, such as hand controls or a wheelchair/scooter lift for the vehicle.

To learn about the GM Mobility program, call the GM Mobility Assistance Center at 1-800-323-9935. Text Telephone (TTY) users, please dial the national 711 relay service and contact 1-800-323-9935.

Roadside Assistance Program

U.S. Cadillac EV: 1-844-515-1420.

Canadian Cadillac EV: 1-844-637-1757.

Text Telephone (TTY) Users (U.S. Only): 1-888-889-2438.

Service is available 24 hours a day, 365 days a year.

Calling for Assistance

When calling Roadside Assistance, have the following information ready:

- Your name, home address, and home telephone number
- Telephone number of your location
- Location of the vehicle
- Model, year, color, and license plate number of the vehicle
- Odometer reading and Vehicle Identification Number (VIN)

- Description of the problem

Coverage

For Roadside coverage duration see the Limited Warranty and Owner Assistance Information Manual. For questions on additional Roadside coverage, contact Cadillac Roadside Assistance.

In the U.S., anyone driving the vehicle is covered. In Canada, a person driving the vehicle without permission from the owner is not covered.

Roadside Assistance is not a part of the New Vehicle Limited Warranty. General Motors North America and Cadillac reserve the right to make any changes or discontinue the Roadside Assistance program at any time without notification.

General Motors North America and Cadillac reserve the right to limit services or payment to an owner or driver if they decide the claims are made too often, or the same type of claim is made many times.

Cadillac Owner Privileges™

- **Lock-Out Service:** Service to unlock the vehicle if you are locked out. A remote unlock may be available if you have OnStar. For security reasons, the driver must present identification before this service is given.
- **Emergency Tow from a Public Road or Highway:** Tow to the nearest certified Cadillac EV dealer for warranty service, or if the vehicle was in a crash and cannot be driven. Assistance is not given when the vehicle is stuck in the sand, mud, or snow. If the vehicle is out of charge, Roadside Assistance will arrange to tow the vehicle to the nearest charging station or to the customer's home, whichever is closest.
- **Flat Tire Change:** If the tire has been separated from the wheel, has damaged sidewalls, or has a large puncture, the tire is too severely damaged for the self-sealing tire to be effective and the vehicle will have to be towed. It is the owner's responsibility for the repair or replacement of the tire if it is not covered by the warranty.
- **Battery Jump Start:** Service to jump start a dead battery.

- **Trip Interruption Benefits and Service:** If your trip is interrupted due to a warranty failure, incidental expenses may be reimbursed. Items considered are hotel, meals, and rental car or a vehicle being delivered back to the customer, up to 500 miles. Contact Cadillac Roadside Assistance for Trip Interruption eligibility at the time of vehicle disablement.

Cadillac Technician Roadside Assistance (U.S. Only)

Cadillac's exceptional Roadside Assistance is more than an auto club or towing service. It provides every Cadillac owner in the United States with the advantage of contacting a Cadillac advisor and, where available, a Cadillac trained dealer technician who can provide on-site service.

A dealer technician will travel to your location within a 30-mile radius of a participating Cadillac dealership. If beyond this radius, we will arrange to have your car towed to the nearest Cadillac dealership. Each technician travels with a specially equipped service vehicle complete with the necessary Cadillac parts and tools required to handle most roadside repairs.

Services Not Included in Roadside Assistance

- Impound towing caused by violation of any laws
- Reimbursement of legal fines
- Reimbursement of police mandated tows
- Mounting, dismounting, or changing of snow tires, chains, or other traction devices
- Towing of anything attached to the vehicle like boats, campers, trailers, cargo boxes, etc.
- Vehicles stranded due to off-road driving

Service is not provided if a vehicle is in an area that is not accessible to the service vehicle or is not a regularly traveled or maintained public road, which includes ice and winter roads. Service is not provided on restricted roadways which can include and is not limited to, some highways, tunnels, toll roads, toll bridges, turnpikes, and service roads.

Services Specific to Canadian-Purchased Vehicles

- **Lock-Out Service:** Vehicle registration is required.

- **Trip Interruption Benefits and Service:** Must be over 150 km (93 mi) from where the trip was started to qualify. Pre-authorization, original detailed receipts, and a copy of the repair orders are required. Once authorization has been received, the Roadside Assistance advisor will help to make arrangements and explain how to receive payment. Items considered are hotel, meals, and rental car or a vehicle being delivered back to the customer, up to 800 km.
- **Alternative Service:** If assistance cannot be provided right away, the Roadside Assistance advisor may give you permission to get local emergency road service. You will receive payment, up to \$100, after sending the original receipt to Roadside Assistance. Mechanical failures may be covered, however any cost for parts and labor for repairs not covered by the warranty are the owner responsibility.

Scheduling Service Appointments

When the vehicle requires warranty service, contact your dealer and request an appointment. By scheduling a service

appointment and advising the service consultant of your transportation needs, your dealer can help minimize your inconvenience. If the vehicle cannot be scheduled into the service department immediately, keep driving it until it can be scheduled for service, unless, of course, the problem is safety related. If it is, please call your dealership, let them know this, and ask for instructions.

If your dealer requests you to bring the vehicle for service, you are urged to do so as early in the work day as possible to allow for same-day repair.

Courtesy Transportation Program

To enhance your ownership experience, we and our participating dealers are proud to offer Courtesy Transportation, a customer support program for vehicles with the Bumper-to-Bumper (Base Warranty Coverage period in Canada), Federal Emission, Extended Powertrain or Electric specific warranties in both the U.S. and Canada.

Several Courtesy Transportation options are available to assist in reducing inconvenience when warranty repairs are required.

Courtesy Transportation is not a part of the New Vehicle Limited Warranty. A separate manual entitled "Limited Warranty and Owner Assistance Information" produced for new vehicles provides detailed warranty coverage information.

Transportation Options

Warranty service can generally be completed while you wait. However, if you are unable to do so, your dealer may offer the following transportation options:

Shuttle Service

This includes one-way or round-trip shuttle service within reasonable time and distance parameters of your dealer's area.

Public Transportation, Ridesharing App, or Fuel Reimbursement

If overnight warranty repairs are needed, and public transportation or a ridesharing app is used, the expense must be supported by original receipts and within the maximum amount allowed by GM. If U.S. customers arrange their own transportation, limited reimbursement for reasonable fuel expenses

may be available. Claim amounts should reflect actual costs and be supported by original receipts. See your dealer for information.

Courtesy Rental Vehicle

For an overnight warranty repair, the dealer may provide an available courtesy rental vehicle or provide for reimbursement of a rental vehicle. Reimbursement is limited and must be supported by original receipts as well as a signed and completed rental agreement and meet state/provincial, local, and rental vehicle provider requirements. Requirements vary and may include minimum age requirements, insurance coverage, credit card, etc. Additional fees such as fuel, rental vehicle insurance, taxes, levies, usage fees, excessive mileage, or rental usage beyond the completion of the repair are also your responsibility.

It may not be possible to provide a like vehicle as a courtesy rental.

Additional Program Information

All program options, such as shuttle service, may not be available at every dealer. Contact your dealer for specific availability.

General Motors reserves the right to unilaterally modify, change, or discontinue Courtesy Transportation at any time and to resolve all questions of claim eligibility pursuant to the terms and conditions described herein at its sole discretion.

Collision Damage Repair

If the vehicle is involved in a collision and it is damaged, have the damage repaired by a qualified technician using the proper equipment and quality replacement parts. Poorly performed collision repairs diminish the vehicle resale value, and safety performance can be compromised in subsequent collisions.

Collision Parts

Genuine GM Collision parts are new parts made with the same materials and construction methods as the parts with which the vehicle was originally built. Genuine GM Collision parts are the best choice to ensure that the vehicle's designed appearance, durability, and safety are preserved. The use of Genuine GM parts can help maintain the GM New Vehicle Limited Warranty.

Recycled original equipment parts may also be used for repair. These parts are typically removed from vehicles that were total losses in prior crashes. In most cases, the parts being recycled are from undamaged sections of the vehicle. A recycled original equipment GM part may be an acceptable choice to maintain the vehicle's originally designed appearance and safety performance; however, the history of these parts is not known. Such parts are not covered by the GM New Vehicle Limited Warranty, and any related failures are not covered by that warranty.

Aftermarket collision parts are also available. These are made by companies other than GM and may not have been tested for the vehicle. As a result, these parts may fit poorly, exhibit premature durability/corrosion problems, and may not perform properly in subsequent collisions. Aftermarket parts are not covered by the GM New Vehicle Limited Warranty, and any vehicle failure related to such parts is not covered by that warranty.

Repair Facility

GM also recommends that you choose a collision repair facility that meets your needs before you ever need collision repairs. Your

dealer may have a collision repair center with GM-trained technicians and state-of-the-art equipment, or be able to recommend a collision repair center that has GM-trained technicians and comparable equipment.

Insuring the Vehicle

Protect your investment in the GM vehicle with comprehensive and collision insurance coverage. There are significant differences in the quality of coverage afforded by various insurance policy terms. Many insurance policies provide reduced protection to the GM vehicle by limiting compensation for damage repairs by using aftermarket collision parts. Some insurance companies will not specify aftermarket collision parts. When purchasing insurance, we recommend that you ensure that the vehicle will be repaired with GM original equipment collision parts. If such insurance coverage is not available from your current insurance carrier, consider switching to another insurance carrier.

If the vehicle is leased, the leasing company may require you to have insurance that ensures repairs with Genuine GM Original Equipment Manufacturer (OEM) parts or

Genuine Manufacturer replacement parts. Read the lease carefully, as you may be charged at the end of the lease for poor quality repairs.

If a Crash Occurs

If there has been an injury, call emergency services for help. Do not leave the scene of a crash until all matters have been taken care of. Move the vehicle only if its position puts you in danger, or you are instructed to move it by a police officer.

Give only the necessary information to police and other parties involved in the crash.

For emergency towing see *Roadside Assistance Program* ⇨ 339.

Gather the following information:

- Driver name, address, and telephone number
- Driver license number
- Owner name, address, and telephone number
- Vehicle license plate number
- Vehicle make, model, and model year
- Vehicle Identification Number (VIN)
- Insurance company and policy number

- General description of the damage to the other vehicle

Choose a reputable repair facility that uses quality replacement parts. See “Collision Parts” earlier in this section.

In a crash, the sensing system may shut down the high voltage system. See *Battery - North America* ⇨ 275 for important safety information. If an airbag has inflated, see *What Will You See After an Airbag Inflates?* ⇨ 56.

If the vehicle is damaged from a crash, flood, fire, or other event it may be necessary to have the vehicle inspected. See *Battery - North America* ⇨ 275 for important safety information.

Managing the Vehicle Damage Repair Process

In the event that the vehicle requires damage repairs, GM recommends that you take an active role in its repair. If you have a pre-determined repair facility of choice, take the vehicle there, or have it towed there. Specify to the facility that any required replacement collision parts be original equipment parts,

either new Genuine GM parts or recycled original GM parts. Remember, recycled parts will not be covered by the GM vehicle warranty.

Insurance pays the bill for the repair, but you must live with the repair. Depending on your policy limits, your insurance company may initially value the repair using aftermarket parts. Discuss this with the repair professional, and insist on Genuine GM parts. Remember, if the vehicle is leased, you may be obligated to have the vehicle repaired with Genuine GM parts, even if your insurance coverage does not pay the full cost.

If another party's insurance company is paying for the repairs, you are not obligated to accept a repair valuation based on that insurance company's collision policy repair limits, as you have no contractual limits with that company. In such cases, you can have control of the repair and parts choices as long as the cost stays within reasonable limits.

Publication Ordering Information

Service Manuals

Service manuals have the diagnosis and repair information on the engine/propulsion, transmission, axle, suspension, brakes, electrical system, steering system, body, etc.

Customer Literature

Owner's manuals are written specifically for owners and are intended to provide basic operational information about the vehicle. The owner's manual includes the Maintenance Schedule for all models.

Customer literature publications available for purchase include owner's manuals, warranty manuals, and portfolios. Portfolios include an owner's manual, warranty manual, if applicable, and zip lock bag or pouch.

Current and Past Models

Service manuals and customer literature are available for many GM vehicles.

To check availability and to order, call 1-800-551-4123 Monday–Friday, 8:00 a.m.–6:00 p.m. Eastern Time

For credit card orders only (VISA, MasterCard, or Discover), see Helm, Inc. at: www.helminc.com.

To order by mail, write to:

Helm, Incorporated
Attention: Customer Service
47911 Halyard Drive
Plymouth, MI 48170

Make checks payable in U.S. funds.

Radio Frequency Statement

This vehicle uses license-exempt transmitters / receivers / systems that operate on a radio frequency that complies with Part 15/Part 18 of the Federal Communications Commission (FCC) rules and with Innovation, Science and Economic Development (ISED) Canada's license-exempt RSS(s) / RSP-100 / ICES-GEN.

Operation is subject to the following two conditions:

1. The device may not cause harmful interference.
2. The device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Reporting Safety Defects

Reporting Safety Defects to the United States Government

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 General Motors.

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 General Motors.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-877-561-7439); go to <https://www.safercar.gov>; or write to:

Administrator, NHTSA
1200 New Jersey Avenue, S.E.,
Washington, D.C. , 20590

You can also obtain other information about motor vehicle safety from <https://www.safercar.gov>.

Reporting Safety Defects to the Canadian Government

If you live in Canada, and you believe that the vehicle has a safety defect, notify Transport Canada immediately, and notify General Motors of Canada Company. Call Transport Canada at 1-800-333-0510; go to:

www.tc.gc.ca/recalls (English)

www.tc.gc.ca/rappels (French)

or write to:

Transport Canada
Motor Vehicle Safety Directorate
Defect Investigations and Recalls Division

80 Noel Street
Gatineau , QC J8Z 0A1

Reporting Safety Defects to General Motors

In addition to notifying NHTSA (or Transport Canada) in a situation like this, notify General Motors.

In the U.S., call 1-800-458-8006, or write:

Cadillac Customer Assistance Center
Cadillac Motor Car Division
P.O. Box 33169
Detroit, MI 48232-5169

In Canada, call 1-888-446-2000, or write:

Canadian Cadillac Customer Care Centre
General Motors of Canada Company
500 Wentworth Street W
Oshawa, ON L1J 0C5

In Mexico, call 800-466-0805 or 800-212-2345.

In other Central America and Caribbean Countries, call 52-555-901-2369.

Vehicle Data Recording and Privacy

The vehicle has a number of computers that record information about the vehicle's performance and how it is driven or used. For example, the vehicle uses computer modules to monitor and control electric drive unit performance, to monitor the conditions for airbag deployment and to deploy them in a crash, and, if equipped, to provide antilock braking to help the driver control the vehicle. These modules may store data to help the dealer technician service the vehicle or to help GM improve safety or features. Some modules may also store data about how the vehicle is operated, such as rate of energy consumption or average speed. These modules may retain personal preferences, such as radio presets, seat positions, and temperature settings.

Cybersecurity

GM collects information about the use of your vehicle including operational and safety related information. We collect this information to provide, evaluate, improve, and troubleshoot our products and services and to develop new products and services.

The protection of vehicle electronics systems and customer data from unauthorized outside electronic access or control is important to GM. GM maintains appropriate security standards, practices, guidelines and controls aimed at defending the vehicle and the vehicle service ecosystem against unauthorized electronic access, detecting possible malicious activity in related networks, and responding to suspected cybersecurity incidents in a timely, coordinated and effective manner. Security incidents could impact your safety or compromise your private data. To minimize security risks, please do not connect your vehicle electronic systems to unauthorized devices or connect your vehicle to any unknown or untrusted networks (such as Bluetooth, Wi-Fi or similar technology). In the event you suspect any security incident impacting your data or the safe operation of your vehicle, please stop operating your vehicle and contact your dealer.

Event Data Recorders

This vehicle is equipped with an Event Data Recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or

hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR 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 safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

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

Note

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

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

GM will not access these data or share it with others except: with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee; in response to an official request by police or similar government office; as part of GM's defense of litigation through the discovery process; or, as permitted by law. Data that GM collects or receives may also be used for GM research needs or may be

made available to others for research purposes, where a need is shown and the data is not tied to a specific vehicle or vehicle owner.

OnStar

If the vehicle is equipped with OnStar and has an active service plan, additional data may be collected and transmitted through the OnStar system. This includes information about the vehicle's operation; collisions involving the vehicle; the use of the vehicle and its features, including infotainment; and the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

See *OnStar Additional Information* ⇨ 349.

Infotainment System

If the vehicle is equipped with a navigation system as part of the infotainment system, use of the system may result in the storage of destinations, addresses, telephone numbers, and other trip information. See the infotainment section for information on stored data and for deletion instructions.

OnStar

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OnStar Overview



White OnStar Button



Blue OnStar Button





Red Emergency Button

This vehicle may be equipped with a comprehensive, in-vehicle system that can connect to an OnStar Advisor for Emergency, Security, Navigation, Connections, and Diagnostics Services. OnStar services may require a paid service plan and data plan. OnStar requires the vehicle battery and electrical system, cellular service, and GPS satellite signals to be available and operating. OnStar acts as a link to existing emergency service providers. OnStar may collect information about you and your vehicle, including location information. See OnStar User Terms, Privacy Statement, and


Software Terms for more details including system limitations at www.onstar.com (U.S.) or www.onstar.ca (Canada).

The OnStar system status light is next to the OnStar buttons. If the status light is:

- Solid Green: System is ready.
- Flashing Green: On a call.
- Red: Indicates a problem.
- Off: System is off. Press  twice to speak with an OnStar Advisor.

Press  or call 1-888-4ONSTAR (1-888-466-7827) to speak to an Advisor.

Functionality of the White OnStar Button may vary by vehicle and region.

Press  to answer and end incoming calls with a live OnStar Advisor.

Press  to connect to an Advisor to:

- Verify account information or update contact information.
- Get driving directions.
- Receive a Diagnostic check of the vehicle's key operating systems.
- Receive Roadside Assistance.

- Manage Wi-Fi Settings, if equipped.

Press **SOS** to get a priority connection to an OnStar Advisor available 24/7 to:

- Get help for an emergency.
- Be a Good Samaritan or respond to an AMBER Alert.
- Get assistance in severe weather or other crisis situations and find evacuation routes.

OnStar Services

Emergency

Emergency Services require an active safety and security plan. With Automatic Crash Response, built-in sensors can automatically alert a specially trained OnStar Advisor who is immediately connected in to the vehicle to help.

Press **SOS** for a priority connection to an OnStar Advisor who can contact emergency service providers, direct them to your exact location, and relay important information.

With OnStar Crisis Assist, specially trained Advisors are available 24 hours a day, 7 days a week, to provide a central point of contact, assistance, and information during a crisis.

With Roadside Assistance, Advisors can locate a nearby service provider to help with a flat tire or a battery jump.

Security

If equipped, OnStar provides these services:

- With Stolen Vehicle Assistance, OnStar Advisors can use GPS to pinpoint the vehicle and help authorities quickly recover it.
- With Remote Ignition Block, if equipped, OnStar can block the vehicle from being restarted.
- With Stolen Vehicle Slowdown, if equipped, OnStar can work with law enforcement to gradually slow the vehicle down.

Theft Alarm Notification

If equipped, if the doors are locked and the vehicle alarm sounds, a notification by text, email, or phone call will be sent. If the vehicle is stolen, an OnStar Advisor can work with authorities to recover the vehicle.

OnStar Additional Information

In-Vehicle Audio Messages

Audio messages may play important information at the following times:

- Prior to vehicle purchase. Press **On** to set up an account.
- After change in ownership and at 90 days.

Transferring Service

Press **On** to request account transfer eligibility information. The Advisor can cancel or change account information.

Selling/Transferring the Vehicle

Call 1-888-4ONSTAR (1-888-466-7827) immediately to terminate your OnStar or connected services if the vehicle is disposed of, sold, transferred, or if the lease ends.

Reactivation for Subsequent Owners

Press **On** and follow the prompts to speak to an Advisor as soon as possible. The Advisor will update vehicle records and explain OnStar or connected service options.

How OnStar Service Works

Automatic Crash Response, Emergency Services, Crisis Assist, Stolen Vehicle Assistance, Remote Services, and Roadside Assistance are available on most vehicles. Not all OnStar services are available everywhere or on all vehicles. For more information, a full description of OnStar services, system limitations, and OnStar User Terms, Privacy Statement, and Software Terms:

- Call 1-888-4ONSTAR (1-888-466-7827).
- See www.onstar.com (U.S.).
- See www.onstar.ca (Canada).
- Call TTY 1-877-248-2080.
- Press  to speak with an Advisor.

OnStar or connected services cannot work unless the vehicle is in a place where OnStar has an agreement with a wireless service provider for service in that area. The wireless service provider must also have coverage, network capacity, reception, and technology compatible with OnStar or connected services. Service involving location information about the vehicle cannot work unless GPS signals are available, unobstructed, and compatible with the OnStar hardware. OnStar or connected

services may not work if the OnStar equipment is not properly installed or it has not been properly maintained. If equipment or software is added, connected, or modified, OnStar or connected services may not work. Other problems beyond the control of OnStar — such as hills, tall buildings, tunnels, weather, electrical system design and architecture of the vehicle, damage to the vehicle in a crash, or wireless phone network congestion or jamming — may prevent service.

See *Radio Frequency Statement* ⇨ 344.

Services for People with Disabilities

Advisors provide services to help with physical disabilities and medical conditions.

Press  to help:


- Find a hotel, restaurant, etc., that meets accessibility needs.
- Provide directions to the closest hospital or pharmacy in urgent situations.

TTY Users

OnStar has the ability to communicate to deaf, hard-of-hearing, or speech-impaired customers while in the vehicle. The available TTY system provides in-vehicle access to all OnStar services.

If equipped, from the infotainment home screen, access TTY by touching Settings > Apps > Phone > TTY > Enable OnStar TTY mode. When TTY mode is on, phone calls can be made or received with OnStar using the infotainment display.

OnStar Personal Identification Number (PIN)

A PIN is needed to access some OnStar services. The PIN will need to be changed the first time when speaking with an Advisor. To change the OnStar PIN, contact an OnStar Advisor by pressing  or calling 1-888-4ONSTAR.


Warranty

OnStar equipment may be warranted as part of the vehicle warranty.

Languages

The vehicle can be programmed to respond in multiple languages. Press  and ask for an Advisor. Advisors are available in English, Spanish, and French. Available languages may vary by country.

Potential Issues

OnStar cannot perform Remote Door Unlock or Stolen Vehicle Assistance after the vehicle has been off continuously for an extended period of time without being started. To find out the duration of time that applies for the vehicle, contact an OnStar Advisor by pressing  or calling 1-888-4ONSTAR. If the vehicle has not been started for an extended period of time, OnStar can contact Roadside Assistance or a locksmith to help gain access to the vehicle.

Global Positioning System (GPS)


- Obstruction of the GPS can occur in a large city with tall buildings; in parking garages; around airports; in tunnels and underpasses; or in an area with very dense trees. If GPS signals are not available, the OnStar system should still operate to call OnStar. However, OnStar could have difficulty identifying the exact location.
- In emergency situations, OnStar can use the last stored GPS location to send to emergency responders.

A temporary loss of GPS can cause loss of the ability to send a Turn-by-Turn Navigation route. The Advisor may give a verbal route or may ask for a call back after the vehicle is driven into an open area.

Cellular and GPS Antennas

Cellular reception is required for OnStar to send remote signals to the vehicle. Do not place items over or near the antenna to prevent blocking cellular and GPS signal reception.

Unable to Connect to OnStar Message

If there is limited cellular coverage or the cellular network has reached maximum capacity, this message may come on. Press  to try the call again or try again after driving a few miles into another cellular area.

Vehicle and Power Issues

OnStar services require a vehicle electrical system, wireless service, and GPS satellite technologies to be available and operating for features to function properly. These systems may not operate if the battery is discharged or disconnected.

Add-on Electrical Equipment


The OnStar system is integrated into the electrical architecture of the vehicle. Do not add any electrical equipment. See *Add-On Electrical Equipment* ⇨ 264. Added electrical equipment may interfere with the operation of the OnStar system and cause it to not operate.

Vehicle Software Updates

OnStar or GM may remotely deliver software updates or changes to the vehicle without further notice or consent. These updates or changes may enhance or maintain safety, security, or the operation of the vehicle or the vehicle systems. Software updates or changes may affect or erase data or settings that are stored in the vehicle, such as saved navigation destinations or pre-set radio stations. Neither OnStar nor GM is responsible for any affected or erased data or settings. These updates or changes may also collect personal information. Such collection is described in the OnStar privacy statement or separately disclosed at the time of installation. These updates or changes may also cause a system to automatically communicate with GM servers to collect information about vehicle system status, identify whether updates or changes

are available, or deliver updates or changes. An active OnStar agreement constitutes consent to these software updates or changes and agreement that either OnStar or GM may remotely deliver them to the vehicle.

Connected Services Privacy Statement

The complete OnStar Privacy Statement may be found at www.onstar.com (U.S.), or www.onstar.ca (Canada). We recommend that you review it. If you have any questions, call 1-888-4ONSTAR (1-888-466-7827) or press  to speak with an Advisor. Users of wireless communications are cautioned that the privacy of any information sent via wireless cellular communications cannot be assured. Third parties may unlawfully intercept or access transmissions and private communications without consent.

OnStar – Software Acknowledgements

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit www.opensourceautomotive.com/an/GM. In addition to the source code, all referred license terms, warranty disclaimers, and copyright notices are available for download. This offer is

valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

*Provided through Continental Automotive Systems, Inc., who is solely responsible for provisions of related OSS compliance.


Connected Services

Connected Services


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Navigation

Navigation requires a specific OnStar or connected service plan.


Press  to receive Turn-by-Turn directions or have them sent to the vehicle navigation screen, if equipped. A destination transfer from OnStar will show the detail view of the destination when it is transferred from OnStar to the Navigation application. See www.onstar.com for a coverage map. Services vary by model. Map coverage is available in the United States and Canada.

Turn-by-Turn Navigation

1. Press  to connect to an Advisor.
2. Request directions to be downloaded to the vehicle.

Send Directions to Vehicle

If equipped, directions can be sent to the navigation screen.

Press , then ask the Advisor to download directions to the navigation system, if equipped. After the call ends, the navigation screen will provide prompts to begin driving

directions. Routes that are sent to the navigation screen can only be canceled through the navigation system.

See www.onstar.com (U.S.) or www.onstar.ca (Canada).

Connections

The following services help with staying connected.


For coverage maps, see www.onstar.com (U.S.) or www.onstar.ca (Canada).

Ensuring Security

- Change the default passwords for the Wi-Fi hotspot and myCadillac application. Make these passwords different from each other and use a combination of letters and numbers to increase the security.
- Change the default name of the Service Set Identifier (SSID). This is your network's name that is visible to other wireless devices. Choose a unique name and avoid family names or vehicle descriptions.

Wi-Fi Hotspot

The vehicle has a built-in Wi-Fi hotspot that provides access to the Internet and web content at 5G speed, if equipped. Multiple devices can be connected. A data plan is required. Use the in-vehicle controls only when it is safe to do so.

1. To retrieve Wi-Fi hotspot information, tap the Wi-Fi Hotspot icon on the infotainment home screen.
2. The Wi-Fi settings will display the Wi-Fi hotspot name (SSID), password, and on some vehicles, the connection type (no Internet connection, 3G, 4G, 4G LTE, 5G), and signal quality (poor, good, excellent). The connection type icon (3G, 4G, 4G LTE, 5G) shows connection to Wi-Fi. It is possible that the icon may not illuminate even though the vehicle has an active connection.
3. To change the SSID or password, press  or call 1-888-4ONSTAR to connect with an Advisor. On some vehicles, the SSID and password can be changed in the Wi-Fi Hotspot menu.

After initial set-up, your vehicle's Wi-Fi hotspot will connect automatically to your mobile devices. Manage data usage by turning Wi-Fi on or off on your mobile device, using the

myCadillac app, or by contacting an OnStar Advisor. On some vehicles, Wi-Fi can also be managed from the Wi-Fi Hotspot menu.

myCadillac App

Access the myCadillac app from your vehicle's infotainment screen, if equipped, or download the myCadillac mobile app to compatible Apple and Android smartphones, if available. Cadillac users can access the following services:

- Remotely start/stop the vehicle, if factory-equipped.
- Lock/unlock doors, if equipped with automatic locks.
- Activate the horn and lamps.
- Check the vehicle's energy level, range or tire pressure, if factory-equipped with the Tire Pressure Monitor System.
- Send destinations to the vehicle.
- Locate the vehicle on a map (U.S. market only).
- Turn the vehicle's Wi-Fi hotspot on/off, manage settings, and monitor data consumption, if equipped.
- Locate a dealer and schedule service.

- Request Roadside Assistance.
- Set a parking reminder with pin drop, take a photo, make a note, and set a timer.
- Connect with Cadillac on social media.

Features are subject to change. For myCadillac app information and compatibility, see my.cadillac.com.

An active OnStar or connected service plan may be required. A compatible device, factory-installed remote start, and power locks are required. Data rates apply. See www.onstar.com for details and system limitations.

Diagnostics

By monitoring and reporting on the vehicle's main systems, OnStar Advanced Diagnostics, if equipped, provides a way to keep up on maintenance. Capabilities vary by model. See www.onstar.com for details and system limitations. Features are subject to change. For updates on feature capabilities, see my.cadillac.com. Message and data rates may apply.

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- My Cadillac Rewards
- myCadillac Mobile App
- How-To Videos
- Vehicle Diagnostics
- Scheduled Maintenance
- Vehicle Features
- Many Additional Resources

Canada



United States

Customer Assistance
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Roadside Assistance
1-800-224-1400

United States and Canada

Connected Services
1-888-4-ONSTAR

Canada

Customer Assistance
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Roadside Assistance
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