

# FOREWORD

Dear Customer,

Thank you for selecting your new Kia vehicle.

As a global car manufacturer focused on building high-quality vehicles with exceptional value, Kia is dedicated to providing you with a customer service experience that exceeds your expectations.

This Owner's Manual will acquaint you with the operation of features and equipment that are either standard or optional on this vehicle, along with the maintenance needs of this vehicle. Therefore, you may find certain descriptions and illustrations not applicable to your vehicle. You are advised to read this publication carefully and follow the instructions and recommendations. Please always keep this manual in the vehicle for your and any subsequent owner's reference.

Authorized Kia Dealerships provide factory-trained technicians, utilized recommended special service tools, and supply genuine Kia replacement parts to help you maintain and service your vehicle during your ownership.

All information contained in this Owner's Manual was accurate at the time of publication. However, as Kia continues to make improvements to its products, the company reserves the right to make changes to this manual or any of its vehicles at any time without notice and without incurring any obligations.

Please drive safely, and enjoy your Kia vehicle!

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## How to use this manual

We want to help you get the greatest possible driving pleasure from your vehicle. Your Owner's Manual can assist you in many ways.

We strongly recommend that you read the entire manual. In order to minimize the chance of death or injury, you must read the WARNING and CAUTION sections in the manual.

Illustrations complement the words in this manual to best explain how to enjoy your vehicle. By reading your manual, you learn about features, important safety information, and driving tips under various road conditions.

The general layout of the manual is provided in the Table of Contents. Use the index when looking for a specific area or subject, it has an alphabetical listing of all information in your manual.

Chapters: This manual has nine chapters plus an index. Each chapter begins with a brief list of contents so you can tell at a glance if that chapter has the information you want.

You will find various WARNINGS, CAUTIONS, and NOTICES in this manual. These WARNINGS were prepared to enhance your personal safety. You should carefully read and follow ALL procedures and recommendations provided in these WARNINGS, CAUTIONS and NOTICES.

### **WARNING**

A WARNING indicates a situation in which harm, serious bodily injury or death could result if the warning is ignored.

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### **CAUTION**

A CAUTION indicates a situation in which damage to your vehicle could result if the caution is ignored.

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### **NOTICE**

A NOTICE indicates interesting or helpful information is being provided.

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# Introduction **1**

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## Introduction

### Fuel requirements

Your new vehicle is designed to use only unleaded fuel having a pump octane number  $((R+M)/2)$  of 87 (Research Octane Number 91) or higher. (Do not use methanol blend-ed fuels.)

Your new vehicle is designed to obtain maximum performance with UNLEADED FUEL, as well as minimize exhaust emissions and spark plug fouling.

Never add any fuel system cleaning agents to the fuel tank other than what has been specified. (Consult an authorized Kia dealer for details.)

- Tighten the cap until it clicks one time, otherwise the Check Engine  light will appear.

#### WARNING

#### Refueling

- Do not "top off" after the nozzle automatically shuts off. Attempts to force more fuel into the tank can cause fuel overflow onto you and the ground causing a risk of fire.
- Always check that the fuel cap is installed securely to prevent fuel spillage, especially in the event of an accident.

### Gasoline containing alcohol and methanol

Gasohol, a mixture of gasoline and ethanol (also known as grain alcohol), and gasoline or gasohol containing methanol (also known as wood alcohol) are being marketed along with or instead of leaded or unleaded gasoline.

Do not use gasohol containing more than 15% ethanol, and do not use gaso-

line or gasohol containing any methanol. Either of these fuels may cause drivability problems and damage to the fuel system, engine control system and emission control system.

Methanol may cause drivability problems and damage to the fuel system, engine control system and emission control system.

Discontinue using gasohol of any kind if drivability problems occur.

Vehicle damage or drivability problems may not be covered by the manufacturer's warranty if they result from the use of:

1. Gasoline or gasohol containing methanol.
2. Leaded fuel or leaded gasohol.
3. Gasohol containing more than 15% ethanol.

"E85" fuel is an alternative fuel comprised of 85% ethanol and 15% gasoline, and is manufactured exclusively for use in Flexible Fuel Vehicles. "E85" is not compatible with your vehicle. Use of "E85" may result in poor engine performance and damage to your vehicle's engine and fuel system. Kia recommends that customers do not use fuel with an ethanol content exceeding 15%.

#### NOTICE

Your New Vehicle Limited Warranty does not cover damage to the fuel system or any performance problems caused by the use of "E85" fuel.

#### NOTICE

Never use any fuel containing methanol. Discontinue use of any methanol containing product which may inhibit proper drivability.



## Other fuels

Using fuels that contain Silicone (Si), MMT (Manganese, Mn), Ferrocene (Fe), and Other metallic additives, may cause vehicle and engine damage or cause misfiring, poor acceleration, engine stalling, catalyst melting, clogging, abnormal corrosion, life cycle reduction, etc.

Also, the Malfunction Indicator Lamp (MIL) may appear.

### \* NOTICE

Damage to the fuel system or performance problem caused by the use of these fuels may not be covered by your New Vehicle Limited Warranty.

## Use of MTBE

Kia recommends avoiding fuels containing MTBE (Methyl Tertiary Butyl Ether) over 15.0% vol. (Oxygen Content 2.7% weight) in your vehicle.

Fuel containing MTBE over 15.0% vol. (Oxygen Content 2.7% weight) may reduce vehicle performance and produce vapor lock or hard starting.

### \* NOTICE

Your New Vehicle Limited Warranty may not cover damage to the fuel system and any performance problems that are caused by the use of fuels containing methanol or fuels containing MTBE (Methyl Tertiary Butyl Ether) over 15.0% vol. (Oxygen Content 2.7% weight.)

## Gasoline containing MMT

Some gasoline contains harmful manganese-based fuel additives Such as MMT (Methylcyclopentadienyl Manganese Tricarbonyl). Kia does not recommend the

use of gasoline containing MMT. This type of fuel can reduce vehicle performance and affect your emission control system. The Malfunction Indicator Lamp on the cluster may come on.

## Do not use methanol

Fuels containing methanol (wood alcohol) should not be used in your vehicle. This type of fuel can reduce vehicle performance and damage components of the fuel system, engine control system and emission control system.

## Operation in foreign countries

If you are going to drive your vehicle in another country, be sure to: • Observe all regulations regarding registration and insurance. • Determine that acceptable fuel is available.

## Vehicle modifications

This vehicle should not be modified. Modification of your vehicle could affect its performance, safety or durability and may even violate governmental safety and emissions regulations.

### \* NOTICE

Damage or performance problems resulting from any modification may not be covered under warranty.

---

### ⚠ CAUTION

If you use unauthorized electronic devices, it may cause the vehicle to operate abnormally, wire damage, battery discharge and fire. For your safety, do not use unauthorized electronic devices.

---

## Vehicle break-in process

By following a few simple precautions for the first 1,000 km (600 miles) you may add to the performance, economy and life of your vehicle.

- Do not race the engine.
- While driving, keep your engine speed (rpm, or revolutions per minute) between 2,000 rpm and 4,000 rpm.
- Do not maintain a single speed for long periods of time, either fast or slow. Varying engine speed is needed to properly break-in the engine.
- Avoid hard stops, except in emergencies, to allow the brakes to seat properly.
- Don't tow a trailer during the first 2,000 km (1,200 miles) of operation.
- Fuel economy and engine performance may vary depending on vehicle break-in process and be stabilized after 6,000 km (4,000 miles). New engines may consume more oil during the vehicle break-in period.

## Vehicle handling instructions

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover.

Specific design characteristics (higher ground clearance, track, etc.) give this vehicle a higher center of gravity than other types of vehicles. In other words they are not designed for cornering at the same speeds as conventional 2-wheel drive vehicles.

Avoid sharp turns or abrupt maneuvers. Again, failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover. **Be sure to read the “Reducing the risk of a rollover” driving guidelines, in chapter 5 of this manual.**

## Vehicle data collection and 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.

# Your vehicle at a glance

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# Your vehicle at a glance

## Exterior overview

Front view



OSK3012001N

\* The actual shape may differ from the illustration.

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OSK3012002N

\* The actual shape may differ from the illustration.

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\* The actual shape may differ from the illustration.

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## Instrument panel overview



OSK3012004N

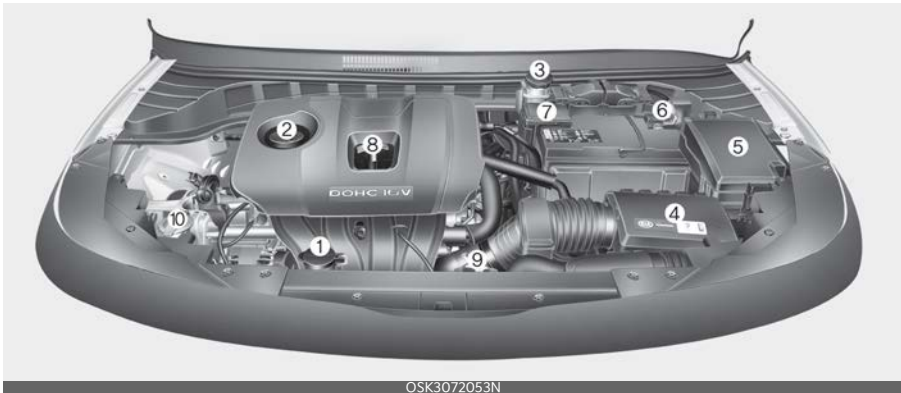
\* The actual shape may differ from the illustration.

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(Gasoline) 2.0 MPI



OSK3072053N

\* The actual engine cover in the vehicle may differ from the illustration.

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## Safety features of your vehicle

### Important safety precautions

You will find many safety precautions and recommendations throughout this section, and throughout this manual.

The safety precautions in this section are among the most important.

### Always wear your seat belt

A seat belt is your best protection in all types of accidents. Air bags are designed to supplement seat belts, not replace them. So even though your vehicle is equipped with air bags, ALWAYS make sure you and your passengers always wear their seat belts, and wear them properly

### Restrain all children

All children under age 13 should ride in your vehicle properly restrained in a rear seat, not the front seat. Infants and small children should be restrained in an appropriate child restraint. Larger children should use a booster seat with the lap/shoulder belt until they can use the seat belt properly without a booster seat.

### Air bag hazards

While air bags can save lives, they can also cause serious or fatal injuries to occupants who sit too close to them, or who are not properly restrained. Infants, young children, and shorter adults are at the greatest risk of being injured by an inflating air bag. Follow all instructions and warnings in this manual.

### Driver distraction

Driver distraction presents a serious and potentially deadly danger, especially for inexperienced drivers. Safety should be the first concern when behind the wheel and drivers need to be aware of the wide array of potential distractions, such as drowsiness, reaching for objects, eating, personal grooming, other passengers, and using cellular phones.

Drivers can become distracted when they take their eyes and attention off the road or their hands off the wheel to focus on activities other than driving. To reduce your risk of distraction or getting into an accident:

- ALWAYS set up your mobile devices (i.e., MP3 players, phones, navigation units, etc.) when your vehicle is parked or safely stopped.
- ONLY use your mobile device when allowed by laws and when conditions permit safe use. NEVER text or email while driving. Most countries have laws prohibiting drivers from texting. Some countries and cities also prohibit drivers from using handheld phones.
- NEVER let the use of a mobile device distract you from driving. You have a responsibility to your passengers and others on the road to always drive safely, with your hands on the wheel as well as your eyes and attention on the road.

### Control your speed

Excessive speed is a major factor in crash injuries and deaths. Generally, the higher the speed, the greater the risk, but serious injuries can also occur at lower speeds. Never drive faster than is

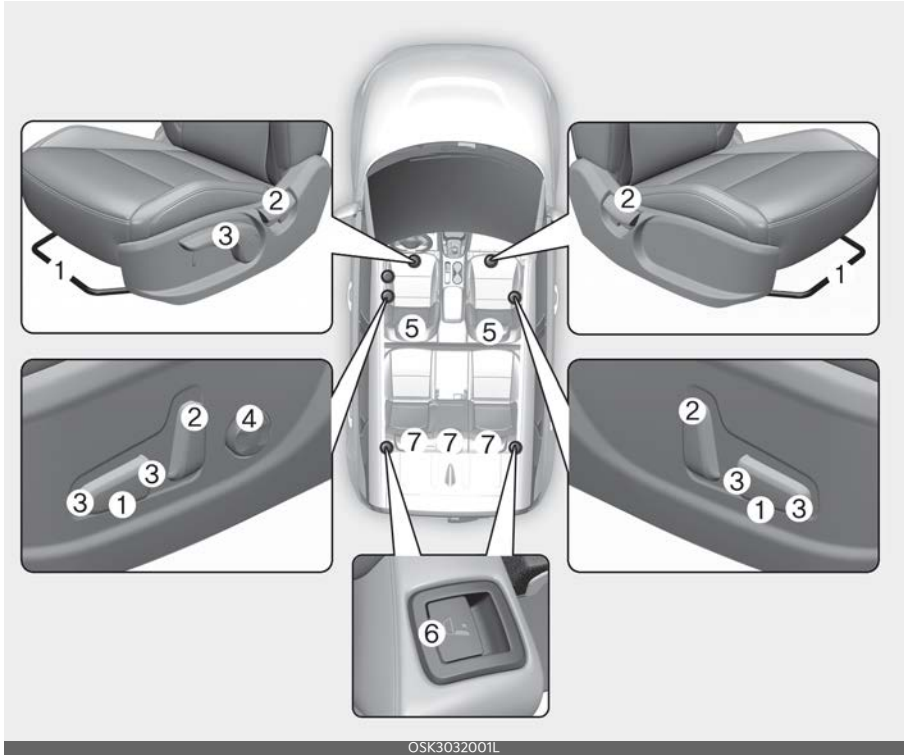
safe for current conditions, regardless of the maximum speed posted.

**Keep your vehicle in safe condition**

Having a tire blowout or a mechanical failure can be extremely hazardous. To reduce the possibility of such problems, check your tire pressures and condition frequently, and perform all regularly scheduled maintenance.



## Seat



OSK3032001L

### Front seat

1. Forward and backward
2. Seatback angle
3. Seat cushion height
4. Lumbar support\*
5. Head rest

### Rear seat

6. Seatback folding
  7. Headrest
- \*: if equipped

**⚠ WARNING**

**Loose objects**

Do not place anything in the driver's footwell or under the front seats. Loose objects in the driver's foot area could interfere with the operation of the foot pedals.

**⚠ WARNING**

**Uprighting seat**

Do not press the release lever on a manual seatback without holding and controlling the seatback. The seatback will spring upright possibly impacting you or other passengers.

**⚠ WARNING**

**Driver responsibility for passengers**



The driver must advise the passengers to keep the seatback in an upright position whenever the vehicle is in motion. If a seat is reclined during an accident, the restraint system's ability to restrain will be greatly reduced.

**⚠ WARNING**

**Seat cushion**

Occupants should never sit on aftermarket seat cushions or sitting cushions. The

passenger Occupant Detection System (ODS) may not operate properly, or passenger's hips may slide under the lap portion of the seat belt during an accident or a sudden stop.

**⚠ WARNING**

**Driver's seat**

- Never attempt to adjust the seat while the vehicle is moving. This could result in loss of control of your vehicle.
- Do not allow anything to interfere with the normal position of the seatback. Storing items against the seatback could result in serious or fatal injury in a sudden stop or collision.
- Sit as far back as possible from the steering wheel while still maintaining comfortable control of the your vehicle. A distance of at least 25 cm (10 inches) from your chest to the steering wheel is recommended. Failure to do so can result in air bag inflation injuries to the driver.

**⚠ WARNING**

**Rear seatbacks**

Always lock the rear seatback before driving. Failure to do so could result in passengers or objects being thrown forward injuring vehicle occupants.

**⚠ WARNING**

**Unexpected Seat Movement**

After adjusting a manual seat, always check that it is locked by shifting your weight to the front and back. Sudden or unexpected movement of the driver's seat could cause you to lose control of the vehicle.

**⚠ WARNING****Seat adjustment**

- Do not adjust the seat while wearing seat belts. Moving the seat forward will cause strong pressure on the abdomen.
- Do not place your hand near the seat bottom or seat track while adjusting the seat. Your hand could get caught in the seat mechanism.

**⚠ WARNING****Luggage and Cargo**

Do not stock pile or stack luggage or cargo higher than the seatback in the cargo area. In an accident the cargo could strike and injure a passenger. If objects are large, heavy or must be piled, they must be secured in the cargo area.

**⚠ WARNING****Cargo Area**

Do not allow passengers to ride in the cargo area under any circumstance. The cargo area is solely for the purpose of transporting luggage or cargo.

**⚠ WARNING****Small Objects**

Use extreme caution when picking up small objects trapped under the seats or between the seat and the center console. Your hands might be cut or injured by the sharp edges of the seats mechanism.

**Feature of Seat Leather**

- Our car seats are upholstered with a combination of artificial and genuine leather. The genuine leather is made from the outer skin of an animal, which goes through a special process to be available for use. Since it is a natural substance, each part differs in thickness or density. Also, wrinkles could appear depending on the temperature and humidity.
- The seat cover is made of stretchable material to improve comfort of passengers.
- The parts contacting the body are curved and the side supporting area is high which provides driving comfort and stability.

**⚠ CAUTION**

- Belts with metallic accessories, zippers or keys inside the back pocket may damage the seat fabric.
- Make sure not to wet the seat. It may change the leather.
- Jeans or clothes which could bleach may contaminate the surface of the seat covering fabric.

**\* NOTICE**

Wrinkles or abrasions may appear naturally from usage. It is not a fault of product. Wrinkles or abrasions are not covered by warranty.

### Front seat adjustment - manual seat

The front seat can be adjusted by using the control levers located on the outside of the seat cushion.



### Forward and backward

Adjust the seat before driving, and make sure the seat is locked securely by trying to move forward and backward without using the lever. If the seat moves, it is not locked properly.

To move the seat forward or backward:

1. Pull the seat slide adjustment lever up and hold it.
2. Slide the seat to the position you desire.
3. Release the lever and make sure the seat is locked in place.

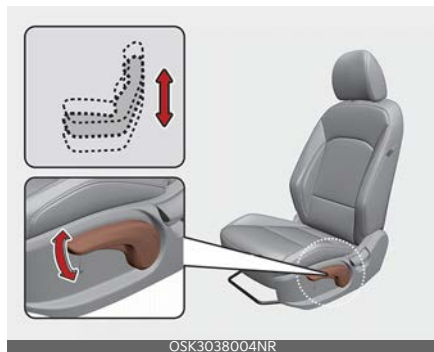
### Seatback angle



To recline the seatback:

1. Lean forward slightly and lift up the seatback recline lever.
2. Carefully lean back on the seat and adjust the seatback of the seat to the position you desire.
3. Release the lever and make sure the seatback is locked in place. (The lever MUST return to its original position for the seatback to lock.)

### Seat cushion height (if equipped)



To change the height of the seat cushion, push the lever upwards or downwards.

- To lower the seat cushion, push down the lever several times.

- To raise the seat cushion, pull up the lever several times.

**⚠ WARNING**

**Reclining seatback**

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and/or air bags) is greatly reduced by reclining your seatback.

Seat belts must be snug against your hips and chest to work properly. When the seatback is reclined, the shoulder belt cannot do its job because it will not be snug against your chest. Instead, it will be in front of you. During an accident, you could be thrown into the seat belt, causing neck or other injuries.

The more the seatback is reclined, the greater chance the passenger's hips will slide under the lap belt or the passenger's neck will strike the shoulder belt.

**Front seat adjustment - power seat (if equipped)**

The front seat can be adjusted by using the control switches located on the outside of the seat cushion.

Before driving, adjust the seat to the proper position so you can easily control the steering wheel, pedals and switches on the instrument panel.

**⚠ CAUTION**

**Power seating adjustments**

- The power seating controls function by electronic motor. Excessive operation may cause damage to the electrical equipment.
- Do not operate two or more power seat control switches at the same time. Doing so may damage the

power seat motor or electrical components.

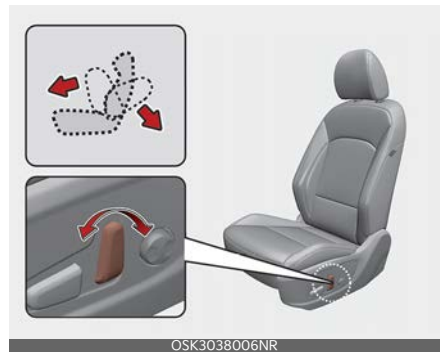
**Forward and backward**



To move the seat forward or backward:

- Push the control switch forward or backward to move the seat to the desired position. Release the switch once the seat reaches the desired position.

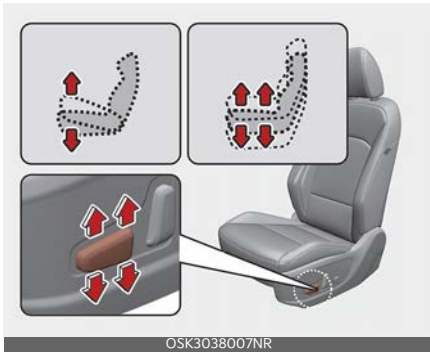
**Seatback angle**



To recline the seatback:

- Push the control switch forward or backward to move the seatback to the desired angle. Release the switch once the seat reaches the desired position.

### Seat cushion height



To change the height of the seat:

- Pull the front portion of the control switch up to raise or press down to lower the front part of the seat cushion. Pull the rear portion of the control switch up to raise or press down to lower the seat cushion. Release the switch once the seat reaches the desired position.

### Lumbar support for driver's seat (if equipped)



The lumbar support can be adjusted by pressing the lumbar support switch on the side of the seat.

1. Press the front portion of the switch to increase support, or the rear portion of the switch, to decrease support.

2. Release the switch once it reaches the desired position.

### Headrest for front seat

The driver's and front passenger's seats are equipped with a headrest for the occupant's safety and comfort.



The headrest not only provides comfort for the driver and front passenger, but also helps protect the head and neck in the event of a rear collision.

For maximum effectiveness in case of an accident, the headrest should be adjusted so the middle of the headrest is at the same height of the center of gravity of an occupant's head. Generally, the center of gravity of most people's head is similar with the height of the top of their eyes.

Also, adjust the headrest as close to your head as possible. For this reason, the use of a cushion that holds the body away from the seatback is not recommended.

### **⚠ WARNING**

#### Headrest removal/adjustment

- Do not operate the vehicle with the headrests removed. Headrests can provide critical neck and head support in a crash.

- Do not adjust the headrest height while the vehicle is in motion. Driver may lose control of the vehicle.

**⚠ CAUTION**

Excessive pulling or pushing may damage the headrest.

**Adjusting the height up and down**



To raise the headrest:

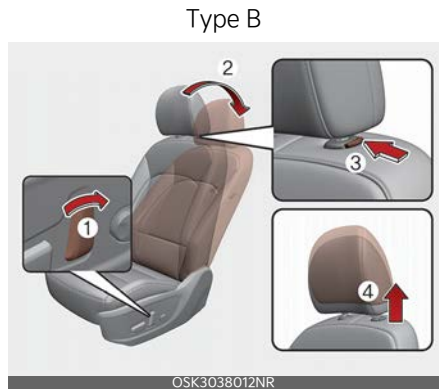
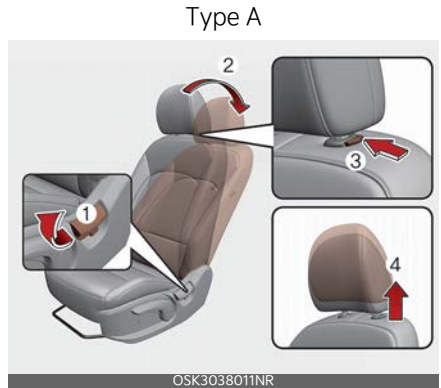
1. Pull it up to the desired position (1).
2. To lower the headrest, push and hold the release button (2) on the headrest support.
3. Lower the headrest to the desired position (3).

**\* NOTICE**

If you recline the seatback towards the front with the headrest and seat cushion raised, the headrest may come in contact with the sun visor or other parts of the vehicle.



**Removal**



To remove the headrest:

1. Recline the seatback (2) with the recline lever or switch (1).
2. Raise headrest as far as it can go.
3. Press the headrest release button (3) while pulling the headrest up (4).

**⚠ WARNING**

**Headrest Removal**

NEVER allow anyone to ride in a seat with the headrest removed or reversed. Headrests can provide critical neck and head support in a crash.

**Reinstallation**

Type A



Type B



To reinstall the headrest:

1. Put the headrest poles (2) into the holes while pressing the release button (1).
2. Recline the seatback (4) with the recline lever or switch (3).
3. Adjust the headrest to the appropriate height.

**⚠ WARNING**

**Headrest Reinstallation**

To reduce the risk of injury to the head or neck, always make sure the headrest is locked into position and adjusted properly after reinstalling.

**Seatback pocket (if equipped)**

The seatback pocket is provided on the back of the front passenger's seatback.



**⚠ WARNING**

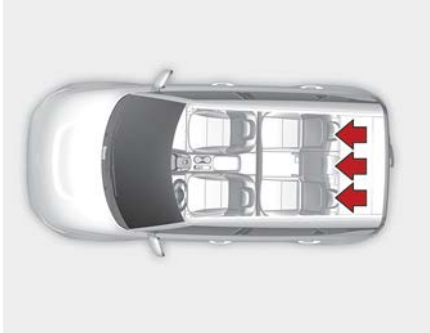
**Seatback pockets**

Do not put heavy or sharp objects in the seatback pockets. In an accident they could come loose from the pocket and injure vehicle occupants.



## Headrest for rear seat

The rear seat is equipped with headrests in all the seating positions for the occupant's safety and comfort.

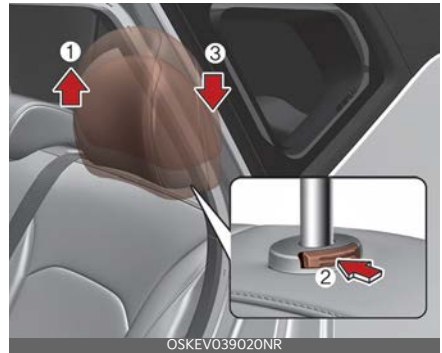


The headrest not only provides comfort for passengers, but also helps protect the head and neck in the event of a collision.

For maximum effectiveness in case of an accident, the headrest should be adjusted so the middle of the headrest is at the same height of the center of gravity of an occupant's head. Generally, the center of gravity of most people's heads is similar with the height as the top of their eyes.

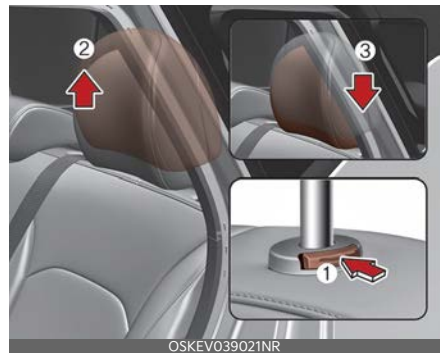
Also, adjust the headrest as close to your head as possible. For this reason, the use of a cushion that holds the body away from the seatback is not recommended.

## Adjusting the height up and down (if equipped)



- To raise the headrest, pull it up to the desired position (1).
- To lower the headrest, push and hold the release button (2) on the headrest support and lower the headrest to the desired position (3).

## Removal and reinstallation



- To remove the headrest, raise it as far as it can go then press the release button (1) While pulling the headrest upward (2).
- To reinstall the headrest, put the headrest poles (3) into the holes while pressing the release button (1).

Then adjust it to the appropriate height and ensure that it locks in position.

### Armrest (if equipped)

To use the armrest, pull it forward from the seatback.



### Folding the rear seat

The rear seatbacks may be folded to facilitate carrying long items or to increase the luggage capacity of the vehicle.

#### **⚠ WARNING**

#### Folded Seatback

The purpose of the fold-down rear seatbacks is to allow you to carry longer objects that could not otherwise be accommodated.

- Never allow a passenger to sit on top of the folded down seatback while the car is moving. This is not a proper seating position since no seat belts are available for use. This could result in serious injury or death in case of an accident or sudden stop.

### To fold down the rear seatback

1. Set the front seatback to the upright position and if necessary, slide the front seat forward.
2. Lower the rear headrests to the lowest position.

#### **⚠ WARNING**

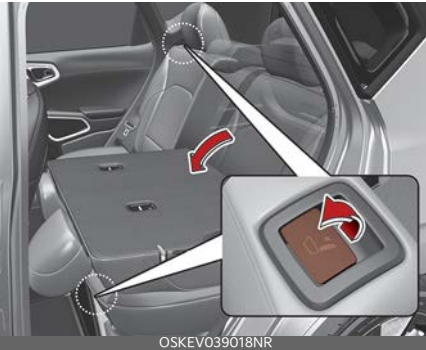
#### Objects

Objects carried on the folded down seatback should not extend higher than the top of the front seatbacks. This could allow cargo to slide forward and cause injury or damage during sudden stops.

3. When folding the seatback, insert the rear seat belt buckle in the pocket between the rear seatback and cushion then make sure both seat belts do not interfere with stowed luggage and cargo. Then, the seat belt webbing should be placed in the webbing guide to prevent the seat belt from being damaged by loaded cargo, etc. If the seat belt is loose, it may cause damage or noise. In that case, return the seatback to the upright position and put the webbing out from the guide to realign it.



4. Pull on the seatback folding lever, then fold the seat toward the front of the vehicle. When you return the seatback to its upright position, always be sure it has locked into position by pushing on the top of the seatback.



5. To use the rear seat, lift and pull the seatback backward by lifting up seatback. Pull the seatback firmly until it clicks into place. Make sure the seatback is locked in place.
6. Return the rear seat belt to the proper position.

### To unfold the rear seat



1. To use the rear seat, lift and pull the seatback backward. Pull the seatback firmly until it clicks into place. Make sure the seatback is locked in place. When you return the seatback to its upright position, always be sure it has locked into position by pushing on the top of the seatback.

If you cannot see the red line at the bottom of folding lever, it means the seatback is locked completely.

2. Return the rear seat belt to the proper position.
3. When the seatback is completely installed, check the seatback folding lever again.

### **⚠ WARNING**

#### **Uprighting seat**

When you return the seatback to its upright position, hold the seatback and return it slowly. If the seatback is returned without holding it, the back of the seat could spring forward, resulting in injury caused by being struck by the seatback.

### **⚠ WARNING**

#### **Rear Seatback**

To ensure maximum protection in the event of an accident or sudden stop, when returning the rear seat to the upright position:

- Be careful not to damage the seat belt webbing or buckle.
- Do not allow the seat belt webbing or buckle to become pinched or caught in the rear seat.
- Ensure the seatback is completely locked into its upright position by pushing on the top of the seatback. Failure to adhere to any of these instructions could result in serious injury or death in the event of a crash.

### **⚠ CAUTION**

#### **Damaging rear seat belt buckles**

When you fold the rear seatback, insert the buckle between the rear seatback and cushion. Doing so can prevent the

buckle from being damaged by the rear seatback.

### **CAUTION**

#### **Rear seat belts**

When returning the rear seatbacks to the upright position, remember to return the rear shoulder belts to their proper position.

### **WARNING**

Unless the driver's position is properly set according to the driver's physical figure, do not fold the rear seat. It may increase bodily injuries in a sudden stop or collision.

### **CAUTION**

Be careful when loading cargo through the rear passenger seats to prevent damage to the vehicle interior.

### **WARNING**

#### **Cargo**

Cargo should always be secured to prevent it from being thrown about the vehicle in a collision and causing injury to the vehicle occupants. Do not place objects in the rear seats, since they cannot be properly secured and may hit the front seat occupants in a collision.

#### **Cargo loading**

Make sure the engine is off, the transmission is in P (Park) and the parking brake is securely applied whenever loading or unloading cargo. Failure to take these steps may allow the vehicle to move if the shift lever is inadvertently moved to another position.

## **Seat belts**

The following explains seat belts precautions and how to fasten seat belts.

### **Seat belt restraint system**

For maximum restraint system protection, the seat belts must always be used whenever the vehicle is moving.

- A properly positioned shoulder belt should be positioned midway over your shoulder across your collarbone.
- Never allow children to ride in the front passenger seat. See "Child Restraint System (CRS)" on page 3-26 for further discussion.

### **WARNING**

#### **Twisted seat belt**

Make sure your seat belt is not twisted when worn. A twisted seat belt may not properly protect you in an accident and could even cut into your body.

### **WARNING**

#### **Shoulder Belt**

- Never wear the shoulder belt under your arm or behind your back. An improperly positioned shoulder belt cannot protect the occupant in a crash.
- Always wear both the shoulder portion and lap portion of the lap/shoulder belt.

### **WARNING**

#### **Damaged seat belt**

Replace the entire seat belt assembly if any part of the webbing or hardware is damaged, as you can no longer be sure that a damaged seat belt will provide protection in a crash.

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided. Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed.

A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

- No modifications or additions should be made by the user which would either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- When you fasten the seat belt, be careful not to latch the seat belt in buckles of other seats. It is very dangerous and you may not be protected by the seat belt properly.
- Do not unfasten the seat belt and do not fasten and unfasten the seat belt repeatedly while driving. This could result in loss of control, and an accident causing death, serious injury, or property damage.
- When fastening the seat belt, make sure that the seat belt does not pass over objects that are hard or can break easily.

## **⚠ WARNING**

### **Seat belt buckle**

Do not allow foreign material (gum, crumbs, coins, liquids, etc.) to obstruct the seat belt buckle. This may prevent the seat belt from fastening securely.

### **Driver's seat belt warning**

As a reminder to the driver, the driver's seat belt warning lights will appear for approximately 6 seconds each time you turn the ignition switch ON regardless of belt fastening. If the seatbelt is not fastened, the warning chime will sound for about 6 seconds.



If you start to drive without the seat belt fastened or you unfasten the seat belt when you drive over 9 km/h (5 mph) and less than 20 km/h (12 mph), the corresponding warning light will appear. The warning light will turn off when the vehicle speed drops below 9 km/h (5 mph).

If you start to drive without the seat belt fastened or you unfasten the seat belt when you drive 20 km/h (12 mph) and faster, the warning light will blink and warning chime will sound for approximately 100 seconds. When the seat belt is unfastened during driving, the warning light will appear when the speed is

under 20 km/h (12 mph). When the speed is 20 km/h (12 mph) and faster, the warning light will blink and warning chime will sound for approximately 100 seconds.

### Front passenger's seat belt warning



As a reminder to the front passenger, the front passenger's seat belt warning lights will appear for approximately 6 seconds each time you turn the ignition switch ON regardless of belt fastening. If you start to drive without the passenger seat belt fastened or the passenger unfastens the seat belt when you drive over 9 km/h (5 mph) and less than 20 km/h (12 mph), the corresponding warning light will appear. The warning light will turn off when the vehicle speed drops below 9 km/h (5 mph).

If you start to drive without the passenger seat belt fastened or you unfasten the seat belt when you drive 20 km/h (12 mph) and faster, the warning light will blink and warning chime will sound for approximately 100 seconds. When the passenger seat belt is unfastened during driving, the warning light will appear when the speed is under 20 km/h (12 mph). When the speed is 20 km/h (12 mph) and faster, the warning light will

blink and warning chime will sound for approximately 100 seconds.

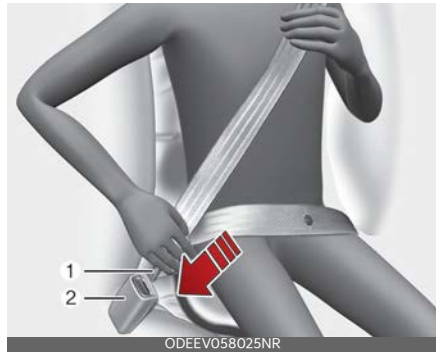
### \* NOTICE

- Even if the front passenger seat is not occupied, the seat belt warning light will appear for 6 seconds.
- The front passenger's seat belt warning may operate when luggage is placed on the front passenger seat.

### Seat belt - Driver's 3-point system with emergency locking retractor

The following explains how to fasten and adjust the driver's seat belt.

#### To fasten your seat belt:



- Pull it out of the retractor and insert the metal tab (1) into the buckle (2). There will be an audible "click" when the tab locks into the buckle.



### ⚠ WARNING

You should place the lap belt portion as low as possible and snugly across your hips. If the lap belt is located too high on your waist, it may increase the chance of injury in the event of a collision.

The arm closest to the seat belt buckle should be over the belt while the other arm should be under the belt as shown in the illustration. Never wear the seat belt under the arm closest to the door.

The seat belt automatically adjusts to the proper length only after the lap belt portion is adjusted manually so that it fits snugly around your hips. If you lean forward in a slow, easy motion, the belt will extend and let you move around. If there is a sudden stop or impact, however, the belt will lock into position. It will also lock if you try to lean forward too quickly.

### \* NOTICE

If you are not able to pull out the seat belt from the retractor, firmly pull the belt out and release it. Then you will be able to pull the belt out smoothly.

## Height adjustment

You can adjust the height of the shoulder belt anchor to one of the 4 positions for maximum comfort and safety.



The height of the adjusting seat belt should not be too close to your neck. The shoulder portion should be adjusted so that it lies across your chest and mid-way over your shoulder near the door and not your neck.

To adjust the height of the seat belt anchor, lower or raise the height adjuster into an appropriate position.

- To raise the height adjuster, pull it up (1).
- To lower it, push it down (3) while pressing the height adjuster button (2).

Release the button to lock the anchor into position. Try sliding the height adjuster to make sure that it has locked into position.

Improperly positioned seat belts can cause serious injuries in an accident.

### ⚠ WARNING

#### Shoulder belt positioning

Verify the shoulder belt anchor is locked into position at the appropriate height. Never position the shoulder belt across your neck or face. Improperly positioned

seat belts can cause serious injuries in an accident.

### **⚠ WARNING**

#### **Seat belt replacement**

After a collision, the seat belt system should be inspected to ensure it is operating normally. Replace any belts that are not functioning appropriately

#### **Seat belts - Front passenger and rear seat 3-point system with combination locking retractor**

The following explains how to fasten the passenger's and rear seat belt.

#### **To fasten your seat belt:**

Combination retractor type seat belts are installed in the rear seat positions to help accommodate the installation of child restraint systems. Although a combination retractor is also installed in the front passenger seat position, it is strongly recommended that children always be seated in the rear seat. NEVER place any infant restraint system in the front seat of the vehicle.

This type of seat belt combines the features of both an emergency locking retractor seat belt and an automatic locking retractor seat belt.

- Pull it out of the retractor and insert the metal tab into the buckle. There will be an audible "click" when the tab locks into the buckle. When not securing a child restraint, the seat belt operates in the same way as the driver's seat belt (emergency locking retractor type).

It automatically adjusts to the proper length only after the lap belt portion of the seat belt is adjusted manually so that it fits snugly around your hips.

When the seat belt is fully extended from the retractor to allow the installation of a child restraint system, the seat belt operation changes to allow the belt to retract, but not to extend (automatic locking retractor type). Refer to "Securing a child restraint with a lap/shoulder belt" on page 3-31.

### **\* NOTICE**

Although the combination retractor provides the same level of protection for seated passengers in either emergency or automatic locking modes, have the seated passengers use the emergency locking feature for improved convenience. The automatic locking function is intended to facilitate child restraint installation. To convert from the automatic locking feature to the emergency locking operation mode, allow the unbuckled seat belt to fully retract.

### **⚠ CAUTION**

Do NOT fold down the left portion of the rear seatback when the rear center seat belt is buckled. ALWAYS UNBUCKLE the rear center seat belt before folding down the left portion of the rear seatback. If the rear center seat belt is buckled when the left portion of the rear seatback is folded down, distortion and damage to the top portion of the seatback and seat belt garnish may result, causing the seatback to lock into the folded down position.

The seat belt should be locked into the buckle on each seat cushion to be properly fastened.



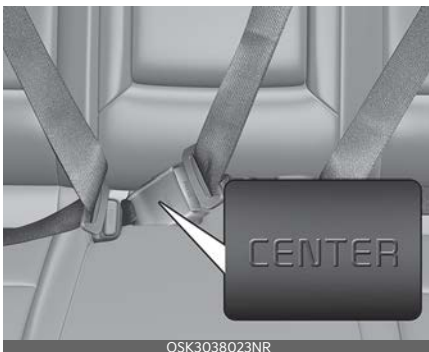


1. Rear right seat belt fastening buckle
2. Rear center seat belt fastening buckle
3. Rear left seat belt fastening buckle

**⚠ WARNING**

Prior to fastening the rear seat belts, ensure the latch matches the seat belt buckle. Forcefully fastening the left or right seat belt to the center buckle can result in an improper fastening scenario that will not protect you in an accident.

When using the rear center seat belt, the buckle with the "CENTER" mark must be used.



**To release the seat belt:**



- The seat belt is released by pressing the release button (1) on the locking buckle. When it is released, the belt should automatically draw back into the retractor. If this does not happen, check the belt to make sure it is not twisted, then try again.

**Stowing the rear seat belt**



If the center seat belt is not in use, always lock the latch plate into the buckle as above illustration.

The rear seat belt buckles can be stowed in the pocket between the rear seatback and cushion when not in use.

**⚠ WARNING**

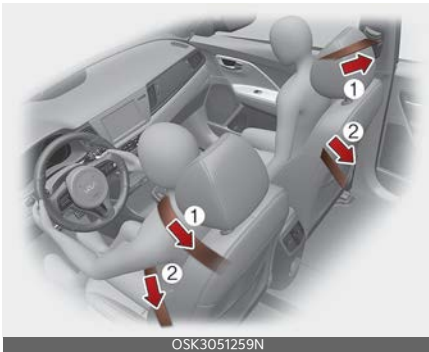
**Rear center seat belt**

Do not separate the mini tongue (1) and mini buckle (2) even if there is not an occupant.

If it is separated, It may hit the rear seat occupants in a collision or sudden stops.

**Pre-tensioner seat belt**

Your vehicle is equipped with driver's and front passenger's pre-tensioner seat belts (retractor pre-tensioner and EFD (Emergency Fastening Device)).



The pre-tensioner seat belts may be activated, when a frontal collision is severe enough, together with the air bags.

When the vehicle stops suddenly, or if the occupant tries to lean forward too quickly, the seat belt retractor may lock into position. In certain frontal collisions, the pre-tensioner will activate and pull the seat belt into tighter contact against the occupant's body.

**1. Retractor Pre-tensioner**

The purpose of the retractor pre-tensioner is to make sure that the shoulder belts fit in tightly against the occupant's upper body in certain frontal collisions.

**2. EFD (Emergency Fastening Device)**

The purpose of the EFD is to make sure that the pelvis belts fit in tightly against the occupant's lower body in certain frontal collisions.

If the system senses excessive tension on the driver or passenger's seat belt when the pre-tensioner system activates, the load limiter inside the retractor pre-tensioner will release some of the pressure on the affected seat belt.

**\* NOTICE**

When the pre-tensioner seat belts are activated, a loud noise may be heard and fine dust, which may appear to be smoke, may be visible in the passenger compartment. These are normal operating conditions and are not hazardous.

The seat belt pre-tensioner system consists mainly of the following components. Their locations are shown in the illustration:




\* The actual position of seat belt pre-tensioner system components may differ from the illustration.

- 1. SRS air bag warning light
- 2. Retractor pre-tensioner assembly
- 3. SRS control module
- 4. Emergency fastening device (EFD)

**⚠ WARNING****Skin Irritation**

Wash all exposed skin areas thoroughly after an accident in which the pre-tensioner seat belts were activated. The fine dust from the pre-tensioner activation may cause skin irritation and should not be inhaled for prolonged periods.

**\* NOTICE**

- Both the driver's and front passenger's seat belt pre-tensioner systems may be activated, not only in certain frontal collisions, but also in certain side collisions or rollovers, if the vehicle is equipped with a side or curtain air bag.
- Because the sensor that activates the SRS air bag is connected with the pre-tensioner seat belt, the SRS air bag warning light  on the instrument panel will appear for approximately 6 seconds after the ignition switch has been turned to the ON position, and then it should turn off.
- If the pre-tensioner seat belt system is not working properly, this warning light will appear even if there is not a malfunction with the SRS air bag. If the SRS air bag warning light does not appear when the ignition switch has been turned to the ON position, or if it remains appeared after illuminating for approximately 6 seconds, or if it appears while the vehicle is being driven, have an authorized Kia dealer inspect the pre-tensioner seat belt and SRS air bag system as soon as possible.

**\* NOTICE**

Do not attempt to service or repair the pre-tensioner seat belt system in any manner. Do not attempt to inspect or replace the pre-tensioner seat belts yourself. This must be done by an authorized Kia dealer.

**⚠ WARNING****Hot pre-tensioner**

Do not touch the pre-tensioner seat belt assemblies for several minutes after they have been activated. When the pre-tensioner seat belt mechanism fires during a collision, the pre-tensioner becomes hot and can burn you.

Pre-tensioners are designed to operate only one time. After activation, pre-tensioner seat belts must be replaced. If the pre-tensioner must be replaced, contact an authorized Kia dealer.

**Seat belt precautions**

Take the following precautions when using seat belts.

**Infant or small child**

Most countries have child restraint laws. You should be aware of the specific requirements in your country. Child and/or infant seats must be properly placed and installed in the rear seat. For more information about the use of these restraints, refer to "Child Restraint System (CRS)" on page 3-26.

**\* NOTICE**

Small children are best protected from injury in an accident when properly restrained in the rear seat by a child restraint system that meets the requirements of the Safety Standards of your

country. Before buying any child restraint system, make sure that it has a label certifying that it meets Safety Standards of your country. The restraint must be appropriate for your child's height and weight. Check the label on the child restraint for this information. Refer to "Child Restraint System (CRS)" on page 3-26.

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### Larger children

Children who are too large for child restraint systems should always occupy the rear seat and use the available lap/shoulder belts. The lap portion should be fastened and snug on the hips as low as possible. Check periodically to insure that the belt fits. A child's squirming could put the belt out of position. Children are given the most safety in the event of an accident when they are restrained by a proper restraint system in the rear seat. If a larger child (over age 13) must be seated in the front seat, the child should be securely restrained by the available lap/shoulder belt and the seat should be placed in the rearmost position. Children age 13 and under should be restrained securely in the rear seat. NEVER place a child age 13 and under in the front seat. NEVER place a rear facing child seat in the front seat of a vehicle.

If the shoulder belt portion slightly touches the child's neck or face, try placing the child closer to the center of the vehicle. If the shoulder belt still touches their face or neck they need to be returned to a child restraint system.

### WARNING

#### Small children

Do not allow small children to ride in the vehicle without an appropriate child restraint system. If the shoulder belt comes in contact with your child's neck or face, your child is too small to ride in the vehicle. In a crash the seat belt will inflict injury to your child's neck, throat and face.

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### Restraint of pregnant women

Pregnant women should wear lap/shoulder belt assemblies whenever possible according to specific recommendations by their doctors. The lap portion of the belt should be worn AS SECURELY AND LOW AS POSSIBLE.

### WARNING

#### Pregnant women

Pregnant women must never place the lap portion of the seat belt above or on the abdomen where the fetus is located. The force of the seat belt during a collision will crush the fetus.

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### Injured person

A seat belt should be used when an injured person is being transported. When this is necessary, you should consult a physician for recommendations.

### One person per belt

Two people (including children) should never attempt to use a single seat belt. This could increase the severity of injuries in case of an accident.

## Do not lie down

To reduce the chance of injuries in the event of an accident and to achieve maximum effectiveness of the restraint system, all passengers should be sitting up and the front and rear seats should be in an upright position when the vehicle is moving. A seat belt cannot provide proper protection if the person is lying down in the rear seat or if the front and rear seats are in a reclined position.

## Care of seat belts

Seat belt systems should never be disassembled or modified. In addition, care should be taken to assure that seat belts and belt hardware are not damaged by seat hinges, doors or other abuse.

### WARNING

#### Pinched seat belt

Make sure that the webbing and/or buckle does not get caught or pinched in the rear seat when returning the rear seatback to its upright position. A caught or pinched webbing/buckle may become damaged and could fail during a collision or sudden stop.

### WARNING

Seatbelts can become hot in a vehicle that has been closed up in sunny weather. They could burn infants and children.

## Periodic inspection

All seat belts should be inspected periodically for wear or damage of any kind. Any damaged parts should be replaced as soon as possible.

## Keep belts clean and dry

Seat belts should be kept clean and dry. If belts become dirty, they can be cleaned by using a mild soap solution and warm water. Bleach, dye, strong detergents or abrasives should not be used because they may damage and weaken the fabric.

## When to replace seat belts

The entire in-use seat belt assembly or assemblies should be replaced if the vehicle has been involved in an accident. This should be done even if no damage is visible. Additional questions concerning seat belt operation should be directed to an authorized Kia dealer.

## Child Restraint System (CRS)

### Children always in the rear

Children under age 13 must always ride in the rear seats and must always be properly restrained to minimize the risk of injury in an accident, sudden stop or sudden maneuver.

#### WARNING

##### Restraint Location

Never install a child or infant seat in the front passenger's seat. A child riding in the front passenger seat can be forcefully struck by an inflating airbag and get seriously injured.

#### WARNING

##### Hot Child Restraint

A child restraint system can become very hot if it is left in a closed vehicle on a sunny day. Be sure to check the seat cover, buckles and latches before placing a child in the restraint system.

According to accident statistics, children are safer when properly restrained in the rear seats than in the front seat. Even with air bags, children can be seriously injured or killed. Children too large for a child restraint must use the seat belts provided.

Most countries have child restraint laws which require children to travel in approved child restraint devices. The laws governing the age or height/weight restrictions at which seat belts can be used instead of child restraints differs among countries, so you should be aware of the specific requirements in your country, and where you are traveling.

Child restraint systems must be properly placed and installed in the rear seat. You must use a commercially available child restraint system that meets the requirements of the Safety Standards of your country.

Child restraint systems are generally designed to be secured in a vehicle seat by lap belt portion of a lap/shoulder belt, or by a LATCH system in the rear seats of the vehicle.

### Child restraint system (CRS)

Infants and younger children must be restrained in an appropriate rear-facing or forward-facing CRS that has first been properly secured to the rear seat of the vehicle. Read and comply with the instructions for installation and use provided by the manufacturer of the CRS.

#### WARNING

##### Child Restraint Installation

An improperly secured child restraint system can increase the risk of serious injury or death in an accident. Always take the following precautions when using a child restraint system:

- Always follow the child restraint system manufacturer's instructions for installation and use.
- Always properly restrain your child in the child restraint system.
- If the vehicle head restraint prevents proper installation of a child seat (as described in the child restraint system manual), the head restraint of the respective seating position should be readjusted or entirely removed.
- Do not use an infant carrier or a child safety seat that "hooks" over a seat-

back, as it may not provide adequate protection in an accident.

### \* NOTICE

After an accident, have a Kia dealer check the child restraint system, seat belts, tether anchors and lower anchors.

## Selecting a Child Restraint System (CRS)

When selecting a CRS for your child, always:

- Make sure the CRS has a label certifying that it meets applicable Safety Standards of your country.
- Select a child restraint based on your child's height and weight. The required label or the instructions for use typically provide this information.
- Select a child restraint that fits the vehicle seating position where it will be used.
- Read and comply with the warnings and instructions for installation and use provided with the child restraint system.

### ⚠ WARNING

#### Holding Children

Never hold a child in your arms or lap when riding in a vehicle. The violent forces created during a crash will tear the child from your arms and throw the child against the car's interior. Always use a child restraint system, which is appropriate for your child's height and weight.

### ⚠ WARNING

#### Unattended children, the elderly or pets

An enclosed vehicle can become extremely hot, causing death or severe injury such as heatstroke to unattended children, the elderly or pets who cannot escape the vehicle. When left or trapped in a hot vehicle, make sure to stay hydrated and avoid sun exposure through the vehicle's windshield. Furthermore, children might operate features of the vehicle that could injure them, or they could encounter other harm, possibly from someone gaining entry to the vehicle. Never leave children or animals unattended in your vehicle.

### ⚠ WARNING

#### Seat Belt Use

Do not use one seat belt for two occupants at the same time. This will eliminate any safety benefit provided by the seat belt to the occupants.

## Child restraint system types

There are three main types of child restraint systems: rear-facing seats, forward-facing seats, and booster seats. They are classified according to the child's age, height and weight.

## Rear-facing child seats



A rear-facing child seat provides restraint with the seating surface against the back of the child. The harness system holds the child in place, and in an accident, acts to keep the child positioned in the seat and reduces the stress to the neck and spinal cord.

All children under age one must always ride in a rear-facing infant child restraint. Convertible and 3-in-1 child seats typically have higher height and weight limits for the rear-facing position, allowing you to keep your child rear-facing for a longer period of time.

Continue to use a rear-facing child seat for as long as your child will fit within the height and weight limits allowed by the child seat manufacturer. It's the best way to keep them safe. Once your child has outgrown the rear-facing child restraint, your child is ready for a forward-facing child restraint with a harness.

## Forward-facing child restraints



A forward-facing child seat provides restraint for the child's body with a harness. Keep children in a forward-facing child seat with a harness until they reach the top height or weight limit allowed by your child restraint's manufacturer.

Once your child outgrows the forward-facing child restraint, your child is ready for a booster seat.

## Booster seats

A booster seat is a restraint designed to improve the fit of the vehicle's seat belt system. A booster seat positions the seat belt so that it fits properly over the lap of your child.

Keep your child in a booster seat until they are big enough to sit in the seat without a booster and still have the seat belt fit properly. For a seat belt to fit properly, the lap belt must lie snugly across the upper thighs, not the stomach. The shoulder belt should lie snug across the shoulder and chest and not across the neck or face. Children under age 13 must always ride in the rear seats and must always be properly restrained to minimize the risk of injury.



## Installing a Child Restraint System (CRS)

After selecting a proper child seat for your child, check to make sure it fits properly in your vehicle.

Follow the instructions provided by the manufacturer when installing the child seat. Note these general steps when installing the seat to your vehicle:

- **Properly secure the child restraint to the vehicle.** All child restraints must be secured to the vehicle with the lap part of a lap/shoulder belt or with the LATCH system.
- **Make sure the child restraint is firmly secured.** After installing a child restraint to the vehicle, push and pull the seat forward and from side-to-side to verify that it is securely attached to the seat. A child restraint secured with a seat belt should be installed as firmly as possible. However, some side-to-side movement can be expected.
- **Secure the child in the child restraint.** Make sure the child is properly strapped in the child restraint according to the manufacturer instructions.

## Lower Anchors and Tether for Children (LATCH) System

The LATCH system holds a child restraint during driving and in an accident. This system is designed to make installation of the child restraint easier and reduce the possibility of improperly installing your child restraint. The LATCH system uses anchors in the vehicle and attachments on the child restraint. The LATCH system eliminates the need to use seat belts to secure the child restraint to the rear seats.

Lower anchors 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.

To use the LATCH system in your vehicle, you must have a child restraint with LATCH attachments.

The child seat manufacturer will provide you with instructions on how to use the child seat with its attachments for the LATCH lower anchors.



LATCH anchors have been provided in the left and right outboard rear seating positions. Their locations are shown in the illustration. There are no LATCH anchors provided for the center rear seating position.

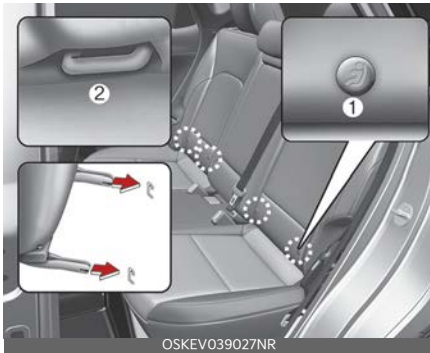
### **⚠ WARNING**

#### **LATCH Lower Anchors**

Never attempt to attach a LATCH equipped seat in the center seating position. LATCH lower anchors are only to be used in the left and right rear outboard seating positions. You may damage the anchors or the anchors may fail and break in a collision if the seat is in the center seating position.

The lower anchor position indicator symbols are located on the left and right rear

seatbacks to identify the position of the lower anchors in your vehicle (see arrows in illustration).



1. Lower Anchor position indicator
2. Lower Anchor

The LATCH anchors are located between the seatback and the seat cushion of the rear seat left and right outboard seating positions.

To use the lower anchor, push the upper portion of the lower anchor cover.

### Securing a child restraint with the LATCH anchors system

To install a LATCH-compatible child restraint in either of the rear outboard seating positions:

1. Move the seat belt buckle away from the lower anchors.
2. Move any other objects away from the anchors that could prevent a secure connection between the child restraint and the lower anchors.
3. Place the child restraint on the vehicle seat, then attach the seat to the lower anchors according to the instructions provided by the child restraint manufacturer.
4. Follow the child restraint instructions for properly adjusting and tightening

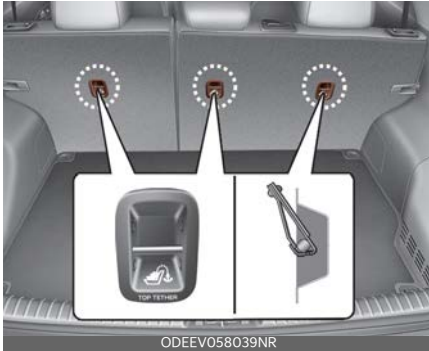
the lower attachments on the child restraint to the lower anchors.

### **⚠ WARNING**

Take the following precautions when using the LATCH system:

- Read and follow all installation instructions provided with your child restraint system.
- To prevent the child from reaching and taking hold of the unused seat belts, buckle all unused rear seat belts before the child is placed into the vehicle. Lock each unused seatbelt following the instructions in the "automatic locking mode" subsection, and place the webbing behind the child seat or against an unused seatback. Children can be strangled if a shoulder belt becomes wrapped around their neck and the seat belt tightens.
- NEVER attach more than one child restraint to a single anchor. This could cause the anchor or attachment to come loose or break.
- Always have the LATCH system inspected by your authorized Kia dealer after an accident. An accident can damage the LATCH system and may not properly secure the child restraint.

## Securing a child restraint seat with "Tether Anchor" system



First secure the child restraint with the LATCH lower anchors or the seat belt. If the child restraint manufacturer recommends that the top tether strap be attached, attach and tighten the top tether strap to the top tether strap anchor.

Child restraint hook holders are located on the shelf behind the rear seats.

### **WARNING**

Take the following precautions when installing the tether strap:

- Read and follow all installation instructions provided with your child restraint system.
- NEVER attach more than one child restraint to a single tether anchor. This could cause the anchor or attachment to come loose or break.
- Do not attach the tether strap to anything other than the correct tether anchor. It may not work properly if attached to something else.
- Do not use the tether anchors for adult seat belts or harnesses, or for attaching other items or equipment to the vehicle.

- Always fasten the seat belts behind the child restraint seat when they are not used to secure the child seat. Failure to do so may result in child strangulation.

To install the tether anchor:



1. Route the child restraint tether strap over the child restraint seatback. Route the tether strap under the head restraint and between the head restraint posts, or route the tether strap over the top of the vehicle seatback. Make sure the strap is not twisted.
2. Connect the tether strap hook to the tether anchor, then tighten the tether strap according to the child seat manufacturer's instructions to firmly secure the child restraint to the seat.
3. Check that the child restraint is securely attached to the seat by pushing and pulling the seat forward and from side-to-side.

## Securing a child restraint with a lap/shoulder belt

When not using the LATCH system, all child restraints must be secured to a vehicle rear seat with the lap part of a lap/shoulder belt.

### Automatic locking mode



Since all passenger seat belts move freely under normal conditions and only lock under extreme or emergency conditions (emergency locking mode), you must manually pull the seat belt all the way out to shift the retractor to the "automatic locking" mode to secure a child restraint.

The "automatic locking" mode will help prevent the normal movement of the child in the vehicle from causing the seat belt to loosen and compromise the child restraint system.

To install a child restraint system on the rear seats, do the following:

1. Place the child restraint system on a rear seat and route the lap/shoulder belt around or through the child restraint, following the restraint manufacturer's instructions.

Be sure the seat belt webbing is not twisted.

2. Fasten the lap/shoulder belt latch into the buckle. Listen for the distinct "click" sound.

Position the release button so that it is easy to access in case of an emergency.



3. Pull the shoulder portion of the seat belt all the way out. When the shoulder portion of the seat belt is fully extended, it will shift the retractor to the "automatic locking" (child restraint) mode.



4. Slowly allow the shoulder portion of the seat belt to retract and listen for an audible "clicking" or "ratcheting" sound. This indicates that the retractor is in the "automatic locking" mode. If no distinct sound is heard, repeat steps 3 and 4.



5. Remove as much slack from the belt as possible by pushing down on the child restraint system while feeding the shoulder belt back into the retractor.
6. Push and pull on the child restraint system to confirm that the seat belt is holding it firmly in place. If it is not, release the seat belt and repeat steps 2 through 6.
7. Double check that the retractor is in the "automatic locking" mode by attempting to pull more of the seat belt out of the retractor. If you cannot, the retractor is in the "automatic locking" mode.

If your CRS manufacturer instructs or recommends you to use a tether anchor with the lap/shoulder belt, refer to "Securing a child restraint with the LATCH anchors system" on page 3-30 for more information.

### \* NOTICE

When the seat belt is allowed to retract to its fully stowed position, the retractor will automatically switch from the "automatic locking" mode to the emergency lock mode for normal adult usage.

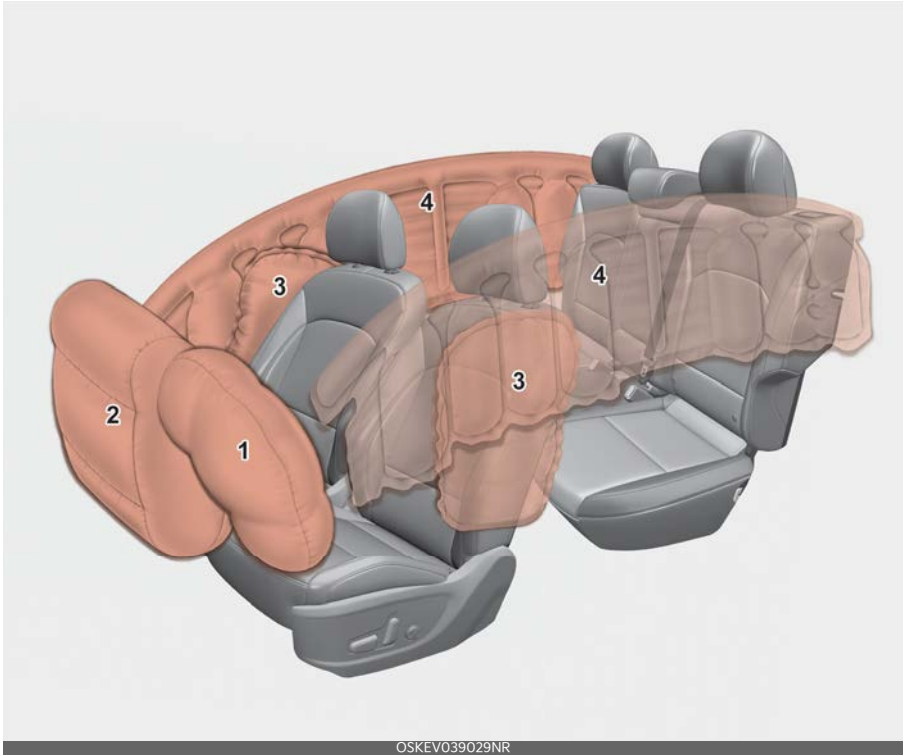
### ⚠ WARNING

#### Auto lock mode

Set the retractor to Automatic Lock mode when installing any child restraint system. If the retractor is not in the automatic locking mode, the child restraint can move when your vehicle turns or stops suddenly. A child can be seriously injured or killed if the child restraint is not properly anchored in the car.

To remove the child restraint, press the release button on the buckle and then pull the lap/shoulder belt out of the restraint and allow the seat belt to retract fully.

## Air bag - advanced supplemental restraint system



OSKEV039029NR

\* The actual air bags in the vehicle may differ from the illustration.

1. Driver's front air bag
2. Passenger's front air bag
3. Side air bag
4. Curtain air bag

Even in vehicles with air bags, you and your passengers must always wear the safety belts provided in order to minimize the risk and severity of injury in the event of a collision or rollover.

## How does the air bag system operate?

- Air bags are activated (able to inflate if necessary) only when the ignition switch has been turned to the ON position.
- The appropriate air bags inflate instantly in the event of a serious frontal collision or side collision in order to help protect the occupants from serious physical injury.
- Generally, air bags are designed to inflate based upon the severity of a collision and its direction, etc. These two factors determine whether the sensors produce an electronic deployment / inflation signal.
- Air bags will inflate based upon the severity of a collision and its direction, etc. But Air bags will not inflate in every crash or collision situation.
- The front air bags will completely inflate and deflate in an instant. It is virtually impossible for you to see the air bags inflate during an accident. It is much more likely that you will simply see the deflated air bags hanging out of their storage compartments after the collision.
- In addition to inflating in serious side collisions, side and/or curtain air bags will inflate if the sensing system detects a rollover.
- When a rollover is detected, side and/or curtain air bags will remain inflated longer to help provide protection from ejection, especially when used in conjunction with the seat belts.
- In order to help provide protection, the air bags must inflate rapidly. The speed of the air bag inflation is a consequence of extremely short time in which to inflate the air bag between

the occupant and the vehicle structures before the occupant impacts those structures. This speed of inflation reduces the risk of serious or life-threatening injuries and is thus a necessary part of the air bag design. However, air bag inflation can also cause injuries which can include facial abrasions, bruises and broken bones because the inflation speed also causes the air bags to expand with a great deal of force.

- **There are even circumstances under which contact with the steering wheel or passenger air bag can cause fatal injuries, especially if the occupant is positioned excessively close to the steering wheel or passenger air bag.**

### **WARNING**

#### **Airbag inflation**

Sit as far back as possible from the steering wheel while still maintaining comfortable control of the vehicle. A distance of at least 25 cm (10 inches) from your chest to the steering wheel is recommended. Failure to do so can result in airbag inflation injuries to the driver.

#### **Noise and smoke**

When inflated, the air bags make a loud noise and leave smoke and powder in the air inside the vehicle. This is normal and is a result of the ignition of the air bag inflator. After the air bag inflates, you may feel substantial discomfort in breathing due to the contact of your chest with both the seat belt and the air bag, as well as from breathing the smoke and powder. **Open your doors and/or windows as soon as possible after impact in order to reduce dis-**

**comfort and prevent prolonged exposure to the smoke and powder.**

Though smoke and powder are non-toxic, it may cause irritation to the skin (eyes, nose and throat, etc). If this is the case, wash and rinse with cold water immediately and consult a doctor if the symptom persists.

**⚠ WARNING**

**Hot components**

Do not touch the air bag storage area's internal components immediately after airbag inflation. The air bag related parts in the steering wheel, instrument panel and the roof rails above the front and rear doors are very hot. Hot components can result in burn injuries.

**⚠ WARNING**

Do not install or place any accessories near air bag deployment areas, such as the instrument panel, windows, pillars, and roof rails.

**Do not install a child restraint on the front passenger's seat**

Never place a rear-facing child restraint in the front passenger's seat.



If the air bag deploys, it would impact the rear-facing child restraint, causing serious or fatal injury.

In addition, do not place front-facing child restraints in the front passenger's seat. If the front passenger air bag inflates, it could cause serious or fatal injuries to the child.

**⚠ WARNING**

**Air bag deployment**

When children are seated in the rear outboard seats of a vehicle equipped with side and/or curtain air bags, install the child restraint system as far away from the door side as possible. Inflation of the side and/or curtain air bags could impact the child.

**Air bag warning light**

The purpose of air bag warning light in your instrument panel is to alert you of a potential problem with your air bag system, which could include your side and/or curtain air bags used for rollover protection.

If the air bag warning light is appeared for more than 6 seconds after the ignition switch has been turned to the ON position, or if it appears during vehicle operation, an SRS component may not be functioning properly and you should have your vehicle checked by an authorized Kia dealer.



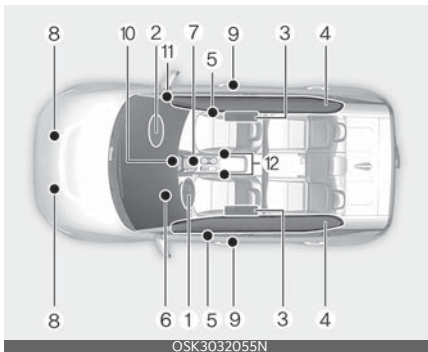
If any of the following conditions occur, this indicates a malfunction in the air bag system. Have an authorized Kia



dealer inspect the air bag system as soon as possible.

- The light does not turn on briefly when you turn the ignition switch to the ON position.
- The light stays on after illuminating for approximately 6 seconds.
- The light comes on while the vehicle is in motion.
- The light blinks when the ignition switch to the ON position.

### Supplemental Restraint System (SRS) components and functions



\* The actual position of SRS components may differ from the illustration.

The SRS consists of the following components:

1. Driver's front air bag module
2. Passenger's front air bag module
3. Side air bag modules
4. Curtain air bag modules
5. Retractor pre-tensioner assemblies\*
6. Air bag warning light
7. SRS control module (SRSCM)/rollover sensor
8. Front impact sensors
9. Side impact sensors
10. Side pressure sensors

11. Occupant detection system (Front passenger's seat only)

12. Front passenger's seat belt buckle sensor

\*: if equipped

Driver's front air bag (1)



The front air bag modules are located both in the center of the steering wheel and in the front passenger's panel above the glove box. When the SRSCM detects a sufficiently severe impact to the front of the vehicle, it will automatically deploy the front air bags.

Driver's front air bag (2)



Upon deployment, tear seams molded directly into the pad covers will separate under pressure from the expansion of the air bags. Further opening of the cov-

ers then allows full inflation of the air bags.

Driver's front air bag (3)



A fully inflated air bag, in combination with a properly worn seat belt, slows the driver's or the passenger's forward motion, reducing the risk of head and chest injury.

After complete inflation, the air bag immediately starts deflating, enabling the driver to maintain forward visibility and the ability to steer or operate other controls.

Passenger's front air bag



**⚠ WARNING**

**Air bag obstructions**

Do not install or place any accessories on the steering wheel, instrument panel, or on the front passenger's panel above the glove box in a vehicle. Such objects may become dangerous projectiles if the air bag deploys.

**⚠ WARNING**

**Flying objects**

Do not place any objects (an umbrella, bag, etc.) between the front door and the front seat. Such objects may become dangerous projectiles if the side airbag inflates.

- If an air bag deploys, there may be a loud noise followed by a fine dust released in the vehicle. These conditions are normal and are not hazardous - the air bags are packed in this fine powder. The dust generated during air bag deployment may cause skin or eye irritation as well as aggravate asthma for some persons. Always wash all exposed skin areas thoroughly with cold water and a mild soap after an accident in which the air bags were deployed.
- The SRS can function only when the ignition switch is in the ON position. If the SRS air bag warning light does not appear, or continuously remains on after illuminating for about 6 seconds when the ignition switch is turned to the ON position, or after the vehicle is in the ready mode, comes on while driving, the SRS is not working properly. If this occurs, have your vehicle immediately inspected by an authorized Kia dealer.

**\* NOTICE**

Before you replace a fuse or disconnect a battery terminal, change the ignition

switch to the OFF position. Never remove or replace the air bag related fuse(s) when the ignition switch is the ON position. Failure to heed this warning will cause the SRS air bag warning light to appear.

## Occupant Detection System (ODS)

Your vehicle is equipped with an occupant detection system in the front passenger's seat.




The occupant detection system is designed to detect the presence of a properly-seated front passenger and determine if the passenger's front air bag should be enabled (may inflate) or not. Only the front passenger front air bag is controlled by the Occupant Detection System.


Do not put anything in front of the passenger air bag "OFF"  indicator.


### Main components of the occupant detection system

- An detection device located within the front passenger seat cushion.
- An electronic system which determines whether the passenger air bag

systems should be activated or deactivated.

- An indicator light located on the instrument panel which appears the words PASSENGER AIR BAG "OFF"  indicates the front passenger air bag system is deactivated.
- The instrument panel air bag warning light is interconnected with the occupant detection system.

If the front passenger seat is occupied by a person that the system determines to be of appropriate size, and he/she sits properly (sitting upright with the seat-back in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor), the PASSENGER AIR BAG "OFF"  indicator will turn off and the front passenger's air bag will be able to inflate, if necessary, in frontal crashes.

You will find the PASSENGER AIR BAG "OFF"  indicator on the center fascia panel. This system detects the conditions 1~4 in the following table and activates or deactivates the front passenger air bag based on these conditions.

Always be sure that you and all vehicle occupants are seated and restrained properly (sitting upright with the seat in an upright position, centered on the seat cushion, with the person's legs comfortably extended, feet on the floor, and wearing the safety belt properly) for the most effective protection by the air bag and the safety belt.

- The ODS (Occupant Detection System) may not function properly if the passenger takes actions which can defeat the detection system. These include:
  1. Failing to sit in an upright position.

2. Leaning against the door or center console.
3. Sitting towards the sides or the front of the seat.
4. Putting legs on the dashboard or resting them on other locations which reduce the passenger weight on the front seat.
5. Improperly wearing the safety belt.
6. Reclining the seatback.


## Condition and operation in the front passenger occupant detection system

Condition detected by the occupant classification system	Indicator/Warning light		Devices
	"PASSENGER AIR BAG OFF" indicator light	SRS warning light	Front passenger air bag
1. Adult*1	Off	Off	Activated
2. Child restraint system with child under 12 months old*2*3*4	On	Off	Deactivated
3. Unoccupied	On	Off	Deactivated
4. Malfunction in the system	Off	On	Activated

\*1. The system judges a person of adult size as an adult. When a smaller adult sits in the front passenger seat, the system may recognize him/her as a child depending on his/her physique and posture.

\*2. Do not allow children to ride in the front passenger seat. When a larger child who has outgrown a child restraint system sits in the front passenger seat, the system may recognize him/her as an adult depending upon his/her physique or sitting position.

\*3. Never install a child restraint system on the front passenger seat.

\*4. The PASSENGER AIR BAG "OFF"  indicator may turn on or off when a child above 12 months to 12 years old (with or without child restraint system) sits in the front passenger seat. This is a normal condition.


### WARNING

- Do not install a child restraint system in the passenger seat when the seat is heavily soaked with any type of liquid.
- Do not alter or remodel the ODS (Occupant Detection System). This may damage the system and prevent its proper function in a collision.

### \* NOTICE

- Do not use car seat cushions that cover up the surface of the seat and aftermarket manufactured passenger seat heaters.
- After conducting car interior cleaning using steam or detergent, the seat

should be dried properly. Afterward, check for normal operation of the PASSENGER AIR BAG "OFF" and air bag warning lights.

- Any service related to the passenger seat and the ODS must be done at an authorized Kia service center.
- After the passenger seat has been removed or installed for repair purposes, check for normal operation of the PASSENGER AIR BAG "OFF"  and air bag warning lights with a person seated or not seated in the passenger seat.

**⚠ WARNING**

When the PASSENGER AIR BAG "OFF" symbol is appeared, the passenger air bag system will not operate. The passenger air bag system will operate when necessary if the symbol is not appeared.

**\* NOTICE**

Do not modify or replace the front passenger seat. Do not place anything on or attach anything, such as a blanket, front seat cover or after market seat heater, to the front passenger seat. This can adversely affect the occupant detection system.

**⚠ WARNING**

**ODS System**

Riding in an improper position adversely affects the Occupant Detection System and may result in the deactivation of the front passenger airbag. It is important for the driver to instruct the passenger as to the proper seating instructions as contained in this manual.

- Do not place a heavy load in the front passenger seatback pocket or on the front passenger seat.



- Do not place feet on the front passenger seatback.



- Never sit with hips shifted towards the front of the seat.



- Never excessively recline the front passenger seatback.



- Never place feet on the dashboard.

## Safety features of your vehicle



- Never lean on the door or center console.
- Never sit on one side of the front passenger seat.



- Do not use car seat accessories, such as thick blankets and cushions, that cover up the car seat surface.
- Do not sit on the passenger seat wearing heavily padded clothes, such as ski wear and hip protector.

## Air bag - advanced supplemental restraint system



- Do not place electronic devices, such as laptops and DVD player, or conductive materials, such as water bottles, on the passenger seat.
- Do not use electronic devices, such as laptops and satellite radios, that use inverter chargers.





- **Wet Passenger Seat**  
Do not spill liquid in the passenger seat. Spilled liquid on the passenger seat may cause the air bag warning light to appear or malfunction. If any liquid is spilled, make sure the seat has been completely dried before driving the vehicle.



Proper position





When an adult is seated in the front passenger seat, if the PASSENGER AIR BAG "OFF"  indicator is on, change the ignition switch to the OFF position and ask the passenger to sit properly (sitting upright with the seatback in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor). Restart the vehicle and have the person remain in that position. This will allow the system to detect the person and to enable the passenger air bag.


If the PASSENGER AIR BAG "OFF"  indicator is still on, ask the passenger to move to the rear seat.

**WARNING**

**PASSENGER AIR BAG "OFF"  light**

Do not allow an adult passenger to ride in the front seat when the PASSENGER AIR BAG "OFF"  indicator is appeared, because the air bag will not deploy in the event of a crash. The driver must instruct the passenger to reposition himself in the seat. Failure to properly position himself may lead to air bag deactivation, resulting in air bag non-deployment in a collision. If the PASSENGER AIR BAG "OFF"  indicator remains appeared after the passenger repositions themselves properly and the car is restarted, it is recommended that the passenger move to the rear seat because the passenger's front air bag will not deploy.

**NOTICE**


The PASSENGER AIR BAG "OFF"  indicator appears for about 4 seconds after the ignition switch is turned to the ON position after the vehicle is started. If the front passenger seat is occupied, the occupant detection sensor will then classify the front passenger after several more seconds.

- Even though your vehicle is equipped with the occupant detection system, never install a child restraint system in the front passenger's seat. A deploying air bag can forcefully strike a child resulting in serious injuries or death.

Any child age 12 and under should ride in the rear seat. Children too large for child restraints should use the available lap/shoulder belts. No matter what type



of crash, children of all ages are safer when restrained in the rear seat.

If the occupant detection system is not working properly, the SRS air bag warning light on the instrument panel will appear because the passenger's front air bag is connected with the occupant detection system. If there is a malfunction of the occupant detection system, the PASSENGER AIR BAG "OFF"  indicator will not appear and the passenger's front air bag will inflate in frontal impact crashes even if there is no occupant in the front passenger's seat.

### Driver's and passenger's front air bag

Your vehicle is equipped with an Advanced Supplemental Restraint (Air Bag) System and lap/shoulder belts at both the driver and passenger seating position.

Driver's front air bag



Passenger's front air bag



The indication of the system's presence are the letters "AIR BAG" located on the air bag pad cover on the steering wheel and the passenger's side front panel pad above the glove box.

The SRS consists of air bags installed under the pad covers in the center of the steering wheel and the passenger's side front panel above the glove box.

The purpose of the SRS is to provide the vehicle's driver and/or the front passenger with additional protection than that offered by the seat belt system alone in case of a frontal impact of sufficient severity. The SRS uses sensors to gather information about the driver's and front passenger's seat belt usage and impact severity.

The seat belt buckle sensor determines if the front passenger's seat belt is fastened.

These sensors provide the ability to control the SRS deployment based on whether or not the seat belts are fastened, and how severe the impact is.

The advanced SRS offers the ability to control the air bag inflation with two levels. A first stage level is provided for moderate-severity impacts. A second

stage level is provided for more severe impacts.

The passenger's front air bag is designed to help reduce the injury of children sitting close to the instrument panel in low speed collisions. However, children are safer if they are restrained in the rear seat.

According to the impact severity and seat belt usage, the SRSCM (SRS Control Module) controls the air bag inflation. Failure to properly wear seat belts can increase the risk or severity of injury in an accident.

Additionally, your vehicle is equipped with an occupant detection system in the front passenger's seat. The occupant detection system detects the presence of a passenger in the front passenger's seat and will turn off the front passenger's air bag under certain conditions. For more detail, see "Occupant Detection System (ODS)" on page 3-39.

**⚠ WARNING**

Modification to the seat structure can cause the air bag to deploy at a different level than should be provided.

Manufacturers are required by government regulations to provide a contact point concerning modifications to the vehicle for persons with disabilities, which modifications may affect the vehicle's advanced air bag system. That contact is Kia's toll-free Customer Experience Department at 1-877-KIA-AUTO (1-877-542-2886). However, Kia does not endorse nor will it support any changes to any part or structure of the vehicle that could affect the advanced air bag system, including the occupant detection system.

**⚠ WARNING**

**Replacement/modifications**

The front passenger seat, dashboard or door should not be replaced except by an authorized Kia dealer using original Kia parts designed for this vehicle and model. Any other such replacement or modification could adversely affect the operation of the occupant detection system and your advanced air bags.

Advanced air bags are combined with pre-tensioner seat belts to help provide enhanced occupant protection in frontal crashes. Front air bags are not intended to deploy in collisions in which sufficient protection can be provided by the seat belt.

**\* NOTICE**

Air bags can only be used once - have an authorized Kia dealer replace the air bag immediately after deployment.

Front air bags are not intended to deploy in side-impact, rear-impact or rollover crashes. However, when frontal deployment threshold is satisfied at side-impact, front air bags may deploy. In addition, front air bags will not deploy in frontal crashes below the deployment threshold.

**⚠ WARNING**

**SRS Wiring**

Do not tamper with or disconnect SRS wiring or other components of the SRS system. Doing so could result in injury, due to accidental deployment of the air bags or by rendering the SRS inoperative.

**⚠ WARNING**

**No attaching objects**

No objects (such as crash pad cover, cellular phone holder, cup holder, perfume or stickers) should be placed over or near the air bag modules on the steering wheel, instrument panel, windshield glass, and the front passenger's panel above the glove box. Such objects could cause harm if the vehicle is in a crash severe enough to cause the air bags to deploy.

Do not place any objects over the air bag or between the air bag and yourself.

Additionally, never place or insert any object into any small opening near side airbag labels attached to the vehicle seats.

When the air bag deploys, the object may affect the deployment and result in unexpected accident or bodily harm.

**Side air bag**

Your vehicle is equipped with a side air bag in each front seat.



\* The actual air bags in the vehicle may differ from the illustration.

The purpose of the air bag is to provide the vehicle's driver and/or the front passenger with additional protection than that offered by the seat belt alone.

- The side air bags are designed to deploy during certain side-impact collisions, depending on the crash severity of impact.
- The side air bags may deploy on the side of the impact or on both sides.
- The side and/or curtain air bags on both sides of the vehicle will deploy if a rollover or possible rollover is detected.
- The side air bags are not designed to deploy in all side impact or rollover situations.

**⚠ WARNING**

**Unexpected deployment**

Avoid impact to the side impact airbag sensor when the ignition switch is ON to prevent unexpected deployment of the side air bag.

- The side air bag is supplemental to the driver's and the passenger's seat belt systems and is not a substitute for them. Therefore your seat belts

must be worn at all times while the vehicle is in operation.

- For best protection from the side air bag system and to avoid being injured by the deploying side air bag, both front seat occupants should sit in an upright position with the seat belt properly fastened. The driver's hands should be placed on the steering wheel at the 9:00 and 3:00 positions. The passenger's arms and hands should be placed on their laps.

**⚠ WARNING**

**Deployment**

Do not install any accessories including seat covers, on the side or near the side air bag, as this may adversely affect the deployment of the side air bags.

- If seat or seat cover is damaged, have the vehicle checked and repaired by an authorized Kia dealer. Inform the dealer that your vehicle is equipped with side air bags and an occupant detection system.

**⚠ WARNING**

**Flying objects**

Do not place any objects (an umbrella, bag, etc.) between the front door and the front seat. Such objects may become dangerous projectiles if the side airbag inflates.

**⚠ WARNING**

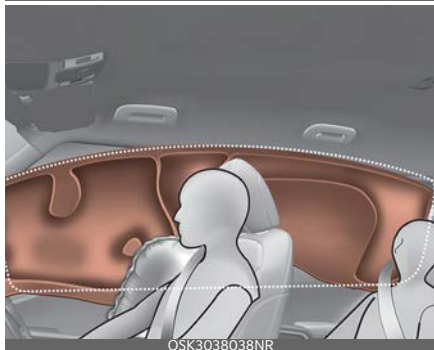
**No attaching objects**

- Do not place any objects over the air bag or between the air bag and yourself. Also, do not attach any objects around the area in which the air bag inflates, such as the door, side door glass, front and rear pillar.

- Do not put any objects between the side airbag label and seat cushion. It could cause harm if the vehicle is in a crash severe enough to cause the air bags to deploy.
- Never place or insert any object into any small opening near the side air-bag labels attached to the vehicle seats. When the air bag deploys, the object may adversely affect the deployment and result in an unexpected accident or bodily harm.
- Do not install any accessories on the side or near the side air bags.

**Curtain air bag**

Curtain air bags are located along both sides of the roof rails above the front and rear doors.



\* The actual air bags in the vehicle may differ from the illustration.

They are designed to help protect occupants in certain side impacts and to help prevent them from ejecting out of the vehicle as a result of a rollover, especially when the seatbelts are also in use.

- The curtain air bags are designed to deploy during certain side impact collisions, depending on the severity of impact. However, when side deployment threshold is satisfied at front-impact, side air bags may deploy.
- The curtain air bags may deploy on the side of the impact or on both sides.
- Also, the curtain air bags on both sides of the vehicle will deploy in certain rollover situations.
- The curtain air bags are not designed to deploy in all side impact or rollover situations.

Do not allow the passengers to lean their heads or bodies against the doors, put their arms on the doors, stretch their arms out of the window or place objects between the doors and passengers when they are seated on seats equipped with side impact and/or curtain air bags.

**\* NOTICE**

Never try to open or repair any components of the side and curtain air bag system. This should only be done by an authorized Kia dealer.

**⚠ WARNING**

**No attaching objects**

- Do not place any objects over the air bag. Also, do not attach any objects around the area in which the air bag inflates, such as the door, side door

glass, front and rear pillar, roof side rail.

- Do not hang hard, breakable, or heavy objects on the coat hooks for safety reasons.

### Air bag collision sensors

The air bag collision sensors are located in the following positions



\* The actual shape and position of sensors may differ from the illustration.

- 1. SRS control module / Rollover sensor
- 2. Front impact sensor
- 3. Side impact sensor
- 4. Side pressure sensor

**⚠ WARNING****Air bag sensors**

- Do not hit or allow any objects to impact the locations where air bags or sensors are installed.

This may cause unexpected air bag deployment, which could result in serious personal injury or death.

- If the installation location or angle of the sensors is altered in any way, the air bags may deploy when they should not or they may not deploy when they should.

Therefore, do not try to perform maintenance on or around the air bag sensors. Have the vehicle checked and repaired by an authorized Kia dealer.

Problems may arise if the sensor installation angles are changed due to the deformation of the front bumper, front end module, body or front doors where side collision sensors are installed. Have the vehicle checked and repaired by an authorized Kia dealer.

Installing bumper guards (or side step or running board) or replacing a bumper (or front door module) with non-genuine parts may adversely affect your vehicle's collision and air bag deployment performance.

Kia Genuine bumper guards/bumpers are parts we guarantee for quality and performance.

**Why didn't my air bag go off in a collision? (Inflation and non-inflation conditions of the air bag)**

There are many types of accidents in which the air bag would not be expected to provide additional protection.

These include rear impacts, second or third collisions in multiple impact accidents, as well as low speed impacts.

**Air bag inflation conditions****Front air bags**

Front air bags are designed to inflate in a frontal collision depending on the severity of impact of the front collision.

**Side and/or curtain air bags**

Side and/or curtain air bags are designed to inflate when an impact is detected by side collision sensors depending on the severity of impact resulting from a side impact collision.

Also, the side and curtain air bags are designed to inflate when a rollover is detected by a rollover sensor.

Although the front air bags (driver's and front passenger's air bags) are primarily designed to inflate in frontal collisions, they may inflate in other types of collisions if the front impact sensors detect a sufficient frontal force in another type of impact.

Similarly, although side and curtain air bags are designed to inflate in certain side impact collisions, they may inflate in other types of collisions where a side force is detected by the sensors. For instance, side air bag and/or curtain air bags may inflate if rollover sensors indicate the possibility of a rollover occurring (even if none actually occurs) or in other situations, including when the vehicle is tilted while being towed.

Even if side and/or curtain air bags do not provide impact protection in a rollover, they will deploy to prevent ejection of occupants, especially those who are restrained with seat belts.

If the vehicle chassis is impacted by bumps or objects on unimproved roads, the air bags may deploy. Drive carefully on unimproved roads or on surfaces not designed for vehicle traffic to prevent unintended air bag deployment.

### Air bag non-inflation conditions

- In certain low-speed collisions the air bags may not deploy. The air bags are designed not to deploy in such cases because they may not provide benefits beyond the protection of the seat belts in such collisions.
- Air bags are not designed to inflate in rear collisions, because occupants are moved backward by the force of the impact. In this case, inflated air bags would not be able to provide any additional benefit.
- Front air bags may not inflate in side impact collisions, because occupants move to the direction of the collision, and thus in side impacts, frontal air bag deployment would not provide additional occupant protection.
- In an angled collision, the force of impact may direct the occupants in a direction where the air bags would not be able to provide any additional benefit, and thus the sensors may not deploy any air bags.
- Just before impact, drivers often brake heavily. Such heavy braking lowers the front portion of the vehicle causing it to "ride" under a vehicle with a higher ground clearance. Air bags may not inflate in this "under-ride" situation because deceleration forces that are detected by sensors may be significantly reduced by such "under-ride" collisions.

- Front air bags may not inflate in all rollover accidents when the SRSCM indicates that the front air bag deployment would not provide additional occupant protection.
- Air bags may not inflate if the vehicle collides with objects such as utility poles or trees, where the point of impact is concentrated to one area and the full force of the impact is not delivered to the sensors.

### Supplemental Restraint System (SRS) Care

The SRS is virtually maintenance-free and so there are no parts you can safely service by yourself.

If the SRS air bag warning light does not appear, or continuously remains on, have your vehicle immediately inspected by an authorized Kia dealer.

Any work on the SRS system, such as removing, installing, repairing, or any work on the steering wheel, the front passenger's panel, front seats and roof rails must be performed by an authorized Kia dealer. Improper handling of the SRS system may result in serious personal injury.

For cleaning the air bag pad covers, use only a soft, dry cloth or one which has been moistened with plain water. Solvents or cleaners could adversely affect the air bag covers and proper deployment of the system.

If components of the air bag system must be discarded, or if the vehicle must be scrapped, certain safety precautions must be observed. An authorized Kia dealer knows these precautions and can give you the necessary information. Failure to follow these precautions and procedures could increase the risk of personal injury.



**⚠ WARNING****Tampering with SRS**

Do not tamper with or disconnect SRS wiring, or other components of the SRS system. Doing so could result in the accidental inflation of the air bags or render the SRS inoperative.

**⚠ WARNING****Towing Vehicle**

Always have the ignition off when your vehicle is being towed. The side air bags may inflate if the vehicle is tilted, such as when being towed, because of the roll-over sensors in the vehicle.

**Adding equipment to or modifying your air bag-equipped vehicle**

If you modify your vehicle by changing your vehicle's frame, bumper system, front end or side sheet metal or ride height, this may affect the operation of your vehicle's air bag system.

**Air bag warning label**

Air bag warning labels, some required by the Canada Motor Vehicle Safety Standards (CMVSS), are attached to the sun visor to alert the driver and passengers of potential risks of the air bag system.





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## Features of your vehicle

### Keys

#### Record your key number



The key code number is stamped on the key code tag attached to the key set. Should

you lose your keys, this number will enable an authorized Kia dealer to duplicate the keys easily. Remove the key code tag and store it in a safe place. Also, record the key code number and keep it in a safe and handy place, but not in the vehicle.

#### **⚠ WARNING**

#### Aftermarket keys

Use only Kia original parts for the ignition key in your vehicle. If an aftermarket key is used, the ignition switch may not return to ON after START. If this happens, the starter will continue to operate causing possible fire due to excessive current in the wiring.

### Key operations

#### Folding key

To unfold the key, press the release button then the key will unfold automatically.

Folding key



OSK3041401N

To fold the key, fold the key manually while pressing the release button.

#### **⚠ CAUTION**

#### Key button operation

Do not fold the key without pressing the release button. This may damage the key.

#### Smart key

To remove the mechanical key, press and hold the release button and remove the mechanical key.

Smart key



OSK3048400NR

To reinstall the mechanical key, put the key into the hole and push it until a click sound is heard.



## **⚠ WARNING**

### **Ignition key**

Never leave the keys in your vehicle with unsupervised children. Leaving children unattended in a vehicle with a manual ignition key or a smart key is dangerous.

Children copy adults and they could place the key in the ignition switch or press the start button. The key would enable children to operate power windows or other controls, or even make the vehicle move, which could result in serious bodily injury or death.

## **Smart key (if equipped)**

With a smart key, you can lock or unlock a door and even start the engine without inserting the key.



4

The functions of the buttons on a smart key are similar to the remote keyless entry. (Refer to "Remote keyless entry (if equipped)" on page 4-10)

## **Smart key functions**

Carrying the smart key, you may lock and unlock the vehicle doors. Also, you may start the engine. Refer to the following, for more details.

## Locking



OSK3048047NR

Pressing the button of the front outside door handles with all doors closed and any door unlocked, locks all the doors (and hood, liftgate).

The hazard warning lights will blink once to indicate that all doors are locked. The button will only operate when the smart key is within 28~40 inches (0.7~1 m) from the outside door handle. If you want to make sure that a door has locked or not, you should check the door lock button inside the vehicle or pull the outside door handle.

In some instances, when the outside door button is pressed the doors will not lock and the chime will sound for 3 seconds if any of the following occurs:

- The smart key is in the vehicle.
- The ignition switch is in the ACC or ON position.
- Any door except the liftgate is opened.

## Unlocking

Pressing the button of the driver's outside door handle with all doors closed and locked, unlocks the driver's door. The hazard warning lights will blink and the chime will sound twice to indicate that the driver's door is unlocked.

Pressing the button in the front passenger's outside door handle with all doors closed and locked, unlocks all the doors. The hazard warning lights will blink and the chime will sound twice to indicate that all doors are unlocked. The button will only operate when the smart key is within 28~40 inches (0.7~1 m) from the outside door handle.

## Liftgate unlocking

If you are within 28~40 inches (0.7~1 m) from the outside liftgate handle, with your smart key in possession, the liftgate will unlock and open when you press the liftgate handle switch.

The hazard warning lights will blink twice to indicate that the liftgate is unlocked.

Also, once the liftgate is opened and then closed, the liftgate will lock automatically.

## Smart key precautions

- If you lose your smart key, you will not be able to start the engine. Tow the vehicle, if necessary, and contact an authorized Kia dealer.
- A maximum of 2 smart keys can be registered to a single vehicle. If you lose a smart key, you should immediately take the vehicle and key to your authorized Kia dealer to protect it from potential theft.
- The smart key will not work if any of following occurs:
  - The smart key is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the smart key.

- The smart key is near a mobile two-way radio system or a cellular phone.
- Another vehicle's smart key is being operated close to your vehicle.

When the smart key does not work correctly, open and close the door with the mechanical key. If you have a problem with the smart key, contact an authorized Kia dealer.

- If the smart key is in close proximity to your cell phone or smart phone, the signal from the smart key could be blocked by normal operation of your cell phone or smart phone. This is especially important when the phone is active such as making calls, receiving calls, text messaging, and/or sending/receiving emails. Avoid placing the smart key and your cell phone or smart phone in the same pants or jacket pocket and maintain adequate distance between the two devices.
- Do not leave the smart key near metallic objects such as golf bags, metal cases and so on.
- Door Lock/Unlock failure or poor starting can occur when the smart key is placed near metallic objects.
- Always carry your smart key when you leave the car. An unattended smart key close to the vehicle can cause the vehicle battery to be discharged.
- Internal circuit damage may occur when the key comes into contact with moisture (beverage, water etc.) or heat. Damage to the smart key due to exposure to liquids or heat is not covered by the manufacturer's vehicle warranty.

### **⚠ CAUTION**

#### **Transmitter**

Keep the smart key away from water or any liquid as it can become damaged and not function properly.

### **This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### **\* NOTICE**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If the smart key is inoperative due to changes or modifications not expressly approved by the party responsible for compliance, it will not be covered by your manufacturer's vehicle warranty.

## Remote keyless entry (if equipped)

Using the remote keyless entry, you can lock and unlock the doors remotely.

### Remote keyless entry system operations

Type A



Type B



Type C



#### Lock (1)

All doors are locked if the lock button is pressed. If all doors are closed, the hazard warning lights will blink and the chime will sound once (for Type B) to indicate that all doors are locked.

Also, if the lock button is pressed once more within 4 seconds, the hazard warning lights will blink and the chime will sound once to confirm that the door is locked.

However, if any door remains open, the hazard warning lights (and/or the chime) will not operate. But if all doors are closed after the lock button is pressed, the hazard warning lights will blink once.

#### Unlock (2)

The driver's door is unlocked if the unlock button is pressed once. The hazard warning lights will blink twice and the chime will sound twice (for Type B) to indicate that the driver's door is unlocked.

All doors are unlocked if the unlock button is pressed once more within 4 seconds. The hazard warning lights will blink (for smart key, the chime also sounds) twice again to indicate that all

doors are unlocked. After pressing this button, the doors will lock automatically unless you open any door within 30 seconds.

If you attempt to lock or unlock the door by pressing the door lock/unlock button in any of the following states, the door will not be locked or unlocked.

- When you want to lock or unlock the door in the ACC or ON state.
- When you want to lock a door in a car with one or more doors open.

Depending on the vehicle, the driver can turn off or set the 2-press unlock setting function.

### \* NOTICE

If the keyless entry system is inoperative due to exposure to water or liquids, it will not be covered by your manufacturer's vehicle warranty.

## Liftgate open (3)

The liftgate is opened if the button is pressed for more than 1 second.

Once the liftgate is opened and then closed, the liftgate will lock automatically.

## Panic alarm (4)

The horn sounds and the hazard warning lights blink for about 30 seconds if this button is pressed for more than 0.5 seconds. To stop the horn and lights, press any button on the transmitter.

## Remote start (5)

You can start the vehicle using the remote start button (5) of the smart key. To start the vehicle remotely:

- Lock the doors by pressing the door lock button (1) within 32 feet (10 m) distance from the vehicle.
- Press the remote start button (5) for over 2 seconds within 4 seconds after locking the doors.
- Press the remote start button (5) once to turn off the vehicle.
- Air conditioner/heater system maintains the status before turning off the vehicle. If no further action for operating/driving the vehicle is taken, the vehicle will be turned off 10 minutes after starting the vehicle remotely.

## Transmitter precautions

The transmitter (or smart key) will not work if any of following occurs:

- The ignition key is in the ignition-switch.
- You exceed the operating distance limit (about 90 feet [30 m]).
- The battery in the transmitter (or smart key) is weak.
- Other vehicles or objects may be blocking the signal.
- The weather is extremely cold.
- The transmitter (or smart key) is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the transmitter.

When the transmitter (or smart key) does not work properly, open and close the door with the ignition key. If you have a problem with the transmitter (or smart key), contact an authorized Kia dealer.

- If the transmitter is in close proximity to your cell phone or smart phone, the signal from the transmitter could be blocked by normal operation of your cell phone or smart phone. This is

especially important when the phone is active such as making calls, receiving calls, text messaging, and/or sending/receiving emails.

Avoid placing the transmitter and your cell phone or smart phone in the same pants or jacket pocket and maintain adequate distance between the two devices.

**This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

**\* NOTICE**

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment. If the keyless entry system is inoperative due to changes or modifications not expressly approved by the party responsible for compliance, it will not be covered by your manufacturer’s vehicle warranty.

**Battery replacement**

A battery should last for several years, but if the transmitter or smart key is not working properly, try replacing the battery with a new one.



If you are unsure how to use or replace the battery, contact an authorized Kia dealer.

1. Pry open the transmitter cover.
2. Replace the battery with a new battery (CR2032). When replacing the battery, make sure the battery position is correct.
3. Install the battery in the reverse order of removal.

**⚠ WARNING**

**THIS PRODUCT CONTAINS A BUTTON BATTERY**

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

The transmitter or smart key is designed to give you years of trouble-free use, however it can malfunction if exposed to moisture or static electricity. If you are unsure how to use or replace the battery, contact an authorized Kia dealer.

Using the wrong battery can cause the transmitter or smart key to malfunction. Be sure to use the correct battery.



An inappropriately disposed battery can be harmful to the environment and human health. Dispose the battery

according to your local law(s) or regulation.

### **CAUTION**

#### **Transmitter damage**

The transmitter or smart key can malfunction if dropped, exposed to moisture, static electricity, heat or direct sunlight.

### **WARNING**

#### **IC WARNING**

This device complies with Industry Canada licence-exempt RSS standard(s).

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

#### **Immobilizer system (if equipped)**

Your vehicle may be equipped with an electronic engine immobilizer system to reduce the risk of unauthorized vehicle use.

Your immobilizer system is comprised of a small transponder in the ignition key and electronic devices inside the vehicle.

With the immobilizer system, whenever you insert your ignition key into the ignition switch and turn it to ON, it checks and determines and verifies that the ignition key is valid.

If the key is determined to be valid, the engine will start.

If the key is determined to be invalid, the engine will not start.

#### **To deactivate the immobilizer system:**

Insert the ignition key into the key cylinder and turn it to the ON position.

#### **To activate the immobilizer system:**

Turn the ignition key to the OFF position. The immobilizer system activates automatically. Without a valid ignition key for your vehicle, the engine will not start.

Your Immobilizer password is a customer unique password and should be kept confidential. Do not leave this number anywhere in your vehicle.

### **\* NOTICE**

Keep each key separately in order to avoid a starting malfunction.

### **\* NOTICE**

In order to prevent theft of your vehicle, do not leave spare keys anywhere in your vehicle. Your immobilizer password is a customer unique password should be kept confidential. Do not leave this number anywhere in your vehicle.

Do not put metal accessories near the ignition switch.

Metal accessories may interrupt the transponder signal and may prevent the engine from being started.

If you need additional keys or lose your keys, consult an authorized Kia dealer.


**⚠ CAUTION****Immobilizer damage**

Do not expose your immobilizer system to moisture, static electricity or rough handling. This may damage your immobilizer.


**⚠ CAUTION****Immobilizer alterations**

Do not change, alter or adjust the immobilizer system because it could cause the immobilizer system to malfunction.

**Limp home (override) procedure (if equipped)**

When you turn the ignition switch to the ON position, if the immobilizer indicator () goes off after blinking 5 times, your transponder equipped in the ignition key is out of order. You cannot start the engine without the limp home procedure. To start the engine, you have to input your password by using the ignition switch. Your password is only available from an authorized Kia dealership. Contact an authorized dealer for more information.

The following procedure is how to input your password:

1. Turn the ignition switch to the ON position. The immobilizer indicator () will blink 5 times and go off indicating the beginning of the limp home procedure.
2. Turn the ignition switch to the ACC position.
3. To enter the first digit (in this example "2"), turn the ignition switch to the ON and ACC position twice. Perform the same procedure for the next digits between 3 seconds and 10 seconds

(for example, for "3", turn the ignition ON and ACC 3 times).

4. If all of the digits have been input successfully, you have to start the engine within 30 seconds. If you attempt to start the engine after 30 seconds, the engine will not start and you will have to input your password again.

After performing the limp home procedure, you have to see an authorized Kia dealer immediately to inspect and repair your ignition key or immobilizer system.

**This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

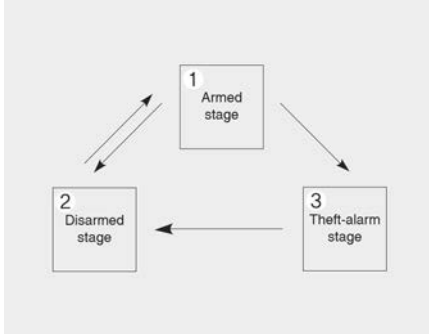
**\* NOTICE**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If the keyless entry system is inoperative due to changes or modifications not expressly approved by the party responsible for compliance, it will not be covered by your manufacturer's vehicle warranty.



## Theft-alarm system (if equipped)

This system is designed to provide protection from unauthorized entry into the vehicle.



This system is operated in three stages: the first is the "Armed" stage, the second is the "Theft-alarm" stage, and the third is the "Disarmed" stage. If triggered, the system provides an audible alarm with blinking of the hazard warning lights.

### ⚠ CAUTION

Do not attempt to alter this system or add other devices to it.

## Armed stage

### Using the smart key

Park the vehicle and stop the engine. Arm the system as described below.

1. Turn off the engine.
2. Make sure that all doors, the hood and liftgate are closed and latched.
3. Lock the doors by pressing the button of the front outside door handle with the smart key in your possession.

After completion of the steps above, the hazard warning lights will operate once to indicate that the system is armed.

If any door (or liftgate) or hood remains open, the hazard warning lights and the chime will not operate and the theft-alarm will not arm. If all doors and liftgate and hood are closed after the lock button is pressed, the hazard warning lights blink once.

The system can also be armed by locking the doors with the key from the front doors; however, the hazard warning lights will not blink using this method.

4. Lock the doors by pressing the lock button on the smart key.

After completion of the steps above, the hazard warning lights will operate once to indicate that the system is armed.

### Using the transmitter

Park the vehicle and stop the engine. Arm the system as described below.

1. Turn off the engine and remove the ignition key from the ignition switch.
2. Make sure that all doors (and liftgate), the engine hood are closed and latched.
3. Lock the doors by pressing the lock button on the transmitter.

After completion of the steps above, the hazard warning lights will blink once to indicate that the system is armed.

If any door (and liftgate) or engine hood remains open, the hazard warning lights won't operate and theft-alarm will not arm. After this, if all doors (and liftgate) and engine hood are closed, the hazard warning lights blink once.

### \* NOTICE

Do not arm the system until all passengers have left the vehicle. If the system is

armed while a passenger(s) remains in the vehicle, the alarm may be activated when the remaining passenger(s) leaves the vehicle. If any door (or liftgate) or hood is opened within 30 seconds after the system enters the armed stage, the system will be disarmed to prevent unnecessary alarm.

### Theft-alarm stage

The alarm will be activated if any of the following occurs while the system is armed.

- A front or rear door is opened without using the smart key.
- The liftgate is opened without using the smart key.
- The hood is opened.

The horn will sound and the hazard warning lights will blink continuously for approximately 27 seconds, and repeat the horn 3 times unless the system is disarmed. To turn off the system, unlock the doors with the transmitter (or smart key).

### Disarmed stage

The system will be disarmed when:

### Transmitter

- The door unlock button is pressed.
- The engine is started. (within 3 seconds)
- The ignition switch is in the "ON" position for 30 seconds or more.

### Smart key

- The door unlock button is pressed.
- The button of the front outside door is pressed while carrying the smart key.
- The engine is started. (within 3 seconds)

After pressing the unlock button, the hazard warning lights will blink and the chime will sound twice (in smart key) to indicate that the system is disarmed.

After pressing the unlock button, if any door (or liftgate) is not opened within 30 seconds, the system will be rearmed.

### \* NOTICE

- Avoid trying to start the engine while the alarm is activated. The vehicle starting motor is disabled during the theft-alarm stage.

If the system is not disarmed with the transmitter, insert the key into the ignition switch, turn the ignition switch to the ON position and wait for 30 seconds. Then the system will be disarmed.

- If you lose your keys, consult your authorized Kia dealer.

### ▲ CAUTION

#### Adjusting alarm system

Do not change, alter or adjust the theft alarm system in your vehicle. Improper installation of the alarm system could damage the vehicle or cause the system to malfunction.

### \* NOTICE

Malfunctions caused by improper alterations, adjustments or modifications to the theft-alarm system are not covered by your vehicle manufacturer warranty.

## Door locks

### Operating door locks from outside the vehicle



To remove the cover:

1. Pull out the door handle.
2. Press the lever (1) located inside the bottom part of the cover with a key or flat-head screwdriver.
3. Push out the cover (2) while pressing the lever.

Turn the key toward the rear of the vehicle to lock (A) and toward the front of the vehicle to unlock (B).

- If you lock the driver's door with a key, only the driver's door will lock/unlock.
- From the driver's door, turn the key toward the front of the vehicle once to unlock the driver's door and once more within 4 seconds to unlock all doors.
- Doors can also be locked and unlocked with the smart key.
- Once the doors are unlocked, they may be opened by pulling the door handle.
- When closing the door, push the door by hand. Make sure the doors are closed securely.

#### \* NOTICE

- In cold and wet climates, door lock and door mechanisms may not work properly due to freezing conditions.
- If the door is locked/unlocked multiple times in rapid succession with either the vehicle key or door lock switch, the system may stop operating temporarily in order to protect the circuit and prevent damage to system components.

#### ⚠ WARNING

- Securely close your door before you begin driving. Failure to fully close your door may cause it to be opened during vehicle operation.
- Keep proper distance from the door to prevent injuries when the door is closing.

#### ⚠ CAUTION

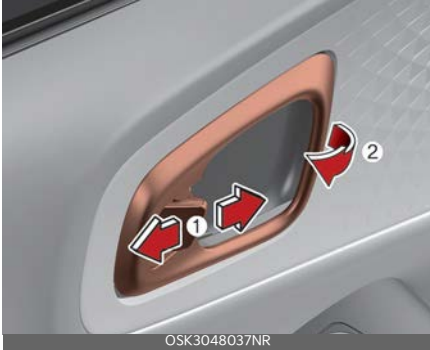
Do not unnecessarily open and close the door repeatedly or with excessive force. Such action can damage the vehicle door.

#### \* NOTICE

Always turn the ignition switch to the OFF position, engage the parking brake, close all windows, and lock all doors when leaving your vehicle unattended.

## Operating door locks from inside the vehicle

### With the door lock button



- To unlock a door, push the door lock button (1) to the "Unlock" position. The red mark on the door lock button will be visible.
- To lock a door, push the door lock button (1) to the "Lock" position. If the door is locked properly, the red mark on the door lock button will not be visible.
- To open a door, pull the door handle (2) outward.
- If the inner door handle of the driver's (or front passenger's) door is pulled when the door lock button is in the lock position, the button will unlock and the door will open.
- Doors cannot be locked if the smart key is in the vehicle and a door is open.

### Door lock malfunction

If a power door lock ever fails to function while you are in the vehicle, try one or more of the following techniques to exit:

- Operate the door unlock feature repeatedly (both electronic and man-

ual) while simultaneously pulling on the door handle.

- Operate the other door locks and handles, front and rear.
- Lower a front window and use the key to unlock the door from outside.

### **⚠ WARNING**

Do not pull the inner door handle of driver's (or passenger's) door while the vehicle is moving.

### With central door lock switch

#### Driver side



#### Passenger side



Operate by pressing the central door lock switch.

- When pressing the right portion (1) for driver side or the upper portion (1) for passenger side of the switch, all vehicle doors will lock.
- When pressing the left portion (2) for driver side or the lower portion (2) for passenger side of the switch, all vehicle doors will unlock.
- If the smart key is in the vehicle and any door is opened, the doors will not lock even though the right portion (1) for driver side or upper portion (1) for passenger side of the central door lock switch is pressed.

### **WARNING**

#### **Doors**

- The doors should always be fully closed and locked while the vehicle is in motion to prevent accidental opening of the door.
- When opening the doors, always be careful and watch out for vehicles, motorcycles, bicycles or pedestrians approaching the vehicle. Opening a door when something is approaching can result in an accident to cause vehicle damage or serious injury.

### **WARNING**

#### **Unattended children, the elderly or pets**

An enclosed vehicle can become extremely hot, causing death or severe injury such as heatstroke to unattended children, the elderly or pets who cannot escape the vehicle. When left or trapped in a hot vehicle, make sure to stay hydrated and avoid sun exposure through the vehicle's windshield. Furthermore, children might operate features of the vehicle that could injure them, or they could encounter other

harm, possibly from someone gaining entry to the vehicle. Never leave children or animals unattended in your vehicle.

## **Door lock/unlock features**

### **Impact sensing door unlock system**

All doors will automatically unlock when an impact causes the air bags to deploy.

### **Speed sensing door lock system**

All doors will automatically lock after the vehicle speed exceeds 10 mph (15 km/h).

You can activate or deactivate the auto door lock/unlock features in the vehicle. Refer to "User settings mode" on page 4-50.

### **Child-protector rear door locks**

The child safety lock is provided to help prevent children from accidentally opening the rear doors from inside the vehicle. The rear door safety locks should be used whenever children are in the vehicle.

The child safety lock is located on the edge of each rear door. When the child safety lock is in the lock position (1), the rear door will not open if the inner door handle (2) is pulled.



OSK3042067N

To lock the child safety lock, insert a key (or screwdriver) into the hole and turn it to the lock position.

To allow a rear door to be opened from inside the vehicle, unlock the child safety lock.

### ⚠ WARNING

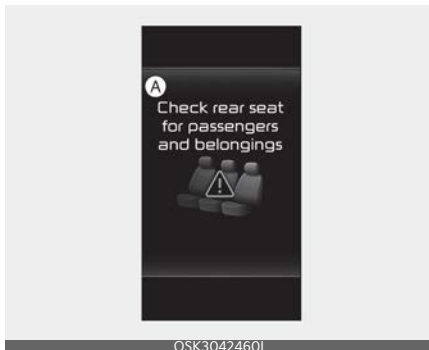
#### Rear door locks

Use the rear door safety locks whenever children are in the vehicle. If a child accidentally opens the rear doors while the vehicle is moving, he or she may fall out.

#### Rear Occupant Alert (ROA) system

The Rear Occupant Alert (ROA) is provided to help prevent exiting the vehicle with a rear passenger left in the vehicle.

- When you open the front door after opening and closing the rear door and turning off the engine, the "Check rear seats" warning message appears on the cluster.



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You can activate or deactivate the ROA from the User Settings mode in the cluster LCD display.

The option can be found under the following menu:

1. Press the MODE button (⏏) several times on the steering wheel until 'User Settings' menu appears on the LCD.
2. Select 'Convenience → Rear Occupant Alert' with the MOVE switch (∧/∨) and the OK button on the steering wheel.

### ⚠ WARNING

The Rear Occupant Alert (ROA) system does not actually detect objects or people in the rear seat. By using a rear door opened and closed history, the system informs the driver that there may be something in the rear seat.

### ⚠ CAUTION

The Rear Occupant Alert (ROA) system uses a rear door opened and closed history.

The history is reset after the driver turns off ignition normally, exits the vehicle and locks the door remotely using the remote keyless entry. So even if a rear

door does not reopen, the ROA system alert can occur.

For example, after the ROA system alert occurs, if the driver does not lock the door, and drives again, the alert can occur.

### **⚠ WARNING**

The door lock system may not work if the electrical system is compromised. Accordingly, please train children passengers regarding how to open the car door manually before an emergency situation arises. That way, they would be able to open the door manually in the event an emergency situation arises.

## Liftgate

When you open the liftgate, you will see a space where you can load the cargo.

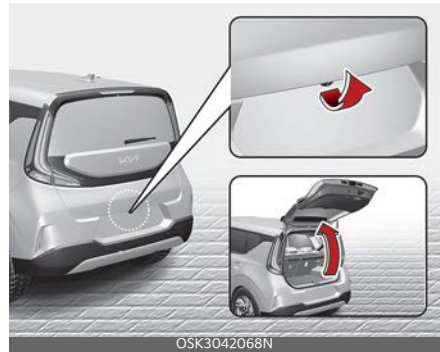
### Opening the liftgate

The liftgate is locked or unlocked when all doors are locked or unlocked with the key, smart key or central door lock/unlock switch.

### **⚠ CAUTION**

#### Liftgate lift

Make sure that you close the liftgate before driving your vehicle. Possible damage may occur to the liftgate gas lifters and attached hardware if the liftgate is not closed prior to driving.



- Only the liftgate is unlocked if the liftgate unlock button on the transmitter or smart key is pressed for approximately 1 second.
- If unlocked, the liftgate can be opened by pressing the handle and pulling it up.
- Once the liftgate is opened and then closed, the liftgate locks automatically. (All doors must be locked.)

**\* NOTICE**

In cold and wet climates, door lock and door mechanisms may not work properly due to freezing conditions.

**⚠ WARNING**

The liftgate swings upward. Make sure no objects or people are near the rear of the vehicle when opening the liftgate.

**Closing the liftgate**

Lower and push down the liftgate firmly. Make sure that the liftgate is securely latched.



Make sure your hands, feet and other parts of your body are safely out of the way before closing the liftgate.

**⚠ WARNING**

**Exhaust Fumes**

The liftgate should always be kept completely closed while the vehicle is in motion. If it is left open or ajar, poisonous exhaust gases may enter the car and serious illness or death may result.

**Opening the liftgate in emergency**

Your vehicle is equipped with the emergency liftgate safety release lever located on the bottom of the liftgate. When someone is inadvertently locked in the luggage compartment.



The liftgate can be opened by doing as follows:

1. Input the mechanical key into the hole.
2. Push the mechanical key to the right (1).
3. Push up the liftgate.

**⚠ WARNING**

- No one should be allowed to occupy the cargo area of the vehicle at any time. The cargo area is a very dangerous location in the event of a crash.
- Use the release lever for emergencies only. Use with extreme caution, especially while the vehicle is in motion.

**⚠ CAUTION**

Make sure there are no people or objects around the liftgate before opening or closing the liftgate. Wait until the liftgate is open fully and stopped before



loading or unloading cargo from the vehicle.

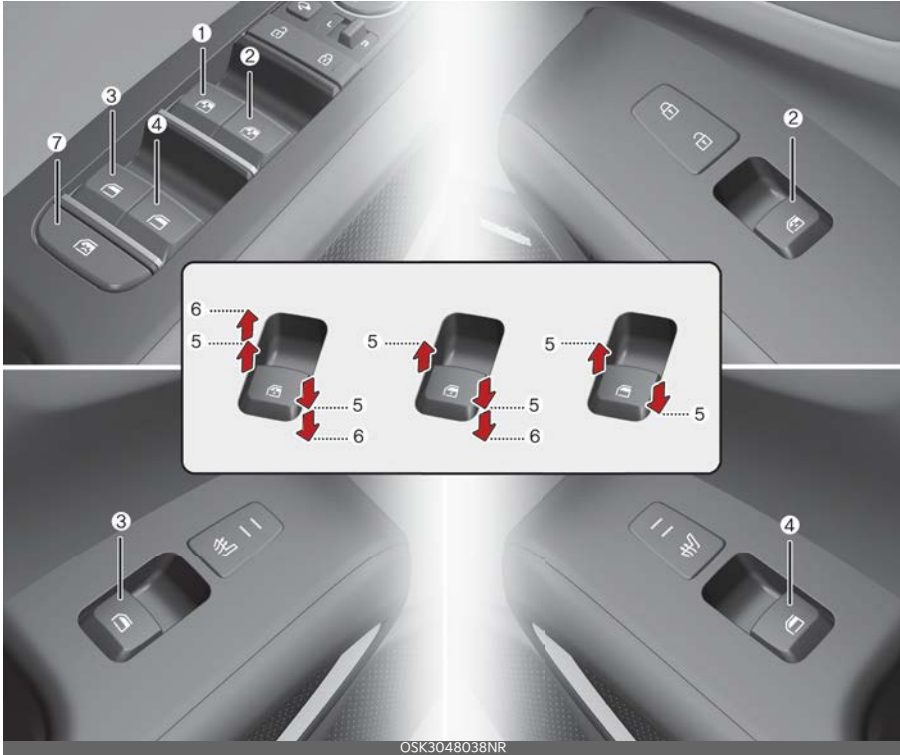
**⚠ WARNING**

Do not grasp the part supporting the liftgate (gas lifter), as this may cause serious injury.



## Windows

The doors of this vehicle are equipped with power windows that can be operated by a switch.



1. Driver's door power window switch
  2. Front passenger's door power window switch
  3. Rear door (left) power window switch
  4. Rear door (right) power window switch
  5. Window opening and closing
  6. Automatic power window up/down\*
  7. Power window lock switch
- \* if equipped

**\* NOTICE**

In cold and wet climates, power windows may not work properly due to freezing conditions.

The ignition switch must be in the ON position for power windows to operate. Each door has a power window switch that controls the door's window. The driver has a power window lock switch which can block the operation of rear passenger windows. The power windows can be operated for approximately 10 minutes after the ignition key is removed or set to the ACC or LOCK position. However, if the front doors are opened, the power windows cannot be operated even within the 10 minutes period. The driver's door has a master power window switch that controls all the windows in the vehicle.

If the window cannot be closed because it is blocked by objects, remove the objects and close the window.

**\* NOTICE**

While driving with the rear windows down or with the sunroof (if equipped) in an open (or partially open position), your vehicle may demonstrate a wind buffeting or pulsation noise. This noise is a normal occurrence and can be reduced or eliminated by taking the following actions. If the noise occurs with one or both of the rear windows down, partially lower both front windows approximately 2.5 cm (1 inch). If you experience the noise with the sunroof open, slightly reduce the size of the sunroof opening.

**▲ CAUTION**

Do not install any accessories in the vehicle that extend into the open win-

dow area. Such objects will impact the proper functioning of the automatic reversal "jam protection" feature.

**Window opening and closing**

**Type A**

To open or close a window, press down or pull up the front portion of the corresponding switch to the first detent position (5).



4

**Type B - Auto down window (if equipped)**



Pressing the power window switch momentarily to the second detent position (6) completely lowers the window even when the switch is released. To

stop the window at the desired position while the window is in operation, pull up the switch briefly to the opposite direction of the window movement.

### Type C - Auto up/down window (if equipped)



Pressing or pulling up the power window switch momentarily to the second detent position (6) completely lowers or raises the window even when the switch is released. To stop the window at the desired position while the window is in operation, pull up or press down and release the switch.

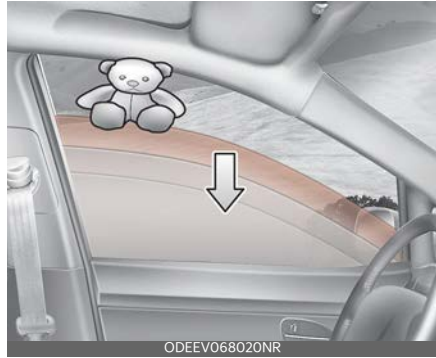
If the power window does not operate normally, the automatic power window system must be reset as follows:

1. Turn the ignition switch to the ON position.
2. Close the window and continue pulling up the power window switch for at least 1 second after the window is completely closed.

### Automatic reversal for Type C

If the upward movement of the window is blocked by an object or part of the body, the window will detect the resistance and will stop upward movement.

The window will then lower approximately 30 cm (11.8 inches) to allow the object to be cleared.



If the window detects the resistance while the power window switch is pulled up continuously, the window will stop upward movement then lower approximately 2.5 cm (1 inch).

If the power window switch is pulled up continuously again within 5 seconds after the window is lowered by the automatic window reversal feature, the automatic window reversal will not operate.

### \* NOTICE

The automatic reverse feature for the window is only active when the "auto up" feature is used by fully pulling up the switch. The automatic reverse feature will not operate if the window is raised using the halfway position on the power window switch.

### ⚠ WARNING

Always check for obstructions before raising any window to avoid injuries or vehicle damage. If an object less than 4 mm (0.16 of an inch) in diameter is caught between the window glass and the upper window channel, the automatic reverse window may not detect

the resistance and will not stop and reverse direction.

### **⚠ WARNING**

The automatic reverse feature doesn't activate while resetting power window system. Make sure body parts or other objects are safely out of the way before closing the windows to avoid injuries.

### **⚠ WARNING**

Do not install any accessories in the vehicle that extend into the open window area. Such objects could prevent the automatic reverse feature from functioning.

## **Power window lock switch**

The driver can disable the power window switches on the rear passengers' doors by pressing the power window lock switch to the lock position (pressed).



When the power window lock switch is pressed:

- The driver's master control can operate the front passenger's power window and the rear passengers' power windows.

- The front passenger's control can operate the front passenger's power window.
- The rear passengers' control cannot operate the rear passengers' power window.

### **⚠ CAUTION**

## **Opening/closing Window**

To prevent possible damage to the power window system, do not open or close two windows or more at the same time. This will also ensure the longevity of the fuse.

Always double check to make sure all arms, hands, head and other obstructions are safely out of the way before closing a window.

If the window cannot be close because it is blocked by objects, remove the objects and close the window.

### **⚠ WARNING**

## **Power windows**

- Do not allow children to play with the power windows. Keep the power window lock switch (on the driver's door) in the LOCK (pressed) position.
- Do not extend a face or arms outside the window opening while the vehicle is in motion. Doing so could result in significant bodily injury.

## Hood

The hood serves as a cover for the engine compartment. Open the hood if maintenance work needs to be performed in the engine compartment or if you need to look at the compartment.

### Opening the hood

1. Pull the release lever to unlatch the hood. The hood should pop open slightly.



### **⚠ WARNING**

Open the hood after turning off the engine on a flat surface, shifting the shift lever to the P (Park) position.

2. Go to the front of the vehicle, raise the hood slightly, push the secondary hood release lever (1) up side and lift the hood (2).



3. Raise the hood. It will completely rise by itself after it has been raised about halfway.

### Hood open warning

A warning message will appear on the LCD display when hood is open.



The warning chime will operate when the vehicle is being driven above 3 km/h (2 mph) with the hood open.

### Closing the hood

1. Before closing the hood, check the following:
  - All filler caps in the engine compartment must be correctly installed.
  - Gloves, rags or any other combustible material must be removed from the engine compartment.
2. Lower the hood until it is about 30 cm (12 inches) above the closed position and let it drop. Make sure that it locks into place.
3. Then double check to be sure the hood is secure.
  - If the hood can be raise slightly, it is not properly engaged.
  - Open it again and close it with a little more force.

**CAUTION****Hood obstruction**

Before closing the hood, ensure that all obstructions are removed from the hood opening. Closing the hood with an obstruction present in the hood opening may result in severe personal injury or property damage.

**WARNING****Fire risk**

Do not leave gloves, rags or any other combustible material in the motor compartment. Doing so may cause a heat-induced fire.

**WARNING****Unsecured hood**

Always double check to be sure that the hood is firmly latched before driving away. If it is not latched, the hood could fly open while the vehicle is being driven, causing a total loss of visibility, which might result in an accident.

**Fuel filler door****Opening the fuel filler door**

The fuel filler door must be opened from inside the vehicle by pulling up the fuel filler door opener.



If the fuel filler door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door. Do not pry on the door. If necessary, spray around the door with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.

1. Stop the engine.
2. To open the fuel filler door, pull the fuel filler door opener up.
3. Pull open the fuel filler door (1) out to fully open.



4. To remove the cap turn the fuel filler cap (2) counterclockwise.
5. Refuel as needed.

### **⚠ WARNING**

Before refueling, be sure to check what type of fuel is used for your vehicle. If you put diesel fuel into a gasoline-powered vehicle or gasoline into a diesel-powered vehicle, it may affect the fuel system and cause serious damage to the vehicle.

### **Closing the fuel filler door**

1. To install the cap, turn it clockwise until it "clicks" one time. This indicates that the cap is securely tightened.
2. Close the fuel filler door and push it lightly and make sure that it is securely closed.

### **⚠ WARNING**

#### **Refueling**

Always remove the fuel cap carefully and slowly. If the cap is venting fuel or if you hear a hissing sound, wait until the condition stops before completely removing the cap.

If pressurized fuel sprays out, it can cover your clothes or skin and subject you to the risk of fire and burns.

### **\* NOTICE**

When refueling on unlevel ground, the fuel gauge may not point to the F position. It is not a malfunction. If you move your vehicle to a level ground, the fuel gauge will move to the full position.

### **\* NOTICE**

Tighten the cap until it clicks one time, otherwise the fuel cap open warning indicator light will appear.

Always check that the fuel cap is installed securely to prevent fuel spillage in the event of an accident.

### **⚠ WARNING**

#### **Fire/explosion risk**

Read and follow all warnings posted at the gas station facility. Failure to follow all warnings will result in severe personal injury, severe burns or death due to fire or explosion.

### **⚠ WARNING**

#### **Static electricity**

- Before touching the fuel nozzle, you should eliminate potentially dangerous static electricity discharge by touching another metal part of the vehicle, a safe distance away from the fuel filler neck, nozzle, or other gas source.
- Do not get back into a vehicle once you have begun refueling since you can generate static electricity by touching, rubbing or sliding against any item or fabric (polyester, satin,



nylon, etc.) capable of producing static electricity. Static electricity discharge can ignite fuel vapors resulting in rapid burning. If you must reenter the vehicle, you should once again eliminate potentially dangerous static electricity discharge by touching a metal part of the vehicle, away from the fuel filler neck, nozzle or other gasoline source.

### WARNING

#### Portable fuel container

When using an approved portable fuel container, be sure to place the container on the ground prior to refueling. Static electricity discharge from the container can ignite fuel vapors causing a fire. Once refueling has begun, contact with the vehicle should be maintained until the filling is complete. Use only approved portable plastic fuel containers designed to carry and store gasoline.

### WARNING

#### Cell phone fires

Do not use cellular phones while refueling. Electric current and/or electronic interference from cellular phones can potentially ignite fuel vapors causing a fire.

### WARNING

#### Refueling & Vehicle fires

When refueling, always shut the engine off. Sparks produced by electrical components related to the engine can ignite fuel vapors causing a fire. Once refueling is complete, check to make sure the filler cap and filler door are securely closed, before starting the engine.

### WARNING

#### Smoking

DO NOT use matches or a lighter and DO NOT SMOKE or leave a lit cigarette in your vehicle while at a gas station especially during refueling. Automotive fuel is highly flammable and can result in fire when ignited.

Make sure to refuel your vehicle according to "Fuel requirements" on page 1-2.

If the fuel filler cap requires replacement, use only a genuine Kia cap or the equivalent specified for your vehicle. An incorrect fuel filler cap can result in a serious malfunction of the fuel system or emission control system.

### CAUTION

#### Exterior paint

Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel spilled on painted surfaces may damage the paint.

### NOTICE

The fuel filler door will unlock when Driver's door is unlocked.

To unlock fuel filler door:

- Press the unlock button on your smart key
- Press the Central Door unlock button on armrest trim of driver's door
- Pull the driver's inside door handle outward

The fuel filler door will lock when all doors are locked.

To lock fuel filler door:

- Press the lock button on your smart key
- Press the Central Door lock button on armrest trim of driver's door

\* All doors will automatically lock after the vehicle speed exceeds 15 km/h (9.3 mph). Fuel door is also locked when vehicle speed exceeds 15 km/h (9.3 mph).

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## Sunroof (if equipped)

If your vehicle is equipped with a sunroof, you can slide or tilt your sunroof with the sunroof switch located on the overhead console.



The sunroof can only be operated when the ignition switch or ENGINE START/STOP button is in the ON or START position.

The sunroof can be operated for approximately 10 minutes after the ignition switch or ENGINE START/STOP button is in the ACC or LOCK/OFF position. However, if the front door is open, the sunroof cannot be operated even within the 10 minutes period.

### **⚠ WARNING**

- Adjust the sunroof or sunshade when your vehicle stops. This could result in loss of control and an accident that may cause injury, or property damage.
  - Do not leave the engine running and the key in your vehicle with unsupervised children. Unattended children could operate the sunroof, which could result in serious injury.
  - Do not sit on the top of the vehicle. It may cause injury or vehicle damage.
-

**\* NOTICE**

Do not operate the sunroof when roof bars are installed on the vehicle or when there is luggage on the roof.

**Sunshade**



Use the sunshade to block direct sunlight coming through the sunroof glass. Open or close the sunshade by hand.

**\* NOTICE**

The sunshade opens automatically when the sunroof glass is opened, but the sunshade does not close automatically when the sunroof glass is closed. Also, only the sunshade cannot be closed when the sunroof glass is opened.

**\* NOTICE**

Do not pull the sunshade up or down, or apply excessive force as such action may damage the sunshade or cause it to malfunction.

**Tilt open/close**



1. Tilt open
  2. Tilt close
- Push the sunroof switch upward, the sunroof glass tilts open.
  - Push the sunroof switch forward when the sunroof glass is tilt opened, the sunroof glass closes.

The sunroof glass tilts open or closes while the switch is pushed

**\* NOTICE**

The sunroof glass cannot slide open and tilt open at the same time. You cannot tilt the sunroof glass open while the sunroof glass is slide open. Also, you cannot slide the sunroof glass open while the sunroof is tilt open. Slide open or tilt open the sunroof glass when the sunroof glass is completely closed.

### Slide open/close



- Push the sunroof switch rearward, the sunshade and sunroof glass slide open.  
Push the sunroof switch forward, only the sunroof glass closes.
- Push the sunroof switch forward or rearward to the first detent position, the sunroof glass moves until the switch is released.
- Push the sunroof switch forward or rearward to the second detent position, the sunroof glass operates automatically (auto slide feature). To stop the sunroof movement at any point, push the sunroof switch in any direction.
- The sunroof glass stops halfway (first detent position) before it is fully opened. To fully open the sunroof glass, push the sunroof switch rearward once more. At this time, the sunroof glass opens only while the switch is pushed.

#### \* NOTICE

To reduce wind noise while driving, we recommend that you drive at the recommended position (first detent position) before the maximum slide open position.

### Automatic reversal



If the sunroof glass senses any obstacle while it is closing automatically, it will reverse direction then stop at a certain position.

The auto reverse function may not work if an object thin or soft is caught between the sliding sunroof glass and sunroof sash.

#### ⚠ WARNING

- Make sure heads, hands, arms or any other body parts or objects are out of the way before operating the sunroof. Body parts or objects may get caught causing injuries or vehicle damage.
- Never deliberately use your body parts to test the automatic reversal function. The sunroof glass may reverse direction, but there is a risk of injury.

#### \* NOTICE

- Do not continue to push the sunroof switch after the sunroof is fully opened, closed, or tilted. Damage to the sunroof motor could occur.
- Continuous operations such as slide open/close, tilt open/close, etc. may

cause the motor or sunroof system to malfunction.

- Regularly remove any accumulated dust on the sunroof rail.
- Dust accumulated between the sunroof and roof panel can make noise. Open the sunroof and remove dust regularly using a clean cloth.
- Do not try to open the sunroof when the temperature is below freezing or when the sunroof is covered with snow or ice. The sunroof may not work properly and may break if opened by force.
- Do not open or drive with the sunroof glass open immediately after rain or washing the vehicle. Water may wet the interior of the vehicle.
- Do not extend any luggage outside the sunroof while driving. Vehicle damage may occur if the vehicle suddenly stops.

### WARNING

Do not extend your head, arms, body parts or objects outside the sunroof while driving. Injuries may occur if the vehicle suddenly stops.

## Resetting the sunroof



In some circumstances resetting the sunroof operation may need to be performed. Some instances where resetting the sunroof may be required include:

- When the 12 volt battery is either disconnected or discharged
- When the sunroof fuse is replaced
- If the sunroof one-touch AUTO OPEN/CLOSE operation is not functioning properly

Sunroof resetting procedure:

1. It is recommended to perform the reset procedure with the vehicle engine running. Start the vehicle in P (Park).
2. Make sure the sunroof glass is in the fully closed position. If the sunroof glass is open, push the switch forward until the sunroof glass is fully closed.
3. Release the switch when the sunroof glass is fully closed.
4. Push the switch forward until the sunroof glass moves slightly. Then release the switch.
5. Once again, push and hold the sunroof switch forward until the sunroof glass slides open and close. Do not release the switch until the operation is completed. If you release the switch during operation, start the procedure again from step 2.

### \* NOTICE

If the sunroof does not reset when the vehicle battery is disconnected or discharged, or the sunroof fuse is blown, the sunroof may not operate normally.

## Sunroof open warning



If the driver turns off the engine when the sunroof is not fully closed, the warning chime will sound for several seconds and the sunroof open warning will appear on the cluster LCD display. Close the sunroof securely when leaving your vehicle.

### **⚠ CAUTION**

Make sure the sunroof is closed fully when leaving your vehicle. If the sunroof is left open, rain or snow may wet the interior of the vehicle. Also, leaving the sunroof open when the vehicle is unattended may invite theft.

## Steering wheel

The steering wheel of this vehicle is equipped with electronic power steering.

### **Electric Power Steering (EPS)**

Power steering uses the motor to assist you in steering the vehicle. If the engine is off or if the power steering system becomes inoperative, the vehicle may still be steered, but it will require increased steering effort.

The EPS is controlled by the power steering control unit which senses the steering wheel torque and vehicle speed to command the motor.

The steering effort becomes heavier as the vehicle's speed increases and becomes lighter as the vehicle's speed decreases for better control of the steering wheel.

Should you notice any change in the effort required to steer during normal vehicle operation, have the system checked by a professional workshop. Have the system checked by an authorized Kia dealer.

### **\* NOTICE**

The following symptoms may occur during normal vehicle operation:

- The EPS warning light does not appear.
- The steering effort is high immediately after turning the ignition switch or ENGINE START/STOP button on. This happens as the EPS system performs the diagnostics. When the diagnostics is completed, the steering effort will return to its normal condition.
- A click noise may be heard from the EPS relay after the ignition switch or

ENGINE START/STOP button is turned to the ON or LOCK position.

- Motor noise may be heard when the vehicle is at a stop or at a low driving speed.
- When the abnormality is detected in the electric power steering system, a deadly accident prevention purposes, steering assist functions will be stopped. At this time, the instrument panel warning light turns on or blinks and the power to manipulate the steering of a sudden a lot you can. Please check immediately after moving the vehicle to a safe zone.
- The steering effort increases if the steering wheel is rotated continuously when the vehicle is not in motion. However, after a few minutes, it will return to its normal conditions.
- If the Electric Power Steering System does not operate normally, the warning light will appear on the instrument cluster. The steering wheel may become difficult to control or operate abnormally. In this case, have the system inspected by a professional workshop. Kia recommends to visit an authorized Kia dealer.
- When you operate the steering wheel in low temperature, abnormal noise could occur. If temperature rises, the noise will disappear. This is a normal condition.

### Tilt & telescopic steering wheel

A tilt and telescopic steering wheel allows you to adjust the steering wheel before you drive

You can also raise it to give your legs more room when you exit and enter the vehicle.

The steering wheel should be positioned so that it is comfortable for you to drive, while permitting you to see the instrument panel warning lights and gauges.

### ⚠ WARNING

#### Steering wheel adjustment

Never adjust the angle and height of the steering wheel while driving. You may lose steering control.

### Adjusting steering wheel angle and height



1. To change the steering wheel angle, pull down the lock release lever (1).
2. Adjust the steering wheel to the desired angle (2) and height (3).
3. Pull up the lock-release lever to lock the steering wheel in place.
4. Be sure to adjust the steering wheel to the desired position before driving.

### \* NOTICE

After adjustment, sometimes the lock-release lever may not lock the steering wheel.

It is not a malfunction. This occurs when two gears engage. In this case, adjust the steering wheel again and then lock the steering wheel.

## Heated steering wheel (if equipped)

With the ignition switch in the ON position, pressing the heated steering wheel button warms the steering wheel. The indicator on the button will appear.



To turn the heated steering wheel off, press the button once again. The indicator on the button will turn off.

### \* NOTICE

The heated steering wheel will turn off automatically approximately 30 minutes after the heated steering wheel is turned on.

### ⚠ CAUTION

- Do not install any type of grip cover for the steering wheel, it may impair the function of the heated steering wheel system.
- When cleaning the heated steering wheel, do not use an organic solvent, such as paint thinner, benzene, alcohol and gasoline. Doing so may damage the surface of the steering wheel.
- If the surface of the steering wheel is damaged by a sharp object, damage to the heated steering wheel components could occur.

### ⚠ WARNING

If the steering wheel becomes too warm, turn the system off. The heated steering wheel may cause burns even at low temperatures, especially if used for long periods of time.

## Horn

To sound the horn, press the area indicated by the horn symbol on your steering wheel (see illustration).



The horn will operate only when this area is pressed. Check the horn regularly to be sure it operates properly.



## Mirrors

This vehicle is equipped with a rearview mirrors inside and outside to provide views of objects behind the vehicle.

### Inside rearview mirror

Adjust the rearview mirror so that the center view through the rear window is seen. Make this adjustment before you start driving.

Do not place objects in the rear seat or cargo area which would interfere with your vision through the rear window.

### **⚠ WARNING**

#### Mirror adjustment

Do not adjust the rearview mirror while the vehicle is moving. This could result in loss of control.

### **⚠ WARNING**

Do not modify the inside mirror in any manner, including installing a wide mirror. Doing so could result in injury during an accident or deployment of the air bag.

### **⚠ CAUTION**

#### Cleaning mirror

When cleaning the mirror, use a paper towel or similar material dampened with glass cleaner. Do not spray glass cleaner directly on the mirror. It may cause the liquid cleaner to enter the mirror housing.

### Day/night rearview mirror (if equipped)



\* (1): Day, (2): Night

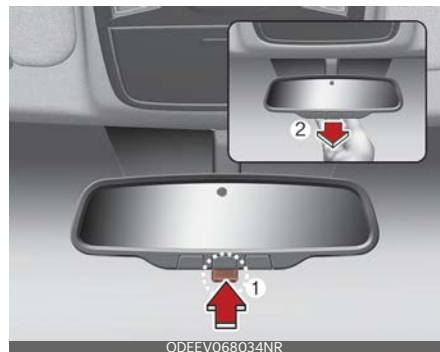
Make this adjustment before you start driving and while the day/night lever is in the day position (1).

Pull the day/night lever toward you (2) to reduce the glare from the headlights of the vehicles behind you during night driving.

Remember that you lose some rearview clarity in the night position.

### Day/night rearview mirror with Telematics function (if equipped)

#### For day and night function:



\* (1): Day, (2): Night

Make this adjustment before you start driving and while the day/night lever (1) is in the day position.

Pull the day/night lever (2) toward you to reduce the glare from the headlights of the vehicles behind you during night driving.

Remember that you lose some rearview clarity in the night position.

**For Telematics button function:**



Telematics buttons are also located on the mirror.

- 1. Virtual Assist button
- 2. Kia Connect button
- 3. Roadside assist button

**Electric chromic mirror (ECM) with KIA Connect service (if equipped)**



The electric rearview mirror automatically controls the glare from the headlights of the vehicles behind you in nighttime or low light driving conditions. The sensor (4) mounted in the mirror senses the light level around the vehicle, and automatically controls the headlight glare from the vehicles behind you.

When the engine is running, the glare is automatically controlled by the sensor mounted in the rearview mirror.

Telematics buttons are also located on the mirror.

- 1. Virtual Assist button
- 2. Kia Connect button
- 3. Roadside assist button

**Outside rearview mirror**

Your vehicle is equipped with both left-hand and right-hand outside rearview mirrors.

Be sure to adjust the mirror angles before driving.

The mirrors can be adjusted remotely with the remote switch. The mirror heads can be folded back to prevent damage during an automatic car wash

or when passing through a narrow street.

### ⚠ CAUTION

#### Rearview mirrors

Do not scrape ice off the mirror face; this may damage the surface of the glass. If ice should restrict the movement of the mirror, do not force the mirror for adjustment. To remove ice, use a de-icer spray, a sponge or soft cloth with very warm water.

If the mirror is jammed with ice, do not adjust the mirror by force. Use an approved spray de-icer (not radiator antifreeze) to release the frozen mechanism or move the vehicle to a warm place and allow the ice to melt.

### ⚠ WARNING

#### Mirror adjustment

Do not adjust or fold the outside rearview mirrors while the vehicle is moving. This could result in loss of control.

### This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### \* NOTICE

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If the key-

less entry system is inoperative due to changes or modifications not expressly approved by the party responsible for compliance, it will not be covered by your manufacturer's vehicle warranty.

### Adjusting the outside rearview mirrors



Adjusting the rearview mirrors:

1. Move the L (Front left side) or R (Front right side) switch (1) to select the rearview mirror you would like to adjust.
2. Use the mirror adjustment control (2) to position the selected mirror up, down, left or right.

### ⚠ CAUTION

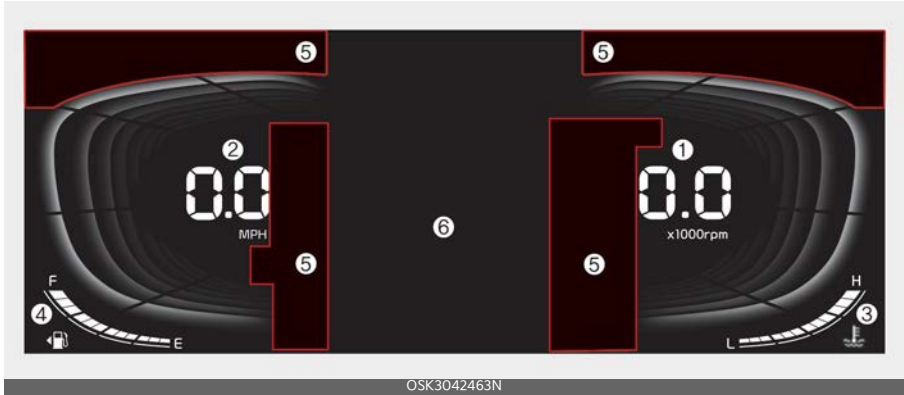
- The mirrors stop moving when they reach the maximum adjusting angles, but the motor continues to operate while the switch is pressed. Do not press the switch longer than necessary, the motor may be damaged.
- Do not attempt to adjust the outside rearview mirror by hand. Doing so may damage the parts.

## Folding the outside rearview mirror

To fold the outside rearview mirror, grasp the housing of the mirror and then fold it toward the rear of the vehicle.



## Instrument cluster



\* The actual cluster and contents of the LCD display in the vehicle may differ from the illustration.

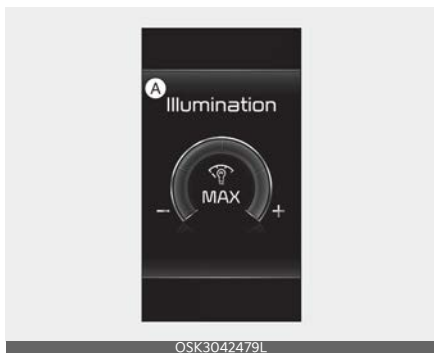
1. Tachometer
2. Speedometer
3. Engine coolant temperature gauge
4. Fuel gauge
5. Warning and indicator lights
6. LCD display

## Instrument cluster control

The brightness of the instrument panel illumination is changed by pressing the illumination control button ("+" or "-") when ignition switch is ON, or the tail-lights are turned on.



- If you hold the illumination control button ("+" or "-"), the brightness will be changed continuously.



- If the brightness reaches to the maximum or minimum level, an alarm will sound.

## Gauges

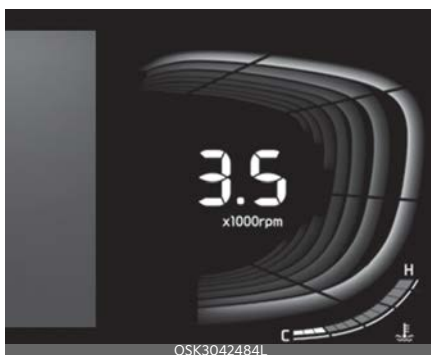
The gauges display various information such as the speed of the vehicle, the amount of charge of the battery, and so on.

## Speedometer



The speedometer indicates the speed of the vehicle and is calibrated in miles per hour (mph) and/or kilometers per hour (km/h).

## Tachometer



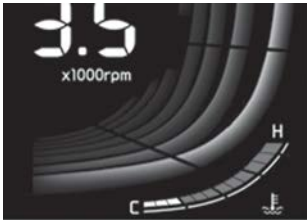
The tachometer indicates the approximate number of engine revolutions per minute (rpm).

Use the tachometer to select the correct shift points and to prevent lugging and/or over-revving the engine.

### ⚠ CAUTION

Do not operate the engine within the tachometer's RED ZONE. This may cause severe engine damage.

## Engine Coolant Temperature Gauge



OSK3042488L

This gauge indicates the temperature of the engine coolant when the ignition switch or ENGINE START/STOP button is ON.

### ⚠ CAUTION

If the gauge pointer moves beyond the normal range area (between the C-H) toward the "H" position, it indicates overheating that may damage the engine.

Do not continue driving with an overheated engine. If your vehicle overheats, refer to "If the engine overheats" on page 6-7.

### ⚠ WARNING

Never remove the radiator cap when the engine is hot. The engine coolant is under pressure and could severely burn. Wait until the engine is cool before adding coolant to the reservoir.

## Fuel Gauge



OSK3042462L

This gauge indicates the approximate amount of fuel remaining in the fuel tank.

### \* NOTICE

- The fuel tank capacity is given in "Recommended lubricants and capacities" on page 8-9.
- The fuel gauge is supplemented by a low fuel warning light, which will appear when the fuel tank is nearly empty.
- On inclines or curves, the fuel gauge pointer may fluctuate or the low fuel warning light may come on earlier than usual due to the movement of fuel in the tank.

### \* NOTICE

#### Fuel Gauge

Running out of fuel can expose vehicle occupants to danger.

You must stop and obtain additional fuel as soon as possible after the warning light comes on or when the gauge indicator comes close to the "E" level.

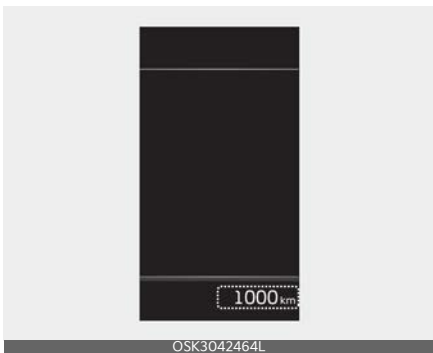
**⚠ CAUTION**

Avoid driving with an extremely low fuel level. Running out of fuel could cause the engine to misfire, damaging the catalytic converter.

**\* NOTICE**

The fuel display may not be accurate if the vehicle is on an incline.

**Odometer**



The odometer indicates the total distance that the vehicle has been driven and should be used to determine when periodic maintenance should be performed.

- Odometer range: 0~999,999 miles or 1,599,999 kilometers.

**Outside Temperature Gauge**



This gauge indicates the current outside air temperatures by 1 °F (1 °C).

- Temperature range: -40~211 °F (-40~85 °C)

The outside temperature on the display may not change immediately like a general thermometer to prevent the driver from being distracted.

To change the temperature unit (from °F to °C or from °C to °F)

The temperature unit can be changed by using the "User Settings" mode of the LCD display.

\* For more details, refer to "LCD display" on page 4-47.

**Transmission shift indicator**

Transmission shift indicator displays gear information depending on your vehicle's transmission type.

**Intelligent variable transmission shift indicator (if equipped)**

This indicator displays which automatic transmission shift lever is selected.





- Park: P
- Reverse: R
- Neutral: N
- Drive: D
- Sports Mode: 1, 2, 3, 4, 5, 6




## LCD display

The LCD display shows trip computer and other information.

## LCD Display Control






The LCD display modes can be changed by using the control buttons.



1. : MODE button for changing modes
2. : MOVE switch for changing items
3. : SELECT/RESET button for setting or resetting the selected item

### LCD Display Modes

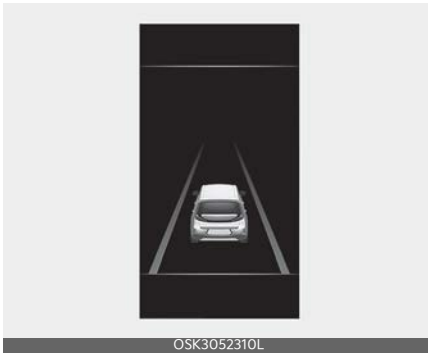
The LCD display provides 5 modes. You can switch modes by pressing the Mode button.

Mode					
	 Driving Assist	 Trip Computer	 Turn By Turn (TBT)*	 User Settings	 Information/Master Warning
	Lane Keeping Assist* Smart Cruise Control* Lane Following Assist*	Drive info	Route Guidance	Driver Assistance	TPMS
^ v Up/ Down		Since Refuelling	Destination Info	Cluster	The Master Warning mode displays warning messages related to the vehicle when one or more systems is not operating normally.
		Accumulated info		Lights	
		Digital Speedometer		Door	
				Convenience	
				Units	
			Reset		

\* : if equipped

\* The information provided may differ depending on which functions are applicable to your vehicle.

## Driving Assist mode

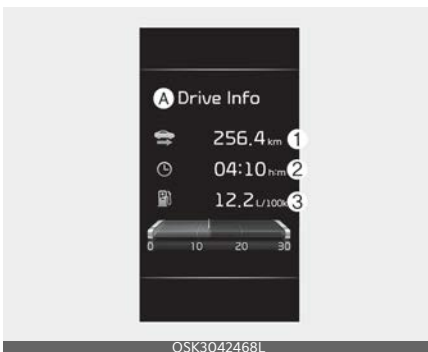


This mode displays the state of :

- Smart Cruise Control
- Lane Keeping Assist
- Lane Following Assist

\* For more details, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-64, "Smart Cruise Control (SCC) (if equipped)" on page 5-102, "Lane Following Assist (LFA) (if equipped)" on page 5-122.

## Trip computer mode



The trip computer mode displays information related to vehicle driving parameters including fuel economy, tripmeter information and vehicle speed.

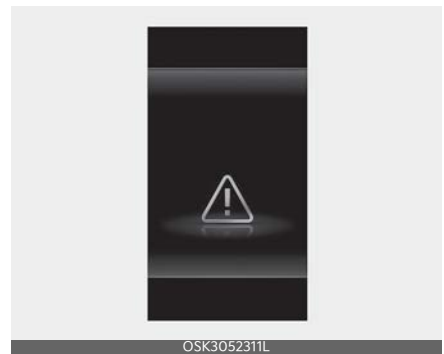
\* For more details, refer to "Trip information (Trip computer)" on page 4-55.

## Turn By Turn (TBT) mode



This mode displays the state of the navigation.

## Master warning mode



This warning light informs the driver the following situations.

- Driver assistance system malfunction, limitation or radar/camera blockage
- LED headlamp malfunction
- Blind-Spot Collision Warning malfunction (if equipped)
- Lamp malfunction
- TPMS failure, low tire pressure, etc.

At this time, a Master Warning icon (⚠) will appear beside the User Settings icon (⚙), on the LCD display.

If the warning situation is resolved, the master warning light will be turned off and the Master Warning icon will disappear.

## User settings mode

In this mode, you can change the settings of the instrument cluster, doors, lamps, etc.



1. Driver Assistance
2. Cluster
3. Lights
4. Door
5. Convenience
6. Units
7. Reset

The information provided may differ depending on which functions are applicable to your vehicle.

## Shift to P to edit settings / Engage parking brake to edit settings

This warning message appears if you try to adjust the User Settings while driving.



### A: Shift to P

For your safety, change the User Settings after parking the vehicle, applying the parking brake and moving the shift lever to P (Park).

## 1. Driver Assistance (if equipped)

Items	Explanation
Driving Convenience	<ul style="list-style-type: none"> <li>• Smart Cruise Control</li> </ul> To set the distance, acceleration and the reaction speed of Smart Cruise Control. * For more details, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-102
Speed Limit	<ul style="list-style-type: none"> <li>• Country Selection</li> <li>• Speed Limit Offset</li> <li>• Speed Limit Assist/Speed Limit Warning/Off</li> </ul> To set the Intelligent Speed Limit Assist. * For more details, refer to "Intelligent Speed Limit Assist (ISLA) (if equipped)" on page 5-87
Warning Volume	<ul style="list-style-type: none"> <li>• High/Medium/Low</li> </ul> To select the Warning volume.
Driver Attention Warning	<ul style="list-style-type: none"> <li>• Leading Vehicle Departure Alert</li> <li>• Inattentive Driving Warning</li> </ul> To select the functions. * For more details, refer to "Driver Attention Warning (DAW) (if equipped)" on page 5-93
Driving Safety	<ul style="list-style-type: none"> <li>• Forward Safety                             <ul style="list-style-type: none"> <li>To select the function.</li> <li>* For more details, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38"Forward Collision-Avoidance Assist (FCA) (Sensor Fusion) (if equipped)" on page 5-50</li> </ul> </li> <li>• Forward Safety Warning Timing                             <ul style="list-style-type: none"> <li>To select the Warning Timing of Forward Collision-Avoidance Assist.</li> <li>* For more details, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38"Forward Collision-Avoidance Assist (FCA) (Sensor Fusion) (if equipped)" on page 5-50</li> </ul> </li> <li>• Lane Safety                             <ul style="list-style-type: none"> <li>To select the function.</li> <li>* For more details, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-64</li> </ul> </li> <li>• Blind-Spot Safety                             <ul style="list-style-type: none"> <li>To select the function.</li> <li>* For more details, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-70</li> </ul> </li> <li>• Exit Safety                             <ul style="list-style-type: none"> <li>To select the function.</li> <li>* For more details, refer to "Safe Exit Warning (SEW) (if equipped)" on page 5-80</li> </ul> </li> </ul>

Items	Explanation
Blind-spot safety	<ul style="list-style-type: none"> <li>• Parking Distance Warning Auto On To select the function. * For more details, refer to "Forward/Reverse Parking Distance Warning (PDW) (if equipped)" on page 5-149</li> <li>• Rear Cross-Traffic Safety To select the functions. * For more details, refer to "Rear Cross-Traffic Collision-Avoidance Assist (RCCA) (if equipped)" on page 5-136</li> </ul>

\* The information provided may differ depending on which functions are applicable to your vehicle.

## 2. Cluster

Items	Explanation
Theme Selection	<ul style="list-style-type: none"> <li>• Link to Drive Mode / Classic A / Classic B / Classic C / Dynamic If this item is checked, the cluster theme will change accordingly.</li> </ul>
Wiper/Lights Display	If this item is checked, the wiper/lights display will be activated.
Traffic Signs	If this item is checked, the traffic signs display will be activated.
Icy Road Warning	If this item is checked, the icy road warning will be activated.
Cluster Voice Guidance Volume	<ul style="list-style-type: none"> <li>• 0~3 level To set the volume of cluster voice.</li> </ul>
Welcome Sound	If this item is checked, the welcome sound function will be activated.

\* The information provided may differ depending on which systems are applicable to your vehicle.

## 3. Lights

Items	Explanation
One touch turn indicator	<ul style="list-style-type: none"> <li>• Off: The one touch turn signal function will be deactivated.</li> <li>• 3, 5, 7 Flashes: The turn signal indicator will blink 3, 5, or 7 times when the turn signal lever is moved slightly.</li> </ul> <p>* For more details, refer to "Lighting" on page 4-69.</p>
Head Lamp Delay	If this item checked, the head lamp delay function will be activated.

\* The information provided may differ depending on which functions are applicable to your vehicle.

## 4. Door

Items	Explanation
Automatically Lock	<ul style="list-style-type: none"> <li>Off: The auto door unlock operation will be canceled.</li> <li>Enable on speed: All doors will be automatically locked when the vehicle speed exceeds 15 km/h (9.3 mph).</li> <li>Enable on shift (Except Manual transmission): All doors will be automatically locked if the vehicle is shifted from the P (Park) position to the R (Reverse), N (Neutral), or D (Drive) position. (With the Engine ON, it is activated.)</li> </ul>
Automatically Unlock	<ul style="list-style-type: none"> <li>Off: The auto door unlock operation will be canceled.</li> <li>Vehicle Off/Key out (if equipped): All doors will be automatically unlocked when the ignition key is removed from the ignition switch or ENGINE START/STOP button or the Engine Star/Stop button is set to the OFF position.</li> <li>On shift to P (Except Manual transmission): All doors will be automatically unlocked if the gear is shifted to the P (Park) position. (With the Engine ON, it is activated.)</li> </ul>

\* The information provided may differ depending on which functions are applicable to your vehicle.

## 5. Convenience (if equipped)

Items	Explanation
Rear Occupant Alert	If this item is checked, the Rear Occupant Alert (ROA) display will be activated.
Service Interval	<ul style="list-style-type: none"> <li>Enable Service Interval If this item is checked, Service Interval will be activated.</li> <li>Adjust Interval If the service interval menu is activated, you may adjust the time and distance.</li> <li>Reset To reset the service interval function.</li> </ul>
Welcome Mirror/Light	<ul style="list-style-type: none"> <li>On door unlock/On driver approach To select the welcome mirror/light function.</li> </ul>
Wireless Charging System	If this item is checked, the wireless charging function will be activated.
Auto Rear Wiper (in R)	<ul style="list-style-type: none"> <li>If this item checked, the Auto rear wiper will be activated.</li> </ul>

\* The information provided may differ depending on which functions are applicable to your vehicle.

## 6. Units

Items	Explanation
Speed Unit	<ul style="list-style-type: none"> <li>km/h, MPH To select the Speed unit.</li> </ul>

Items	Explanation
Temperature Unit	<ul style="list-style-type: none"> <li>• °C / °F</li> </ul> To select the Temperature unit.
Fuel Economy Unit	<ul style="list-style-type: none"> <li>• Km/L, L/100Km</li> </ul> To select the Fuel economy unit. * For more details, refer to "Trip information (Trip computer)" on page 4-55.
Tire Pressure Unit	<ul style="list-style-type: none"> <li>• psi / kPa / bar</li> </ul> To select the Tire Pressure Unit

\* The information provided may differ depending on which functions are applicable to your vehicle.

## 7. Reset

Items	Explanation
Reset	You can reset the menus in the User Settings mode. All menus in the User Settings mode are reset to factory settings, except language and service interval.



### Trip information (Trip computer)

The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

**\* NOTICE**

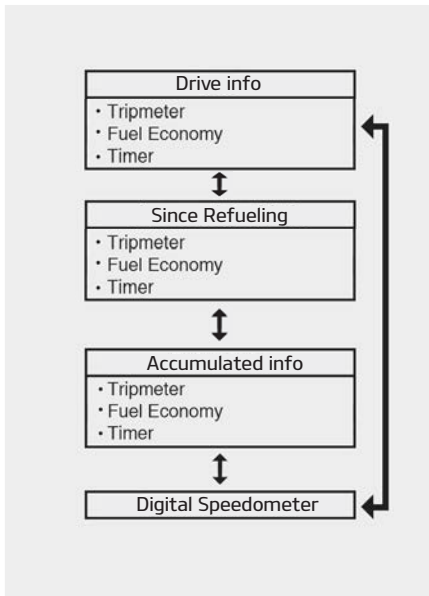
Some driving information stored in the trip computer resets if the battery is disconnected.

To change the trip mode, scroll the toggle switch ( $\wedge$  /  $\vee$ ) on the steering wheel.

### Since refueling information mode



### Trip Modes



- A: Drive Info
- B: Since Refueling
- C: Accumulated Info
- D: Digital Speedometer

- 1 Tripmeter
- 2 Fuel Economy
- 3 Timer

#### A: Drive Info

- 1 Accumulated trip distance
- 2 Average energy consumption
- 3 Total driving time

This display shows the trip distance, the average fuel efficiency, and the instant fuel efficiency (or the total driving time) since refueling.

- Information since refueling is calculated after the vehicle has run for more than 300 m (0.19 miles).
- Information since refueling is calculated after the vehicle has run for more than 300 m (0.19 miles).
- If you press "OK" button for more than 1 second after the information since refueling is displayed, the information will be reset.
- If the engine is running, even when the vehicle is not in motion, the information will be accumulated.

## Digital speedometer



This mode displays the current speed of the vehicle.

## Service Mode

This mode reminds you of scheduled maintenance information.

## Service in

It calculates and displays when you need a scheduled maintenance service (mileage or days).

If the remaining mileage or time reaches 1,500 km (900 miles) or 30 days, "Service in" message is displayed for several seconds each time you set the ignition switch or ENGINE START/STOP button to the ON position.

## Service required

If you do not have your vehicle serviced according to the already inputted service interval, "Service required" message is displayed for several seconds each time you set the ignition switch or ENGINE START/STOP button to the ON position.

To reset the service interval to the mileage and days you inputted before:

- Press the OK button (Reset) for more than 1 second.

### \* NOTICE

If any of the following conditions occurs, the mileage and days may be incorrect.

- The battery cable is disconnected.
- The battery is discharged.

## Driving info display

At the end of each driving cycle, the Driving Info message is displayed.



This display shows the trip distance (1), average energy consumption (2), driving time (3).

This information is displayed for a few seconds when you turn off the vehicle, and then goes off automatically. The information is calculated for each time the vehicle is turned on.

### \* NOTICE

- If sunroof open warning is displayed in the cluster, the Driving Information message may not be displayed.

## LCD display messages

### Engine has overheated

This warning message appears when the engine coolant temperature is above 248 °F (120 °C). This means that the engine is overheated and may be damaged.

\* If your vehicle is overheated, refer to "If the engine overheats" on page 6-7.

### Low Key Battery for smart key system

This warning message appears if the battery of the smart key is discharged when the ENGINE START/STOP button changes to the OFF position.

### Press START button while turning wheel for smart key system

It means that you should press the ENGINE START/STOP button while turning the steering wheel right and left.

### Steering wheel unlocked for smart key system

This warning message appears if the steering wheel is not lock when the ENGINE START/STOP button changes to the OFF position.

### Check Steering Wheel Lock System for smart key system

This warning message appears if there is malfunction in steering wheel lock system when the ENGINE START/STOP button changes to the OFF position.

### Key not in vehicle for smart key system

This warning message appears if the smart key is not in the vehicle when the ENGINE START/STOP button is in the ON position.

It means that you should always have the smart key with you.

### Key not detected for smart key system

This warning message appears if the smart key is not detected when you press the ENGINE START/STOP button.

### Door, Hood, Liftgate open warning display



This warning is displayed if any door or the hood or the liftgate is left open. The warning will indicate which door is open in the display.

### ⚠ CAUTION

Before driving the vehicle, you should confirm that the door/hood/liftgate is fully closed. Also, check that there is no door/hood/liftgate open warning light or message displayed on the instrument cluster.

### Sunroof open warning display (if equipped)



This warning is displayed if you turn off the vehicle when the sunroof is open. Close the sunroof securely before leaving your vehicle.

### Low Pressure warning display

This warning message is displayed if the tire pressure is low. The corresponding tire on the vehicle will be appeared.

\* For more details, refer to "Tire Pressure Monitoring System (TPMS) malfunction indicator" on page 6-10.

### Lights mode



A: Lights

This indicator displays which exterior light is selected using the lighting control.

You can activate or deactivate Wiper/Lights Display function from the User Settings mode in the cluster LCD display.

### Wiper mode



A: Front Wipers

This indicator displays which wiper speed is selected using the wiper control.

You can activate or deactivate Wiper/Lights Display function from the User Settings mode in the cluster LCD display.

### Shift to P or N to start engine for smart key system

This warning message appears if you try to start the engine with the shift lever not in the P (Park) or N (Neutral) position.

### Press brake pedal to start engine for smart key system

This warning message appears if the ENGINE START/STOP button changes to the ACC position twice by pressing the

button repeatedly without depressing the brake pedal.

It means that you should depress the brake pedal to start the engine.

### **Battery discharging due to external electrical devices**

The vehicle can detect self-discharge of the battery due to over-current that is generated by unauthorized electrical devices such as dashboard camera(dash cam) mounting during parking.

Please note that functions such as Idle Stop and Go (ISG) are limited and battery discharge problems may occur.

If the warning continues even after external electrical devices are removed, have your vehicle inspected by an authorized Kia dealer.

### **Press START button again for smart key system**

This warning message appears if you cannot operate the ENGINE START/STOP button when there is a problem with the ENGINE START/STOP button system.

It means that you could start the engine by pressing the ENGINE START/STOP button once more.

If the warning appears each time you press the ENGINE START/STOP button, have the vehicle inspected by an authorized Kia dealer.

### **Press START button with key for smart key system**

This warning message appears if you press the ENGINE START/STOP button while the warning message "Key not detected" is illuminating.

At this time, the immobilizer indicator light blinks.

### **Check Lane Keeping Assist (LKA) (if equipped)**

This warning message is displayed if there is a problem with Lane Keeping Assist. Have your vehicle inspected by an authorized Kia dealer.

\* For more details, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-64

### **Check High Beam Assist (HBA) system (if equipped)**

This warning message is displayed if there is a problem with High Beam Assist. Have your vehicle inspected by an authorized Kia dealer.

\* For more details, refer to "High Beam Assist (HBA) (if equipped)" on page 4-73

### **Check Forward Collision-Avoidance Assist system (if equipped)**

This warning message is displayed if there is a problem with Forward Collision-Avoidance Assist. Have your vehicle inspected by an authorized Kia dealer.

\* For more details, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38

### **Check Smart Cruise Control System (if equipped)**

This warning message is displayed if there is a problem with the Smart Cruise Control. Have your vehicle inspected by an authorized Kia dealer.

\* For more details, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-102

**Check Blind-Spot Collision Warning System (if equipped)**

This warning message is displayed if there is a problem with Blind-Spot Collision-Avoidance Assist. In this case, have the vehicle inspected by an authorized Kia dealer.

\* For more information, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-70.

**Check Driver Attention Warning (DAW) System (if equipped)**

This warning message is displayed if there is a problem with Driver Attention Alert. In this case, have the vehicle inspected by an authorized Kia dealer.

\* For more information, refer to "Driver Attention Warning (DAW) (if equipped)" on page 5-93.

**Icy Road Warning (if equipped)**



A: Ice possible. Drive with care  
 This warning is to warn the driver the road may be icy.

When the following conditions occur, the warning light (including Outside Temperature Gauge) blinks 5 times and then appears, and also warning chime sounds once.

- The temperature on the Outside Temperature Gauge is below approximately 40 °F (4 °C).

**\* NOTICE**

If the icy road warning appears while driving, you should drive more attentively and safely refraining from over-speeding, rapid acceleration, sudden braking or sharp turning, etc.

## Warning and indicator lights

The warning light and indicator light indicate a situation where the driver should be careful and whether the various functions are activated.

### Warning lights

The warning light indicates situations that require the driver to pay attention.

#### \* NOTICE

### Warning lights

Make sure that all warning lights are OFF after starting the vehicle. If any light is still ON, this indicates a situation that needs attention.

### Air bag Warning Light

#### This warning light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It appears for approximately 6 seconds and then goes off.
- When there is a malfunction with the SRS.

In this case, have the vehicle inspected by an authorized Kia dealer.

### Seat Belt Warning Light

This warning light informs the driver that the seat belt is not fastened.

\* For more details, refer to "Seat belts" on page 3-16.

## Parking Brake & Brake Fluid Warning Light

#### This warning light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It appears for approximately 3 seconds
  - It remains on if the parking brake is applied.
- When the parking brake is applied.
- When the brake fluid level in the reservoir is low.
  - If the warning light appears with the parking brake released, it indicates the brake fluid level in reservoir is low.

#### If the brake fluid level in the reservoir is low:

1. Drive carefully to the nearest safe location and stop your vehicle.
2. With the vehicle stopped, check the brake fluid level immediately and add fluid as required (For more details, refer to "Brake fluid" on page 7-18). Then check all brake components for fluid leaks. If any leak on the brake system is still found, the warning light remains on, or the brakes do not operate properly, do not drive the vehicle.

In this case, have your vehicle towed to an authorized Kia dealer and inspected.

### Dual-diagonal braking system

Your vehicle is equipped with dual-diagonal braking systems. This means you still have braking on two wheels even if one of the dual systems should fail.

With only one of the dual systems working, greater pedal pressure are required to stop the vehicle.

Also, the vehicle will require increased stopping distance with only a portion of the brake system working.

### **WARNING**

#### **Parking Brake & Brake Fluid Warning Light**

Driving the vehicle with a warning light ON is dangerous. If the Parking Brake & Brake Fluid Warning Light appears with the parking brake released, it indicates that the brake fluid level is low.

In this case, have your vehicle inspected by an authorized Kia dealer.

#### **Anti-lock Brake System (ABS) Warning Light**

##### **This warning light appears:**

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It appears for approximately 3 seconds and then goes off.
- When there is a malfunction with the ABS (The normal braking system will still be operational without the assistance of the anti-lock brake system). In this case, have your vehicle inspected by an authorized Kia dealer.

#### **Electronic Brake force Distribution (EBD) System Warning Light**



##### **These two warning lights appear at the same time while driving:**

- When the ABS and regular brake system may not work normally. In this case, have your vehicle inspected by an authorized Kia dealer.

### **WARNING**

#### **Electronic Brake force Distribution (EBD) System Warning Light**

When both ABS and Parking Brake & Brake Fluid Warning Lights are on, the brake system will not work normally and you may experience an unexpected and dangerous situation during sudden braking.

In this case, avoid high speed driving and abrupt braking.

Have your vehicle inspected by an authorized Kia dealer as soon as possible.

#### **Electric Power Steering (EPS) Warning Light**

##### **This warning light appears:**

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It remains on until the vehicle is started.
  - When there is a malfunction with the EPS.
- When there is a malfunction with the EPS.



In this case, have your vehicle inspected by an authorized Kia dealer.

### Electronic Parking Brake (EPB) warning light (if equipped)

#### This warning light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It appears for approximately 3 seconds and then goes off.
- When there is a malfunction with the EPB.
 

In this case, have the vehicle inspected by an authorized Kia dealer.

#### \* NOTICE

### Electronic Parking Brake (EPB) warning light

The Electronic Parking Brake (EPB) warning light may appear when the Electronic Stability Control (ESC) Indicator Light comes on to indicate that the ESC is not working properly (This does not indicate malfunction of the EPB).

### Charging System Warning Light



#### This warning light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
- When there is a malfunction with either the alternator or electrical charging system.

### If there is a malfunction with either the alternator or electrical charging system:

1. Drive carefully to the nearest safe location and stop your vehicle.
2. Turn the engine off and check the alternator drive belt for looseness or breakage.

In this case, have the vehicle inspected by an authorized Kia dealer.

### Malfunction Indicator Lamp (MIL)



#### This warning light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It remains on until the engine is started.
- When there is a malfunction with the emission control system.
 

In this case, have the vehicle inspected by an authorized Kia dealer.

#### ⚠ CAUTION

### Malfunction Indicator Lamp (MIL)

Driving with the Malfunction Indicator Lamp (MIL) on may cause damage to the emission control systems which could effect drivability and/or fuel economy.

### Engine Oil Pressure Warning Light

#### This warning light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.

- It remains on until the engine is started.
- When the engine oil pressure is low.
  - Drive carefully to the nearest safe location and stop your vehicle.
  - Turn the engine off and check the engine oil level (For more details, refer to "Checking the engine oil level" on page 7-14). If the level is low, add oil as required.
  - If the warning light remains on after adding oil or if oil is not available, have the vehicle inspected by an authorized Kia dealer. Continued driving with the warning light on may cause engine failure.

**\* NOTICE**

When engine oil pressure decreases due to insufficient engine oil, etc., the Engine Oil Pressure warning light will appear.

**⚠ CAUTION**

**Engine Overheating**

Do not continue driving with the engine overheated. Otherwise the engine may be damaged.

**⚠ CAUTION**

**Engine damage**

If the engine is not stopped immediately after the engine oil pressure warning light is appeared and stays on while the engine is running, serious engine damage may result.

**Low Fuel Level Warning Light** 

**This warning light appears:**

When the fuel tank is nearly empty.

**If the fuel tank is nearly empty:**

Add fuel as soon as possible.

**⚠ CAUTION**

**Low Fuel Level**

Driving with the Low Fuel Level warning light on or with the fuel level below "E" can cause the engine to misfire and damage the catalytic converter. (if equipped)

**Low Tire Pressure Warning Light**



**This warning light appears:**

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
    - It appears for approximately 3 seconds and then goes off.
  - When one or more of your tires are significantly under inflated. (The location of the underinflated tires are displayed on the LCD display).
- \* For more details, refer to "Tire Pressure Monitoring System (TPMS)" on page 6-8.

**This warning light remains on after blinking for approximately 60 seconds or repeats blinking on and off at the intervals of approximately 3 seconds:**

- When there is a malfunction with the TPMS.

In this case, have your vehicle inspected by an authorized Kia dealer.

- \* For more details, refer to "Tire Pressure Monitoring System (TPMS)" on page 6-8.

**⚠ WARNING****Low tire pressure**

- Significantly low tire pressure makes the vehicle unstable and can contribute to loss of vehicle control and increased braking distances.
- Continued driving on low pressure tires will cause the tires to overheat and fail.

**⚠ WARNING****Safe Stopping**


- The TPMS cannot alert you to severe and sudden tire damage caused by external factors.
- If you notice any vehicle instability, immediately take your foot off the accelerator pedal, apply the brakes gradually with light force, and slowly move to a safe position off the road.

**Master Warning Light** **This warning light informs the driver the following situations**

- Forward Collision-Avoidance Assist malfunction (if equipped)
- Forward Collision-Avoidance Assist sensor blocked (if equipped)
- Blind-Spot Collision-Avoidance Assist malfunction (if equipped)
- Blind-Spot Collision-Avoidance Assist radar blocked (if equipped)
- LED headlamp malfunction (if equipped)
- Lamp malfunction
- High Beam Assist malfunction (if equipped)

- Smart Cruise Control malfunction (if equipped)
- Smart Cruise Control radar blocked (if equipped)

To identify the details of the warning, look at the LCD display.

**LED Headlamp Warning Light**** (if equipped)****This warning light appears:**

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It appears for approximately 3 seconds and then goes off.
- When there is a malfunction with the LED headlamp.

In this case, have your vehicle inspected by an authorized Kia dealer.

**This warning light blinks:**

- When there is a malfunction with a LED headlamp related part.

In this case, have your vehicle inspected by an authorized Kia dealer.

**⚠ CAUTION****LED Headlamp Warning Light**

Continuous driving with the LED Headlamp Warning Light on or blinking can reduce LED headlamp (low beam) life.

## Forward Safety Warning Light

 (if equipped)

### This indicator light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
    - It appears for approximately 3 seconds and then goes off.
  - When FCA is turned off.
  - When the radar sensor or cover is blocked with dirt or snow. Check the sensor and cover and clean them by using a soft cloth.
  - When there is a malfunction with FCA. If this occurs, have your vehicle inspected by an authorized Kia dealer.
- \* For more details, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

## Door Ajar Warning Light

### This warning light appears:

When a door is not closed securely.

## Liftgate Open Warning Light



### This warning light appears:

When the liftgate is not closed securely.

## Indicator lights

The indicator light indicates whether the various functions are activated.

## Electronic Stability Control (ESC)

Indicator Light 

### This indicator light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It appears for approximately 3 seconds and then goes off.
- When there is a malfunction with the ESC system. In this case, have your vehicle inspected by an authorized Kia dealer.

### This indicator light blinks:

While the ESC is operating.

\* For more details, refer to "Electronic Stability Control (ESC)" on page 5-28.

## Electronic Stability Control (ESC)

OFF Indicator Light 

### This indicator light appears:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
    - It appears for approximately 3 seconds and then goes off.
  - When you deactivate the ESC system by pressing the ESC OFF button.
- \* For more details, refer to "Electronic Stability Control (ESC)" on page 5-28.

## Immobilizer Indicator Light (Without Smart Key)

### This indicator light appears:

- When the vehicle detects the immobilizer in your key properly while the ignition switch is ON.
  - At this time, you can start the engine.
  - The indicator light goes off after starting the engine.

### This indicator light blinks:

When there is a malfunction with the immobilizer system.

In this case, have the vehicle inspected by an authorized Kia dealer.

## Immobilizer Indicator Light (With Smart Key)

### This indicator light appears for up to 30 seconds:

- When the vehicle detects the smart key in the vehicle properly while the ENGINE START/STOP button is ACC or ON.
  - At this time, you can start the engine.
  - The indicator light goes off after starting the engine.

### This indicator light blinks for a few seconds:

- When the smart key is not in the vehicle.
  - At this time, you cannot start the engine.

### This indicator light appears for 2 seconds and goes off:

- When the vehicle cannot detect the smart key which is in the vehicle while the ENGINE START/STOP button is ON.

In this case, have your vehicle inspected by an authorized Kia dealer.

### This indicator light blinks:

- When the battery of the smart key is weak.
- When there is a malfunction with the immobilizer system.

In this case, have your vehicle inspected by an authorized Kia dealer.

## Auto stop indicator (A)

This indicator will appear when the engine enters the Idle Stop mode of the ISG (Idle Stop and Go) system.

When the automatic starting occurs, the auto stop indicator on the cluster will blink for 5 seconds.

\* For more details, refer to "ISG (Idle Stop and Go) system" on page 5-34.

### \* NOTICE

When the engine automatically starts by the ISG system, warning lights (ABS, ESC, ESC OFF, EPS or Parking brake warning light) may turn on for a few seconds.

This happens because of the low battery voltage. It does not mean the system is malfunctioning.

**Turn Signal indicator Light** 

**This indicator light blinks:**

• When you turn the turn signal light on. If any of the following occurs, there may be a malfunction with the turn signal system.

In this case, have your vehicle inspected by an authorized Kia dealer.

- The indicator light does not blink but appears.
- The indicator light blinks more rapidly.
- The indicator light does not appear at all.

**Low Beam Indicator Light**  (if equipped)


**This indicator light appears:**

- When the headlights are on.

**High Beam Indicator Light** 

**This indicator light appears:**

- When the headlights are on and in the high beam position.
- When the turn signal lever is pulled into the Flash-to-Pass position.

**High Beam Assist indicator**  (if equipped)

**This warning light appears:**

- When the High-Beam is on with the light switch in the AUTO light position.
- If your vehicle detects oncoming or preceding vehicles, High Beam Assist will switch the high beam to low beam automatically.

\* For more details, refer to "High Beam Assist (HBA) (if equipped)" on page 4-73.

**Light ON Indicator Light** 


**This indicator light appears:**

- When the tail lights or headlights are on.

**Front Fog Indicator Light**  (if equipped)

**This indicator light appears:**

- When the front fog lights are on.

**Lane Safety indicator light**  (if equipped)

The Lane Safety indicator will appear when you turn Lane Keeping Assist on by pressing and holding the Lane Driving Assist button.

If there is a problem with the function, the yellow Lane Safety indicator will appear.

\* For more details, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-64.

**Cruise Indicator Light**  (if equipped)

**This indicator light appears:**

- When Cruise Control is enabled.

\* For more details, refer to "Cruise Control (CC) (if equipped)" on page 5-99.

## SPORT Mode Indicator Light



### This indicator light appears:

- When you select "SPORT" mode as drive mode.
- \* For more details, refer to "Cruise Control (CC) (if equipped)" on page 5-99.

## Lighting

This vehicle is equipped with a variety of lights to appear the interior and exterior of the vehicle.

### Battery saver function

The purpose of this feature is to prevent the battery from being discharged if the lights are left in the ON position. The system automatically shuts off the parking lights after the engine is off and the driver's door is opened.

However, the position lamps stay ON even when the driver-side door is opened if the light switch is operated after the engine is turned off.

If necessary, to keep the lamps on turn the position lamps OFF and ON again using the headlamp switch on the steering column after the engine is turned off.

### Headlight escort function

If you turn the ignition switch or ENGINE START/STOP button to the ACC or OFF position with the headlights ON, the headlights remain on for about 5 minutes.

However, if the driver's door is opened and closed, the headlights are turned off after 15 seconds.

The headlights can be turned off by pressing the lock button on the transmitter (or smart key) one more or turning the light switch to the OFF position.

### Daytime running light (if equipped)

The Daytime Running Lights (DRL) can make it easier for others to see the front of your vehicle during the day.

DRL can be helpful in many different driving conditions, and it is especially helpful after dawn and before sunset.

The DRL system will turn the dedicated lamp OFF when:

- The headlamps are ON.
- The taillamps are ON.
- The vehicle is turned OFF.
- The front fog lamps are ON.
- The parking brake is engaged.

### Lighting control

The light switch has a Headlight and a Parking light position.



To operate the lights, turn the knob at the end of the control lever to one of the following positions:

1. OFF position / DRL off position.
2. Auto light position
3. Parking & Tail light
4. Headlight position

### Parking Tail light



When the light switch is in the parking light position, the tail, license and instrument panel lights will turn ON.

### Headlight position



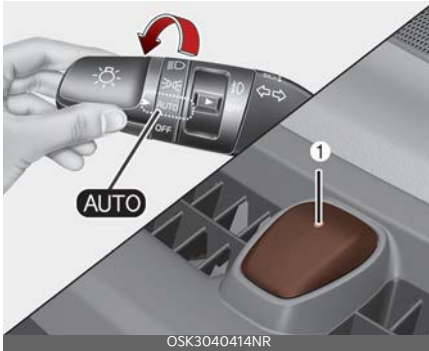
When the light switch is in the headlight position, the head, tail, license lights will turn ON.

#### \* NOTICE

The ignition switch or ENGINE START/ STOP button must be in the ON position to turn on the headlights.



## Auto light



When the light switch is in the AUTO light position, the taillights and headlights will turn ON or OFF automatically depending on the amount of light outside the vehicle.

### ⚠ CAUTION

- Never place anything over the sensor (1) located on the instrument panel, as this will ensure better auto-light system control.
- Do not clean the sensor using a window cleaner. The cleaner may leave a light film which could interfere with sensor operations.
- If your vehicle has window tint or other types of metallic coating on the front windshield, the auto light system may not work properly.

## Operating high beam



To turn on the high beam headlamp:

- Push the lever away from you. The lever will return to its original position.

The high beam indicator will light when the headlight high beams are switched on.

To prevent the battery from being discharged, do not leave the lights on for a prolonged time while the vehicle is off.

### ⚠ WARNING

#### High beams

Do not use high beam when there are other vehicles in front of or approaching your vehicle. Using high beam could obstruct the other driver's vision.

To flash the headlights:

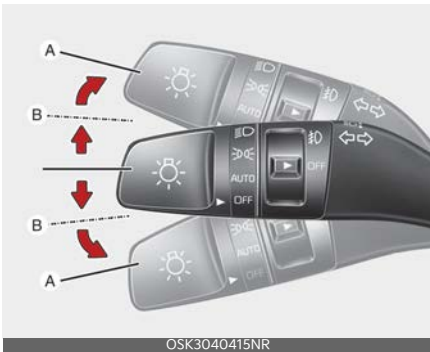
- Pull the lever towards you.



ODEEV068136NR

It will return to the normal (low beam) position when released. The headlight switch does not need to be on to use this flashing feature.

### Operating turn signals and lane change signals



OSK3040415NR

The ignition switch or ENGINE START/STOP button in the must be on for the turn signals to function.

To turn on the turn signals:

- Move the lever up or down (A).  
The green arrow indicators on the instrument panel indicate which turn signal is operating.  
They will self-cancel after a turn is completed. If the indicator continues to flash after a turn, manually return the lever to the OFF position.

To signal a lane change:

- Move the turn signal lever slightly and hold it in position (B).

The lever will return to the OFF position when released.

If an indicator stays on and does not flash or if it flashes abnormally, one of the turn signal bulbs may be burned out and will require replacement.

### \* NOTICE

If an indicator flash is abnormally quick or slow, a bulb may be burned out or have a poor electrical connection in the circuit.

### One-touch lane change function

To activate an one-touch lane change function, move the turn signal lever slightly and then release it. The lane change signals will blink 3 times.

### Operating front fog light (if equipped)

Fog lights are designed to provide improved visibility when visibility is poor due to fog, rain or snow, etc.



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The fog lights will turn on when the fog light switch (1) is turned to the on position after the headlight is turned on.

To turn off the fog lights:

- Turn the fog light switch (1) to the OFF position.

### High Beam Assist (HBA) (if equipped)

Type A



OSK3040209NR

Type B



OSK3040209L

High Beam Assist is a function that automatically adjusts the headlamp range (switches between high beam and low beam) depending on the brightness of detected vehicles and certain road conditions.

### Detecting sensor

Front view camera



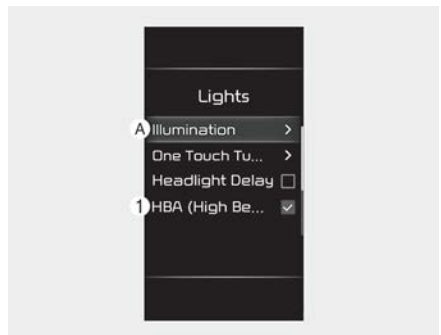
The front view camera is used as a detecting sensor to detect ambient light and brightness while driving. Refer to the picture above for the detailed location of the detecting sensor.

#### ⚠ CAUTION

Always keep the front view camera in good condition to maintain optimal performance of High Beam Assist.

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

### High Beam Assist Setting





## A: Vehicle Settings

### 1 Lights

### 2 HBA (High Beam Assist)

With the vehicle in the ON position, select **Settings** → **Vehicle** → **Lights** → **HBA (High Beam Assist)** on the infotainment system.

## ⚠ WARNING

For your safety, change the Settings after parking the vehicle at a safe location.

## High Beam Assist operation

- After selecting **HBA (High Beam Assist)** in the Settings menu, High Beam Assist will operate by following the procedure below.
  - Place the headlamp switch in the AUTO position and push the headlamp lever towards the instrument cluster. The High Beam Assist (HBA) indicator light will appear on the cluster and the function will be enabled.
  - When the function is enabled, high beam will turn on when vehicle speed is above 40 km/h (25 mph). When vehicle speed is below 25 km/h (15 mph), high beam will not turn on. The High Beam (HBA) indica-

tor light will appear on the cluster when high beam is on.

- When High Beam Assist is operating, if the headlamp lever or switch is used, the function operates as follow:
  - If the headlamp lever is pulled towards you when the high beam is off, the high beam will turn on. When you let go of the headlamp lever, High Beam Assist will turn on again.
  - If the headlamp lever is pulled towards you when the high beam is on, the low beam will turn on and High Beam Assist will be canceled.
  - If you push the light switch towards the instrument cluster, high beam is turned on and High Beam Assist is released.
  - If the headlamp switch is placed from AUTO to another position (headlamp/position/off), High Beam Assist will turn off and the corresponding lamp will turn on.
- When High Beam Assist is operating, high beam switches to low beam if any of the following conditions occur:
  - When the headlamp of an oncoming vehicle is detected.
  - When the tail lamp of a vehicle in front is detected.
  - When the headlamp or tail lamp of a motorcycle or a bicycle is detected.
  - When the surrounding ambient light is bright enough that high beams are not required.
  - When streetlights or other lights are detected.

### \* NOTICE

- Depending on the instrument cluster specifications or theme, images or colors may be displayed differently.

## High Beam Assist Malfunction and limitations

### High Beam Assist Malfunction



OSK3042489N

#### A: Check HBA (High Beam Assist) system

When High Beam Assist is not working properly, the warning message will appear and warning light (⚠) will appear on the cluster. Have your vehicle inspected by an authorized Kia dealer.

#### Limitations of High Beam Assist

- Light from a vehicle is not detected because of lamp damage, or because it is hidden from sight, etc.
- Headlamp of a vehicle is covered with dust, snow or water.
- A vehicle's headlamps are off but the fog lamps are on and etc.
- There is a lamp that has a similar shape as a vehicle's lamp.
- Headlamps have been damaged or not repaired properly.
- Headlamps are not aimed properly.

- Driving on a narrow curved road, rough road, uphill or downhill.
- Vehicle in front is partially visible on a crossroad or curved road.
- There is a traffic light, reflecting sign, flashing sign or mirror ahead.
- There is a temporary reflector or flash ahead (construction area).
- The road conditions are bad such as being wet, iced or covered with snow.
- A vehicle suddenly appears from a curve.
- The vehicle is tilted from a flat tire or is being towed.
- Light from a vehicle is not detected because of exhaust fume, smoke, fog, snow, etc.

### \* NOTICE

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

### ⚠ WARNING

- At times, High Beam Assist may not work properly. The function is for your convenience only. It is the responsibility of the driver for safe driving practices and always check the road conditions for your safety.
- When High Beam Assist does not operate normally, change the headlamp position manually between high beam and low beam.

## Wipers and washers

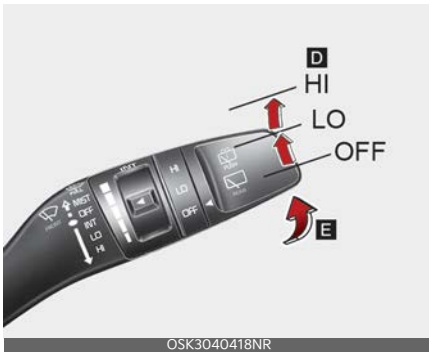
The wipers and washers remove foreign substances from the windshield and rear window, helping to maintain visibility.

Front windshield wiper/washer



OSK3040417NR

Rear windshield wiper/washer



OSK3040418NR

### A: Wiper speed control (front)

- MIST - Single wipe
- OFF - Off
- INT - Intermittent wipe
- LO - Low wiper speed
- HI - High wiper speed

### B: Intermittent control wipe time adjustment

### C: Wash with brief wipes (front)

### D: Rear wiper/washer control

- HI - Continuous wipe

- LO - Intermittent wipe
- OFF - Off

### E: Wash with brief wipes (rear)

## Windshield washers

Operates as follows when the ignition switch or ENGINE START/STOP button is turned ON.

**MIST:** For a single wiping cycle, move the lever to this (MIST) position and release it. The wipers will operate continuously if the lever is held in this position.

**OFF:** Wiper is not in operation

**INT:** Wiper operates intermittently at the same wiping intervals. Use this mode in light rain or mist. To vary the speed setting, turn the speed control switch.

**LO:** Normal wiper speed

**HI:** Fast wiper speed

### \* NOTICE

If there is heavy accumulation of snow or ice on the windshield, defrost the windshield for about 10 minutes, or until the snow and/or ice is removed before using the windshield wipers to ensure proper operation. If you do not remove the snow and/or ice before using the wiper and washer, it may damage the wiper and washer system.

## Auto control (if equipped)

Type A



The rain sensor (A) located on the upper end of the windshield glass senses the amount of rainfall and controls the wiping cycle for the proper interval. The more it rains, the faster the wiper operates. When the rain stops, the wiper stops.

To vary the speed setting, turn the speed control knob (1).

If the wiper switch is set in AUTO mode when the ignition switch is ON, the wiper will operate once to perform a self-check of the system. Set the wiper to OFF position when the wiper is not in use.

### CAUTION

When the ignition switch is ON and the windshield wiper switch is placed in the AUTO mode, use caution in the following situations to avoid any injury to the hands or other parts of the body:

- Do not touch the upper end of the windshield glass facing the rain sensor.
- Do not wipe the upper end of the windshield glass with a damp or wet cloth.

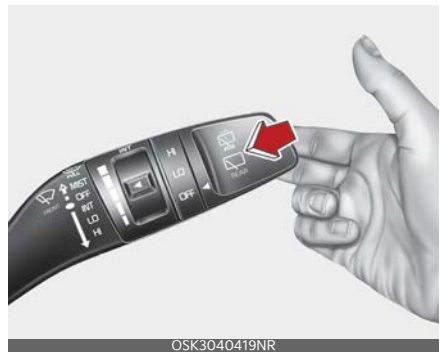
- Do not put pressure on the windshield glass.

### CAUTION

- When washing the vehicle, set the wiper switch in the OFF position to stop the auto wiper operation. The wiper may operate and be damaged if the switch is set in the AUTO mode while washing the vehicle.
- Do not remove the sensor cover located on the upper end of the passenger side windshield glass. Damage to system parts could occur and may not be covered by your vehicle warranty.
- When starting the vehicle in winter, set the wiper switch in the OFF position. Otherwise, wipers may operate and ice may damage the windshield wiper blades. Always remove all snow and ice and defrost the windshield properly prior to operating the windshield wipers.

## Operating windshield washer

Use this function when the windshield is dirty.



1. Move the wiper speed control switch to the OFF position.

2. Pull the lever gently toward you to spray washer fluid on the windshield and to run the wipers 1-3 cycles.

The spray and wiper operation will continue until you release the lever.

If the washer does not work, check the washer fluid level. If the fluid level is not sufficient, you will need to add appropriate non-abrasive windshield washer fluid to the washer reservoir.

The reservoir filler neck is located in the front of the motor compartment on the passenger side.

**CAUTION**

**Washer pump**

To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.

**WARNING**

**Obscured visibility**

Do not use the washer in freezing temperatures without first warming the windshield with the defrosters; the washer solution could freeze on the windshield and obscure your vision.

**CAUTION**

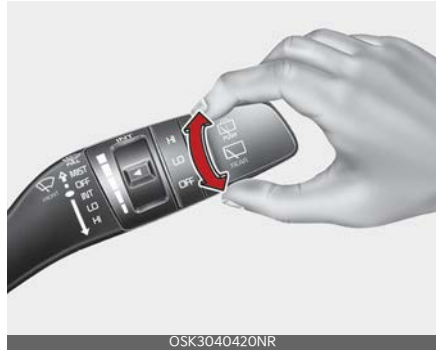
**Wipers & windshields**

- To prevent possible damage to the wipers or windshield, do not operate the wipers when the windshield is dry.
- To prevent damage to the wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.
- To prevent damage to the wiper arms and other components, do not attempt to move the wipers manually.

**Operating rear window wiper and washer switch**

The rear window wiper and washer switch is located at the end of the wiper and washer switch lever.

- Turn the switch to the desired position to operate the rear wiper and washer.



- HI: Continuous wipe
- LO: Intermittent wipe
- OFF: OFF
- Push the lever away from you to spray rear washer fluid and to run the rear wipers 1~3 cycles.



The spray and wiper operation will continue until you release the lever



## Heated washer nozzle (if equipped)

The heated washer nozzle function defreezes the washer nozzles in freezing weather.

The heated washer nozzle will turn on and off automatically when the ignition switch or ENGINE START/STOP button is in ON position or when the engine is running in following conditions:

- Turns ON when the outside temperature is below 5 °C, and OFF when it is over 10 °C.
- The washer fluid defreezing speed may be slower when the ignition switch or ENGINE START/STOP button is in ON position, than compared to when the engine is running.
- When the ignition switch or ENGINE START/STOP button is in ON position, after approximately 20 minutes of operation, the system will turn off automatically to prevent possible battery discharge.
- After the engine is running, the washer fluid will defrost approximately after 5~10 minutes.
- If the engine has been started within the operating temperature, the heated nozzle remains ON even approximately after 20 minutes.

### \* NOTICE

The heated washer nozzle may not function properly under following conditions:

- The washer fluid in the washer reservoir is frozen.
- Outside temperature sensor is malfunctioning.

## Interior lights

This vehicle is equipped with lights throughout the vehicle to appear the interior.

Do not use the interior lights for extended periods when the vehicle is off. It may cause battery discharge.

### ⚠ WARNING

#### Interior Lights

Do not use the interior lights when driving in the dark. Accidents could happen because the view may be obscured by interior lights.

#### Automatic turn off function (if equipped)

The interior lights automatically turn off approximately 20 minutes after the ignition switch or ENGINE START/STOP button is turned off, if the lights are in the ON position.

If your vehicle is equipped with the theft alarm system, the interior lights automatically turn off approximately 5 seconds after the system is armed.

#### Room lamp

Type A



ODEEV068148NR

Type B



- : The light stays on at all times.

**Map lamp**

Type A



Type B



- Press the lens (1) to turn ON the map lamp.  
To turn the map lamp OFF press the lens (1) again.
- (2): DOOR mode
  - The map lamp and room lamp come on when a door is opened. The lamps go out after approximately 30 seconds.
  - The map lamp and room lamp come on for approximately 30 seconds when doors are unlocked with a transmitter or smart key as long as the doors are not opened.
  - The map lamp and room lamp will stay on for approximately 20 minutes if a door is opened with the ignition switch or ENGINE START/STOP button in the ACC or LOCK/OFF position.
  - The map lamp and room lamp will stay on continuously if the door is opened with the ignition switch or ENGINE START/STOP button in the ON position.
  - The map lamp and room lamp will go out immediately if the ignition switch or ENGINE START/STOP button is changed to the ON position or all doors are locked.
  - To turn off the DOOR mode, press the DOOR button (2) once again (not pressed).

**\* NOTICE**  
The DOOR mode and ROOM mode cannot be selected at the same time.

**Front Room Lamp:**

- Type A

☞ (3): Press this switch to turn the front and rear room lamps on.

☹ (4): Press this switch to turn the front and rear room lamps off.

• Type B

☞☹ (3): Press this switch to turn the front and rear room lamps on and off.

### Liftgate room lamp

The liftgate room lamp comes on when the liftgate is opened.



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#### \* NOTICE

The liftgate lamp comes on as long as the liftgate lid is open. To prevent unnecessary charging system drain, close the liftgate lid securely after using the liftgate.

### Vanity mirror lamp (if equipped)



ODEEV068157NR

- Push the switch to turn the light on or off.
  - ☞: The lamp will turn on if this button is pressed.
  - ○: The lamp will turn off if this button is pressed.

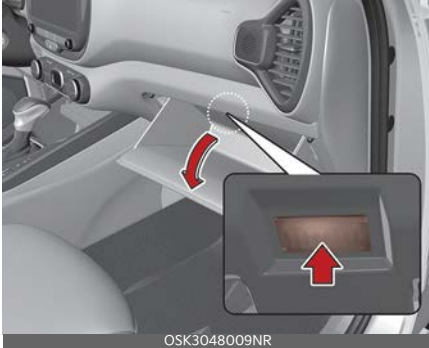
#### ⚠ CAUTION

### Vanity mirror lamp

Always have the switch in the off position when the vanity mirror lamp is not in use. If the sun visor is closed without the lamp off, it may discharge the battery or damage the sun visor.

### Glove box lamp (if equipped)

The glove box lamp comes on when the glove box is opened.



### ⚠ CAUTION

To prevent unnecessary charging system drain, close the glove box securely after using the glove box.

## Welcome system (if equipped)

The welcome system is a function that appears the surroundings or the interior when the driver approaches or exits the vehicle.

## Headlight (Headlamp) escort function

The headlights (and/or taillights) remain on for approximately 5 minutes after the vehicle is turned off. However, if the driver's door is opened and closed, the headlights are turned off after 15 seconds.

The headlights can be turned off by pressing the lock button on the transmitter or smart key twice or turning off the light switch from the headlight or Auto light position.

## Interior light

When the interior light switch is in the DOOR position and all doors (and lift-gate) are locked and closed, the room lamp will come on for 30 seconds if any of the following occurs:

- With the smart key system
  - When the door unlock button is pressed on the smart key.
  - When the button of the outside door handle is pressed.

At this time, if you press the door lock button, the lamps will turn off immediately.

## Defroster

The vehicle is equipped with a defroster for removing frost or fog from the rear window.

### ⚠ CAUTION

#### Conductors

To prevent damage to the conductors bonded to the inside surface of the rear window, never use sharp instruments or window cleaners containing abrasives to clean the window.

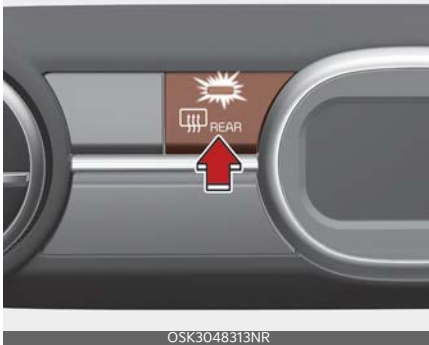
If you want to defrost and defog the front windshield, refer to "Windshield defrosting and defogging" on page 4-104.

#### Operating rear window defroster

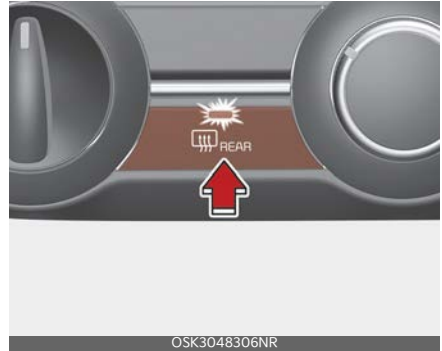
The defroster heats the window to remove frost, fog and thin ice from the rear window, while the vehicle is on.

If there is heavy accumulation of snow on the rear window, brush it off before operating the rear defroster.

Type A



Type B



To activate the rear window defroster:

- Press the rear window defroster button located in the center fascia switch panel.

The indicator on the rear window defroster button appears when the defroster is ON.

The rear window defroster automatically turns off after approximately 20 minutes or when the ignition switch or ENGINE START/STOP button is turned off.

To turn off the defroster:

- Press the rear window defroster button again.

#### Outside mirror defroster

If your vehicle is equipped with the outside rearview mirror defrosters, they will operate at the same time you turn on the rear window defroster.

### \* NOTICE

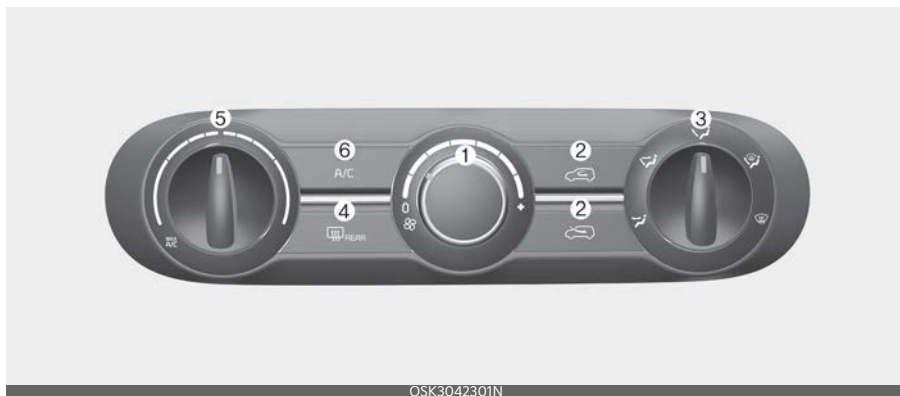
The rear window defroster may turn off in the below conditions.

- Engine temperature is less than 77 °F (25 °C) and the vehicle speed is from 1~10 km/h (1~6 mph) with the gear position in "D" or "R".

If the vehicle stops or the vehicle speed is over 10 km/h (6 mph) the rear window defroster turns on again.

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## Manual climate control system

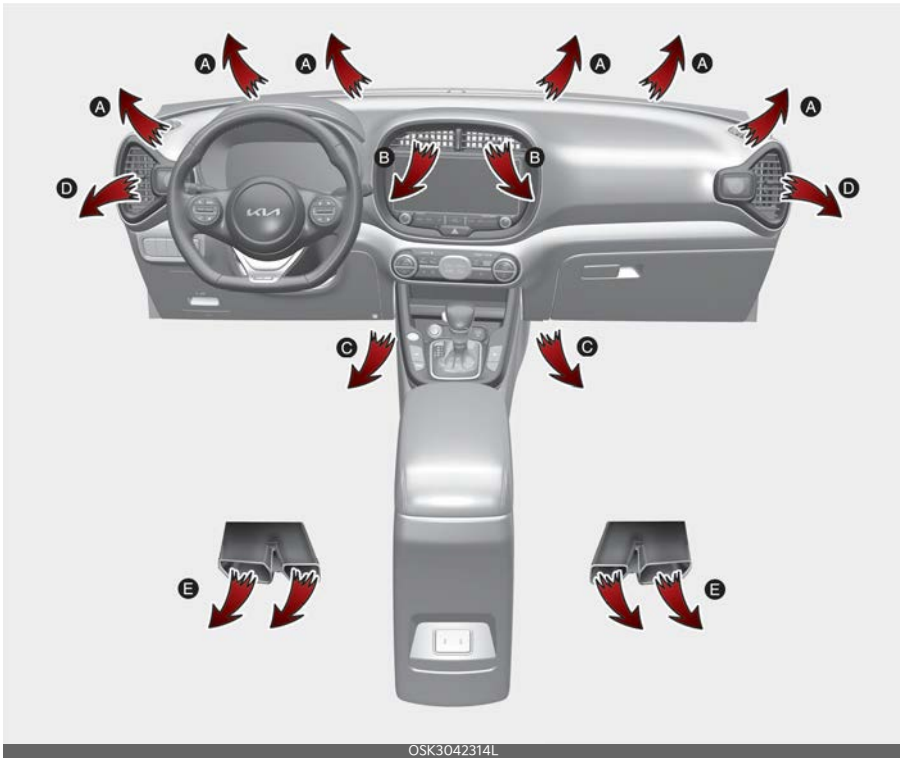




1. Fan speed control knob
2. Air intake control button
3. Mode selection knob
4. Rear window defroster button
5. Temperature control knob
6. Air conditioning button (if equipped)

### **CAUTION**

Operating the blower when the ignition switch is in the ON position could cause the battery to discharge. Operate the blower when the engine is running.

## Heating and air conditioning



1. Start the engine.
2. Set the mode to the desired position.
  - For improving the effectiveness of heating and cooling;
  - Heating: 
  - Cooling: 
3. Set the temperature control to the desired position.
4. Set the air intake control to the outside (fresh) air position.
5. Set the fan speed control to the desired speed.
6. If air conditioning is desired, turn the air conditioning (if equipped) system on.



## Mode selection

The mode selection knob controls the direction of the air flow through the ventilation system.



Air can be directed to the floor, dashboard outlets, or windshield. Five symbols are used to represent Face, Bi-Level, Floor, Floor-Defrost and Defrost air position.

### Face-Level (B, D)

Air flow is directed toward the upper body and face. Additionally, each outlet can be controlled to direct the air discharged from the outlet.

### Bi-Level (B, D, C, E)

Air flow is directed towards the face and the floor.

### Floor-Level (C, E, A, D)

Most of the air flow is directed to the floor, with a small amount of the air being directed to the windshield and side window defrosters.

### Floor/Defrost-Level (A, C, D, E)

Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters.

### Defrost-Level (A, D)

Most of the air flow is directed to the windshield with a small amount of air directed to the side window defrosters.

## Instrument panel vents

The outlet vents can be opened or closed separately using the thumbwheel. To close the vent, rotate it downward to the maximum position.



Also, you can adjust the direction of air delivery from these vents using the vent control lever as shown.

## Temperature control

The temperature control knob allows you to control the temperature of the air flowing from the ventilation system.



To change the air temperature in the passenger compartment, turn the knob to the right for warm and hot air or to the left for cooler air.

**\* NOTICE**

When starting the vehicle in cold weather a more efficient way to heat the passenger compartment is to do the following.

- Turn off or lower the blower, right after starting the engine.
- Engine temperature is still low and the air flow from the heater is still cold.
- After a few minutes of engine warm up, turn on or set the fan to a higher level and with adjust the temperature setting to hot.

**MAX A/C selection**

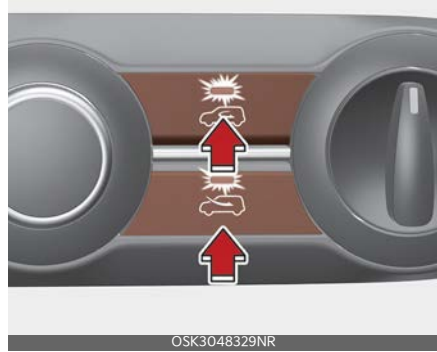
To operate the MAX A/C, turn the temperature knob to extreme left. Air flow is directed toward the upper body and face.



In this mode, the air conditioning and the recirculated air position will be selected automatically.

**Controlling air intake**

The air intake control is used to select the outside (fresh) air position or recirculated air position.



To change the air intake control position.

- Push the control button

**Recirculated air position**



With the recirculated air position selected, air from the passenger compartment will be drawn through the heating system and heated or cooled according to the function selected.

**Outside (fresh) air position**



With the outside (fresh) air position selected, air enters the vehicle from outside and is heated or cooled according to the function selected.

**\* NOTICE**

Prolonged operation of the heater in the recirculated air position (without air conditioning selected) may cause fogging of the windshield and side windows and the air within the passenger compartment may become stale.

In addition, prolonged use of the air conditioning with the recirculated air posi-

tion selected will result in excessively dry air in the passenger compartment.

### **WARNING**

- Continued use of the climate control system in the recirculated air position may allow humidity to increase inside the vehicle which may fog the glass and obscure visibility.
- Do not sleep in a vehicle with the air conditioning or heating system on. It may cause serious harm or death due to a drop in the oxygen level and/or body temperature.
- Continue using the climate control system in the recirculated air position can cause drowsiness or sleepiness, and loss of vehicle control. Set the air intake control to the outside (fresh) air position as much as possible while driving.

### **Controlling fan speed**

The fan speed control knob allows you to control the fan speed of the air flowing from the ventilation system.

The ignition switch must be in the ON position for fan operation.

To change the fan speed:

- Turn the knob to the right for higher speed or left for lower speed.



- Setting the fan speed control knob to the "0" position turns off the fan.

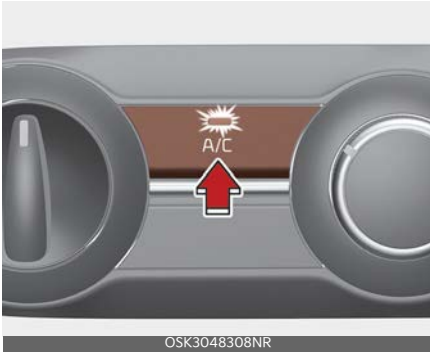
### **Turning off the blowers**

To turn off the blowers:

- Turn the fan speed control knob to the "0" position.




## Air conditioning (A/C)




- Press the A/C button to turn the air conditioning system on (indicator light will illuminate).
- Press the button again to turn the air conditioning system off.

## System operation

### Ventilation

1. Set the mode to the  position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.

### Heating

1. Set the mode to the  position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.
5. If dehumidified heating is desired, turn the air conditioning system (if equipped) on.


- If the windshield fogs up, set the mode to the  or  position.

## Operation Tips

- To keep dust or unpleasant fumes from entering the vehicle through the ventilation system, temporarily set the air intake control to the recirculated air position. Be sure to return the control to the fresh air position when the irritation has passed to keep fresh air in the vehicle. This will help keep the driver alert and comfortable.
- Air for the heating/cooling system is drawn in through the grilles just ahead of the windshield. Care should be taken that these are not blocked by leaves, snow, ice or other obstructions.
- To prevent interior fog on the windshield, set the air intake control to the fresh air position and fan speed to the desired position, turn on the air conditioning system, and adjust the temperature control to desired temperature.

## Air conditioning

Kia Air Conditioning Systems are filled with environmentally friendly refrigerant\*.

1. Start the engine. Push the air conditioning button.
2. Set the mode to the  position.
3. Set the air intake control to the outside air or recirculated air position.
4. Adjust the fan speed control and temperature control to maintain maximum comfort.

\*: Your vehicle is filled with R-134a or R-1234yf according to the regulation in

your country at the time of producing. You can find out which air conditioning refrigerant is applied your vehicle at the label inside of engine room.

### **⚠ CAUTION**

- The refrigerant system should only be serviced by trained and certified technicians to insure proper and safe operation.
- The refrigerant system should be serviced in a well-ventilated place.
- The air conditioning evaporator (cooling coil) shall never be repaired or replaced with one removed from a used or salvaged vehicle and new replacement MAC evaporators shall be certified (and labeled) as meeting SAE Standard J2842.

### **\* NOTICE**

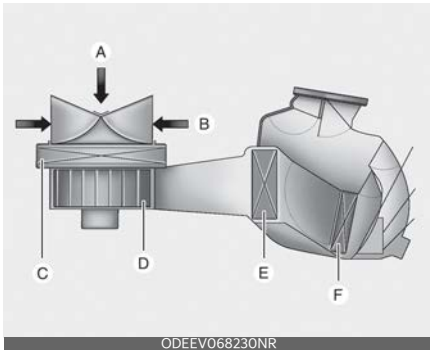
- When using the air conditioning system, monitor the temperature gauge closely while driving up hills or in heavy traffic when outside temperatures are high. Air conditioning system operation may cause engine overheating. Continue to use the blower fan but turn the air conditioning system off if the temperature gauge indicates engine overheating.
- When opening the windows in humid weather air conditioning may create water droplets inside the vehicle. Since excessive water droplets may cause damage to electrical equipment, air conditioning should only be used with the windows closed.

### **Air conditioning system operation tips**

- If the vehicle has been parked in direct sunlight during hot weather, open the windows for a short time to let the hot air inside the vehicle escape.
- To help reduce moisture inside of the windows on rainy or humid days, decrease the humidity inside the vehicle by operating the air conditioning system.
- During air conditioning system operation, you may occasionally notice a slight change in engine speed as the air conditioning compressor cycles. This is a normal system operation characteristic.
- Use the air conditioning system every month only for a few minutes to ensure maximum system performance.
- When using the air conditioning system, you may notice clear water dripping (or even puddling) on the ground under the passenger side of the vehicle. This is a normal system operation characteristic.
- Operating the air conditioning system in the recirculated air position provides maximum cooling, however, continual operation in this mode may cause the air inside the vehicle to become stale.
- During cooling operation, you may occasionally notice a misty air flow because of rapid cooling and humid air intake. This is a normal system operation characteristic.

### Climate control air filter (if equipped)

The climate control air filter installed behind the glove box filters the dust or other pollutants that come into the vehicle from the outside through the heating and air conditioning system.



- A: Outside air
- B: Recirculated air
- C: Climate control air filter
- D: Blower
- E: Evaporator core
- F: Heater core

If dust or other pollutants accumulate in the filter over a period of time, the air flow from the air vents may decrease, resulting in moisture accumulation on the inside of the windshield even when the outside (fresh) air position is selected. If this happens, have the climate control air filter replaced by an authorized Kia dealer.

#### \* NOTICE

- Replace the filter according to the Maintenance Schedule.  
If the vehicle is being driven in severe conditions such as dusty or rough roads, more frequent air conditioner filter inspections and changes are required.

- When the air flow rate suddenly decreases, have the system checked by an authorized Kia dealer.

### Checking the amount of air conditioner refrigerant and compressor lubricant

When the amount of refrigerant is low, the performance of the air conditioning is reduced. Overfilling also has a negative impact on the air conditioning system.

Therefore, if abnormal operation is found, have the system inspected by an authorized Kia dealer.

#### ⚠ WARNING

The oil and refrigerant in your vehicle's air conditioning system is under very high pressure. If proper service procedures are not followed an explosion may result. To reduce the risk of serious injury or death, the air conditioning system in your vehicle should only be serviced by trained and certified technicians.

#### ⚠ CAUTION

It is important that the correct type and amount of oil and refrigerant is used, otherwise damage to the vehicle may occur. To prevent damage, the air conditioning system in your vehicle should only be serviced by trained and certified technicians.

#### ⚠ WARNING

#### Vehicles equipped with R-1234yf



Since the refrigerant is mildly inflammable and operated at high pressure, the air conditioning system should

only be serviced by trained and certified technicians. (Refer to the SAE J2845)

It is important that the correct type and amount of oil and refrigerant are used.

All refrigerants should be reclaimed with proper equipment. Venting refrigerants directly to the atmosphere is harmful to individuals and environment.

Failure to heed these warnings can lead to serious injuries.

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## Automatic climate control system



1. Driver's temperature control knob
2. AUTO (automatic control) button
3. Front windshield defroster button
4. Rear window defroster button
5. Air conditioning button
6. Air intake control button
7. Blower OFF button
8. Fan speed control button
9. Mode selection button
10. Passenger's temperature control knob
11. SYNC button
12. A/C display

### \* NOTICE

Operating the blower when the ignition switch is in the ON position could cause the battery to discharge. Operate the blower when the engine is running.



## Heating and air conditioning automatically

1. Press the AUTO button.

The modes, fan speeds, air intake and air-conditioning will be controlled automatically by setting the temperature.



OSK3048316NR

2. Turn the temperature control switch to the desired temperature.



OSK3048317NR

will illuminate on the information display once again.)

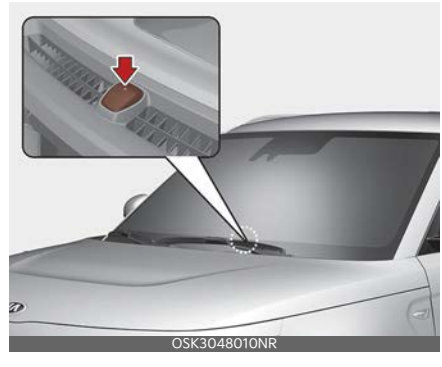
- Air intake control button
- Fan speed control switch

The selected function will be controlled manually while other functions operate automatically.

- For your convenience and to improve the effectiveness of the climate control, use the AUTO button and set the temperature to 72 °F (22 °C).

### \* NOTICE

Do not place anything over the sensor located on the instrument panel to ensure better control of the heating and cooling system.

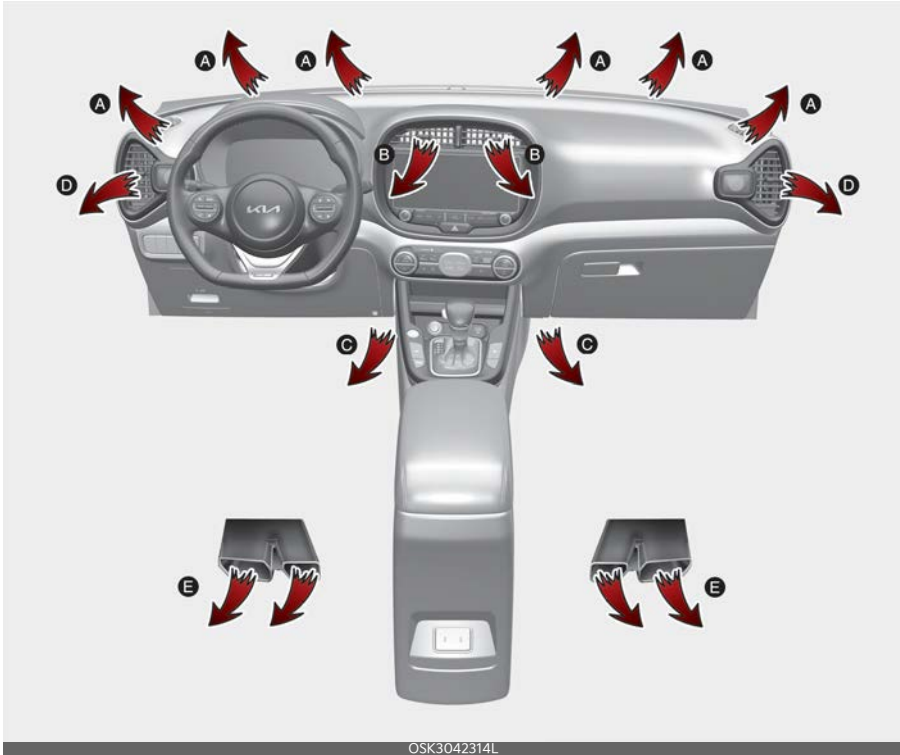


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- To turn the automatic operation off, select any button or switch of the following:
  - Mode selection button
  - Air conditioning button
  - Front windshield defroster button (Press the button one more time to deselect the front windshield defroster function. The 'AUTO' sign

### Manual heating and air conditioning

The heating and cooling system can be controlled manually by pressing buttons or turning knob(s) other than the AUTO button.



In this case, the system works sequentially according to the order of buttons or knob(s) selected.

1. Start the vehicle.
2. Set the mode to the desired position.  
For improving the effectiveness of heating and cooling;
  - Heating:
  - Cooling:
3. Set the temperature control to the desired position.
4. Set the air intake control to the outside (fresh) air position.
5. Set the fan speed control to the desired speed.

If air conditioning is desired, turn the air conditioning system on.  
Press the AUTO button in order to convert to full automatic control of the system.

## Mode selection

The mode selection button controls the direction of the air flow through the ventilation system.



OSK3048318NR

The air flow outlet port is converted as follows:



### Face-Level (B, D)

Air flow is directed toward the upper body and face. Additionally, each outlet can be controlled to direct the air discharged from the outlet.

### Bi-Level (B, C, D, E)

Air flow is directed towards the face and the floor.

### Floor-Level (A, C, D, E)

Most of the air flow is directed to the floor, with a small amount of the air being directed to the windshield and side window defrosters.

### Floor/Defrost-Level (A, C, D, E)

Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters.

## Defrost-Level (A, D)



OSK3048319NR

Most of the air flow is directed to the windshield with a small amount of air directed to the side window defrosters.

4

## Instrument panel vents



OSK3041315N

The outlet vents can be opened or closed separately using the thumb-wheel. (if equipped)

Also, you can adjust the direction of air delivery from these vents using the vent control lever as shown.

## Temperature control



The temperature will increase to the maximum (82 °F (28 °C)) by turning the knob to the extreme right.

The temperature will decrease to the minimum (62 °F (17 °C)) by turning the knob to the extreme left.

When turning the knob, the temperature will increase or decrease by 1 °F / 0.5 °C. When set to the lowest temperature setting, the air conditioning will operate continuously.

### \* NOTICE

When starting the vehicle in cold weather using manual temperature control, operate the system in the following method to improve heating.

- Turn off or lower the blower, right after starting the engine.
- Allow the engine to warm up during this time since the air flow from the heater is still cold.
- After a few minutes of engine warm up, turn on or set the fan to a higher level and adjust the temperature setting to hot.

## Adjusting the driver and passenger side temperature equally



- Press the "SYNC" button to adjust the driver and passenger side temperature equally. The passenger side temperature will be set to the same temperature as the driver side temperature.
- Turn the driver side temperature control knob. The driver and passenger side temperature will be adjusted equally.

## Adjusting the driver and passenger side temperature individually

- Press the "SYNC" button again to adjust the driver and passenger side temperature individually. The illumination of button turns off.
- Operate the driver side temperature control knob to adjust the driver side temperature.
- Operate the passenger side temperature control knob to adjust the passenger side temperature.

## Temperature conversion

You can switch the temperature mode from Centigrade to Fahrenheit as follows:

While pressing the OFF button, press the AUTO button for 3 seconds or more. The display will change from Centigrade to Fahrenheit, or from Fahrenheit to Centigrade. If the battery has been discharged or disconnected, the temperature mode display will reset to Fahrenheit.

### Controlling air intake

This is used to select the outside (fresh) air position or recirculated air position.



To change the air intake control position:

- Push the control button.

### Outside (fresh) air position



With the outside (fresh) air position selected, air enters the vehicle from outside and is heated or cooled according to the function selected.

### Recirculated air position



With the recirculated air position selected, air from the passenger compartment will be drawn through the heating system and heated or cooled according to the function selected.

Prolonged operation of the heater in the recirculated air position (without air con-

ditioning selected) may cause fogging of the windshield and side windows and the air within the passenger compartment may become stale.

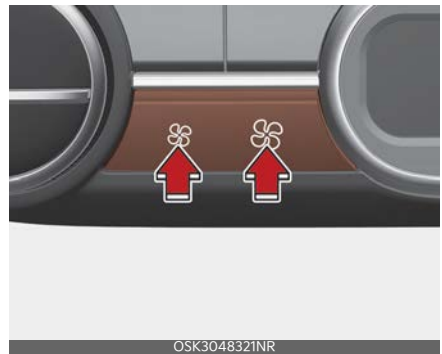
In addition, prolonged use of the air conditioning with the recirculated air position selected will result in excessively dry air in the passenger compartment.

### Controlling fan speed

The fan speed can be set to the desired speed by operating the fan speed control button.

To change the fan speed:

- Press button right for higher speed, or press button left for lower speed.



- To turn the fan speed control off, press the front blower OFF button.

### Air conditioning



- Press the A/C button to turn the air conditioning system on (indicator light will illuminate).
- Press the button again to turn the air conditioning system off.

**⚠ WARNING**

**Reduced Visibility**

Continuous use of the climate control system in the recirculated air position may allow humidity to increase inside the vehicle, which may fog the glass and obscure visibility.

**⚠ WARNING**

**Recirculated Air**

Continued use of the climate control system in the recirculated air position can cause drowsiness or sleepiness, and loss of vehicle control. Set the air intake control to the outside (fresh) air position as much as possible while driving.

**⚠ WARNING**

**Sleeping with A/C on**

Do not sleep in a vehicle with the air conditioning or heating on, as this may cause serious harm or death due to a drop in the oxygen level and/or body temperature.

**Turning off the front air climate control**




- Press the front blower OFF button to turn off the front air climate control system. However, you can still operate the mode and air intake buttons as long as the ignition switch or ENGINE START/STOP button is in the ON position.

**Automatic ventilation**

The system automatically selects the outside (fresh) air position when the climate control system operates over a certain period of time (5 minutes) in low temperature with the recirculated air position selected.

**To cancel or reset the Automatic Ventilation**

When the air conditioning system is on, select Face Level  mode and press the recirculated air position more than five times within 3 seconds while pressing A/C button.

When the automatic ventilation is canceled, the indicator blinks 3 times. When the automatic ventilation is activated, the indicator blinks 6 times.

## Scheduled Ventilation Control

The Scheduled Ventilation Control releases hot air in the vehicle to lower cabin temperature before getting in the vehicle.


Depending on the outside ambient temperature, the blower is operated for 5 to 15 minutes while the vehicle is parked.

## Turning Schedule Ventilation Control On or Off


The Schedule Ventilation Control can be turned on and off by selecting 'Setup → Vehicle → Automatic Ventilation → Scheduled Ventilation Control' from the infotainment system screen. Also, the starting time can be set within 24 hours. Schedule Ventilation Control operates only once when the feature is set.



## System operation

### Ventilation

1. Set the mode to the  position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.

### Heating

1. Set the mode to the  position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.


5. If dehumidified heating is desired, turn the air conditioning system (if equipped) on.
  - If the windshield fogs up, set the mode to the  or  position.

## Operation Tips

- To keep dust or unpleasant fumes from entering the vehicle through the ventilation system, temporarily set the air intake control to the recirculated air position. Be sure to return the control to the fresh air position when the irritation has passed to keep fresh air in the vehicle. This will help keep the driver alert and comfortable.
- Air for the heating/cooling system is drawn in through the grilles just ahead of the windshield. Care should be taken that these are not blocked by leaves, snow, ice or other obstructions.
- To prevent interior fog on the windshield, set the air intake control to the fresh air position and fan speed to the desired position, turn on the air conditioning system, and adjust the temperature control to desired temperature.

## Air conditioning (if equipped)

All Kia Air Conditioning Systems are filled with R-1234yf refrigerant.

1. Start the vehicle. Press the air conditioning button.
2. Set the mode to the  position.
3. Set the air intake control to the outside-air or recirculated air position.
4. Adjust the fan speed control and temperature control to maintain maximum comfort.

- When maximum cooling is desired, set the temperature control to the extreme left position, set the mode control to the MAX A/C position, then set the fan speed control to the highest speed.

### **⚠ CAUTION**

#### **Excessive A/C Use**

When using the air conditioning system, monitor the temperature gauge closely while driving up hills or in heavy traffic when outside temperatures are high. Air conditioning system operation may cause vehicle overheating. Continue to use the blower fan but turn the air conditioning system off if the temperature gauge indicates vehicle overheating.

### **⚠ CAUTION**

- The refrigerant system should only be serviced by trained and certified technicians to insure proper and safe operation.
- The refrigerant system should be serviced in a well-ventilated place.
- The air conditioning evaporator (cooling coil) shall never be repaired or replaced with one removed from a used or salvaged vehicle and new replacement MAC evaporators shall be certified (and labeled) as meeting SAE Standard J2842.

### **⚠ CAUTION**

When opening the windows in humid weather, air conditioning may create water droplets inside the vehicle. Since excessive water droplets may cause damage to electrical equipment, air conditioning should only be used with the windows closed.

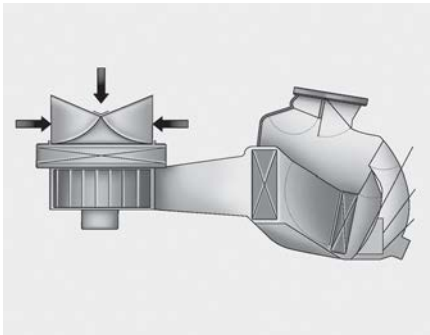
## **Air conditioning system operation tips**

- If the vehicle has been parked in direct sunlight during hot weather, open the windows for a short time to let the hot air inside the vehicle escape.
- To help reduce moisture inside of the windows on rainy or humid days, decrease the humidity inside the vehicle by operating the air conditioning system.
- During air conditioning system operation, you may occasionally notice a slight change in vehicle speed as the air conditioning compressor cycles. This is a normal system operation characteristic.
- Use the air conditioning system every month only for a few minutes to ensure maximum system performance.
- When using the air conditioning system, you may notice clear water dripping (or even puddling) on the ground under the passenger side of the vehicle. This is a normal system operation characteristic.
- Operating the air conditioning system in the recirculated air position provides maximum cooling; however, continual operation in this mode may cause the air inside the vehicle to become stale.
- During cooling operation, you may occasionally notice a misty air flow because of rapid cooling and humid air intake. This is a normal system operation characteristic.



## Climate control air filter (if equipped)

The climate control air filter installed behind the glove box filters the dust or other pollutants that come into the vehicle from the outside through the heating and air conditioning system.



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If dust or other pollutants accumulate in the filter over a period of time, the air flow from the air vents may decrease, resulting in moisture accumulation on the inside of the windshield even when the outside (fresh) air position is selected. If this happens, have the climate control air filter replaced by an authorized Kia dealer.

### \* NOTICE

- Replace the filter according to the Maintenance Schedule. If the vehicle is being driven in severe conditions, such as dusty or rough roads, more frequent air conditioner filter inspections and changes are required.
- When the air flow rate suddenly decreases, the system should be checked at an authorized Kia dealer.

## Checking the amount of air conditioner refrigerant and compressor lubricant

When the amount of refrigerant is low, the performance of the air conditioning is reduced. Overfilling also has a negative impact on the air conditioning system.

Therefore, if abnormal operation is found, have the system inspected by an authorized Kia dealer.

### ⚠ WARNING

The oil and refrigerant in your vehicle's air conditioning system is under very high pressure. If proper service procedures are not followed an explosion may result. To reduce the risk of serious injury or death, the air conditioning system in your vehicle should only be serviced by trained and certified technicians.

### ⚠ CAUTION

It is important that the correct type and amount of oil and refrigerant is used, otherwise damage to the vehicle may occur. To prevent damage, the air conditioning system in your vehicle should only be serviced by trained and certified technicians.

### ⚠ WARNING

#### Vehicles equipped with R-1234yf



Since the refrigerant is mildly inflammable and operated at high pressure, the air conditioning system should only be serviced by trained and certified technicians. (Refer to the SAE J2845)

It is important that the correct type and amount of oil and refrigerant are used.

All refrigerants should be reclaimed with proper equipment. Venting refrigerants directly to the atmosphere is harmful to individuals and environment.




Failure to heed these warnings can lead to serious injuries.

## Windshield defrosting and defogging

When the windshield is covered with frost or moisture, the front view is blurred, you should remove the frost and moisture.

### **WARNING**

#### Windshield heating

Do not use the  or  position during cooling operation in extremely humid weather. The difference between the temperature of the outside air and the windshield could cause the outer surface of the windshield to fog up, causing loss of visibility. In this case, set the mode selection to the  position and fan speed control to the lower speed.

- For maximum defrosting, set the temperature control to the extreme right/hot position and the fan speed control to the highest speed.
- If warm air to the floor is desired while defrosting or defogging, set the mode to the floor-defrost position.
- Before driving, clear all snow and ice from the windshield, rear window, outside rear view mirrors, and all side windows.
- Clear all snow and ice from the hood and air inlet in the cowl grill to improve heater and defroster efficiency and to reduce the probability of fogging up the inside of the windshield.

#### Manual climate control system

You can defog or defrost using the manual climate control system.

### To defog inside windshield



1. Select any fan speed except "0" position.
2. Select desired temperature.
3. Select the or position.
4. The outside (fresh) air and air conditioning will be selected automatically. If the air conditioning and outside (fresh) air position are not selected automatically, press the corresponding button manually.

### To defrost outside windshield



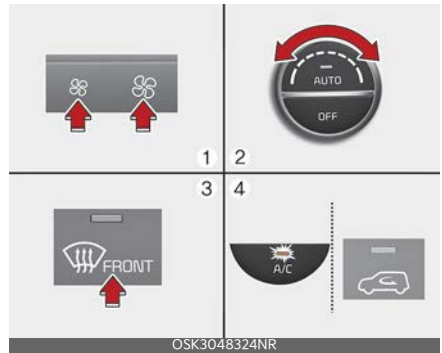
1. Set the fan speed to the highest (extreme right) position.
2. Set the temperature to the extreme hot position.

3. Select the position.
4. The outside (fresh) air and air conditioning will be selected automatically.

### Automatic climate control system

You can defog or defrost using the automatic climate control system.

### Defogging inside windshield with the automatic climate control



1. Set the fan speed to the desired position.
2. Select desired temperature.
3. Press the defroster button ().
4. The outside (fresh) air position will be selected automatically and the air conditioning will turn on according to the detected ambient temperature. If the air conditioning and outside (fresh) air position are not selected automatically, adjust the corresponding button manually. If the position is selected, lower fan speed is adjusted to a higher fan speed.

### Defrosting outside windshield with automatic climate control



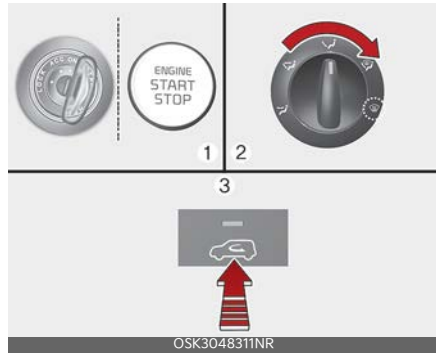
1. Set the fan speed to the highest position.
2. Set the temperature to the extreme hot (HI) position.
3. Press the defroster button (🌬️).
4. The outside (fresh) air position will be selected automatically and the air conditioning will turn on according to the detected ambient temperature.

### Defogging logic (if equipped)

To reduce the possibility of fogging up the inside of the windshield, the air intake or air conditioning is controlled automatically according to certain conditions such as 🌬️ or 🌬️ position.

To cancel automatic defogging logic or return to the automatic defogging logic, do the following.

### Manual climate control system

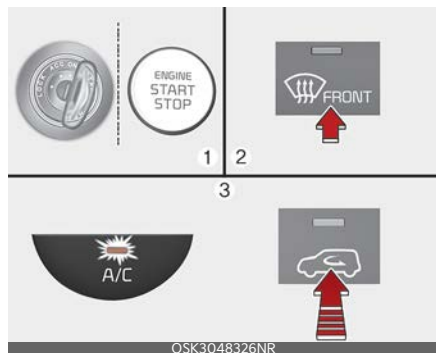



1. Turn the ignition switch to the ON position.
2. Turn the mode selection knob to the defrost position (🌬️).
3. Push the air intake control button at least 5 times within 3 seconds.

The indicator light in the air intake control button will blink 3 times. It indicates that the defogging logic is canceled or returned to the programmed status.

If the battery has been discharged or disconnected, it resets to the defog logic status.

### Turning the defogging logic on or off



1. Turn the ignition switch or ENGINE START/STOP button to the ON position.
2. Press the defroster button (  ).
3. While pressing the air conditioning button (A/C), press the air intake control button at least 5 times within 3 seconds.

The recirculation indicator blinks 3 times in 0.5 second of intervals. It indicates that the defogging logic is canceled or returned to the programmed status.

If the battery has been discharged or disconnected, it resets to the defog logic status.

## Storage compartment

These compartments can be used to store small items required by the driver or passengers.

- To avoid possible theft, do not leave valuables in the storage compartment.
- Always keep the storage compartment covers closed while driving. Do not attempt to place so many items in the storage compartment that the storage compartment cover cannot close securely.

### WARNING

#### Flammable materials

Do not store glasses, gas lighter, portable battery, canned beverage, spray can, propane cylinder, cosmetic tube or other flammable/explosive materials in the vehicle. These items may catch fire and/or explode if the vehicle is exposed to hot temperatures for extended periods.

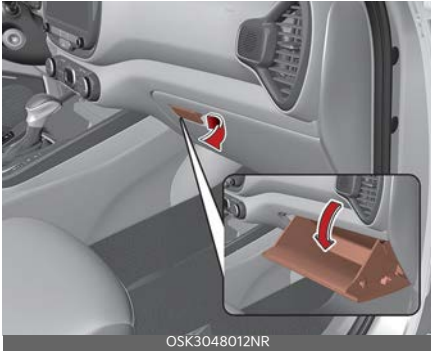
## Center console storage



To open the center console storage:

- Pull up the lever.

### Glove box



To open the glove box:

- Pull the handle and the glove box will automatically open.

Close the glove box after use.

#### **⚠ WARNING**

### Glove Box

To reduce the risk of injury in an accident or sudden stop, always keep the glove box door closed while driving.

#### **\* NOTICE**

If the temperature control switch is in the warm or hot position, warm or hot air will flow into the glove box.

### Sunglass holder



To open the sunglasses holder:

- Press the cover and the holder will slowly open.

Place your sunglasses with the lenses facing out. To close the sunglasses holder push it up.

#### **⚠ WARNING**

### Sunglass holder

- Do not keep objects except sunglasses inside the sunglasses holder. Such objects can be thrown from the holder in the event of a sudden stop or an accident, possibly injuring the passengers in the vehicle.
- Do not open the sunglasses holder while the vehicle is moving. The rear view mirror of the vehicle can be blocked by an opened sunglasses holder.

### Luggage net holder (if equipped)



To keep items from shifting in the cargo area, you can use the 4 holders located in the cargo area to attach the luggage net.

If necessary, Contact an authorized Kia dealer.

#### **⚠ CAUTION**

To prevent damage to the goods or the vehicle, be careful when carrying fragile

or bulky objects in the luggage compartment.

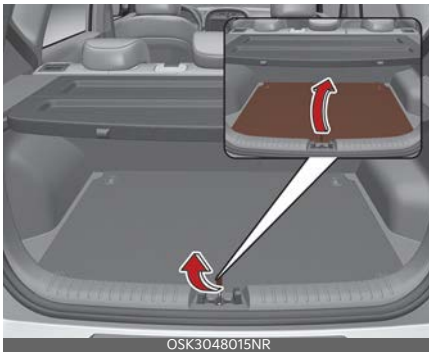
**⚠ WARNING**

Avoid eye injury. DO NOT overstretch the luggage net, ALWAYS keep your face and body out of the luggage net's recoil path. DO NOT use when the strap has visible signs of wear or damage.

**Increase cargo space (if equipped)**

If you want to increase cargo space,

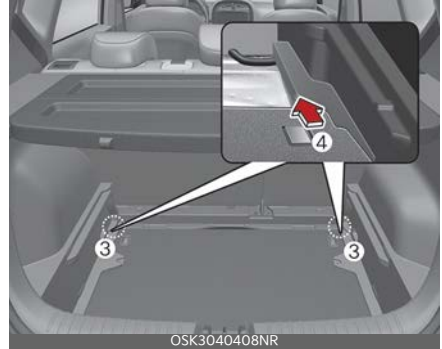
1. Grasp the handle on the top of the cover and lift it



2. Fold the rear part of the luggage board frontward



3. Pull the luggage board hinge to the end of upper side sliding slot and it will fall down lower to increase cargo space.



4. Slide it frontward (refer to the above pictures)

4

## Interior features

There are various features inside the vehicle for the convenience of the occupants.

### Cup holder

The front and rear seats of the vehicle have cup holders to accommodate cups.

#### **⚠ WARNING**

#### Hot liquids

Do not place uncovered cups with hot liquid in the cup holder while the vehicle is in motion. If the hot liquid spills, you may burn yourself. Such a burn to the driver could lead to loss of control of the vehicle.

#### **⚠ CAUTION**

- Keep your drinks sealed while driving to prevent spilling your drink. If liquid spills, it may get into the vehicle's electrical/electronic system and damage electrical/electronic parts.
- When cleaning spilled liquids, do not use heat to dry the cup holders. This may damage the cup holder.

Front



Center (if equipped)



Cups or small beverage cans may be placed in the cup holders.

### Seat warmer (if equipped)

The seat warmer is provided to warm the front seats during cold weather.

Front seat (Type A)





Front seat (Type B)



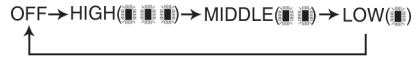
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Rear seat

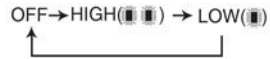


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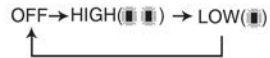
Front seat (Type A)



Front seat (Type B)



Rear seat

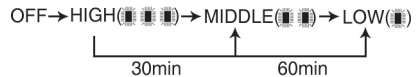


The seat warmer defaults to the OFF position whenever the ignition switch or ENGINE START/STOP button is turned on.

**Temperature control (Automatic)**

The seat warmer starts to automatically control the seat temperature in order to prevent low-temperature burns after being manually turned ON.

Front seat



You may manually press the button to increase the seat temperature. However, it soon returns to the automatic mode again. When pressing the buttons for more than 1.5 seconds with the seat warmer operating, the seat warmer will turn OFF. The seat warmer defaults to the OFF position whenever the ignition switch or ENGINE START/STOP button is in the ON position.

With the ignition switch or ENGINE START/STOP button in the ON position:

- Push either of the buttons to warm the front and rear seats.

During mild weather or under conditions where the operation of the seat warmer is not needed, keep the switches in the "OFF" position.

**Temperature control (Manual)**

Each time you press the buttons, the temperature setting of the seat will change as follows:

**\* NOTICE**

With the seat warmer buttons in the ON position, the heating system in the seat turns off or on automatically depending on the seat temperature.

**⚠ WARNING**

**Seat warmer burns**

The seat warmer may cause burns, even at low temperature, if used over a long period of time. Never allow passengers who may not be able to take care of themselves to be exposed to the risk of seat heater burns. These include:

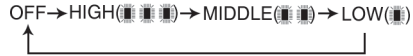
1. Infants, children, elderly or disabled persons, or hospital outpatients
2. Persons with sensitive skin or those that burn easily
3. Fatigued individuals
4. Intoxicated individuals
5. Individuals taking medication that can cause drowsiness or sleepiness (sleeping pills, cold tablets, etc.)

**Air ventilation seat (if equipped)**



The temperature setting of the seat changes according to the switch position.

- To ventilate your seat cushion, press the buttons (blue color). Each time you press the button, the airflow will change as follows:



The seat warmer (with air ventilation) defaults to the OFF position whenever the ignition switch or ENGINE START/STOP button is turned on.

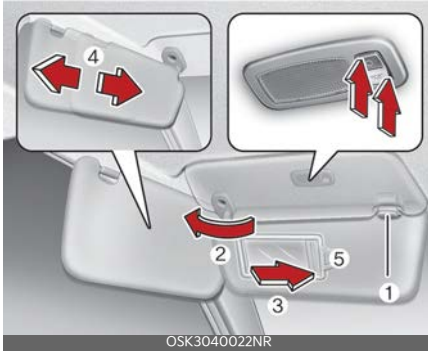
**⚠ CAUTION**

**Seat damage**

- When cleaning the seats, do not use an organic solvent, such as paint thinner, benzene, alcohol and gasoline. Doing so may damage the air ventilation seat.
- Do not place heavy or sharp objects on the seat. Those things may damage the air ventilation seat.
- Be careful not to spill liquid, such as water or beverages, on the seat. If you spill some liquid, wipe the seat with a dry towel. Before using the air ventilation seat, dry the seat completely.

**Sun visor**

Use the sun visor to shield direct light through the front or side windows.



\* The actual sun visor lamp in the vehicle may differ from the illustration.

- To use the sun visor, pull it downward.
- To use the sun visor for the side window, pull it downward, unsnap it from sun visor retainer clip (1) and swing it to the side (2).
- To use the vanity mirror, pull down the visor and slide the mirror cover (3).

Adjust the sun visor extension forward or backward (4).

The ticket holder (5) is provided for holding a tollgate ticket (if equipped)

**CAUTION**

**Vanity mirror lamp**

If you use the vanity mirror lamp, turn off the lamp before returning the sun visor to its original position; otherwise, it could result in battery discharge and possible sun visor damage.

**Power outlet (if equipped)**

The power outlet is designed to provide power for mobile telephones or other devices designed to operate with vehicle electrical systems.

Type A



Type B



The devices should draw less than 10 amps with the vehicle on.

- Use the power outlet only when the vehicle is on and remove the accessory plug after use. Using the accessory plug for prolonged periods of time with the vehicle off could cause the battery to discharge.
- Only use 12 V electric accessories which are less than 10 A in electric capacity
- Adjust the air-conditioner or heater to the lowest operating level when using the power outlet.
- Close the cover when not in use.

- Some electronic devices can cause electronic interference when plugged into a vehicle's power outlet. These devices may cause excessive audio static and malfunctions in other electronic systems or devices used in your vehicle.
- Push the plug in as far as it will go. If good contact is not made, the plug may overheat and the fuse may open.
- Plug in battery equipped electronic devices with reverse current protection. The current from the battery may flow into the vehicle's electrical/electronic system and cause system malfunction.

### **⚠ WARNING**

#### **Electric shock**

Do not put a finger or a foreign object (pen, etc.) into a power outlet and do not touch with a wet hand. You may get an electric shock.

#### **USB charger (if equipped)**

The USB car charger allows drivers to charge their digital devices like smartphones, and PC tablets. Plug the cable into the USB port, and charging will begin.



#### Center



The USB car charger is available with either the ACC or the ignition on. We recommend you connect the USB port and digital devices with the engine running. See the display screen of the device to check its charging process completion. Your smartphone or table PC could get heated up while charging. This is no reason to worry, as it doesn't impact life or functions of the device. For the safety reason, charging can be stopped if the battery gets heated up to a certain point of temperature that the devices can be negatively affected. Charging some digital devices is not available or requires special dedicated adapters if their charging methods don't fit the way the USB car charger works.

The smartphone or PC tablet without fast charging is charged at a regular speed.

Rated output:

- Digital devices with fast charging: - 9.0 V, 1.67 A
- Digital devices with normal charging: - 5.0 V, 2.1 A

**CAUTION**

- Use the USB car charger with the ignition on. Otherwise, Vehicle battery can be discharged.
- Use the official USB cable of the manufacturer of the digital device to be charged.
- Make sure that any foreign object, drinks, and water do not come into contact with the USB car charger. Water or foreign object can damage the USB charger.
- Do not charge a device whose current consumption exceeds 2.1 A.
- Do not connect an electrical device that generates excessive electromagnetic noise to the USB car port. If you do so, noise can be caused or vehicle electronic devices can be interrupted while audio or AV is on.
- If the charger is connected incorrectly, it can cause serious damage on the devices. Please note that damages due to incorrect usage are not covered by warranty service.

### Wireless smart phone charging system (if equipped)

A wireless smart phone charging system is located in front of the center console.



Firmly close all doors, and turn vehicle on. To start wireless charging, place the smart phone equipped with wireless charging function on the wireless charging pad.

For best wireless charging results, place the smart phone on the center of the charging pad.

The wireless charging system is designed for one smart phone equipped with Qi only. Please refer to the smart phone accessory cover or the smart phone manufacturer homepage to check whether your smart phone supports Qi function.

### Charging wireless smart phone

1. Remove any object on the smart phone charging pad including the smart key. If there is any foreign object on the pad other than a smart phone, the wireless charging function may not operate properly.
2. Place the smart phone on the center of the wireless charging pad.

The indicator light will change to orange once the wireless charging begins. After the charging is complete, the orange light will change to green.

You can choose to turn the wireless charging function to either ON or OFF by selecting the USM on the instrument cluster. (Please refer to "Instrument cluster" on page 4-43 for details).

If the wireless charging does not work, gently move your smart phone around the pad until the charging indicator light turns orange.

Depending on the smart phone, the charging indicator light may not turn green even after the charging is complete.

If the wireless charging is not functioning properly, the orange light will blink and flash for ten seconds then turn off. In such cases, remove the smart phone from the pad and replace it on the pad again, or double check the charging status.

If you leave the smart phone on the charging pad when the vehicle is turned off, the vehicle will alert you through warning messages and sound (applicable for vehicles with voice guidance function) after the 'Good bye' function on the instrument cluster ends.

### **⚠ WARNING**

#### **Distracted driving**

Driving while distracted can result in a loss of vehicle control that may lead to an accident, severe bodily injury, or death. The driver's primary responsibility is in the safe and legal operation of a vehicle. Any use of handheld devices, other equipment, or vehicle systems that take the driver's eyes, attention, and focus away from the safe operation of a vehicle are not permissible by law. These should never be used during the operation of the vehicle.

### **⚠ CAUTION**

#### **Liquid in Wireless Smart Phone Charger**

To prevent liquid from damaging the wireless smart phone charging system in your vehicle, be sure not to spill liquid over the charging system when charging your phone.


### **⚠ CAUTION**

#### **Metal in Wireless Charging System**

If any metallic object, such as a coin, is located between the wireless charging system and the smart phone, the charging may be disrupted. Also, the metallic object may heat up and potentially damage the charging system. If there is any metallic object between the smart phone and the charging pad, immediately remove the smart phone. Remove the metallic object after it has cooled down.

### **\* NOTICE**

- When the interior temperature of the wireless charging system rises above a set temperature, the wireless charging system will cease to function. After the interior temperature drops below the threshold, the wireless charging function will resume.
- The wireless charging system may not function properly when there is a heavy accessory cover on the smart phone.
- The wireless charging system will stop when using the wireless smart key search function to prevent radio wave disruption.
- The wireless charging system will stop when the smart key is moved out of the vehicle with the vehicle in ON.
- The wireless charging system will stop when any of the doors are opened (applicable for vehicles equipped with smart keys).
- The wireless charging system will stop when the vehicle is turned OFF.
- The wireless charging will stop when the smart phone is not in complete contact with the wireless charging pad.
- Items equipped with magnetic components, such as credit card, tele-

- phone card, bankbook or any transportation ticket, may become damaged during wireless charging.
- Place the smart phone on the center of the charge pad for best results. The smart phone may not charge when placed near the rim of the charging pad. When the smart phone does get charged, it may heat up excessively.
  - For smart phones without a built-in wireless charging system, an appropriate accessory has to be equipped in order to use the vehicle's wireless charging system.
  - Smart phones of some manufacturers may display messages on weak current. This is due to the particular characteristic of the smart phone and does not imply a malfunction on wireless charging function.
  - The indicator light of some manufacturers' smart phones may still be orange after the smart phone is fully charged. This is due to the particular characteristic of the smart phone and not a malfunction of the wireless charging system.
  - When any smart phone without a wireless charging function or a metallic object is placed on the charging pad, a small noise may sound. This small sound is due to the vehicle discerning compatibility of the object placed on the charging pad. It does not affect your vehicle or the smart phone in any way.
  - The wireless cellular phone charging system may not support certain cellular phones, which are not verified for Qi specification .
  - When placing your cellular phone on the charging mat, position the phone in the middle of the mat for optimal

charging performance. If your cell phone is off to the side, the charging rate may be less and in some cases the cell phone may experience higher heat conduction.

- When charging some cellular phones with a self-protection feature, the wireless charging speed may decrease and the wireless charging may stop.

### This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

### Coat hook (if equipped)

A Coat hook is next to the rear grab handle.



\* This actual feature may differ from the illustration.

### CAUTION

Hanging clothing

Do not hang heavy clothes, since they may damage the hook.

**⚠ WARNING**

Do not hang other objects, such as hangers or hard objects except clothes. Also, do not put heavy, sharp or breakable objects in the clothing's pockets. In an accident or when the curtain air bag is inflated, it may cause vehicle damage or bodily injury.



**Floor mat anchor(s) (if equipped)**



When using a floor mat on the front floor carpet, make sure it attaches to the floor mat anchor(s) in your vehicle. This keeps the floor mat from sliding forward.

**⚠ WARNING**

• **After market floor mat**

- Do not install after market floor mats that are not capable of being securely attached to the vehicle's floor mat anchors.  
Unsecured floor mats can interfere with pedal operation.
- Use floor mats not too thick and designed to be properly secured on the floor to avoid the interference with pedals. Make sure that installing the floor mats without removing plastic films on carpets may damage or break floor mat fix rings, resulting in the mats to be unsecured. Especially for a driver's seat, the unsecured mats may cause unintended acceleration/brake. Ensure to remove all the plastic films on the carpets before installing the mats.

The following must be observed when installing ANY floor mat to the vehicle.

- Ensure that the floor mats are securely attached to the vehicle's floor mat anchor(s) before driving the vehicle.
- Do not use ANY floor mat that cannot be firmly attached to the vehicle's floor mat anchors.
- Do not stack floor mats on top of one another (e.g. all-weather rubber mat on top of a carpeted floor mat). Only a single floor mat should be installed in each position.



### Cargo area cover (if equipped)



Use the cargo area cover to hide items stored in the cargo area.

### Removal and installation

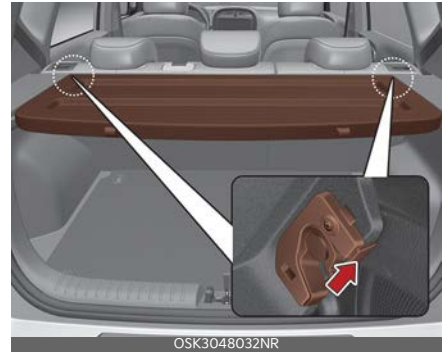


To remove the cargo area cover:

1. Fold the cargo area cover up in half.



2. Firmly hold the folded part of the cover and lift it up.



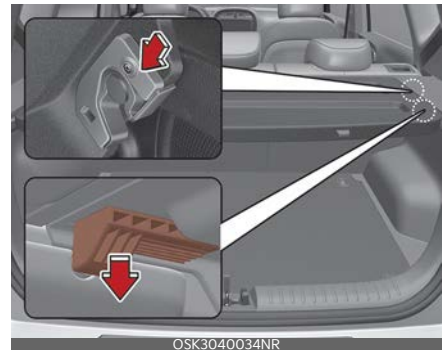
3. While lifting the cover up, hold the area near the front slots. Then, pull up the cover at approximately 45° angle.

### ⚠ WARNING

Folded cover may block the rear view. Put the folded cover in the appropriate position.

To install the cargo area cover:

1. To use the cargo area cover, insert the 4 edges into the slots.



### ⚠ WARNING

Do not place objects on the cargo area cover. Such objects may be thrown about inside the vehicle and possibly

injure vehicle occupants during an accident or when braking.

### **⚠ CAUTION**

Since the cargo area cover may be damaged or malformed, do not put luggage on it when it is used.

## **Exterior features**

If the vehicle has a roof rack, you can load cargo on top of your vehicle.

### **Roof rack (if equipped)**



Crossbars and fixing components needed to install the roof rack on your vehicle may be obtained from an authorized Kia dealer.

### **\* NOTICE**

- The crossbars (if equipped) should be placed in the proper load carrying positions prior to placing items onto the roof rack.
- If the vehicle is equipped with a sunroof, be sure not to position cargo onto the roof rack in such a way that it could interfere with sunroof operation.
- When the roof rack is not being used to carry cargo, the crossbars may need to be repositioned if wind noise is detected.

### **⚠ CAUTION**

#### **Loading Roof Rack**

- When carrying cargo on the roof rack, take the necessary precautions to make sure the cargo does not damage the roof of the vehicle.

- When carrying large objects on the roof rack, make sure they do not exceed the overall roof length or width.
- When you are carrying cargo on the roof rack, do not operate the sunroof (if equipped). This can damage the sunroof.

- 
- The following specification is the maximum weight that can be loaded onto the roof rack. Distribute the load as evenly as possible across the cross-bars (if equipped) and roof rack and secure the load firmly.

ROOF LOAD	100 kg (220 lbs.) EVENLY DISTRIBUTED
--------------	---

Loading cargo or luggage in excess of the specified weight limit on the roof rack may damage your vehicle.

**⚠ WARNING**

- The vehicle center of gravity will be higher when items are loaded onto the roof rack. Avoid sudden starts, braking, sharp turns, abrupt maneuvers or high speeds that may result in loss of vehicle control or rollover resulting in an accident.
- Always drive slowly and turn corners carefully when carrying items on the roof rack. Severe wind updrafts, caused by passing vehicles or natural causes, can cause sudden upward pressure on items loaded on the roof rack. This is especially true when carrying large, flat items, such as wood panels or mattresses. This could cause the items to fall off the roof rack and cause damage to your vehicle or others around you.

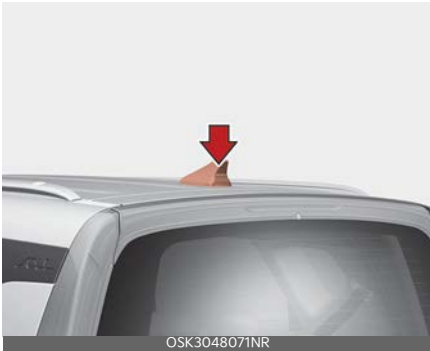
## Infotainment system

### \* NOTICE

If you install an after market HID head lamp, your vehicle's audio and electronic device may malfunction.

\* If your vehicle is equipped with multi-media system, refer to a separately supplied manual for detailed information.

## Shark-fin antenna



The shark-fin antenna transmits and receives wireless signals such as AM/FM, Sirius XM, GNSS, etc

\* The signals which antenna can transmit and receive vary by the vehicle option.

## USB port

You can use the USB port to plug in an USB.

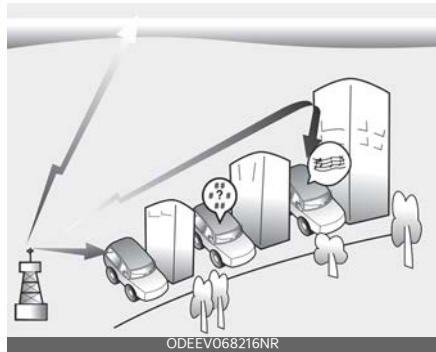


### \* NOTICE

When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.

## How vehicle radio works

### FM reception

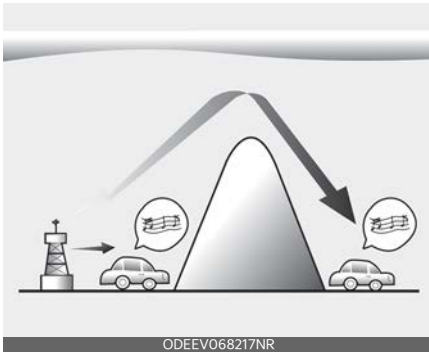


AM and FM radio signals are broadcast from transmitter towers located around your city. They are intercepted by the radio antenna on your vehicle. This signal is then processed by the radio and sent to your vehicle speakers.

However, in some cases the signal coming to your vehicle may not be strong and clear.

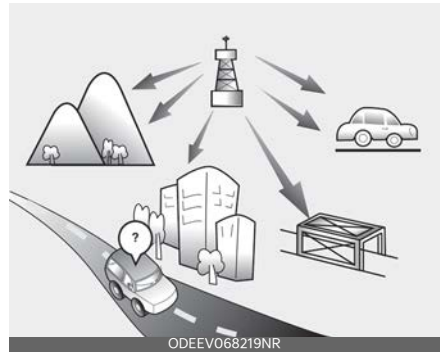
This can be due to factors, such as the distance from the radio station, closeness of other strong radio stations or the presence of buildings, bridges or other large obstructions in the area.

## AM reception



AM broadcasts can be received at greater distances than FM broadcasts. This is because AM radio waves are transmitted at low frequencies. These long distance, low frequency radio waves can follow the curvature of the earth rather than traveling straight. In addition, they curve around obstructions resulting in better signal coverage.

## FM radio station



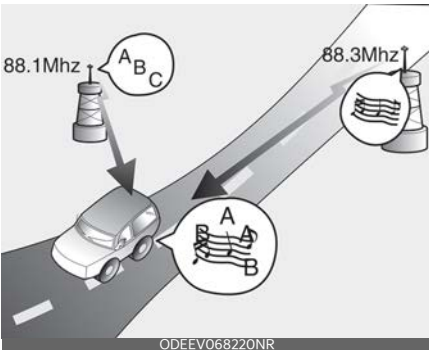
FM broadcasts are transmitted at high frequencies and do not bend to follow the earth's surface. Because of this, FM broadcasts generally begin to fade within short distances from the station. Also, FM signals are easily affected by buildings, mountains, and obstructions. This can lead to undesirable or unpleasant listening conditions which might lead you to believe a problem exists with your radio.

The following conditions are normal and do not indicate radio trouble:

- **Fading** - As your vehicle moves away from the radio station, the signal will weaken and sound will begin to fade. When this occurs, we suggest that you select another station with a stronger signal.



- Flutter/Static - Weak FM signals or large obstructions between the transmitter and your radio can disturb the signal causing static or fluttering noises to occur. Reducing the treble level may lessen this effect until the disturbance clears.
- Station Swapping - As an FM signal weakens, another more powerful signal near the same frequency may begin to play. This is because your radio is designed to lock onto the clearest signal. If this occurs, select another station with a stronger signal.



- Multi-Path Cancellation - Radio signals being received from several directions can cause distortion or fluttering. This can be caused by a direct and reflected signal from the same

station, or by signals from two stations with close frequencies. If this occurs, select another station until the condition has passed.

### Using a cellular phone or a two-way radio

When a cellular phone is used inside the vehicle, noise may be produced from the audio system. This does not mean that something is wrong with the audio equipment. In such a case, try to operate mobile devices as far from the audio equipment as possible.

When using a communication system such as a cellular phone or a radio set inside the vehicle, a separate external antenna must be fitted. When a cellular phone or a radio set is used with an internal antenna alone, it may interfere with the vehicle's electrical system and adversely affect safe operation of the vehicle.

### ⚠ WARNING

#### Cell phone use

Do not use a cellular phone while driving. Stop at a safe location to use a cellular phone.

### ⚠ WARNING

#### Distracted driving

Driving while distracted can result in a loss of vehicle control that may lead to an accident, severe bodily injury, or death. The driver's primary responsibility is in the safe and legal operation of a vehicle. Any use of handheld devices, other equipment, or vehicle systems that take the driver's eyes, attention, and focus away from the safe operation of a vehicle are not permissible by law.

These should never be used during the operation of the vehicle.

---

## Declaration of Conformity

### IC

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### CAUTION

Any changes or modifications to this device that is not explicitly approved by the manufacturer could void your authority to operate this equipment.

---

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum 20 cm (8 inches) between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the IC.





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## Driving your vehicle

### Be sure the exhaust system does not leak.

The exhaust system should be checked whenever the vehicle is raised to change the oil or for any other purpose.

If you hear a change in the sound of the exhaust or if you drive over something that strikes the underneath side of the vehicle, have the exhaust system checked as soon as possible by an authorized Kia dealer.

#### **WARNING**

#### Engine exhaust

Do not inhale exhaust fumes or leave your engine running in a enclosed area for a prolonged time. Exhaust fumes contain carbon monoxide, a colorless, odorless gas that can cause unconsciousness and death by asphyxiation.

#### **WARNING**

#### Open trunk

Do not drive with the trunk open. Poisonous exhaust gases can enter the passenger compartment. If you must drive with the trunk open proceed as follows:

1. Close all windows.
2. Open side vents.
3. Set the air intake control at "Fresh", the air flow control at "Floor" or "Face" and the fan at the highest speed.

## Before driving

Before getting into the vehicle, you should examine the car and its surroundings. After getting into the vehicle, you should check a number of things before driving.

### Before entering vehicle

- Be sure that all windows, outside mirror(s), and outside lights are clean.
- Check the condition of the tires.
- Check under the vehicle for any sign of leaks.
- Be sure there are no obstacles behind you if you intend to back up.

### Necessary inspections

Fluid levels, such as engine oil, engine coolant, brake fluid, and washer fluid should be checked on a regular basis, at the exact interval depending on the fluid. Further details are provided in "Maintenance" on page 7-4.

#### **WARNING**

#### Distracted driving

Focus on the road while driving. The driver's primary responsibility is in the safe and legal operation of the vehicle. Use of any handled devices, other equipment or vehicle systems that distract the driver should not be used during vehicle operation.

### Before starting

- Close and lock all doors.
- Position the seat so that all controls are easily reached.
- Buckle your seat belt.

- Adjust the inside and outside rearview mirrors.
- Be sure that all lights work.
- Check all gauges.
- Check the operation of warning lights when the ignition switch is turned to the ON position.
- Release the parking brake and make sure the brake warning light goes out.

For safe operation, be sure you are familiar with your vehicle and its equipment.

### **WARNING**

#### **Fire risk**

When you intend to park or stop the vehicle with the engine on, be careful not to depress the accelerator pedal for a long period of time. It may overheat the engine or exhaust system and cause fire.

### **WARNING**

#### **Check surroundings**

Always check the surrounding areas near your vehicle for pedestrians, especially children, before putting a vehicle into D (Drive) or R (Reverse).

### **WARNING**

#### **Loose objects**

Securely store items in your vehicle. When you make a sudden stop or turn the steering wheel rapidly; loose objects may drop on the floor and it could interfere with the operation of the foot pedals, possibly causing an accident.

### **WARNING**

#### **Driving while intoxicated**

Do not drive while intoxicated. Drinking and driving is dangerous. Even a small amount of alcohol will affect your reflexes, perceptions and judgment.

Driving while under the influence of drugs is as dangerous as or more dangerous than driving drunk.

### **WARNING**

#### **Proper footwear**

Always wear appropriate shoes when operating your vehicle. Unsuitable shoes (high heels, ski boots, sandals, etc.) may interfere with your ability to use the brake and accelerator pedals.

## Key positions (if equipped)

Your vehicle is equipped with four different ignition positions.

### Illuminated ignition switch

Whenever a front door is opened, the ignition switch will illuminate for your convenience, provided the ignition switch is not in the ON position.



OSK3058159NR

The light will go off immediately when the ignition switch is turned on. It will also go off after about 30 seconds when the door is closed.

### Ignition switch position

Your vehicle is equipped with four different ignition positions.



OSK3058160NR

### LOCK (1)

The ignition key can be removed only in the LOCK position.

### ACC (Accessory) (2)

The electrical accessories are operative. If difficulty is experienced turning the ignition switch to the ACC position, turn the key while turning the steering wheel right and left to release the tension.

### ON (3)

The warning lights can be checked before the engine is started. This is the normal running position after the engine is started.

Do not leave the ignition switch ON if the engine is not running to prevent battery discharge.

### START (4)

Turn the ignition switch to the START position to start the engine. The engine will crank until you release the key; then it returns to the ON position. The brake warning light can be checked in this position.

The anti-theft steering column lock (if equipped) is not a substitute for the parking brake. Before leaving the driver's seat, always make sure the shift lever is engaged in P (Park) for intelligent variable transmission, set the parking brake fully and shut the engine off. Unexpected and sudden vehicle movement may occur if these precautions are not taken.

### **⚠ WARNING**

#### Ignition switch

Never turn the ignition switch to LOCK or ACC while the vehicle is moving. This

would result in loss of directional control and braking function, which could cause an accident.

### \* NOTICE

If you leave the ignition switch to the ACC or ON position for a long time, the battery may discharge.

### ⚠ WARNING

#### Key holder

Do not attach small purses, multiple keys, or any other heavy accessories to the driver's key chain used to start the vehicle. This may cause the driver to accidentally make the key inserted in the vehicle to change the ignition position to the ACC position while the vehicle is moving thereby increasing the risk of an accident and causing the deactivation of several safety features.

### ⚠ WARNING

#### Leaving the Vehicle

To avoid unexpected or sudden vehicle movement, never leave your vehicle if the transmission is not locked in the P (Park) position and the parking brake is fully engaged. Before leaving the driver's seat, always make sure the shift lever is engaged in P (Park), set the parking brake fully and shut the engine off.

#### Starting the engine

1. Make sure the parking brake is applied.
2. Place the transmission shift lever in P (Park). Depress the brake pedal fully. You can also start the engine when the shift lever is in the N (Neutral) position.

3. Turn the ignition switch to START and hold it there until the engine starts (a maximum of 10 seconds), then release the key.

It should be started **without depressing the accelerator**.

4. Do not wait for the engine to warm up while the vehicle remains stationary. Start driving at moderate engine speeds. (Steep accelerating and decelerating should be avoided.)

### ⚠ WARNING

#### Steering wheel

Never reach for any controls through the steering wheel while the vehicle is in motion. The presence of your hand or arm in this area could cause a loss of vehicle control.

If the engine stalls while you are in motion, do not attempt to move the shift lever to the P (Park) position. If traffic and road conditions permit, you may put the shift lever in the N (Neutral) position while the vehicle is still moving and turn the ignition switch to the START position in an attempt to restart the engine.

### ⚠ CAUTION

#### Starter

Do not engage the starter for more than 10 seconds. If the engine stalls or fails to start, wait 5 to 10 seconds before re-engaging the starter. Improper use of the starter may damage it.



## ENGINE START/STOP button (if equipped)

Your vehicle is equipped with four different ignition positions.

### Illuminated ENGINE START/STOP button

Whenever the front door is opened, the ENGINE START/STOP button will illuminate for your convenience.



The light will go off after about 30 seconds when the door is closed. It will also go off immediately when the theft-alarm system is armed.

### ENGINE START/STOP button position

Your vehicle is equipped with four different ignition positions.

#### OFF

To turn off the engine (START/RUN position) or vehicle power (ON position), press the ENGINE START/STOP button with the shift lever in the P (Park) position. When you press the ENGINE START/STOP button without the shift lever in the P (Park) position, the ENGINE START/STOP button will not change to the OFF position but to the ACC position.

### Vehicles equipped with anti-theft steering column lock

The steering wheel locks when the ENGINE START/STOP button is in the OFF position to protect you against theft. It locks when the door is opened.

If the steering wheel is not locked properly when you open the driver's door, the warning chime will sound. Try locking the steering wheel again. If the problem is not solved, have the system checked by an authorized Kia dealer.

In addition, if the ENGINE START/STOP button is in the OFF position after the driver's door is opened, the steering wheel will not lock and the warning chime will sound. In such a situation, close the door. Then the steering wheel will lock and the warning chime will stop.

#### \* NOTICE

If the steering wheel doesn't unlock properly, the ENGINE START/STOP button will not work. Press the ENGINE START/STOP button while turning the steering wheel right and left to release the tension.

#### \* NOTICE

You are able to turn off the engine (START/RUN) or vehicle power (ON), only when the vehicle is not in motion.

#### ⚠ CAUTION

In an emergency situation while the vehicle is in motion, you are able to turn the engine off and to the ACC position by pressing the ENGINE START/STOP button for more than 2 seconds or 3 times successively within 3 seconds.

If the vehicle is still moving, to restart the vehicle:

- Press the ENGINE START/STOP button when vehicle speed is 5 km/h (3 mph) or over.

## ACC (Accessory)



Press the ENGINE START/STOP button while it is in the OFF position without depressing the brake pedal.

The steering wheel unlocks and electrical accessories are operational.

If the ENGINE START/STOP button is in the ACC position for more than 1 hour, the button is turned off automatically to prevent battery discharge.

## ON

Press the ENGINE START/STOP button while it is in the ACC position without depressing the brake pedal.

The warning lights can be checked before the engine is started. Do not leave the ENGINE START/STOP button in the ON position for a long time. The battery may discharge, because the engine is not running.

## START/RUN

To start the engine, depress the brake pedal and press the ENGINE START/

STOP button with the shift lever in the P (Park) or the N (Neutral) position. For your safety, start the engine with the shift lever in the P (Park) position.

### \* NOTICE

If you press the ENGINE START/STOP button without depressing the brake pedal, the engine will not start and the ENGINE START/STOP button changes as follow:

OFF → ACC → ON → OFF or ACC

### \* NOTICE

If you leave the ENGINE START/STOP button in the ACC or ON position for a long time, the battery will discharge.

### ⚠ WARNING

- Never press the ENGINE START/STOP button while the vehicle is in motion. This would result in loss of directional control and braking function, which could cause an accident.
- The anti-theft steering column lock is not a substitute for the parking brake. Before leaving the driver's seat, always make sure the shift lever is engaged in P (Park), set the parking brake fully and shut the engine off. Unexpected and sudden vehicle movement may occur if these precautions are not taken.
- Never reach for the ENGINE START/STOP button or any other controls through the steering wheel while the vehicle is in motion. The presence of your hand or arm in the area could cause loss of vehicle control, an accident and serious bodily injury or death.

- Do not place any movable objects around the driver's seat as they may move while driving, interfere with the driver and lead to an accident.

## Starting the engine

### WARNING

- Do not start the vehicle with the accelerator pedal depressed. The vehicle can move and lead to an accident.
- Wait until the engine rpm is normal. The vehicle may suddenly move if the brake pedal is released when the rpm is high.

## Starting the engine

1. Carry the smart key or place it inside the vehicle.
2. Make sure the parking brake is firmly applied.
3. Place the transmission shift lever in P (Park). Depress the brake pedal fully. You can also start the engine when the shift lever is in the N (Neutral) position.
4. Press the ENGINE START/STOP button.  
It should be started without depressing the accelerator pedal.
5. Do not wait for the engine to warm up while the vehicle remains stationary. Start driving at moderate engine speeds. (Steep accelerating and decelerating should be avoided.)

## Starting and stopping the engine for turbocharger intercooler

1. Do not race or accelerate the engine immediately after starting.

If the engine is cold, idle for several seconds before sufficient lubrication is ensured in the turbocharger unit.

2. After high speed or extended driving, requiring a heavy engine load, idle the engine about 1 minute before turning it off.


This idle time will allow the turbocharger to cool prior to shutting the engine off.

### CAUTION

Do not turn the engine off immediately after it has been subjected to a heavy load. Doing so may cause severe damage to the engine or turbocharger unit.

## Starting the engine with smart key

Even if the smart key is in the vehicle, if it is far away from you, the engine may not start.

When the ENGINE START/STOP button is in the ACC position or above, if any door is opened, the system checks for the smart key. If the smart key is not in the vehicle, the " " indicator and a message "Key is not in the vehicle" will appear on the instrument cluster and LCD window. And if all doors are closed, the chime will sound for 5 seconds. The indicator or warning will turn off while the vehicle is moving. Always have the smart key with you.

### WARNING

The engine will start, only when the smart key is in the vehicle. Never allow children or any person who is unfamiliar with the vehicle touch the ENGINE START/STOP button or related parts. Pushing the ENGINE START/STOP button while the smart key is in the vehicle

may result in unintended engine activation and/or unintended vehicle movement.

**⚠ CAUTION**

If the engine stalls while the vehicle is in motion, do not attempt to move the shift lever to the P (Park) position. If the traffic and road conditions permit, you may put the shift lever in the N (Neutral) position while the vehicle is still moving and press the ENGINE START/STOP button in an attempt to restart the engine.

Replace the fuse with a new one. If it is not possible, you can start the engine by pressing the ENGINE START/STOP button for 10 seconds while it is in the ACC position. The engine can start without depressing the brake pedal. But for your safety always depress the brake pedal and clutch pedal (if equipped) before starting the engine.

**⚠ CAUTION**

- Do not press the ENGINE START/STOP button for more than 10 seconds except when the stop lamp fuse is blown.
- Do not turn the ignition switch to the START position with the engine running. It may damage the starter.

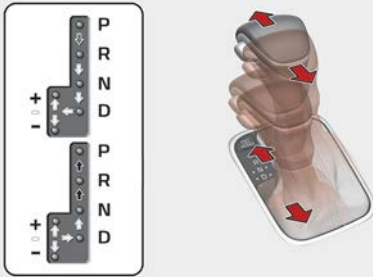


**\* NOTICE**




- If the battery is weak or the smart key does not work correctly, you can start the engine by pressing the ENGINE START/STOP button with the smart key. The side with the lock button should contact the ENGINE START/STOP button directly. When you press the ENGINE START/STOP button directly with the smart key, the smart key should contact the button at a right angle.
- When the stop lamp fuse is blown, you cannot start the engine normally.

## Intelligent variable transmission (IVT) (if equipped)

The Intelligent Variable Transmission (IVT) automatically shifts depending on speed, accelerate pedal position. The individual speeds are selected automatically, depending on the position of the shift lever.



OSK3058003NR

-  Depress the brake pedal and the lock release button when shifting.
-  Press the lock release button when shifting.
-  The shift lever can be shifted freely.

### Intelligent Variable Transmission (IVT) operation

For smooth operation, depress the brake pedal when shifting from N (Neutral) to a forward or reverse gear.

#### WARNING

#### Intelligent Variable Transmission (IVT)

- Always check the surrounding areas near your vehicle for people, especially children, before shifting a car into D (Drive) or R (Reverse).
- Before leaving the driver's seat, always make sure the shift lever is in the P (Park) position; then set the

parking brake fully and shut the engine off. Unexpected and sudden vehicle movement can occur if these precautions are not followed in the order identified.

- Do not use the engine brake (shifting from a high gear to lower gear) rapidly on slippery roads. The vehicle may slip causing an accident.
- Engage the gear and check the gear position from the cluster before driving with D (drive) when driving forward on a hill or downhill, and R (reverse) when driving backwards. If you drive in the opposite direction of the gear position, the engine is off and brake does not work, which is in danger.

#### CAUTION

- To avoid damage to your transmission, do not accelerate the engine in R (Reverse) or any forward gear position with the brakes on.
- When stopped on an incline, do not hold the vehicle stationary with engine power. Use the service brake or the parking brake.
- Do not shift from N (Neutral) or P (Park) into D (Drive), or R (Reverse) when the engine is above idle speed.

### Transmission ranges

The indicator in the instrument cluster displays the shift lever position when the ignition switch is in the ON position.

#### P (Park)

Always come to a complete stop before shifting into P (Park). This position locks the transmission and prevents the front wheels from rotating.

**⚠ WARNING**

- Shifting into P (Park) while the vehicle is in motion will cause the drive wheels to lock which will cause you to lose control of the vehicle.
- Do not use the P (Park) position in place of the parking brake. Always make sure the shift lever is latched in the P (Park) position and set the parking brake fully.
- Never leave a child unattended in a vehicle.

**⚠ CAUTION**

The transmission may be damaged if you shift into P (Park) while the vehicle is in motion.

**R (Reverse)**

Use this position to drive the vehicle backward.

**⚠ CAUTION**

Always come to a complete stop before shifting into or out of R (Reverse); you may damage the transmission if you shift into R while the vehicle is in motion, except as explained in "Rocking the vehicle" in this section.

**N (Neutral)**

The wheels and transmission are not engaged. The vehicle will roll freely even on the slightest incline unless the parking brake or service brakes are applied.

**⚠ WARNING**

Do not drive with the shift lever in N (Neutral).

The engine brake will not work which could lead to an accident.

**⚠ CAUTION**

- Always park the vehicle in "P" (Park) for safety and engage the parking brake.

**D (Drive)**

This is the normal forward driving position. The transmission will automatically shift, providing the best fuel economy and power.

For extra power when passing another vehicle or climbing grades, depress the accelerator fully, at which time the transmission will automatically downshift to the next lower gear.

**\* NOTICE**

Always come to a complete stop before shifting into D (Drive).

**Sports mode**

Whether the vehicle is stationary or in motion, sports mode is selected by pushing the shift lever from the D (Drive) position into the manual gate. To return to D (Drive) range operation, push the shift lever back into the main gate.



SPORT mode manages the driving dynamics by automatically adjusting the steering effort, and the engine and transmission control logic for enhanced driver performance.

In sports mode, moving the shift lever backwards and forwards will allow you to select the desired range of gears for the current driving conditions.

- Up (+): Push the lever forward once to shift up one gear.
- Down (-): Pull the lever backwards once to shift down one gear.

#### \* NOTICE

- In sports mode, the driver must execute upshifts in accordance with road conditions, being careful to keep the engine speed below the red zone.
- In sports mode, only the 8 forward gears can be selected. To reverse or park the vehicle, move the shift lever to the R (Reverse) or P (Park) position as required.
- In sports mode, downshifts are made automatically when the vehicle slows down. When the vehicle stops, 1st gear is automatically selected.
- In sports mode, when the engine rpm approaches the red zone, shift points are varied to upshift automatically.

- To maintain the required levels of vehicle performance and safety, the system may not execute certain gear-shifts when the shift lever is operated.
- When driving on a slippery road, push the shift lever forward into the + (up) position. This causes the transmission to shift into the 2nd gear which is better for smooth driving on a slippery road. Push the shift lever to the - (down) side to shift back to the 1st gear.
- When SPORT mode is activated:
  - The engine rpm will tend to remain raised over a certain length of time even after releasing the accelerator.
  - Upshifts are delayed when accelerating.
- In SPORT mode, the fuel efficiency may decrease.

### Shift lock system

For your safety, the Intelligent Variable Transmission (IVT) has a shift lock system which prevents shifting the transmission from P (Park) into R (Reverse) unless the brake pedal is depressed.

To shift the transmission from P (Park) into R (Reverse):

1. Depress and hold the brake pedal.
2. Start the engine or turn the ignition switch to the ON position.
3. Move the shift lever.

If the brake pedal is repeatedly depressed and released with the shift lever in the P (Park) position, a chattering noise near the shift lever may be heard. This is a normal condition.

**⚠ WARNING**

Always fully depress the brake pedal before and while shifting out of the P (Park) position into another position to avoid inadvertent motion of the vehicle which could injure persons in or around the vehicle.

Your vehicle is designed to go into a protective mode if the driver inadvertently selects the R (Reverse) gear while the vehicle is being propelled forward. If this occurs, the engine, power brakes and power steering will all deactivate. This mode is designed to alert the driver to the gear-selection error and prevent damage to the transmission.

**⚠ WARNING**

Confirm the desired gear position is selected when driving on a graded road. If the protective mode is triggered on an incline, the driver may not become aware that the power braking and steering have been turned off which can increase the risk of an accident.

**Shift-lock override**

If the shift lever cannot be moved from the P (Park) position into R (Reverse) position with the brake pedal depressed,

continue depressing the brake, then do the following:

1. Place the ignition switch in the LOCK/OFF position.
2. Apply the parking brake.
3. Carefully remove the cap covering the shift-lock release access hole.
4. Insert a tool (e.g. flathead screwdriver) into the access hole and press down on the tool.
5. Move the shift lever.
6. Remove the tool from the shift-lock override access hole then install the cap.

If the shift lever does not move even after performing this procedure, have the system inspected by an authorized Kia dealer.

**Ignition key interlock system**

The ignition key cannot be removed unless the shift lever is in the P (Park) position.

**Good driving practices**

- Never move the shift lever from P (Park) or N (Neutral) to any other position with the accelerator pedal depressed.
- Never move the shift lever into P (Park) when the vehicle is in motion.
- Be sure the vehicle is completely stopped before you attempt to shift into R (Reverse) or D (Drive).
- Never take the vehicle out of gear and coast down a hill. This may be extremely hazardous. Always leave the vehicle in gear when moving.
- Do not "ride" the brakes. This can cause them to overheat and malfunction. Instead, when you are driving down a long hill, slow down and shift to a lower gear. When you do this,



engine braking will help slow down the vehicle.

- Slow down before shifting to a lower gear. Otherwise, the lower gear may not be engaged.
- Always use the parking brake. Do not depend on placing the transmission in P (Park) to keep the vehicle from moving.

### **⚠ WARNING**

Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in vehicle speed can cause the drive wheels to lose traction and the vehicle to go out of control.

- Optimum vehicle performance and economy is obtained by smoothly depressing and releasing the accelerator pedal.

### **⚠ WARNING**

- When driving uphill or downhill, always shift to D (Drive) for driving forward or shift to R (Reverse) for driving backwards, and check the gear position indicated on the cluster before driving.

Driving in the opposite direction of the selected gear can lead to a dangerous situation by shutting off the engine and affecting the braking performance.

- Always buckle-up! In a collision, an unbelted occupant is significantly more likely to be seriously injured or killed than a properly belted occupant.
- Avoid high speeds when cornering or turning.

- Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.
- The risk of a rollover is greatly increased if you lose control of your vehicle at highway speeds.
- Losing control often occurs if two or more wheels drop off the roadway and the driver oversteers to reenter the roadway.
- In the event your vehicle leaves the roadway, do not steer sharply. Instead, slow down before pulling back into the travel lanes.
- Never exceed posted speed limits.

### **⚠ WARNING**

If your vehicle becomes stuck in snow, mud, sand, etc., then you may attempt to rock the vehicle free by moving it forward and backward. Do not attempt this procedure if people or objects are anywhere near the vehicle. During the rocking operation the vehicle may suddenly move forward or backward as it becomes unstuck, causing injury or damage to nearby people or objects.

## **Moving up a steep grade from a standing start**

To move up a steep grade from a standing start:

1. Depress the brake pedal, release the parking break, and shift the shift lever to D (Drive).
2. Select the appropriate gear depending on load weight and steepness of the grade, and release the parking brake.
3. Depress the accelerator gradually while releasing the service brakes.

**When accelerating from a stop on a steep hill, the vehicle may have a tendency to roll backwards. Shifting the shift lever into 2 (Second Gear) will help prevent the vehicle from rolling backwards.**

## Brake system

Your vehicle has power-assisted brakes, parking brake, and various braking systems for safe driving.

### Power brakes

Your vehicle has power-assisted brakes that adjust automatically through normal usage.

In the event that the power-assisted brakes lose power because of a stalled engine or some other reason, you can still stop your vehicle by applying greater force to the brake pedal than you normally would. The stopping distance, however, will be longer.

When the engine is not running, the reserve brake power is partially depleted each time the brake pedal is applied. Do not pump the brake pedal when the power assist has been interrupted.

Pump the brake pedal only when necessary to maintain steering control on slippery surfaces.

### \* NOTICE

- When stepping on the brake pedal under a certain driving or weather condition, you may witness your car make a sound of squealing or some other noises. This is not a brake malfunction but a normal phenomenon.
- When driving on the road to which deicing chemicals are applied, the vehicle may witness noises from the brake or abnormal abrasion of tires because of such deicing chemicals. You should operate brake additionally so that you would be able to remove the deicing chemicals on the brake disk and pad under a safe traffic condition.

**⚠ CAUTION****Brake Pedal**

Do not drive with your foot resting on the brake pedal. This will create abnormally high brake temperatures which can cause excessive brake lining and pad wear.

**⚠ WARNING****Steep hill braking**

Avoid continuous application of the brakes when descending a long or steep hill by increasing the regeneration level. Continuous brake application will cause the brakes to overheat and could result in a temporary loss of braking performance.

Wet brakes may impair the vehicle's ability to safely slow down; the vehicle may also pull to one side when the brakes are applied. Applying the brakes lightly will indicate whether they have been affected in this way. Always test your brakes in this fashion after driving through deep water. To dry the brakes, apply them lightly while maintaining a safe forward speed until brake performance returns to normal.

**In the event of brake failure**

If service brakes fail to operate while the vehicle is in motion, you can make an emergency stop with the parking brake. The stopping distance, however, will be much greater than normal.

**⚠ WARNING****Parking brake**

Avoid applying the parking brake to stop the vehicle while it is moving except in an emergency situation. Applying the

parking brake while the vehicle is moving at normal speeds can cause a sudden loss of control of the vehicle. If you must use the parking brake to stop the vehicle, use great caution in applying the brake.

**Disc brakes wear indicator**

When your brake pads are worn and new pads are required, you will hear a high-pitched warning sound from your front brakes or rear brakes. You may hear this sound come and go or it may occur whenever you depress the brake pedal.

Always replace the front or rear brake pads as pairs.

**⚠ CAUTION****Replace brake pads**

Do not continue to drive with worn brake pads. Continuing to drive with worn brake pads can damage the braking system and result in costly brake repairs, and can also lead to a serious accident.

**⚠ WARNING****Brake wear**

Do not ignore high pitched wear sounds from your brakes. If you ignore this audible warning, you will eventually lose braking performance, which could lead to a serious accident.

**Rear drum brakes (if equipped)**

Your rear drum brakes do not have wear indicators. Therefore, have the rear brake linings inspected if you hear a rear brake rubbing noise. Also have your rear brakes inspected each time you change

or rotate your tires and when you have the front brakes replaced.

## Parking brake (if equipped)

### Applying the parking brake



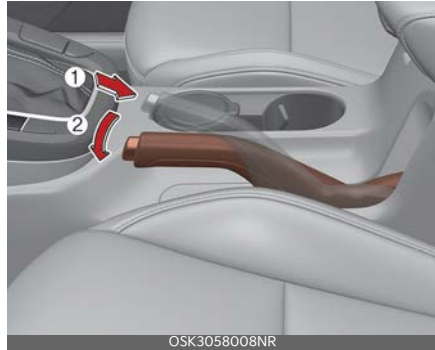
To engage the parking brake, first apply the foot brake and then pull up the parking brake lever as far as possible.

In addition it is recommended that when parking the vehicle on a incline, the shift lever should be in a low gear on manual transmission vehicles.

### **⚠ CAUTION**

- Driving with the parking brake applied will cause excessive brake pad and brake rotor wear.
- Do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the vehicle system and make endanger driving safety.

### Releasing the parking brake



To release the parking brake, first apply the foot brake and pull up the parking brake lever slightly. Secondly depress the release button (1) and lower the parking brake lever (2) while holding the button.

If the parking brake does not release or does not release all the way, have the system checked by an authorized Kia dealer.

- Be cautious when parking on a hill. Firmly engage the parking brake and place the shift lever in first or reverse gear (manual transmission). If your vehicle is facing downhill, turn the front wheels into the curb to help keep the vehicle from rolling. If your vehicle is facing uphill, turn the front wheels away from the curb to help keep the vehicle from rolling. If there is no curb or if it is required by other conditions to keep the vehicle from rolling, block the wheels.
- Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. If there is a risk that the parking brake

may freeze, apply it only temporarily while you put the shift lever in first or reverse gear (manual transmission) and block the rear wheels so the vehicle cannot roll. Then release the parking brake.

- Do not hold the vehicle on the upgrade with the accelerator pedal. This can cause the transmission to overheat. Always use the brake pedal or parking brake.

### **WARNING**

- Never allow anyone who is unfamiliar with the vehicle to touch the parking brake. If the parking brake is released unintentionally, serious injury may occur.
- All vehicles should always have the parking brake fully engaged when parking to avoid inadvertent movement of the vehicle which can injure occupants or pedestrians.



Check the brake warning light by turning the ignition switch or ENGINE START/STOP button ON (do not start the engine). This light will be appeared when the parking brake is applied with the ignition switch or ENGINE START/STOP button in the START or ON position.

Before driving, be sure the parking brake is fully released and the brake warning light is off.

If the brake warning light remains on after the parking brake is released while engine is running, there may be a malfunction in the brake system. Immediate attention is necessary.

If at all possible, cease driving the vehicle immediately. If that is not possible, use extreme caution while operating the vehicle and only continue to drive the vehicle until you can reach a safe location or repair shop.

### **Electronic Parking Brake (EPB) (if equipped)**

After parking the vehicle, apply the Electronic Parking Brake (EPB) to prevent the vehicle from being moved by the external force.

#### **Applying EPB manually**



1. Depress the brake pedal.
2. Pull up the EPB switch.

Make sure the warning light comes on. Also, the EPB is applied automatically if the Auto Hold button is on when the vehicle is turned off. In addition, if you pull up the EPB switch after the vehicle is turned off, the EPB will be applied.

### **WARNING**

Risk of accident and injury due to children left unattended in the vehicle.

If you leave children unaccompanied in the vehicle, they may be able to set the vehicle in motion, for example by:

- Releasing the parking brake.

- Shifting the transmission out of P (Park) position.
- Starting the engine. In addition, they may operate vehicle equipment.

Never leave children and animals unattended in the vehicle.

When leaving the vehicle, always take the smart key with you and lock the vehicle.

### \* NOTICE

On a steep incline or when pulling a trailer, if the vehicle does not remain at a standstill, do as follows:

1. Apply the EPB.
2. Pull up the EPB switch for more than 3 seconds.

Do not operate the EPB while the vehicle is moving except in an emergency situation.

### \* NOTICE

A click or electric brake motor whine sound may be heard while operating or releasing the EPB.

These conditions are normal and indicate that the EPB is functioning properly.

## Releasing EPB manually



Releasing the parking brake with EPB switch,

1. Have the ENGINE START/STOP button in the ON position.
2. Press the brake pedal.
3. Make sure the gear is shifted to P (Park) position.
4. Press the EPB switch.
5. Make sure the brake warning light goes off.

## Releasing EPB automatically

The EPB is released automatically under following conditions.

- Gear in P (Park)  
With the engine running engage the brake pedal and shift out of P (Park) to R (Reverse) or D (Drive).  
(if Shift Lever is equipped)
- Gear in N (Neutral)  
With the engine running engage the brake pedal and shift out of N (Neutral) to R (Reverse) or D (Drive).  
(if Shift Lever is equipped)
- Automatic transmission
  1. Start the engine.
  2. Fasten the driver's seat belt.
  3. Close the driver's door, hood and tailgate.
  4. Press the accelerator pedal while the gear is in R (Rear), D (Drive) or manual mode.

Make sure the brake warning light goes off.

### \* NOTICE

- For your safety, you can engage the EPB even though the ENGINE START/STOP button is in the OFF position, but you cannot release it.
- For your safety, press the brake pedal and release the parking brake manu-

ally with the EPB switch when you drive downhill or when backing up the vehicle.

Do not follow the above procedure when driving on a flat level ground. The vehicle may suddenly move forward.

### \* NOTICE

If the parking brake warning light is still on even though the EPB has been released, have the system checked by an authorized Kia dealer.

### ⚠ CAUTION

Do not drive your vehicle with the EPB applied. It may cause excessive brake pad and brake rotor wear.

## Applying EPB automatically

The EPB is applied automatically under following conditions:

- Shift to P (Park) on a slope
- Engine OFF while AUTO HOLD button is on
- When the vehicle moves a bit in P (Park) position
- Conditions below while AUTO HOLD is activated:
  - Driver's door is opened
  - Hood is opened
  - Tailgate is opened
  - Vehicle stops for more than approximately 10 minutes
- Requested by other systems

### \* NOTICE

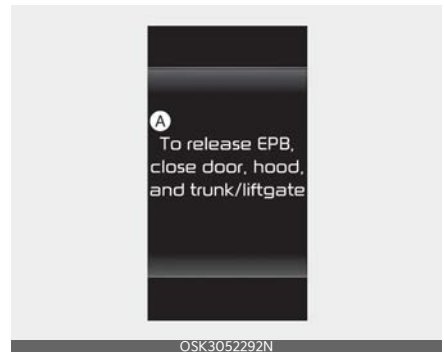
For Electronic Parking Brake (EPB) equipped vehicles with AUTO HOLD function used while driving, if the ENGINE START/STOP button has been

turned OFF, the EPB will be engaged automatically. Therefore, AUTO HOLD function should be turned off before the ENGINE START/STOP button is turned off.

## EPB warning

The EPB will display a warning message with sound under certain conditions.

- If you try to drive off while engaging the accelerator pedal with the EPB applied, but the EPB doesn't release automatically, a warning will sound and a message will appear.
- If the driver's seat belt is not fastened and the vehicle hood, driver's door or tailgate is opened, a warning will sound and a message will appear.



### **A: AUTO HOLD conditions not met. Close door, hood, and trunk/liftgate.**

- If there is a problem with the vehicle, a warning may sound and a message may appear.

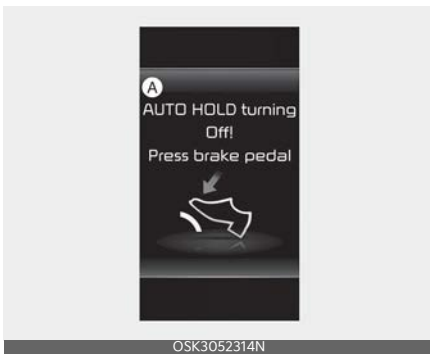
If the above situation occurs, press the brake pedal and release EPB by pressing the EPB switch.

**⚠ WARNING**

**Parking Brake Use**

- Never allow a passenger to touch the parking brake. If the parking brake is released unintentionally, serious injury may occur.
  - All vehicles should always have the parking brake fully engaged when parked to avoid inadvertent movement of the vehicles which can injure occupants or pedestrians.
- 
- A click or electric brake motor whine sound may be heard while operating or releasing the EPB. These conditions are normal and indicate that the EPB is functioning properly.
  - When leaving your keys with a parking lot attendant or valet, make sure to inform him/her how to operate the EPB.
  - The EPB may malfunction if you drive with the EPB applied.
  - When you automatically release EPB by pressing the accelerator pedal, press it slowly.

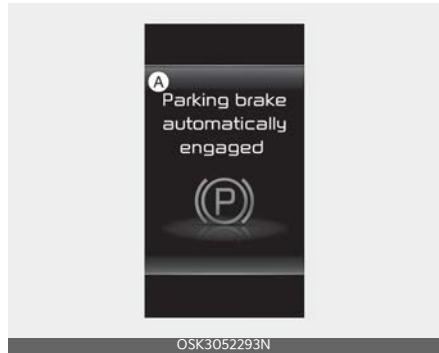
When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.



**\* NOTICE**

Engage the brake pedal when the above message appears for the Auto Hold and EPB may not activate.

If the EPB is applied while Auto Hold is activated because of an Electronic Stability Control (ESC) signal, a warning will sound and a message will appear.



**A: Parking brake automatically engaged**

**EPB malfunction indicator**

This warning light appears if the ENGINE START/STOP button is changed to the ON position and goes off in approximately 3 seconds if the system is operating normally.





If the EPB malfunction indicator remains on, comes on while driving, or does not come on when the ENGINE START/STOP button is changed to the ON position, this indicates that the EPB may have malfunctioned.

If this occurs, have your vehicle checked by an authorized Kia dealer.

The EPB malfunction indicator may appear when the ESC indicator comes on to indicate that the ESC is not working properly, but it does not indicate a malfunction of the EPB.

### \* NOTICE

The EPB warning light may appear if the EPB switch operates abnormally. Shut the engine off and turn it on again after a few minutes. The warning light will go off and the EPB switch will operate normally. However, if the EPB warning light is still on, have your vehicle checked by an authorized Kia dealer.

If the parking brake warning light does not appear or blinks even though the EPB switch was pulled up, the EPB is not applied.

If the parking brake warning light blinks when the EPB warning light is on, press the EPB switch, then pull it up. Once more press it back to its original position and pull it back up. If the EPB warning does not go off, have your vehicle checked by an authorized Kia dealer.

### Emergency braking with the EPB switch

If there is a problem with the brake pedal while driving, emergency braking is possible by pulling up and holding the EPB switch.

Braking is possible only while you are holding the EPB switch.

### ⚠ WARNING

Do not operate the Electronic Parking Brake (EPB) while the vehicle is moving except in an emergency situation. Applying the EPB while the vehicle is moving at normal speeds can cause a sudden loss of control of the vehicle. If you must use the EPB to stop the vehicle, use great caution in applying the brake.

### \* NOTICE

During emergency braking by the EPB, the parking brake warning light will appear to indicate that the system is operating.

If you notice a continuous noise or burning smell when the EPB is used for emergency braking, have your vehicle checked by an authorized Kia dealer.

### When the EPB is not released

If the EPB does not release normally, take your vehicle to a professional workshop by loading the vehicle on a flatbed tow truck and have the system checked. Visit an authorized Kia dealer.

### AUTO HOLD

The Auto Hold is designed to maintain the vehicle in a standstill even though the brake pedal is not pressed after the driver brings the vehicle to a complete stop by pressing the brake pedal.

### Applying Auto Hold function

1. Press the brake pedal and start the vehicle.
2. Press the Auto Hold button. The white AUTO HOLD indicator will come on indicating the system is in standby.



Before the Auto Hold will engage, the driver's door and engine hood must be closed.



When coming to a complete stop by pressing the brake pedal, the AUTO HOLD indicator changes from white to green indicating the AUTO HOLD is engaged. The vehicle will remain at a standstill even if you release the brake pedal.

If EPB is applied, Auto Hold will be released.

If you press the accelerator pedal with the gear in D (Drive) or Manual mode, the Auto Hold will be released automatically and the vehicle will start to move. The indicator changes from green to white indicating the Auto Hold is in standby and the EPB is released.

When driving off from Auto Hold by pressing the accelerator pedal, always check the surrounding area near your vehicle.

Slowly press the accelerator pedal for a smooth launch.

### Canceling Auto Hold function



- To cancel the Auto Hold operation, press the Auto Hold switch. The AUTO HOLD indicator will go out.
- To cancel the Auto Hold operation when the vehicle is at a standstill, press the Auto Hold switch while pressing the brake pedal.

### \* NOTICE

- The following are conditions when the Auto Hold will not engage (Auto Hold light will not turn green and the Auto Hold system remains in stand by):
  - The driver's door is opened
  - The engine hood is opened
  - The gear is in P (Park)
  - The gear is in R (Reverse)
  - The EPB is applied
- For your safety, the Auto Hold automatically switches to EPB under any of the following conditions (Auto Hold light remains white and the EPB automatically applies):

- The driver's door is opened.
- The engine hood is opened.
- The vehicle is in a standstill for more than 10 minutes.
- The vehicle is standing on a steep slope.
- The vehicle moved for a few seconds.

In these cases, the brake warning light comes on, the AUTO HOLD indicator changes from green to white, and a warning sounds and a message will appear to inform you that EPB has been automatically engaged. Before driving off again, press foot brake pedal, check the surrounding area near your vehicle and release parking brake manually with the EPB switch.

- If the AUTO HOLD indicator lights up yellow, the Auto Hold is not working properly. Take your vehicle and have the system checked by an authorized Kia dealer.

**▲ WARNING**

To reduce the risk of an accident, do not activate Auto Hold while driving downhill, backing up or parking your vehicle.

If there is a malfunction with the driver's door, liftgate or engine hood open detection system, the Auto Hold may not work properly.

Take your vehicle and have the system checked by an authorized Kia dealer.

**\* NOTICE**

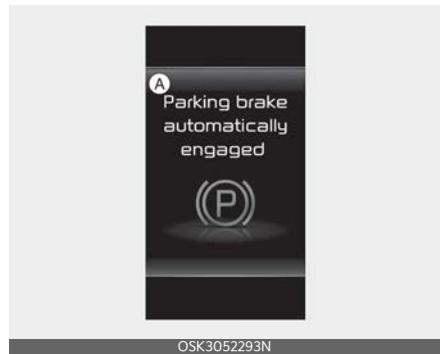
A click or electric brake motor whine sound may be heard while operating or releasing the EPB, but these conditions

are normal and indicate that the EPB is functioning properly.

**Warning messages**

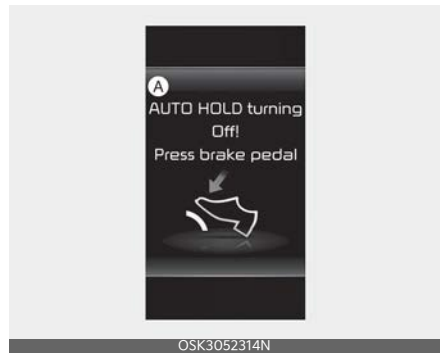
The Auto Hold function will display a warning message with sound under certain conditions.

When the EPB is applied from Auto Hold, a warning will sound and a message will appear.



**A: Parking brake automatically engaged**

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.

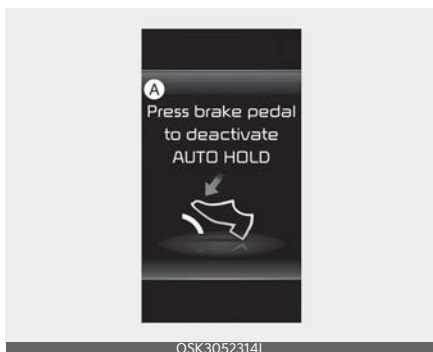


**A: AUTO HOLD turning Off! Press brake pedal**

## \* NOTICE

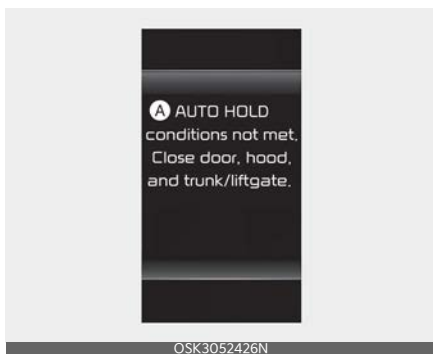
When this message is displayed, the Auto Hold and EPB may not operate. For your safety, press the brake pedal.

If you do not apply the brake pedal when you release the Auto Hold by pressing the [AUTO HOLD] switch, a warning will sound and a message will appear.



### A: Press brake pedal to deactivate AUTO HOLD

When you press the [AUTO HOLD] switch, if the driver's door and engine hood are not closed, a warning will sound and a message will appear on the LCD display.



### A: AUTO HOLD conditions not met. Close door, hood and liftgate

At this moment, press the [AUTO HOLD] button after closing the driver's door and engine hood.

## Electronic Stability Control (ESC)



The Electronic Stability Control (ESC) system is designed to stabilize the vehicle during cornering maneuvers. ESC checks where you are steering and where the vehicle is actually going. ESC applies the brakes at individual wheels and intervenes in the engine management system to stabilize the vehicle.

## ⚠ WARNING

Never drive too fast for the road conditions or too quickly when cornering. Electronic stability Control (ESC) will not prevent accidents. Excessive speed in turns, abrupt maneuvers and hydroplaning on wet surfaces can still result in serious accidents. Only a safe and attentive driver can prevent accidents by avoiding maneuvers that cause the vehicle to lose traction. Even with ESC installed, always follow all the normal precautions for driving - including driving at safe speeds for the conditions.

The Electronic Stability Control (ESC) system is an electronic system designed

to help the driver maintain vehicle control under adverse conditions. It is not a substitute for safe driving practices. Factors including speed, road conditions and driver steering input can all affect whether ESC will be effective in preventing a loss of control. It is still your responsibility to drive and corner at reasonable speeds and to leave a sufficient margin of safety.

When you apply your brakes under conditions which may lock the wheels, you may hear a “tik-tik” sound from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ESC is active.

### \* NOTICE

A click sound may be heard in the engine compartment when the vehicle begins to move after the engine is started. These conditions are normal and indicate that the Electronic Stability Control System is functioning properly.

## ESC operation

### ESC ON condition

When the ignition is turned ON, ESC and ESC OFF indicator lights appear for approximately 3 seconds, then ESC is turned on.

- Press the ESC OFF button after turning the ignition ON to turn ESC off. (ESC OFF indicator will appear). To turn the ESC on, press the ESC OFF button (ESC OFF indicator light will go off).
- When starting the engine, you may hear a slight ticking sound. This is the ESC performing an automatic system self-check and does not indicate a problem.

### When operating



When the ESC is in operation, the ESC indicator light blinks.

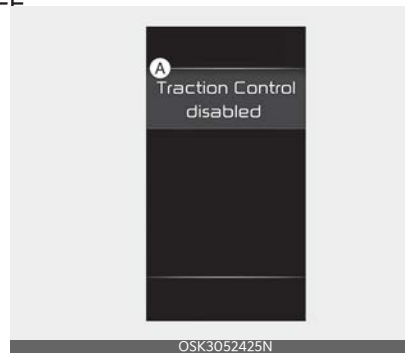
- When the Electronic Stability Control is operating properly, you can feel a slight pulsation in the vehicle. This is only the effect of brake control and indicates nothing unusual.
- When moving out of the mud or driving on a slippery road, the engine rpm (revolution per minute) may not be increased even if you press the accelerator pedal deeply. This is to maintain the stability and traction of the vehicle and does not indicate a problem.

### ESC OFF condition



To cancel ESC operation:

- State 1



#### A: Traction Control disabled

Press the ESC OFF button shortly (ESC OFF indicator light and message appears). At this state, the engine control function does not operate. In other words, the traction control function does not operate but only the brake control function operates.

- State 2



### A: Traction and Stability Control limited

Press the ESC OFF button for more than 3 seconds. ESC OFF indicator light and message appears and ESC OFF warning chime will sound. At this state, the engine control function and brake control function does not operate. In other words, the vehicle stability control function does not operate any more.

If the ignition switch or ENGINE START/STOP button is placed to the LOCK/OFF position when ESC is off, ESC remains off. Upon restarting the engine, the ESC will automatically turn on again.

### Indicator light

ESC indicator light



ESC OFF indicator light



When ignition switch or ENGINE START/STOP button is turned to ON, the indicator light appears, then goes off if the ESC system is operating normally.

The ESC indicator light blinks whenever ESC is operating or appears when ESC fails to operate.

ESC OFF indicator light comes on when the ESC is turned off with the button.

### ⚠ CAUTION

Driving with varying tire or wheel sizes may cause the ESC system to malfunction. When replacing tires, make sure they are the same type, size, brand, construction and tread pattern all four wheels.

### ⚠ WARNING

The Electronic Stability Control system is only a driving aid; use precautions for safe driving by slowing down on curved, snowy, or icy roads. Drive slowly and don't attempt to accelerate whenever the ESC indicator light is blinking, or when the road surface is slippery.

### ESC OFF usage

#### When driving

- ESC should be turned on for daily driving whenever possible.
- To turn ESC off while driving, press the ESC OFF button while driving on a flat road surface.

Never press the ESC OFF button while ESC is operating (ESC indicator light blinks).

If ESC is turned off while ESC is operating, the vehicle may slip out of control.

### \* NOTICE

- When operating the vehicle on a dynamometer, ensure that the ESC is turned off (ESC OFF light appeared).
- Turning the ESC off does not affect ABS or brake system operation.

**⚠ WARNING**

Never press the ESC OFF button while ESC is operating.

If the ESC is turned off while ESC is operating, the vehicle may go out of control. To turn ESC off while driving, press the ESC OFF button while driving on a flat road surface.

**Hill-start assist control (HAC)**

Hill start Assist Control is a comfort function. The main intend is to prevent the vehicle from rolling backwards while driving off uphill on an inclined surface. HAC holds the braking pressure builtup by driver during stopping procedure for 2 seconds after releasing brake pedal.

During the pressure-hold period, the driver has enough time to press the accelerator pedal to drive off.

The braking pressure is reduced as soon as the system detects the driver's intention to drive off

**⚠ WARNING**

The HAC is usually activated only for 2 seconds. The driver should be careful from the rolling backward causing the accident with behind objects or human, when the driver may feel the unintended rolling backward while driving off on hill due to insufficient brake hold pressure built-up by driver during stopping procedure.

**\* NOTICE**


- The HAC does not operate when the transmission shift lever is in the P (Park) or N (Neutral) position.

- The HAC activates even though the ESC is off but it does not activate when the ESC has malfunctioned.

**Vehicle stability management (VSM) (if equipped)**


This system provides further enhancements to vehicle stability and steering responses when a vehicle is driving on a slippery road or a vehicle detected changes in coefficient of friction between right wheels and left wheels when braking.

**VSM operation**


When the VSM is in operation, ESC indicator light () blinks.

When the vehicle stability management is operating properly, you can feel a slight pulsation in the vehicle. This is only the effect of brake control and indicates nothing unusual.

**The VSM does not operate when:**

- Driving on bank road such as gradient or incline
- Driving rearward
- ESC OFF indicator light () remains on the instrument cluster
- Electric Power Steering (EPS) indicator light remains on the instrument cluster


**VSM operation off**

If you press the ESC OFF button to turn off the ESC, the VSM will also cancel and the ESC OFF indicator light () appears.

To turn on the VSM, press the button again. The ESC OFF indicator light goes out.

## Malfunction indicator

The VSM can be deactivated even if you don't cancel the VSM operation by pressing the ESC OFF button. It indicates that a malfunction has been detected somewhere in the Electric Power Steering system or VSM system.

If the ESC indicator light () or EPS warning light remains on, have the system checked by an authorized Kia dealer.

### WARNING

- The Vehicle Stability Management system is not a substitute for safe driving practices but a supplementary function only. It is the responsibility of the driver to always check the speed and the distance to the vehicle ahead. Always hold the steering wheel firmly while driving.
- Your vehicle is designed to activate according to the driver's intention, even with installed VSM. Always follow all the normal precautions for driving at safe speeds for the conditions - including driving inclement weather and on a slippery road.
- Driving with varying tire or wheel sizes may cause the VSM system to malfunction. When replacing tires, make sure they are the same type, size, brand, construction and tread pattern all four wheels.

## Brake Assistant System (BAS)

The Brake Assistant System provides additional pressure when the brake pedal is momentarily and strongly depressed in a situation sudden braking is required while driving.

The Brake Assistant System reduces the time for ABS (Anti-Lock Brake System) control to enter and consequently reduces the braking distance, by providing additional pressure up to the point of ABS intervention.

## BAS operation

- When the vehicle speed is more than 30 km/h and the ABS control is not entered.
- When the brake pedal is depressed strongly over a certain level.
- When the friction of the road surface is above a certain level.

## BAS operation off

- The vehicle speed is below 10 km/h.
- The brake pedal is depressed over a certain conditions.
- The friction of the road surface is below a certain level.

### WARNING

## Brake Assist System (BAS) Limitations

The system may not operate depending on driver's driving habit, the degree to which the brake pedal is depressed and the road surface condition.

## Emergency Stop Signal (ESS) (if equipped)

The Emergency Stop Signal system alerts the driver behind by blinking the stop light when the vehicle suddenly stops or when the ABS activates in a stop. (The system activates when the vehicle speed is over 55km/h and the vehicle deceleration is over 7m/s<sup>2</sup> or the ABS activates when the vehicle emergency braking.)



When the vehicle speed is under 40 km/h and the ABS deactivates or the sudden stop situation is over, the stop light blinking will stop.

### CAUTION

The Emergency Stop Signal system will not work if the hazard warning flasher is already on.

## Good braking practices

Good braking practices help keep occupants safe and extend brake life.

- Check to be sure the parking brake is not engaged and the parking brake indicator light is out before driving away.
- Driving through water may get the brakes wet. They can also get wet when the vehicle is washed. Wet brakes can be dangerous! Your vehicle will not stop as quickly if the brakes are wet. Wet brakes may cause the vehicle to pull to one side. To dry the brakes, apply the brakes lightly until the braking action returns to normal, taking care to keep the vehicle under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so and call an authorized Kia dealer for assistance.
- Don't coast down hills with the vehicle out of gear. This is extremely hazardous. Keep the vehicle in gear at all times, use the brakes to slow down, then shift to a lower gear so that vehicle braking will help you maintain a safe speed.
- Don't "ride" the brake pedal. Resting your foot on the brake pedal while driving can be dangerous because the brakes might overheat and lose their effectiveness. It also increases the wear of the brake components.
- If a tire goes flat while you are driving, apply the brakes gently and keep the vehicle pointed straight ahead while you slow down. When you are moving slowly enough for it to be safe to do so, pull off the road and stop in a safe place.
- Be cautious when parking on a hill. Firmly engage the parking brake and place the shifter dial in P. If your vehicle is facing downhill, turn the front wheels into the curb to help keep the vehicle from rolling. If your vehicle is facing uphill, turn the front wheels away from the curb to help keep the vehicle from rolling. If there is no curb or if it is required by other conditions to keep the vehicle from rolling, block the wheels.
- Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. If there is a risk that the parking brake may freeze, apply it only temporarily while you put the shifter dial in P and block the rear wheels so the vehicle cannot roll. Then release the parking brake.
- Do not hold the vehicle on an incline with the accelerator pedal. This can cause the reduction gear to overheat. Always use the brake pedal or parking brake.

## ISG (Idle Stop and Go) system

Your vehicle may be equipped with the ISG system, which reduces fuel consumption by automatically shutting down the engine, when the vehicle is at a standstill. (For example: red light, stop sign and traffic jam)

The engine starts automatically as soon as the starting conditions are met.

The ISG system is ON whenever the engine is running.

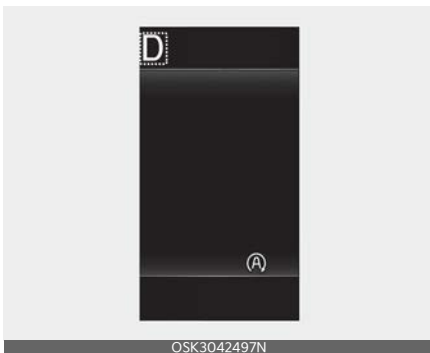
### \* NOTICE

When the engine automatically starts by the ISG system, some warning lights (ABS, ESC, ESC OFF, EPS or Parking brake warning light) may turn on for a few seconds.

This happens because of low battery voltage. It does not mean the system has malfunctioned.

## Auto stop

### To stop the engine in idle stop mode



Stop the vehicle completely by pressing the brake pedal when the shift lever is in the D (Drive) or N (Neutral) position.

The engine will stop and the green AUTO STOP (A) indicator on the instrument cluster will appear.

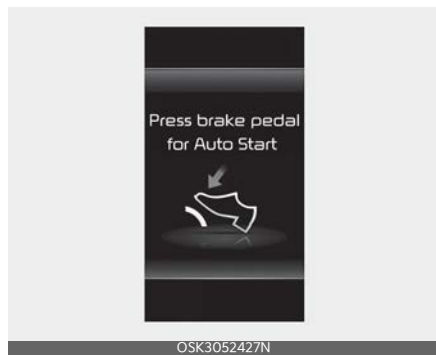


### A: Auto Stop is Off. Start vehicle manually

### \* NOTICE

If you open the engine hood in auto stop mode, the following will happen:

- The ISG system will deactivate (the light on the ISG OFF button will appear).
- A message will appear on the LCD display.



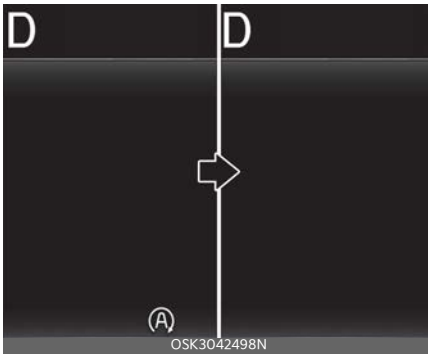
### A: Press brake pedal for Auto Start

- If you move the transmission lever from N to D (manual mode) or R without depressing the brake pedal after

stopping engine automatically, the engine does not restart automatically and a warning chime alarms. When this happens, press the brake pedal for auto start.

## Auto start

### To restart the engine from idle stop mode



- Release the brake pedal.
- or
- Move the shift gear to the R (Reverse) position or the manual mode while depressing the brake pedal.

The engine will start and the green AUTO STOP indicator (A) on the instrument cluster will go out.

### The engine will also restart automatically without any driver actions if the following occurs:

- The brake vacuum pressure is low.
- The engine has stopped for about 5 minutes.
- The air conditioning is ON with the fan speed set to the highest position.
- The front defroster is ON
- The battery is weak.

- The cooling and heating performance of the climate control system is unsatisfactory.

### Condition of ISG system operation

#### The ISG system will operate under the following condition:

- The driver's seatbelt is fastened
- The driver's door and hood are closed
- The brake vacuum pressure is adequate
- The battery sensor is activated and the battery is sufficiently charged
- Outside temperature is not too low or too high
- The vehicle is driven over a constant speed and stops
- The climate control system satisfies the conditions
- The vehicle is sufficiently warmed up
- The incline is gradual
- The steering wheel is turned less than 180 degrees and then the vehicle stops

#### \* NOTICE

- If the ISG system does not meet the operation condition, the ISG system is deactivated. The light on the ISG OFF button will appear and a message "Auto Stop conditions not met" will appear on the LCD display.
- If the light or notice comes on continuously, please check the operation condition.

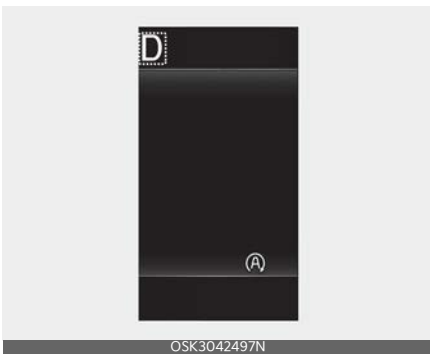
### ISG system deactivation



- If you wish to deactivate the ISG system, press the ISG OFF button (1). The light on the ISG OFF button will appear.
- If you press the ISG OFF button again, the system will be activated and the light on the ISG OFF button will turn off.

### ISG system malfunction

#### The system may not operate when:



The system may not operate when an ISG related sensor or system error occurs.

The following will happen:

- The AUTO STOP (A) indicator on the instrument cluster will stay on after blinking for 5 seconds.
- The light on the ISG OFF button will appear.

#### \* NOTICE

If the ISG OFF button light is not turned off by pressing the ISG OFF button again or if the ISG system continuously does not work correctly, have your vehicle inspected by an authorized Kia dealer.

When the engine is in Idle Stop mode, it's possible to restart the engine without the driver taking any action. Before leaving the car or doing anything in the engine compartment, stop the engine by turning the ignition switch to the LOCK/OFF position or removing the ignition key.

#### \* NOTICE

If the AGM battery is reconnected or replaced, ISG function will not operate immediately. If you want to use the ISG function, the battery sensor needs to be calibrated for approximately 4 hours with the ignition off. After calibration, turn the engine on and off 2 or 3 times.

## Drive mode integrated control system

The drive mode may be selected according to the driver's preference or road condition.



The mode changes whenever the DRIVE MODE button is pressed.

- **NORMAL mode:** NORMAL mode provides smooth driving.
- **SPORT mode:** SPORT mode provides sporty driving.

The driving mode will be set to NORMAL mode when the engine is restarted. If it is in NORMAL mode this mode will be set, when the engine is restarted.

### SPORT mode

**SPORT** SPORT mode focuses on dynamic driving.

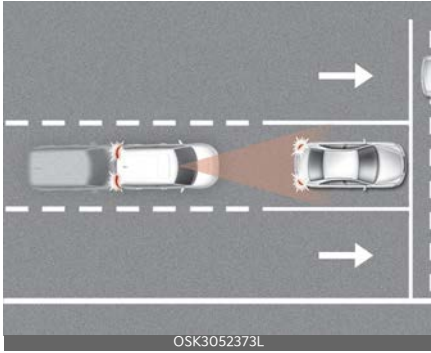
- When the DRIVE MODE button is pressed and the SPORT mode is selected, the SPORT indicator will appear.
- When the SPORT mode is activated, and the ENGINE START/STOP button is turned off and on it will change to NORMAL mode. To turn on the SPORT mode press DRIVE MODE button again.

- If the system is activated:
  - After increasing speed and taking your foot off the accelerator pedal it maintains the gear and rpm for a short time even though the accelerator pedal is not depressed.
  - Up-shifting is delayed.

### \* NOTICE

In Sport drive mode, the fuel efficiency may decrease.

### Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)



Forward Collision-Avoidance Assist is designed to help detect and monitor the vehicle ahead or help detect pedestrian or cyclist in the roadway and warn the driver that a collision is imminent with a warning message and an audible warning, apply emergency braking.

### Detecting sensor

Front view camera



Refer to the picture above for the detailed location of the detecting sensors.

### CAUTION

- Never disassemble the detecting sensor or sensor assembly, or cause any damage to it.
- If the detecting sensors have been replaced or repaired, have the vehicle inspected by an authorized Kia dealer.
- Never install any accessories or stickers on the front windshield, or tint the front windshield.
- Pay extreme caution to keep the front view camera dry.
- Never place any reflective objects (for example, white paper, mirror) over the dashboard.
- Do not place any objects near the front windshield or install any accessories on the front windshield. It can affect the performance of the defogging and defrosting function of the climate control system, which may prevent the Driver Assistance systems from operating.

### Forward Collision-Avoidance Assist settings

### Forward safety





OSK3052297N

**A: Driver Assistance**

- 1 Driving Safety**
- 2 Forward Safety**

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving Safety** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Safety** on the infotainment system. The initial warning activation timing of Forward Collision-Avoidance Assist can be changed.

- **Forward Safety:** Depending on the collision risk levels, an audible warning will sound, and the braking will be assisted. If the following menu is deactivated, Forward Collision-Avoidance Assist will turn off and the warning light (🚗) will appear on the cluster.

The driver can monitor Forward Collision-Avoidance Assist On/Off status from the Settings menu. If the warning light (🚗) remains ON when Forward Collision-Avoidance Assist is on, have the vehicle inspected by an authorized Kia dealer.

**⚠ WARNING**

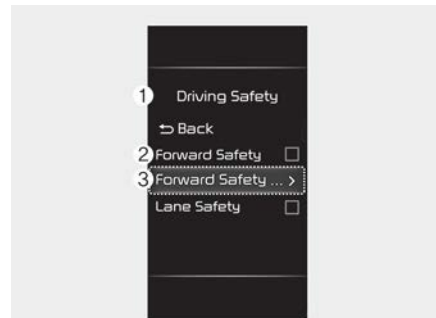
When the vehicle is restarted, Forward Collision-Avoidance Assist will always turn on. However, if **Forward Safety** is

deselected, the driver should always be aware of the surroundings and drive safely.

**⚠ CAUTION**

When the trailer is connected, Forward Collision-Avoidance Assist automatically turns off (if equipped). In this case, you cannot get help from Forward Collision-Avoidance Assist. Always drive with care.

**Warning timing**



OSK3052420L



OSK3052421L

**A: Driving Safety**

- 1 Forward Safety Warning Timing**
- 2 Standard**
- 3 Late**

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving Safety** → **Forward Safety Warning Timing** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Safety** → **Forward Safety Warning Timing** on the infotainment system to change the initial warning activation timing of Forward Collision-Avoidance Assist.

- Use **Standard** in normal driving conditions. If the Warning Timing seems sensitive, change it to **Late**.
- If **Late** is selected, Forward Collision-Avoidance Assist, warns the driver more slowly.

### Warning volume



### A: Driver Assistance

- 1 **Warning Volume**
- 2 **Driving Safety Priority**
- 3 **High**
- 4 **Medium**
- 5 **Low**

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

### ⚠ CAUTION

- The setting of the Warning Timing and Warning Volume applies to all functions of Forward Collision-Avoidance Assist.
- Even though **Standard** is selected for Warning Timing, if the front vehicle suddenly stops, the warning may seem late.
- Select **Late** for Warning Timing when traffic is light and when driving speed is slow.

### \* NOTICE

- If the vehicle is restarted, Warning timing and Warning volume will maintain the last setting.
- If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.



## Forward Collision-Avoidance Assist operation

### Basic function

The basic function for Forward Collision-Avoidance Assist is warned and controlled by the following level.

- Collision warning
- Emergency braking
- Stopping vehicle and ending brake control

### Collision warning



OSK3052298N

#### A: Collision warning!

Collision warning will be activated depending on the detected object and your vehicle driving speed.

Collision Warning will be activated in the following conditions.

- Vehicle: approximately 10~180 km/h (6~112 mph)
- Pedestrian or cyclist: approximately 10~80 km/h (6~50 mph)

## Emergency braking



OSK3052299N

#### A: Emergency braking

The warning message, and an audible warning will warn the driver that emergency braking will be assisted. The brake assist will be activated and it helps avoiding collision of a vehicle, pedestrian and cyclist.

Emergency braking will be activated depending on the detected object and your vehicle driving speed.

- Vehicle: approximately 10~60 km/h (6~37 mph)
- Pedestrian or cyclist: approximately 10~60 km/h (6~37 mph)

#### ⚠ CAUTION

The function operation range may decrease due to the front traffic condition or the surroundings of the vehicle.

## Stopping vehicle and ending brake control



### A: Drive carefully

When the vehicle is stopped due to emergency braking, the warning message will appear on the cluster.

For your safety, the driver should depress the brake pedal immediately and check the surroundings.

- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

### **⚠ WARNING**

- For your safety, change the Settings after parking the vehicle at a safe location.
- The driver should hold the responsibility to control the vehicle. Do not solely depend on Forward Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never deliberately operate Forward Collision-Avoidance Assist on people, objects, etc. It may cause serious injury or death.
- Forward Collision-Avoidance Assist may not operate if the driver

depresses the brake pedal to avoid collision.

- Depending on the road and driving conditions, Forward Collision-Avoidance Assist may warn the driver late or may not warn the driver.
- During Forward Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- If any other system's warning message is displayed or audible warning is generated, Forward Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surrounding is noisy.
- Forward Collision-Avoidance Assist may turn off or may not operate properly or may operate unnecessarily depending on the road conditions and the surroundings.
- Even if there is a problem with Forward Collision-Avoidance Assist, the vehicle's basic braking performance will operate properly.
- During emergency braking, braking control by Forward Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.

### **⚠ CAUTION**

Depending on the condition of the vehicle, pedestrian and cyclist in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. Forward Collision-

Avoidance Assist may only warn the driver, or it may not operate.

### \* NOTICE

- When a collision is imminent, the Forward Collision-Avoidance Assist may assist the driver with brakes if the driver fails to brake enough.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

## Forward Collision-Avoidance Assist malfunction and limitations

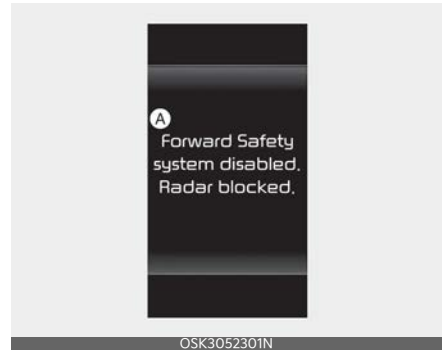
### Forward Collision-Avoidance Assist malfunction



#### A: Check forward safety systems

When Forward Collision-Avoidance Assist is not working properly, the warning message will appear, and the (⚠) and (⚠) warning lights will appear on the cluster. Have the vehicle inspected by an authorized Kia dealer.

## Forward Collision-Avoidance Assist disabled



#### A: Forward safety systems disabled. Camera obscured

When the front windshield where the front view camera is located, front radar cover or sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Forward Collision-Avoidance Assist.

If this occurs the warning message, and the (⚠) and (⚠) warning lights will appear on the cluster.

Forward Collision-Avoidance Assist will operate properly when snow, rain or foreign material is removed.

If Forward Collision-Avoidance Assist does not operate properly after obstruction (snow, rain, or foreign material) is removed, have the vehicle inspected by an authorized Kia dealer.

### ⚠ WARNING

- Even though the warning message or warning light does not appear on the cluster, Forward Collision-Avoidance Assist may not properly operate.
- Forward Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any

objects are not detected after turning ON the vehicle.

### Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- The temperature around the front view camera is high or low due to surrounding environment
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass
- Moisture is not removed or frozen on the windshield
- Washer fluid is continuously sprayed, or the wiper is on
- Driving in heavy rain or snow, or thick fog
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming traffic is reflected on the wet road surface, such as a puddle on the road
- An object is placed on the dashboard
- Your vehicle is being towed
- The surrounding is very bright or the surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlamps are not on or are not bright
- Only part of the vehicle, pedestrian or cyclist is detected
- The vehicle or motorcycle in front is a bus, heavy truck, truck with an unusually shaped cargo, trailer, etc.
- The vehicle in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or the vehicle does not look normal, such as when the vehicle is tilted, overturned, or the side of the vehicle is visible, etc.
- The front vehicle's ground clearance is low or high
- A vehicle, pedestrian or cyclist suddenly cuts in front
- The vehicle in front is detected late
- The vehicle in front is suddenly blocked by an obstacle
- The vehicle in front suddenly changes lane or suddenly reduces speed
- The vehicle in front is bent out of shape
- The front vehicle speed is fast or slow
- The vehicle in front steers in the opposite direction of your vehicle to avoid a collision
- With a vehicle in front, your vehicle changes lane at low speed
- The vehicle in front is covered with snow
- You are departing or returning to the lane
- Unstable driving
- You are on a roundabout and the vehicle or motorcycle in front is not detected
- You are continuously driving in a circle

- The vehicle in front has an unusual shape
- The vehicle in front is driving uphill or downhill
- The pedestrian or cyclist is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright
- The pedestrian or cyclist is wearing clothing or equipment that makes it difficult to detect



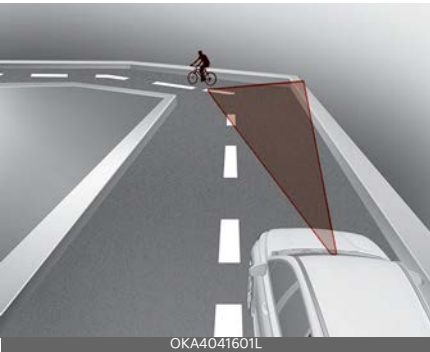
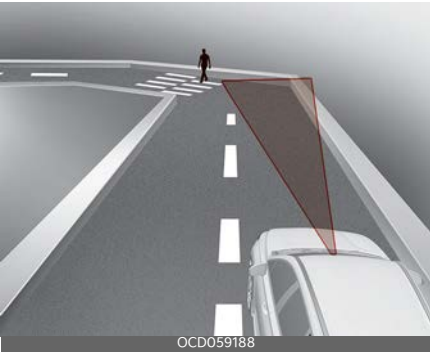
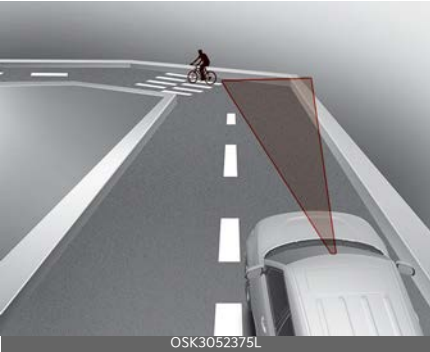
The illustration above shows the image the front view camera and front radar are capable of detecting as a vehicle, pedestrian and cyclist.

- The pedestrian or cyclist in front is moving very quickly
- The pedestrian or cyclist in front is short or is posing a low posture
- The pedestrian or cyclist in front has impaired mobility or moving intersected with the driving direction
- There is a group of pedestrians, cyclists or a large crowd in front
- The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect
- The pedestrian or cyclist is difficult to distinguish from the similarly shaped structure in the surroundings

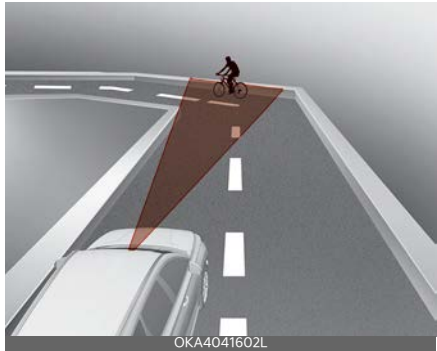
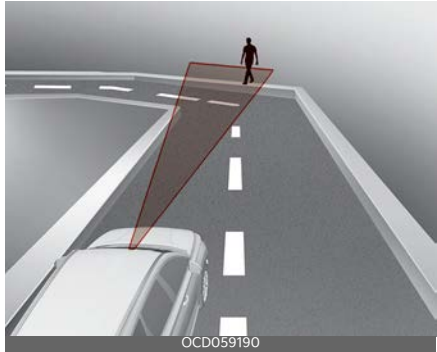
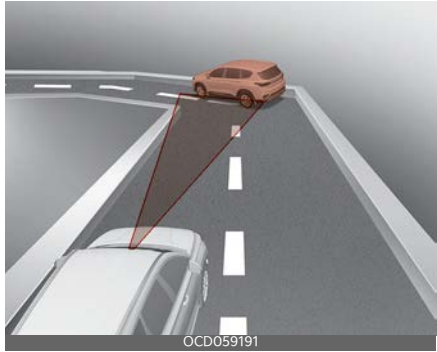
- You are driving by a pedestrian, cyclist, traffic signs, structures, etc., near the intersection
- When driving in the following places
  - Driving through steam, smoke or shadow
  - Driving through a tunnel or iron bridge
  - Driving in large areas where there are few vehicles or structures (i.e. desert, meadow, suburb, etc.)
  - Driving in a parking lot
  - Driving through toll gate, construction areas, partially paved roads, bumpy roads, speed bumps, etc.
  - Driving near areas containing metal substances, such as a construction zone, railroad, etc.
  - Driving on an incline road, curved road, etc.
  - Driving through a roadside with trees or streetlights
  - Driving through a narrow road where trees or grass are overgrown
  - There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise
- The adverse road conditions cause excessive vehicle vibrations while driving
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.

**⚠ WARNING**

- Driving on a curved road



sors. This may result in no warning, braking assist when necessary. When driving on a curve, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



Forward Collision-Avoidance Assist may not detect other vehicles, pedestrians or cyclists in front of you when driving on curved roads adversely affecting the performance of the sen-

Forward Collision-Avoidance Assist may detect a vehicle, pedestrian or cyclist in the next lane or outside the lane when driving on a curved road. If this occurs, Forward Collision-Avoidance Assist may unnecessarily warn the driver and control the brake. Always check the traffic conditions around the vehicle.

- Driving on an inclined road



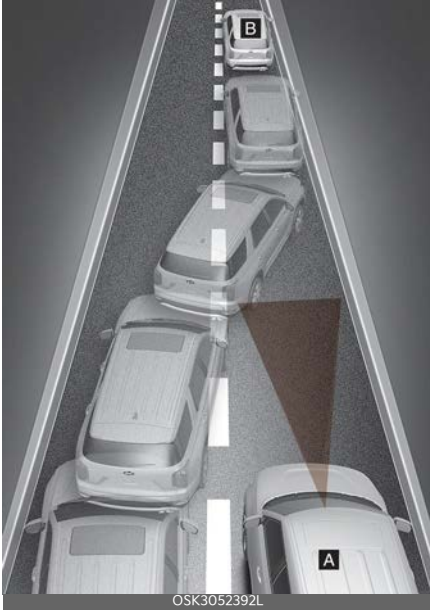
Forward Collision-Avoidance Assist may not detect other vehicles, pedestrians or cyclists in front of you while driving uphill or downhill, adversely affecting the performance of the sensors.

This may result in unnecessary warning, braking assist or no warning, braking assist when necessary.

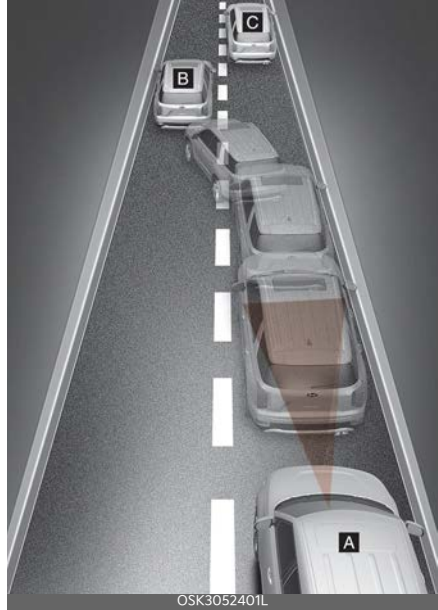
Also, vehicle speed may rapidly decrease when a vehicle, pedestrian or cyclist ahead is suddenly detected.

Always have your eyes on the road while driving uphill or downhill and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- Changing lanes



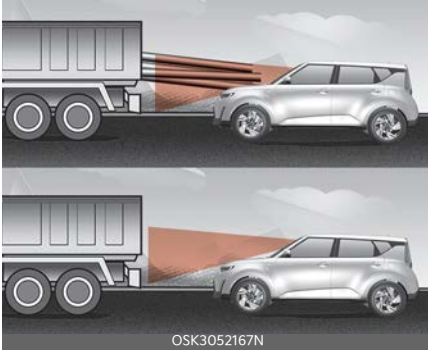
[A]: Your vehicle,  
[B]: Lane changing vehicle  
When a vehicle (B) moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Forward Collision-Avoidance Assist may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



[A]: Your vehicle,  
[B]: Lane changing vehicle,  
[C]: Same lane vehicle  
When a vehicle (B) in front of you merges out of the lane, Forward Collision-Avoidance Assist may not immediately detect the vehicle (C) that is now in front of you. In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- Detecting vehicle





If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. Forward Collision-Avoidance Assist may not be able to detect the cargo extending from the vehicle. In these instances, you must maintain a safe braking distance from the rearmost object, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain distance.

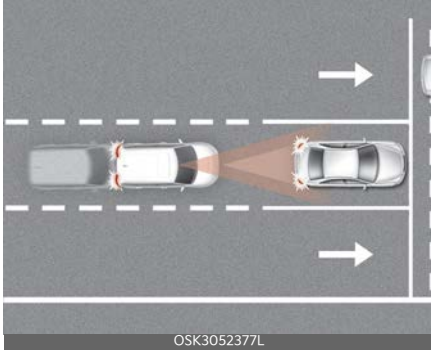
### **⚠ WARNING**

- When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist for safety reasons. If you tow a European spec trailer, the function may be limited.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, motorcycles, pedestrians and cyclists are detected.
- Forward Collision-Avoidance Assist does not operate on bicycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers.

- Forward Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.

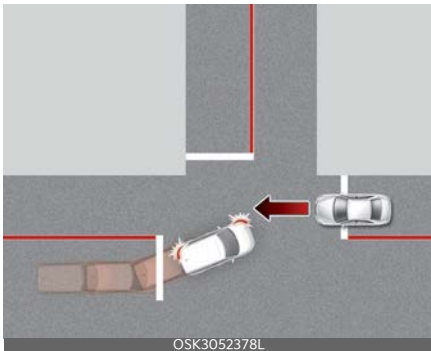
## Forward Collision-Avoidance Assist (FCA) (Sensor Fusion) (if equipped)

### Basic function



Forward Collision-Avoidance Assist is designed to help detect and monitor the vehicle ahead or help detect a powered two-wheeler, pedestrian or cyclist in the roadway and warn the driver that a collision is imminent with a warning message and warning and apply emergency braking.

### Junction Turning function



Junction Turning function can help avoid a collision with an oncoming vehicle in an adjacent lane when turning left at a

crossroad with the turn signal on by applying emergency braking.

### Detecting sensor

Front view camera



Front radar



Refer to the picture above for the detailed location of the detecting sensors.

### ⚠ CAUTION

Take the following precautions to maintain optimal performance of the detecting sensor:

- Never disassemble the detecting sensor or sensor assembly, or cause any damage to it.

- If the detecting sensors have been replaced or repaired, have the vehicle inspected by an authorized Kia dealer.
- Never install any accessories or stickers on the front windshield, or tint the front windshield.
- Pay extreme caution to keep the front view camera dry.
- Never place any reflective objects (for example, white paper, mirror) over the dashboard.
- Do not place any objects near the front windshield or install any accessories on the front windshield. It can affect the performance of the defogging and defrosting function of the climate control system, which may prevent the Driver Assistance systems from operating.
- Do not apply license plate frame or objects, such as a bumper sticker, film or a bumper guard, near the front radar cover.
- Always keep the front radar and cover clean and free of dirt and debris. Use only a soft cloth to wash the vehicle. Do not spray pressurized water directly on the sensor or sensor cover.
- If the radar or around the radar has been damaged or impacted in any way, Forward Collision-Avoidance Assist may not properly operate even though a warning message does not appear on the cluster. Have the vehicle inspected by an authorized Kia dealer.
- The genuine Kia front radar sensor covers are parts with quality and performance ensured. If arbitrarily applying paint on or changing the cover, Forward Collision-Avoidance Assist may not function properly. Use only Kia Genuine Parts or those of an

equivalent standard with proven quality and performance to repair or replace the radar sensor covers.

## Forward Collision-Avoidance Assist settings

### Forward safety



#### A: Driver Assistance

#### 1 Driving Safety

#### 2 Forward Safety

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving Safety** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Safety** on the infotainment system. The initial warning activation timing of For-

ward Collision-Avoidance Assist can be changed.

- **Forward Safety:** Depending on the collision risk levels, an audible warning will sound and the braking will be assisted. If the following menu is deactivated, Forward Collision-Avoidance Assist will turn off and the warning light (🚗) will appear on the cluster.

The driver can monitor Forward Collision-Avoidance Assist On/Off status from the Settings menu. If the warning light (🚗) remains ON when Forward Collision-Avoidance Assist is on, have the vehicle inspected by an authorized Kia dealer.

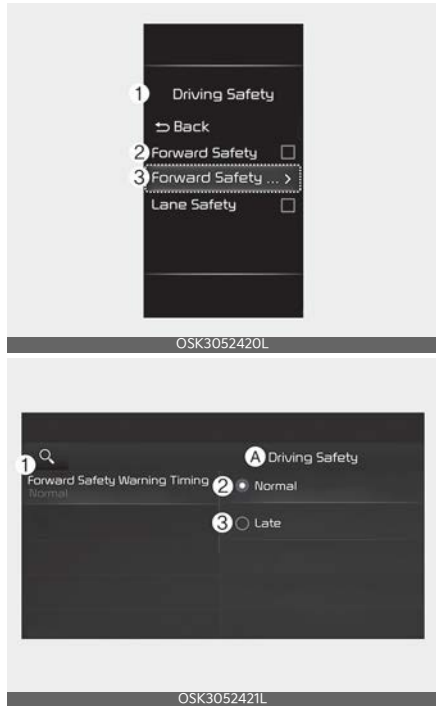
**⚠ WARNING**

When the vehicle is restarted, Forward Collision-Avoidance Assist will always turn on. However, if **Forward Safety** is deselected, the driver should always be aware of the surroundings and drive safely.

**⚠ CAUTION**

When the trailer is connected, Forward Collision-Avoidance Assist automatically turns off (if equipped). In this case, you cannot get help from Forward Collision-Avoidance Assist. Always drive with care.

**Forward Safety Warning Timing**



**A: Driving safety**

**1 Forward Safety Warning Timing**

**2 Standard**

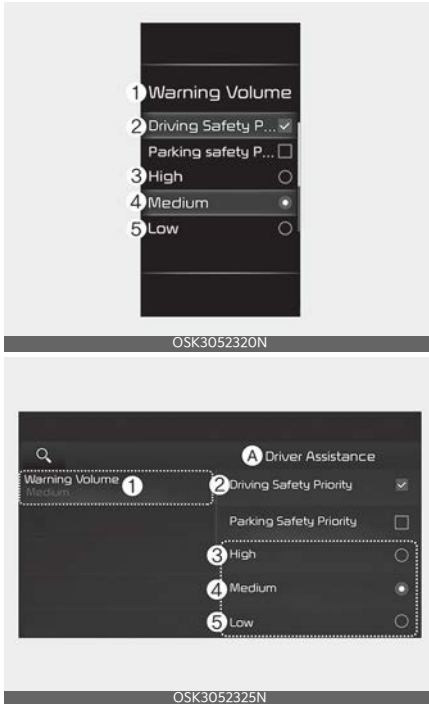
**3 Late**

With the vehicle on, touch **Settings** → **Driver assistance** → **Driving safety** → **Forward Safety Warning Timing** on the instrument cluster or **Settings** → **Vehicle** → **Driver assistance** → **Driving safety** → **Forward Safety Warning Timing** on the infotainment system to change the initial warning activation timing of Forward Collision-Avoidance Assist.

- Use **Standard** in normal driving conditions. If the Warning Timing seems sensitive, change it to **Late**.

- If **Late** is selected, Forward Collision-Avoidance Assist, warns the driver more slowly.

## Warning volume



A: Driver Assistance

- 1 Warning Volume
- 2 Driving Safety Priority
- 3 High
- 4 Medium
- 5 Low

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust

the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

### ⚠ CAUTION

- The setting of the Warning Timing and Warning Volume applies to all functions of Forward Collision-Avoidance Assist.
- Even though **Standard** is selected for Warning Timing, if the front vehicle suddenly stops, the warning may seem late.
- Select **Late** for Warning Timing when traffic is light and when driving speed is slow.

### \* NOTICE

- If the vehicle is restarted, Warning timing and Warning volume will maintain the last setting.
- If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

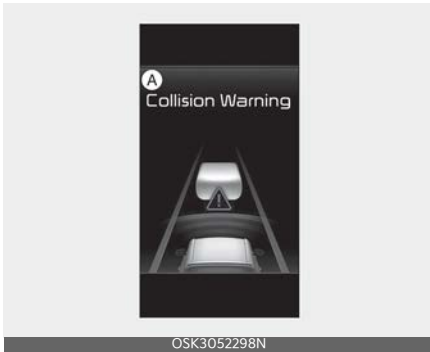
## Forward Collision-Avoidance Assist operation

### Basic function

The basic function for Forward Collision-Avoidance Assist is warned and controlled by the following level.

- Collision warning
- Emergency braking
- Stopping vehicle and ending brake control

## Collision warning



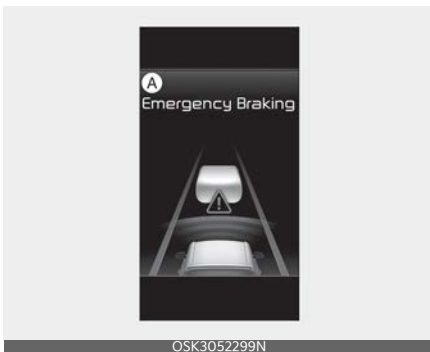
### A: Collision warning!

Collision warning will alert the driver with a warning message, and an audible warning.

Collision warning will be activated depending on the detected object and your vehicle driving speed.

- Vehicle: approximately 10~200 km/h (6~124 mph)
- Pedestrian or cyclist: approximately 10~85 km/h (6~53 mph)

## Emergency braking



### A: Emergency braking

The warning message, and an audible warning will warn the driver that emergency braking will be assisted. The brake assist will be activated and it helps

avoiding collision of a vehicle, pedestrian and cyclist.

Emergency braking will be activated depending on the detected object and your vehicle driving speed.

- Your vehicle :

	Driving target	Stopped target
Weak braking power	approximately 10~200 km/h (6~124 mph)	
Strong braking power	approximately 10~130 km/h (6~80 mph)	approximately 10~75 km/h (6~47 mph)

- Pedestrian or cyclist: approximately 10~65 km/h (6~53 mph)

## ⚠ CAUTION

The function operation range may decrease due to the front traffic condition or the surroundings of the vehicle.

## Stopping vehicle and ending brake control



### A: Drive carefully

When the vehicle is stopped due to emergency braking, the warning message will appear on the cluster.

For your safety, the driver should depress the brake pedal immediately and check the surroundings.

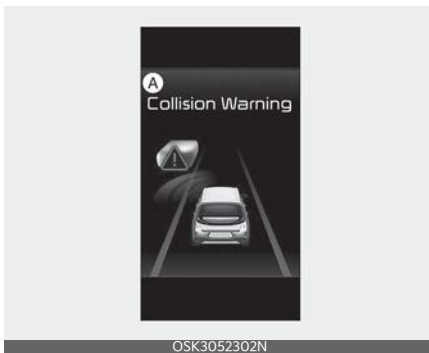
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

## Junction Turning function

The basic function for Junction turning function is warned and controlled by the following level.

- Collision warning
- Emergency braking
- Stopping vehicle and ending brake control

## Collision warning



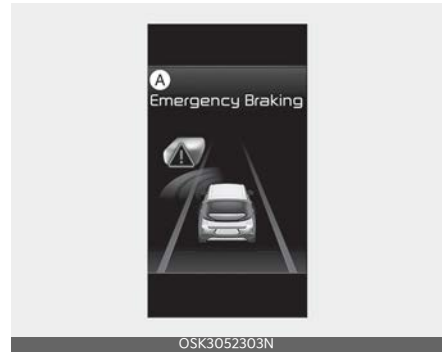
### A: Collision warning!

Collision warning will alert the driver with a warning message and an audible warning.

Collision warning will be activated depending on your vehicle driving speed and oncoming vehicle speed.

- Your driving speed: approximately 10~30 km/h (6~19 mph)
- Oncoming vehicle speed: 30~70 km/h (19~44 mph)

## Emergency braking



### A: Emergency braking

The warning message and an audible warning will warn the driver that emergency braking will be assisted. The brake assist will be activated and it helps avoiding collision of a vehicle.

Emergency braking will be activated depending on your vehicle driving speed and oncoming vehicle speed.

- Your driving speed: approximately 10~30 km/h (6~19 mph)
- Oncoming vehicle speed: approximately 30~70 km/h (19~44 mph)

## Stopping vehicle and ending brake control



### A: Drive carefully

When the vehicle is stopped due to emergency braking, the warning message will appear on the cluster. For your safety, the driver should depress the brake pedal immediately and check the surroundings.

- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

### \* NOTICE

For more details on warning messages, refer to "Collision warning" on page 5-54.

### ⚠ WARNING

- For your safety, change the Settings after parking the vehicle at a safe location.
- Forward Collision-Avoidance Assist does not operate in all situations or cannot avoid all collisions.
- The driver should hold the responsibility to control the vehicle. Do not solely depend on Forward Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never deliberately operate Forward Collision-Avoidance Assist on people, objects, etc. It may cause serious injury or death.
- Forward Collision-Avoidance Assist may not operate if the driver depresses the brake pedal to avoid collision.
- Depending on the road and driving conditions, Forward Collision-Avoidance Assist may warn the driver late or may not warn the driver.

- During Forward Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- If any other system's warning message is displayed or audible warning is generated, Forward Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surrounding is noisy.
- Forward Collision-Avoidance Assist may turn off or may not operate properly or may operate unnecessarily depending on the road conditions and the surroundings.
- Even if there is a problem with Forward Collision-Avoidance Assist, the vehicle's basic braking performance will operate properly.
- During emergency braking, braking control by Forward Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.

### ⚠ CAUTION

- Depending on the condition of the vehicle, motorcycle, pedestrian and cyclist in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. Forward Collision-Avoidance Assist may only warn the driver, or it may not operate.
- Forward Collision-Avoidance Assist will operate under certain conditions by judging the risk level based on the



condition of the oncoming vehicle, driving direction, speed and surroundings.

### \* NOTICE

- In a situation where collision is imminent, braking may be assisted by Forward Collision-Avoidance Assist when braking is insufficient by the driver.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

## Forward Collision-Avoidance Assist malfunction and limitations

### Forward Collision-Avoidance Assist malfunction



#### A: Check forward safety systems

When Forward Collision-Avoidance Assist is not working properly, the warning message will appear, and the (A) and (A) warning lights will appear on the cluster. Have the vehicle inspected by an authorized Kia dealer.

## Forward Collision-Avoidance Assist disabled



#### A: Forward safety systems disabled. Camera obscured

When the front windshield where the front view camera is located, front radar cover or sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Forward Collision-Avoidance Assist.

If this occurs the warning message, and the (A) and (A) warning lights will appear on the cluster.

Forward Collision-Avoidance Assist will operate properly when snow, rain or foreign material is removed.

If Forward Collision-Avoidance Assist does not operate properly after obstruction (snow, rain, or foreign material) is removed, have the vehicle inspected by an authorized Kia dealer.

### ⚠ WARNING

- Even though the warning message or warning light does not appear on the cluster, Forward Collision-Avoidance Assist may not properly operate.
- Forward Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any

objects are not detected after turning ON the vehicle.

### Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- The temperature around the front view camera is high or low due to surrounding environment
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass
- Moisture is not removed or frozen on the windshield
- Washer fluid is continuously sprayed, or the wiper is on
- Driving in heavy rain or snow, or thick fog
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming traffic is reflected on the wet road surface, such as a puddle on the road
- An object is placed on the dashboard
- Your vehicle is being towed
- The surrounding is very bright or the surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlamps are not on or are not bright
- Only part of the vehicle, powered two-wheeler, pedestrian or cyclist is detected
- The vehicle or powered two-wheeler in front is a bus, heavy truck, truck with an unusually shaped cargo, trailer, etc.
- The vehicle or powered two-wheeler in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or the vehicle does not look normal, such as when the vehicle is tilted, overturned, or the side of the vehicle is visible, etc.
- The front vehicle's ground clearance is low or high
- A vehicle, powered two-wheeler, pedestrian or cyclist suddenly cuts in front
- The bumper around the front radar is impacted, damaged or the front radar is out of position
- The temperature around the front radar is high or low
- Driving through a tunnel or iron bridge
- Driving in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.
- A material is near that reflects very well on the front radar, such as a guardrail, nearby vehicle, etc.
- The cyclist in front is on a bicycle made of material that does not reflect on the front radar

- The vehicle or powered two-wheeler in front is detected late
- The vehicle or powered two-wheeler in front is suddenly blocked by an obstacle
- The vehicle or powered two-wheeler in front suddenly changes lane or suddenly reduces speed
- The vehicle or powered two-wheeler in front is bent out of shape
- The front vehicle or powered two-wheeler or motorcycle speed is fast or slow
- The vehicle or powered two-wheeler in front steers in the opposite direction of your vehicle to avoid a collision
- With a vehicle or powered two-wheeler in front, your vehicle changes lane at low speed
- The vehicle in front is covered with snow
- You are departing or returning to the lane
- Unstable driving
- You are on a roundabout and the vehicle or powered two-wheeler in front is not detected
- You are continuously driving in a circle
- The vehicle in front has an unusual shape
- The vehicle in front is driving uphill or downhill
- The pedestrian or cyclist is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright
- The pedestrian or cyclist is wearing clothing or equipment that makes it difficult to detect



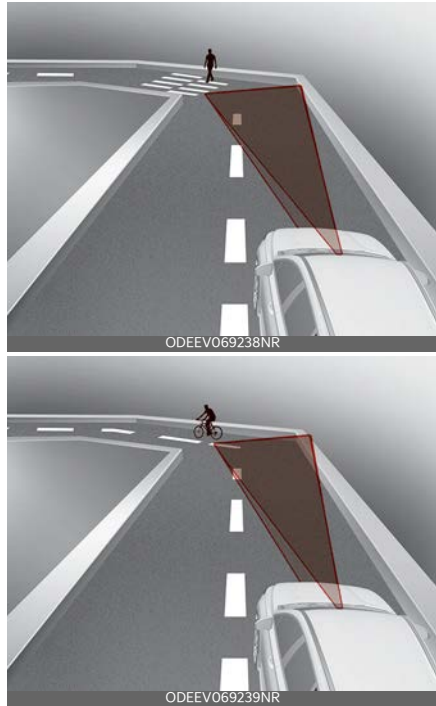
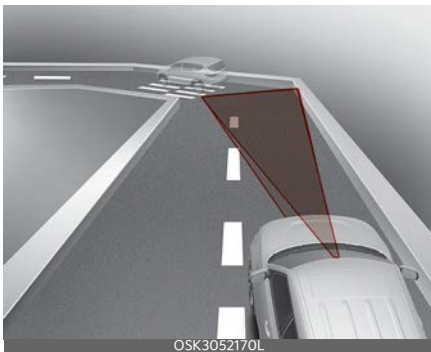
The illustration above shows the image the front view camera and front radar are capable of detecting as a vehicle, powered two-wheeler, pedestrian and cyclist.

- The pedestrian or cyclist in front is moving very quickly
- The pedestrian or cyclist in front is short or is posing a low posture
- The pedestrian or cyclist in front has impaired mobility or moving intersected with the driving direction
- There is a group of pedestrians, cyclists or a large crowd in front
- The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect
- The pedestrian or cyclist is difficult to distinguish from the similarly shaped structure in the surroundings
- You are driving by a pedestrian, cyclist, traffic signs, structures, etc., near the intersection
- When driving in the following places
  - Driving through steam, smoke or shadow
  - Driving through a tunnel or iron bridge

- Driving in large areas where there are few vehicles or structures (i.e. desert, meadow, suburb, etc.)
- Driving in a parking lot
- Driving through toll gate, construction areas, partially paved roads, bumpy roads, speed bumps, etc.
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.
- Driving on an incline road, curved road, etc.
- Driving through a roadside with trees or streetlights
- Driving through a narrow road where trees or grass are overgrown
- There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise
- The adverse road conditions cause excessive vehicle vibrations while driving
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.

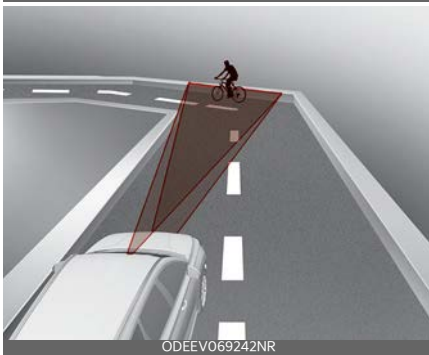
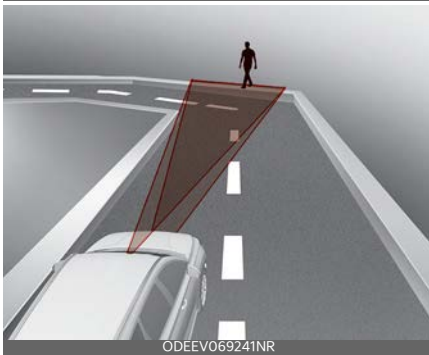
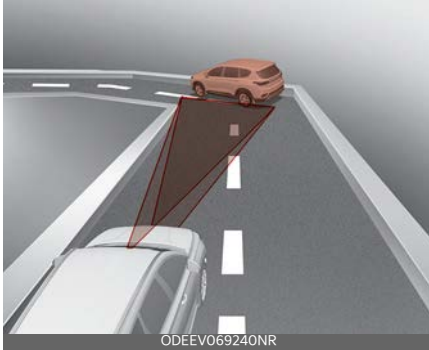
**⚠ WARNING**

- Driving on a curved road



Forward Collision-Avoidance Assist may not detect other vehicles, powered two-wheelers, pedestrians or cyclists in front of you when driving on curved roads adversely affecting the performance of the sensors. This may result in no warning, braking assist when necessary.

When driving on a curve, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



Forward Collision-Avoidance Assist may detect a vehicle, powered two-wheeler, pedestrian or cyclist in the next lane or outside the lane when driving on a curved road. If this occurs, Forward Collision-Avoidance Assist may unnecessarily warn the driver and control the brake.

Always check the traffic conditions around the vehicle.

- Driving on an inclined road



Forward Collision-Avoidance Assist may not detect other vehicles, powered two-wheelers, pedestrians or cyclists in front of you while driving

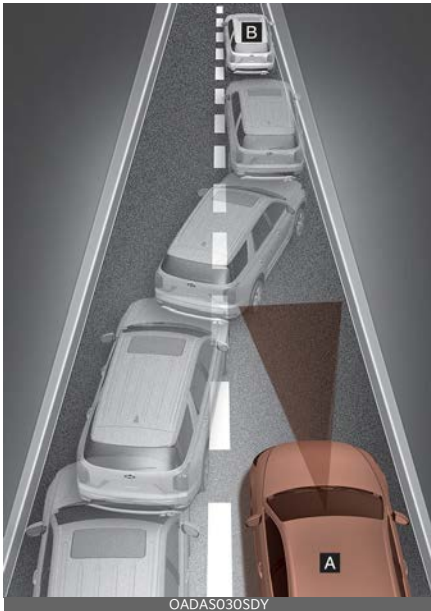
uphill or downhill, adversely affecting the performance of the sensors.

This may result in unnecessary warning, braking assist or no warning, braking assist when necessary.

Also, vehicle speed may rapidly decrease when a vehicle, powered two-wheeler, pedestrian or cyclist ahead is suddenly detected.

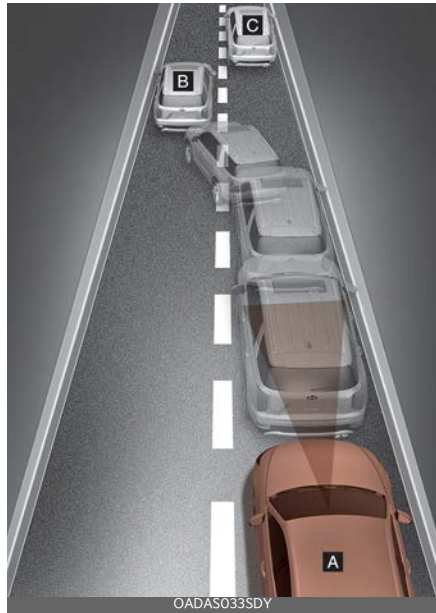
Always have your eyes on the road while driving uphill or downhill and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- Changing lanes



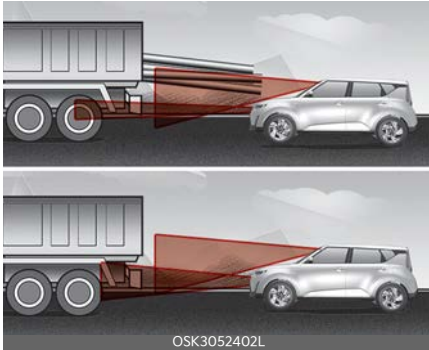
[A]: Your vehicle,  
[B]: Lane changing vehicle  
When a vehicle (B) moves into your lane, it cannot be detected by the sensor until it is in the sensor's detection range.

Forward Collision-Avoidance Assist may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



[A]: Your vehicle,  
[B]: Lane changing vehicle,  
[C]: Same lane vehicle  
When a vehicle (B) in front of you merges out of the lane, Forward Collision-Avoidance Assist may not immediately detect the vehicle (C) that is now in front of you. In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- Detecting vehicle



If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. Forward Collision-Avoidance Assist may not be able to detect the cargo extending from the vehicle. In these instances, you must maintain a safe braking distance from the rearmost object, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain distance.

### **⚠ WARNING**

- When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist for safety reasons. If you tow a European spec trailer, the function may be limited.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, motorcycles, pedestrians and cyclists are detected.
- Forward Collision-Avoidance Assist does not operate on bicycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers.

- Forward Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.

### **This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

## Lane Keeping Assist (LKA) (if equipped)

Lane Keeping Assist is designed to help detect lane markings (or road edges) while driving over a certain speed. Lane Keeping Assist will warn the driver if the vehicle leaves the lane without using the turn signal, or will automatically assist the driver's steering to help prevent the vehicle from departing the lane.

### Detecting sensor

Front view camera



The front view camera is used as a detecting sensor to detect lane markings (or road edges).

Refer to the picture above for the detailed location of the detecting sensor.

### **⚠ CAUTION**

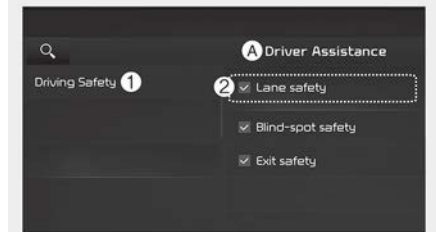
For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

## Lane Keeping Assist settings

### Lane safety



OSK3052485L



OSK3052486L

### A: Driver Assistance

#### 1 Driving Safety

#### 2 Lane Safety

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving Safety** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Safety** on the infotainment system.

- **Lane Safety:** If Lane safety is selected, Lane Keeping Assist will automatically assist the driver's steering when lane departure is detected to help prevent the vehicle from moving out of its lane. If Lane safety is off,



the yellow indicator light (🚗) will appear on the cluster.

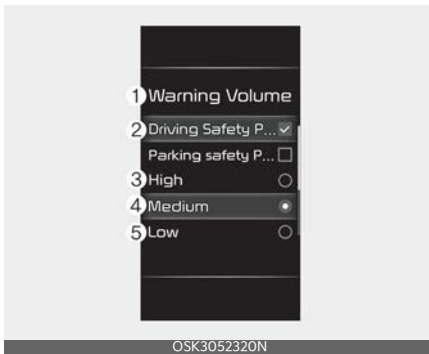
**⚠ WARNING**

- Lane Keeping Assist does not control the steering wheel when the vehicle is driven in the middle of the lane.
- The driver should always be aware of the surroundings and steer the vehicle if **Lane Safety** is deselected.

**\* NOTICE**

When the trailer is connected, Lane Keeping Assist automatically turns off (if equipped). In this case, you cannot get help from Forward Collision-Avoidance Assist. Always drive with care.

**Warning volume**



A: **Driver Assistance**

1 **Warning Volume**

2 **Driving Safety Priority**

3 **High**

4 **Medium**

5 **Low**

With the vehicle on, touch **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

**\* NOTICE**

If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

### Lane Keeping Assist operation

#### Turning Lane Keeping Assist On/Off



- With the vehicle on, press and hold the Lane Driving Assist button located on the steering wheel to turn on Lane Keeping Assist. The white (LKA icon) indicator light will appear on the cluster. Press and hold the Lane Driving Assist button again to turn off Lane Keeping Assist.

#### \* NOTICE

When the Lane Driving Assist button is pressed shortly, Lane Following Assist will turn on and off.

### Warning and control

Left



Right



Lane Keeping Assist will warn and help control the vehicle with Lane Departure Warning and Lane Keeping Assist.

#### Lane Departure Warning

The green (LKA icon) indicator light and the lane line depending on which direction the vehicle is veering will blink on the cluster.

An audible warning will warn the driver that the vehicle is departing from the projected lane in front.

Lane departure warning will be activated in the following conditions.

- Your driving speed: Approximately 60~160 km/h (40~100 mph)

### Lane Keeping Assist

The green (🚗) indicator light will blink on the cluster, and the steering wheel will make adjustments to warn the driver that the vehicle is departing from the projected lane in front.

Lane Keeping Assist will be activated in the following conditions.

- Your driving speed: Approximately 60~160 km/h (40~100 mph)

- The hands-off warning message may appear late depending on road conditions. Always have your hands on the steering wheel while driving.
- If the steering wheel is held very lightly, the hands-off warning message may appear because Lane Keeping Assist may not recognize that the driver has their hands on the steering wheel.
- If you attach objects to the steering wheel, the hands-off warning may not work properly.

### Hands-off warning



#### A: Keep hands on steering wheel

If the driver takes their hands off the steering wheel for several seconds, the warning message will appear on the cluster, and an audible warning will sound in stages.

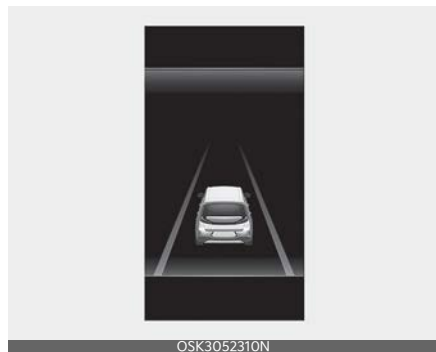
### ⚠ WARNING

- The steering wheel may not be assisted if the steering wheel is held very tight or the steering wheel is steered over a certain degree.
- Lane Keeping Assist does not operate at all times. It is the responsibility of the driver to safely steer the vehicle and to maintain the vehicle in its lane.

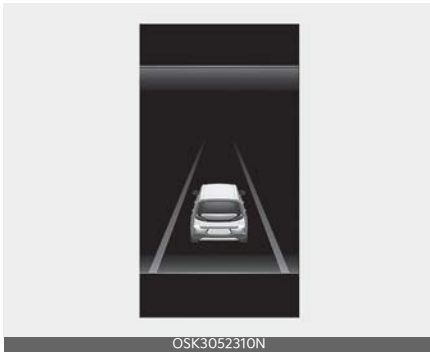
### \* NOTICE

- For more details on setting the functions in the infotainment system Vehicle Settings, refer to "LCD Display Modes" on page 4-48.
- When lane markings (or road edges) are detected, the lane lines on the cluster will change from grey to white and the green (🚗) indicator light will appear.
- When lane markings (or road edges) are detected, the green lane lines on the cluster may appear.

Lane undetected



Lane detected



- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.
- Even though the steering is assisted by Lane Keeping Assist, the driver may control the steering wheel.
- The steering wheel may feel heavier or lighter when the steering wheel is assisted by Lane Keeping Assist than when it is not.

### Lane Keeping Assist malfunction and limitations

### Lane Keeping Assist malfunction



A: Check Lane Safety system

When Lane Keeping Assist is not working properly, the warning message will appear and the yellow (A) indicator light will appear on the cluster. If this occurs, have the function inspected by an authorized Kia dealer.

### Limitations of Lane Keeping Assist

Lane Keeping Assist may not operate properly or may operate unexpectedly under the following circumstances:

- The lane is contaminated or difficult to detect because:
  - The lane markings (or road edge) are covered with rain, snow, dirt, oil, etc.
  - The color of the lane marking (or road edge) is not distinguishable from the road
  - There are markings (or road edges) on the road near the lane or the markings (or road edges) on the road look similar to the lane markings (or road edge)
  - The lane marking (or road edge) is indistinct or damaged
  - The shadow is on the lane marking (or road edge) by a median strip, trees, guardrail, noise barriers, etc.
- The lane number increases or decreases, or the lane markings (or road edges) are crossing
- There are more than two lane markings (or road edges) on the road
- The lane markings (or road edges) are complicated or a structure substitutes for the lines, such as a construction area
- There are road markings, such as zig-zag lanes, crosswalk markings and road signs

- The lane suddenly disappears, such as at the intersection
- The lane (or road width) is very wide or narrow
- There is a road edge without a lane
- There is a boundary structure in the roadway, such as a tollgate, sidewalk, curb, etc.
- The distance to the front vehicle is extremely short or the vehicle in front is covering the lane marking (or road edge)

### \* NOTICE

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

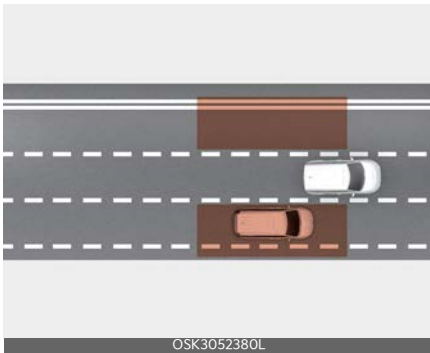
### ▲ WARNING

- The driver should hold the responsibility to safely drive and control the vehicle. Do not solely rely on Lane Keeping Assist and drive dangerously.
- The operation of Lane Keeping Assist can be canceled or not work properly depending on road conditions and surroundings. Always be cautious while driving.
- Refer to "Limitations of Lane Keeping Assist" if the lane is not detected properly.
- When you are towing a trailer or another vehicle, turn off Lane Keeping Assist for safety reasons. If you tow a European spec trailer, the function may be limited.
- If the vehicle is driven at high speed, the steering wheel will not be controlled. The driver must always follow the speed limit when using Lane Keeping Assist.
- If any other system's warning message is displayed or audible warning is generated, Lane Keeping Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Lane Keeping Assist if the surrounding is noisy. Adjust the vehicle volume moderately and always pay attention to the surrounding.
- If you attach objects to the steering wheel, steering may not be assisted properly.
- Lane Keeping Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.
- Lane Keeping Assist will not operate when:
  - The turn signal or hazard warning flasher is turned on.
  - The vehicle is not driven in the center of the lane when Lane Keeping Assist is turned on or right after changing a lane.
  - ESC (Electronic Stability Control) or VSM (Vehicle Stability Management) is activated.
  - The vehicle is driven on a sharp curve.
  - Vehicle speed is below 55 km/h (35 mph) or above 170 km/h (110 mph).
  - The vehicle makes sharp lane changes.
  - The vehicle brakes suddenly.

## Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)

Blind-Spot Collision-Avoidance Assist is designed to help detect and monitor approaching vehicles in the driver's blind spot area and warn the driver of a possible collision with a warning message and audible warning.

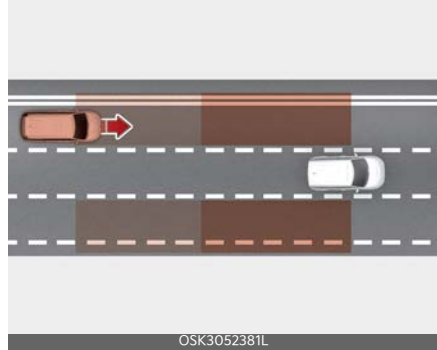
In addition, if there is a risk of collision when driving forward out of a parking space, Blind-Spot Collision-Avoidance Assist can help avoid a collision assisting with applying the brake.



Blind-Spot Collision-Avoidance Assist helps detect and informs the driver that a vehicle is in the blind spot.

### ⚠ CAUTION

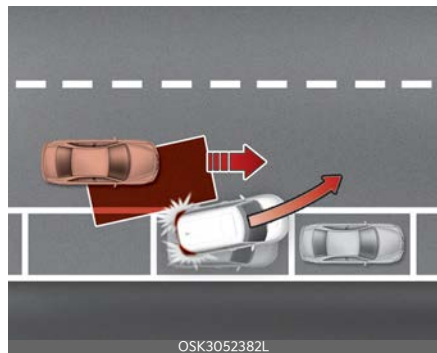
The detecting range may vary depending on the speed of your vehicle. Even if there is a vehicle in the blind spot area, Blind-Spot Collision-Avoidance Assist may not warn you when you pass by at high speeds.



Blind-Spot Collision-Avoidance Assist helps detect and informs the driver that a vehicle is approaching at high speed from the blind spot area.

### ⚠ CAUTION

Warning timing may vary depending on the speed of the vehicle approaching at high speed.



When you are driving forward out of a parking space, if Blind-Spot Collision-Avoidance Assist judges that there is a collision risk with an approaching vehicle in the blind spot, it can help avoid collision by applying the brake.

## Detecting sensor

Rear corner radar



Refer to the picture above for the detailed location of the detecting sensors.

### ⚠ CAUTION

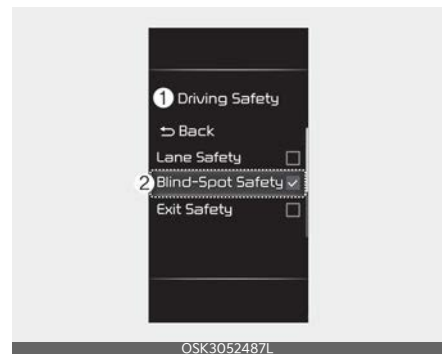
- Never disassemble the detecting sensor assembly, or cause any damage to it.
- If the detecting sensor or near the sensor has been damaged or impacted in any way, even though the warning message does not appear on the cluster, Blind-Spot Collision-Avoidance Assist may not operate properly. Have the function be inspected by an authorized Kia dealer.
- If the detecting sensors have been replaced or repaired, have the vehicle inspected by an authorized Kia dealer.
- The genuine Kia rear bumpers which the Rear corner radar sensors are mounted are parts with quality and performance ensured. If arbitrarily applying paint on or changing the bumper, the Blind-Spot Collision-Avoidance Assist may not function properly. Use only Kia Genuine Parts or those of an equivalent standard

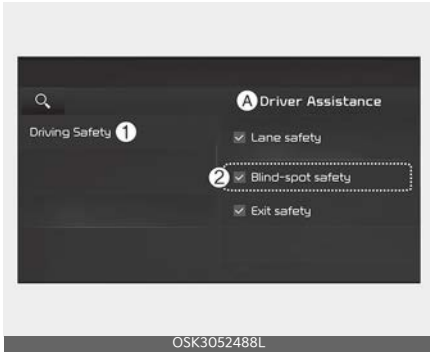
with proven quality and performance to repair or replace the bumper.

- Do not apply license plate frame or objects, such as a bumper sticker, film or a bumper guard near the rear corner radar.
- Blind-Spot Collision-Avoidance Assist may not work properly if the bumper have been replaced, or the surroundings of the rear corner radar has been damaged or paint has been applied.
- If a trailer, carrier, etc., is installed, it may adversely affect the performance of the rear corner radar or Blind-Spot Collision-Avoidance Assist may not operate.
- For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

## Blind-Spot Collision-Avoidance Assist settings

### Blind-spot safety





A: **Driver Assistance**

**1 Driving Safety**

**2 Blind-Spot Safety**

With the vehicle on, touch **Settings** → **Driver Assistance** → **Driving Safety** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Safety** on the infotainment system.

- **Blind-Spot Safety:** Blind-Spot Collision-Avoidance Assist will warn and braking assist will be applied depending on the collision risk levels.



A: **Blind-Spot Safety System is Off**

When activating Blind-Spot Collision-Avoidance Assist or restarting the vehicle with this function activated, the warning light on the side mirrors will appear for approximately 3 seconds.

When the vehicle is restarted with Blind-Spot Collision-Avoidance Assist inactivated, the warning message will appear on the cluster.

**WARNING**

If **Blind-Spot Safety** is deselected, the driver should always be aware of the surroundings and drive safely.

**NOTICE**

If the vehicle is restarted, Blind-Spot Collision-Avoidance Assist will maintain the last setting.

**Warning volume**



A: **Driver Assistance**

**1 Warning Volume**



## 2 Driving Safety Priority

### 3 High

### 4 Medium

### 5 Low

With the vehicle on, touch **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

#### \* NOTICE

If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

#### ▲ CAUTION

The setting of the Warning volume applies to all functions of Blind-Spot Collision-Avoidance Assist.

## Blind-Spot Collision-Avoidance Assist operation

Blind-Spot Collision-Avoidance Assist will warn and control as following operation.

- Vehicle detection
- Collision warning
- Collision-avoidance assist (while departing)

## Vehicle detection

First warning (Left/Right)



The warning light on the outside rear view mirror (side view mirror) will appear when the vehicle on both lanes is detected from the rear.

A vehicle is detected in the following conditions.

- Your driving speed: Above 20 km/h (12 mph)
- The speed of the vehicle in your blind spot area: Above 10 km/h (7 mph)

## Collision warning

With the vehicle detection state, Collision warning will alert the driver when the turn signal is activated to make a lane

change with an adjacent car in the blind spot area.

- Collision warning will alert the driver with the warning light on the outside rear view mirrors (side view mirrors) and an audible warning.
- When the turn signal is turned off or you move away from the lane, the collision warning will be canceled and the function will return to Vehicle detection state.

**⚠ CAUTION**

If **Warning Only** is selected from the Settings menu, the collision warning will operate when your vehicle approaches the lane the blind spot vehicle is detected.

**⚠ WARNING**

- The detecting range of the front corner radar or rear corner radar is determined by a standard road width, therefore, on a narrow road, Blind-Spot Collision-Avoidance Assist may detect other vehicles two lanes over and warn you. In contrast, on a wide road, Blind-Spot Collision-Avoidance Assist may not be able to detect a vehicle driving in the next lane and may not warn you.
- When the hazard warning flasher is on, the collision warning by the turn signal will not operate.

**\* NOTICE**

- If the driver's seat is on the left side, the collision warning may occur when you turn left.  
Maintain a proper distance with the vehicles in the lane.

- Images or colors may be displayed differently depends on the instrument cluster specifications or theme.

**Collision-avoidance assist (while departing)**



**A: Emergency braking**

The warning light on the outside rear view mirror (side view mirror) and an audible warning will warn the driver of a collision. It assists in braking control to prevent a collision with a vehicle approaching from the blind spot area. Collision-Avoidance Assist will be activated in the following conditions.

- Your driving speed: Below 3 km/h (2 mph)
- Speed of the vehicle in your blind spot area: Above 5 km/h (3 mph)



### A: Drive carefully

When the vehicle is stopped due to emergency braking, the warning message will appear on the cluster. For your safety, the driver should depress the brake pedal immediately and check the surroundings.

- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

### **⚠ WARNING**

- For your safety, change the Settings after parking the vehicle at a safe location.
- If any other system's warning message is displayed or audible warning is generated, Blind-Spot Collision-Avoidance Assist's warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Blind-Spot Collision-Avoidance Assist if the surrounding is noisy.
- Blind-Spot Collision-Avoidance Assist may not operate if the driver applies the brake pedal to avoid collision.
- When Blind-Spot Collision-Avoidance Assist is operating, braking control by the function will automatically cancel when the driver excessively depresses

the accelerator pedal or sharply steers the vehicle.

- During Blind-Spot Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- Even if there is a problem with Blind-Spot Collision-Avoidance Assist, the vehicle's basic braking performance will operate properly.
- Blind-Spot Collision-Avoidance Assist does not operate in all situations or cannot avoid all collisions.
- Blind-Spot Collision-Avoidance Assist may warn the driver late or may not warn the driver depending on the road and driving conditions.
- Driver should maintain control of the vehicle at all times. Do not depend on Blind-Spot Collision-Avoidance Assist. Maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never operate Blind-Spot Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.

### **⚠ WARNING**

The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

There will only be a warning when:

- The ESC (Electronic Stability Control) warning light is on
- ESC (Electronic Stability Control) is engaged in a different function

### Blind-Spot Collision-Avoidance Assist malfunction and limitations

#### Blind-Spot Collision-Avoidance Assist malfunction



#### A: Check blind-spot safety systems

When Blind-Spot Collision-Avoidance Assist is not working properly, the warning message will appear on the cluster for several seconds, and the master (⚠) warning light will appear on the cluster. If this occurs, have Blind-Spot Collision-Avoidance Assist be inspected by an authorized Kia dealer.



#### A: Check outside mirror warning icon

When the outside rearview mirror warning light is not working properly, the warning message will appear on the cluster for several seconds, and the

master (⚠) warning light will appear on the cluster. If this occurs, have Blind-Spot Collision-Avoidance Assist be inspected by an authorized Kia dealer.

#### Blind-Spot Collision-Avoidance Assist disabled



#### A: Blind-spot safety systems disabled. Radar blocked

When the rear bumper around the rear corner radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Blind-Spot Collision-Avoidance Assist.

If this occurs, the warning message will appear on the cluster.

Blind-Spot Collision-Avoidance Assist will operate properly when such foreign material or trailer, etc., is removed, and then the vehicle is restarted.

If Blind-Spot Collision-Avoidance Assist does not operate properly after it is removed, have Blind-Spot Collision-Avoidance Assist be inspected by an authorized Kia dealer.

### **WARNING**

- Even though the warning message does not appear on the cluster, Blind-

Spot Collision-Avoidance Assist may not properly operate.

- Blind-Spot Collision-Avoidance Assist may not properly operate in an area (for example, open terrain) where any objects are not detected right after the vehicle is turned on, or when the detecting sensor is blocked with foreign material right after the vehicle is turned on.

### CAUTION

Turn off Blind-Spot Collision-Avoidance Assist to install or remove a trailer, carrier, or another attachment. Turn on Blind-Spot Collision-Avoidance Assist when finished.

### Limitations of Blind-Spot Collision-Avoidance Assist

Blind-Spot Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- There is inclement weather, such as heavy snow, heavy rain, etc.
- The detecting sensor is covered with snow, rain, dirt, etc.
- The temperature around the detecting sensor is high or low due to surrounding environment.
- The detecting sensor is blocked while driving near a vehicle, pillar, or wall.
- Driving on a highway (or motorway) ramp or driving through a tollgate.
- The road pavement (or the peripheral ground) abnormally contains metallic components (for example, possibly due to subway construction).
- There is a fixed object near the vehicle, such as sound barriers, guardrails, central dividers, entry barriers, street

lamps, signs, tunnels, walls, etc. (including double structures)

- Driving through a narrow road where trees or grass are overgrown
- Driving in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- Driving on a wet road surface, such as a puddle on the road
- The other vehicle drives very close behind your vehicle, or the other vehicle passes by your vehicle in close proximity
- The speed of the other vehicle is very fast that it passes by your vehicle in a short time
- Your vehicle passes by the other vehicle
- Your vehicle changes lane
- Your vehicle has started at the same time as the vehicle next to you and has accelerated
- The vehicle in the next lane moves two lanes away from you, or when the vehicle two lanes away moves to the next lane from you
- A trailer or carrier is installed around the rear corner radar
- The bumper around the rear corner radar is covered with objects, such as a bumper sticker, bike rack, etc.
- The bumper around the rear corner radar is impacted, damaged or the radar is out of position
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- When the following objects are detected:
  - A motorcycle or bicycle is detected
  - A vehicle such as a flat trailer is detected

- A big vehicle such as a bus or truck is detected
- A moving obstacle such as a pedestrian, animal, shopping cart or a baby stroller is detected
- A vehicle with low height such as a sports car is detected

Braking control may not work, driver's attention is required in the following circumstances:

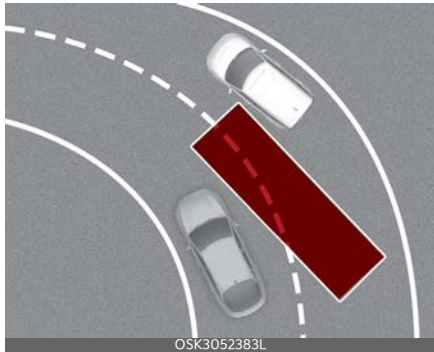
- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The braking system has been modified
- The vehicle makes abrupt lane changes

**\* NOTICE**

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

**⚠ WARNING**

- Driving on a curved road



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. Blind-Spot Collision-Avoidance Assist may not detect the vehicle in the next lane.

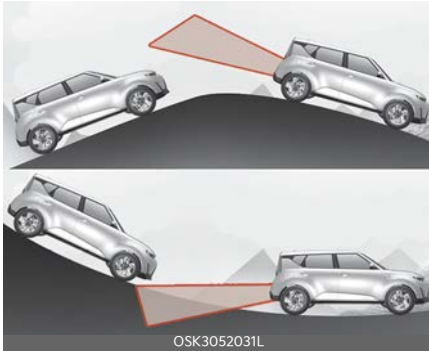
Always pay attention to road and driving conditions while driving.



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. Blind-Spot Collision-Avoidance Assist may detect a vehicle in the same lane.

Always pay attention to road and driving conditions while driving.

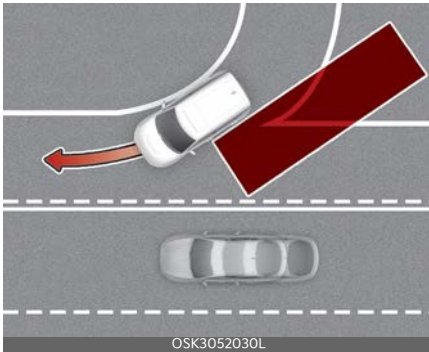
- Driving on a sloped road



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a slope. The function may not detect the vehicle in the next lane or may incorrectly detect the ground or structure.

Always pay attention to road and driving conditions while driving.

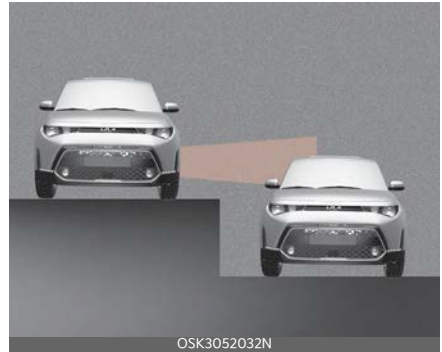
- Driving where the road is merging/dividing



Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the road merges or divides. The function may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions while driving.

- Driving where the heights of the lanes are different



Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the heights of the lanes are different. The function may not detect the vehicle on a road with different lane heights (underpass joining section, grade separated intersections, etc.).

Always pay attention to road and driving conditions while driving.

### **⚠ WARNING**

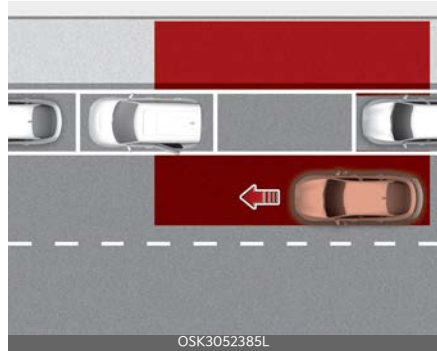
- When you are towing a trailer or another vehicle, make sure that you turn off Blind-Spot Collision-Avoidance Assist. If you tow a European spec trailer, the function may be limited.
- Blind-Spot Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Blind-Spot Collision-Avoidance Assist may not operate for 3 seconds after the vehicle is started, or the front view camera or rear corner radars are initialized.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

### Safe Exit Warning (SEW) (if equipped)



After the vehicle stops, when an approaching vehicle from the rear area is detected as soon as a passenger opens a door, Safe Exit Warning will warn the driver with a warning message and an audible warning to help prevent a collision.

#### **⚠ CAUTION**

Warning timing may vary depending on the speed of the approaching vehicle.

### Detecting sensor

Rear corner radar





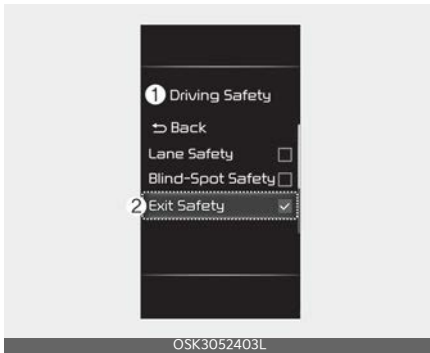
Refer to the picture above for the detailed location of the detecting sensors.

**⚠ CAUTION**

For more details on the precautions of the rear corner radars, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-70.

**Safe Exit Warning settings**  
**Setting features**

**Exit Safety**



OSK3052403L



OSK3052404L

- A: Driver Assistance
- 1 Driving Safety
- 2 Exit Safety

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving safety** → **Exit Safety** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Safety** → **Exit Safety** on the infotainment system.

**⚠ WARNING**

If **Exit Safety** is deselected, Safe Exit Warning cannot warn you. The driver should always be aware of unexpected and sudden situations from occurring.

**\* NOTICE**

If the vehicle is restarted, Safe Exit Warning will maintain the last setting.

**Safe Exit Warning operation**

Safe Exit Warning warns the following actions.

- Collision warning when exiting vehicle

**Collision warning when exiting vehicle**



OSK3052366L



**A: Watch for traffic**

The warning light on the side view mirror will blink and the warning message will appear on the cluster, and an audible warning will sound.

- Safe Exit Warning will warn under the following circumstances:
  - Your driving speed: below 3 km/h (2 mph)
  - The speed of the approaching vehicle from the rear: above 6 km/h (4 mph)

**⚠ WARNING**

- For your safety, change the Settings after parking the vehicle at a safe location.
- If any other function's warning message is displayed or audible warning is generated, Safe Exit Warning warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Safe Exit Warning if the surrounding is noisy.
- Safe Exit Warning does not operate in all situations or cannot prevent all collisions.
- Safe Exit Warning may warn the driver late or may not warn the driver

depending and driving conditions. Always check vehicle surroundings.

- The driver and passengers are responsible for accidents that occurs while exiting the vehicle. Always check the surroundings before you exit the vehicle.

**\* NOTICE**

- After the vehicle is turned off, Safe Exit Warning operates for approximately 3 minutes, but turns off immediately if the doors are locked.
- Images or colors may be displayed differently depends on the instrument cluster specifications or theme.

**Safe Exit Warning malfunction and limitations**

**Safe Exit Warning malfunction**



**A: Check Blind-Spot Safety system**

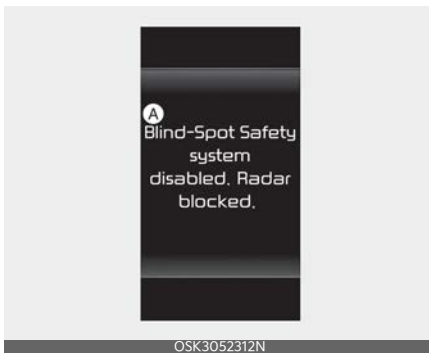
When Safe Exit Warning is not working properly, the warning message will appear on the cluster, and the master warning light (⚠) will appear on the cluster. Have Safe Exit Warning be inspected by an authorized Kia dealer.



**A: Check outside mirror warning icon**

When the outside rear view mirror warning light is not working properly, the warning message will appear on the cluster for several seconds, and the master warning light (⚠) will appear on the cluster. Have Safe Exit Warning be inspected by an authorized Kia dealer.

**Safe Exit Warning disabled**



**A: Blind-spot safety systems disabled. Radar blocked**

When the rear bumper around the rear corner radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Safe Exit Warning.

If this occurs, the **Blind-Spot Safety systems disabled. Radar blocked** warning message will appear on the cluster.

Safe Exit Warning will operate normally when such foreign material or trailer, etc. is removed, and then the vehicle is restarted.

If Safe Exit Warning does not operate normally after it is removed, Have Safe Exit Warning be inspected by an authorized Kia dealer.

**⚠ WARNING**

- Even though the warning message does not appear on the cluster, Safe Exit Warning may not properly operate.
- Safe Exit Warning may not properly operate in an area (e.g., open terrain), where any substance are not detected right after the vehicle is turned on, or when the detecting sensor is blocked with foreign material right after the vehicle is turned on.

**⚠ CAUTION**

Turn off Safe Exit Warning to install a trailer, carrier, etc., or remove the trailer, carrier, etc. to use Safe Exit Warning.

**Limitations of Safe Exit Warning**

Safe Exit Warning may not operate normally, or Safe Exit Warning may operate unexpectedly under the following warning.

- Getting out of the vehicle where trees or grass are overgrown
- Getting out of the vehicle where the road is wet
- The approaching vehicle is very fast or very slow

**\* NOTICE**

For more details on the precautions of the rear corner radars, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-70.

**⚠ WARNING**

- Safe Exit Warning may not operate normally if interfered by strong electromagnetic waves.
- Safe Exit Warning may not operate for approximately 3 seconds after the vehicle is restarted, or the rear corner radars are initialized.

## Manual Speed Limit Assist (MSLA)



- 1 Speed Limit indicator
- 2 Set speed

You can set the speed limit when you do not want to drive over a specific speed. If you drive over the preset speed limit, Manual Speed Limit Assist operates (set speed limit will blink and chime will sound) until the vehicle speed returns within the speed limit.

### Manual Speed Limit Assist operation

#### Setting speed limit

1. Press and hold Driving Assist (🚗) button at the desired speed. The Speed Limit (LIMIT) indicator will appear on the cluster.



2. Push the (+) switch up or (-) switch down, and release it at the desired speed.  
Push the (+) switch up or (-) switch down and hold it. The speed will increase or decrease to the nearest multiple of 10 (multiple of 5 in mph) at first, and then increase or decrease by 10 km/h (5 mph).



3. The set speed limit will be displayed on the cluster.  
If you would like to drive over the pre-set speed limit, depress the accelerator pedal beyond the pressure point to activate the kickdown mechanism. The set speed limit will blink and chime will sound until you return the vehicle speed within the speed limit.

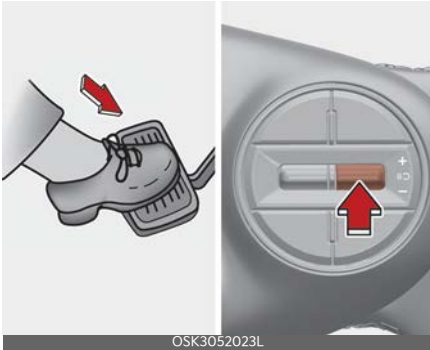


**\* NOTICE**

- When the accelerator pedal is not depressed beyond the pressure point, vehicle speed will maintain within the speed limit.
- A clicking sound may be heard from the kickdown mechanism when the

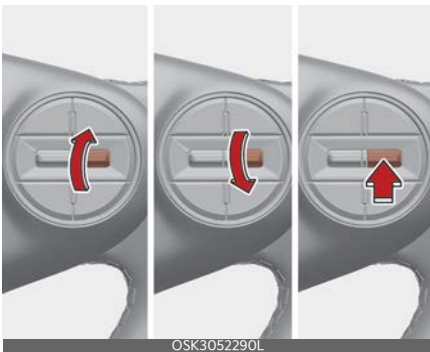
accelerator pedal is depressed beyond the pressure point.

### Temporarily pausing Manual Speed Limit Assist



Press the (+) switch to temporarily pause the set speed limit. The set speed limit will turn off but the Speed Limit (LIMIT) indicator will stay on.

### Resuming Manual Speed Limit Assist



To resume Manual Speed Limit Assist after the function was paused, operate the (+), (-), (||) switch.

If you push the (+) switch up or (-) switch down, vehicle speed will be set to the current speed on the cluster.

If you press the (||) switch, vehicle speed will resume to the preset speed.

### Turning off Manual Speed Limit Assist



Press the Driving Assist (DA) button to turn Manual Speed Limit Assist off. The Speed Limit (LIMIT) indicator will go off.

### WARNING

Take the following precautions when using Manual Speed Limit Assist:

- Always set the vehicle speed under the speed limit in your country.
- Keep Manual Speed Limit Assist off when the function is not in use, to avoid inadvertently setting a speed. Check that the Speed Limit (LIMIT) indicator is off.
- Manual Speed Limit Assist does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and should always be aware of unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.

## Intelligent Speed Limit Assist (ISLA) (if equipped)

Intelligent Speed Limit Assist uses information from the detected road sign and navigation system to inform the driver of the speed limit and additional information of the current road. Also, Intelligent Speed Limit Assist helps the driver to maintain within the speed limit of the road.

### **CAUTION**

- Intelligent Speed Limit Assist may not operate properly if the function is used in other countries.
- If a navigation is applied to your vehicle, the navigation needs to be regularly updated for Intelligent Speed Limit Assist to operate properly.

## Detecting sensor

Front view camera



Refer to the picture above for the detailed location of the detecting sensor.

### **CAUTION**

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front

Camera Only) (if equipped)" on page 5-38.

## Speed limit offset



### A: Driver Assistance

#### 1 Speed Limit

#### 2 Speed Limit Offset (mph)

With the vehicle on, select **Settings** → **Driver Assistance** → **Speed Limit** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Speed Limit** on the infotainment system.

**Speed Limit Warning** and **Speed Limit Assist** warns the driver when driving speed exceeds the speed at which the set **Speed Limit Offset** is added to the speed limit, or applies the Speed limit offset setting to the detected speed limit.

**WARNING**

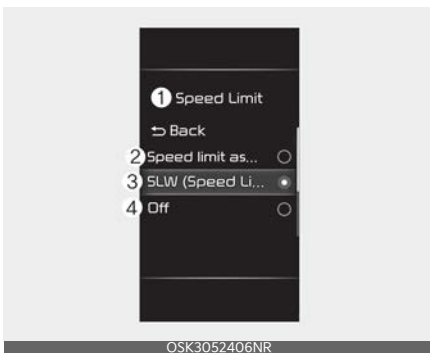
For your safety, change the settings after parking the vehicle at a safe location.

**NOTICE**

- Speed limit and Speed warning function operates based on an offset value added with the speed limit. Set the offset value to '0' to change or warn the speed according to the recognized speed limit.
- The setting of Speed limit offset is not reflected in Navigation-based Smart Cruise Control.
- If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

### Intelligent Speed Limit Assist settings

#### Speed limit



**A: Driver Assistance**

- 1 Speed Limit**
- 2 Speed Limit Assist**
- 3 Speed Limit Warning**
- 4 Off**

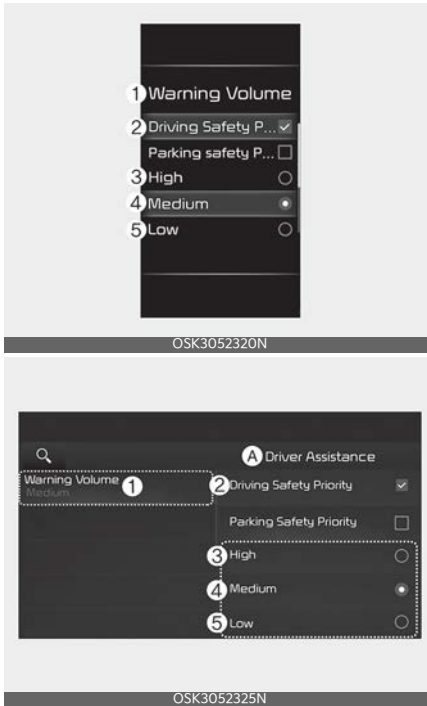
With the vehicle on, select **Settings** → **Driver Assistance** → **Speed Limit** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Speed Limit** on the infotainment system.

- **Speed Limit Assist:** Intelligent Speed Limit Assist will inform the driver of speed limit and additional road signs. In addition, Intelligent Speed Limit Assist will inform the driver to change set speed of Manual Speed Limit Assist or Smart Cruise Control (If equipped) to help the driver stay within the speed limit.
- **Speed Limit Warning:** Intelligent Speed Limit Assist will inform the driver of speed limit and additional road signs. In addition, Intelligent Speed Limit Assist will warn the driver when the vehicle is driven faster than the speed limit. Manual Speed Limit Assist or Smart Cruise Control (If equipped) set speed will not be automatically adjusted. The driver should adjust the speed manually.



- **Off:** Intelligent Speed Limit Assist will turn off.

## Warning volume



### A: Driver Assistance

- 1 Warning Volume
- 2 Driving Safety Priority
- 3 High
- 4 Medium
- 5 Low

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

### \* NOTICE

If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

## Intelligent Speed Limit Assist operation

### Warning and control

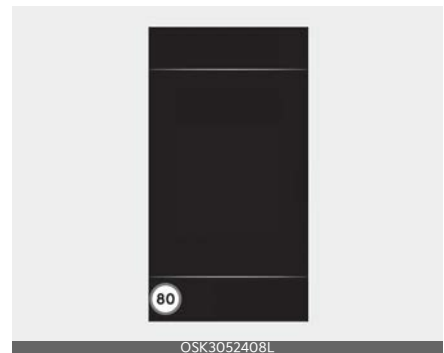
Intelligent Speed Limit Assist is warned and controlled by the following level.

- Displaying speed limit
- Warning overspeed
- Changing set speed

### \* NOTICE

Intelligent Speed Limit Assist warning and control are described based on the Offset adjust to '0'. For details on Offset setting, refer to "Intelligent Speed Limit Assist settings" on page 5-88.

## Displaying speed limit

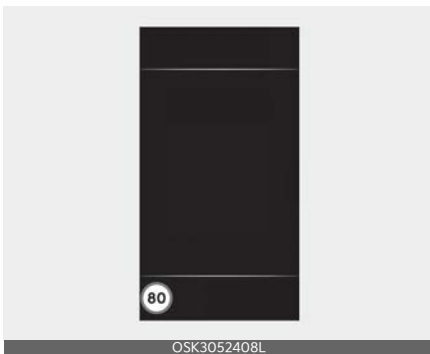


Speed limit information is displayed on the instrument cluster.

**\* NOTICE**

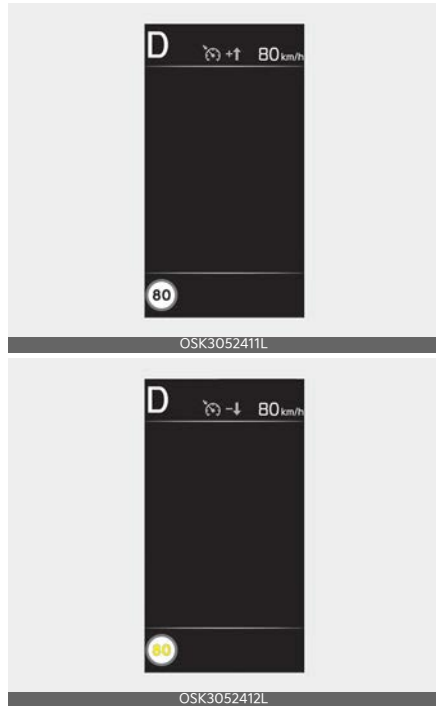
- If speed limit information of the road cannot be recognized, '---' sign will be displayed. Please refer to "Intelligent Speed Limit Assist malfunction and limitations" on page 5-91 if the road signs are difficult to recognize.
- Intelligent Speed Limit Assist provides additional road sign information in addition to speed limit. The additional road sign information provided may vary according to your country.
- Supplementary sign displayed under the speed limit or overtaking restriction sign means the conditions under which the signs must be followed. If the supplementary sign is not recognized, it is displayed as blank.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

**Warning overspeed**



When driving at a speed higher than the displayed speed limit, the red speed limit indicator will be indicated.

**Changing set speed**



If the speed limit of the road changes during the operation of Manual Speed Limit Assist or Smart Cruise Control, an arrow in the direction of up or down is displayed to inform the driver that the set speed needs to be changed. At this time, the driver can change the set speed according to the speed limit by using the (+) or (-) switch on the steering wheel.

**⚠ WARNING**

- If the Offset is adjusted over '0', the set speed will change to a higher speed than the speed limit of the road. If you want to drive below the speed limit, adjust the Offset under '0' or use the (-) switch on the steering wheel to lower the set speed.

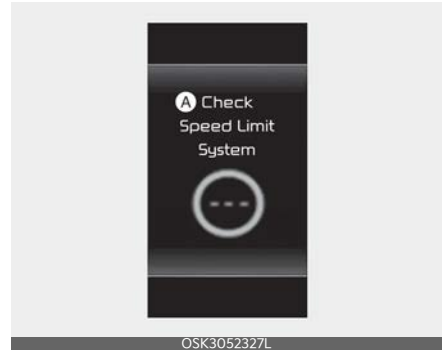
- Even after changing the set speed according to the speed limit of the road, the vehicle can still be driven over the speed limit. If necessary, depress the brake pedal to reduce your driving speed.
- If the speed limit of the road is under 30 km/h (20 mph), the set speed change function will not work.
- Intelligent Speed Limit Assist operates using the speed unit in the instrument cluster set by the driver. If the speed unit is set to a unit other than the speed unit used in your country, Intelligent Speed Limit Assist may not operate properly.

### \* NOTICE

- For more details on Manual Speed Limit Assist operation, refer to "Manual Speed Limit Assist (MSLA)" on page 5-84.
- For more details on Smart Cruise Control operation, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-102.

## Intelligent Speed Limit Assist malfunction and limitations

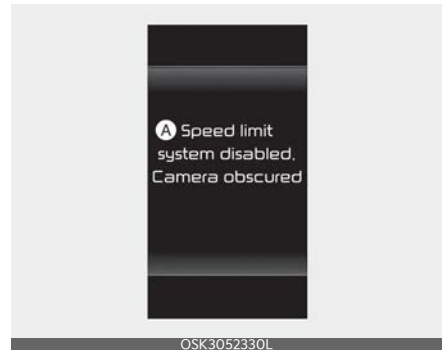
### Intelligent Speed Limit Assist malfunction



#### A: Check Speed Limit system

When Intelligent Speed Limit Assist is not working properly, the warning message will appear on the cluster for several seconds, and the master (A) warning light will appear on the cluster. If this occurs, have the Intelligent Speed Limit Assist checked by an authorized Kia dealer.

### Intelligent Speed Limit Assist disabled



#### A: Speed limit system disabled. Camera obscured

When the front windshield where the front view camera is located is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Intelligent Speed Limit Assist. If this occurs, the warning message will appear on the cluster.

Intelligent Speed Limit Assist will operate properly when snow, rain or foreign material is removed. Always keep it clean.

If Intelligent Speed Limit Assist does not operate properly after it is removed, have the Intelligent Speed Limit Assist checked by an authorized Kia dealer.

### **WARNING**

Even though the warning message or warning light does not appear on the cluster, Intelligent Speed Limit Assist may not operate properly.

## Limitations of Intelligent Speed Limit Assist

Intelligent Speed Limit Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- The road sign is contaminated or indistinguishable
  - The road sign is difficult to see due to bad weather, such as rain, snow, fog, etc.
  - The road sign is partially obscured by surrounding objects or shadow
- The road signs do not conform to the standard
  - The text or picture on the road sign is different from the standard
  - The road sign is installed between the main line and the exit road or between diverging roads
- A sign is attached to another vehicle
- The distance between the vehicle and the road signs is far
- The vehicle encounters appearing road signs
- Intelligent Speed Limit Assist incorrectly recognizes numbers or pictures in the street signs or other signs as the speed limit
- A road sign near the road you are driving is detected
- Multiple signs are installed close together
- The minimum speed limit sign is mis-recognized
- The minimum speed limit sign is on the road
- The brightness changes suddenly, for example when entering or exiting a tunnel or passing under a bridge
- Headlamps are not used or the brightness of the headlamps are weak at night or in the tunnel
- The field of view of the front view camera is obstructed by sun glare
- Road signs are difficult to recognize due to the reflection of sunlight, street lights, or oncoming vehicles
- The navigation information or GPS information contain errors.
- The driver does not follow the guide of the navigation.
- Driving on a road that is sharply curved or continuously curved
- Driving through speed bumps, or driving up and down or left to right on steep inclines
- The vehicle is shaking heavily
- Driving on a newly opened road

**⚠ WARNING**

- Intelligent Speed Limit Assist is a supplemental function that helps the driver to comply with the speed limit on the road, and may not display the correct speed limit or control the driving speed properly.
- It is the responsibility of the driver to keep the speed limit.

**\* NOTICE**

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

**Driver Attention Warning (DAW) (if equipped)****Basic function**

Driver Attention Warning can help determine the driver's attention level by analyzing driving pattern and driving time while the vehicle is driven. Driver Attention Warning will recommend a break when the driver's attention level falls below a certain level.

**Leading vehicle departure alert function**

Leading Vehicle Departure Alert function will inform the driver when a detected vehicle in front departs from a stop.

**Detecting sensor**

Front view camera



The front view camera is used as a detecting sensor to help detect driving patterns and front vehicle departure while vehicle is being driven.

Refer to the picture above for the detailed location of the detecting sensor.

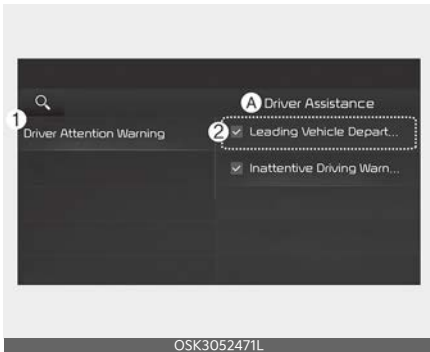
**CAUTION**

- Always keep the front view camera in good condition to maintain optimal performance of Driver Attention Warning.
- For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

**Leading Vehicle Departure Alert**



OSK3052470L



OSK3052471L

**A: Driver Assistance**

- 1 Driver Attention Warning**
- 2 Leading Vehicle Departure Alert**

- If **Leading Vehicle Departure Alert** is selected, the function will inform the

driver when a detected vehicle in front departs from a stop.

**Driver Attention Warning operation**

**Basic function**

The basic function of Driver Attention Warning is to warn the driver 'Consider taking a break'.

**Taking a break**



OSK3052413L

**A: Consider taking a break**

Warning message will appear on the cluster and an audible warning will sound to suggest that the driver take a break, when the driver's attention level is below a certain level.

- Driver Attention Warning will not suggest a break when the total driving time is shorter than 5 minutes or 10 minutes has not passed after the last break was suggested.

Driver Attention Warning (DAW) operates under the following conditions:

- Your driving speed: Approximately 0~200 km/h (0~120 mph).

**WARNING**

For your safety, change the Settings after parking the vehicle at a safe location.

**⚠ CAUTION**

- Driver Attention Warning may suggest a break depending on the driver's driving pattern or habits, even if the driver doesn't feel fatigue.
- Driver Attention Warning is a supplemental function and may not be able to determine whether the driver is inattentive.
- The driver who feels fatigued should take a break at a safe location, even though there is no break suggestion by Driver Attention Warning.

**\* NOTICE**

For more details on vehicle settings, refer to "LCD Display Modes" on page 4-48.

**⚠ WARNING**

- If any other system's warning message is displayed or audible warning is generated, Leading Vehicle Departure Alert's warning message may not be displayed and audible warning may not be generated.
- The driver should hold the responsibility to safely drive and control the vehicle.

**⚠ CAUTION**

- Leading Vehicle Departure Alert is a supplemental function and may not alert the driver whenever the front vehicle departs from a stop.
- Always check the front of the vehicle and road conditions before departure.

**\* NOTICE**

The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

**Leading vehicle departure alert function**

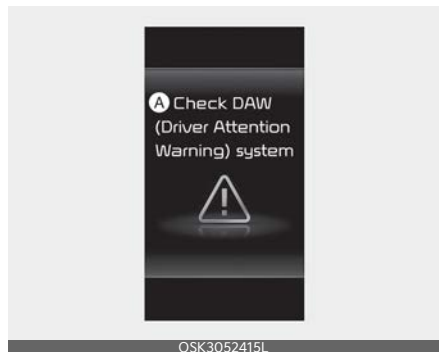


**A: Leading vehicle is driving on**

When a detected vehicle in front departs from a stop, Leading Vehicle Departure Alert will inform the driver by displaying the warning message on the cluster and an audible warning will sound.

**Driver Attention Warning malfunction and limitations**

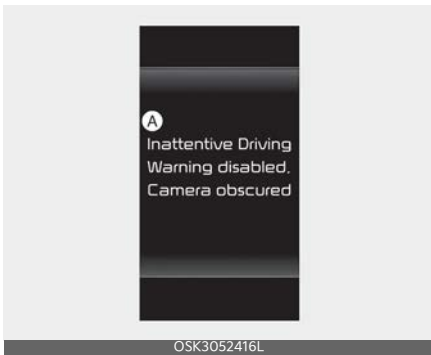
**Driver Attention Warning malfunction**



### A: Check Driver Attention Warning (DAW) system

When Driver Attention Warning is not working properly, the warning message will appear on the cluster for several seconds, and the master (A) warning light will appear on the cluster. If this occurs, have Driver Attention Warning inspected by an authorized Kia dealer.

### Driver Attention Warning disabled



### A: Inattentive Driving Warning disabled. Camera obscured

When the front view camera is located is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Driver Attention Warning.

If this occurs the warning message, and the (A) warning light will appear on the cluster. Driver Attention Warning will operate normally when snow, rain or foreign material is removed. Always keep it clean.

If Driver Attention Warning does not operate normally after obstruction (snow, rain, or foreign material) is removed, have Driver Attention Warning inspected by an authorized Kia dealer.

### WARNING

Driver Attention Warning may not work properly in areas where substances are not detected after turning ON the vehicle (e.g. in open terrain) or if the recognition sensor is contaminated.

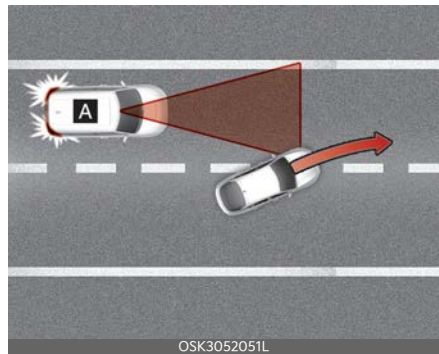
### Limitations of Driver Attention Warning

Driver Attention Warning may not work properly in the following situations:

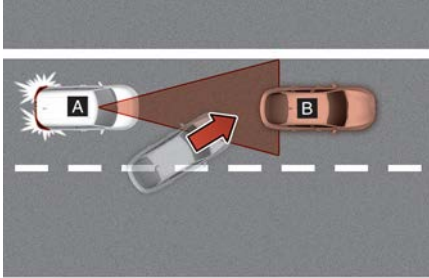
- The vehicle is driven violently
- The vehicle intentionally crosses over lanes frequently
- The vehicle is controlled by Driver Assistance system, such as Lane Keeping Assist

### Leading vehicle departure alert function

- When the vehicle cuts in



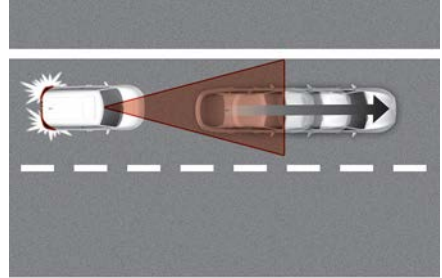




OSK3052386L

[A]: Your vehicle, [B]: Front vehicle  
 If a vehicle cuts in front of your vehicle, Leading Departure Alert may not operate properly.

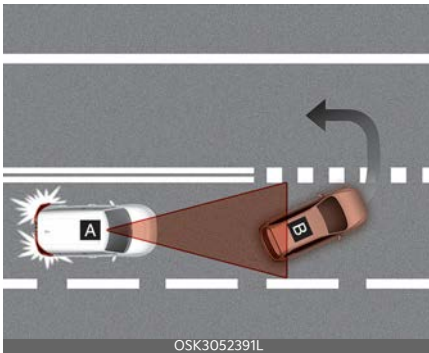
- When the vehicle ahead sharply steers



OSK3052387L

If the vehicle in front abruptly departs, Leading Vehicle Departure Alert may not operate properly.

- When a pedestrian or bicycle is between you and the vehicle ahead



OSK3052391L

[A]: Your vehicle, [B]: Front vehicle  
 If the vehicle in front makes a sharp turn, such as to turn left or right or make a U-turn, etc., Leading Vehicle Departure Alert may not operate properly.

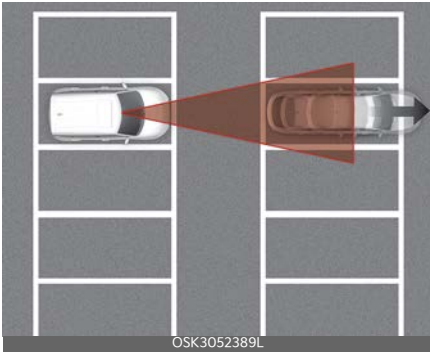
- When the vehicle ahead abruptly departs



OSK3052388L

If there is a pedestrian(s) or bicycle(s) in between you and the vehicle in front, Leading Vehicle Departure Alert may not operate properly.

- When in a parking lot



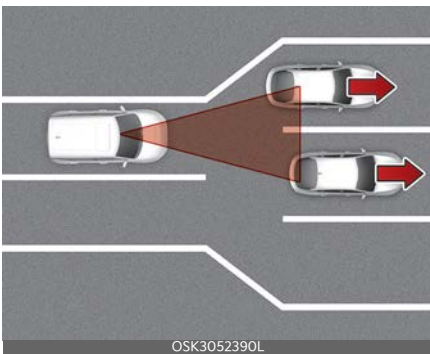
**\* NOTICE**

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

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If a vehicle parked in front drives away from you, Leading Vehicle Departure Alert may alert you that the parked vehicle is driving away.

- When driving at a tollgate or intersection, etc.



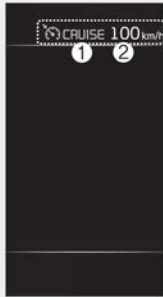
If you pass a tollgate or intersection with lots of vehicles or you drive where lanes are merged or divided frequently, Leading Vehicle Departure Alert may not operate properly.

**⚠ WARNING**

Driver Attention Warning may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.

---

## Cruise Control (CC) (if equipped)



OSK3052372L

- 1 Cruise indicator
- 2 Set speed

Cruise Control will allow you to drive at speeds above 30 km/h (20 mph) without depressing the accelerator pedal.

### Cruise Control operation

#### Setting speed

1. Accelerate to the desired speed, which must be more than 30 km/h (20 mph).



OSK3052286L

2. Press the Driving Assist button at the desired speed. The set speed and Cruise (CRUISE) indicator will appear on the cluster.
3. Release the accelerator pedal.

Vehicle speed will maintain the set speed even when the accelerator pedal is not depressed.

#### \* NOTICE

- The vehicle may slightly slow down or speed up while driving uphill or downhill.
- The Driving Assist button symbol may vary depending on your vehicle option.

### Increasing set speed



OSK3052405L

- Push the (+) switch up and release it immediately. The set speed will increase by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the (+) switch up and hold it while monitoring the set speed on the cluster. The set speed will increase to the nearest multiple of 10 in km/h (multiple of 5 mph) at first, and then increase by 10 km/h (5 mph) each time the switch is operated in this manner.

Release the switch when the desired speed is shown and the vehicle will accelerate to that speed.

## Decreasing set speed



- Push the (-) switch down and release it immediately. The set speed will decrease by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the (-) switch down and hold it while monitoring the set speed on the cluster. The set speed will decrease to the nearest multiple of 10 in km/h (multiple of 5) at first, and then decrease by 10 km/h (5 mph) each time the switch is operated in this manner.

Release the switch at the speed you want to maintain.

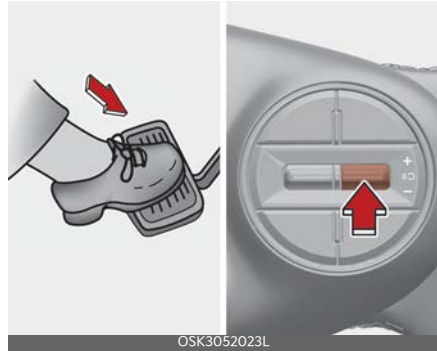
## Accelerating temporarily

If you want to speed up temporarily when Cruise Control is on, depress the accelerator pedal.

To return to the set speed, take your foot off the accelerator pedal.

If you push the (+) switch up or (-) switch down at increased speed, the set speed will be set to the current increased speed.

## Temporarily pausing Cruise Control



Cruise Control will be paused when:

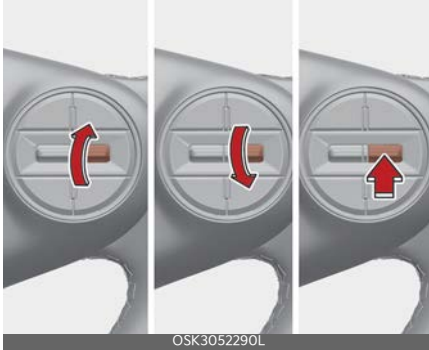
- Depressing the brake pedal.
- Pressing the (||) switch.
- Shifting the gear to N (Neutral).
- Decreasing vehicle speed to less than approximately 30 km/h (20 mph).
- ESC (Electronic Stability Control) is operating.
- Downshifting to 2nd gear when in Manual Shift mode.

The set speed will turn off but the Cruise (CRUISE) indicator will stay on.

### \* NOTICE

If Cruise Control pauses during a situation that is not mentioned, visit an authorized Kia dealer.

## Resuming Cruise Control



Operate the (+), (-) or (⏪) switch.

If you push the (+) switch up or (-) switch down, the set speed will be set to the current speed on the cluster.

If you press the (⏪) switch, vehicle speed will resume to the preset speed. The vehicle speed must be above 30 km/h (20 mph) for Cruise Control to resume.

### **⚠ WARNING**

Check the driving condition before using the (⏪) switch. Driving speed may sharply increase or decrease when you press the (⏪) switch.

## Turning off Cruise Control



Press the Driving Assist button to turn Cruise Control off. The Cruise (⏸ CRUISE) indicator will go off.

Always press the Driving Assist button to turn Cruise Control off when not in use.

### **\* NOTICE**

If your vehicle is equipped with Manual Speed Limit Assist, press and hold the Driving Assist button to turn off Cruise Control. However, Manual Speed Limit Assist will turn on.

### **⚠ WARNING**

Take the following precautions when using Cruise Control:

- Always set the vehicle speed under the speed limit in your country.
- Keep Cruise Control off when the function is not in use, to avoid inadvertently setting a speed. Check that the Cruise (⏸ CRUISE) indicator is off.
- Cruise Control does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and should always be aware of unexpected and sudden situations from occurring.
- Always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.
- Do not use Cruise Control when it may be unsafe to keep the vehicle at a constant speed:
  - When driving in heavy traffic, or when traffic conditions make it difficult to drive at a constant speed
  - When driving on rainy, icy, or snow-covered roads
  - When driving on hilly or windy roads

- When driving in windy areas
  - When driving with limited view (possibly due to bad weather, such as fog, snow, rain and sandstorm)
  - Do not use Cruise Control when towing a trailer.
- 

## Smart Cruise Control (SCC) (if equipped)

Smart Cruise Control is designed to help detect the vehicle ahead and help maintain the desired speed and minimum distance between the vehicle ahead.

### Detecting sensor

Front view camera



Front radar



The front view camera and front radar are used as a detecting sensor to detect front vehicles.

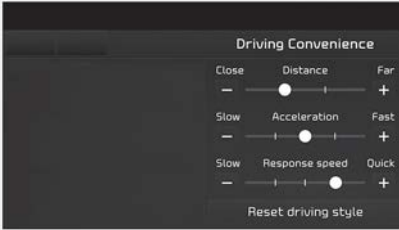
Refer to the picture above for the detailed location of the detecting sensor.

**CAUTION**

Always keep the front view camera and front radar in good condition to maintain optimal performance of Smart Cruise Control.

For more details on the precautions of the front view camera and front radar, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

**Smart Cruise Control settings**



OSK3052333L

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving Convenience** → **Smart Cruise Control** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Convenience** → **Smart Cruise Control** on the infotainment system to set the distance, acceleration and the reaction speed.

**Warning volume**



OSK3052320N



OSK3052325N

A: **Driver Assistance**

- 1 **Warning Volume**
- 2 **Driving Safety Priority**
- 3 **High**
- 4 **Medium**
- 5 **Low**

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease

to warn the driver with the audible warning for safe driving.

### \* NOTICE

- If the vehicle is restarted, Warning Volume will maintain the last setting.
- If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

## Smart Cruise Control operation

### Operating conditions for basic function

#### Basic function

Smart Cruise Control operates when the following conditions are satisfied.

- The gear is in D (Drive)
- Your vehicle speed is within the operating speed range
  - 10~180 km/h (5~110 mph): when there is no vehicle in front
  - 0~180 km/h (0~110 mph): when there is a vehicle in front
- ESC (Electronic Stability Control) or ABS is on
- Smart Cruise Control does not operate in the following conditions.
- The driver's door is opened
- Engine RPM is high
- EPB (Electronic Parking Brake) is applied
- ESC (Electronic Stability Control) or ABS is controlling the vehicle
- Forward Collision-Avoidance Assist brake control is operating

### \* NOTICE

When stopped behind another vehicle, the driver can turn on Smart Cruise Control while the brake pedal is depressed.

### Operating conditions for Acceleration Assist

Overtaking Acceleration Assist will operate when the turn signal indicator is turned on to the left while Smart Cruise Control is operating, and the following conditions are satisfied:

- Your driving speed is above 60 km/h (40 mph)
- A vehicle is detected in front of your vehicle

Overtaking Acceleration Assist does not operate in the following conditions.

- The hazard warning flasher is on
- Vehicle speed is reduced to maintain distance with the vehicle in front

### ⚠ WARNING

When the turn signal indicator is turned on to the left while there is a vehicle ahead, the vehicle may accelerate temporarily. Pay attention to the road conditions at all times.

Regardless of your country's driving direction, Overtaking Acceleration Assist will operate when the conditions are satisfied. When using the function in countries with different driving direction, always check the road conditions at all times.



### Turning on Smart Cruise Control



Press the Driving Assist button to turn on Smart Cruise Control. The speed will be set to the current speed on the cluster.

- If there is no vehicle in front of you, the set speed will be maintained.
- If there is a vehicle in front of you, the speed may be adjusted to maintain the distance to the vehicle ahead. If the vehicle ahead accelerates, your vehicle will travel at a steady cruising speed after accelerating to the set speed.

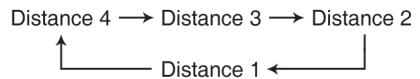
#### \* NOTICE

- If your vehicle speed is between 0~30 km/h (0~20 mph) when you press the Driving Assist button, the Smart Cruise Control speed will be set to 30 km/h (20 mph).
- If the driver changes to the lower gear, the driving speed may not reach the set speed.

### Setting vehicle distance



Each time the button is pressed, the headway changes as follows:



#### \* NOTICE

- If you drive at 90 km/h (56 mph), the distance is maintained as follows:  
 Distance 4 - approximately 52.5 m (172 ft.)  
 Distance 3 - approximately 40 m (130 ft.)  
 Distance 2 - approximately 32.5 m (106 ft.)  
 Distance 1 - approximately 25 m (82 ft.)
- The distance is set to the last set distance when the vehicle is restarted, or when Smart Cruise Control was temporarily canceled.

### Increasing set speed



- Push the (+) switch up and release it immediately. The set speed will increase by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the (+) switch up and hold it. The set speed will increase by 5 km/h (10 mph) each time the switch is operated in this manner.

You can increase the set speed to 180 km/h (110 mph).

### **⚠ WARNING**

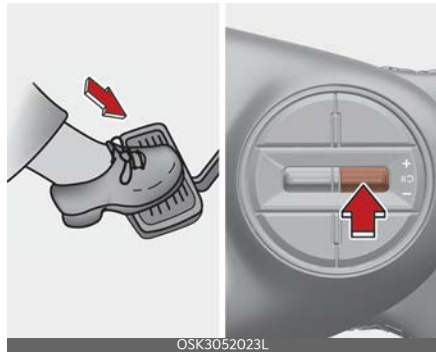
Check the driving condition before using the (+) switch. Driving speed may sharply increase when you push up and hold the (+) switch.

### Decreasing set speed



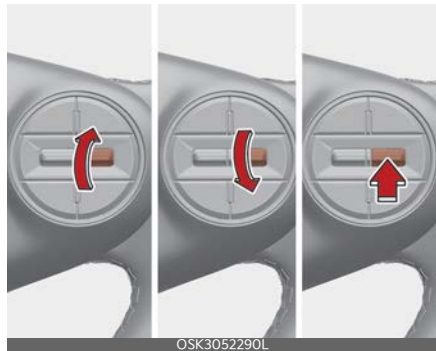
- Push the (-) switch down and release it immediately. The set speed will decrease by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the (-) switch down and hold it. The set speed will decrease by 10 km/h (5 mph) each time the switch is operated in this manner.  
You can decrease the set speed to 30 km/h (20 mph).

### Temporarily canceling Smart Cruise Control



Press the (⏏) switch or depress the brake pedal to temporarily cancel Smart Cruise Control.

### Resuming Smart Cruise Control



To resume Smart Cruise Control after the function was canceled, operate the (+), (-) or (⏪) switch.

If you push the (+) switch up or (-) switch down, the set speed will be set to the current speed on the cluster.

If you press the (⏪) switch, vehicle speed will resume to the preset speed.

**⚠ WARNING**

Check the driving condition before using the (⏪) switch. Driving speed may sharply increase or decrease when you press the (⏪) switch.

**Turning off Smart Cruise Control**



Press the Driving Assist button to turn Smart Cruise Control off.

**\* NOTICE**

If your vehicle is equipped with Manual Speed Limit Assist, press and hold the Driving Assist button to turn off Smart Cruise Control. However Manual Speed Limit Assist will turn on.

**⚠ CAUTION**

Do not use the switches and buttons at the same time. Smart Cruise Control may not operate properly.

**Displaying operating status**

You can see the status of the Smart Cruise Control operation in the Driving Assist view on the cluster. Refer to "LCD display" on page 4-47.

Smart Cruise Control will be displayed as below depending on the status of the function.

Operating



Temporarily canceled



Smart Cruise Control will be displayed as below depending on the status of the function.

- When operating
  1. Whether there is a vehicle ahead and the selected distance level
  2. Set speed

3. Whether there is a vehicle ahead and the target vehicle distance
- When temporarily canceled
  1. Vehicle (shaded)
  2. Previous set speed (shaded)

**\* NOTICE**

- The distance of the front vehicle on the cluster is displayed according to the actual distance between your vehicle and the vehicle ahead.
- The target distance may vary according to your driving speed and the set distance level. If your driving speed is low, even though the vehicle distance have changed, the change of the target vehicle distance may be small.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

However, if the accelerator pedal is depressed insufficiently, the vehicle may decelerate.

**⚠ WARNING**

Be careful when accelerating temporarily, because the speed and distance is not controlled automatically even if there is a vehicle in front of you.

**Temporarily canceling Smart Cruise Control**



OSK3052331N

**Accelerating temporarily**



OSK3052329N

If you want to speed up temporarily without altering the set speed while Smart Cruise Control is operating, depress the accelerator pedal. While the accelerator pedal is depressed, the set speed, distance level and target distance will blink on the cluster.

**A: SCC (Smart Cruise Control) cancelled**

Smart Cruise Control will be temporarily canceled automatically when:

- The vehicle speed is above 170 km/h (110 mph)
- The vehicle is stopped for a certain period of time
- The accelerator pedal is continuously depressed for a certain period of time
- The conditions for the Smart Cruise Control to operate is not satisfied

If Smart Cruise Control is temporarily canceled automatically, the warning message will appear on the cluster, and an audible warning will sound to warn the driver.

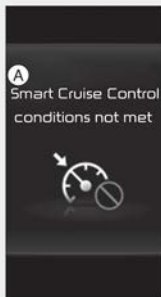
## \* NOTICE

If Smart Cruise Control is temporarily canceled while the vehicle is at a standstill with the function activated, EPB (Electronic Parking Brake) maybe applied.

## ⚠ WARNING

When Smart Cruise Control is temporarily canceled, distance with the front vehicle will not be maintained. Always have your eyes on the road while driving, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

## Smart Cruise Control conditions not satisfied

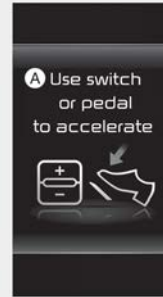


OSK3052332N

### A: SCC (Smart Cruise Control) conditions not met

If the Driving Assist button, (+) switch, (-) switch or (⏏) switch is operated when Smart Cruise Control operating conditions are not satisfied, the warning message will appear on the cluster, and an audible warning will sound.

## In traffic situation



OSK3052339L

### A: Use switch or pedal to accelerate

In traffic, your vehicle will stop if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving, your vehicle will start as well. In addition, after the vehicle has stopped and a certain time have passed, the warning message will appear on the cluster. Depress the accelerator pedal or operate the (+) switch, (-) switch or (⏏) switch to start driving.

## Warning road conditions ahead



OSK3052334N

### A: Watch for surrounding vehicles

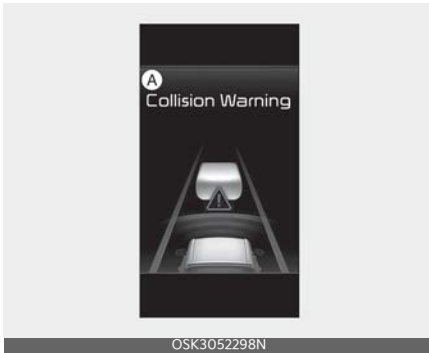
In the following situation, the warning message will appear on the cluster, and an audible warning will sound to warn the driver of road conditions ahead.

**⚠ WARNING**

Always pay attention to vehicles or objects that may suddenly appear in front of you, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

vehicle is faster or similar with your vehicle

- The speed of the front vehicle is very slow or is at a standstill
- The accelerator pedal is depressed right after Smart Cruise Control is turned on

**Collision warning****A: Collision warning!**

While Smart Cruise Control is operating, when the collision risk with the vehicle ahead is high, the warning message will appear on the cluster, and an audible warning will sound to warn the driver. Always have your eyes on the road while driving, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

**⚠ WARNING**

In the following situations, Smart Cruise Control may not warn the driver of a collision.

Always pay attention to road and driving conditions while driving.

- The distance from the front vehicle is near, or the vehicle speed of the front

**⚠ WARNING**

- Smart Cruise Control does not substitute for proper and safe driving. It is the responsibility of the driver to always check the speed and distance to the vehicle ahead.
- Smart Cruise Control may not recognize unexpected and sudden situations or complex driving situations, so always pay attention to driving conditions and control your vehicle speed.
- Keep Smart Cruise Control off when the function is not in use to avoid inadvertently setting a speed.
- Do not open the door or leave the vehicle when Smart Cruise Control is operating, even if the vehicle is stopped.
- Always be aware of the selected speed and headway distance.
- Keep a safe distance according to road conditions and vehicle speed. If the headway distance is too close during high-speed driving, a serious collision may result.
- When maintaining distance with the vehicle ahead, if the front vehicle disappears, Smart Cruise Control may suddenly accelerate to the set speed. Always be aware of unexpected and sudden situations from occurring.
- Vehicle speed may decrease on an upward slope and increase on a downward slope.

- Always be aware of situations such as when a vehicle cuts in suddenly.
- When you are towing a trailer or another vehicle, turn off Smart Cruise Control for safety reasons. If you tow a European spec trailer, the function may be limited.
- Turn off Smart Cruise Control when your vehicle is being towed.
- Smart Cruise Control may not operate properly if interfered by strong electromagnetic waves.
- Smart Cruise Control may not detect an obstacle in front and lead to a collision. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.
- Vehicles moving in front of you with a frequent lane change may cause a delay in Smart Cruise Control reaction or may cause Smart Cruise Control to react to a vehicle actually in an adjacent lane. Always drive cautiously to prevent unexpected and sudden situations from occurring.
- Always be aware of the surroundings and drive safely, even though a warning message does not appear or an audible warning does not sound.
- If any other system's warning message is displayed or warning sound is generated, Smart Cruise Control warning message may not be displayed and warning sound may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surrounding is noisy.
- The vehicle manufacturer is not responsible for any traffic violation or accidents caused by the driver.

- Always set the vehicle speed under the speed limit in your country.

### \* NOTICE

- Smart Cruise Control may not operate for a few seconds after the vehicle is restarted or the front view camera or front radar is initialized.
- You may hear a sound when the brake is controlled by Smart Cruise Control.

## Smart Cruise Control malfunction and limitations

### Smart Cruise Control malfunction



#### A: Watch for surrounding vehicles

When Smart Cruise Control is not working properly, the warning message will appear, and the (⚠) warning light will appear on the cluster. Have Smart Cruise Control inspected by an authorized Kia dealer.

## Smart Cruise Control disabled



### A: SCC (Smart Cruise Control) disabled. Radar blocked

When the front radar cover or sensor is covered with snow, rain, or foreign material, it can reduce the detecting performance and temporarily limit or disable Smart Cruise Control.

If this occurs the warning message will appear for a certain period of time on the cluster.

Smart Cruise Control will operate properly when snow, rain or foreign material is removed.

Always keep it clean.

### **⚠ WARNING**

Even though the warning message does not appear on the cluster, Smart Cruise Control may not properly operate.

### **⚠ CAUTION**

Smart Cruise Control may not properly operate in an area (e.g. open terrain), where there is nothing to detect, or detecting sensor is covered in foreign material after turning ON the vehicle.

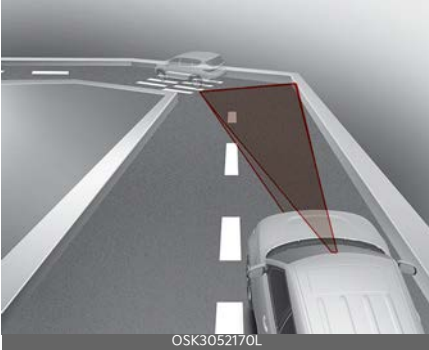
## Limitations of Smart Cruise Control

Smart Cruise Control may not operate properly, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- Washer fluid is continuously sprayed, or the wiper is on
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass
- Moisture is not removed or frozen on the windshield
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming vehicle is reflected on the wet road surface, such as a puddle on the road
- The temperature around the front view camera is high or low
- An object is placed on the dashboard
- The surrounding is very bright
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlamps are not on or are not bright
- Driving in heavy rain or snow, or thick fog
- Driving through steam, smoke or shadow
- Only part of the vehicle is detected
- The vehicle in front has no tail lights, tail lights are located unusually, etc.

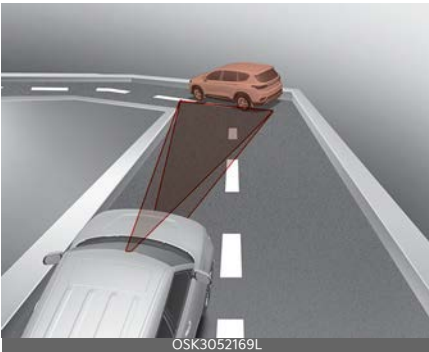


- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or does not look normal (for example, tilted, overturned, etc.)
- The front vehicle's ground clearance is low or high
- A vehicle suddenly cuts in front
- Your vehicle is being towed
- An object reflecting off the front radar such as a guardrail, nearby vehicle, etc.
- The bumper around the front radar is impacted, damaged or the front radar is out of position
- The temperature around the front radar is high or low
- The vehicle in front is made of material that does not reflect on the front radar
- Driving near a highway (or motorway) interchange or tollgate
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- Driving on a curved road
- The vehicle in front is detected late
- The vehicle in front is suddenly blocked by an obstacle
- The vehicle in front suddenly changes lane or suddenly reduces speed
- The vehicle in front is bent out of shape
- The front vehicle's speed is fast or slow
- With a vehicle in front, your vehicle changes lane suddenly at low speed
- The vehicle in front is covered with snow
- Unstable driving
- You are on a roundabout and the vehicle in front is not detected
- You are continuously driving in a circle
- The adverse road conditions cause excessive vehicle vibrations while driving
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- Driving in following places
  - Driving in a parking lot
  - Driving through a construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
  - Driving on an incline road, curved road, etc.
  - Driving through a roadside with trees or streetlights
  - Driving through a narrow road where trees or grass are overgrown
  - There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise
  - Driving on a curved road
- Driving through a tunnel or iron bridge
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.
- Driving in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
  - Driving through steam, smoke or shadow
  - Driving near a highway (or motorway) interchange or tollgate
  - Driving near areas containing metal substances, such as a construction zone, railroad, etc.



On curves, Smart Cruise Control may not detect a vehicle in the same lane, and may accelerate to the set speed. Also, vehicle speed may rapidly decrease when the vehicle ahead is detected suddenly.

Select the appropriate set speed on curves and apply the brake pedal or accelerator pedal according to the road and driving conditions ahead.



Your vehicle speed can be reduced due to a vehicle in the adjacent lane. Check to be sure that the road conditions permit safe operation of Smart Cruise Control and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance

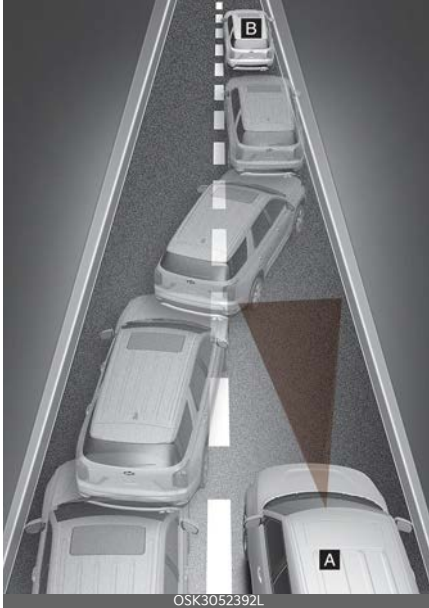
- Driving on an inclined road



During uphill or downhill driving, the Smart Cruise Control may not detect a moving vehicle in your lane, and cause your vehicle to accelerate to the set speed. Also, vehicle speed will rapidly decrease when the vehicle ahead is detected suddenly.

Select the appropriate set speed on inclines and apply the brake pedal or accelerator pedal according to the road and driving conditions ahead.

- Changing lanes



[A] : Your vehicle,

[B] : Lane changing vehicle

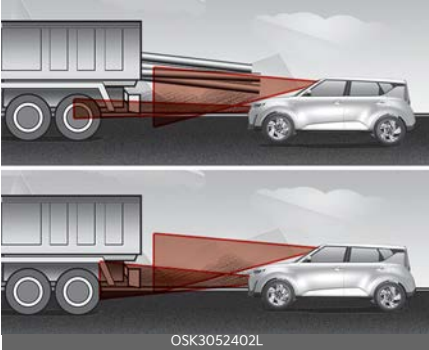
When a vehicle (B) moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Smart Cruise Control may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- Situations when detecting are limited



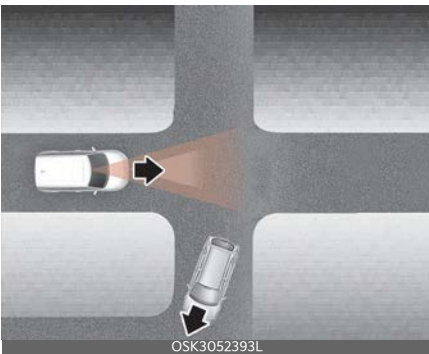
In the following cases, some vehicles in your lane cannot be detected by the sensor:

- Vehicles offset to one side
- Slow-moving vehicles or sudden-decelerating vehicles
- Vehicles with higher ground clearance or vehicles carrying loads that stick out of the back of the vehicle
- Vehicles that has the front lifted due to heavy loads
- Vehicles within approximately 2 m (6 ft.) from your vehicle
- Oncoming vehicles
- Stopped vehicles
- Vehicles with small rear profile, such as trailers
- Narrow vehicles, such as motorcycles, bicycles, or powered two-wheelers
- Special vehicles
- Animals and pedestrians

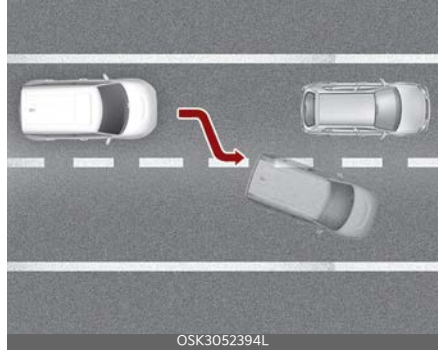


In the following cases, the vehicle in front cannot be detected by the sensor. Always pay attention to the road and driving conditions and drive safely. If necessary, adjust your vehicle speed.

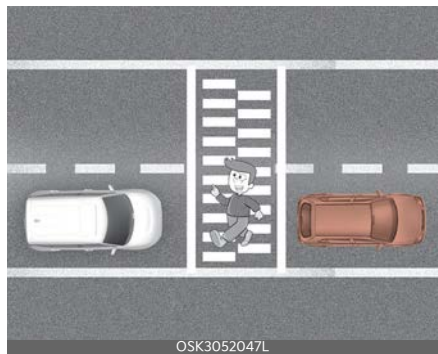
- You are steering your vehicle
- Driving on narrow or sharply curved roads



- When a vehicle ahead disappears at an intersection, your vehicle may accelerate. Always pay attention to road and driving conditions while driving.



- When a vehicle in front of you merges out of the lane, Smart Cruise Control may not immediately detect the new vehicle that is now in front of you. Always pay attention to road and driving conditions while driving.



- Always look out for pedestrians when your vehicle is maintaining a distance with the vehicle ahead.

## Navigation-based Smart Cruise Control (NSCC) (if equipped)

Navigation-based Smart Cruise Control can help drive at a certain speed according to the road conditions when driving on highways (or motorways) by using road information from the navigation system while Smart Cruise Control is operating.

### \* NOTICE

- Navigation-based Smart Cruise Control is available only on controlled access road of certain highways.
  - \* Controlled access road indicates roads with limited entrances and exits that allow uninterrupted high speed traffic flow. Only passenger cars and motorcycles are allowed on controlled access roads.

Available highway (Controlled access road)	
USA	Select Interstate Highway and U.S.(Federal) and State Highways
Canada	Select Provincial and Territorial Highways

- Additional highways may be expanded by future navigation updates.

### \* NOTICE

Navigation-based Smart Cruise Control operates on main roads of highways (or motorways), and does not operate on interchanges or junctions.

### \* NOTICE

Recommend adding Warning: "Navigation-based Smart Cruise Control (NSCC) is a supplemental function and is not a substitute for safe driving. It is the

responsibility of the driver to always check the speed and distance to the vehicle ahead. Always drive safely and use caution."

## Highway Curve Zone Auto Slow-down

If vehicle speed is high, Highway Curve Zone Auto Slowdown function will temporarily decelerate your vehicle or limit acceleration to help you drive safely on a curve based on the curve information from the navigation.

## Navigation-based Smart Cruise Control settings

### Highway Auto Speed Change



#### A: Driver Assistance

#### 1 Driving Convenience

#### 2 Highway Auto Speed Change

With the vehicle on, select **Settings** → **Vehicle** → **Driver Assistance** → **Highway Auto Speed Change** on the infotainment system.

### ⚠ CAUTION

When the trailer is connected, Lane Keeping Assist automatically turns off (if equipped). In this case, you cannot get

help from Forward Collision-Avoidance Assist. Always drive with care.

**\* NOTICE**

When there is a problem with Navigation-based Smart Cruise Control, the function cannot be set from the Settings menu.

### Navigation-based Smart Cruise Control operation

#### Operating conditions

Navigation-based Smart Cruise Control is ready to operate if all of the following conditions are satisfied:

- Smart Cruise Control is operating
- Driving on main roads of highways (or motorways)

**\* NOTICE**

For more details on how to operate Smart Cruise Control, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-102.

### Navigation-based Smart Cruise Control display and control

When Navigation-based Smart Cruise Control operates, it will be displayed on the cluster as follows:

### Navigation-based Smart Cruise Control standby



If the operating conditions are satisfied, the white (NAV) symbol will appear.

### Navigation-based Smart Cruise Control operating

If temporary deceleration is required in the standby state and Navigation-based Smart Cruise Control is operating, the green (NAV) symbol will appear on the cluster.

### Navigation-based Smart Cruise Control pause/driver operation

If Smart Cruise Control cannot be operated due to pause or rerouting, the grey (NAV) symbol will appear on the cluster. If the accelerator pedal is depressed, the white (NAV) symbol will appear on the cluster.

**⚠ WARNING****A: Drive carefully**

The warning message will appear in the following circumstances:

- Navigation-based Smart Cruise Control is not able to slow down your vehicle to a safe speed

**\* NOTICE**

The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

**Highway Curve Zone Auto Slow-down**

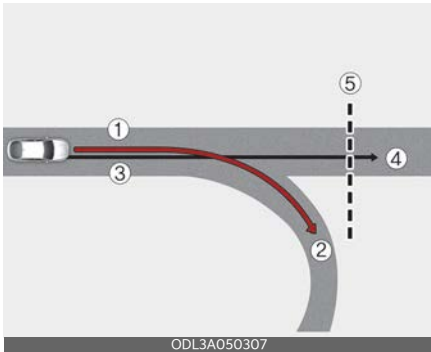
- Depending on the curve ahead on the highway (or motorway), the vehicle will decelerate, and after passing the curve, the vehicle will accelerate to Smart Cruise Control set speed.
- Vehicle deceleration time may differ depending on the vehicle speed and the degree of the curve on the road. The higher the driving speed, deceleration will start faster.

**Limitations of Navigation-based Smart Cruise Control**

Navigation-based Smart Cruise Control may not operate properly under the following circumstances:

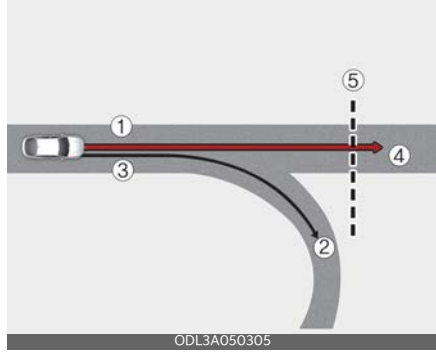
- The navigation is not working properly
- Speed limit and road information in the navigation is not updated
- Map information is not transmitted due to infotainment system's abnormal operation
- Speed limit and road information in the navigation is not updated
- The map information and the actual road is different because of real-time GPS data or map information error
- The navigation searches for a route while driving
- GPS signals are blocked in areas such as a tunnel
- A road that divides into two or more roads and joins again
- The driver goes off course the route set in the navigation
- The route to the destination is changed or canceled by resetting the navigation
- The vehicle enters a service station or rest area
- Android Auto or Car Play is operating
- The navigation cannot detect the current vehicle position (for example, elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way)
- The navigation is being updated while driving
- The navigation is being restarted while driving

- The speed limit of some sections changes according to the road situations
- Driving on a road under construction
- Driving on a road that is controlled
- There is bad weather, such as heavy rain, heavy snow, etc.
- Driving on a road that is sharply curved



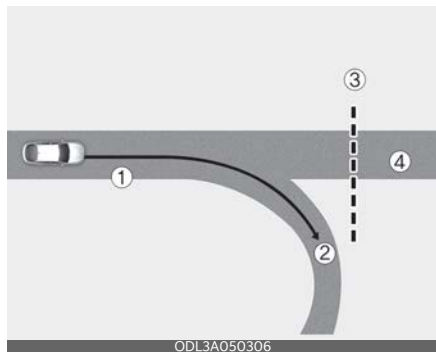
[1]: Set route, [2]: Branch line, [3]: Driving route, [4]: Main road, [5]: Curved road section

- When there is a difference between the navigation set route (branch line) and the driving route (main road), Highway Curve Zone Auto Slowdown function may not operate until the driving route is recognized as the main road.
- When the vehicle's driving route is recognized as the main road by maintaining the main road instead of the navigation set route, Highway Curve Zone Auto Slowdown function will operate. Depending on the distance to the curve and the current vehicle speed, vehicle deceleration may not be sufficient or may decelerate rapidly.



[1]: Main road, [2]: Branch line, [3]: Driving route, [4]: Set route, [5]: Curved road section

- When there is a difference between the navigation route (main road) and the driving route (branch line), Highway Curve Zone Auto Slowdown function will operate based on the curve information on the main road.
- When it is judged that you are driving out of the route by entering the highway interchange or junction, Highway Curve Zone Auto Slowdown function will not operate.



[1]: Driving route, [2]: Branch line, [3]: Curved road section, [4]: Main road

- If there is no destination set on the navigation, Highway Curve Zone Auto Slowdown function will operate based



on the curve information on the main road.

- Even if you depart from the main road, Highway Curve Zone Auto Slow-down function may temporarily operate due to navigation information of the highway curve section.

**▲ WARNING**

- Navigation-based Smart Cruise Control is not a substitute for safe driving practices, but a convenience function. Always have your eyes on the road, and it is the responsibility of the driver to avoid violating traffic laws.
- The navigation's speed limit information may differ from the actual speed limit information on the road. It is the driver's responsibility to check the speed limit on the actual driving road or lane.
- Navigation-based Smart Cruise Control will automatically be canceled when you leave the highway (or motorway) main road. Always pay attention to road and driving conditions while driving.
- Navigation-based Smart Cruise Control may not operate due to the existence of leading vehicles and the driving conditions of the vehicle. Always pay attention to road and driving conditions while driving.
- When you are towing a trailer or another vehicle, turn off Navigation-based Smart Cruise Control for safety reasons. If you tow a European spec trailer, the function may be limited.
- After you pass through a tollgate on a highway (or motorway), Navigation-based Smart Cruise Control will operate based on the first lane. If you enter one of the other lanes, Navigation-

based Smart Cruise Control might not operate properly.

- The vehicle will accelerate if the driver depresses the accelerator pedal while Navigation-based Smart Cruise Control is operating, and the function will not decelerate the vehicle. However, if the accelerator pedal is depressed insufficiently, the vehicle may decelerate.
- If the driver accelerates and releases the accelerator pedal while Navigation-based Smart Cruise Control is operating, the vehicle may not decelerate sufficiently or may rapidly decelerate to a safe speed.
- If the curve is too large or too small, Navigation-based Smart Cruise Control may not operate.

**\* NOTICE**

- A time gap could occur between the navigation's guidance and when Navigation-based Smart Cruise Control operation starts and ends.
- The speed information on the cluster and navigation may differ.
- Even if you are driving at a speed lower than Smart Cruise Control set speed, acceleration may be limited by the curve sections ahead.
- If Navigation-based Smart Cruise Control is operating while leaving the main road to enter an interchange, junction, rest area, etc., the function may operate for a certain period of time.
- Deceleration by Navigation-based Smart Cruise Control may feel it is not sufficient due to road conditions such as uneven road surfaces, narrow lanes, etc.

**This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

**Lane Following Assist (LFA) (if equipped)**

Lane Following Assist is designed to help detect lane markings and/or vehicles on the road, and assists the driver's steering to help center the vehicle in the lane.

**Detecting sensor**

Front view camera



The front view camera is used as a detecting sensor to detect lane markings and front vehicles.

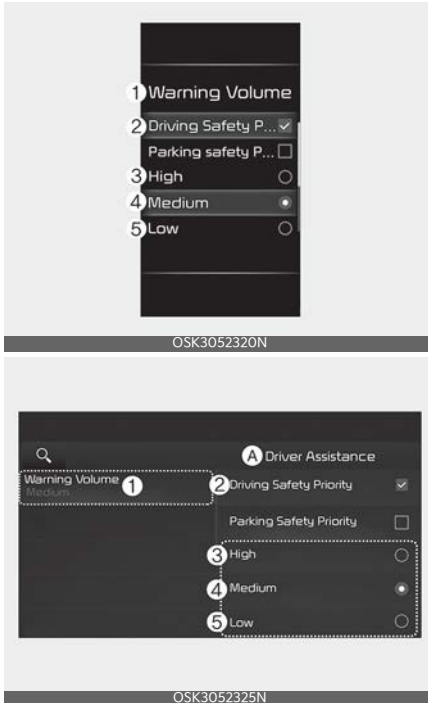
Refer to the picture above for the detailed location of the detecting sensor.

**⚠ CAUTION**

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Front Camera Only) (if equipped)" on page 5-38.

## Lane Following Assist settings

### Warning volume



#### A: Driver Assistance

- 1 Warning Volume
- 2 Driving Safety Priority
- 3 High
- 4 Medium
- 5 Low

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

#### \* NOTICE

When the trailer is connected, Lane Following Assist automatically turns off (if equipped). In this case, you cannot get help from Forward Collision-Avoidance Assist. Always drive with care.

#### \* NOTICE

- When the vehicle is restarted, Lane Following Assist settings will retain its settings.
- If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

## Lane Following Assist operation

### Turning Lane Following Assist On/Off



With the vehicle on, shortly press the Lane Driving Assist button located on the steering wheel to turn on Lane Following Assist. The grey or green (🚗) indicator light will appear on the cluster. Press the button again to turn off the function.

### Lane Following Assist



If the vehicle ahead and/or both lane markings are detected and The vehicle speed is below 180 km/h (100 mph), the green (D) indicator light appears on the cluster, and Lane Following Assist helps center the vehicle in the lane by assisting the steering wheel.

#### **CAUTION**

When the steering wheel is not assisted, the white (A) indicator light blinks and change to grey.

### Hands-off warning



#### **A: Keep hands on steering wheel**

If the driver takes their hands off the steering wheel for several seconds, the

warning message will appear and an audible warning will sound in stages.

- First stage: Warning message
- Second stage: Warning message (red steering wheel) and audible warning



#### **A: LFA (Lane Following Assist) cancelled**

If the driver still does not have their hands on the steering wheel after the hands-off warning the warning message will appear and Lane Following Assist will be automatically canceled.

#### **WARNING**

- The steering wheel may not be assisted if the steering wheel is held very tight or the steering wheel is steered over a certain degree.
- Lane Following Assist does not operate at all times. It is the responsibility of the driver to safely steer the vehicle and to maintain the vehicle in its lane.
- The hands-off warning message may appear late depending on road conditions. Always have your hands on the steering wheel while driving.
- If the steering wheel is held very lightly the hands-off warning message may appear because Lane Following Assist may not recognize that

the driver has their hands on the steering wheel.

- If you attach objects to the steering wheel, the hands-off warning may not work properly.

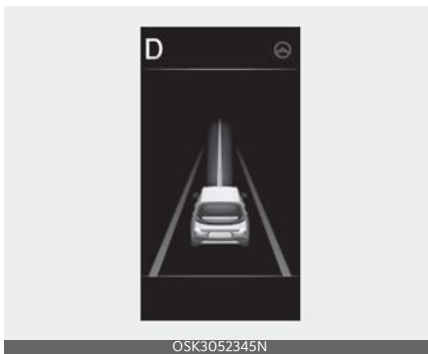
**\* NOTICE**

- When both lane markings are detected, the lane lines on the cluster will change from grey to white.

Lane undetected



Lane detected



- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.
- If lane markings are not detected, steering wheel control by Lane Fol-

lowing Assist can be limited depending on whether a vehicle is in front or the driving conditions of the vehicle.

- Even though the steering is assisted by Lane Following Assist, the driver may control the steering wheel.
- The steering wheel may feel heavier or lighter when the steering wheel is assisted by Lane Following Assist than when it is not.

**Lane Following Assist malfunction and limitations**

**Lane Following Assist malfunction**



**A: Check LFA (Lane Following Assist) system**

When Lane Following Assist is not working properly, the warning message will appear and the master warning light (⚠) will appear on the cluster.

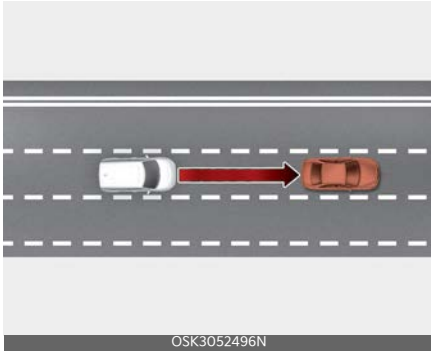
If this occurs, have Lane Following Assist inspected by an authorized Kia dealer.

**Limitations of Lane Following Assist**

For more details on Lane Following Assist limitations, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-64.

### Highway Driving Assist (HDA) (if equipped)

ways), and does not operate on interchanges or junctions.



Highway Driving Assist is designed to help detect vehicles and lanes ahead, and help maintain distance from the vehicle ahead, maintain the set speed, help center the vehicle in the lane while driving on the highway (or motorway).

#### \* NOTICE

- Highway Driving Assist is available only on controlled access road of certain highways.
  - \* Controlled access road indicates roads with limited entrances and exits that allow uninterrupted high speed traffic flow. Only passenger cars and motorcycles are allowed on controlled access roads.

#### Available highway (Controlled access road)

USA	Select Interstate Highway and U.S.(Federal) and State Highways
Canada	Select Provincial and Territorial Highways

- Additional highways may be expanded by future navigation updates.
- Highway Driving Assist operates on main roads of highways (or motor-

### Detecting sensor

Front view camera



Front radar



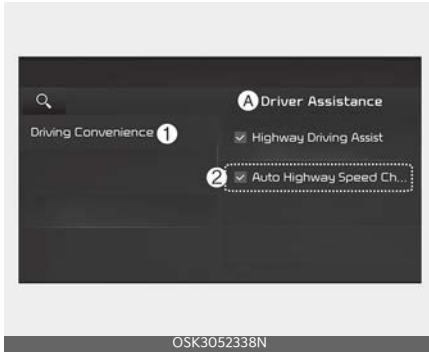
Refer to the picture above for the detailed location of the detecting sensors.

#### ⚠ CAUTION

For more details on the precautions of the detecting sensors, refer to "Forward Collision-Avoidance Assist (FCA) (Sensor Fusion) (if equipped)" on page 5-50.

## Highway Driving Assist settings

### Highway Driving Assist



A: Driver Assistance

1 Driving Convenience

2 Highway Driving Assist

With the vehicle on, select **Settings** → **Driver Assistance** → **Driving Convenience** → **Highway Driving Assist** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Driving Convenience** → **Highway Driving Assist** on the infotainment system.

If **Highway Driving Assist** is selected, it helps maintain distance from the vehicle ahead, maintain the set speed, and helps center the vehicle in the lane.

### **⚠ WARNING**

For your safety, change the Settings after parking the vehicle at a safe location.

### **\* NOTICE**

- If there is a problem with the functions, the settings cannot be changed. Have the function be inspected by an authorized Kia dealer.

- If the vehicle is restarted, the functions will maintain the last setting.

### Warning volume



OSK3052320N



OSK3052325N

A: Driver Assistance

1 Warning Volume

2 Driving Safety Priority

3 High

4 Medium

5 Low

With the vehicle on, select **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

If **Driving Safety Priority** is selected, the audio volume will temporarily decrease to warn the driver with the audible warning for safe driving.

**\* NOTICE**

If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

**Highway Driving Assist operation**

**Displaying operating status**

You can see the status of the Highway Driving Assist operation in the Driving Assist view on the cluster. Refer to "LCD display" on page 4-47.

Operating State



Standby State



Highway Driving Assist will be displayed as below depending on the status of the function.

- 1 Highway Driving Assist indicator, whether there is a vehicle ahead and the selected distance level are displayed.
  - Highway Driving Assist indicator
    - Green (⊕): Operating state
    - Grey (⊖): Standby state
    - White (⊕) blink: Accelerator depressed state
- 2 Set speed
- 3 Lane Following Assist indicator
- 4 Whether there is a vehicle ahead and the selected headway
- 5 Whether the lane is detected or not

**\* NOTICE**

- For more details on the display refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-102.
- For more details on the display, refer to "Lane Following Assist (LFA) (if equipped)" on page 5-122.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

**Highway Driving Assist operating**

Highway Driving Assist operates when:


- When driving on available road, press Drive Assist button to turn on Highway Driving Assist.
- When entering the main roads of highways (or motorways) while Smart Cruise Control is operating, Driving Assist will not turn on if Lane Following Assist is turned off.



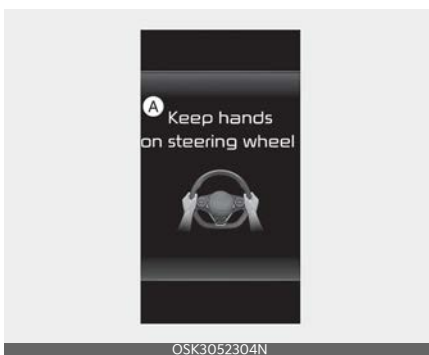
## Restarting after stopping



### A: Use switch or pedal to accelerate

When Highway Driving Assist is operating, your vehicle will stop if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving within 30 seconds after the stop, your vehicle will start as well. In addition, after the vehicle has stopped and 30 seconds have passed, the message will appear on the cluster. Depress the accelerator pedal or operate the + switch, - switch or  switch to start driving.

## Hands-off warning



### A: Keep hands on steering wheel

If the driver takes their hands off the steering wheel for several seconds, the 'Keep hands on the steering wheel'

warning message will appear and an audible warning will sound in stages.

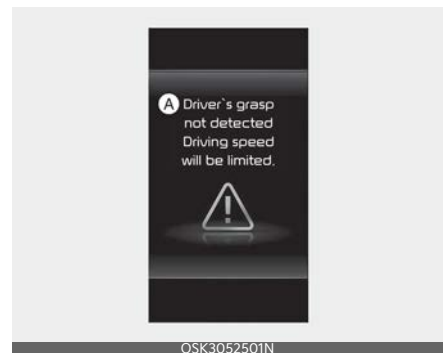
- First stage: Warning message
- Second stage: Warning message (red steering wheel) and audible warning



### A: Highway Driving Assist (HDA) system cancelled

If the driver still does not have their hands on the steering wheel after the hands-off warning, warning message will appear and Highway Driving Assist will be automatically canceled.

## Driving speed limit



### A: Driver's grasp not detected. Driving speed will be limited

When Highway Driving Assist is canceled by the hands-off warning, The driving speed will be limited.

While Driving Speed Limit function is operating, the warning message will appear on the cluster, and an audible warning will sound continuously.

### Highway Driving Assist standby

When the Smart Cruise Control is temporarily canceled while Highway Driving Assist is operating, Highway Driving Assist will be in the standby state. At this time, Lane Following Assist will operate properly.

#### \* NOTICE

- Driving Speed Limit helps you drive below 60 km/h (40 mph). At this time, the vehicle decelerates due to the vehicle ahead. After the vehicle has decelerated, it cannot automatically accelerate.
- Driving Speed Limit will cancel in the following circumstances:
  - When the driver grabs the steering wheel again
  - When the driver turns on Lane Following Assist by pressing the Lane Driving Assist button
  - When (+), (-), (⏪) switch or (🚗) button is operated, or the accelerator pedal or the brake pedal is depressed

### Highway Driving Assist malfunction and limitations

#### Highway Driving Assist malfunction



#### A: Check HDA (Motorway Driving Assist) system

When Highway Driving Assist is not working properly, the warning message will appear, and the (A) warning light will appear on the cluster. Have Highway Driving Assist be inspected by an authorized Kia dealer.

#### ⚠ WARNING

- The driver is responsible for controlling the vehicle for safe driving.
- Always have your hands on the steering wheel while driving.
- Highway Driving Assist is a supplemental function that assists the driver in driving the vehicle and is not a complete autonomous driving system. Always check road conditions, and if necessary, take appropriate actions to drive safely.
- Always have your eyes on the road, and it is the responsibility of the driver to avoid violating traffic laws. The vehicle manufacturer is not responsi-

- ble for any traffic violation or accidents caused by the driver.
- Highway Driving Assist may not be able to recognize all traffic situations. Highway Driving Assist may not detect possible collisions due to limitations of the function. Always be aware of the limitations of the function. Obstacles such as vehicles, motorcycles, bicycles, pedestrians, or unspecified objects or structures such as guardrails, tollgate, etc., that may collide with the vehicle may not be detected.
  - Highway Driving Assist will turn off automatically under the following situations:
    - Driving on roads that Highway Driving Assist does not operate, such as a rest area, intersection, junction, etc.
    - The navigation does not operate properly such as when the navigation is being updated or restarted
  - Highway Driving Assist may inadvertently operate or turn off depending on road conditions (navigation information) and surroundings.
  - Lane Following Assist function may be temporarily disabled when the front view camera cannot detect lanes properly or the hands-off warning is on.
  - You may not hear the warning sound of Highway Driving Assist if the surrounding is noisy.
  - If the vehicle is driven at high speed above a certain speed at a curve, your vehicle may drive to one side or may depart from the driving lane.
  - When you are towing a trailer or another vehicle, turn off Highway Driving Assist for safety reasons.
  - The hands-off warning message may appear early or late depending on how the steering wheel is held or road conditions. Always have your hands on the steering wheel while driving.
  - For your safety, please read the owner's manual before using the Highway Driving Assist.
  - Highway Driving Assist will not operate when the vehicle is started, or when the detecting sensors or navigation is being initialized.

---

### Limitations of Highway Driving Assist

Highway Driving Assist may not operate properly, or it may not operate under the following circumstances:

- The map information and the actual road is different because the navigation is not updated
- The map information and the actual road is different because of real-time GPS data or map information error
- The infotainment system is overloaded by simultaneously performing functions such as route search, video playback, voice recognition, etc.
- GPS signals are blocked in areas such as a tunnel
- The driver goes off course, or resetting the navigation route by changing the destination (including route change according to real-time road traffic information), or canceling the route to the destination
- The vehicle enters a service station or rest area
- Android Auto or Car Play is operating
- The navigation cannot detect the current vehicle position (for example, elevated roads including overpass

adjacent to general roads or nearby roads exist in a parallel way)

**\* NOTICE**

For more details on the limitations of the front view camera and front radar, refer to "Forward Collision-Avoidance Assist (FCA) (Sensor Fusion) (if equipped)" on page 5-50.

**This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

**Rear View Monitor (RVM) (if equipped)**

Rear View Monitor shows the area behind the vehicle to assist you when parking or backing up.

**Detecting sensor**

Rear view camera

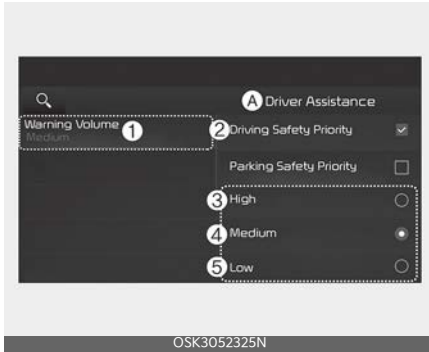


Refer to the picture above for the detailed location of the detecting sensor.

**Rear View Monitor settings**

**Warning volume**





**A: Driver Assistance**

**1 Warning Volume**

**2 Parking Safety Priority**

If **Parking Safety Priority** is selected, the audio volume will temporarily decrease while Rear View Monitor is operating for safe parking.

**\* NOTICE**

If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

You can change Rear View Monitor 'Display Contents' by touching the setup icon (⚙️) on the screen while Rear View Monitor is operating, or selecting **Driver assistance** → **Parking safety** → **Camera settings** from the Settings menu while the vehicle is on.

- **Display Contents:** To change the settings of Extended Rear View Monitor and Rear View Parking Guide Lines.
- **Display Settings:** To change the screen's brightness and contrast.

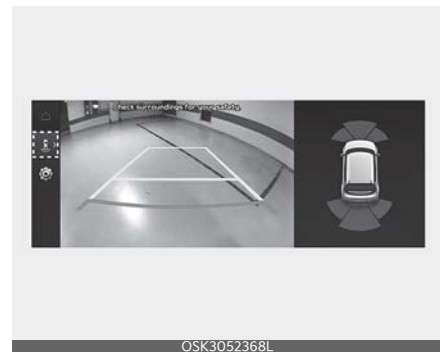
**\* NOTICE**

The settings menu may not be depending on the specifications of the vehicle specifications.

**Rear View Parking Guide**

5

**Rear View Parking Guide Lines**

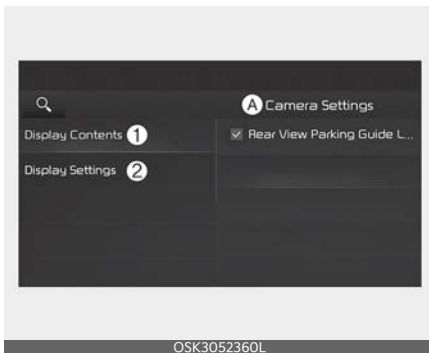


If **Rear View Parking Guide Lines** is selected, the rear view parking guide lines will be displayed at the left side of the infotainment system screen.

**\* NOTICE**

The horizontal guideline shows the distance of 0.5 m (1.6 ft.), 1 m (3.3 ft.) and 2.3 m (7.6 ft.) from the vehicle.

**Camera settings**



**A: Camera Settings**

**1 Display Contents**

**2 Display Settings** (if equipped)

### Top View Parking Guide Lines



If **Rear View Parking Guide Lines** is selected, the top view parking guide lines will be displayed at the left side of the infotainment system screen.

#### \* NOTICE

The horizontal scale of rear top view parking guide indicates the tailgate opening distance, 1.5 m from the vehicle.

### Extended Rear View Monitor

If Extended Rear View Monitor is selected, the Rear View keeps displaying when shifting from R to N/D.

### Rear View Monitor operation

#### Parking/View button (if equipped)



Press the Parking/View button (1) to turn on Rear View Monitor.

Press the button again to turn off the function.

### Rear view function



### Operating conditions

Rear View Monitor will turn on when the following conditions are satisfied:

- Shifting the gear to R (Reverse).
- Pressing the Parking/View button (1) while P (Park) gear position is selected
- Pressing the View icon with the Rear top view on the screen

### Off conditions

Rear View Monitor will turn off when the following conditions are satisfied:

- Pressing the Parking/View button (1) again while P (Park) gear position is selected. with the rear view on the screen.
- Changing the gear from R (Reverse) to P (Park).

#### \* NOTICE

Rear View Monitor will not turn off when the vehicle is in R (Reverse).

## Extended Rear View Monitor

Extended Rear View Monitor function maintains the rear view of the vehicle when shifting the gear from R (Reverse) to N (Neutral) or D (Drive) to help you park safely.

## Operating conditions

Rear View Monitor will maintain when the following conditions are satisfied:

- Shifting the gear from R (Reverse) to N (Neutral) or D (Drive).
- The vehicle speed is below approximately 10 km/h (6 mph).

## Off conditions

Extended Rear View Monitor function will turn off when one the following conditions are satisfied:

- The vehicle speed is above approximately 10 km/h (6 mph).
- Pressing the Parking/View button (1).
- Shifting the gear to P (Park).

## Rear Top View



Rear Top View shows the rear top view of your vehicle when parking for you to check the distance between an object and behind the vehicle.

Rear Top View will turn on under the following conditions:

- The gear is shifted to R (Reverse) and the icon is selected among the view buttons.
- The Parking/View button is pressed, while the gear is in P (Park), N (Neutral) or D (Drive), and vehicle speed is 10 km/h (6 mph) or less.

## Rear View Monitor malfunction and limitations

### Rear View Monitor malfunction

When Rear View Monitor is not working properly, or the screen flickers, or the camera image does not display properly, Visit an authorized Kia dealer.

### Limitations of Rear View Monitor

When the vehicle is stopped for a long time in winter or when the vehicle is parked in an indoor parking lot, the exhaust fumes may temporarily blur the image.

### **⚠ WARNING**

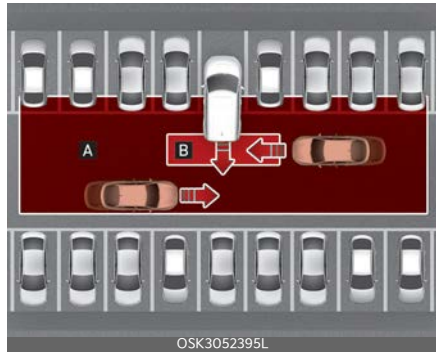
- The rear view camera does not cover the complete area behind the vehicle. The driver should always check the rear area directly through the inside and outside rearview mirror before parking or backing up.
- The image shown on the screen may differ from the actual distance of the object. Make sure to directly check the vehicle's surroundings for safety.
- If the camera lens is covered with foreign material, the Rear View Monitor may not operate normally. Always keep the camera lens clean. However, do not use chemical solvents such as strong detergents containing high alkaline or volatile organic solvents

(gasoline, acetone etc.). This may damage the camera lens.

---

## Rear Cross-Traffic Collision-Avoidance Assist (RCCA) (if equipped)

Rear Cross-Traffic Collision-Avoidance Assist is designed to help detect vehicles approaching from the left and right side while your vehicle is reversing, and warn the driver that a collision is imminent with a warning message and an audible warning. Also, braking is assisted to help prevent collision.



[A]: Rear Cross-Traffic Collision Warning operating range

[B]: Rear Cross-Traffic Collision-Avoidance Assist operating range

### **⚠ CAUTION**

Warning timing may vary depending on vehicle speed of the approaching vehicle.

---



## Detecting sensor

Rear corner radar



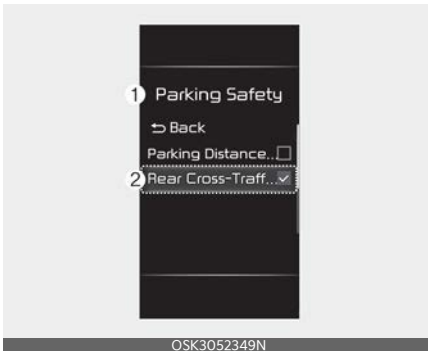
Refer to the picture above for the detailed location of the detecting sensors.

### \* NOTICE

For more details on the precautions of the rear corner radar, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-70.

## Rear Cross-Traffic Collision-Avoidance Assist settings

### Rear Cross-Traffic Safety



### A: Driver Assistance

#### 1 Parking Safety

#### 2 Rear Cross-Traffic Safety

With the vehicle on, select **Settings** → **Driver Assistance** → **Parking Safety** → **Rear Cross-Traffic Safety** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Parking Safety** → **Rear Cross-Traffic Safety** on the infotainment system screen to turn on Rear Cross-Traffic Collision-Avoidance Assist.

### ⚠ WARNING

When the vehicle is restarted, Rear Cross-Traffic Collision-Avoidance Assist will always turn on. However, if **Rear Cross-Traffic Safety** is deselected after the vehicle is restarted, the driver should always be aware of the surroundings and drive safely.

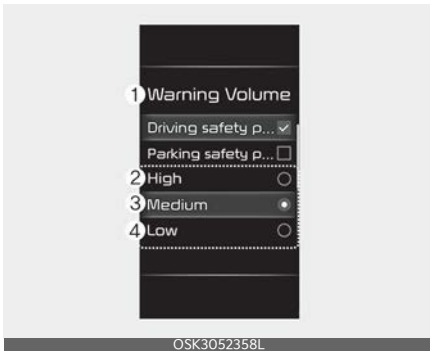
### \* NOTICE

Rear Cross Safety settings include 'Rear Cross-Traffic Collision-Warning' and 'Rear Cross-Traffic Collision-Avoidance Assist'.

**\* NOTICE**

If the vehicle is restarted, Warning Volume will maintain the last setting.

**Warning volume**



OSK3052358L



OSK3052356L

- A: Driver Assistance
- 1 Warning Volume
- 2 High
- 3 Medium
- 4 Low

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

**⚠ CAUTION**

The settings for Warning Volume applies to all the functions of Rear Cross-Traffic Collision-Avoidance Assist.

**\* NOTICE**

- If the vehicle is restarted, Warning volume will maintain the last setting.
- If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

**Rear Cross-Traffic Collision-Avoidance Assist operation**

Rear Cross-Traffic Collision-Avoidance Assist will warn and control the vehicle depending on collision risk level: 'Collision warning', 'Emergency braking' and 'Stopping vehicle and ending brake control'.

**Collision warning**



OSK3052366L



**A: Collision warning**

- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the outside rearview mirror will blink and a warning will appear on the cluster. At the same time, an audible warning will sound. If the Rear View Monitor is operating, a warning will also appear on the infotainment system screen.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when all the following conditions are satisfied:
  - The gear is shifted to R (Reverse)
  - Vehicle speed is below 8 km/h (5 mph)
  - The approaching vehicle is within approximately 25 m (82 ft.) from

the left and right side of your vehicle

- The speed of the vehicle approaching from the left and right is above 5 km/h (3 mph)

**\* NOTICE**

- If the operating conditions are satisfied, there will be a warning whenever the vehicle approaches from the left or right side even though your vehicle speed is 0 km/h (0 km/h).
- The images and colors in the cluster may differ depending on the cluster type or theme selected from the cluster.

**Emergency braking**





**A: Emergency Braking**

- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the outside rearview mirror will blink and a warning message will appear on the cluster. At the same time, an audible warning will sound. A warning will also appear on the infotainment system screen.
- Emergency braking will be assisted to help prevent collision with approaching vehicles from the left and right.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when all the following conditions are satisfied:
  - The gear is shifted to R (Reverse)
  - Vehicle speed is below 8 km/h (5 mph)
  - The approaching vehicle is within approximately 1.5 m (5 ft.) from the left and right side of your vehicle
  - The speed of the vehicle approaching from the left and right is above 5 km/h (3 mph)

**⚠ WARNING**

Brake control ends when the conditions of the approaching vehicle from the rear left or right side are as below:

- The approaching vehicle is out of the detecting range
- The approaching vehicle passes behind your vehicle
- The approaching vehicle does not drive toward your vehicle
- The approaching vehicle speed slows down
- The driver depresses the brake pedal with sufficient power

**Stopping vehicle and ending brake control**



**A: Drive carefully**

- When the vehicle is stopped due to emergency braking, the warning message will appear on the cluster.
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.
- During emergency braking, braking control by Rear Cross-Traffic Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the brake pedal.

**⚠ WARNING**

- For your safety, change the Settings after parking the vehicle at a safe location.
- If any other system's warning message is displayed or audible warning is generated, Rear Cross-Traffic Collision-Avoidance Assist's warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Rear Cross-Traffic Collision-Avoidance Assist if the surrounding is noisy.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate if the driver applies the brake pedal to avoid collision.
- During Rear Cross-Traffic Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- Even if there is a problem with Rear Cross-Traffic Collision-Avoidance Assist, the vehicle's basic braking performance will operate properly.

**⚠ WARNING**

- When Rear Cross-Traffic Collision-Avoidance Assist is operating, braking control by function will automatically cancel when the driver excessively depresses the accelerator pedal.
- Rear Cross-Traffic Collision-Avoidance Assist does not operate in all situations or cannot avoid all collisions.
- Rear Cross-Traffic Collision-Avoidance Assist may warn the driver late or may not warn the driver depending on the road and driving conditions.

- The driver should hold the responsibility to control the vehicle. Do not solely depend on Rear Cross-Traffic Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never deliberately operate Rear Cross-Traffic Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.

**⚠ WARNING**

The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

There will only be a warning when:

- The ESC (Electronic Stability Control) warning light is on
- ESC (Electronic Stability Control) is engaged in a different function

**\* NOTICE**

- If braking is assisted by Rear Cross-Traffic Collision-Avoidance Assist, the driver must immediately depress the brake pedal and check vehicle surroundings.
- After shifting the gear to R (Reverse), braking control will operate once for left and right vehicle approach.

### Rear Cross-Traffic Collision-Avoidance Assist malfunction and limitations

#### Rear Cross-Traffic Collision-Avoidance Assist malfunction



#### A: Check blind-spot safety systems

When Rear Cross-Traffic Collision-Avoidance Assist is not working properly, the warning message will appear on the cluster for several seconds, and the master (⚠) warning light will appear on the cluster. If this occurs, have the function be inspected by an authorized Kia dealer.



#### A: Check outside mirror warning icon

When the outside rearview mirror warning light is not working properly, the warning message will appear on the

cluster for several seconds, and the master (⚠) warning light will appear on the cluster. If this occurs, have the function be inspected by an authorized Kia dealer.

#### Rear Cross-Traffic Collision-Avoidance Assist disabled



#### A: Rear cross-traffic safety functions disabled. Radar blocked

When the rear bumper around the rear-side radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Rear Cross-Traffic Collision-Avoidance Assist.

If this occurs, the warning message will appear on the cluster.

Rear Cross-Traffic Collision-Avoidance Assist will operate properly when such foreign material or trailer, etc., is removed.

If Rear Cross-Traffic Collision-Avoidance Assist does not operate properly after it is removed, have the function be inspected by an authorized Kia dealer.

### ⚠ WARNING

- Even though the warning message does not appear on the cluster, Rear

Cross-Traffic Collision-Avoidance Assist may not operate properly.

- Rear Cross-Traffic Collision-Avoidance Assist may not operate properly in an area (for example, open terrain), where any substance are not detected after turning ON the vehicle.

### ⚠ CAUTION

Turn off Rear Cross-Traffic Collision-Avoidance Assist to install or remove a trailer, carrier, or another attachment. Turn on Rear Cross-Traffic Collision-Avoidance Assist when finished.

### Limitations of Rear Cross-Traffic Collision-Avoidance Assist

Rear Cross-Traffic Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- Departing from where trees or grass are overgrown
- Departing from where roads are wet
- Speed of the approaching vehicle is fast or slow

Braking control may not work, driver's attention is required in the following circumstances:

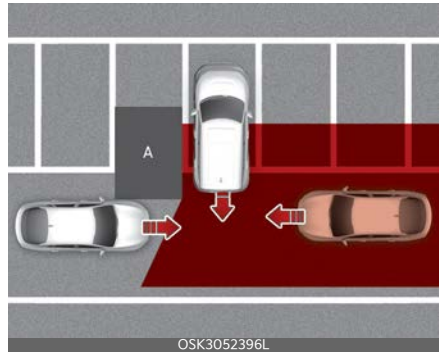
- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The brake is tuned
- Remote Smart Parking Assist is operating (if equipped)

### \* NOTICE

For more details on the limitations of the rear corner radar, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-70.

### ⚠ WARNING

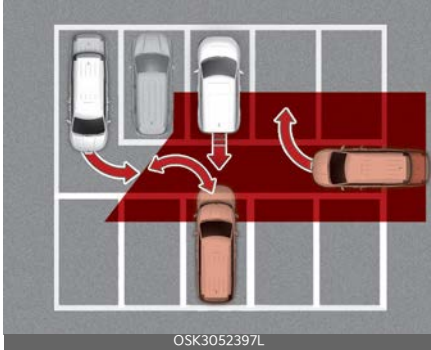
- Driving near a vehicle or structure



[A]: Structure

Rear Cross-Traffic Collision-Avoidance Assist may be limited when driving near a vehicle or structure, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brakes when necessary. Always check your surroundings while backing up.

- When the vehicle is in a complex parking environment



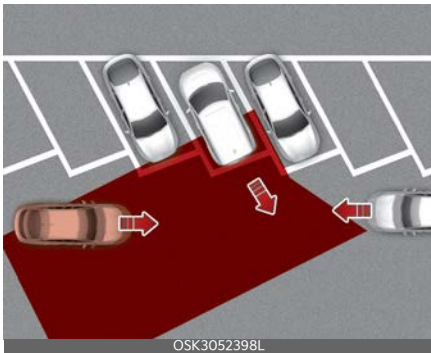
OSK3052397L

Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles which are parking or pulling out near your vehicle (example, a vehicle leaving beside your vehicle, a vehicle parking or pulling out in the rear area, a vehicle approaching your vehicle making a turn, etc.).

If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

- When the vehicle is parked diagonally

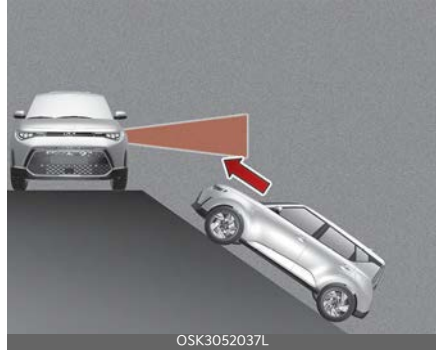


OSK3052398L

Rear Cross-Traffic Collision-Avoidance Assist may be limited when backing up diagonally, and may not detect the vehicle approaching from the left or right.

function may not warn the driver or control the brakes when necessary. Always check your surroundings while backing up.

- When the vehicle is on or near a slope

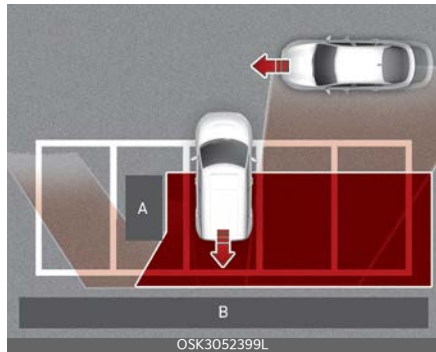


OSK3052037L

Rear Cross-Traffic Collision-Avoidance Assist may be limited when the vehicle is on a uphill or downhill slope, or near it, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brakes when necessary.

Always check your surroundings while backing up.

- Pulling into the parking space where there is a structure



OSK3052399L

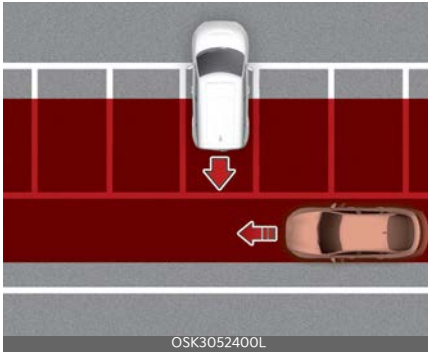
[A]: Structure,  
[B]: Wall



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by in front of you when parking in reverse into a parking space with a wall or structure in the rear or side area. If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

- When the vehicle is parked rearward



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by behind you when parking in reverse into a parking space. If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

### **⚠ WARNING**

- When you are towing a trailer or another vehicle, turn off Rear Cross-Traffic Collision-Avoidance Assist for safety reasons. If you tow a European spec trailer, the function may be limited.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate properly

if interfered by strong electromagnetic waves.

- Rear Cross-Traffic Collision-Avoidance Assist may not operate for 3 seconds after the vehicle is started, or the rear corner radars are initialized.

### **This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

## Reverse Parking Distance Warning (PDW) (if equipped)

Reverse Parking Distance Warning will help warn the driver if a person, an animal or an object is detected within a certain distance when the vehicle is moving in reverse.

### Detecting sensor

Rear ultrasonic sensors



Refer to the picture above for the detailed location of the detecting sensors.

### Reverse Parking Distance Warning settings

#### Warning volume



#### A: Driver Assistance

##### 1 Warning Volume

##### 2 High

##### 3 Medium

##### 4 Low

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

#### \* NOTICE

- If the vehicle is restarted, Warning volume will maintain the last setting.
- If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

## Reverse Parking Distance Warning operation

### Parking Safety button



Press the Parking Safety (P+P-) button to turn on or off Reverse Parking Distance Warning.

- When Reverse Parking Distance Warning is off (button indicator light off), if you shift the gear to R (Reverse), Reverse Parking Distance Warning will automatically turn on.
- If you shift the gear to R (Reverse), Reverse Parking Distance Warning will not turn off even if you press the Parking Safety (P+P-) button for your safety.

### Reverse Parking Distance Warning

Reverse Parking Distance Warning will operate under the following conditions.

- Shift the gear to R (Reverse).
- The vehicle's speed is below 10 km/h (6 mph).

## Warning indication and warning sound

Distance from object	Warning indicator when driving backward	Warning sound
60~120 cm (24~48 in.)		Buzzer beeps intermittently
30~60 cm (12~24 in.)		Beeps more frequently
within 30 cm (12 in.)		Beeps continuously

- The corresponding indicator will appear on the cluster or infotainment system whenever each ultrasonic sensor detects a person, animal or object in its sensing range. Also an audible warning will sound.
- When more than two objects are detected at the same time, the closest one will be warned with an audible warning.
- Distance from object may be detected differently when obstacles are not located in front of the sensor.
- The shape of the indicator in the illustration may differ from the actual vehicle.

### Reverse Parking Distance Warning malfunction and precautions

#### Reverse Parking Distance Warning malfunction

After starting the vehicle, a beep will sound once when the gear is shifted to R (Reverse) to indicate Reverse Parking Distance Warning is operating normally. However, if one or more of the following occurs, first check whether the ultrasonic sensor is damaged or blocked with

foreign material. If it still does not work properly, have your vehicle inspected by an authorized Kia dealer.

- The audible warning does not sound.
- The buzzer sounds intermittently.
- The warning message appears on the cluster.



A: Ultrasonic sensor error or blockage

### Limitations of Reverse Parking Distance Warning

- Reverse Parking Distance Warning may not operate normally when:
  - Moisture is frozen to the sensor (Reverse Parking Distance Warning will operate normally when it is melted.)
  - Sensor is covered with foreign material, such as snow or water (Reverse Parking Distance Warning will operate normally when such foreign material are removed.)
  - The weather is extremely hot or cold
  - The sensor or sensor assembly is disassembled
  - The surface of the sensor is pressed hard or an impact is applied with a hard object
  - The surface of the sensor is scratched with a sharp object

- The sensors or its surrounding area is directly sprayed with high pressure washer
- Reverse Parking Distance Warning may malfunction when:
  - Heavy rain or water spray is present
  - Water flows on the surface of the sensor
  - Affected by another vehicle's sensors
  - The sensor is covered with snow
  - Driving on uneven road, gravel roads or bushes
  - Objects that generates ultrasonic waves are near the sensor
  - Installing the license plate differently from the original location
  - The vehicle bumper height or ultrasonic sensor installation has been modified
  - Attaching equipments or accessories around the ultrasonic sensors
- The following objects may not be detected:
  - Sharp or slim objects, such as ropes, chains or small poles.
  - Objects, which tend to absorb sensor frequency, such as clothes, spongy material or snow.
  - Objects smaller than 100 cm (40 inches) in length and narrower than 14 cm (6 inches) in diameter.
  - Pedestrians, animals or objects that are very close to the ultrasonic sensors

### **WARNING**

- Reverse Parking Distance Warning is a supplemental function. The operation of Reverse Parking Distance Warning can be affected by several

factors (including environmental conditions). It is the responsibility of the driver to always check the rear view before and while parking.

- Your vehicle warranty does not cover any accidents or damage to the vehicle due to the malfunction of Reverse Parking Distance Warning.
  - Pay close attention when driving near objects, pedestrians, and especially children. Some objects may not be detected by the ultrasonic sensors, due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.
  - Parking Distance Warning indicator may not occur sequentially depending on vehicle speed or obstacle shape.
  - If Reverse Parking Distance Warning needs repair, have your vehicle inspected by an authorized Kia dealer.
- 

## Forward/Reverse Parking Distance Warning (PDW) (if equipped)

Forward/Reverse Parking Distance Warning will help warn the driver if an obstacle is detected within a certain distance when the vehicle is moving forward or in reverse at low speeds.

### Detecting sensor

Front ultrasonic sensors



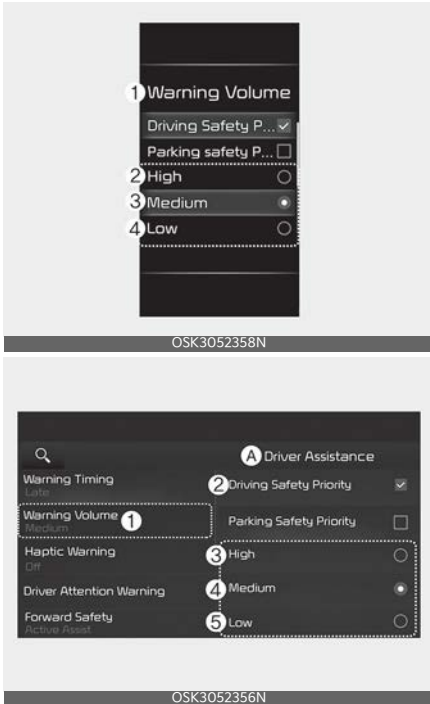
Rear ultrasonic sensors



Refer to the picture above for the detailed location of the detecting sensors.

## Forward/Reverse Parking Distance Warning settings

### Warning volume



A: Driver Assistance

1 Warning Volume

2 High

3 Medium

4 Low

With the vehicle on, select **Settings** → **Driver Assistance** → **Warning Volume** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Warning Volume** on the infotainment system to change the Warning volume to adjust the Warning volume levels; **High**, **Medium** or **Low**.

### \* NOTICE

- If the vehicle is restarted, Warning volume will maintain the last setting.
- If you change the Warning volume, the Warning volume of other Driver Assistance systems may change.

### Parking Distance Warning Auto On

You can set the parking distance warning to be ON at low speeds. To use Parking Distance Warning Auto On function, select **Settings** → **Driver Assistance** → **Parking Safety** → **Parking Distance Warning Auto On** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Parking Safety** → **Parking Distance Warning Auto On** on the infotainment system.

### \* NOTICE

When **Parking Distance Warning Auto On** is selected, the Parking Safety button indicator (P) stays on.

## Parking Distance Warning operation

### Control switch

#### Parking Safety button (if equipped)



- Press the Parking Safety (P+▲) button to turn on Forward/Reverse Parking Distance Warning. Press the button again to turn off the function.
- When the gear is shifted to R (Reverse), Parking Distance Warning will automatically turn on (Parking Safety button indicator on).
- When the gear is in R (Reverse), Parking Distance Warning does not turn off even if the Parking Safety button (3) is pressed.

### Forward Parking Distance Warning

Forward Parking Distance Warning will operate under the following conditions.

- The gear is shifted from R (Reverse) to D (Drive) with Reverse Parking Distance Warning on
- The gear is in D (Drive) and the Parking Safety (P+▲) button indicator light is on

- Forward Parking Distance Warning warns the driver when the vehicle is in D (Drive)




(If **Settings** → **Driver Assistance** → **Parking Safety** → **Parking Distance Warning Auto On** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Parking Safety** → **Parking Distance Warning Auto On** on the infotainment system selected)

- Vehicle speed is below 10 km/h (6 mph).

#### \* NOTICE

- Forward Parking Distance Warning does not operate when the vehicle's forward speed is above 10 km/h (6 mph) even when the Parking Safety (P+▲) button indicator is on. Forward Parking Distance Warning will operate again when the vehicle's forward speed decreases below 10 km/h (6 mph) while the Parking Safety (P+▲) button indicator is on.
- When the vehicle's forward speed is above 30 km/h (18 mph), the Forward Parking Distance Warning will turn off (Parking Safety button indicator off). Although you drive below 10 km/h (6 mph) again, Forward Parking Distance Warning will not automatically turn on (If **Settings** → **Driver Assistance** → **Parking Safety** → **Parking Distance Warning Auto On** on the instrument cluster or **Settings** → **Vehicle** → **Driver Assistance** → **Parking Safety** → **Parking Distance Warning Auto On** on the infotainment system not selected).

### Warning indication and warning sound

Distance from object	Warning indicator when driving forward	Warning sound
60-120 cm (24-48 in.)		Buzzer beeps intermittently
30-60 cm (12-24 in.)		Beeps more frequently
within 30 cm (12 in.)		Beeps continuously

- The corresponding indicator will appear whenever each ultrasonic sensor detects a person, animal or object in its sensing range. Also an audible warning will sound.
- When more than two objects are detected at the same time, the closest one will be warned with an audible warning.
- The shape of the indicator in the illustration may differ from the actual vehicle.

### Reverse Parking Distance Warning




Reverse Parking Distance Warning will operate under the following conditions.

- The gear is shifted to R (Reverse).
- Vehicle speed is below 10 km/h (6 mph).

**\* NOTICE**

Parking Distance Warning detects and warns the driver of both rear and front corners, when the vehicle speed is below 10 km/h (6 mph).

### Warning indication and warning sound

Distance from object	Warning indicator when driving backward	Warning sound
60-100 cm (24-40 in.)		Buzzer beeps intermittently
30-60 cm (12-24 in.)		Beeps more frequently
within 30 cm (12 in.)		Beeps continuously

- The corresponding indicator will appear whenever each ultrasonic sensor detects a person, animal or object in its sensing range. Also an audible warning will sound.
- When more than two objects are detected at the same time, the closest one will be warned with an audible warning.
- The shape of the indicator in the illustration may differ from the actual vehicle.

### Parking Distance Warning malfunction and limitations

#### Parking Distance Warning malfunction

After starting the vehicle, a beep will sound when the gear is shifted to R (Reverse) to indicate Parking Distance Warning is operating properly.

However, if one or more of the following occurs, first check whether the ultrasonic sensor is damaged or blocked with foreign material. If it still does not work properly, have your vehicle inspected by an authorized Kia dealer.

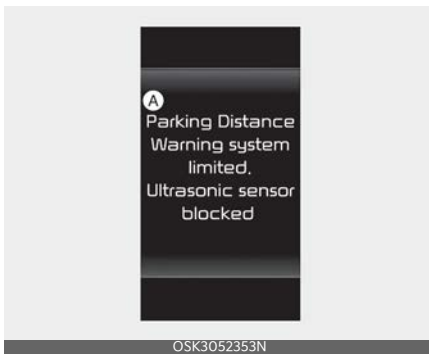


- The direction of Parking Distance Warning sensor malfunction is shown on the instrument cluster.



**A: Ultrasonic sensor error or blockage**

### Parking Distance Warning disabled



**A: Parking Distance Warning system limited. Ultrasonic sensor blocked**

If this occurs, the warning message appears on the cluster. Parking Distance Warning will operate properly when snow, rain or foreign material is removed. If Parking Distance Warning does not operate properly after obstruction (snow, rain, or foreign material) is removed (including trailer, carrier, etc., from the rear bumper), have your vehi-

cle inspected by an authorized Kia dealer.

### Limitations of Parking Distance Warning

- Parking Distance Warning may not operate properly when:
  - Moisture is frozen to the sensor
  - Sensor is covered with foreign substance, such as snow or water (Parking Distance Warning will operate properly when such substance is removed.)
  - The weather is extremely hot or cold
  - The sensor or sensor assembly is disassembled
  - The surface of the sensor is pressed hard or hit with a hard object
  - The surface of the sensor is scratched with a sharp object
  - The sensors or its surrounding area is directly sprayed with high pressure washer
- Parking Distance Warning may malfunction when:
  - Heavy rain or water spray is present
  - Water flows on the surface of the sensor
  - Affected by another vehicle's sensors
  - The sensor is covered with snow or ice
  - Driving on uneven road, gravel roads or bushes
  - Objects that generates ultrasonic waves are near the sensor
  - License plate is installed in a different spot from the original location

- The vehicle bumper height or ultrasonic sensor installation has been modified
- Attaching equipment or accessories next to the ultrasonic sensors
- The following objects may not be detected:
  - Sharp or slim objects, such as ropes, chains or small poles.
  - Narrow objects, such as corners of a square column
  - Objects, which tend to absorb sensor frequency, such as clothes, spongy material or snow.
  - Objects smaller than 100 cm (40 inches) in length and narrower than 14 cm (6 inches) in diameter.
  - Pedestrians, animals or objects that are very close to the ultrasonic sensors

varies depending on the speed of the vehicle or the shape of a person, animal, or object.

- If the Parking Distance Warning does not operate properly, have your vehicle inspected by an authorized Kia dealer.
- 

**⚠ WARNING**

- Parking Distance Warning is a supplemental function. The operation of Parking Distance Warning can be affected by several factors (including environmental conditions). It is the responsibility of the driver to always check the front and rear views before and while parking.
- Your new vehicle warranty does not cover any accidents or damage to the vehicle due to the malfunction of Parking Distance Warning.
- Pay close attention when driving near objects, pedestrians, and especially children. Some objects may not be detected by the ultrasonic sensors, due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.
- Parking Distance Warning does not warn you in the order of detection. It

## Drive mode integrated control system

The drive mode may be selected according to the driver's preference or road condition.



The mode changes whenever the DRIVE MODE button is pressed.

- **NORMAL mode:** NORMAL mode provides smooth and comfortable riding.
- **SPORT mode:** SPORT mode provides sporty but firm riding.
- **ECO mode:** ECO mode improves fuel efficiency for eco-friendly driving.

The driving mode will be set to NORMAL or ECO mode when the engine is restarted. If it is in NORMAL mode this mode will be set, when the engine is restarted.

If it is in Eco mode, Eco mode will be set when the engine is restarted.

### SPORT mode

**SPORT** SPORT mode focuses on dynamic driving.

- When the DRIVE MODE button is pressed and the SPORT mode is selected, the SPORT indicator will appear.
- When the SPORT mode is activated, and the ENGINE START/STOP button

is turned off and on it will change to NORMAL mode. To turn on the SPORT mode press DRIVE MODE button again.

- If the system is activated:
  - After increasing speed and taking your foot off the accelerator pedal it maintains the gear and rpm for a short time even though the accelerator pedal is not depressed.
  - Up-shifting is delayed.

### \* NOTICE

In Sport drive mode, the fuel efficiency may decrease.

### ECO mode

**ECO** When the Drive Mode is set to ECO mode, the engine and transmission control logic are changed to maximize fuel efficiency.

- When ECO mode is selected by pressing the DRIVE MODE button, the ECO indicator will appear.
- If the vehicle is set to ECO mode, when the engine is turned OFF and restarted the Drive Mode setting will remain in ECO mode.

### \* NOTICE

Fuel efficiency depends on the driver's driving habit and road condition.

### When ECO mode is activated:

- The acceleration response may be slightly reduced if the accelerator pedal is depressed moderately.
- The air conditioner performance may be limited.
- The shift pattern of the automatic transmission may change.

- The engine noise may get louder.  
The above situations are activated to improve fuel efficiency.

**Limitation of ECO mode operation:**

If the following conditions occur while ECO mode is operating, the system operation will be limited:

- When the coolant temperature is low:  
The system will be limited until engine performance becomes normal.
- When driving up a hill:  
The system will be limited to gain power when driving uphill because engine torque is restricted.
- When driving the vehicle with the automatic transmission gear shift lever in manual mode:  
The system will be limited according to the shift location.

**Declaration of conformity (if equipped)**

**The radio frequency components (Front radar) complies:**

For United States and American territories, Micronesia, Dominican Republic, Honduras



OYB060040L

FCC ID  
: 2ACDX-MRR-20  
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION TO USERS  
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

OSP2061032L

For Canada

Model: MRR-20  
 IC: 11988A-MRR20

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:  
 (1) l'appareil ne doit pas produire de brouillage,  
 et  
 (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

OSP2061034L

The radio frequency components (Rear Corner Radar) complies :

For United States and American territories, Micronesia, Dominican Republic, Honduras



OYB060040L

FCC ID : 2A30Z-SRR30SA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
 (1) this device may not cause harmful interference, and  
 (2) this device must accept any interference received, including interference that may cause undesired operation.  
**CAUTION TO USERS**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

OSK3052430N

For Canada

Model: SRR30SA  
 IC: 27992-SRR30SA

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:  
 (1) l'appareil ne doit pas produire de brouillage,  
 et  
 (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

OSK3052431N

## Economical operation

Your vehicle's fuel economy depends mainly on your style of driving, where you drive and when you drive.

Each of these factors affects how many miles (kilometers) you can get from a gallon (liter) of fuel. To operate your vehicle as economically as possible, use the following driving suggestions to help save money in both fuel and repairs:

- Drive smoothly. Accelerate at a moderate rate. Don't make "jackrabbit" starts or full-throttle shifts and maintain a steady cruising speed. Don't race between stoplights. Try to adjust your speed to the traffic so you don't have to change speeds unnecessarily. Avoid heavy traffic whenever possible. Always maintain a safe distance from other vehicles so you can avoid unnecessary braking. This also reduces brake wear.
- Drive at a moderate speed. The faster you drive, the more fuel your vehicle uses. Driving at a moderate speed, especially on the highway, is one of the most effective ways to reduce fuel consumption.
- Don't "ride" the brake pedal. This can increase fuel consumption and also increase wear on these components. In addition, driving with your foot resting on the brake pedal may cause the brakes to overheat, which reduces their effectiveness and may lead to more serious consequences.
- Take care of your tires. Keep them inflated to the recommended pressure. Incorrect inflation, either too much or too little, results in unnecessary tire wear. Check the tire pressures at least once a month.
- Be sure that the wheels are aligned correctly. Improper alignment can result from hitting curbs or driving too fast over irregular surfaces. Poor alignment causes faster tire wear and may also result in other problems as well as greater fuel consumption.
- Keep your vehicle in good condition. For better fuel economy and reduced maintenance costs, maintain your vehicle in accordance with "Scheduled maintenance service" on page 7-8. If you drive your vehicle in severe conditions, more frequent maintenance is required (Refer to "Maintenance Under Severe Usage Conditions" on page 7-11 for details).
- Keep your vehicle clean. For maximum service, your vehicle should be kept clean and free of corrosive materials. It is especially important that mud, dirt, ice, etc. not be allowed to accumulate on the underside of the vehicle. This extra weight can result in increased fuel consumption and also contribute to corrosion.
- Travel lightly. Don't carry unnecessary weight in your vehicle. Weight reduces fuel economy.
- Don't let the engine idle longer than necessary. If you are waiting (and not in traffic), turn off your engine and restart only when you're ready to go.
- Remember, your vehicle does not require extended warm-up. After the engine has started, allow the engine to run for 10 to 20 seconds prior to placing the vehicle in gear. In very cold weather, however, give your engine a slightly longer warm-up period.
- Don't "lug" or "over-rev" the engine. Lugging is driving too slowly in a very

high gear resulting in engine bucking. If this happens, shift to a lower gear. Over-revving is racing the engine beyond its safe limit. This can be avoided by shifting at the recommended speed.

- Use your air conditioning sparingly. The air conditioning system is operated by engine power so your fuel economy is reduced when you use it.
- Open windows at high speeds can reduce fuel economy.
- Fuel economy is less in crosswinds and headwinds. To help offset some of this loss, slow down when driving in these conditions.

Keeping a vehicle in good operating condition is important both for economy and safety. Therefore, have an authorized Kia dealer perform scheduled inspections and maintenance.

### **WARNING**

#### **Engine off during motion**

Never turn the engine off to coast down hills or anytime the vehicle is in motion. The power steering and power brakes will not function properly without the engine running. In addition, turning off the ignition while driving could engage the steering wheel lock resulting in loss of vehicle steering. Keep the engine on and downshift to an appropriate gear for engine braking effect.

## **Special driving conditions**

If driving conditions deteriorate due to poor weather or road conditions, you should pay even more attention than usual to your driving.

### **Hazardous driving conditions**

When hazardous driving conditions are encountered such as water, snow, ice, mud, sand, or similar hazards, follow these suggestions:

- Drive cautiously and allow extra distance for braking.
- Avoid sudden braking or steering.
- When braking with non-ABS brakes pump the brake pedal with a light up-and-down motion until the vehicle is stopped.
- Do not pump the brake pedal on a vehicle equipped with ABS.
- If stalled in snow, mud, or sand, use the second gear. Accelerate slowly to avoid spinning the drive wheels.
- Use sand, rock salt, or other nonslip material under the drive wheels to provide traction when stalled in ice, snow, or mud.

### **Reducing the risk of a rollover**

This multi-purpose passenger vehicle is defined as a Sports Utility Vehicle (SUV). Utility vehicles have a significantly higher rollover rate than other types of vehicles. SUV's have higher ground clearance and a narrower track to make them capable of performing in a wide variety of offroad applications.

Specific design characteristics give them a higher center of gravity than ordinary vehicles. An advantage of the higher ground clearance is a better view of the

road, which allows you to anticipate problems.

They are not designed for cornering at the same speeds as conventional passenger vehicles, any more than low-slung sports vehicles are designed to perform satisfactorily in off-road conditions. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts.

In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. There are steps that a driver can make to reduce the risk of a rollover.

If at all possible, avoid sharp turns or abrupt maneuvers, do not load your roof rack with heavy cargo, and never modify your vehicle in any way.

### WARNING

#### Rollover

As with other Sports Utility Vehicle (SUV), failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover.

- SUVs have a significantly higher rollover rate than other types of vehicles.
- Specific design characteristics (higher ground clearance, narrower track, etc.) give this vehicle a higher center of gravity than ordinary vehicles.
- A SUV is not designed for cornering at the same speeds as conventional vehicles.
- Avoid sharp turns or abrupt maneuvers.
- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Make sure everyone in the vehicle is properly buckled up.

### WARNING

Your vehicle is equipped with tires designed to provide safe riding and handling capability. Do not use a size and type of tire and wheel that is different from the one that is originally installed on your vehicle. It can affect the safety and performance of your vehicle, which could lead to steering failure or rollover and serious injury. When replacing the tires, be sure to equip all four tires with the tire and wheel of the same size, type, tread, brand and load-carrying capacity.

#### Rocking the vehicle

If it is necessary to rock the vehicle to free it from snow, sand, or mud, first turn the steering wheel right and left to clear the area around your front wheels. Then, shift back and forth between R (Reverse) and any forward gear.

Do not race the vehicle, and spin the wheels as little as possible. If you are still stuck after a few tries, have the vehicle pulled out by a tow vehicle to avoid vehicle overheating and possible damage to the reduction gear.

### WARNING

#### Sudden Vehicle Movement

Do not attempt to rock the vehicle if people or objects are nearby. The vehicle may suddenly move forward or backwards as it becomes unstuck.

### CAUTION

#### Vehicle rocking

Prolonged rocking may cause vehicle overheating, reduction gear damage or failure, and tire damage.



**⚠ WARNING****Spinning tires**

Do not spin the wheels, especially at speeds more than 56 km/h (35 mph). Spinning the wheels at high speeds when the vehicle is stationary could cause tires to overheat, which could result in tire damage that may injure bystanders.

The ESC should be turned OFF prior to rocking the vehicle.

**Smooth cornering**

Avoid braking or gear changing in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration. If you follow these suggestions, tire wear will be held to a minimum.

**Driving at night**

Because night driving presents more hazards than driving in the daylight, here are some important tips to remember:

- Slow down and keep more distance between you and other vehicles, as it may be more difficult to see at night, especially in areas where there may not be any street lights.
- Adjust your mirrors to reduce the glare from other driver's headlights.
- Keep your headlights clean and properly aimed. (On vehicles not equipped with the automatic headlight aiming feature.) Dirty or improperly aimed headlights will make it much more difficult to see at night.
- Avoid staring directly at the headlights of oncoming vehicles. You could be temporarily blinded, and it will take

several seconds for your eyes to readjust to the darkness.

**Driving in the rain**

Rain and wet roads can make driving dangerous, especially if you're not prepared for the slick pavement.

Here are a few things to consider when driving in the rain:

- A heavy rainfall will make it harder to see and will increase the distance needed to stop your vehicle, so slow down.
- Keep your windshield wiping equipment in good shape. Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield.
- If your tires are not in good condition, making a quick stop on wet pavement can cause a skid and possibly lead to an accident. Be sure your tires are in good shape.
- Turn on your headlights to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.
- If you believe you may have gotten your brakes wet, apply them lightly while driving until normal braking operation returns.

**Driving in flooded areas**

Avoid driving through flooded areas unless you are sure the water is no higher than the bottom of the wheel hub. Drive through any water slowly. Allow adequate stopping distance because brake performance may be affected.

After driving through water, dry the brakes by gently applying them several times while the vehicle is moving slowly.

## Driving off-road

Drive carefully off-road because your vehicle may be damaged by rocks or roots of trees. Become familiar with the off-road conditions where you are going to drive before you begin driving.

## Highway driving

### Tires

Adjust the tire inflation pressures to specification. Low tire inflation pressures will result in overheating and possible failure of the tires.

Avoid using worn or damaged tires which may result in reduced traction or tire failure.

Never exceed the maximum tire inflation pressure shown on the tires.

### WARNING

#### Under/over inflated tires

Always check the tires for proper inflation before driving. Underinflated or overinflated tires can cause poor handling, loss of vehicle control, and sudden tire failure leading to accidents, injuries, and even death. For proper tire pressures, refer to "Tires and wheels" on page 8-5.

### WARNING

#### Tire tread

Always check the tire tread before driving your vehicle. Worn-out tires can result in loss of vehicle control. Worn-out tires should be replaced as soon as possible. For further information and tread

limits, refer to "Tires and wheels" on page 7-27.

---

## Fuel, engine coolant and engine oil

High speed travel consumes more fuel than urban motoring. Do not forget to check both the engine coolant and engine oil.

## Drive belt

A loose or damaged drive belt may result in overheating of the engine.

## Winter driving

Severe weather conditions in the winter result in greater wear and other problems.

To minimize the problems of winter driving, you should follow these suggestions:

### Snowy or icy conditions

To drive your vehicle in deep snow, it may be necessary to use snow tires on your tires.

If snow tires are needed, it is necessary to select tires equivalent in size and type of the original equipment tires. Failure to do so may adversely affect the safety and handling of your vehicle. Furthermore, speeding, rapid acceleration, sudden brake applications, and sharp turns are potentially very hazardous practices. During deceleration, use vehicle braking to the fullest extent. Sudden brake applications on snowy or icy roads may cause skids to occur. You need to keep sufficient distance between the vehicle in operation in front of your vehicle. Also, apply the brake gently.

### Snow tires

If you mount snow tires on your vehicle, make sure they are radial tires of the same size and load range as the original tires. Mount snow tires on all four wheels to balance your vehicle's handling in all weather conditions. Keep in mind that the traction provided by snow tires on dry roads may not be as high as your vehicle's original equipment tires. You should drive cautiously even when the roads are clear. Check with the tire dealer for maximum speed recommendations.

Do not install studded tires without first checking local, state and municipal regulations for possible restrictions against their use.

### WARNING

#### Snow tire size

Snow tires should be equivalent in size and type to the vehicle's standard tires. Otherwise, the safety and handling of your vehicle may be adversely affected.

### Use high quality ethylene glycol coolant

Your vehicle is delivered with high quality ethylene glycol coolant in the cooling system. It is the only type of coolant that should be used because it helps prevent corrosion in the cooling system, lubricates the water pump and prevents freezing. Be sure to replace or replenish your coolant refer to "Normal maintenance schedule" on page 7-9. Before winter, have your coolant tested to assure that its freezing point is sufficient for the temperatures anticipated during the winter.

### Check battery and cables

Winter puts additional burdens on the battery system. Visually inspect the battery and cables (refer to "For best battery service" on page 7-25). The level of charge in your battery can be checked by an authorized Kia dealer or a service station.

### Check spark plugs and ignition system

Inspect your spark plugs as described in "Scheduled maintenance service" on page 7-8 and replace them if necessary.

Also check all ignition wiring and components to be sure they are not cracked, worn or damaged in any way.

### **To keep locks from freezing**

To keep the locks from freezing, squirt an approved de-icer fluid or glycerine into the key opening. If a lock is covered with ice, squirt it with an approved de-icing fluid to remove the ice. If the lock is frozen internally, you may be able to thaw it out by using a heated key. Handle the heated key with care to avoid injury.

### **Use approved window washer anti-freeze in system**

To keep the water in the window washer system from freezing, add an approved window washer anti-freeze solution in accordance with instructions on the container. Window washer anti-freeze is available from an authorized Kia dealer and most auto parts outlets. Do not use vehicle coolant or other types of anti-freeze as these may damage the paint finish.

### **Don't let your parking brake freeze**

Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. If there is a risk the parking brake may freeze, apply it only temporarily while you put the gear shift dial in P (Park) and block the rear wheels so the vehicle cannot roll. Then release the parking brake.

### **Don't let ice and snow accumulate underneath**

Under some conditions, snow and ice can build up under the fenders and interfere with the steering. When driving in severe winter conditions where this may happen, you should periodically check underneath the vehicle to be sure the movement of the front wheels and the steering components are not obstructed.

### **Carry emergency equipment**

Depending on the severity of the weather, you should carry appropriate emergency equipment. Some of the items you may want to carry include tow straps or chains, flashlight, emergency flares, sand, shovel, jumper cables, window scraper, gloves, ground cloth, coveralls, blanket, etc.

### **Drive your vehicle when water vapor condenses and accumulates inside the exhaust pipes**

When the vehicle is stopped for a long time in winter while the engine is running, water vapor may condense and accumulate inside the exhaust pipes. Water in the exhaust pipes may cause noise, etc., but it is drained driving at medium to high speed.

## Trailer towing

We do not recommend using this vehicle for trailer towing.

## Vehicle load limit

The vehicle load limit is displayed on the tire and loading information label on the driver's door.

## Tire and loading information label

The label located on the driver's door sill gives the original tire size, cold tire pressures recommended for your vehicle, the number of people that can be in your vehicle and vehicle capacity weight.



5

## Vehicle capacity weight:

390 kg (860 lbs.)

Vehicle capacity weight is the maximum combined weight of occupants and cargo. If your vehicle is equipped with a trailer, the combined weight includes the tongue load.

## Seating capacity:

Total: 5 persons (Front seat: 2 persons, Rear seat: 3 persons)

Seating capacity is the maximum number of occupants including a driver, your vehicle may carry.

However, the seating capacity may be reduced based upon the weight of all of

the occupants, and the weight of the cargo being carried or towed. Do not overload the vehicle as there is a limit to the total weight, or load limit including occupants and cargo, the vehicle can carry.

**Towing capacity:**

**We do not recommend using this vehicle for trailer towing.**

**Cargo capacity:**

The cargo capacity of your vehicle will increase or decrease depending on the weight and the number of occupants.

**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 635 kg (1400 lbs.) and there will be five 68 kg (150 lbs.) passengers in your vehicle, the amount of available cargo and luggage load capacity is 295 kg (650 lbs.).  $(635-340 (5 \times 68) = 295 \text{ kg or } 1400-750 (5 \times 150) = 650 \text{ lbs.})$
- (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.

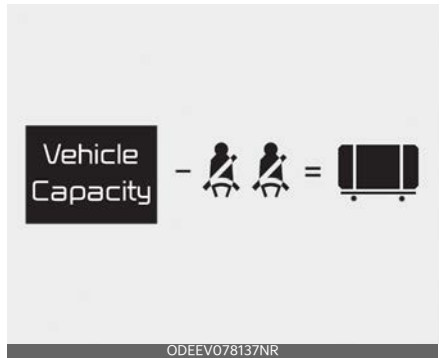
(6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

**⚠ WARNING**

**Loose cargo**

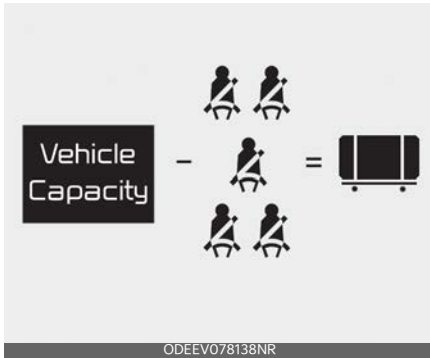
Do not travel with unsecured blunt objects in the passenger compartment of your vehicle (e.g. suit cases or unsecured child seats). These items may strike an occupant during a sudden stop or crash.

Example 1



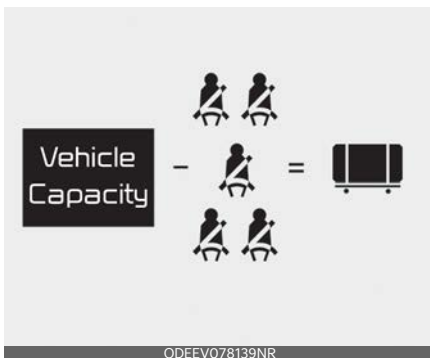
Item	Description	Total
A	Vehicle Capacity Weight	385 kg (849 lbs.)
B	Subtract Occupant Weight 150 lbs. (68 kg)×2	136 kg (300 lbs.)
C	Available Cargo and Luggage weight	249 kg (549 lbs.)

Example 2



Item	Description	Total
A	Vehicle Capacity Weight	385 kg (849 lbs.)
B	Subtract Occupant Weight 150 lbs. (68 kg)×5	340 kg (750 lbs.)
C	Available Cargo and Luggage weight	45 kg (99 lbs.)

Example 3



Item	Description	Total
A	Vehicle Capacity Weight	385 kg (849 lbs.)

Item	Description	Total
B	Subtract Occupant Weight 161 lbs. (73 kg)×5	365 kg (805 lbs.)
C	Available Cargo and Luggage weight	20 kg (44 lbs.)

Refer to your vehicle's tire and loading information label for specific information about your vehicle's capacity weight and seating positions. The combined weight of the driver, passengers and cargo should never exceed your vehicle's capacity weight.

### Certification label

The certification label is located on the driver's door sill at the center pillar. This label shows the maximum allowable weight of the fully loaded vehicle. This is called the GVWR (Gross Vehicle Weight Rating). The GVWR includes the weight of the vehicle, all occupants and cargo.

This label also tells you the maximum weight that can be supported by the front and rear axles, called Gross Axle Weight Rating (GAWR).

To find out the actual loads on your front and rear axles, you need to go to a weigh station and weigh your vehicle. Your dealer can help you with this. Be sure to spread out your load equally on both sides of the centerline.

### **⚠ WARNING**

#### Over loading

Never exceed the GVWR for your vehicle, the GAWR for either the front or rear axle and vehicle capacity weight. Exceeding these ratings can affect your vehicle's handling and braking ability.

The label will help you decide how much cargo and installed equipment your vehicle can carry.

If you carry items inside your vehicle - like suitcases, tools, packages, or anything else - they are moving as fast as the vehicle. If you have to stop or turn quickly, or if there is a crash, the items will keep going and can cause an injury if they strike the driver or a passenger.

### **WARNING**

#### **Over loading**

Do not overload your vehicle. Overloading your vehicle can cause heat buildup in your vehicle's tires and possible tire failure, increased stopping distances and poor vehicle handling--all of which may result in a crash.

### **NOTICE**

Overloading your vehicle may cause damage. Repairs would not be covered by your warranty. Do not overload your vehicle.

## **Vehicle weight**

This chapter will guide you in the proper loading of your vehicle and/or trailer, to keep your loaded vehicle weight within its design rating capability, with or without a trailer.

Properly loading your vehicle will provide maximum return of the vehicle design performance. Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, with or without a trailer, from the vehicle's specifications and the compliance label:

**Base curb weight** This is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include passengers, cargo, or optional equipment.

**Vehicle curb weight** This is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.

**Cargo weight** This figure includes all weight added to the Base Curb Weight, including cargo and optional equipment.

**GAW (Gross axle weight)** This is the total weight placed on each axle (front and rear) - including vehicle curb weight and all payload.

**GAWR (Gross axle weight rating)** This is the maximum allowable weight that can be carried by a single axle (front or rear). These numbers are shown on the compliance label. The total load on each axle must never exceed its GAWR.

**GVW (Gross vehicle weight)** This is the Base Curb Weight plus actual Cargo Weight plus passengers.

**GVWR (Gross vehicle weight rating)** This is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and



cargo). The GVWR is shown on the certification label located on the driver's door sill.



# What to do in an emergency

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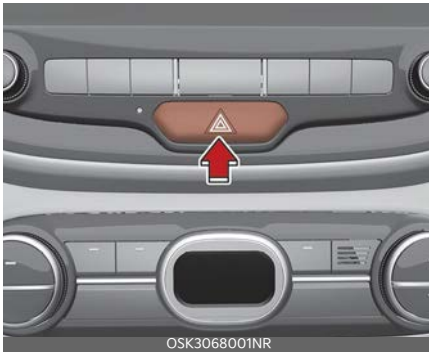
## What to do in an emergency

### Road warning

When in an emergency situation occurs while driving or when you park by the edge of the roadway, you must alert approaching or passing vehicles to be careful as they pass. For this, you should use the hazard warning flasher.

### Hazard warning flasher

The hazard warning flasher serves as a warning to other drivers to exercise extreme caution when approaching, overtaking, or passing your vehicle.



It should be used whenever emergency repairs are being made or when the vehicle is stopped near the edge of a roadway.

Depress the flasher switch with the ignition switch in any position. The flasher switch is located in the center fascia panel. All turn signal lights will flash simultaneously.

- The hazard warning flasher operates whether your vehicle is running or not.
- The turn signals do not work when the hazard flasher is on.
- Care must be taken when using the hazard warning flasher while the vehicle is being towed.

### In case of an emergency while driving

If an emergency situation occurs while driving, stay calm and take the following steps.

#### If the Vehicle Stalls While Driving

1. Reduce your speed gradually, keeping a straight line.
2. Move cautiously off the road to a safe place.
3. Turn on your hazard warning flasher.
4. Try to start the vehicle again. If your vehicle will not start, contact an authorized Kia dealer or seek other qualified assistance.

#### If the engine stalls at a crossroad or crossing

- If the engine stalls at a crossroad or crossing, set the shift lever in the N (Neutral) position and then push the vehicle to a safe place.
- If your vehicle has a manual transmission not equipped with an ignition lock switch, the vehicle can move forward by shifting to the 2 (second) or 3 (third) gear and then turning the starter without depressing the clutch pedal.

#### If you have a flat tire while driving

- Take your foot off the accelerator pedal and let the vehicle slow down while driving straight ahead. Do not apply the brakes immediately or attempt to pull off the road as this may cause a loss of control.
- When the vehicle has slowed to such a speed that it is safe to do so, brake carefully and pull off the road.

- Drive off the road as far as possible and park on firm level ground. If you are on a divided highway, do not park in the median area between the two traffic lanes.
- When the vehicle is stopped, turn on your emergency hazard flashers, set the parking brake and put the transmission in P (Park).
- Have all passengers get out of the vehicle. Be sure they all get out on the side of the vehicle that is away from traffic.
- When changing a flat tire, follow the instruction provided later in this section.

## If the engine will not start

### If engine doesn't turn over or turns over slowly

1. If your vehicle has an Intelligent Variable Transmission, be sure the shift lever is in N (Neutral) or P (Park) and the emergency brake is set.
2. Check the battery connections to be sure they are clean and tight.
3. Turn on the interior light. If the light dims or goes out when you operate the starter, the battery is discharged.
4. Check the starter connections to be sure they are securely tightened.

Do not push or pull the vehicle to start it. This could cause damage to your vehicle. Refer to "Jump starting" on page 6-5.

### **WARNING**

#### Push/pull start

Do not push or pull the vehicle to start it. Push or pull starting may cause the catalytic converter to overload and create a fire hazard.

### If engine turns over normally but does not start

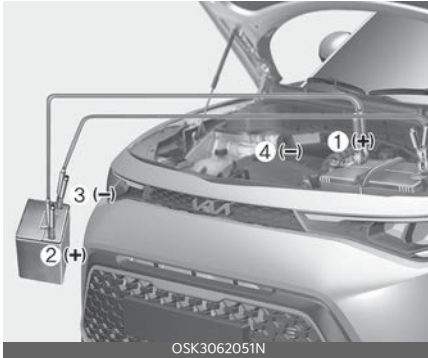
1. Check the fuel level.
2. With the ignition switch in the LOCK position, check all connectors at the ignition coils and spark plugs. Reconnect any that may be disconnected or loose.
3. Check the fuel line in the engine compartment.
4. If the engine still does not start, call an authorized Kia dealer or seek other qualified assistance.

## Emergency starting

When the vehicle will not start because of low battery power, you may need to jump start the vehicle.

### Jump starting

Connect cables in numerical order and disconnect in reverse order.



Jump starting can be dangerous if done incorrectly. Therefore, to avoid harm to yourself or damage to your vehicle or battery, follow these jump starting procedures. If in doubt, we strongly recommend that you have a competent technician or towing service jump start your vehicle.

### ⚠ WARNING

#### Battery

Never attempt to check the electrolyte level of the battery as this may cause the battery to rupture or explode.

### ⚠ WARNING

#### Frozen batteries

Do not attempt to jump start the vehicle if the discharged battery is frozen, as the battery may rupture or explode.

### ⚠ WARNING

#### Battery

Keep all flames or sparks away from the battery. The battery produces hydrogen gas which will explode if exposed to flame or sparks.

### ⚠ WARNING

#### Battery cables

Do not connect the jumper cable from the negative terminal of the booster battery to the negative terminal of the discharged battery, directly. This can cause the discharged battery to overheat crack, and degrade.

Make sure to connect one end of the jumper cable to the negative terminal of the booster battery, and the other end to a metallic point, far away from the battery.

### ⚠ WARNING

#### Sulfuric acid risk

Automobile batteries contain sulfuric acid. When jump starting your vehicle, be careful not to get sulfuric acid on yourself, your clothing, or on the vehicle. This acid is poisonous and highly corrosive.

#### Jump-starting

1. Make sure the booster battery is 12-volt and that its negative terminal is grounded.
2. If the booster battery is in another vehicle, do not allow the vehicles to come in contact.
3. Turn off all unnecessary electrical loads.
4. Connect the jumper cables in the exact sequence shown in the illustration.

tion. First connect one end of a jumper cable to the positive terminal of the discharged battery (1), then connect the other end to the positive terminal of the booster battery (2).

Proceed to connect one end of the other jumper cable to the negative terminal of the booster battery (3), then the other end to a solid, stationary, metallic point away from the battery (4).

Do not allow the jumper cables to contact anything except the correct battery terminals or the correct ground. Do not lean over the battery when making connections.

5. Start vehicle with the booster battery and let it run at 2,000 rpm, then start the vehicle with the discharged battery.

**If the cause of your battery discharging is not apparent, you should have your vehicle checked by an authorized Kia dealer.**

#### **\* NOTICE**

Make sure to connect one end of the jumper cable to the negative terminal of the booster battery, and the other end to a metallic point, far away from the battery.

### **Push-starting**

Vehicles equipped with Intelligent Variable Transmission cannot be push-started. Follow the directions in this section for jump-starting.

#### **⚠ WARNING**

### **Tow starting vehicle**

Never tow a vehicle to start it.

When the engine starts, the vehicle can suddenly surge forward and could cause a collision with the tow vehicle.

---



## If the engine overheats

If your temperature gauge indicates overheating, you experience a loss of power, or hear loud pinging or knocking, the engine will probably be too hot.

If this happens, you should:

1. Pull off the road and stop as soon as it is safe to do so.
2. Place the shift lever in P (Park) and set the parking brake.
3. If the air conditioning is on, turn it off.
4. If engine coolant is running out under the vehicle or steam is coming out from underneath the hood, stop the engine. Do not open the hood until the coolant has stopped running or the steaming has stopped.
5. If there is no visible loss of engine coolant and no steam, leave the engine running and check to be sure the engine cooling fan is operating.
  - 1) If the fan is not running, turn the engine off.
6. Check to see if the water pump drive belt is missing.
  - 1) If it is not missing, check to see that it is tight.
  - 2) If the drive belt seems to be satisfactory, check for coolant leaking from the radiator, hoses or under the vehicle. (If the air conditioning had been in use, it is normal for cold water to be draining from it when you stop).

### **WARNING**

#### Under the hood



While the engine is running, keep hair, hands and clothing away from moving parts such as the

fan and drive belts to prevent injury.

7. If the water pump drive belt is broken or engine coolant is leaking out, stop the engine immediately and call the nearest authorized Kia dealer for assistance.
8. If you cannot find the cause of the overheating, wait until the engine temperature has returned to normal. If coolant has been lost, carefully add coolant to the reservoir to bring the fluid level in the reservoir up to the halfway mark.
9. Proceed with caution, keeping alert for further signs of overheating. If overheating happens again, call an authorized Kia dealer for assistance.

### **WARNING**

#### Radiator cap



Do not remove the radiator cap when the engine is hot. This may result in coolant being blown out of the opening and cause serious burns.

### **NOTICE**

- Serious loss of coolant indicates there is a leak in the cooling system and this should be checked as soon as possible by an authorized Kia dealer.
- When the engine overheats from low engine coolant, suddenly adding engine coolant may cause cracks in the engine. To prevent damage, add engine coolant slowly in small quantities.

### Tire Pressure Monitoring System (TPMS)

The tire pressure monitoring system detects the pressure of vehicle's tires and displays it on the LCD display.



1. Low tire pressure telltale / TPMS malfunction indicator
2. Low tire pressure position telltale (Shown on the LCD display)

### Tire Pressure Indicator

- You can check the tire pressure in the assist mode on the cluster.
  - Refer to "User settings mode" on page 4-50.
- Tire pressure is displayed 1~2 minutes later after driving.

- If tire pressure is not displayed when the vehicle is stopped, "Drive to display" message displays. After driving, check the tire pressure.
- You can change the tire pressure unit in the user settings mode on the cluster.
  - psi, kPa, bar (Refer to "User settings mode" on page 4-50).

### \* NOTICE

- The tire pressure may change due to factors such as parking condition, driving style, and altitude above sea level.
- The tire pressure shown on the dashboard may differ from the tire pressure measured by tire pressure gauge.

### Effective Use of the Tire Pressure Monitoring System (TPMS)

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 signifi-

cantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly.

Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

**\* NOTICE**

If any of the below happens, have the system checked by an authorized Kia dealer.

1. The low tire pressure telltale / TPMS malfunction indicator does not appear for 3 seconds when the ignition switch is turned to the ON position or engine is running.
2. The TPMS malfunction indicator remains appeared after blinking for approximately 1 minute.
3. The Low tire pressure position telltale remains appeared.

**Low tire pressure telltale (⚠)**

**Low tire pressure position telltale**

When the tire pressure monitoring system warning indicators are appeared, one or more of your tires is significantly under-inflated.



If the telltale appears, immediately reduce your speed, avoid hard cornering and anticipate increased stopping distances. You should stop and check your tires as soon as possible.

Inflate the tires to the proper pressure as indicated on the vehicle's placard or tire inflation pressure label located on the driver's side center pillar outer panel. If you cannot reach a service station or if the tire cannot hold the newly added air, replace the low pressure tire with the spare tire.

Then the TPMS malfunction indicator and the Low Tire Pressure telltale may turn on and appear after restarting and about 20 minutes of continuous driving before you have the low pressure tire repaired and replaced on the vehicle.

In winter or cold weather, the low tire pressure telltale may be appeared if the tire pressure was adjusted to the recommended tire inflation pressure in warm weather. It does not mean your TPMS is malfunctioning because the decreased temperature leads to a proportional lowering of tire pressure.

When you drive your vehicle from a warm area to a cold area or from a cold area to a warm area, or the outside temperature is greatly higher or lower, you should check the tire inflation pressure and adjust the tires to the recommended tire inflation pressure.

When filling tires with more air, conditions to turn off the low tire pressure telltale may not be met. This is because a tire inflator has a margin of error in performance. The low tire pressure telltale will be turned off if the tire pressure is above the recommended tire inflation pressure.

**⚠ WARNING**

**Low pressure damage**

Do not drive on low pressure tires. Significantly low tire pressure can cause the tires to overheat and fail making the vehicle unstable resulting in increased braking distances and a loss of vehicle control.

**Tire Pressure Monitoring System (TPMS) malfunction indicator (!)**

The low tire pressure telltale will appear after it blinks for approximately one min-

ute when there is a problem with the Tire Pressure Monitoring System.

If the system is able to correctly detect an underinflation warning at the same time as system failure then it will appear both the TPMS malfunction and low tire pressure position telltales e.g. if Front Left sensor fails, the TPMS malfunction indicator appears, but if the Front Right, Rear Left, or Rear Right tire is underinflated, the low tire pressure position telltales may appear together with the TPMS malfunction indicator.

Have the system checked by an authorized Kia dealer as soon as possible to determine the cause of the problem.

- The TPMS malfunction indicator may be appeared if the vehicle is moving around electric power supply cables or radios transmitters such as at police stations, government and public offices, broadcasting stations, military installations, airports, or transmitting towers, etc. This can interfere with normal operation of the Tire Pressure Monitoring System (TPMS).
- The TPMS malfunction indicator may be appeared if snow chains are used or some separate electronic devices such as notebook computer, mobile charger, remote starter or navigation etc., are used in the vehicle. This can interfere with normal operation of the Tire Pressure Monitoring System (TPMS).

**Tire replacement with TPMS**

If you have a flat tire, the Low Tire Pressure telltale will come on. Have the flat tire repaired by an authorized Kia dealer as soon as possible or replace the flat tire with the spare tire.

**⚠ CAUTION****Repair Agents**

Never use a puncture-repairing agent not approved by Kia to repair and/or inflate a low pressure tire. The sealant not approved by Kia may damage the tire pressure sensor.

Each wheel is equipped with a tire pressure sensor mounted inside the tire behind the valve stem. You must use TPMS specific wheels. It is recommended that you always have your tires serviced by an authorized Kia dealer.

Even if you replace the low pressure tire with the spare tire, the Low Tire Pressure telltale will remain on until the low pressure tire is repaired and placed on the vehicle.

After you replace the low pressure tire with the spare tire, the TPMS malfunction indicator may appear after a few minutes because the TPMS sensor mounted on the spare wheel is not initiated.

Once the low pressure tire is inflated again to the recommended pressure and installed on the vehicle or the TPMS sensor mounted on the replaced spare wheel is initiated by an authorized Kia dealer, the TPMS malfunction indicator and the low tire pressure telltale will turn off within a few minutes of driving.

If the indicator has not disappeared after a few minutes of driving, please visit an authorized Kia dealer.

If an original mounted tire is replaced with the spare tire, the TPMS sensor on the replaced spare wheel should be initiated and the TPMS sensor on the original mounted wheel should be deactivated. If the TPMS sensor on the original mounted wheel located in the

spare tire carrier still activates, the tire pressure monitoring system may not operate properly. Have the tire with TPMS serviced or replaced by an authorized Kia dealer.

You may not be able to identify a low tire by simply looking at it. Always use a good quality tire pressure gauge to measure the tire's inflation pressure. Please note that a tire that is hot (from being driven) will have a higher pressure measurement than a tire that is cold (from sitting stationary for at least 3 hours and driven less than 1.6 km (1 mile) during that 3 hour period).

Allow the tire to cool before measuring the inflation pressure. Always be sure the tire is cold before inflating to the recommended pressure.

A cold tire means the vehicle has been sitting for 3 hours and driven for less than 1.6 km (1 mile) in that 3 hour period.

Never use tire sealant if your vehicle is equipped with a Tire Pressure Monitoring System. The liquid sealant can damage the tire pressure sensors.

- The TPMS cannot alert you to severe and sudden tire damage caused by external factors such as nails or road debris.
- If you feel any vehicle instability, immediately take your foot off the accelerator, apply the brakes gradually and with light force, and slowly move to a safe position off the road.

**\* NOTICE****Protecting TPMS**

Tampering with, modifying, or disabling the Tire Pressure Monitoring System (TPMS) components may interfere with the system's ability to warn the driver of low tire pressure conditions and/or

TPMS malfunctions. Tampering with, modifying, or disabling the Tire Pressure Monitoring System (TPMS) components may void the warranty for that portion of the vehicle.

**This device complies with Industry Canada licence-exempt RSS standard(s).**

Operation is subject to the following three conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

**If you have a flat tire**

If you have a flat tire, you can change the flat tire to a spare tire using tools.

**Jack and tools**

The jack and wheel lug nut wrench are stored in the luggage compartment.



Remove the panel indicated in the illustration.

1. Jack handle
2. Jack
3. Wheel lug nut wrench
4. Towing hook

**Jacking instructions**

The jack is provided for emergency tire changing only.

Follow jacking instructions to reduce the possibility of personal injury.

**⚠ WARNING**

**Tire Jack**

Do not place any portion of your body under a vehicle that is only supported by a jack since the vehicle can easily roll off the jack. Use vehicle support stands.

**⚠ WARNING**

**Changing tires**

Never attempt vehicle repairs in the traffic lanes of a public road or highway.

- Always move the vehicle completely off the road and onto the shoulder before trying to change a tire. The jack should be used on a firm level ground. If you cannot find a firm, level place off the road, call a towing service company for assistance.
- Be sure to use the correct front and rear jacking positions on the vehicle; never use the bumpers or any other part of the vehicle for jack support.
- Do not allow anyone to remain in the vehicle while it is on the jack.
- Make sure any children present are in a secure place away from the road and from the vehicle to be raised with the jack.

**⚠ WARNING**

**Running vehicle on jack**

Do not start or run the engine of the vehicle while the vehicle is on the jack as this may cause the vehicle to fall off the jack.

To prevent the jack from "rattling" while the vehicle is in motion, store it properly.

**Removing and storing the spare tire**



- Turn the tire hold-down wing bolt counterclockwise to remove.
- Store the tire in the reverse order of removal.
- To prevent the spare tire and tools from "rattling" while the vehicle is in motion, store them properly.

**⚠ WARNING**

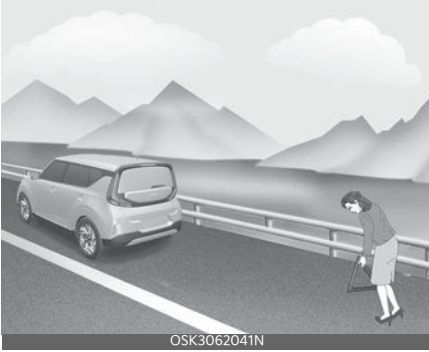
**Touching surface of the luggage room floor**

Do not touch the metal surface of the luggage room floor while the engine is operating or hot. Doing so could result in serious bodily injury.

Turn the engine off and wait until it cools down or wear gloves to remove the spare tire from the luggage room.

**Changing tires**

1. Park on a level surface and apply the parking brake firmly.
2. Place the transmission shift lever in P (Park).
3. Activate the hazard warning flashers.



OSK3062041N

4. Remove the wheel lug nut wrench, jack and spare tire from the vehicle.



OSK3062050N

5. Block both the front and rear of the wheel that is diagonally opposite from the jack position.

**⚠ WARNING**

**Jack location**

To reduce the possibility of injury, be sure to use only the jack provided with the vehicle in the correct jack position; never use any other part of the vehicle for jack support.

**⚠ WARNING**

**Changing a tire**

• To prevent vehicle movement while changing a tire, always set the park-

ing brake fully, and always block the wheel diagonally opposite the wheel being changed.

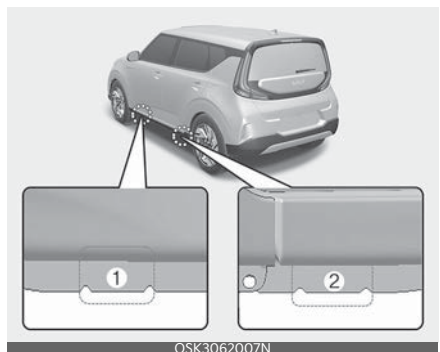
- We recommend that the wheels of the vehicle be blocked, and that no person remain in a vehicle that is being jacked.

6. Loosen the wheel lug nuts counter-clockwise one turn each, but do not remove any nut until the tire has been raised off the ground.



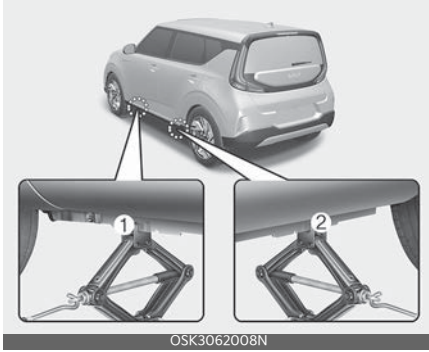
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7. Place the jack at the front (1) or rear (2) jacking position closest to the tire you are changing. Place the jack at the designated locations under the frame. The jacking positions are plates welded to the frame with two tabs and a raised dot to line up with the jack.



OSK3062007N





- Insert the wheel lug nut wrench into the jack and turn it clockwise, raising the vehicle until the tire just clears the ground. This measurement is approximately 30 mm (1 in).



Before removing the wheel lug nuts, make sure the vehicle is stable and that there is no chance for movement or slippage.

- Loosen the wheel nuts and remove them with your fingers.
  - Slide the wheel off the studs and lay it flat so it cannot roll away.
  - To put the wheel on the hub, pick up the spare tire, line up the holes with the studs and slide the wheel onto them. If this is difficult, tip the wheel slightly and get the top hole in the wheel lined up with the top stud.
  - Jiggle the wheel back and forth until the wheel can slide over the other studs.
- Wheels may have sharp edges. Handle them carefully to avoid possible severe injury. Before putting the wheel into place, be sure that there is nothing on the hub or wheel (such as mud, tar, gravel, etc.) that prevents the wheel from fitting solidly against the hub.

**⚠ WARNING**

**Installing a wheel**

Make sure the wheel makes good contact with the hub when installed. If the contact of the mounting surface between the wheel and hub is not good, the wheel nuts could come loose and cause the loss of a wheel. Loss of a wheel may result in loss of control of the vehicle.

- To install the wheel, hold it on the studs, put the wheel nuts on the studs and tighten them finger tight.
- Jiggle the tire to be sure it is completely seated, then tighten the nuts as much as possible with your fingers again.
- Insert the wrench into the jack and lower the vehicle to the ground by turning the wheel nut wrench counterclockwise.
- Position the wrench as shown in the drawing and tighten the wheel nuts. Be sure the socket is seated completely over the nut. Do not stand on the wrench handle or use an extension pipe over the wrench handle.
- Go around the wheel, tightening every nut following the numerical sequence shown in the image until

they are all tight. Double-check each nut for tightness.



18. After changing wheels, have an authorized Kia dealer tighten the wheel nuts to their proper torque as soon as possible.
19. To prevent the jack, wheel lug nut wrench and spare tire from rattling while the vehicle is in motion, store them properly.
20. Check the inflation pressures as soon as possible after installing the spare tire. Adjust it to the specified pressure, if necessary. Refer to "Tires and wheels" on page 8-5.

**Wheel nut tightening torque:**

79~94 lbf·ft (11~13 kgf·m)

If you have a tire gauge, remove the valve cap and check the air pressure. If the pressure is lower than recommended, drive slowly to the nearest service station and inflate to the correct pressure. If it is too high, adjust it until it is correct. Always reinstall the valve cap after checking or adjusting the tire pressure. If the cap is not replaced, dust and dirt may get into the tire valve and air may leak from the tire. If you lose a valve cap, buy another and install it as soon as possible.

After you have changed the wheels, always secure the flat tire in its place and return the jack and tools to their proper storage locations.

**⚠ CAUTION**

**Reusing lug nuts**

Make certain during wheel removal that the same nuts that were removed are reinstalled - or, if replaced, that nuts with metric threads and the same chamfer configuration are used. Your vehicle has metric threads on the wheel studs and nuts. Installation of a non-metric thread nut on a metric stud will not secure the wheel to the hub properly and will damage the stud so that it must be replaced.

Note that most lug nuts do not have metric threads. Be sure to use extreme care in checking for thread style before installing aftermarket lug nuts or wheels. If in doubt, consult an authorized Kia dealer.

**⚠ WARNING**

**Wheel studs**

If the studs are damaged, they may lose their ability to retain the wheel. This could lead to the loss of the wheel and a collision resulting in serious injuries.

**Important - USE OF SPARE TIRE**

Your vehicle is equipped with a compact spare tire. This compact spare tire takes up less space than a regular-size tire. This tire is smaller than a conventional tire and is designed for temporary use only.

- You should drive carefully when the compact spare is in use. The compact spare should be replaced by the proper conventional tire and rim at the first opportunity.

- The operation of this vehicle is not recommended with more than one compact spare tire in use at the same time.

### **⚠ WARNING**

#### **Spare tire**

The compact spare tire is for emergency use only. Do not operate your vehicle on this compact spare at speeds over 80 km/h (50 mph). The original tire should be repaired or replaced as soon as possible to avoid failure of the spare possibly leading to bodily injury or death.

The compact spare should be inflated to 420 kPa (60 psi).

### **\* NOTICE**

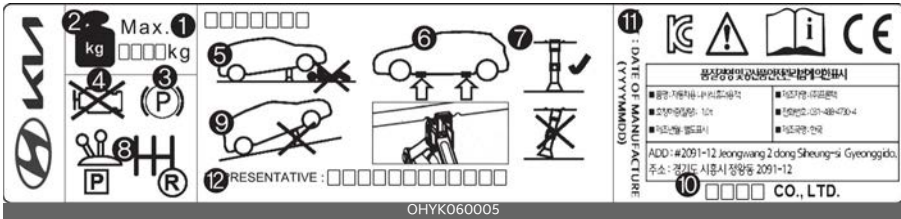
Check the inflation pressure after installing the spare tire. Adjust it to the specified pressure, as necessary.

When using a compact spare tire, observe the following precautions:

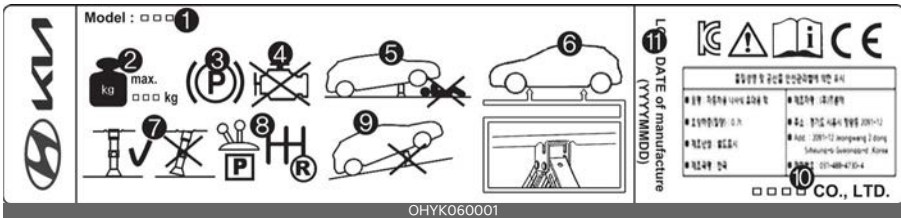
- Under no circumstances should you exceed 80 km/h (50 mph); a higher speed could damage the tire.
- Ensure that you drive slowly enough for the road conditions to avoid all hazards. Any road hazard, such as a pothole or debris, could seriously damage the compact spare.
- Any continuous road use of this tire could result in tire failure, loss of vehicle control, and possible personal injury.
- Do not exceed the vehicle's maximum load rating or the load-carrying capacity shown on the sidewall of the compact spare tire.
- Avoid driving over obstacles. The compact spare tire diameter is smaller than the diameter of a conventional tire and reduces the ground clearance approximately 25 mm (1 inch), which could result in damage to the vehicle.
- Do not take this vehicle through an automatic vehicle wash while the compact spare tire is installed.
- Do not use the compact spare tire on any other vehicle because this tire has been designed especially for your vehicle.
- The compact spare tire's tread life is shorter than a regular tire. Inspect your compact spare tire regularly and replace worn compact spare tires with the same size and design, mounted on the same wheel.
- The compact spare tire should not be used on any other wheels, nor should standard tires, snow tires, wheel covers or trim rings be used with the compact spare wheel. If such use is attempted, damage to these items or other vehicle components may occur.
- Do not use more than one compact spare tire at a time.
- Do not tow a trailer while the compact spare tire is installed.

Jack label

Type A



Type B



Type C



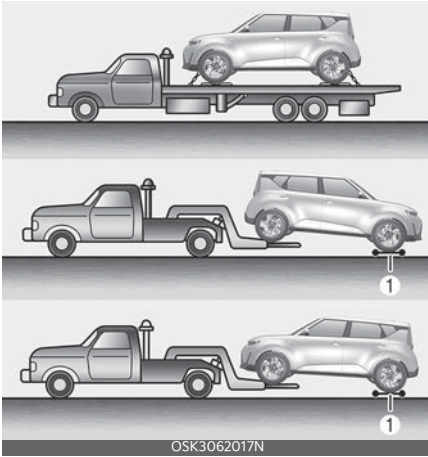
\* The actual Jack label in the vehicle may differ from the illustration. For more detailed specifications, refer to the label attached to the jack.

1. Model Name
2. Maximum allowable load
3. When using the jack, set your parking brake.
4. When using the jack, stop the engine.
5. Do not get under a vehicle that is supported by a jack.
6. The designated locations under the frame
7. When supporting the vehicle, the base plate of jack must be vertical under the lifting point.
8. Move the shift lever to the P position on vehicles with intelligent variable transmission.
9. The jack should be used on firm level ground.
10. Jack manufacturer
11. Production date
12. Representative company and address

### Towing

If emergency towing is necessary, we recommend having it done by an authorized Kia dealer or a commercial tow-truck service.

### Towing service



Proper lifting and towing procedures are necessary to prevent damage to the vehicle. The use of wheel dollies (1) or flatbed is recommended.

On FWD vehicles, it is acceptable to tow the vehicle with the rear wheel on the ground (without dollies) and the front wheels off the ground. If any of the loaded wheels or suspension components are damaged or the vehicle is being towed with the front wheels on the ground, use a towing dolly under the front wheels. When being towed by a commercial tow truck and wheel dollies are not used, the front of the vehicle should always be lifted, not the rear.

### ⚠ WARNING

Side and curtain Air bag

If your vehicle is equipped with side and curtain air bag, ignition switch to LOCK or ACC position when the vehicle is being towed.

The side and curtain air bag may deploy when the ignition switch is ON, and the rollover sensor detects the situation as a rollover.

### ⚠ CAUTION

Towing



- Do not tow the vehicle backwards with the front wheels on the ground as this may cause damage to the transmission.
- Do not tow with sling-type equipment. Use wheel lift or flatbed equipment.
- Do not tow the vehicle with four wheels in contact with the ground if it is the vehicle equipped with IVT. Otherwise, the transmission will be seriously damaged. Also, make sure not to tow the vehicle connecting it with other vehicles including camper vans.

### ⚠ WARNING

- If you tow the vehicle while the front wheels are touching the ground, the vehicle motor may generate electricity

and the motor components may be damaged or a fire may occur.

- When a vehicle fire occurs due to the battery, there is a risk of a second fire. Contact the fire department when towing the vehicle.

### Dinghy towing



Your vehicle is not designed to be dinghy towed (with 4 wheels on the ground) behind a motor home. To avoid serious damage to your vehicle, do not tow your vehicle with four wheels on the ground.

### Towing without Wheel Dollies when using a Towing Service

When towing your vehicle in an emergency without wheel dollies:

1. Set the ignition switch in the ACC position
2. Place the transmission shift lever in N (Neutral).
3. Release the parking brake.

### ⚠ CAUTION

#### Towing gear position

Failure to shift to N (Neutral) may cause internal damage to the vehicle.

### Using removable towing hook



Front



Rear



1. Open the liftgate, and remove the towing hook from the tool case.

2. Remove the hole cover pressing the lower part of the cover on the bumper.
3. Install the towing hook by turning it clockwise into the hole until it is fully secured.
4. Remove the towing hook and install the cover after use.

### Emergency towing

If towing service is not available in an emergency, your vehicle may be temporarily towed using a cable or chain secured to the emergency towing hook under the front (or rear) of the vehicle.

Front



Rear



### If towing is necessary, have it done by an authorized Kia dealer or a commercial tow truck service.

Use extreme caution when towing the vehicle. A driver must be in the vehicle to steer it and operate the brakes.

Towing in this manner may be done only on hard-surfaced roads for a short distance and at low speed. Also, the wheels, axles, power train, steering and brakes must all be in good condition.

- Do not use the tow hooks to pull a vehicle out of mud, sand or other conditions from which the vehicle cannot be driven out under its own power.
- Avoid towing a vehicle heavier than the vehicle doing the towing.
- The drivers of both vehicles should communicate with each other frequently.

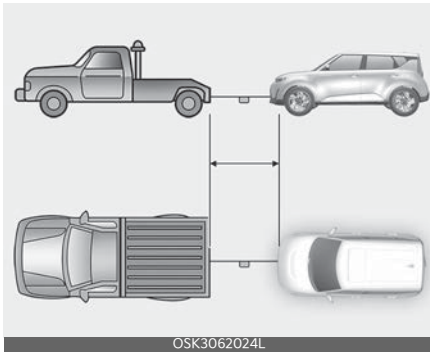
### ⚠ CAUTION

Using a portion of the vehicle other than the tow hooks for towing may damage the body of your vehicle.

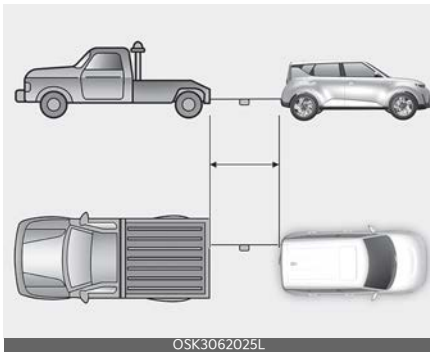
- Accelerate or decelerate the vehicle in a slow and gradual manner while maintaining tension on the tow rope or chain to start or drive the vehicle, otherwise tow hooks and the vehicle may be damaged.
- Attach a towing strap to the tow hook.
- Use only a cable or chain specifically intended for use in towing vehicles. Securely fasten the cable or chain to the towing hook provided.
- Before emergency towing, check if the hook is not broken or damaged.
- Fasten the towing cable or chain securely to the hook.
- Do not jerk the hook. Apply it steadily and with even force.

- To avoid damaging the hook, do not pull from the side or at a vertical angle. Always pull straight ahead.
- Use a towing strap less than 16 feet (5 m) long. Attach a white or red cloth (about 12 inches (30 cm) wide) in the middle of the strap for easy visibility.

Front



Rear



- Drive carefully so that the towing strap is not loosened during towing.
- The driver must be in the vehicle for steering and braking operations when the vehicle is towed and passengers other than the driver must not be allowed to be on board.

**⚠ WARNING**

**Emergency Towing Precautions**

Use extreme caution when towing the vehicle.

- Avoid sudden starts or erratic driving maneuvers which would place excessive stress on the emergency towing hook and towing cable or chain. The hook and towing cable or chain may break and cause serious injury or damage.
- If the disabled vehicle is unable to be moved, do not forcibly continue the towing. We recommend that you contact an authorized Kia dealer or a commercial tow truck service for assistance.
- Tow the vehicle as straight ahead as possible.
- Keep away from the vehicle during towing.

**Emergency towing precautions**

1. Turn the ignition switch to ACC so the steering wheel isn't locked.
2. Release the parking brake.
3. Press the brake pedal with more force than normal since you will have reduced brake performance.
4. More steering effort will be required because the power steering system will be disabled.
5. If you are driving down a long hill, the brakes may overheat and brake performance will be reduced. Stop often and let the brakes cool off.
6. If the car is being towed with all four wheels on the ground, it can be towed only from the front. Be sure that the reduction gear is in neutral. Be sure the steering is unlocked by the igni-



tion switch in the ACC position. A driver must be in the towed vehicle to operate the steering and brakes.

7. To avoid serious damage to the intelligent variable transmission, limit the vehicle speed to 15 km/h (10 mph) and drive less than 1.6 km (1 mile) when towing. (for Intelligent Variable Transmission vehicle)

### **⚠ CAUTION**

#### **Intelligent Variable Transmission (IVT)**

Vehicles with Intelligent Variable Transmission (IVT) can only be towed to by ordinary vehicle when there is no IVT transmission oil leakage. If towing to an ordinary vehicle in the event of oil leakage, the transmission may be damaged.

### **⚠ CAUTION**

#### **Intelligent Variable Transmission**

- If the car is being towed with all four wheels on the ground, it can be towed only from the front.

Be sure that the transmission is in neutral. Be sure the steering is unlocked by placing the ignition switch in the ACC position. A driver must be in the towed vehicle to operate the steering and brakes.

- Before towing, check the Intelligent Variable Transmission for fluid leaks under your vehicle. If the Intelligent Variable Transmission fluid is leaking, flatbed equipment or a towing dolly must be used.



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# 7 Maintenance

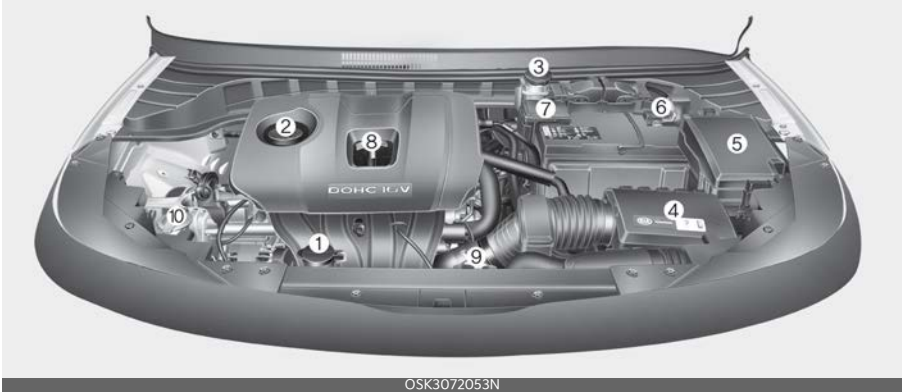
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# Maintenance

## Engine compartment

(Gasoline) 2.0 MPI



\* The actual engine cover in the vehicle may differ from the illustration.

1. Engine coolant reservoir
2. Engine oil filler cap
3. Brake fluid reservoir
4. Air cleaner
5. Fuse box
6. Negative battery terminal
7. Positive battery terminal
8. Engine oil dipstick
9. Radiator cap
10. Windshield washer fluid reservoir

## Maintenance services

You should exercise the utmost care to prevent damage to your vehicle and injury to yourself whenever performing any maintenance or inspection procedures.

Should you have any doubts concerning the inspection or servicing of your vehicle, we strongly recommend that you have an authorized Kia dealer perform this work.

An authorized Kia dealer has factory-trained technicians and genuine Kia parts to service your vehicle properly. For expert advice and quality service, see an authorized Kia dealer.

Inadequate, incomplete or insufficient servicing may result in operational problems with your vehicle that could lead to vehicle damage, an accident, or personal injury.

### Owner's responsibility

#### \* NOTICE

Maintenance Service and Record Retention are the owner's responsibility.

You should retain documents that show proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service charts shown on the following pages. You need this information to establish your compliance with the servicing and maintenance requirements of your vehicle warranties.

Detailed warranty information is provided in your Warranty & Consumer Information manual.

Repairs and adjustments required as a result of improper maintenance or a lack

of required maintenance are not covered.

We recommend you have your vehicle maintained and repaired by an authorized Kia dealer. An authorized Kia dealer meets Kia's high service quality standards and receives technical support from Kia in order to provide you with a high level of service satisfaction.

### Owner maintenance precautions

Improper or incomplete service may result in problems. This section gives instructions only for the maintenance items that are easy to perform.

As explained earlier in this section, several procedures can be done only by an authorized Kia dealer with special tools.

#### \* NOTICE

Improper owner maintenance during the warranty period may affect warranty coverage. For details, read the separate Warranty & Consumer Information manual provided with the vehicle. If you're unsure about any servicing or maintenance procedure, have it done by an authorized Kia dealer.

#### ⚠ WARNING

### Maintenance work

Do not wear jewelry or loose clothing while working under the hood of your vehicle with the engine running. These items can become entangled in moving parts, if you must run the engine while working under the hood, make certain that you remove all jewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose clothing before getting near cooling fans.

## WARNING

### Touching metal parts

Do not touch metal parts (including strut bars) while the vehicle is operating or hot. Doing so could result in serious bodily injury. Turn the vehicle off and wait until the metal parts cool down to perform maintenance work on the vehicle.

---

## Owner maintenance

The following lists are vehicle checks and inspections that should be performed by the owner or an authorized Kia dealer at the frequencies indicated to help ensure safe, dependable operation of your vehicle.

Any adverse conditions should be brought to the attention of your dealer as soon as possible.

These Owner Maintenance Checks are generally not covered by warranties and you may be charged for labor, parts and lubricants used.

### Owner maintenance schedule

#### When you stop for fuel:

- Check the coolant level in coolant reservoir.
- Check the windshield washer fluid level.
- Look for low or under-inflated tires.
- Check if the front of the radiator and condenser are clean and not blocked with leaves, dirt or insects etc. If any of the above parts are extremely dirty or you are not sure of their condition, take your vehicle to an authorized Kia dealer.

## WARNING

### Hot coolant



Be careful when checking your engine coolant level when the engine is hot. Scalding hot coolant and steam may blow out under pressure.

---



**While operating your vehicle:**

- Note any changes in the sound of the exhaust or any smell of exhaust fumes in the vehicle.
- Check for vibrations in the steering wheel. Notice any increased steering effort or looseness in the steering wheel, or change in its straight-ahead position.
- Notice if your vehicle constantly turns slightly or "pulls" to one side when traveling on smooth, level road.
- When stopping, listen and check for unusual sounds, pulling to one side, increased brake pedal travel or "hard-to-push" brake pedal.
- If any slipping or changes in the operation of your transmission occurs, take your vehicle to an authorized Kia dealer.
- Check the automatic transmission P (Park) function.
- Check the parking brake.
- Check for fluid leaks under your vehicle (water dripping from the air conditioning system during or after use is normal).

**At least monthly:**

- Check the coolant level in the coolant reservoir.
- Check the operation of all exterior lights, including the stoplights, turn signals and hazard warning flashers.
- Check the inflation pressures of all tires including the spare for tires that are worn, show uneven wear, or are damaged.
- Check for loose wheel lug nuts.

**At least once every 6 months:**

- Check the radiator, heater and air conditioning hoses for leaks or damage.
- Check the windshield washer spray and wiper operation. Clean the wiper blades with clean cloth dampened with washer fluid.
- Check the headlight alignment.
- Check the muffler, exhaust pipes, shields and clamps.
- Check the lap/shoulder belts for wear and function.

**At least once a year:**

- Clean the body and door drain holes.
- Lubricate the door hinges and check the hood hinges.
- Lubricate the door and hood locks and latches.
- Lubricate the door rubber weatherstrips.
- Check the air conditioning system.
- Inspect and lubricate automatic transmission linkage and controls.
- Clean the battery and terminals.
- Check the brake fluid level.
- Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear.

## Scheduled maintenance service

### Scheduled maintenance service

Follow the Normal Maintenance Schedule if the vehicle is usually operated where none of the following conditions apply.

If any of the following conditions apply, follow the Maintenance Under Severe Usage Conditions.

- Repeated driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature.
- Extensive engine idling or low speed driving for long distances.
- Driving on rough, dusty, muddy, unpaved, graveled or salt-spread roads.
- Driving in areas using salt or other corrosive materials or in very cold weather.
- Driving in heavy dust condition.
- Driving in heavy traffic area.
- Driving on uphill, downhill, or mountain road repeatedly.
- Using for towing or camping and driving with loading on the roof.
- Driving as a patrol car, taxi, other commercial use of vehicle towing.
- Frequently driving under high speed or rapid acceleration/deceleration.
- Frequently driving in stop-and-go condition.

If your vehicle is operated in any of the prior listed conditions, you should inspect, replace or refill more frequently, using the severe usage maintenance schedule instead of the normal usage maintenance schedule.

### Normal maintenance schedule

The following maintenance services must be performed to ensure good emission control and performance. Keep receipts for all vehicle services to protect your warranty. Where both mileage and date are shown, the frequency of service is determined by whichever occurs first.

I: Inspect and if necessary, adjust, correct, clean or replace.

R: Replace or change.

Number of months or driving distance, whichever comes first															
Months	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Miles×1,000	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5
Km×1,000	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Tire rotation		Rotate every 12,000 km (7,500 miles)													
Engine oil and engine oil filter <sup>*1</sup>	(Gasoline) 2.0 MPI	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Climate control air filter		I	R	I	R	I	R	I	R	I	R	I	R	I	R
Air cleaner filter (Engine)		I	I	I	R	I	I	I	R	I	I	I	R	I	I
Brake fluid		Inspect every 12,000 km (7,500 miles) or 12 months, Replace every 48,000 km (30,000 miles) or 48 months													
Spark plugs	(Gasoline) 2.0 MPI	Replace every 156,000 km (97,500 miles)													
Coolant (Engine) <sup>*2</sup>		At first, replace at 192,000 km (120,00 miles) or 120 months After that, replace every 36,000 km (22,500 miles) or 24 months													
Air conditioner refrigerant															
Air conditioner compressor															
Battery condition															
Vacuum hoses															
Brake discs and pads															
Brake lines, hoses and connections		I	I	I	I	I	I	I	I	I	I	I	I	I	I
Suspension ball joints															
Steering gear rack, linkage and boots															
Exhaust system															
Cooling system															
Drive shaft and boots															
Parking brake (Hand type)															
Fuel tank air filter		-	I	-	I	-	I	-	I	-	I	-	I	-	I
Fuel tank and fuel cap															
Fuel lines, hoses and connections															
Drive belts (Engine) <sup>*3</sup>		At first, inspect at 96,000 km (60,000 miles) or 72 months. After that, inspect every 24,000 km (15,000 miles) or 24 months.													

Number of months or driving distance, whichever comes first															
Months	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Miles×1,000	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5
Km×1,000	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Intelligent Variable Transmission (IVT) fluid	No service required														

**\*1. Engine oil and engine oil filter**

As it is normal for engine oil to be consumed during driving, the engine oil level should be checked on regular basis.

The engine oil change interval for normal operating conditions is based on the use of the recommended engine specification. If the recommended engine oil specification is not used, then replace the engine oil according to the maintenance schedule under severe operating conditions.

- If there are some important safety matters like fuel flow restriction, surging, loss of power, hard starting problem etc, replace the fuel filter immediately regardless of maintenance schedule and consult an authorized Kia dealer for details.

**\*2. Coolant (Engine)**

When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious malfunction or engine damage.

**\*3. Drive belts (Engine)**

Inspect alternator, water pump and air conditioner drive belt and if necessary, repair or replace. Inspect drive belt tensioner, idler and alternator pulley and if necessary correct or replace.

**Fuel filter (Gasoline engine)**

The fuel filter is considered to be maintenance free but periodic inspection is recommended for this maintenance schedule depends on fuel quality.

## Maintenance Under Severe Usage Conditions

R: Replace

I: Inspect and if necessary, adjust, correct, clean or replace

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Engine oil and engine oil filter	R	Every 6,000 km (3,750 miles) or 6 months	A, B, C, D, E, F, G, H, I, J, K
Spark plugs	R	More frequently	A, B, F, G, H, I, K
Air cleaner filter	R	More frequently	C, E
Climate control air filter	R	More frequently	C, E, G
Intelligent Variable transmission (IVT) fluid	R	Every 96,000 km (60,000miles)	A, C, F, G, H, I, J, K
Steering gear rack, linkage and boots	I	More frequently	C, D, E, F, G, H, I
Suspension ball joints and mounting bolts	I	More frequently	C, D, E, G, H, I
Brake discs, pads and calipers	I	More frequently	C, D, E, G, H, I, J, K
Parking brake (Hand type)	I	More frequently	C, D, G, H
Drive shafts and boots	I	More frequently	C, D, E, F, G, H, I, J

### Severe Driving Conditions

- A: Repeatedly driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature.
- B: Extensive engine idling or low speed driving for long distances.
- C: Driving on rough, dusty, muddy, unpaved, graveled or saltspread roads.
- D: Driving in areas using salt or other corrosive materials or in very cold weather
- E: Driving in heavy dust condition.
- F: Driving in heavy traffic area.
- G: Driving on uphill, downhill, or mountain roads repeatedly.
- H : Using for towing or camping and driving with loading on the roof.
- I: Driving for patrol car, taxi, other commercial use of vehicle towing.
- J: Frequently driving under high speed or rapid acceleration/deceleration.
- K: Frequently driving in stop-and-go conditions.

## Explanation of scheduled maintenance items

The following parts require scheduled maintenance.

### Engine oil and filter

The engine oil and filter should be changed at the intervals specified in the maintenance schedule. If the vehicle is being driven in severe conditions, more frequent oil and filter changes are required.

### Drive belts

Inspect all drive belts for evidence of cuts, cracks, excessive wear or oil saturation and replace if necessary. Drive belts should be checked periodically for proper tension and adjusted as necessary.

### Fuel filter

Kia gasoline vehicles are equipped with a lifetime fuel filter that is integrated with the fuel tank. Regular maintenance or replacement is generally not needed. This may vary depending on fuel quality. If you experience any of the following: fuel flow restriction, surging, loss of power, or a hard starting issue, inspection and, if necessary, replacement may be needed. Have the fuel filter inspected or replaced by an authorized Kia dealer.

### Fuel lines, fuel hoses and connections

Check the fuel lines, fuel hoses and connections for leakage and damage. Have an authorized Kia dealer replace any damaged or leaking parts immediately.

### Fuel tank and fuel cap

The fuel tank and fuel cap should be inspected at those intervals specified in the maintenance schedule. Make sure that a new fuel tank and fuel cap is correctly replaced.

### Vacuum crankcase ventilation hoses (if equipped)

Inspect the surface of hoses for evidence of heat and/or mechanical damage. Hard and brittle rubber, cracking, tears, cuts, abrasions, and excessive swelling indicate deterioration. Particular attention should be paid to examine those hose surfaces nearest to high heat sources, such as the exhaust manifold. Inspect the hose routing to assure that the hoses do not come in contact with any heat source, sharp edges or moving components which might cause heat damage or mechanical wear. Inspect all hose connections, such as clamps and couplings, to make sure they are secure, and that no leaks are present. Hoses should be replaced immediately if there is any evidence of deterioration or damage.

### Air cleaner filter

A Genuine Kia air cleaner filter is recommended when the filter is replaced.

### Spark plugs

Make sure to install new spark plugs of the correct heat range.

When assembling parts, be sure to wipe the inside and outside of the boot bottom of the ignition coil and the insulator of the spark plug with a soft cloth to prevent contamination of the spark plug insulator.

## Cooling system

Check the cooling system components, such as the radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

## Coolant

The coolant should be changed at the intervals specified in the maintenance schedule.

## Intelligent Variable Transmission (IVT) fluid (if equipped)

Intelligent Variable Transmission (IVT) fluid should not be checked under normal usage conditions. But Maintenance Explanation of scheduled maintenance items in severe conditions, the fluid should be changed at an authorized Kia dealer in accordance to the scheduled maintenance at the beginning of this section.

### \* NOTICE

Intelligent Variable Transmission (IVT) fluid color is usually light amber. As the vehicle is driven, the Intelligent Variable Transmission (IVT) fluid will begin to look darker. This is a normal condition and you should not feel the need to replace the fluid based upon the changed color.

### ▲ CAUTION

#### Transmission fluids

The use of non-specified fluid (even marked as compatible with genuine) could result in a shift of quality deterioration and vibrations, and eventually, transmission failure. Use only specified

Intelligent Variable Transmission (IVT) fluid.

---

## Brake hoses and lines

Visually check for proper installation, chafing, cracks, deterioration and any leakage. Replace any deteriorated or damaged parts immediately.

## Brake fluid

Check the brake fluid level in the brake fluid reservoir. The level should be between "MIN" and "MAX" marks on the side of the reservoir. Use only hydraulic brake fluid conforming to DOT 3 or DOT 4 specification.

## Parking brake

Inspect the parking brake system including the parking brake lever (or pedal) and cables.

## Exhaust pipe and muffler

Visually inspect the exhaust pipes, muffler and hangers for cracks, deterioration, or damage. Start the engine and listen carefully for any exhaust gas leakage. Tighten connections or replace parts as necessary.

## Brake discs, pads and calipers

Check the pads for excessive wear, discs for run out and wear, and calipers for fluid leakage.

## Suspension mounting bolts

Check the suspension connections for looseness or damage. Retighten to the specified torque.

## Steering gear box, linkage & boots/lower arm ball joint

With the vehicle stopped and off, check for excessive free-play in the steering wheel.

Check the linkage for bends or damage. Check the dust boots and ball joints for deterioration, cracks, or damage. Replace any damaged parts.

## Drive shafts and boots

Check the drive shafts, boots and clamps for cracks, deterioration, or damage. Replace any damaged parts and, if necessary, repack the grease.

## Air conditioning refrigerant

Check the air conditioning lines and connections for leakage and damage.

## Checking fluid levels

When checking engine oil, engine coolant, brake fluid, and washer fluid, always be sure to clean the area around any filler plug, drain plug, or dipstick before checking or draining any lubricant or fluid. This is especially important in dusty or sandy areas and when the vehicle is used on unpaved roads. Cleaning the plug and dipstick areas will prevent dirt and grit from entering the engine and other mechanisms that could be damaged.

## Engine oil and filter

### Checking the engine oil level

Engine oil is used for lubricating, cooling, and operating various hydraulic components in the engine. Engine oil consumption while driving is normal, and it is necessary to check and refill the engine oil regularly. Also, check and refill the oil level within the recommended maintenance schedule to prevent deterioration of oil performance.

Check the engine oil following the below procedure.

1. Be sure the vehicle is on level ground.
2. Start the engine and allow it to reach normal operating temperature.

### WARNING

#### Radiator hose

Be very careful not to touch the radiator hose when checking or adding the engine oil as it may be hot enough to burn you.

3. Turn the engine off, remove the oil filler cap and pull the dipstick out. Wait for 15 minutes for the oil to return to the oil pan.
4. Wipe the dipstick clean and re-insert it fully.

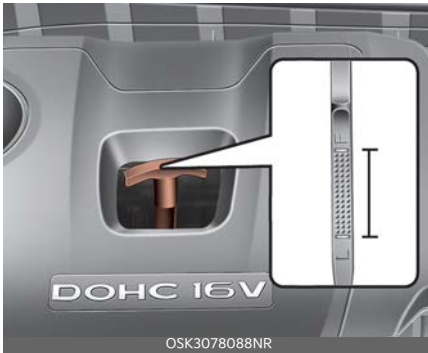
### CAUTION

When you wipe the oil level gauge, you should wipe it with a clean cloth. When mixed with debris, it can cause engine damage.

5. Pull the dipstick out again and check the level. Check if the oil level is between the F-L line, and if it is below the L line, add enough oil to bring the level to F line.



(Gasoline) 2.0 MPI



(Gasoline) 2.0 MPI



**Use a funnel to help prevent oil from being spilled on engine components. Use only the specified engine oil.**"Recommended lubricants and capacities" on page 8-9

- Do not spill engine oil when adding or changing engine oil. Wipe off spilled oil immediately.
- The engine oil consumption may increase while you break in a new vehicle and it will be stabilized after driving 6,000 km (4,000 miles).
- The engine oil consumption can be affected by driving habits, climate conditions, traffic conditions, oil quality, etc. Therefore, it is recommended that you inspect the

engine oil level regularly and refill it if necessary.

## Changing the engine oil and filter

Have engine oil and filter changed by an authorized Kia dealer according to the Maintenance Schedule at the beginning of this chapter.

- If the maintenance schedule to replace engine oil is exceeded, the engine oil performance may deteriorate, and the engine condition may be affected. Therefore, replace the engine oil according to the maintenance schedule.
- To keep the engine in optimal condition, use the recommended engine oil and filter. If the recommended engine oil and filter are not used replace it according to the maintenance schedule under severe usage conditions.
- The purpose of the maintenance schedule for engine oil replacement is to prevent oil deterioration and it is irrelevant to oil consumption. Check and refill engine oil regularly.

### **⚠ WARNING**

Used engine oil may cause irritation or cancer of the skin if left in contact with the skin for prolonged periods of time. Always protect your skin by washing your hands thoroughly with soap and warm water as soon as possible after handling used oil. Do not leave used engine oil within the reach of children.

### **⚠ CAUTION**

The engine oil is very hot immediately after the vehicle has been driven and can cause burns during replacement. Replace the engine oil after the engine oil has cooled down.

## Engine coolant

The high-pressure cooling system has a reservoir filled with year round anti-freeze coolant. The reservoir is filled at the factory.

Check the antifreeze protection and coolant level at least once a year, at the beginning of the winter season, and before traveling to a colder climate.

### **⚠ WARNING**

#### Radiator

Never attempt to remove the radiator or inverter cap while the engine is operating or hot. Doing so might lead to cooling system and engine damage and could result in serious personal injury from escaping hot coolant or steam.

#### Recommended coolant

When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious malfunction or damage.

- The engine in your vehicle has aluminum engine parts and must be protected by an phosphate based ethylene-glycol coolant to prevent corrosion and freezing.
- Do not use alcohol or methanol coolant or mix them with the specified coolant.
- Do not use a solution that contains more than 60% antifreeze or less than 35% antifreeze, which would reduce the effectiveness of the solution.
- The cooling circuit of a vehicle equipped with a heat pump system may freeze in extremely low tempera-

ture when the concentration of the antifreezing liquid is below 45%. For mixture percentage, refer to the following table.

Ambient Temperature	Mixture Percentage (volume)	
	Antifreeze	Water
5 °F (-15 °C)	35	65
-13 °F (-25 °C)	40	60
-31 °F (-35 °C)	50	50
-49 °F (-45 °C)	60	40

### **⚠ WARNING**



#### Radiator cap

Do not remove the radiator cap when the engine and radiator are hot. Scalding hot coolant and steam may blow out under pressure which may result in serious injury.

### **\* NOTICE**

Make sure the coolant cap is properly closed after refill or coolant.

Otherwise the engine could be overheated while driving.

1. Check if the radiator cap label is straight In front.

Engine room front view



ODEEV098003NR

2. Make sure that the tiny protrusions inside the coolant cap are securely interlocked.

Engine room rear view



3. Step back while the pressure is released from the cooling system.
4. When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.

## Checking the coolant level

### ⚠ WARNING



Removing radiator cap

Never attempt to remove the radiator cap while the engine is operating or hot. Doing so might lead to cooling system damage and could result in serious personal injury from escaping hot coolant or steam.

1. Turn the vehicle off and wait until it cools down.
2. Use extreme care when removing the radiator cap. Wrap a thick towel around it, and turn it counterclockwise slowly to the first stop.

### ⚠ WARNING

#### Cooling fan



Use caution when working near the blade of the cooling fan. The electric motor (cooling fan) is controlled by coolant temperature, refrigerant pressure and vehicle speed. It may sometimes operate even when the vehicle is not running.

5. Check the condition and connections of all cooling system hoses and heater hoses.
6. Replace any swollen or deteriorated hoses.
7. Check the coolant level. The coolant level should be filled between F and L marks on the side of the coolant reservoir when the engine room is cool.
8. If the coolant level is low, add enough specified coolant to provide protection against freezing and corrosion. Bring the level to F, but do not overfill.

If frequent additions are required, see an authorized Kia dealer for a cooling system inspection.

## Changing the coolant

Have the coolant changed by an authorized Kia dealer according to the Maintenance Schedule at the beginning of this chapter.

### **⚠ CAUTION**

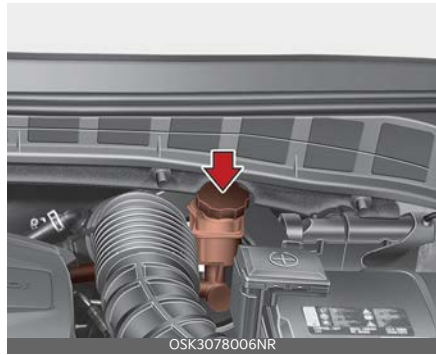
Put a thick cloth or fabric around the radiator cap before refilling the coolant in order to prevent the coolant from overflowing into engine parts such as the alternator.

## Brake fluid

The brake fluid acts to transmit force to the brake when the driver depresses the brake pedal. Brake fluid must be maintained periodically to ensure that the brakes operate smoothly.

### Checking the brake fluid level

Check the fluid level in the reservoir periodically. The fluid level should be between MAX and MIN marks on the side of the reservoir.



1. Before removing the reservoir cap and adding brake fluid, clean the area around the reservoir cap thoroughly to prevent brake fluid contamination.

### **⚠ CAUTION**

#### Proper fluid

Only use brake fluid in the brake system. Small amounts of improper fluids can cause damage to the brake system.

2. Periodically check that the fluid level in the brake fluid reservoir is between MIN and MAX. The level will fall with accumulated mileage. This is a normal condition associated with the wear of the brake linings. If the fluid level is excessively low, have the brake system checked by an authorized Kia dealer.

Use only the specified brake fluid. (Refer to "Recommended lubricants and capacities" on page 8-9.)

Never mix different types of fluid.

In the event the brake system requires frequent additions of fluid, the vehicle should be inspected by an authorized Kia dealer.

When changing and adding brake fluid, handle it carefully. Do not let it come in contact with your eyes. If brake fluid should come in contact with your eyes, immediately flush them with a large quantity of fresh tap water. Have your eyes examined by a doctor as soon as possible.

### **CAUTION**

#### **Brake fluid**

Do not allow brake fluid to contact the vehicle's body paint, as paint damage will result.

Brake fluid, which has been exposed to open air for an extended time should never be used as its quality cannot be guaranteed. It should be disposed of properly.

### **CAUTION**

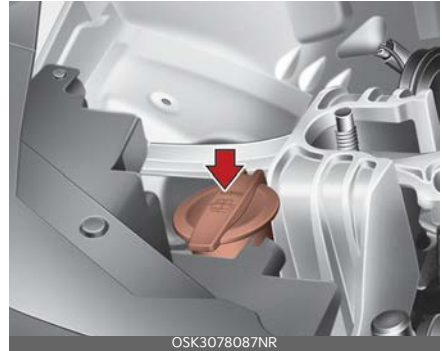
To maintain your vehicle's best brake and ABS/ESC performance, use Kia genuine brake fluid or those of an equivalent standard brake fluid as in the specification.

(Classification :SAE J1703, FMVSS116 DOT-3 or DOT-4)

## **Washer fluid**

Washer fluid is used when wiping the windshield of the vehicle with a windshield wiper. You should check and refill washer fluid periodically to make sure that it doesn't run out.

### **Checking the washer fluid level**



The reservoir is translucent so that you can check the level with a quick visual inspection.

- Check the fluid level in the washer fluid reservoir and add fluid if necessary. Plain water may be used if washer fluid is not available. However, use washer solvent with antifreeze characteristics in cold climates to prevent freezing.

### **WARNING**

#### **Flammable Fluid**

Do not allow the washer fluid to come in contact with open flames or sparks. The windshield washer fluid reservoir is flammable under certain circumstances. This can result in a fire.

### **WARNING**

#### **Coolant**

- Do not use radiator coolant or anti-freeze in the washer fluid reservoir.

- Radiator coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control.

### **⚠ WARNING**

#### **Windshield fluid**

Do not drink the windshield washer fluid. The windshield washer fluid is poisonous to humans and animals.

## **Parking brake**

Inspect the parking brake system including the parking brake lever (or pedal) and cables.

### **Checking the parking brake**

1. Check the stroke of the parking brake by counting the number of "clicks" heard while fully applying it from the released position.



Also, the parking brake alone should securely hold the vehicle on a fairly steep grade.

2. If the stroke is more or less than specified, have the parking brake adjusted by an authorized Kia dealer.

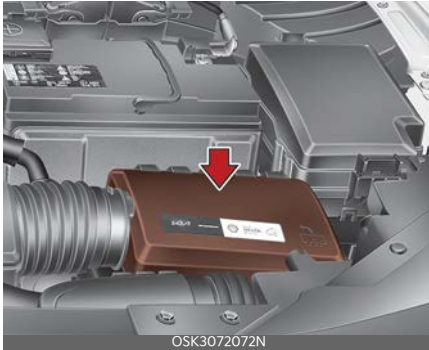
**Stroke: 5~7 "clicks" at a force of 44 lbf. (20 kgf, 196 N)**

## Air cleaner filter

A Genuine Kia air cleaner filter is recommended when the filter is replaced.

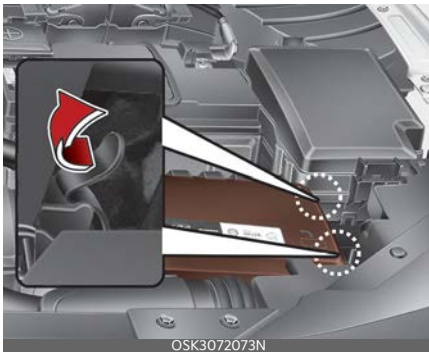
### Replacing air cleaner filter

Air cleaner filter must be replaced when necessary, and should not be washed.

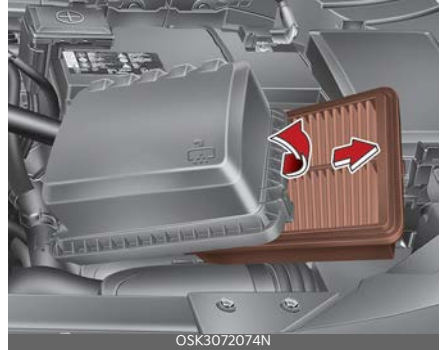


You can clean the filter when inspecting the air cleaner element. Clean the filter by using compressed air.

1. Loosen the air cleaner cover attaching clips and open the cover.



2. Wipe the inside of the air cleaner.



3. Replace the air cleaner filter.
4. Lock the cover with the cover attaching clips.

Replace the filter according to the Maintenance Schedule.

If the vehicle is operated in extremely dusty or sandy areas, replace the element more often than the usual recommended intervals. (Refer to "Maintenance Under Severe Usage Conditions" on page 7-11.)

### **CAUTION**

#### Air filter maintenance

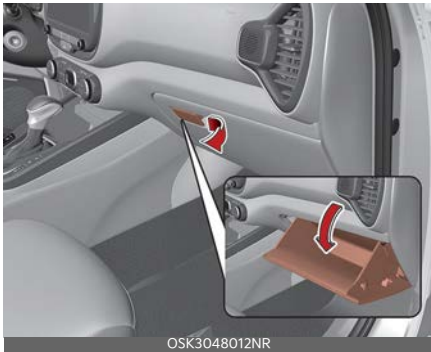
- Do not drive with the air cleaner removed; this will result in excessive engine wear.
- When removing the air cleaner filter, be careful that dust or dirt does not enter the air intake, or damage may result.
- Use a Kia genuine part. Use of a non-genuine part could damage the air flow sensor.

### Climate control air filter

The climate control air filter should be replaced according to the maintenance schedule. If the vehicle is operated in severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced earlier.

### Inspecting and replacing climate control air filter

When you replace the climate control air filter, replace it performing the following procedure, and be careful to avoid damaging other components.



1. Open the glove box.



2. With the glove box open, pull the support strap (1). Push in Both sides (2) of the glove box as shown.



3. Replace the climate control air filter.



4. Reassemble in the reverse order of disassembly.

When replacing the climate control air filter install it properly. Otherwise, the system may produce noise and the effectiveness of the filter may be reduced.



## Wiper blades

When the wipers no longer clean adequately, the blades may be worn or cracked, and require replacement.

To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.

The use of a non-specified wiper blade could result in wiper malfunction and failure.

### Blade inspection



ODEEV098012NR

Commercial hot waxes applied by automatic vehicle washes have been known to make the windshield difficult to clean. Contamination of either the windshield or the wiper blades with foreign matter can reduce the effectiveness of the windshield wipers. Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial vehicle washes. If the blades are not wiping properly, clean both the window and the blades with a good cleaner or mild detergent, and rinse thoroughly with clean water.

### **⚠ CAUTION**

#### Wiper blades

To prevent damage to the wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.

## Replacing front windshield wiper blade

Type A

1. Raise the wiper arm and turn the wiper blade assembly to expose the plastic locking clip.

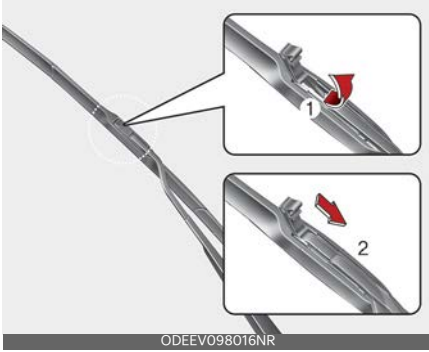


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### **⚠ CAUTION**

#### Wiper arms

- Do not allow the wiper arm to fall against the windshield, since it may chip or crack the windshield.
  - Do not pull wiper arm forward, since it could chip the hood paint.
2. Compress the clip and slide the blade assembly downward.



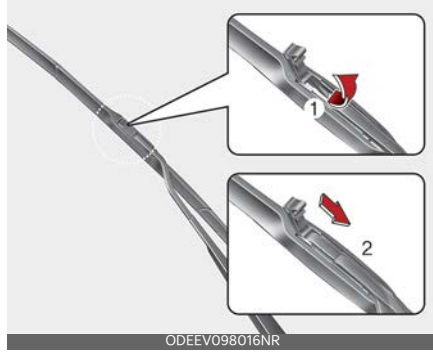
3. Lift it off the arm.



4. Install the blade assembly in the reverse order of removal.

Type B

1. Raise the wiper arm.
2. Lift up the wiper blade clip. Then pull down the blade assembly and remove it.



3. Install the new blade assembly.

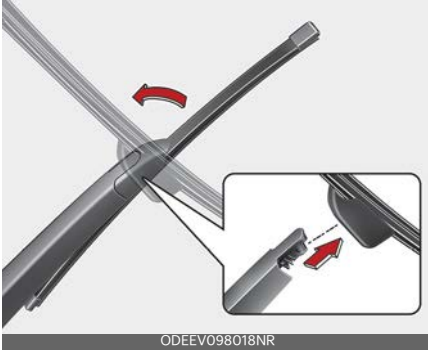


4. Return the wiper arm on the windshield.

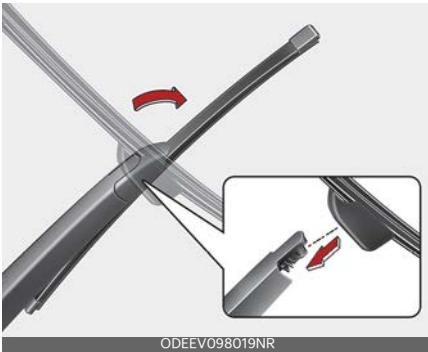
5. Turn ignition to the ON position and wiper arms will return to the normal operating position.

### Replacing rear window wiper blade

1. Raise the wiper arm and pull out the wiper blade assembly.



2. Install the new blade assembly by inserting the center part into the slot in the wiper arm until it clicks into place.



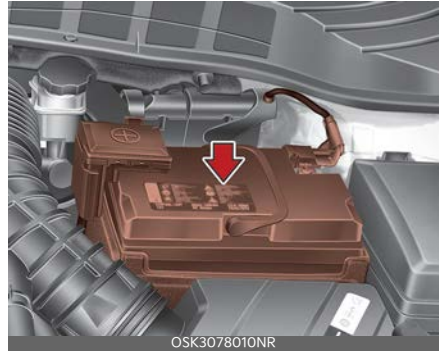
3. Make sure the blade assembly is installed firmly by trying to pull it slightly.

To prevent damage to the wiper arms or other components, have an authorized Kia dealer replace the wiper blade.

## Battery

The battery powers the engine in order to move the vehicle as well as supplying power to the various devices installed in the vehicle.

### For best battery service



- Keep the battery securely mounted.
- Keep the battery top clean and dry.
- Keep the terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse any spilled electrolyte from the battery immediately with a solution of water and baking soda.
- If the vehicle is not going to be used for an extended time, disconnect the battery cables.

### **⚠ WARNING**

#### Risk of explosion



Keep lit cigarettes and all other flames or sparks away from the battery.



The battery contains hydrogen -- a highly combustible gas which will explode if it comes in contact with a flame or

spark.



Keep batteries out of the reach of children because batteries contain highly corrosive SULFURIC ACID and electrolytes.

Do not allow battery acid to contact your skin, eyes, clothing or paint finish.



Wear eye protection when charging or working near a battery. Always provide ventilation when working in an enclosed space.

enclosed space.



Always read the following instructions carefully when handling a battery.



If any electrolyte gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention.

If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel pain or burning sensation, get medical attention immediately.



An inappropriately disposed battery can be harmful to the environment and human health. Dispose the battery

according to your local law(s) or regulation.



The battery contains lead. Do not dispose of it after use. Please return the battery to an authorized Kia dealer to be

recycled.

Never attempt to recharge the battery when the battery cables are connected.

**WARNING**

**Risk of electrocution**

Never touch the electrical ignition system while the vehicle is running. This system works with high voltage which can "zap" you.

**\* NOTICE**

If you connect unauthorized electronic devices to the battery, the battery may be discharged. Never use unauthorized devices.

**WARNING**

**Recharging battery**

Never attempt to recharge the battery when the battery cables are connected.

**WARNING**

**Battery lead compound**

Battery posts, terminals, and related accessories contain lead and lead compounds. Wash hands after handling.

**Battery recharging**

Your vehicle has a maintenance-free, calcium-based battery

**By battery charger**

Should your vehicle's battery become discharged either run the engine for at least 60 minutes driving or at idle. Alternatively you may connect a fully automatic regulated charger to the engine compartment front jumper posts.

When recharging the battery, observe the following precautions:

- The battery must be removed from the vehicle and placed in an area with good ventilation.
- Do not allow cigarettes, sparks, or flame near the battery.
- Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin gassing (boiling) violently or if the temperature of

the electrolyte of any cell exceeds 120 °F (49 °C).

- Wear eye protection when checking the battery during charging.
- Disconnect the battery charger in the following order.
  1. Turn off the battery charger main switch.
  2. Unhook the negative clamp from the negative battery terminal.
  3. Unhook the positive clamp from the positive battery terminal.
- Before performing maintenance or recharging the battery, turn off all accessories and stop the vehicle.
- The negative battery cable must be removed first and installed last when the battery is disconnected.

## Reset items

The following items should be reset after the battery has been discharged or the battery has been disconnected.

- Auto up/down window (Refer to "Window opening and closing" on page 4-25)
- Trip computer (Refer to "Trip information (Trip computer)" on page 4-55)
- Climate control system (Refer to "Automatic climate control system" on page 4-94)

## Tires and wheels

For proper maintenance, safety, and maximum fuel economy, you must always maintain recommended tire inflation pressures and stay within the load limits and weight distribution recommended for your vehicle.

### Recommended cold tire inflation pressures

All tire pressures should be checked when the tires are cold. "Cold Tires" means the vehicle has not been driven for at least three hours or driven less than 1.6 km (1 mile).

Recommended pressures must be maintained for the best ride, vehicle handling, and minimum tire wear.

For recommended inflation pressure, refer to "Tires and wheels" on page 8-5.

All specifications (sizes and pressures) can be found on a label attached to the driver's side center pillar.



### **⚠ WARNING**

#### **Tire underinflation**

Inflate your tires consistent with the instructions provided in this manual. Regularly check the tire inflation pressure, and correct it as needed: at least twice a month and before any long trips

on the road. If you fail to observe this precaution, you may be driving on underinflated tires, which may not only compromise your vehicle's driving stability, but also lead to tire damage and the risk of an accident. This risk is much higher on hot days and when driving for long periods at high speeds.

Failure to maintain specified pressure may result in excessive wear, poor handling, reduced fuel economy, deformation of tire and/or wheel, harsh ride conditions, possibility for additional damage from road hazards, or result in tire failure.

## Tire pressure

Always observe the following:

- Check tire pressure when the tires are cold. (After vehicle has been parked for at least three hours or hasn't been driven more than 1.6 km (1 mile) since startup.)
- Check the pressure of your spare tire each time you check the pressure of other tires.
- Never overload your vehicle. Be careful not to overload a vehicle luggage rack if your vehicle is equipped with one.
- Warm tires normally exceed recommended cold tire pressures by 28 to 41 kPa (4 to 6 psi). Do not release air from warm tires to adjust the pressure or the tires will be underinflated.

### WARNING

#### Tire Inflation

Overinflation or underinflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure.

This could result in loss of vehicle control and potential injury.

## Checking tire inflation pressure

Check your tires once a month or more. Use a good quality gauge to check tire pressure. You cannot tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated even when they're underinflated.

Check the tire's inflation pressure when the tires are cold. "Cold" means your vehicle has been sitting or at least three hours or driven no more than 1.6 km (1 mile).

1. Remove the valve cap from the tire valve stem.
2. 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.
3. If the pressure is low, add air until you reach the recommended amount.
4. If you overfill the tire, release air by pushing on the metal stem in the center of the tire valve.
5. Recheck the tire pressure with the tire gauge.
6. Be sure to put the valve caps back on the valve stems. They help prevent leaks by keeping out dirt and moisture.

Inspect your tires frequently for proper inflation as well as wear and damage. Always use a tire pressure gauge.

Tires with too much or too little pressure wear unevenly causing poor handling, loss of vehicle control, and sudden tire

failure leading to accidents, injuries, and even death. The recommended cold tire pressure for your vehicle can be found in this manual and on the tire label located on the driver's side center pillar.

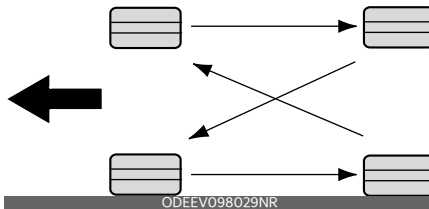
### Tire rotation

To equalize tread wear, it is recommended that the tires be rotated every 12,000 km (7,500 miles) or sooner if irregular wear develops.

During rotation, check the tires for correct balance.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, severe braking or severe cornering. Look for bumps or bulges in the tread or side of tire. Replace the tire if you find either of these conditions. Replace the tire if fabric or cord is visible. After rotation, be sure to bring the front and rear tire pressures to specification and check lug nut tightness.

Refer to "Tires and wheels" on page 8-5. Disc brake pads should be inspected for wear whenever tires are rotated.



Rotate radial tires that have an asymmetric tread pattern only from front to rear and not from right to left.

### ⚠ WARNING

#### Mixing tires

Do not mix bias ply and radial ply tires under any circumstances. This may cause unusual handling characteristics.

### Wheel alignment and tire balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tire life and best overall performance.

In most cases, you will not need to have your wheels aligned again. However, if you notice unusual tire wear or your vehicle pulling one way or the other, the alignment may need to be reset.

If you notice your vehicle vibrating when driving on a smooth road, your wheels may need to be rebalanced.

### ⚠ CAUTION

#### Wheel weight

Improper wheel weights can damage your vehicle's aluminum wheels. Use only approved wheel weights.

### Tire replacement

If the tire is worn evenly, a tread wear indicator will appear as a solid band across the tread.



This shows there is less than 1.6 mm (1/16 inch) of tread left on the tire. Replace the tire when this happens.

Do not wait for the band to appear across the entire tread before replacing the tire.

The ABS (Anti-lock Brake System) works by comparing the speed of the wheels. The tire size affects wheel speed. When replacing tires, all 4 tires must use the same size originally supplied with the vehicle. Using tires of a different size can cause the ABS (Anti-lock Brake System) and ESC (Electronic Stability Control) to work irregularly.

It is best to replace all four tires at the same time. If that is not possible, or necessary, then replace the two front or two rear tires as a pair. Replacing just one tire can seriously affect your vehicle's handling.

### \* NOTICE

We recommend that when replacing tires, use the same originally supplied with the vehicles. If not, that affects driving performance.

## Wheel replacement

When replacing the metal wheels for any reason, make sure the new wheels are equivalent to the original factory units in diameter, rim width and offset.

A wheel that is not the correct size may adversely affect wheel and bearing life, braking and stopping abilities, handling characteristics, ground clearance, body-to-tire clearance, snow chain clearance, speedometer and odometer calibration, headlight aim and bumper height.

### ⚠ CAUTION

## Wheels

Wheels that do not meet Kia specifications may fit poorly and result in damage to the vehicle or unusual handling and poor vehicle control.

## Tire traction

Tire traction can be reduced if you drive on worn tires, tires that are improperly inflated or on slippery road surfaces.

Tires should be replaced when tread wear indicators appear. Slow down whenever there is rain, snow or ice on the road to reduce the possibility of losing control of the vehicle.

## Tire maintenance

In addition to proper inflation, correct wheel alignment helps to decrease tire wear.

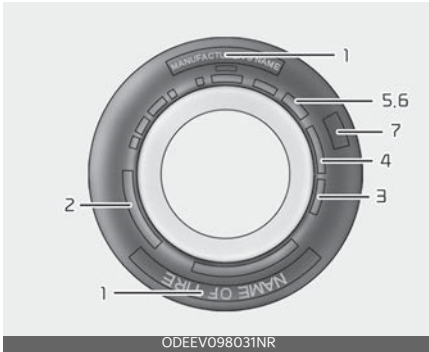
If you find a tire is worn unevenly, have your dealer check the wheel alignment.

When you have new tires installed, make sure they are balanced. This will increase vehicle ride comfort and tire life. Additionally, a tire should always be rebalanced if it is removed from the wheel.

## Tire sidewall labeling

This information identifies and describes the fundamental characteristics of the tire and also provides the tire identification number (TIN) for safety standard certification.





The TIN can be used to identify the tire in case of a recall.

### 1. Manufacturer or brand name

Manufacturer or Brand name is shown.

### 2. Tire size designation

A tire's sidewall is marked with a tire size designation. You will need this information when selecting replacement tires for your vehicle. The following explains what the letters and numbers in the tire size designation mean.

Example tire size designation:  
(These numbers are provided as an example only; your tire size designator could vary depending on your vehicle.)

#### P235/65R17 108T

- P: Applicable vehicle type (tires marked with the prefix "P" are intended for use on passenger vehicles or light trucks; however, not all tires have this marking).
- 235: Tire width in millimeters.
- 65: Aspect ratio. The tire's section height as a percentage of its width.
- R: Tire construction code (Radial).
- 17: Rim diameter in inches.

- 108: Load Index, a numerical code associated with the maximum load the tire can carry.
- T: Speed Rating Symbol. See the speed rating chart in this section for additional information.

### Wheel size designation

Wheels are also marked with important information that you need if you ever have to replace one. The following explains what the letters and numbers in the wheel size designation mean.

Example wheel size designation:

#### 7.0JX17

- 7.0: Rim width in inches.
- J: Rim contour designation.
- 17: Rim diameter in inches.

### Tire speed ratings

The chart below lists many of the different speed ratings currently being used for passenger vehicle tires. The speed rating is part of the tire size designation on the sidewall of the tire. This symbol corresponds to that tire's designed maximum safe operating speed.

Speed Rating Symbol	Maximum Speed
S	180 km/h (112 mph)
T	190 km/h (118 mph)
H	210 km/h (130 mph)
V	240 km/h (149 mph)
Z	Above 240 km/h (149 mph)

### 3. Checking tire life (TIN: Tire Identification Number)

Any tires that are over 6 years old, based on the manufacturing date, should be replaced by new ones. You can find the manufacturing date on the tire sidewall

(possibly on the inside of the wheel), displaying the DOT Code. The DOT Code is a series of numbers on a tire consisting of numbers and English letters. The manufacturing date is designated by the last four digits (characters) of the DOT code.

#### **DOT: XXXX XXXX OOOO**

The front part of the DOT means a plant code number, tire size and tread pattern and the last four numbers indicate week and year manufactured.

For example:

DOT XXXX XXXX 1622 represents that the tire was produced in the 16th week of 2022.

### **⚠ WARNING**

#### **Tire age**

Replace tires within the recommended time frame. Failure to replace tires as recommended can result in sudden tire failure, which could lead to a loss of control and an accident.

## **4. Tire ply composition and material**

The number of layers or plies of rubber-coated fabric in the tire. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others. The letter "R" means radial ply construction; the letter "D" means diagonal or bias ply construction; and the letter "B" means belted-bias ply construction.

## **5. Maximum permissible inflation pressure**

This number is the greatest amount of air pressure that should be put in the

tire. Do not exceed the maximum permissible inflation pressure. Refer to "Tire and loading information label" on page 5-165 for recommended inflation pressure.

## **6. Maximum load rating**

This number indicates the maximum load in kilograms and pounds that can be carried by the tire. When replacing the tires on the vehicle, always use a tire that has the same load rating as the factory installed tire.

## **7. Uniform Tire Quality Grading**

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

Tires degrade over time, even when they are not being used. Regardless of the remaining tread, we recommend that tires be replaced after approximately six (6) years of normal service. Heat caused by hot climate or frequent high loading conditions can accelerate the aging process.

### **Tread wear**

The tread wear 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-a-half times (1½) 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.

These grades are molded on the sidewalls of passenger vehicle tires. The tires available as standard or optional equipment on your vehicle may vary with respect to grade.

### Traction - AA, A, B & C

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.

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 -A & B

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. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

### Tire terminology and definitions

Refer to the following for detailed definitions of the terms that are found in the tire description.

**Air Pressure** The amount of air inside the tire pressing outward on the tire. Air pressure is expressed in pounds per square inch (psi) or kilopascal (kPa).

**Accessory Weight** This means the combined weight of optional accessories. Some examples of optional accessories are automatic transmission, power seats, and air conditioning.

**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 pounds per square inch (psi) or kilopascals (kPa) before a tire has built up heat from driving.

**Curb Weight** This means the weight of a motor vehicle with standard and optional equipment including the maximum capacity of fuel, oil and coolant, but without passengers and cargo.

**DOT Markings** 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

**GAWR FRT** Gross Axle Weight Rating for the Front Axle.

**GAWR RR** Gross Axle Weight Rating for the Rear axle.

**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) tire** A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

**Load ratings** The maximum load that a tire is rated to carry for a given inflation pressure.

**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 may 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.

**Maximum Loaded Vehicle Weight** The sum of curb weight; accessory weight; vehicle capacity weight; and production options weight.

**Normal Occupant Weight** The number of occupants a vehicle is designed to seat multiplied by 150 pounds (68 kg).

**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 outward facing sidewall bears white lettering or bears manufacturer, brand, and/or model name

molding that is higher or deeper than the same moldings on the inner facing sidewall.

**Passenger (P-Metric) Tire** A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

**Ply** A layer of rubber-coated parallel cords.

**Pneumatic tire** A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load.

**Production options weight** The combined weight of installed regular production options weighing over 2.3 kg (5 lbs.) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

**Recommended Inflation Pressure**

Vehicle manufacturer's recommended tire inflation pressure and shown on the tire placard.

**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 (2/32 inch) of tread remains.

**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.

**Vehicle Capacity Weight** The number of designated seating positions multiplied by 68 kg (150 lbs.) plus the rated cargo and luggage load.

**Vehicle Maximum Load on the Tire** Load on an individual tire due to curb and accessory weight plus maximum occupant and cargo weight.

**Vehicle Normal Load on the Tire** Load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight and driving by 2.

**Vehicle Placard** A label permanently attached to a vehicle showing the original equipment tire size and recommended inflation pressure.

### All season tires

Kia specifies all season tires on some models to provide good performance for use all year round, including snowy and icy road conditions.

All season tires are identified by ALL SEASON and/or M+S (Mud and Snow) on the tire sidewall. Snow tires have better snow traction than all season tires and may be more appropriate in some areas.

### Summer tires

Kia specifies summer tires on some models to provide superior performance on dry roads.

Summer tire performance is substantially reduced in snow and ice. Summer tires do not have the tire traction rating M+S (Mud and Snow) on the tire side wall. If you plan to operate your vehicle in snowy or icy conditions, Kia recommends the use of snow tires or all season tires on all four wheels.

### Snow tires

If you equip your vehicle with snow tires, they should be the same size and have the same load capacity as the original tires.

Snow tires should be installed on all four wheels; otherwise, poor handling may result.

Snow tires should carry 28 kPa (4 psi) more air pressure than the pressure recommended for the standard tires on the tire label on the driver's side of the center pillar, or up to the maximum pressure shown on the tire sidewall, whichever is less.

Do not drive faster than 120 km/h (75 mph) when your vehicle is equipped with snow tires.

### WARNING

Do not use summer tires at temperatures below 45 °F (7 °C) or when driving on snow or ice. At temperatures below 45 °F (7 °C), summer tires can lose elasticity, and therefore traction and braking power as well. Change the tires on your vehicle to winter or all-weather tires of the same size as the standard tires of the vehicle. Both types of tires are identified by the M+S (Mud and Snow) marking. Using summer tires at very cold

temperatures could cause cracks to form, thereby damaging the tires permanently.

## Radial-ply tires

Radial-ply tires provide improved tread life, road hazard resistance and smoother high speed ride.

The radial-ply tires used on this vehicle are of belted construction, and are selected to complement the ride and handling characteristics of your vehicle. Radial-ply tires have the same load carrying capacity, as bias-ply or bias belted tires of the same size, and use the same recommended inflation pressure.

Mixing of radial-ply tires with bias-ply or bias belted tires is not recommended. Any combinations of radial-ply and bias-ply or bias belted tires when used on the same vehicle will seriously deteriorate vehicle handling. The best rule to follow is: Identical radial-ply tires should always be used as a set of four.

Longer wearing tires can be more susceptible to irregular tread wear. It is very important to follow the tire rotation interval shown in this section to achieve the tread life potential of these tires. Cuts and punctures in radial-ply tires are repairable only in the tread area, because of sidewall flexing. Consult your tire dealer for radial-ply tire repairs.

## Low aspect ratio tire (if equipped)

Low aspect ratio tires, whose aspect ratio is lower than 50, are provided for sporty looks.

Because the low aspect ratio tires are optimized for handling and braking, it may be more uncomfortable to ride in

and there is more noise compare with normal tires.

## CAUTION

Because the sidewall of the low aspect ratio tire is shorter than the normal, the wheel and tire of the low aspect ratio tire is easier to be damaged. So, follow the instructions below.

- When driving on a rough road or off road, drive cautiously because tires and wheels may be damaged. And after driving, inspect tires and wheels.
  - When passing over a pothole, speed bump, manhole, or curb stone, drive slowly so that the tires and wheels are not damaged.
  - If the tire is impacted, we recommend that you inspect the tire condition or contact an authorized Kia dealer.
  - To prevent damage to the tire, inspect the tire condition and pressure every 3,000 km (1,900 miles).
- 
- It is not easy to recognize the tire damage with your own eyes. But if there is the slightest hint of tire damage, even though you cannot see the tire damage with your own eyes, have the tire checked or replaced because the tire damage may cause air leakage from the tire.
  - If the tire is damaged by driving on a rough road, off road, pothole, manhole, or curb stone, it will not be covered by the warranty.
  - You can find out the tire information on the tire sidewall.

## Fuses

A vehicle's electrical system is protected from electrical overload damage by fuses.

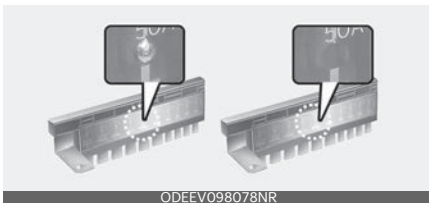
Blade type



Cartridge type



Multi fuse



This vehicle has 2 (or 3) fuse panels, one located in the driver's side panel bolster, the other in the engine compartment near the battery.

If any of your vehicle's lights, accessories, or controls do not work, check the appropriate circuit fuse. If a fuse has blown, the element inside the fuse will melt.

If the electrical system does not work, first check the driver's side fuse panel.

If the replacement fuse blows, this indicates an electrical problem. Avoid using

the system involved and immediately consult an authorized Kia dealer.

Three kinds of fuses are used: blade type for lower amperage rating, cartridge type, and multi fuse for higher amperage ratings.

### ⚠ WARNING

#### Fuse replacement

- Never replace a fuse with anything but another fuse of the same rating.
- A higher capacity fuse could cause damage and possibly a fire.
- Never install a wire or aluminum foil instead of the proper fuse - even as a temporary repair. It may cause extensive wiring damage and a possible fire.
- Do not arbitrarily modify or add-on electric wiring to the vehicle.

### \* NOTICE

- When replacing a fuse, Turn ignition to the OFF position and turn off switches of all electrical devices; then remove the battery (-) terminal.
- The actual fuse/relay panel label may differ from equipped items.

### ⚠ WARNING

#### Electrical Fire

Always ensure replacements fuses and relays are securely fastened when installed. Failure to do so can result in a vehicle fire.

Do not remove fuses, relays and terminals fastened with bolts or nuts. The fuses, relays and terminals may be fastened incompletely, and it may cause a possible fire. If fuses, relays and terminals fastened with bolts or nuts are

blown, we recommend that you consult with an authorized Kia dealer.

**⚠ CAUTION**

When replacing a blown fuse or relay, make sure the new fuse or relay fits tightly into the clips. Failure to tightly install the fuse or relay may cause damage to the wiring and electric systems.

**⚠ CAUTION**

- Do not input any other objects except fuses or relays into fuse/relay terminals, such as a screwdriver or wiring. It may cause contact failure and system malfunction.
- Do not plug in screwdrivers or after-market wiring into the terminal originally designed for fuses and relays only. The electrical system and wiring of the vehicle interior may be damaged or burned due to contact failure.
- If you directly connect the wire on the taillight or replace the bulb which is over the regulated capacity to install trailers etc., the inner junction block can get burned.

**⚠ WARNING**

**Electrical wiring repairs**

All electrical repairs should be performed by authorized Kia dealerships using approved Kia parts. Using other wiring components, especially when retrofitting multimedia or theft alarm system, car phone or radio may cause vehicle damage and increase the risk of a vehicle fire.

**\* NOTICE**

**Remodeling Prohibited**

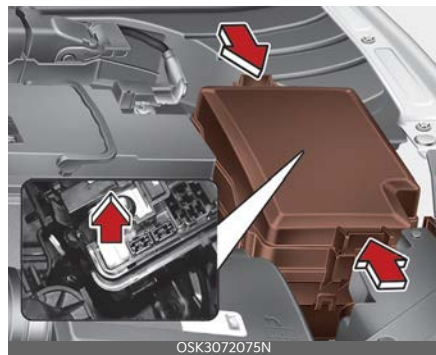
Do not rewire your vehicle in any way as doing so may affect the performance of several safety features in your vehicle. Rewiring your vehicle may also void your warranty and cause you to be responsible for any subsequent vehicle damage which may result.

**Replacing inner panel fuse**

1. Turn the ignition switch and all other switches off.
2. Open the fuse panel cover.



3. Pull the suspected fuse straight out. Use the removal tool provided on the engine fuse panel cover.



4. Check the removed fuse; replace it if it is blown. Spare fuses are provided in the engine compartment fuse panel.



5. Push in a new fuse of the same rating, and make sure it fits tightly in the clips.

If it fits loosely, consult an authorized Kia dealer.

If you do not have a spare, use a fuse of the same rating from a circuit you may not need for operating the vehicle, such as the power outlet fuse.

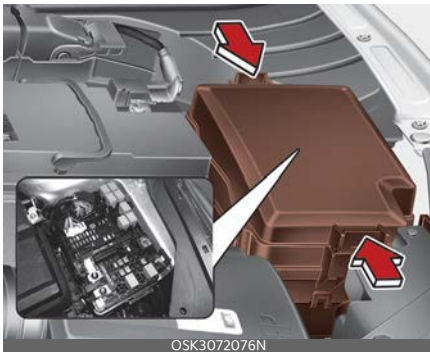
If the head lamp, turn signal lamp, stop signal lamp, fog lamp, DRL, tail lamp, HMSL do not work and the fuses are OK, check the fuse panel in the engine compartment. If a fuse is blown, it must be replaced.

#### \* NOTICE

If the headlamp, fog lamp, turn signal lamp, or tail lamp malfunctions even without any problem to the lamps, have the vehicle checked by an authorized Kia dealer for assistance.

## Replacing engine compartment fuse

1. Turn the Turn ignition and all other switches off.
2. Remove the fuse panel cover by pressing the tab and pulling the cover up.

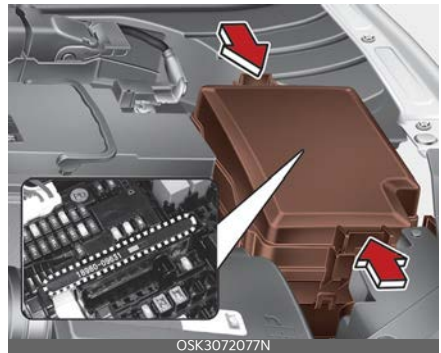


3. Check the removed fuse; replace it if it is blown. To remove or insert the fuse, use the fuse puller in the engine compartment fuse panel.
4. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized Kia dealer.

#### ⚠ CAUTION

Always securely install the fuse panel cover in the engine compartment to protect against electrical failure which may occur from water contact. Listen for the audible clicking sound to ensure fuse panel cover is securely fastened.

## Multi fuse



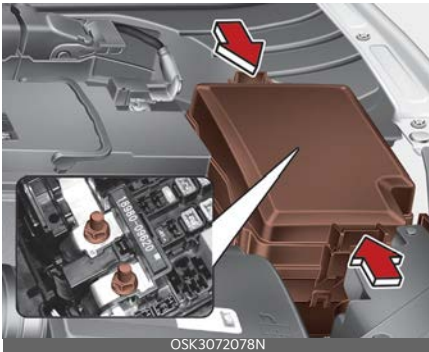
If the multi fuse is blown, it must be removed as follows:

1. Turn the ignition switch and all other switches off.
2. Disconnect the negative battery cable.
3. Remove the nuts shown in the picture above.
4. Replace the fuse with a new one of the same rating.
5. Reverse these steps to reinstall the multi fuse.

### \* NOTICE

Do not disassemble nor assemble the multi fuse when it is secured with nuts and bolts. Incorrect or partial assembly torque may cause a fire. Have the vehicle checked by an authorized Kia dealer.

## Main fuse



If the main fuse is blown, it must be removed as follows:

1. Turn the ignition switch and all other switches off.
2. Disconnect the negative battery cable.
3. Remove the nuts shown in the picture above.
4. Replace the fuse with a new one of the same rating.
5. Reverse these steps to reinstall the multi fuse.

### \* NOTICE

The electronic system may not function correctly even when the engine compartment and internal fuse box's individual fuses are not disconnected. In such a case, the cause of the problem may be disconnection of the main fuse (BFT type), which is located inside the positive battery terminal (+) cap.

Since the main fuse is designed more intricately than other parts, have the vehicle checked by an authorized Kia dealer.

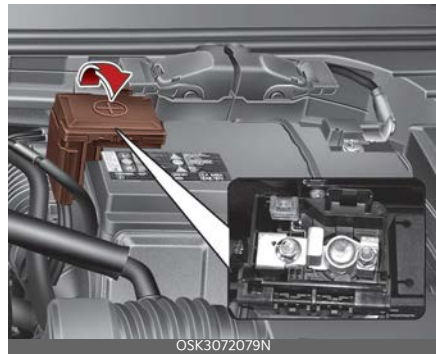
### \* NOTICE

Do not disassemble nor assemble the multi fuse when it is secured with nuts and bolts. Incorrect or partial assembly torque may cause a fire. Have the vehicle checked by an authorized Kia dealer.

## Battery fuse

If the battery fuse is blown, it must be removed as follows:

1. Disconnect the negative battery cable.
2. Remove the nuts shown in the picture below.



3. Replace the fuse with a new one of the same rating.
4. Reinstall in the reverse order of removal.

### \* NOTICE

If the battery fuse is blown, have the vehicle checked by an authorized Kia dealer.

**⚠ CAUTION**

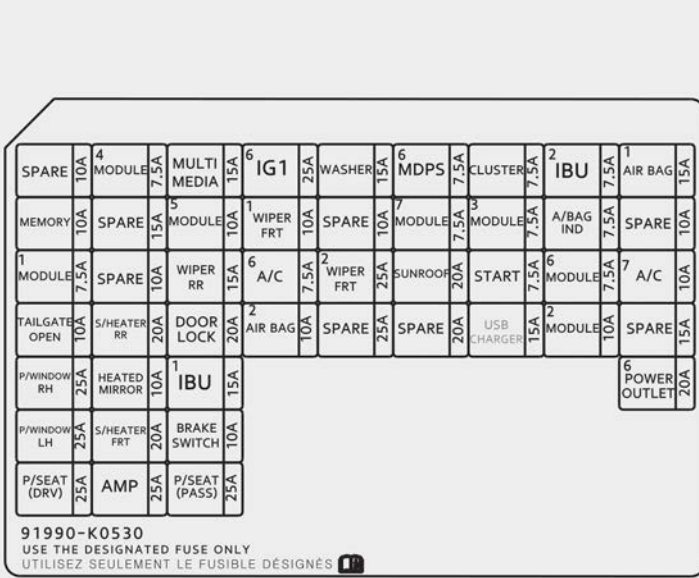
Visually inspect the battery cap to ensure it is securely closed. If the battery cap is not securely closed, moisture may enter the system and damage the electrical components.

**Fuse/relay panel description**

Inside the fuse/relay panel covers, you can find the fuse/relay label describing fuse/relay name and capacity.

**Driver's side fuse panel****\* NOTICE**

Not all fuse panel descriptions in this manual may be applicable to your vehicle. It is accurate at the time of printing. When you inspect the fuse panel in your vehicle, refer to the fuse panel label on the inside of the fuse cover. This diagram will provide you with the specific information for your vehicles.



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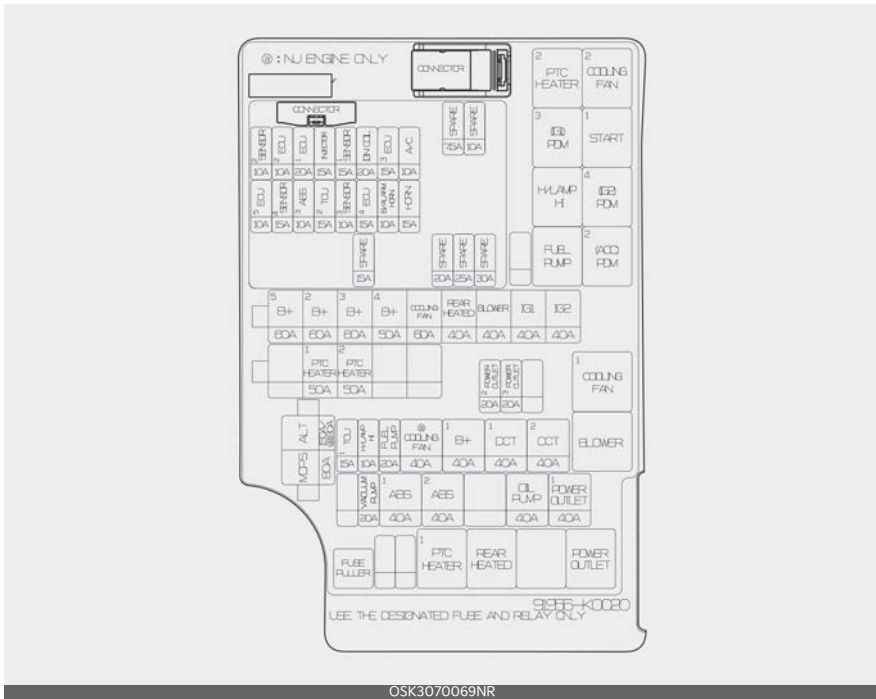
Refer to the following table for a description of the fuse.

Description	Fuse rating	Protected component
POWER OUTLET	20 A	Front Power Outlet LH
MODULE2	10 A	Sound Mood Lamp, E/R Junction Block (Power Outlet Relay), Audio, Front/Rear USB Charger, Wireless Charger, AMP, Driver/Passenger Door Mood Range Lamp, Power Outside Mirror Switch, A/V & Navigation Head Unit, IBU
HEATED MIRROR	10 A	Driver/Passenger Power Outside Mirror, A/C Control Module, ECM
IG1	25 A	PCB Block (Fuse - ABS3, ECU5, SENSOR4, TCU2)
AIR BAG1	15 A	Occupant Detection Sensor, SRS Control Module
A/BAG IND	7.5 A	Instrument Cluster, A/C Control Module
IBU2	7.5 A	IBU
CLUSTER	7.5 A	HUD, Instrument Cluster
MDPS <sup>1</sup>	7.5 A	MDPS Unit
MODULE3	7.5 A	ATM Shift Lever, Stop Lamp Switch
MODULE4	7.5 A	Front View Camera, IBU, Front Radar, Crash Pad Switch, Rear Corner Radar LH/RH

Description	Fuse rating	Protected component
MODULE5	10 A	Front Air Ventilation Seat Control Module, A/C Control Module, A/V & Navigation Head Unit, Front Seat Warmer Control Module, ATM Shift Lever Indicator, Rear Seat Warmer Module, Audio, ECM (Electric chromic mirror)
A/C1	7.5 A	E/R Junction Block (Blower Relay, PTC Heater #1/#2 Relay), A/C Control Module
WIPER FRT2	25 A	Front Wiper Motor, PCB Block (Front Wiper (Low) Relay)
WIPER RR	15 A	Rear Wiper Motor, ICM Relay Box (Rear Wiper Relay)
WASHER	15 A	Multifunction Switch
MODULE6	7.5 A	IBU
MODULE7	7.5 A	Front/Rear Seat Warmer Control Module, Front Air Ventilation Seat Control Module, Front Heated Box (Front Heated LH Relay)
WIPER FRT1	10 A	Front Wiper Motor, PCB Block (Front Wiper (Low) Relay), IBU, ECM/PCM
A/C2	10 A	ECM/PCM, A/C Control Module, Blower Resistor, Blower Motor, E/R Junction Block (Blower Relay)
START	7.5 A	[W/O Smart Key & IMMO.] ICM Relay Box (Burglar Alarm Relay), [With Smart Key or IMMO.] Transmission Range Switch, IBU,ECM/PCM, E/R Junction Block (Start Relay)
P/WINDOW LH	25 A	Power Window LH Relay, Driver Safety Power Window Module
P/WINDOW RH	25 A	Power Window RH Relay, Passenger Safety Power Window Module
TAILGATE OPEN	10 A	Tail Gate Open Relay
SUNROOF	20 A	Sunroof Motor
AMP	25 A	[W/O ISG] AMP, [With ISG] DC-DC Converter
S/HEATER FRT	20 A	Front Seat Warmer Control Module, Front Air Ventilation Seat Control Module
P/SEAT (DRV)	25 A	POWER SEAT MODULE (DRV)
P/SEAT (PASS)	25 A	POWER SEAT MODULE (PASS)
S/HEATER RR	20 A	Rear Seat Warmer Control Module
DOOR LOCK	20 A	Door Lock/Unlock Relay, ICM Relay Box (T/Turn Unlock Relay)
BRAKE SWITCH	10 A	Stop Lamp Switch, IBU
IBU1	15 A	IBU
AIR BAG2	10 A	SRS Control Module
MODULE1	7.5 A	Hazard Switch, Key Interlock Solenoid, Rain Sensor, Data Link Connector
MEMORY1	10 A	Instrument Cluster, A/C Control Module, HUD
MULTI MEDIA	15 A	Audio, A/V & Navigation Head Unit, DC-DC Converter

\* 1: MDPS(Motor Driven Power Steering) is the same as EPS(Electric Power Steering).

### Engine compartment fuse panel



Refer to the following table for a description of the fuse.

Fuse Name	Fuse rating	Circuit Protected
ALT	150 A (G4FJ) 180 A (G4NH)	Alternator, E/R Junction Block (Fuse - VACUUM PUMP, OIL PUMP, POWER OUTLET1), ESC (Electronic Stability Control)1, ESC (Electronic Stability Control)2
MDPS <sup>1</sup>	80 A	MDPS (Motor Driven Power Steering) Unit

Fuse Name	Fuse rating	Circuit Protected
B+5	60 A	PCB (Printed Circuit Board) Block (Engine Control Relay, Fuse - ECU3, ECU4, HORN, A/C)
B+2	60 A	ICU Junction Block (IPS Control Module)
B+3	60 A	ICU Junction Block (IPS Control Module)
B+4	50 A	ICU Junction Block (Fuse - P/WINDOW LH, P/WINDOW RH, TAIL-GATE OPEN, SUNROOF, AMP, S/HEATER FRT, P/SEAT (DRV), P/SEAT (PASS))
COOLING FAN	60 A	[G4FH] Cooling Fan #1 Relay
REAR HEATER	40 A	Rear Heater Relay
BLOWER	40 A	Blower Relay
IG1	40 A	[W/O Smart Key] Ignition Switch, [With Smart Key] E/R Junction Block (PDM (ACC) #2 Relay, PDM (IG1) #3 Relay)
IG2	40 A	[W/O Smart Key] Ignition Switch, Start #1 Relay, [With Smart Key] E/R Junction Block (PDM (IG2) #4 Relay), Start #1 Relay
PTC HEATER 1	50 A	PTC Heater #1 Relay
PTC HEATER 2	50 A	PTC Heater #2 Relay
ABS1	40 A	ESC (Electronic Stability Control) Module, ABS (Anti-lock Brake System) Control Module
ABS2	40 A	ESC (Electronic Stability Control) Module, ABS (Anti-lock Brake System) Control Module
POWER OUTLET 1	40 A	Power Outlet Relay
POWER OUTLET 2	20 A	Front Power Outlet RH
POWER OUTLET 3	20 A	Rear Power Outlet
OIL PUMP	40 A	Electronic Oil Pump
VACUUM PUMP	20 A	Electric Vacuum Pump
TCU1	15 A	TCM (Transmission Control Module)
H/LAMP HI	10 A	Head Lamp (High) Relay
FUEL PUMP	20 A	Fuel Pump Relay
COOLING FAN	40 A	[G4NH] Cooling Fan #1/#2 Relay
B+1	40 A	ICU Junction Block (Long Term Load Latch Relay, Fuse - BRAKE SWITCH, MODULE1, IBU1, AIR BAG2, DOOR LOCK, S/HEATER RR)
ECU1	20A	[(Gasoline) 2.0 MPI] PCM (Power train Control Module)
ECU3	15 A	[(Gasoline) 2.0 MPI] PCM (Power train Control Module)
ECU4	15 A	[(Gasoline) 2.0 MPI] PCM (Power train Control Module)
HORN	15 A	Horn Relay
A/C	10 A	A/C COMP Relay
IGN COIL	20 A	Ignition Coil #1/#2/#3/#4
SENSOR3	10 A	E/R Junction Block (Fuel Pump Relay)
INJECTOR	15 A	[(Gasoline) 2.0 MPI] Injector #1/#2/#3/#4
SENSOR1	15 A	Oxygen Sensor (Up/Down)

Fuse Name	Fuse rating	Circuit Protected
SENSOR2	10 A	A/C COMP Relay, Canister Close Valve, Purge Control Solenoid Valve, E/R Junction Block (Cooling Fan #1 Relay), Turbo Recirculation Valve [(Gasoline) 2.0 MPI] Oil Control Valve #1/ #2/ #3, Purge Control Solenoid Valve, Variable Intake Solenoid Valve, E/R Junction Block (Cooling Fan #1/#2)
ABS3	10 A	ESC (Electronic Stability Control) Module, ABS (Anti-lock Brake System) Control Module, Data Link Connector, Multipurpose Check Connector
ECU5	10 A	[(Gasoline) 2.0 MPI] PCM (Power train Control Module)
SENSOR4	15 A	[(Gasoline) 2.0 MPI] Electronic Oil Pump
TCU2	15 A	Transmission Range Switch [(Gasoline) 2.0 MPI] Transmission Range Switch

\* 1: MDPS(Motor Driven Power Steering) is the same as EPS(Electric Power Steering).

Refer to the following table for the relay type.

Relay Name	Type
PTC HEATER 2 Relay	MICRO
COOLING FAN 2 Relay	MICRO
PDM 3 (IG1) Relay	MICRO
START #1 Relay	MICRO
HEAD LAMP HI Relay	MICRO
PDM 4 (IG2) Relay	MICRO
FUEL PUMP Relay	MICRO
PDM 2 (ACC) Relay	MICRO
COOLING FAN 1 Relay	MINI
BLOWER Relay	MINI
PTC HEATER 1 Relay	MICRO
REAR DEFPGGER Relay	MICRO
POWER OUTLET Relay	MICRO



## Battery terminal cover





**\* NOTICE**

Not all fuse panel descriptions in this manual may be applicable to your vehicle. It is accurate at the time of printing. When you inspect the fuse panel in your vehicle, refer to the fuse panel label.

## Light bulbs

Light bulbs are installed in various parts of the vehicle to provide lighting inside and outside the vehicle as well as to alert other vehicles.

### Bulb replacement precaution

Please keep extra bulbs on hand with appropriate wattage ratings in case of emergencies.

Refer to "Bulb wattage" on page 8-4.

When changing lamps, first turn off the vehicle at a safe place, firmly apply the parking brake and detach the battery's negative (-) terminal.

### WARNING

#### Working on the lights

Prior to working on the light, firmly apply the parking brake, ensure that turn off the ignition switch or ENGINE START/STOP button and turn off the lights to avoid sudden movement of the vehicle and burning your fingers or receiving an electric shock.

Use only bulbs of the specified wattage.

### CAUTION

#### Light replacement

Be sure to replace the burned-out bulb with one of the same wattage rating. Otherwise, it may cause damage to the fuse or electric wiring system.

### CAUTION

#### Headlamp Lens

To prevent damage, do not clean the headlamp lens with chemical solvents or strong detergents.

### \* NOTICE

- If the light bulb or lamp connector is removed while the lamp is still on, the fuse box's electronic system may log it as a malfunction. Therefore, a lamp malfunction incident may be recorded as a Diagnostic Trouble Code (DTC) in the fuse box.
- It is normal for an operating lamp to flicker momentarily. This is due to a stabilization function of the vehicle's electronic control device. If the lamp lights up normally after momentarily blinking, then it is functioning as normal.

However, if the lamp continues to flicker several times or turns off completely, there may be an error in the vehicle's electronic control device. Please have the vehicle checked by an authorized Kia dealer immediately.

### \* NOTICE

We recommend that the headlight aiming be adjusted by an authorized Kia dealer after an accident or after the headlight assembly is reinstalled.

### \* NOTICE

You can find moisture inside the lens of lamps after a car wash or driving in the rain. It is a natural event caused by the temperature difference between the inside and the outside of the lamp and does not mean a problem with its functions. The moisture inside the lamp would disappear if you drive the vehicle with the headlamp turned on, however, the level at which the moisture is removed may differ depending on the size/location/condition of the lamp. If the moisture continues to stay inside the

lamp, have the vehicle checked by an authorized Kia dealer.

If you don't have the necessary tools, the correct bulbs and the expertise, consult an authorized Kia dealer. In many cases, it is difficult to replace vehicle light bulbs because other parts of the vehicle must be removed before you can get to the bulb. This is especially true if you have to remove the headlamp assembly to get to the bulb(s).

Removing/installing the headlamp assembly can result in damage to the vehicle. If non-genuine parts or substandard bulbs are used, it may lead to blowing a fuse or other wiring damages. Kia Genuine Parts we guarantee for quality and performance.

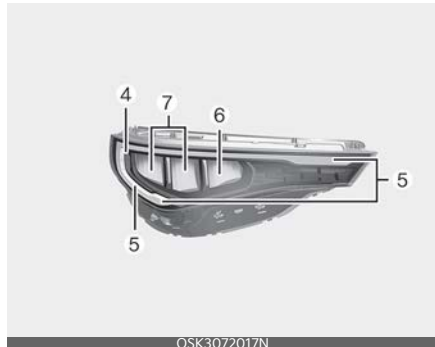
Do not install extra lamps or LEDs to the vehicle. If additional lights are installed, it may lead to lamp malfunctions and flickering. Additionally, the fuse box and other wiring may be damaged.

### Light bulb position (Front)

Head lamp - Type A



Head lamp - Type B



Daytime running lamp (if equipped)



Fog lamp

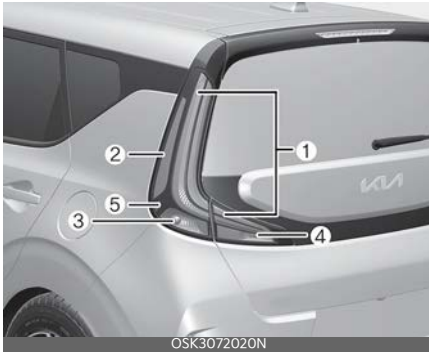


- 1. Front turn signal lamp/Position lamp (Bulb Type)
- 2. Headlamp (Low/High) (Bulb Type)

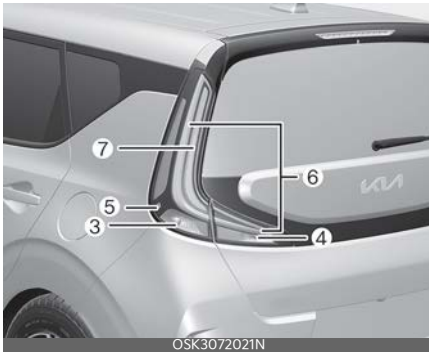
3. Daytime running lamp (Bulb Type)
4. Side marker (Bulb/LED Type)
5. Position lamp/Daytime running lamp/  
Front turn signal lamp (LED Type)
6. Headlamp (High) (LED Type)
7. Headlamp (Low) (LED Type)

### Light bulb position (Rear)

Rear combination lamp - Type A



Rear combination lamp - Type B



License plate lamp



High mounted stop lamp



1. Tail lamp (Bulb type)
2. Tail and stop lamp (Bulb type)
3. Rear turn signal lamp (Bulb type)
4. Back-up lamp (Bulb type)
5. Side marker (Bulb/LED Type)
6. Tail lamp (LED type)
7. Stop lamp (LED type)
8. License plate lamp (Bulb type)
9. High mounted stop lamp (Bulb/LED type)

## Light bulb position (Side)



OSK3078027NR

1. Side repeater lamp (LED type)

### Replacing lights (LED type)

If the LED lamp does not operate, have your vehicle checked by a professional workshop. Have the checked by an authorized Kia dealer.

The LED lamp cannot be replaced as a single unit because it is an integrated unit. The LED lamp has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

### Replacing Headlamp (High/Low beam) bulb (Headlamp Type A)

If the Headlamp (High/Low) (1) does not operate, have the vehicle checked by an authorized Kia dealer.



OSK3072040N

## Headlamp bulb



OSK3078081NR

### ⚠ WARNING

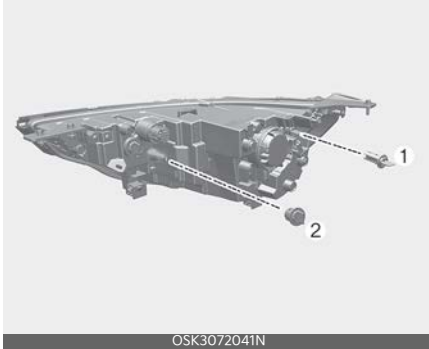
#### Halogen bulbs

Handle halogen bulbs with care.

- Halogen bulbs contain pressurized gas that will produce flying pieces of glass if broken.
- Always handle them carefully, and avoid scratches and abrasions. If the bulbs are lit, avoid contact with liquids. Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit. A bulb should be operated only when installed in a headlamp.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.

- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

### Side marker/Front turn signal lamp bulb (Type A)



1 Side marker

2 Front turn signal lamp

1. Open the hood.
2. Remove the bulb socket-connector by turning it counterclockwise.
3. Remove the bulb from the lamp assembly.
4. Install a new bulb.
5. Connect the bulb socket-connector.

### Daytime running lamp bulb replacement (if equipped)

1. Open the hood.
2. Remove the bulb socket-connector by turning it counterclockwise.
3. Remove the bulb from the lamp assembly.
4. Install a new bulb.
5. Connect the bulb socket-connector.

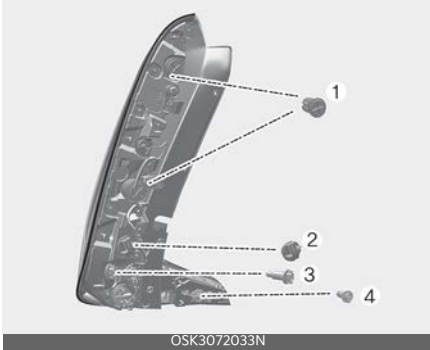


### Replacing stop/tail and turn signal lamp (bulb type) bulb (Rear combination lamp Type A)

1. Open the liftgate.
2. Loosen the lamp assembly retaining screws with a screwdriver.



3. Remove the rear combination lamp assembly from the body of the vehicle.
4. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.



5. Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket.
6. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
7. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly and turning the socket clockwise.
8. Reinstall the lamp assembly to the body of the vehicle.

**Replacing tail/back-up lamp bulb (Rear combination lamp Type A)**

1. Open the liftgate.
2. Remove the service cover assembly to the body of the vehicle.  
(Loosen the lamp assembly retaining screws and remove the lamp assembly from the body of the vehicle for back-up lamp)



3. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.

Tail lamp



Back-up lamp





4. Remove the bulb from the socket by pressing it in and rotating it counter-clockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
5. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
6. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
7. Install the service cover by putting it into the service hole.

### Replacing high mounted stop lamp (bulb type) bulb

1. Open the liftgate.
2. Remove the cover.



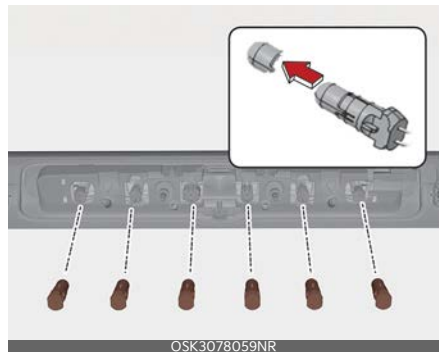
3. Loosen the retaining bolts and remove the hose (1).



4. Pull out the bulb-socket assembly from the high mounted stop lamp assembly using the driver.



5. Replace the bulbs by pulling it out from the socket.



6. Reinstall in the reverse order.

## Replacing high mounted stop lamp (LED type)

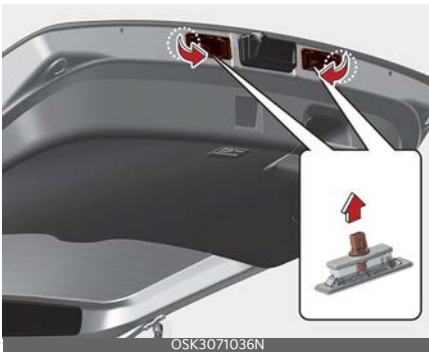


If the high mounted stop lamp (LED) (9) does not operate, have your vehicle checked by an authorized Kia dealer.

The LED lamp cannot be replaced as a single unit because it is an integrated unit. The LED lamp has to be replaced with the unit.

A skilled technician should check or repair the high mounted stop lamp (LED), for it may damage related parts of the vehicle.

## Replacing license plate lamp bulb



1. Remove the lamp assembly by using a flat-blade screwdriver.
2. Remove the socket from the assembly by turning the socket counterclock-

wise until the tabs on the socket align with the slots on the assembly.

3. Remove the bulb from bulb-socket by pulling it out.
4. Insert a new bulb by inserting it into the bulb-socket.
5. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
6. Install the lamp assembly to the body of the vehicle.

## Replacing map lamp (bulb type) bulb



1. Using a flat-blade screwdriver, gently pry the lens cover from lamp housing.
2. Remove the bulb by pulling it straight out.
3. Install a new bulb in the socket.
4. Align the lens cover tabs with the lamp housing notches and snap the lens into place.

### \* NOTICE

Be careful not to dirty or damage the lens, lens tab, and plastic housings. Allow the bulb to cool down before handling it.

## Replacing map lamp (LED type) bulb

If the map lamp (LED) does not operate, have the vehicle checked by an authorized Kia dealer.



OSK3078085NR

The LED lamps cannot be replaced as a single component because they are part of an integrated unit. The LED lamps have to be replaced with the unit.

A skilled technician should check or repair the map lamp (LED), for it may damage related parts of the vehicle.

## Replacing vanity mirror lamp bulb



ODEEV098065NR

### **⚠ WARNING**

#### Interior lamps

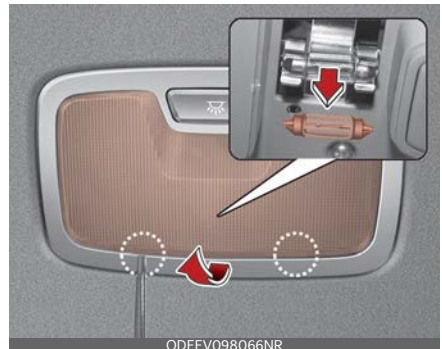
Prior to working on the Interior lamps, ensure that the "OFF" button is depressed to avoid burning your fingers or receiving an electric shock.

1. Using a flat-blade screwdriver, gently pry the lamp assembly from interior.
2. Remove the bulb by pulling it straight out.
3. Install a new bulb in the socket.
4. Install the lamp assembly to interior.

### **\* NOTICE**

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

## Replacing room lamp (bulb type) bulb



ODEEV098066NR

### **⚠ WARNING**

#### Interior lamps

Prior to working on the Interior lamps, ensure that the "OFF" button is depressed to avoid burning your fingers or receiving an electric shock.

1. Using a flat-blade screwdriver, gently pry the lens cover from lamp housing.
2. Remove the bulb by pulling it straight out.
3. Install a new bulb in the socket.

- Align the lens cover tabs with the lamp housing notches and snap the lens into place.

**\* NOTICE**

Be careful not to dirty or damage the ODE076049 lens, lens tab, and plastic housings.

**Replacing room lamp (LED type) bulb**

If the Room lamp (LED) does not operate, have the vehicle checked by an authorized Kia dealer.



ODEEV098067NR

The LED lamps cannot be replaced as a single component because they are part of an integrated unit. The LED lamps have to be replaced with the unit. A skilled technician should check or repair the Room lamp (LED), for it may damage related parts of the vehicle.

**Replacing glove box lamp**



OSK3078044NR

- Using a flat-blade screwdriver, gently pry the lamp assembly from interior.
- Remove the bulb by pulling it straight out.
- Install a new bulb in the socket.
- Install the lamp assembly to interior.

**⚠ CAUTION**

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

**Replacing liftgate room lamp bulb**



OSK3072045N

- Using a flat-blade screwdriver, gently pry the lens cover from lamp housing.
- Remove the bulb by pulling it straight out.

3. Install a new bulb in the socket.
4. Align the lens cover tabs with the lamp housing notches and snap the lens into place.

If the Liftgate room lamp (LED) does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single component because they are part of an integrated unit. The LED lamps have to be replaced with the unit.

A skilled technician should check or repair the Liftgate room lamp (LED), for it may damage related parts of the vehicle.

#### \* NOTICE

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

## Appearance care

Use the information in the following sections to keep the exterior and interior of your vehicle clean.

### Exterior care

Use the information in the following sections to maintain the exterior of your vehicle. Keeping the exterior clean is not only aesthetically pleasing, but it also helps to prolong the life of the vehicle.

#### \* NOTICE

If you park the vehicle around a stainless signboard or windshield building etc., the plastic exterior trim (bumper, spoiler, garnish, lamp, outside mirror etc.) may be damaged by reflected sunlight from the external structure. To avoid damaging the plastic exterior trim, park the vehicle away from the areas where the reflected light may occur or use a vehicle cover (Depending on the vehicle, the type of exterior trim applied such as spoiler may differ).

### Exterior general caution

It is very important to follow the label directions when using any chemical cleaner or polish. Read all warning and caution statements that appear on the label.

## Finish maintenance

### Washing

To help protect your vehicle's finish from rust and deterioration, wash it thoroughly and frequently at least once a month with lukewarm or cold water.

If you use your vehicle for off-road driving, you should wash it after each off-

road trip. Pay special attention to the removal of any accumulation of salt, dirt, mud, and other foreign materials. Make sure the drain holes in the lower edges of the doors and rocker panels are kept clear and clean.

Insects, tar, tree sap, bird droppings, industrial pollution and similar deposits can damage your vehicle's finish if not removed immediately.

Even prompt washing with plain water may not completely remove all these deposits. A mild soap, safe for use on painted surfaces, may be used.

After washing, rinse the vehicle thoroughly with lukewarm or cold water. Do not allow soap to dry on the finish.

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

### ⚠ CAUTION

- Do not use strong soap, chemical detergents or hot water, and do not wash the vehicle in direct sunlight or when the body of the vehicle is warm.
- Be careful when washing the side windows of your vehicle, especially with high-pressure water. Water may leak through the windows and wet the interior.
- To prevent damage to the plastic parts and lamps, do not clean with chemical solvents or strong detergents.

## High-pressure washing

When using high-pressure washers, make sure to maintain sufficient distance from the vehicle.

Insufficient clearance or excessive pressure can lead to component damage or water penetration.

Do not spray the camera, sensors or its surrounding area directly with a high pressure washer. Shock applied from high pressure water may cause the device to not operate normally.

Do not bring the nozzle tip close to boots (rubber or plastic covers) or connectors as they may be damaged if they come into contact with high pressure water.

### ⚠ WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

### ⚠ CAUTION

#### Wetting engine compartment



OSK3072047N

- Water washing in the engine compartment including high pressure water washing may cause the failure of elec-

trical circuits located in the engine compartment.

- Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.
- To prevent damage to the charging door, make sure to close and lock the vehicle doors when washing (high-pressure washing, automatic car washing, etc.) the vehicle.

## Waxing

Wax the vehicle when water will no longer bead on the paint.

Always wash and dry the vehicle before waxing. Use a good quality liquid or paste wax, and follow the manufacturer's instructions. Wax all metal trim to protect it and to maintain its luster.

Removing oil, tar, and similar materials with a spot remover will usually strip the wax from the finish. Be sure to re-wax these areas even if the rest of the vehicle does not yet need waxing.

### CAUTION

#### Drying vehicle

- Wiping dust or dirt off the body with a dry cloth will scratch the finish.
- Do not use steel wool, abrasive cleaners, acid detergents or strong detergents containing high alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.

## Finish damage repair

Deep scratches or stone chips in the painted surface must be repaired promptly. Exposed metal will quickly rust and may develop into a major repair expense.

### \* NOTICE

If your vehicle is damaged and requires any metal repair or replacement, be sure the body shop applies anti-corrosion materials to the parts repaired or replaced.

## Bright-metal maintenance

To remove road tar and insects, use a tar remover, not a scraper or other sharp object.

To protect the surfaces of bright metal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.

During winter weather or in coastal areas, cover the bright metal parts with a heavier coating of wax or preservative. If necessary, coat the parts with non-corrosive petroleum jelly or other protective compound.

## Underbody maintenance

Road salt and other corrosive chemicals are used in cold weather states to melt snow and prevent ice accumulation. If these chemicals are not regularly removed, they will corrode the vehicle underbody and over time damage fuel lines, the fuel tank retention system, the vehicle suspension, the exhaust system, and even the body frame.

- Wash the undercarriage of your vehicle regularly during the winter and

whenever your vehicle has been exposed to such salts or chemicals.

- Do a thorough washing of the undercarriage at the end of the winter.
- Use professional service technicians or governmental inspection stations to annually inspect for corrosion.
- Immediately seek an inspection of your vehicle if you become visually aware of corrosion flaking or scaling or if you become aware of a change in vehicle performance, such as soft or spongy brakes, fluids leaking, impairment of directional control, suspension noises or rattling metal straps.

### Aluminum wheel maintenance

The aluminum wheels are coated with a clear protective finish.

- Do not use any abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum wheels. They may scratch or damage the finish.
- Clean the wheel when it has cooled.
- Use only a mild soap or neutral detergent, and rinse thoroughly with water. Also, be sure to clean the wheels after driving on salted roads. This helps prevent corrosion.
- Avoid washing the wheels with high speed vehicle wash brushes.
- Do not use any alkaline or acid detergents. It may damage and corrode the aluminum wheels coated with a clear protective finish.

### Corrosion protection

#### Protecting your vehicle from corrosion

By using the most advanced design and construction practices to combat corro-

sion, we produce vehicles of the highest quality. However, this is only part of the job. To achieve the long-term corrosion resistance your vehicle can deliver, the owner's cooperation and assistance is also required.

#### Common causes of corrosion

The most common causes of corrosion on your vehicle are:

- Road salt, dirt and moisture that is allowed to accumulate underneath the vehicle.
- Removal of paint or protective coatings by stones, gravel, abrasion or minor scrapes and dents which leave unprotected metal exposed to corrosion.

#### High-corrosion areas

If you live in an area where your vehicle is regularly exposed to corrosive materials, corrosion protection is particularly important. Some of the common causes of accelerated corrosion are road salts, dust control chemicals, ocean air and industrial pollution.

#### Moisture breeds corrosion

Moisture creates the conditions in which corrosion is most likely to occur. For example, corrosion is accelerated by high humidity, particularly when temperatures are just above freezing. In such conditions, the corrosive material is kept in contact with the vehicle's surface by moisture that evaporates slowly.

Mud is particularly corrosive because it dries slowly and holds moisture in contact with the vehicle. Although the mud appears to be dry, it can still retain the moisture and promote corrosion.



High temperatures can also accelerate corrosion of parts that are not properly ventilated so the moisture can be dispersed. For all these reasons, it is particularly important to keep your vehicle clean and free of mud or accumulations of other materials. This applies not only to the visible surfaces but particularly to the underside of the vehicle.

### To help prevent corrosion

You can help prevent corrosion from beginning by observing the following:

#### Keep your vehicle clean

The best way to prevent corrosion is to keep your vehicle clean and free of corrosive materials. Attention to the underside of the vehicle is particularly important.

If you live in a high-corrosion area — where road salts are used, near the ocean, areas with industrial pollution, acid rain, etc.—, you should take extra care to prevent corrosion. In winter, hose off the underside of your vehicle at least once a month and be sure to clean the underside thoroughly when winter is over.

When cleaning underneath the vehicle, give particular attention to the components under the fenders and other areas that are hidden from view. Do a thorough job; just dampening the accumulated mud rather than washing it away will accelerate corrosion rather than prevent it. Water under high pressure and steam are particularly effective in removing accumulated mud and corrosive materials.

When cleaning lower door panels, rocker panels and frame members, be sure that drain holes are kept open so that mois-

ture can escape and not be trapped inside to accelerate corrosion.

#### Keep your garage dry

Don't park your vehicle in a damp, poorly ventilated garage. This creates a favorable environment for corrosion. This is particularly true if you wash your vehicle in the garage or drive it into the garage when it is still wet or covered with snow, ice or mud. Even a heated garage can contribute to corrosion unless it is well ventilated so moisture is dispersed.

#### Keep paint and trim in good condition

Scratches or chips in the finish should be covered with "touch-up" paint as soon as possible to reduce the possibility of corrosion. If bare metal is showing through, the attention of a qualified body and paint shop is recommended.

Bird droppings: Bird droppings are highly corrosive and may damage painted surfaces in just a few hours. Always remove bird droppings as soon as possible.

#### Don't neglect the interior

Moisture can collect under the floor mats and carpeting and cause corrosion. Check under the mats periodically to be sure the carpeting is dry. Use particular care if you carry fertilizers, cleaning materials or chemicals in the vehicle.

These should be carried only in proper containers and any spills or leaks should be cleaned up, flushed with clean water and thoroughly dried.

## Interior care

Use the information in the following sections to maintain the interior of your vehicle.

### Interior general precautions

#### \* NOTICE

Prevent chemicals such as perfume, cosmetic oil, sun cream, hand cleaner, and air freshener from contacting the interior parts because they may cause damage or discoloration. If they do contact the interior parts, wipe them off immediately. If necessary, use a mixture of warm water and mild non-detergent cleaner (test all cleaners on a concealed area before use). Use proper car cleaner to clean interior parts.

#### ⚠ CAUTION

#### Electrical components

Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.

#### ⚠ CAUTION

#### Leather

When cleaning leather products (steering wheel, seats etc.), use neutral detergents or low alcohol content solutions. If you use high alcohol content solutions or acid/alkaline detergents, the color of the leather may fade or the surface may get stripped off.

### Taking care of leather seats

- Vacuum the seat periodically to remove dust and sand on the seat. It

will prevent abrasion or damage of the leather and maintain its quality.

- Wipe the leather seat cover often with dry or soft cloth.
- Sufficient use of a leather protective may prevent abrasion of the cover and helps maintain the color. Be sure to read the instructions and consult a specialist when using leather coating or protective agents.
- Leather with bright colors (beige, cream beige) is easily contaminated and clear in appearance. Clean the seats frequently.
- Avoid wiping with wet cloth. It may cause the surface to crack.

### Cleaning the leather seats

Remove all contaminations instantly. Refer to instructions below for removal of each contaminant.

- Cosmetic products (sunscreen, foundation, etc.)
  - Apply cleansing cream on a cloth and wipe the contaminated point. Wipe off the cream with a wet cloth and remove water with a dry cloth.
- Beverages (coffee, soft drink, etc.)
  - Apply a small amount of neutral detergent and wipe until contaminations do not smear.
- Oil
  - Remove oil instantly with absorbable cloth and wipe with stain remover for leather only.
- Chewing gum
  - Harden the gum with ice and remove gradually.

### Fabric seat cover (if equipped)

Please clean the fabric seats regularly with a vacuum cleaner in consideration of fabric material characteristics. If they are heavily soiled with beverage stains, etc., use a suitable interior cleaner. To prevent damage to seat covers, wipe off the seat covers down to the seams with a large wiping motion and moderate pressure using a soft sponge or microfiber cloth.

Velcro closures on clothing or sharp objects may cause snagging or scratches on the surface of the seats.

Make sure not to rub such objects against the surface.

### Cleaning the upholstery and interior trim

#### Car interior surfaces

Remove dust and loose dirt from interior surfaces with a whisk broom or a vacuum cleaner. If necessary, clean interior surfaces with a mixture of warm water and mild non-detergent cleaner (test all cleaners on a concealed area before use).

#### Fabric

Remove dust and loose dirt from fabric with a whisk broom or vacuum cleaner. Clean with a mild soap solution recommended for upholstery or carpets. Remove fresh spots immediately with a fabric spot cleaner. If fresh spots do not receive immediate attention, the fabric can be stained and its color can be affected. Also, its fire-resistant properties can be reduced if the material is not properly maintained.

Using anything but recommended cleaners and procedures may affect the fabric's appearance and fire-resistant properties.

### Cleaning the lap/shoulder belt webbing

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpet. Follow the instructions provided with the soap. Do not bleach or re-dye the webbing because this may weaken it.

### Cleaning the interior window glass

If the interior glass surfaces of the vehicle become fogged (that is, covered with an oily, greasy or waxy film), they should be cleaned with a glass cleaner. Follow the directions on the glass cleaner container.

#### CAUTION

#### Rear window

Do not scrape or scratch the inside of the rear window. This may result in damage of the rear window defroster grid.

## Emission control system

The emission control system of your vehicle is covered by a written limited warranty. Please see the warranty information contained in the Warranty & Consumer Information manual in your vehicle.

Your vehicle is equipped with an emission control system to meet all applicable emission regulations. There are three emission control systems, as follows.

1. Crankcase emission control system
2. Evaporative emission control system
3. Exhaust emission control system

In order to assure the proper function of the emission control systems, it is recommended that you have your vehicle inspected and maintained by an authorized Kia dealer in accordance with the maintenance schedule in this manual.

### Caution for the Inspection and Maintenance Test (With Electronic Stability Control (ESC) system)

- To prevent the vehicle from misfiring during dynamometer testing, turn the Electronic Stability Control (ESC) system off by pressing the ESC switch.
- After dynamometer testing is completed, turn the ESC system back on by pressing the ESC switch again.

### 1. Crankcase emission control system

The positive crankcase ventilation system is employed to prevent air pollution caused by blow-by gases being emitted from the crankcase. This system supplies fresh filtered air to the crankcase

through the air intake hose. Inside the crankcase, the fresh air mixes with blow-by gases, which then pass through the PCV valve into the induction system.

### 2. Evaporative emission control (including ORVR: Onboard Refueling Vapor Recovery) system

The Evaporative Emission Control System is designed to prevent fuel vapors from escaping into the atmosphere. (The ORVR system is designed to allow the vapors from the fuel tank to be loaded into a canister while refueling at the gas station, preventing the escape of fuel vapors into the atmosphere.)

#### Canister

Fuel vapors generated inside the fuel tank are absorbed and stored in the onboard canister. When the engine is running, the fuel vapors absorbed in the canister are drawn into the surge tank through the purge control solenoid valve.

#### Purge Control Solenoid Valve (PCSV)

The purge control solenoid valve is controlled by the Engine Control Module (ECM); when the engine coolant temperature is low during idling, the PCSV closes so that evaporated fuel is not taken into the engine. After the engine warms up during ordinary driving, the PCSV opens to introduce evaporated fuel to the engine.

### 3. Exhaust emission control system

The Exhaust Emission Control System is a highly effective system which controls

exhaust emissions while maintaining good vehicle performance.

### Engine exhaust gas precautions (carbon monoxide)

- Carbon monoxide can be present with other exhaust fumes. Therefore, if you smell exhaust fumes of any kind inside your vehicle, have it inspected and repaired immediately. If you ever suspect exhaust fumes are coming into your vehicle, drive it only with all the windows fully open. Have your vehicle checked and repaired immediately.

#### WARNING

##### Exhaust

Engine exhaust gases contain carbon monoxide (CO). Though colorless and odorless, it is dangerous and could be lethal if inhaled. Follow the instructions on this page to avoid CO poisoning.

- Do not operate the engine in confined or closed areas (such as garages) any more than what is necessary to move the vehicle in or out of the area.
- When the vehicle is stopped in an open area for more than a short time with the engine running, adjust the ventilation system (as needed) to draw outside air into the vehicle.
- Never sit in a parked or stopped vehicle for any extended time with the engine running.
- When the engine stalls or fails to start, excessive attempts to restart the engine may cause damage to the emission control system.

### Operating precautions for catalytic converters

#### WARNING

##### Catalytic converter

Keep away from the catalytic converter and exhaust system while the vehicle is running or immediately thereafter. The exhaust and catalytic systems are very hot and may burn you.

#### WARNING

##### Fire

- Do not park, idle or drive the vehicle over or near flammable objects, such as grass, vegetation, paper, leaves, etc. A hot exhaust system can ignite flammable items under your vehicle.
- Also, do not remove the heat sink around the exhaust system, do not seal the bottom of the vehicle or do not coat the vehicle for corrosion control. It may present a fire risk under certain conditions.

Your vehicle is equipped with a catalytic converter emission control device.

Therefore, the following precautions must be observed:

- Use only UNLEADED FUEL for gasoline engines.
- Do not operate the vehicle when there are signs of engine malfunction, such as misfire or a noticeable loss of performance.
- Do not misuse or abuse the engine. Examples of misuse are coasting with the ignition off and descending steep grades in gear with the ignition off.
- Do not operate the engine at high idle speed for extended periods (5 minutes or more).

- Do not modify or tamper with any part of the engine or emission control system. All inspections and adjustments must be made by an authorized Kia dealer.
- Avoid driving with an extremely low fuel level. Running out of fuel could cause the engine to misfire, damaging the catalytic converter.

Failure to observe these precautions could result in damage to the catalytic converter and to your vehicle. Additionally, such actions could void your warranties.

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## Specifications & Consumer information

### Dimensions

Item		Size: mm (in)		
Overall length		4,195 (165.2)		
Overall width		1,800 (70.9)		
Overall height	Without Roof rack	205/60R16	1,600 (63.0)	
		215/55R17	1,613 (63.5)	
		235/45R18	1,615 (63.6)	
	With Roof rack	205/60R16	1,600 (63.0)	
		215/55R17	1,613 (63.5)	
		235/45R18	1,615 (63.6)	
Tread	Front	(Gasoline) 2.0 MPI	205/60R16	1,575 (62.0)
			215/55R17	1,563 (61.5)
			235/45R18	1,559 (61.4)
	Rear	205/60R16	1,584 (62.4)	
		215/55R17	1,572 (61.9)	
		235/45R18	1,568 (61.7)	
Wheelbase		2,600 (102.4)		



## Engine

Item	(Gasoline) 2.0 MPI
Displacement: cc (cu in)	1999 (121.9)
Bore x Stroke: mm (in)	81 x 97.0 (3.18 x 3.81)
Firing order	1-3-4-2
No. of cylinders	4, In-line

## Bulb wattage

Light Bulb		Wattage	Bulb type	
Front	Type A	Headlamp (Low/High)	55/60	H19
	Type B	Headlamp (Low/High)	LED	LED
	Type A	Front turn signal lamps	28W	PY28/8W
		Front position lamps	8W	PY28/8W
	Type B	Front fog lamps*	LED	LED
		Front turn signal lamps	LED	LED
		Front position lamps	LED	LED
		Daytime running lamps	LED	LED
	Side repeater lamps (Outside Mirror)*	5	WY5W	
Rear	Bulb Type	Rear tail/stop lamps	8/28	2357
		Rear tail lamps	5	W5W
	LED Type	Rear stop lamps	LED	LED
		Rear tail lamps	LED	LED
	Rear turn signal lamps		27	1156NA
	Back-up lamps		16	W16W
	High mounted stop lamps		5 (LED*)	W5W (LED*)
License plate lamps		5	W5W	
Interior	Map lamps		10 (LED*)	W10W (LED*)
	Room lamps		10 (LED*)	FESTOON (LED*)
	Vanity mirror lamps		5	FESTOON
	Luggage lamp		10	FESTOON

\* If equipped

## Tires and wheels

Item	Tire size	Wheel size	Load Capacity		Speed capacity		Inflation pressure [psi (bar, kPa)]				Wheel lug nut torque lbf-ft (kgf-m, N-m)
			L <sup>1</sup> <sup>2</sup>	kg	SS <sup>3</sup>	km/h	Normal load <sup>1</sup>		Maximum load		
							Front	Rear	Front	Rear	
Full size tire	205/60R16	6.5Jx16	92	630	H	210	33 (2.3/230)	33 (2.3/230)	36 (2.5/260)	36 (2.5/260)	79-94 (11-13, 107-127)
	215/55R17	7.0Jx17	94	670	V	240					
	235/45R18	7.5Jx18	94	670	V	240					
Compact spare tire	T125/80D16	4.0Tx16	97	730	M	130	60 (4.2, 420)	60 (4.2, 420)	60 (4.2, 420)	60 (4.2, 420)	

\*1. Normal load: Up to 3 persons

\*2. Load Index

\*3. Speed Symbol

### **CAUTION**

When replacing tires, make sure they are the same type, size, brand, construction and tread pattern all four wheels.

Using tires of a different size can damage the related parts or make them work irregularly.

check the tire pressure and add more air when necessary.

Additionally required tire air pressure per km above sea level: 10.5 kPa(1.5 psi)/km

### **NOTICE**

- It is permissible to add 21 kPa (3 psi) to the standard tire pressure specification if colder temperatures are expected soon.  
Tires typically loose 7 kPa (1 psi) for every 12 °F (-11 °C) temperature drop. If extreme temperature variations are expected, recheck your tire pressure as necessary to keep them properly inflated.
- We recommend that when replacing tires, use the same originally supplied with the vehicles. If not, that affects driving performance.
- When driving in high altitude grades, it is natural for the atmospheric pressure to decrease. Therefore, please

## Gross vehicle weight

Item	(Gasoline) 2.0 MPI
Gross vehicle weight	IVT
kg (lbs.)	1,825 (4,023)

## Luggage volume

Item	(Gasoline) 2.0 MPI
Luggage volume (SAE)	Min: 24.2 cu ft (686 l)
cu ft (l)	MAX: 62 cu ft (1,758 l)

MIN: Behind seat upright with out luggage under tray

MAX: Behind seat folded with out luggage under tray

## Air conditioning system

Items	Weight of Volume oz (g)	Classification
Refrigerant	15.87±0.88 (450±25)	R-1234yf
Compressor lubricant	4.23±0.35 (120±10)	PAG


Have your vehicle inspected by an authorized Kia dealer.

## Recommended lubricants and capacities

To help achieve proper engine and powertrain performance and durability, use only lubricants of the proper quality.

The correct lubricants also help promote engine efficiency that results in improved fuel economy.

These lubricants and fluids are recommended for use in your vehicle.

Lubricant	Volume	Classification
Engine oil <sup>*1</sup> Recommends  <b>TotalEnergies</b>	4.0 L (4.23 US qt.)	Full synthetic SAE 0W-20, API SN PLUS/SP or ILSAC GF-6
Intelligent Variable Transmission (iVT)	6.7 L (7.1 US qt.)	Kia Genuine SP-CVT <sup>*2</sup>
Coolant <sup>*3</sup>	5.5 L (5.8 US qt.)	An Phosphate based ethylene glycol based coolant
Brake/Clutch fluid <sup>*4</sup>	Required amount	SAE J1703, FMVSS116 DOT-3 or DOT-4
Fuel	54 L (14.27 US gal.)	Gasoline

\*1. Refer to "Recommended SAE viscosity number" on page 8-10.

\*2. Use only specified genuine Continuously variable Transmission fluid. The use of non-specified fluid (even marked as compatible with genuine) could result in shift quality deterioration and vibrations, eventually, the transmission failure.

\*3. Different type of coolant or water may damage the electrical component.

\*4. To maintain your vehicle's best brake and ABS/ESC performance, use Kia genuine brake fluid or those of an equivalent standard brake fluid as in the specification.

## Recommended SAE viscosity number

### **⚠ CAUTION**

Always be sure to clean the area around any filler plug, drain plug, or dipstick before checking or draining any lubricant. This is especially important in dusty or sandy areas and when the vehicle is used on unpaved roads. Cleaning the plug and dipstick areas will prevent dirt and grit from entering the engine and other mechanisms that could be damaged.

Engine oil viscosity (thickness) has an effect on fuel economy and cold weather operating (engine start and engine oil flowability). Lower viscosity engine oils can provide better fuel economy and cold weather performance, however, higher viscosity engine oils are required for satisfactory lubrication in hot weather.

Using oils of any viscosity other than those recommended could result in engine damage.

When choosing an oil, consider the range of temperature your vehicle will be operated in before the next oil change. Proceed to select the recommended oil viscosity from the chart.

Temperature Range for SAE Viscosity Numbers										
Temperature	°C	-30	-20	-10	0	10	20	30	40	50
	°F	-10	0	20	40	60	80	100	120	
Gasoline Engine Oil	(Gasoline) 2.0 MPI	0W-20								



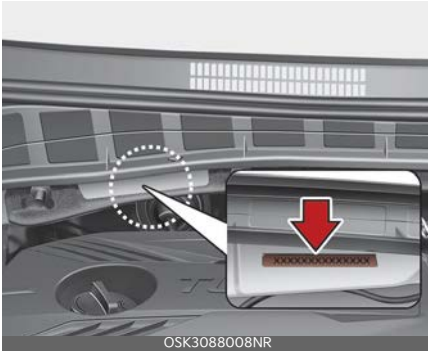
An engine oil displaying this API Certification Mark conforms to the international Lubricant Specification Advisory Committee (ILSAC). It is recommended to only use engine oils that uphold this API Certification Mark.



## Vehicle identification number (VIN)

The vehicle identification number (VIN) is the number used in registering your vehicle and in all legal matters pertaining to its ownership, etc.

Frame number



The VIN is also on a plate attached to the top of the dashboard. The number on the plate can easily be seen through the windshield from outside.

VIN label



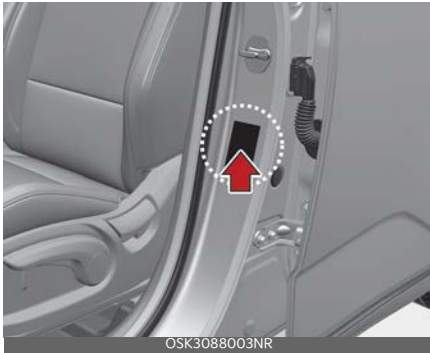
## Vehicle certification label

The vehicle certification label attached on the driver's side center pillar gives the vehicle identification number (VIN).



### Tire specification and pressure label

The tire label located on the driver's side center pillar gives the tire pressures recommended for your vehicle.

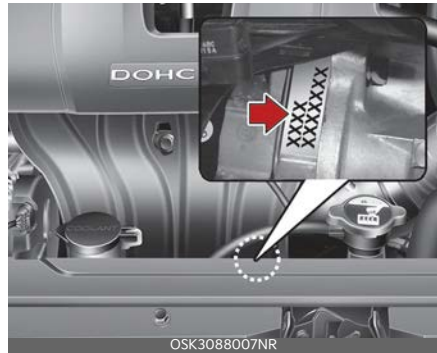


The tires supplied on your new vehicle are chosen to provide the best performance for normal driving.

### Engine number

The engine number is stamped on the engine block as shown in the drawing.

(Gasoline) 2.0 MPI



## Air conditioner compressor label

A compressor label informs you the type of compressor your vehicle is equipped with such as model, supplier part number, production number, refrigerant (1) and refrigerant oil (2).



## Reporting safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform Transport Canada (TC) in addition to notifying **Kia Canada Inc.**

Mailing Address:

Transport Canada - ASFAD  
330 Sparks Street  
Ottawa, ON  
K1A 0N5

Telephone: 819-994-3328 (Ottawa-Gatineau area or internationally)  
Toll free: 1-800-333-0510 (in Canada)

Online:

<http://www.tc.gc.ca/recalls>

If TC 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, TC cannot become involved in individual problems between you, your dealer, or **Kia Canada Inc.**



# Abbreviation **A**

Abbreviation .....A-2

**Abbreviation****Abbreviation****ABS**

Anti-lock Brake System

**AGM**

Absorbent Glass Mat

**AKI**

Anti Knock Index

**BCW**

Blind-Spot Collision Warning

**CRS**

Child Restraint System

**DAW**

Driver Attention Warning

**DRL**

Daytime Running Light

**DTC**

Diagnostic Trouble Code

**EBD**

Electronic Brake force Distribution

**ECM**

Electric Chromic Mirror

**EDR**

Event Data Recorder

**EFD**

Emergency Fastening Device

**EPS**

Electronic Power Steering

**ESC**

Electronic Stability Control

**FCA**

Forward Collision-Avoidance Assist

**FRT**

Front

**GAW**

Gross Axle Weight

**GAWR**

Gross Axle Weight Rating

**GVW**

Gross Vehicle Weight

**GVWR**

Gross Vehicle Weight Rating

**HAC**

Hill-start Assist Control

**HBA**

High Beam Assist

**HMSL**

High Mounted Stop Lamp

**HUD**

Head-Up Display

**ILSAC**International Lubricant Specification  
Advisory Committee**IPS**

Intelligent Power Switch

**ISG**

Idle Stop and Go

**IVT**

Intelligent Variable Transmission

**LATCH**

Lower Anchors and Tether for Children

**LDW**

Lane Departure Warning

**LH**

Left Hand

**LI**

Load Index

**LKA**

Lane Keeping Assist

**LT**

Light Truck

**MDPS**

Motor Driven Power Steering

**MIL**

Malfunction Indicator Lamp

**MMT**

Manganese, Mn

**ODS**

Occupant Detection System

**ORVR**

Onboard Refueling Vapor Recovery

**PCB**

Printed Circuit Board

**PCM**

Power train Control Module

**PCSV**

Purge Control Solenoid Valve

**PCV**

Positive Crankcase Ventilation

**RCCA**

Rear Cross-Traffic Collision-Avoidance Assist

**RCCW**

Rear Cross-Traffic Collision Warning

**RH**

Right Hand

**RR**

Rear

**SCC**

Smart Cruise Control

**SRS**

Supplemental Restraint System

**SRSCM**

SRS Control Module

**SS**

Speed Symbol

**TBT**

Turn By Turn

**TCM**

Transmission Control Module

**TCS**

Traction Control System

**TIN**

Tire Identification Number

**TPMS**

Tire Pressure Monitoring System

**VIN**

Vehicle Identification Number

**VSM**

Vehicle Stability Management

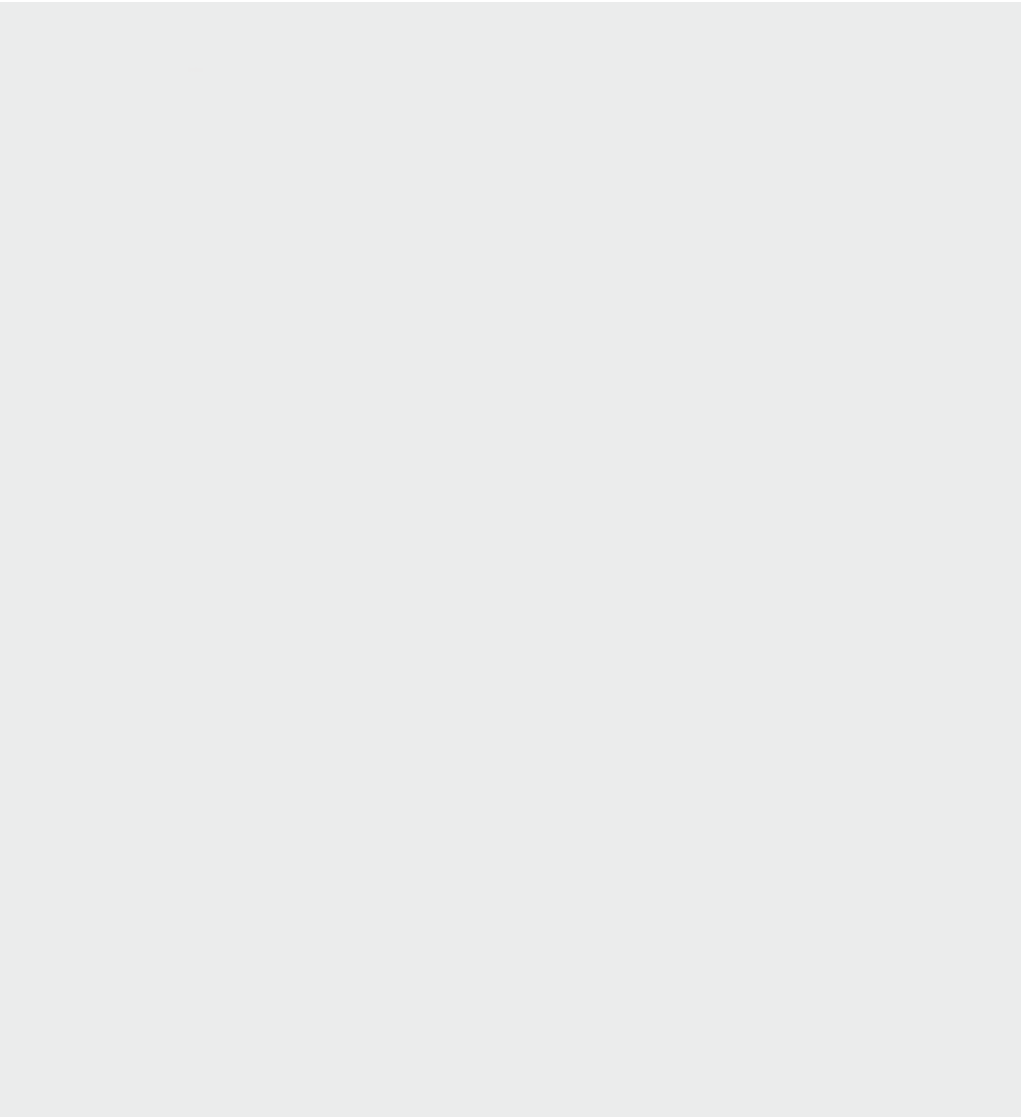
Abbreviation

Abbreviation

**W/O**

without





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