2023

# Forte

Owner's Manual

Movement that inspires

**WARNING – California Proposition 65**

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

# 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.

An authorized Kia dealership where factory-trained technicians, recommended special tools, and genuine Kia replacement parts are provided can help if you need technical assistance.

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 some 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.

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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Printed in MEXICO

## 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 eight 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.

**⚠ CAUTION**

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

**✻ NOTICE**

A NOTICE indicates interesting or helpful information is being provided.

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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 illuminate.

**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.

Pursuant to Environmental Protection Agency (EPA) regulations, ethanol may be used in your vehicle.

Do not use gasohol containing more than 15% ethanol, and do not use gasoline or gasohol containing any methanol. Ethanol provides less energy than gasoline and it attracts water, and it is thus likely to reduce your fuel efficiency and could lower your MPG results.

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 metalic 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 illuminate.

**✻ 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.

## 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 (MIL) 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.

## Fuel Additives

Kia recommends that you use good quality gasolines treated with detergent additives such as TOP TIER Detergent Gasoline, which help prevent deposit formation in the engine. These gasolines will help the engine run cleaner and enhance performance of the emission control system.

For more information on TOP TIER Detergent Gasoline, please go to the website (www.toptiergas.com) For customers who do not use TOP TIER Detergent Gasoline regularly, and have problems starting or the engine does not run smoothly, additives that you can buy separately may be added to the gasoline.

If TOP TIER Detergent Gasoline is not available, one bottle of additive should be added to the fuel tank at every 6,000 miles (10,000 km) (Turbo Model) or every engine oil change. Additives are available from your authorized Kia dealer along with information on how to use them. Do not mix other additives.

## 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 dam-age, battery discharge and fire.

## Vehicle break-in process

By following a few simple precautions for the first 600 miles (1,000 km) 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 1,200 miles (2,000 km) of operation.
- Fuel economy and engine performance may vary depending on vehicle break-in process and be stabilized after 4,000 miles (6,000 km). New engines may consume more oil during the vehicle break-in period.

## 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.

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# Your vehicle at a glance

## Exterior overview

Front view

OBDM011001

* The actual shape may differ from the illustration.


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OBDM011002

* The actual shape may differ from the illustration.


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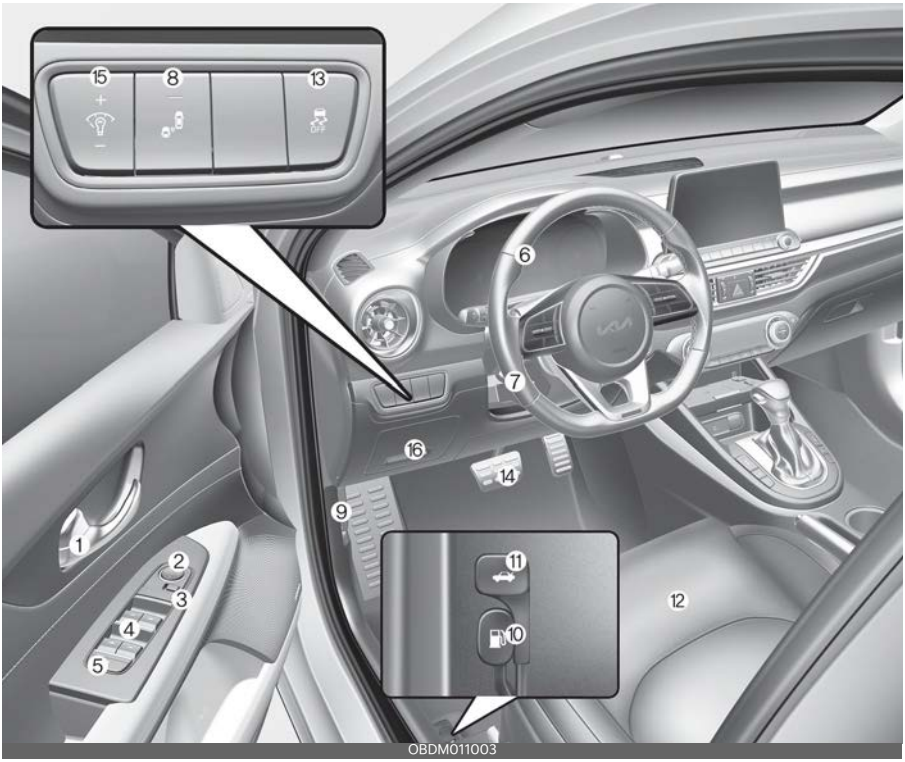
# Interior overview




* The actual shape may differ from the illustration.

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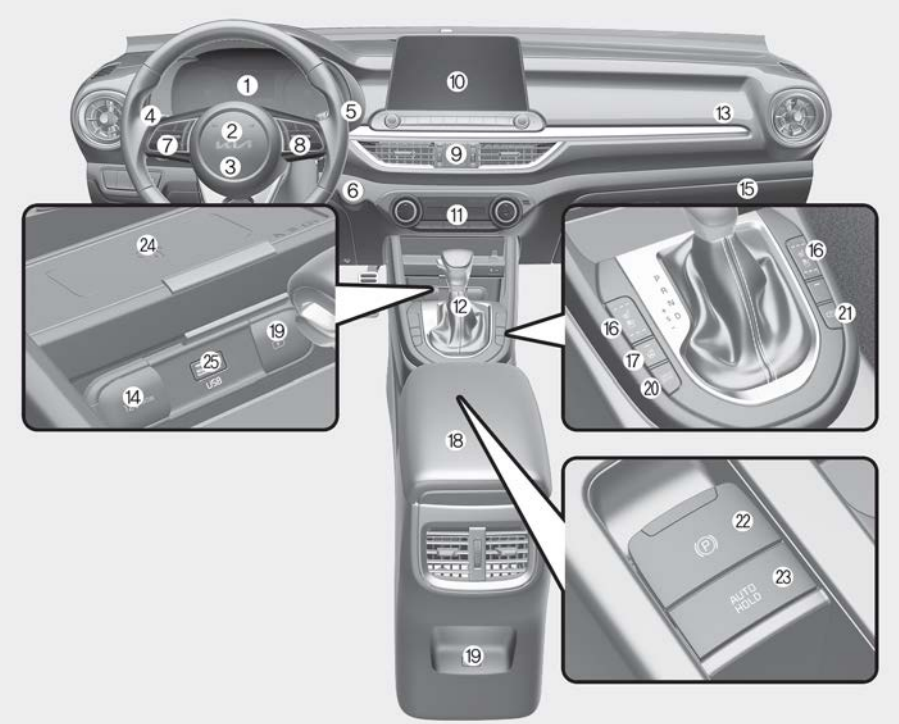
# Instrument panel overview




OBDM011004

* The actual shape may differ from the illustration.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# Engine compartment

(Gasoline) 2.0 MPI

OBD078101L

(Gasoline) 1.6 T-GDi

OBD078135L

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


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# 3 Safety features of your vehicle


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# Safety features of your vehicle

For the safety of the driver and vehicle passengers, you should become familiar with the vehicle's safety features.

## 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. Please refer to your State or Federal laws for child seating requirements in the operation of a motor vehicle.

### 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 states have laws prohibiting drivers from texting. Some states 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.

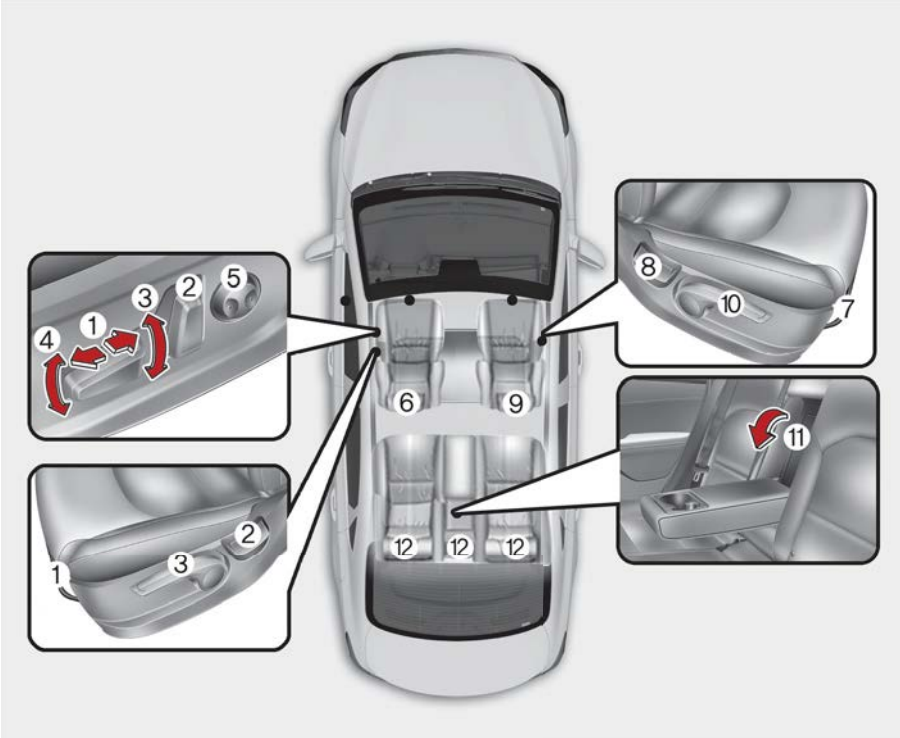
## Control your speed

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 driving 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 conditions frequently, and perform all regularly scheduled maintenance.

# Seats

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## Driver's seat

1. Forward and backward
2. Seatback angle
3. Seat cushion height
4. Seat cushion tilt
5. Lumbar support *
6. Headrest

## Front passenger's seat

7. Forward and backward
8. Seatback angle
9. Headrest
10. Seat cushion height

## Rear seat

11. Armrest*
12. Headrest

* : if equipped

**WARNING**

**Loose objects**

Loose objects in the driver's foot area could interfere with the operation of the foot pedals, possibly causing an accident. Do not place anything under the front seats.

**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 the passenger 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 the 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. For example, 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 10 in (25 cm) 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**

**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 or pile 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.

**⚠ CAUTION**

**Precautions with seat covers**

Use caution when working on the seat cover. A short circuit or disconnection may occur, which could lead to an abnormal noise or damage the ventilation system.

**⚠ WARNING**

**Seat short circuit risk**

Be aware of wires or air vents when placing a seat cover or covering the seat with plastic cover. A short circuit may occur, which could lead to fire.

## Feature of Seat Leather (if equipped)

- 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**

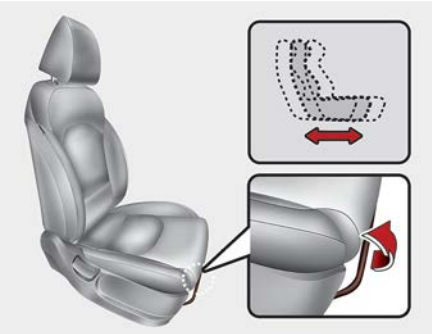
- Belts with metallic accessories, zippers or keys inside the back pocket may damage the seat fabric.
- Make sure not to wet the seat. It may change the nature of leather.
- Jeans or clothes which could bleach may contaminate the surface of the seat covering fabric.

**✻ 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

### Forward and backward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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.

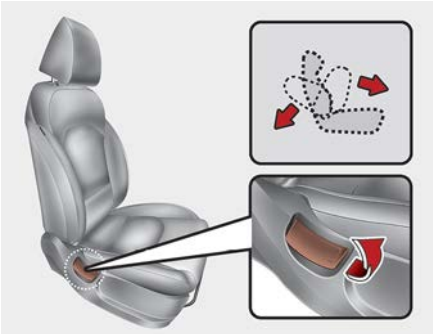
Adjust the seat before driving, and make sure the seat is locked securely by trying to move forward and backward without using the lever. If the seat moves, it is not locked properly.

**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.

## Seatback angle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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.)

**WARNING**

**Reclining seatback**

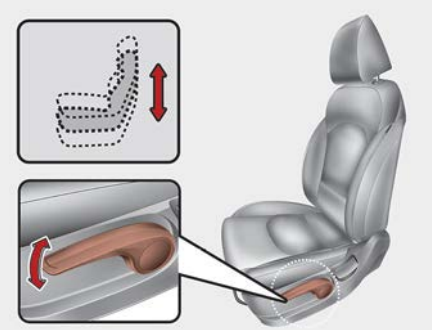
Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and/or air bags) is greatly reduced by reclining your seatback.

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.

## Seat height


OBD031061

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

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

## Front seat adjustment - power (if equipped, for driver's seat)

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.

**⚠ WARNING**

**Unattended children**

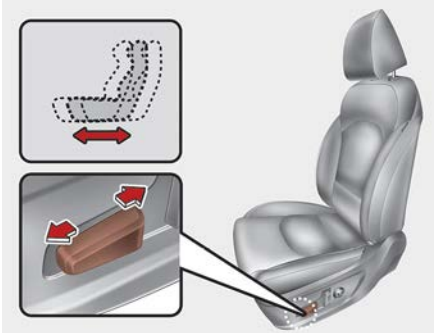
Never leave children unattended in a vehicle. Children might operate features of the vehicle that could injure them.

**⚠ 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.
- When in operation, the power seat consumes a large amount of electrical power. To prevent unnecessary charging system drain, don't adjust the power seat longer than necessary while the engine is not running.

## Forward and backward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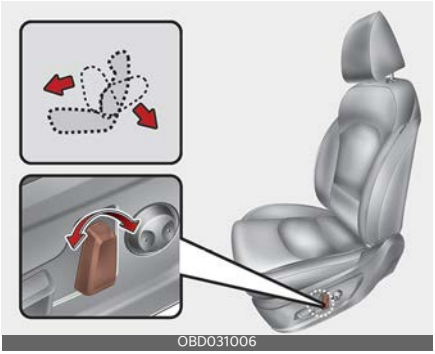
1. Push the control switch forward or backward to move the seat to the desired position.
2. Release the switch once the seat reaches the desired position.

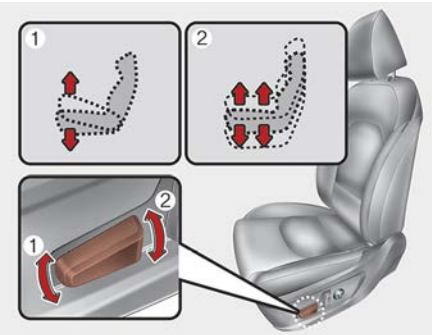
## Seatback angle



OBD031006

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

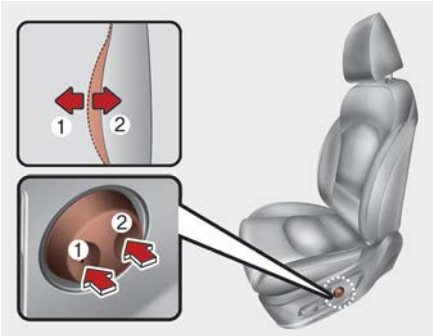
## Seat cushion tilt and height




OBD031007

1. Pull the front portion (1) of the control switch up to raise or press down to lower the front part of the seat cushion.
2. Pull the rear portion (2) of the control switch up to raise or press down to lower the back part of the seat cushion.
3. Release the switch once the seat reaches the desired position.

## Lumbar support (if equipped)

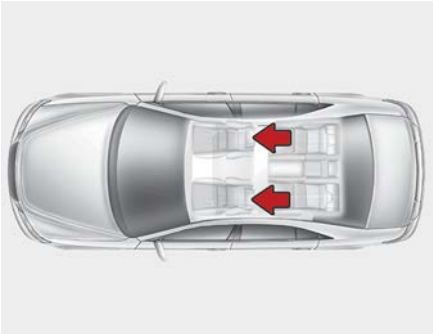



OBD031008

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

1. Press the front portion (1) of the switch to increase support, or the rear portion (2) of the switch, to decrease support.
2. Release the switch once it reaches the desired position.

## Headrest (for front seat)



OBD031212L

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 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.

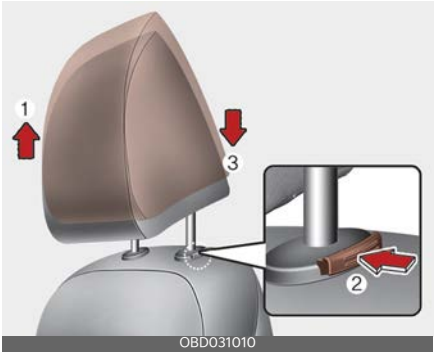
**WARNING**

- Do not operate the vehicle with the headrests removed. Severe injury to the occupants may occur in the event of an accident. Headrests may provide protection against neck injuries when properly adjusted.
- Do not adjust the headrest position of the driver's seat while the vehicle is in motion.

**CAUTION**

Excessive pulling or pushing may damage the headrest.

## Adjusting the height up and down



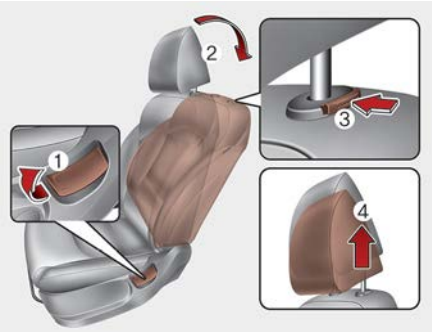

1. Pull it up to the desired position (1).
2. To lower the headrest, push and hold the release button (2) on the headrest support.
3. Lower the headrest to the desired position (3).

**CAUTION**

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.

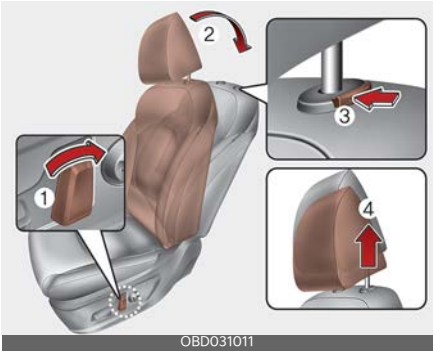
## Removal/Reinstall

Type A




OBD031012

Type B




OBD031011

To remove the headrest:

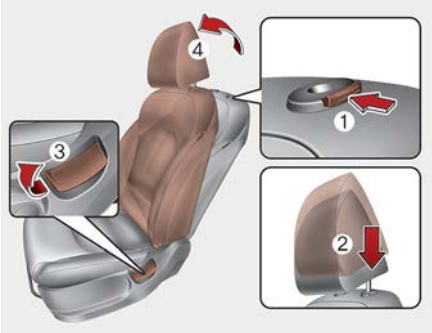
1. Recline the seatback (2) with the recline lever or switch (1).
2. Raise headrest as far as it can go.
3. Press the headrest release button (3) while pulling the headrest up (4).

**WARNING**

**Removing headrest**

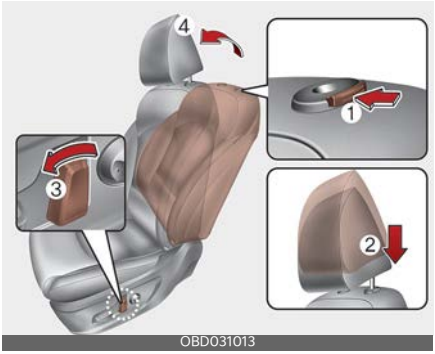
NEVER allow anyone to ride in a seat with the headrest removed.Headrests can provide critical neck and head support in a crash.

Type A




OBD031014

Type B




OBD031013

To reinstall the headrest:

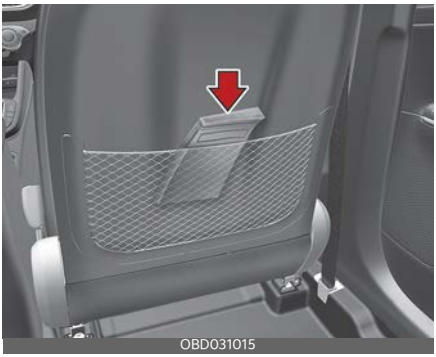
1. Put the headrest poles (2) into the holes while pressing the release button or switch (1).
2. Recline the seatback(4) with the recline lever or switch (3).
3. Adjust the headrest to the appropriate height.

**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)


OBD031015

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

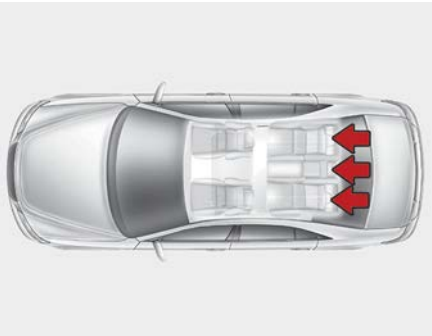
**WARNING**

**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.

## Rear seat adjustment

## Headrest (if equipped)


OBD031211L

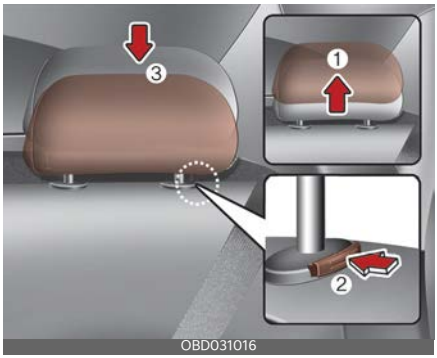
The rear seat is equipped with headrests for the occupant's safety and comfort.

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

**WARNING**

- 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 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.
- Do not operate the vehicle with the headrests removed. Severe injury to an occupant may occur in the event of an accident. Headrests may provide protection against severe neck injuries when properly adjusted.

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

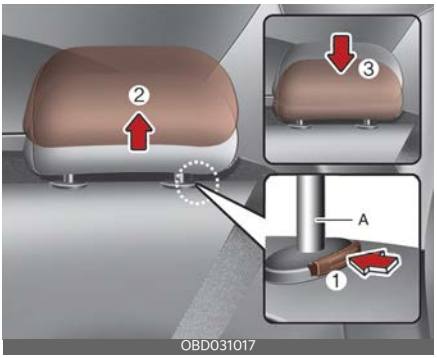


OBD031016

- 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 installation (if equipped)




- To remove the headrest, raise it as far as it can go then press the release button (1) while pulling upward (2).
- To reinstall the headrest, put the headrest poles (A) 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 (if equipped)

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

**NOTICE**

**Folded Seatback**

Do not sit on folded down seatbacks. 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 the seat has important crash protection features and seat belts are not available in this seat configuration.
- To reduce the risk of injury caused by sliding cargo within the passenger compartment of the vehicle, objects carried on the folded down seatback should not extend higher than the top of the front seats.

**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.

### 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.

OBDM031068L

OBD031195

3. Pull on the seatback folding lever located in the trunk. If you pull both seatback folding levers, all rear seatbacks will be folded.
4. To use the rear seat, lift and push the seatback backward. Push the seat back firmly until it clicks into place. Make sure the seatback is locked in place.
5. Return the rear seat belt to the proper position.

**⚠ CAUTION**

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

**⚠ WARNING**

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

**⚠ 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**

When you return the rear seatback to its upright position after being folded down:

Be careful not to damage the seat belt webbing or buckle. Do not allow the seat belt webbing or buckle to get caught or pinched in the rear seat. Ensure that the seatback is completely locked into its upright position by pushing on the top of the seatback. Otherwise, in an accident or sudden stop, the seat could fold down and allow cargo to enter the passenger compartment, which could result in serious injury or death.

**⚠ 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**

**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.

**⚠ WARNING**

**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

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.

### 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 the event of a crash.
- Always wear both the shoulder portion and lap portion of the lap/shoulder belt.

**⚠ WARNING**

**Damaged seat belt**

Any damage in webbing or hardware may lead to serious injury or death in a crash. For your safety, the entire seat belt assembly should be replaced by an

authorized Kia dealer if any part of the seatbelt webbing or hardware is damaged.

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.
- When fastening the seat belt, make sure that the seat belt does not pass over objects that are hard or can break easily.

**⚠ WARNING**

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.

**⚠ 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 seat belt warning light will illuminate for approximately 6 seconds each time you turn the ignition switch or the ENGINE START/STOP button is in ON regardless of belt fastening and warning chime will sound for approximately 6 seconds each time you turn the ignition switch or the ENGINE START/STOP button is in ON when the belt is unfastened. If a driver continue not to fasten the seat belt and drives below 12 mph (20km/h), the warning light will stay illuminated.If a driver continue not to fasten the seat belt while driving over 12 mph (20km/h) the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.If a driver unfastens the seat belt while driving below 12 mph (20km/h), the warning light will stay illuminated.If a driver unfastens the seat belt while driving over 12 mph (20km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

**NOTICE**

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

## Front passenger's seat belt warning

OBDM031020

As a reminder to the front passenger, the front passenger's seat belt warning lights will illuminate for approximately 6 seconds each time you turn the ignition switch or the ENGINE START/STOP button in ON regardless of belt fastening.

If the front passenger continue not to fasten the seat belt and drives below 12 mph (20km/h), the warning light will stay illuminated.

If the front passenger continue not to fasten the seat belt while driving over 12 mph (20km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

If the front passenger unfastens the seat belt while driving below 12 mph (20km/h), the warning light will stay illuminated.

If the front passenger unfastens the seat belt while driving over 12 mph (20km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

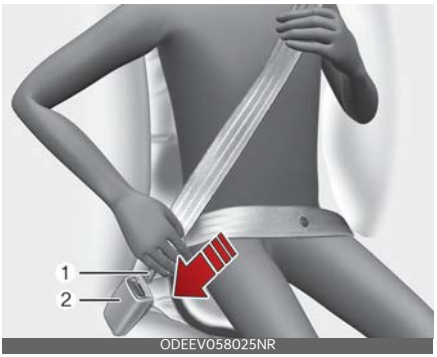
**NOTICE**

- Even if the front passenger seat is not occupied, the seat belt warning light will illuminate 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.

## Fastening the your seat belt:



ODEEV058025NR

- 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.

ODEEV058026NR

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.

## Releasing the seat belt:

ODEEV058078NR

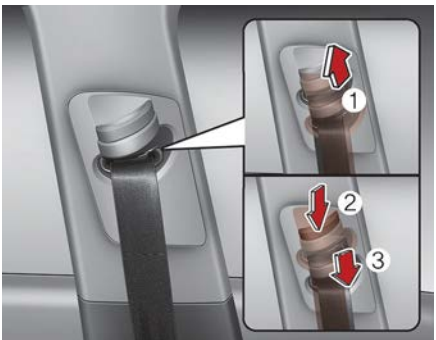
- Press the release button (1) in the locking buckle.

When it is released, the belt should automatically draw back into the retractor.

If this does not happen, check the belt to be sure it is not twisted, then try again.

## Adjusting the height of shoulder belt

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



ODEEV058027NR

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 midway 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 belts.

## Fastening your seat belt:

Combination retractor type seat belts are installed in the rear seat positions to help accommodate the installation of Child Restraint System. 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).

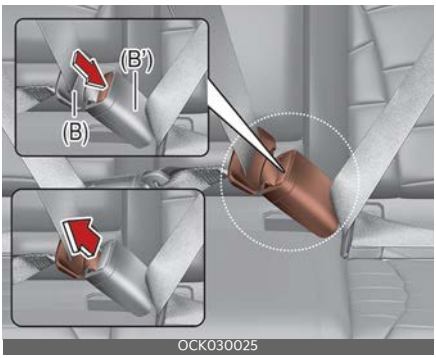
**✻ NOTICE**

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**

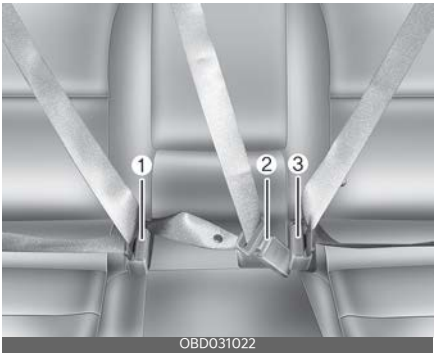
Do NOT fold down the left portion of the rear seatback when the rear center seat belt is buckled. ALWAYS UNBUCKLE the rear center seat belt before folding down the left portion of the rear seatback. If the rear center seat belt is buckled when the left portion of the rear seatback is folded down, distortion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

Pull the metal tab (B) and insert it (B) into the buckle (B'). There will be an audible "click" when the tab locks into the buckle. Make sure the belt is not twisted.



OCK030025

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



OBD031022

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

**⚠ WARNING**

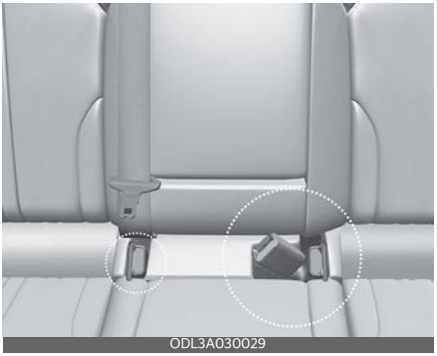
Prior to fastening the rear seat belts, ensure the latch matches the seat belt buckle. Forcefully fastening the left or right seat belt to the center buckle can result in an improper fastening scenario that will not protect you in an accident.

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

OBD031023

## Stowing the rear seat belt

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




1. Route the seat belt webbing through the rear seat belt guides. It will help keep the belts from being trapped behind or under the seats.
2. After inserting the seat belt, tighten the belt webbing by pulling it up.

**⚠ CAUTION**

When pulling out to wear the seat belt, the tongue should be slowly pulled out of the seat belt guide so that the seat belt guide does not come off the trim.

## 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, depending on the crash severity, angle, speed and point of impact of the frontal collision.

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

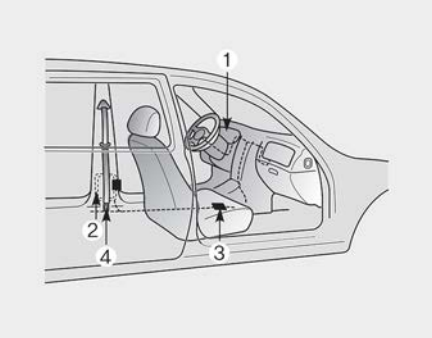
   The purpose of the retractor pre-tensioner is to make sure that the shoulder belts fit in tightly against the occupant's upper body in certain frontal collisions.
2. EFD (Emergency Fastening Device) (for front seat belt)

   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 detects 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 with fine dust, which may appear to be smoke, may be visible in the passenger compartment. These are normal operating conditions and are not hazardous.



ORP036066L

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

1. SRS air bag warning light
2. Front retractor pre-tensioner assembly
3. SRS control module
4. Emergency fastening device (EFD) (for front seat belt)

**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 breathed for prolonged periods.

**NOTICE**

- Both the driver's and front passenger's seat belt pre-tensioner system 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 illuminate for approximately 6 seconds after the ignition switch or ENGINE START/STOP button 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 illuminate even if there is not a malfunction with the SRS air bag. If the SRS air bag warning light does not illuminate when the Ignition switch or ENGINE START/STOP button is turned ON, or if it remains illuminated after illuminating for approximately 6 seconds, or if it illuminates 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 pretensioner**

Do not touch the pre-tensioner seat belt assemblies for several minutes after they have been activated. When the pre-tensioner seat belt mechanism activates 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

### Infant or small child

All 50 states have child restraint laws. You should be aware of the specific requirements in your state. 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 Federal Motor Vehicle Safety Standards. Before buying any child restraint system, make sure that it has a label certifying that it meets Federal Motor Vehicle Safety Standard 213. 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.

### 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 snugged on the hips as low as possible. Check periodically to ensure 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 without an appropriate child restraint system.

### 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.

### 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. Please handle with care, as they could burn infants and children, if used abruptly.

## 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. Chemical substances should not be used on seat belts to prevent any damage. Heated up seatbelts may burn infants and children.

## 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

**⚠ WARNING**

**Restraint Location**

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

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.

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.

All 50 states 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 states, so you should be aware of the specific requirements in your state, and where you are travelling.

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 Federal Motor Vehicle Safety Standards (FMVSS).

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 child restraint.

**⚠ WARNING**

**Child Restraint Installation**

An improperly secured child restraint 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.
- 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 shall be readjusted or entirely removed.
- Do not use an infant carrier or a child safety seat that "hooks" over a seatback, it may not provide adequate protection in an accident.

**NOTICE**

If the vehicle has 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 Federal Motor Vehicle Safety Standards (FMVSS 213).
- 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**

Never leave children unattended in a vehicle. The car can heat up very quickly, resulting in injuries to the child in the vehicle.

**WARNING**

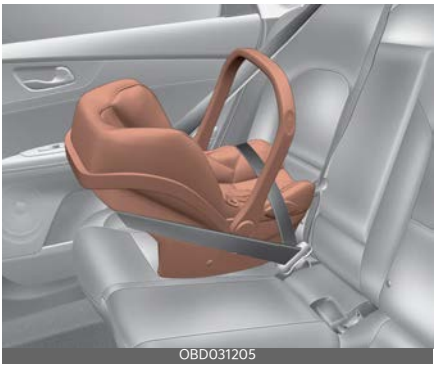
**Seat Belt Use**

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

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A forward-facing child seat provides restraint for the child's body with a harness. Keep children in a forwardfacing 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 in 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.

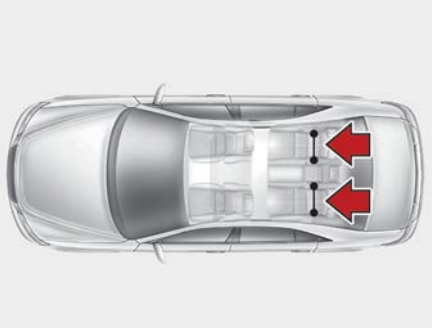
## Lower Anchors and Tether for Children (LATCH) System

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.



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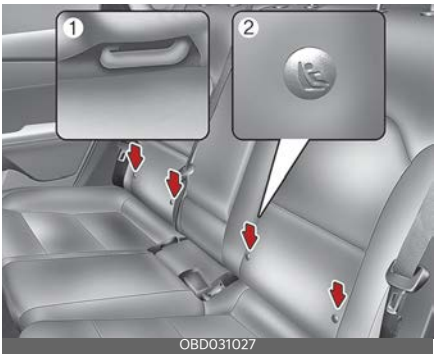
LATCH anchors have been provided in the left and right outboard rear seating positions. Their locations are shown in the illustration. There are no LATCH anchors provided for the center rear seating position.

**⚠ 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.

The lower anchor position indicator symbols are located on the left and right rear seat backs to identify the position of the lower anchors in your vehicle (see arrows in illustration).




OBD031027

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.

* (1) : Lower Anchor
  (2) : Lower Anchor position symbol

## 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 seat belt following the instructions in the "Automatic locking mode" subsection, and place the webbing behind the child seat or against an unused seat back. 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.

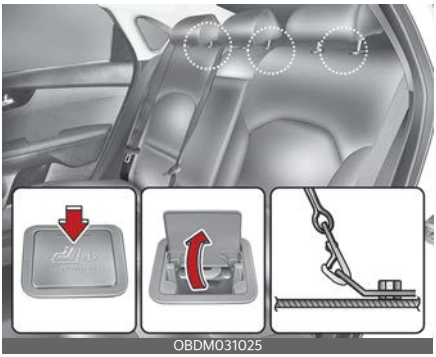
**NOTICE**

The recommended maximum weight for the LATCH system is 65 lbs. (30 kg). When selecting a proper child restraint, consider that the maximum total weight of the child plus the child restraint should be less than 65 lbs (30 kg).

As a guide, the MAX child restraint weight should be determined by the following calculation:

Child Restraint Weight = 65 - (child's total weight in lbs.)

## 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 back of the rear seatbacks.

**⚠ 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.

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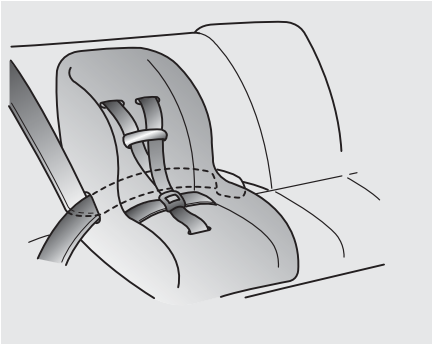
To install the tether anchor:

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.

### Installing a Child Restraint System with a lap/shoulder belt



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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 secure a child restraint system, use the following procedure.

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.

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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.

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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.

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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.

**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.

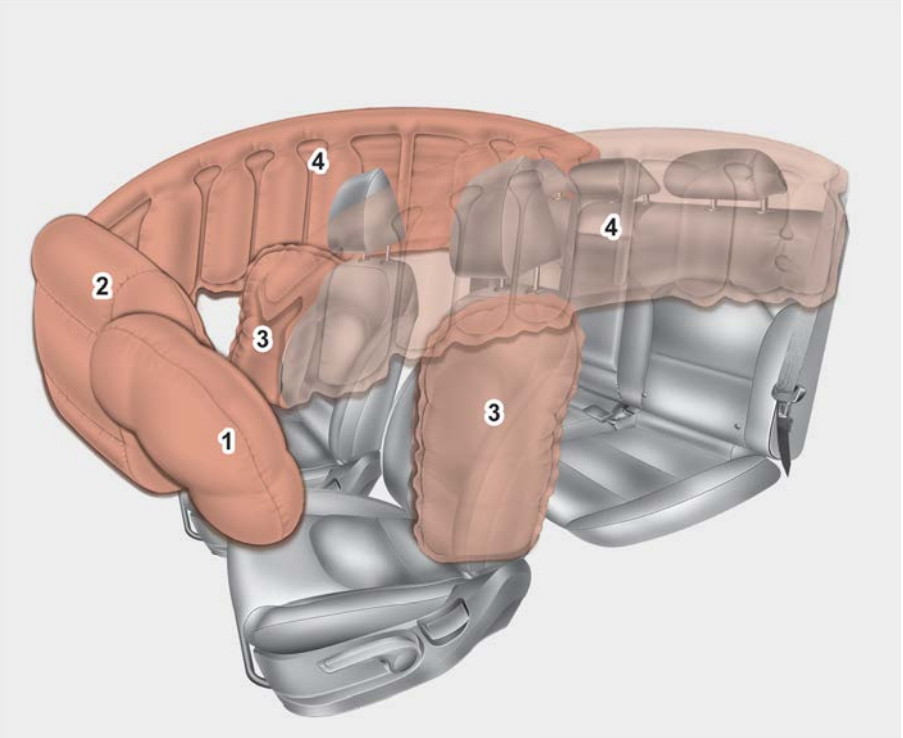
**WARNING**

**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.

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

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* 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 or ENGINE START/STOP button is turned to the ON or engine is running.
- 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.
- There is no single speed at which the air bags will inflate.

  Generally, air bags are designed to inflate based upon the severity of a collision and its direction. These two factors determine whether the sensors produce an electronic deployment/ inflation signal.
- Air bag deployment depends on a number of factors including vehicle speed and angles of impact. The determining factors are not limited to those mentioned above.
- 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 the 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 your vehicle. A distance of at least 10" 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 discomfort 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.

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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**

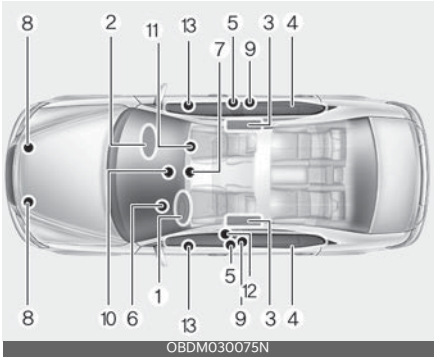
**Air bag deployment**

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

## 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.

## SRS components and functions




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. PASSENGER AIR BAG “OFF” indicator (Front passenger’s seat only)
11. Occupant detection system (Front passenger’s seat only)
12. Emergency fastening device (EFD) (for front seat belt)
13. Side pressure sensors

If the air bag warning light is illuminated for more than 6 seconds after the ignition switch or ENGINE START/STOP button is turned on, or if it illuminates 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 ENGINE START/STOP button 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 or ENGINE START/STOP button to the ON position.

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 (1)

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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 covers then allows full inflation of the air bags.

Driver's front air bag (2)

ODEEV058049NR

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.

Driver's front air bag (3)

ODEEV058050NR

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

ODEEV058051NR

**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 or ENGINE START/STOP button is in the ON position. If the SRS air bag warning light does not illuminate, or continuously remains on after illuminating for about 6 seconds when the ignition switch is turned to the ON position, or after the engine is started, 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, turn the ignition switch or ENGINE START/STOP button to the OFF position.

Never remove or replace the air bag related fuse (s) when the ignition switch or ENGINE START/STOP button to the ON position. Failure to heed this warning will cause the SRS air bag warning light to illuminate.

## Occupant Detection System (ODS)

OBDM031064

OBDM031065

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's 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 illuminates 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 seatback 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 facia 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 seat back.

## 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.

**CAUTION**

- Do not install a child restraint seat 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 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**

**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.

**NOTICE**

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

**NOTICE**

Do not modify or replace the front passenger seat. Don't 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.

ODEEV058055NR

- Do not place feet on the front passenger seatback.

ODEEV058056NR

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

ODEEV058057NR

- Never excessively recline the front passenger seatback.

ODEEV058002NR

- Never place feet on the dashboard.

ODEEV058059NR

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

ODEEV058061NR

- Never lean on the door or center console.

- Do not sit with your weight excessively skewing to the left or right on the front passenger seat.

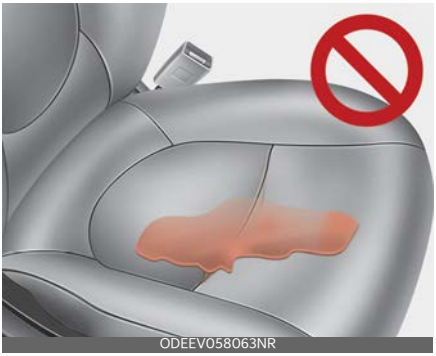
ODEEV058060NR

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

ODEEV058062NR

- 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 illuminate or malfunction. If any liquid is spilled, make sure the seat has been completely dried before driving the vehicle.


ODEEV058063NR

Proper position

ODEEV058064NR

When an adult is seated in the front passenger seat, if the PASSENGER AIR BAG "OFF" indicator is on, turn the ignition switch or ENGINE START/STOP button to the OFF position and ask the passenger to sit 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). Restart the engine 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 illuminated, 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 yourself may lead to air bag deactivation resulting in air bag non-deployment in a collision. If the PASSENGER AIR BAG "OFF" indicator remains illuminated after the passenger repositions themselves properly and the car is restarted, it is recommended that passenger move to the rear seat because the passenger's front air bag will not deploy.

**NOTICE**

The PASSENGER AIR BAG "OFF" indicator illuminates for about 4 seconds after the ignition switch or ENGINE START/STOP button is turned to the ON position or after the engine 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 13 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 PASSENGER AIR BAG "OFF" indicator is illuminated when the front passenger's seat is occupied by an adult and he/she sits 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), have that person sit in the rear seat.

Any child age 13 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 illuminate 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 illuminate 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

Driver’s front air bag

OBDM031029L

Passenger’s front air bag

OBD031031

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

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 sensors determine if the driver and front passenger's seat belts are 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.

**NOTICE**

The driver’s hands should be placed on the steering wheel at the 9:00 and 3:00 positions. The passenger’s arm and hands should be placed on their laps.

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" in this chapter.

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 Assistance center at 1- 800-333-4Kia. 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 pre-tensioner 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**

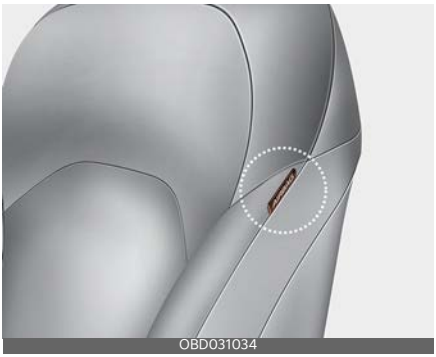
**No attaching objects**

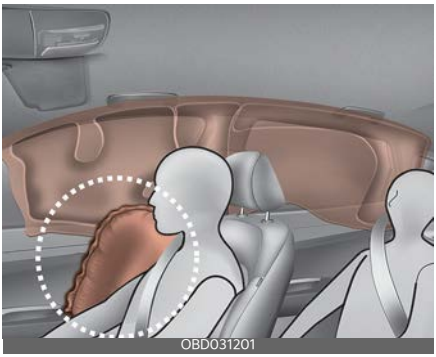
- No objects (such as crash pad cover, cellular phone holder, cup holder, perfume or stickers) should be placed over or near the air bag modules on the steering wheel, instrument panel, windshield glass, and the front passenger's panel above the glove box. Such objects could cause harm if the vehicle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




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

Your vehicle is equipped with a side air bag in each front seat. 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, angle, speed and point of impact. However, when side deployment threshold is satisfied at front impact, side air bags may deploy.
- 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 ENGINE START/STOP button 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 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.

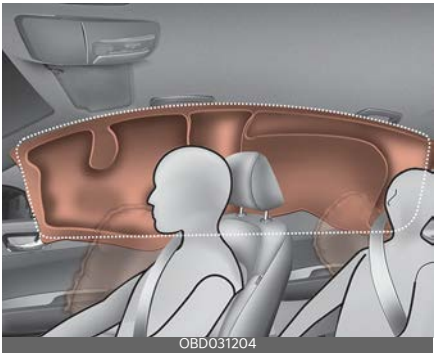
**⚠ WARNING**

**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 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 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.
- Do not install any accessories on the side or near the side air bags.

## Curtain air bag

OBD031035


OBD031204

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

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

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 crash severity, angle, speed and point 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 the air bag inflates such as the door, side door glass, front and rear pillar, roof side rail.
- Do not hang hard or breakable objects on the coat hook.

**Why didn't my air bag deploy 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 collision sensors

OBDM031037L

(1)

OBDM031036L

(2)

OBDM031039L

(3)

OBDM031038L

(4)

OBDM031041L

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

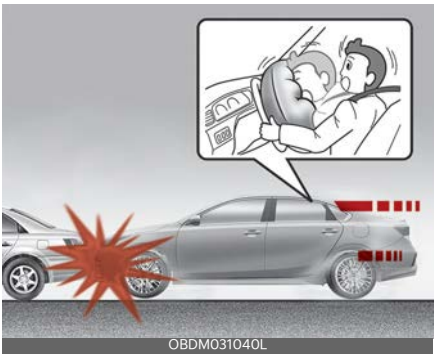
Problems may arise if the sensor installation angles are changed due to the deformation of the front bumper, front end module, body or front doors where side collision sensors are installed. Have the vehicle checked and repaired by an authorized Kia dealer.

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.

## Air bag inflation conditions

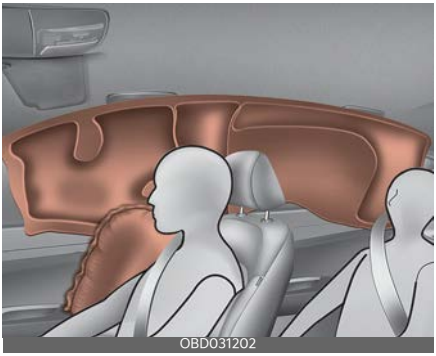
### Front air bags


OBDM031040L

Front air bags are designed to inflate in a frontal collision depending on the intensity, speed or angles of impact of the front collision.

### Side and/or curtain air bags

OBDM031043L




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

Side and/or curtain air bags are designed to inflate when an impact is detected by side collision sensors depending on the strength, speed or angles 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.

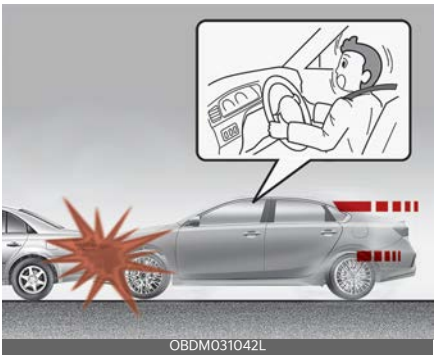
Although the front air bags (driver's and front passenger's air bags) are designed to inflate in frontal collisions, they also may inflate in other types of collisions if the front impact sensors detect a sufficient frontal force in another type of impact. Side and curtain air bags are designed to inflate in certain side impact collisions. They may inflate in other types of collisions where a side force is detected by the sensors. Side air bag and/or curtain air bags may also inflate where 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 where side and/or curtain air bags would not provide impact protection in a rollover, however, 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 unpaved roads, the air bags may deploy. Drive carefully on unpaved 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.

OBDM031044L

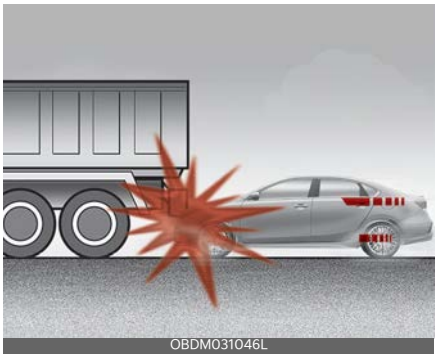
- Front air bags may not inflate in side impact collisions, because occupants move to the direction of the collision, and thus in side impacts, frontal air bag deployment would not provide additional occupant protection.

OBDM031045L

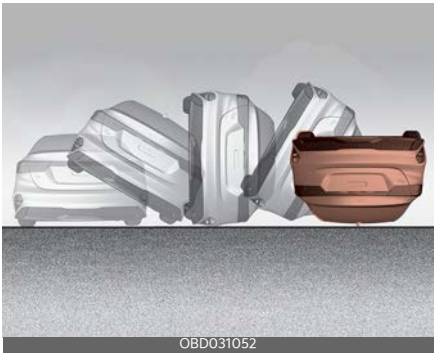
- In an angled collision, the force of impact may direct the occupants in a direction where the air bags would not be able to provide any additional benefit, and thus the sensors may not deploy any air bags.

OBD031203

- 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.


OBDM031046L

- Front air bags may not inflate in all rollover accidents where the SRSCM indicates that the front air bag deployment would not provide additional occupant protection.


OBD031052

- 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.

OBDM031049L

## 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 illuminate, 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**

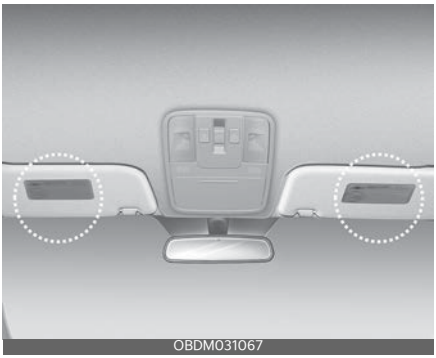
**Towing Vehicle**

Always have the ignition switch or ENGINE START/STOP button in the OFF position 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 rollover 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 U.S. National Highway Traffic Safety Administration (NHTSA), 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. If 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

ODL3A041654

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

**⚠ CAUTION**

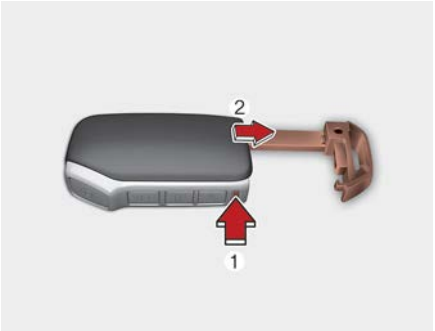
**Key button operation**

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 (1) and remove the mechanical key (2).

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 (Smart 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.

## Remote keyless entry (if equipped)

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

### Remote keyless entry system operations

Folding key

ODL3A041655

Smart key - Type A

OBDM041620L

Smart key - Type B

ODL3A041656

## 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 smart key) 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 smart key) 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.

You can activate or deactivate 2 Press Unlock setting function by selecting 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Door →2 Press Unlock'.

## Trunk open (3)

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

## 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, if equipped)

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 ft (10 m) distance from the vehicle.
- Press the remote start button for over 2 seconds within 4 seconds after locking the doors and the hazard warning will blink.

Press the remote start button (5) once to turn 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.

## Remote keyless entry precautions

The remote keyless entry will not work if any of the following occurs:

- The ignition key is in the ignition switch. (if equipped)
- You exceed the operating distance limit. (about 32 ft [10 m].)
- The battery in the remote keyless entry is weak.
- Other vehicles or objects may be blocking the signal.
- The weather is extremely cold.
- The remote keyless entry 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 remote keyless entry does not work properly, open and close the door with the ignition key. If you have a problem with the remote keyless entry, contact an authorized Kia dealer.

- If the remote keyless entry is in close proximity to your cell phone or smart phone, the signal from the remote keyless entry 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 remote keyless entry and your cell phone or smart phone in the same pants or jacket pocket and maintain adequate distance between the two devices.

**⚠ CAUTION**

Transmitter Keep the transmitter away from water or any liquid as, it can become damaged and not function properly.

**✻ 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.

## Battery replacement

A battery should last for several years, but if the remote keyless entry is not working properly, try replacing the battery with a new one.

OSK3048402NR

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

1. Remove the mechanical key. (for smart key)
2. Insert a slim tool into the slot and gently pry open the folding key or smart key cover.
3. Replace the battery with a new battery (CR2032). When replacing the battery, make sure the battery position is correct.

4. 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 remote keyless entry 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 remote keyless entry 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**

**Remote keyless entry damage**

The remote keyless entry can malfunction if dropped, exposed to moisture, static electricity, heat or direct sunlight.

## 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.

**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.

# Smart key (if equipped)

Type A

OBDM041620

Type B

ODL3A041657

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

The functions of buttons on a smart key are similar to the folding key.

Refer to "Remote keyless entry (if equipped)" on page 4-7.

## Smart key functions

Carrying the smart key, you may lock and unlock the vehicle doors (and trunk). Also, you may start the engine.

## Locking

OBD041033

Pressing the button of the front driver side door handles with all doors (and trunk) closed and any door unlocked, locks all the doors (and trunk). If all doors (and trunk) and engine hood are closed, the hazard warning lights will blink once and the chime will sound once to indicate the vehicle is locked.

The button will only operate when the smart key is within 28~40 inches (0.7~1 m) from the driver side door handle. If you want to make sure that a door has locked or not, you should pull the driver side door handle.

Even though you press the driver side door handle buttons, the doors will not lock and the chime will sound for 3 seconds if any of following occur:

- The smart key is in the vehicle.
- The ENGINE START/STOP button is in the ACC or ON position.
- Any door except the trunk is open.

## Unlocking

Pressing the button of the front outside door handle, with all doors (and trunk) closed and locked, unlocks all the doors (and trunk), if the 2 Press Unlock function is deactivated.

The button will only operate when the smart key is within 28~40 inches (0.7~1 m) from the outside door handle.

When the 2 Press Unlock function is activated:

- If you press the Door Unlock button on the smart key, the driver's door will unlock.
- If you press the Door Unlock button on the smart key within four seconds again, then all the doors will unlock.
- If you press the driver's outside door handle button, the driver's door will unlock.
- If you press the driver's outside door handle button within four seconds again, then all the doors will unlock.

You can activate or deactivate 2 Press Unlock setting function by selecting 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Door →2 Press Unlock'.

## Trunk unlocking

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

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

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

## Start-up

You can start the engine without inserting the key.

For detailed information refer to "ENGINE START/STOP button (if equipped)" on page 5-11.

**✻ NOTICE**

**Loss of the smart key**

A maximum of 2 smart keys can be registered to a single vehicle.

If you lost your smart key, you will not be able to start the vehicle. You should immediately take the vehicle and remaining key to your authorized Kia dealer (tow the vehicle, if necessary) to protect it from potential theft.

## Smart key precautions

The smart key may not work if any of the following occur:

- 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 and 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 when 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.

**⚠ CAUTION**

**Transmitter**

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

**✻ 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.

**✻ NOTICE**

To prevent the electronic key from becoming damaged by magnetic fields, do not leave it near the following electrical appliances:

- TVs
- Personal computers
- Cellular phones, cordless phones and battery chargers
- Table lamps
- Induction cookers

**✻ NOTICE**

If you have to leave the vehicle's key with a parking attendant, remove the mechanical key for your own use and provide the attendant with the electronic key only.

**✻ NOTICE**

When bringing a smart key onto an airplane, make sure you do not press any button on the key while inside the cabin. If you are carrying the key in your bag etc., make sure that the buttons cannot be pressed accidentally. If you press a button, the key may emit radio waves that could interfere with the operation of the aircraft.

## 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.

**✻ 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.

# Immobilizer System

## Folding key immobilizer system

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.

**NOTICE**

When starting the engine, do not use the key with other immobilizer keys around. Otherwise, the engine may not start or may stop soon after it starts.

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 and 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.

**NOTICE**

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.

### 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.
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.

## Smart key immobilizer system

The immobilizer system protects your vehicle from theft. If an improperly coded key (or other device) is used, the vehicle's power system is disabled.

When the ENGINE START/STOP button is placed in the ON position, the immobilizer system indicator should come on briefly, then go off. If the indicator starts to blink, the system does not recognize the coding of the key.

Place the ENGINE START/STOP button in the OFF position, then place the ENGINE START/STOP button in the ON position again.

If the system repeatedly does not recognize the coding of the key, contact an authorized Kia dealer.

Do not attempt to alter this system or add other devices to it. Electrical problems could result that may make your vehicle inoperable.

**✻ NOTICE**

When starting the vehicle, do not use the key with other immobilizer keys around. Otherwise, the vehicle may not start or may stop soon after it starts. Keep each key separate in order to avoid a starting malfunction.

**✻ NOTICE**

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

## This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

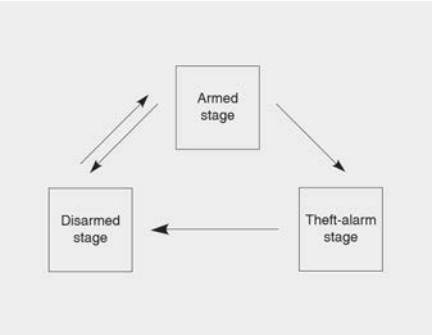
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

**✻ 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.

# Theft-alarm system

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 trunk 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 trunk) 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 trunk 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 folding key

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 trunk) and the engine hood are closed and latched.
3. Lock the doors by pressing the lock button on the folding key.

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

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

**✻ NOTICE**

The theft-alarm system can be deactivated by an authorized Kia dealer.

If you want this feature, consult an authorized Kia dealer.

**✻ 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 trunk) 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 trunk 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 folding key or smart key.

## Disarmed stage

The system will be disarmed when:

### Folding key

- 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 trunk) 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 folding key, insert the key into the ignition switch (if equipped), 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**

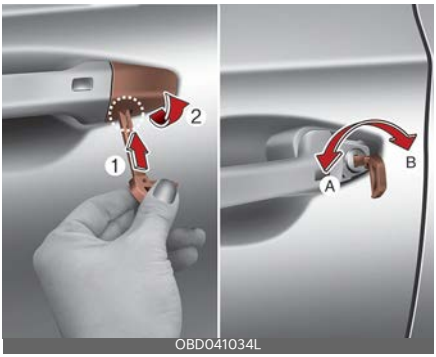
Malfunctions caused by improper alterations, adjustments or modifications to the theft-alarm system are not covered by your vehicle manufacturer warranty.

# Door locks

Know how to use the door lock so that you can lock or unlock the door if necessary.

## Operating door locks from outsidethe vehicle

### Mechanical key




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 unlock and toward the front of the vehicle to lock.
- If you Lock (A)/Unlock (B) the driver's door with a key, a driver's doors will lock/unlock.
- 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.

### Folding key/Smart key

- Door can be locked and unlocked with the folding key/smart key.
- Door can be locked and unlocked pressing the button of the outside door handle with the smart key in your possession.
- 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 that doors are closed securely.

**NOTICE**

- When removing the cover, be careful not to create any scratches or lose the cover.
- When the key cover freezes and does not open, lightly tap or indirectly warm (hand temperature, etc.) it.
- Do not apply excessive force to the door and door handle. It may be damaged.
- 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 open during vehicle operation.
- Keep your body out of the way of the closing door to prevent injuries.

**⚠ WARNING**

If people must spend a longer time in the vehicle while it is very hot or cold outside, there is risk of injuries or danger to life. Do not lock the vehicle from the outside when there are people in it.

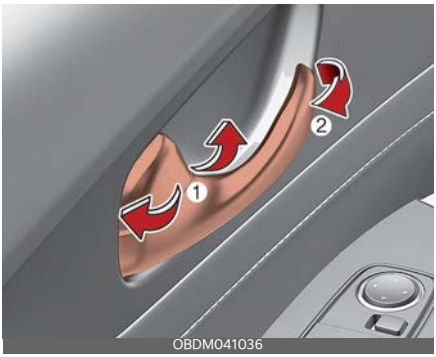
**✻ NOTICE**

Always place the ignition key or ENGINE START/STOP button in 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

You can operate door locks with the door lock handle or central door lock/unlock switch.

### With the door handle




- To unlock a door, push the door lock button (1) to the "Unlock" position. The red mark on the handle 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 handle 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.
- Front doors cannot be locked if the ignition key is in the ignition switch and any front door is opened.
- Doors cannot be locked if the smart key is in the vehicle and a door is open.

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:

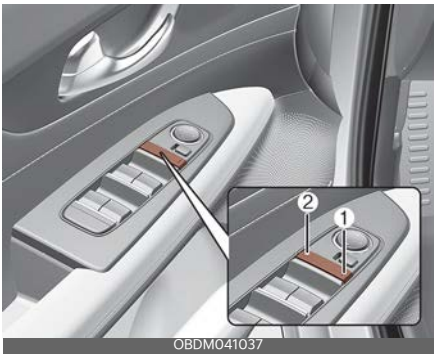
- Operate the door unlock feature repeatedly (both electronic and manual) while simultaneously pulling on the door handle.
- Operate the other door locks and handles, front and rear.
- Lower a front window and use the key to unlock the door from outside.

**⚠ WARNING**

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

## With central door lock/unlock switch

Driver side



OBDM041037

Passenger side

OBD041406L

1. Door Lock
2. Door Unlock

Operate by pressing the central door lock/unlock switch.

- Press the switch to the "Lock" position (1), all vehicle doors will lock.
- Press the switch to the "Unlock" position (2), all vehicle doors will unlock.
- If the key is in the ignition switch (or if the smart key is in the vehicle) and any front door is opened, the doors will not lock when the "Lock" position (1) of the central door lock/unlock 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.
- Be careful when opening doors and watch for vehicles, motorcycles, bicycles or pedestrians approaching the vehicle in the path of the door. Opening a door when something is approaching can cause damage or injury.

**⚠ WARNING**

**Unlocked vehicles**

Leaving your vehicle unlocked can invite theft or possible harm to you or others from someone hiding in your vehicle while you are gone. Always remove the ignition key, engage the parking brake, close all windows and lock all doors when leaving your vehicle unattended.

**⚠ 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

The vehicle is equipped with door lock/unlock features for the safety and convenience of passengers.

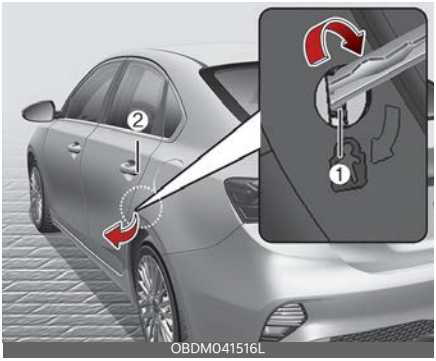
## Impact sensing door unlock system

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

**NOTICE**

You can activate or deactivate some Automatic door lock/unlock features by selecting 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Door → Automatically Lock/Automatically Unlock'.

## Child-protector rear door lock




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.

1. Open the rear door.
2. Insert a key (or screwdriver) into the hole (1) and turn it to the lock ( ) position. When the child safety lock is in the lock position, the rear door will not open even though the inner door handle is pulled.
3. Close the rear door.

To open the rear door, pull the outside door handle (2).

Even though the doors may be unlocked, the rear door will not open by pulling the inner door handle until the rear door child safety lock is unlocked.

**WARNING**

**Rear door locks**

If children accidentally open the rear doors while the vehicle is in motion, they could fall out and be severely injured or killed. To prevent children from opening the rear doors from the inside, the rear door safety locks should be used whenever children are in the vehicle.

## Rear Occupant Alert (ROA) system

The Rear Occupant Alert (ROA) system is provided to help prevent exiting the vehicle with the 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.

OBD041654N

You can activate or deactivate the Rear Occupant Alert by selecting 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Convenience → Rear Occupant Alert'.

**⚠ 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.

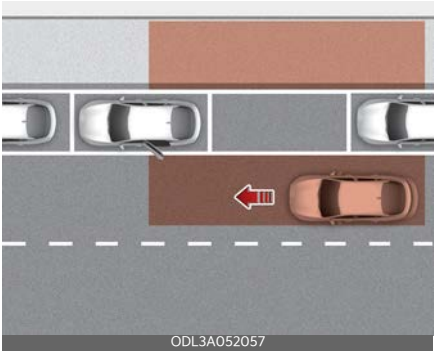
**⚠ CAUTION**

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.

## Safe Exit Warning (SEW) (if equipped)


ODL3A052057

After the vehicle stops, when an approaching vehicle from the rear area is detected after a passenger opens the 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

OBDM052367N

[1] : 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 radars, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-87.

## Safe Exit Warning setting

### Safe Exit Warning

OBD041260L

With the ignition switch or the ENGINE START/STOP button in the ON position, and select 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Driver Assistance → Blind-Spot Safety → Safe Exit Warning' to turn on Safe Exit Warning and deselect to turn off the function.

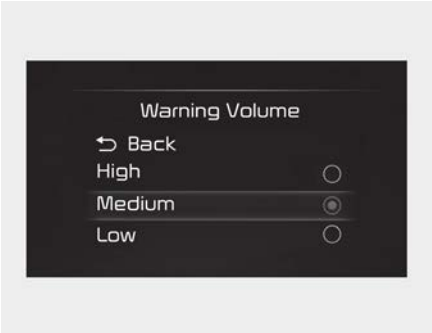
**WARNING**

The driver should always be aware of his or her surroundings. If 'Safe Exit Warning' is deselected, the function cannot assist you.

**NOTICE**

If the engine is restarted, Safe Exit Warning will maintain the last setting.

### Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, and select 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Driver Assistance → Warning Volume' to change the Warning Volume to 'High', 'Medium' or 'Low' for Safe Exit Warning.

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 Safe Exit Warning.

## Safe Exit Warning operation

### Warning

#### Collision warning when exiting vehicle

OBDM041669

OBD041261L

- When an approaching vehicle from the rear is detected at the moment a door is opened, the 'Watch for traffic' warning message will appear on the cluster, the warning light will illuminate on the outside rear view mirror and an audible warning will sound.
- Safe Exit Warning will warn the driver when your vehicle speed is below 2mph (3km/h), and the speed of the approaching vehicle from the rear is above 4 mph (6 km/h).

**WARNING**

Take the following precautions when using Safe Exit Warning:

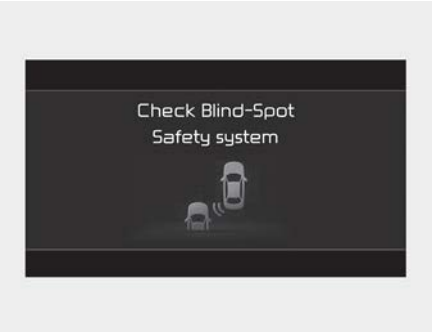
- For your safety, change the Settings after parking the vehicle at a safe location.
- If any other function's warning message is displayed or audible warning is generated, Safe Exit Warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of 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 on the road and driving conditions. Always check vehicle surroundings.
- The driver and passengers are responsible for accidents that occur while exiting the vehicle. Always check the surroundings before you exit the vehicle.

**NOTICE**

After the engine is turned off, Safe Exit Warning operates approximately for 3 minutes, but turns off immediately if the doors are locked.

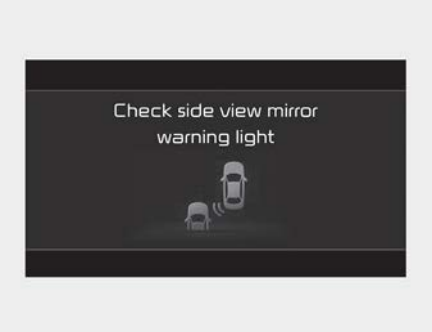
## Safe Exit Warning malfunction and limitations

### Safe Exit Warning malfunction




OBD041239L

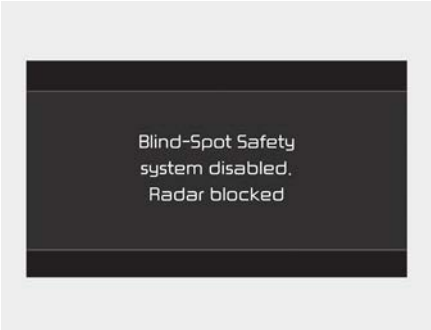
When Safe Exit Warning is not working properly, the 'Check Blind-Spot Safety system' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. In this case, have the vehicle inspected by an authorized Kia dealer.




OBD041240L

When the outside rear view mirror warning light is not working properly, the 'Check side view mirror warning light' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will appear on the cluster. In this case, have the vehicle inspected by an authorized Kia dealer.

### Safe Exit Warning disabled




OBD041262L

When the rear bumper around the rear corner radar or sensor is covered with foreign matters, 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 system disabled. Radar blocked' warning message will appear on the cluster.Safe Exit Warning will operate properly when such foreign matters or trailer, etc., is removed, and then the engine is restarted.

If Safe Exit Warning does not operate properly after it is removed, have the vehicle 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 (for example, open terrain) where any objects are not detected right after the engine is turned on, or when the detecting sen-

sor is blocked with foreign matters right after the engine is turned on.

**⚠ CAUTION**

Turn off Safe Exit Warning to install or remove a trailer, carrier, or another attachment. Turn on Safe Exit Warning when finished.

### Limitations of Safe Exit Warning

Safety Exit Warning may not operate properly, or the function may operate unexpectedly under the following circumstances:

- 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.

**⚠ CAUTION**

For more details on the limitations of the rear corner radar, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-87.

**⚠ WARNING**

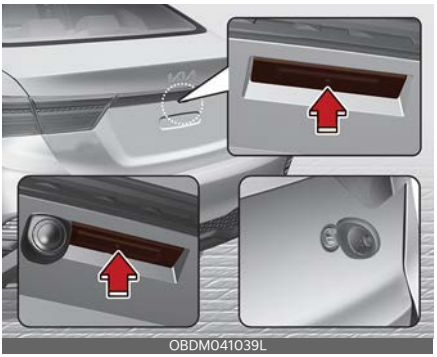
- Safety Exit Warning may not operate properly if interfered with by strong electromagnetic waves.
- Safety Exit Warning may not operate for 3 seconds after the vehicle is started, or the rear corner radars are initialized.

## Trunk

### Opening the trunk

1. Make sure the shift lever is in P (Park, for Dual Clutch Transmission/ Intelligent Variable Transmission) or first gear or R (Reverse, for Manual Transmission) and set the parking brake.

Type A/Type B/Type C




2. Then do one of the following :
   - Press the Folding key or Smart Key Trunk Unlock button for more than one second.
   - Press the button on the trunk itself with the Smart Key in your possession.
   - Use the mechanical key. (if equipped with key hole)

- To open the trunk from inside the vehicle, pull the trunk release lever.

  Once the trunk is opened and then closed, the trunk locks automatically.

**WARNING**

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

**CAUTION**

Make certain that you close the trunk before driving your vehicle. Possible damage may occur to the attached hardware if the trunk is not closed prior to driving.

**NOTICE**

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

## Closing the trunk

Lower the trunk lid and press down until it locks. To be sure the trunk lid is securely fastened, always check by trying to pull it up again.

**NOTICE**

If the trunk is closed with the smart key in it, the chime will sound for approximately 5 seconds.

**WARNING**

**Exhaust Fumes**

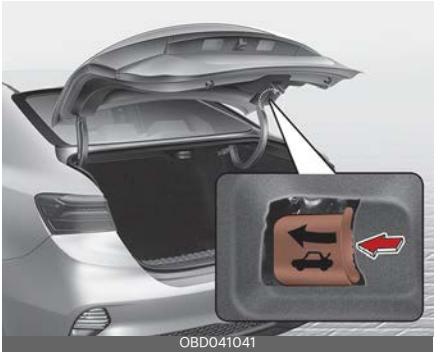
The trunk lid should always be kept completely closed while the vehicle is in motion. If it is left open or ajar, poisonous exhaust gases may enter the car and serious illness or death may result.

**WARNING**

No one should be allowed to occupy the trunk at any time. The trunk is a very dangerous location in the event of a crash.

## Emergency trunk safety release

Your vehicle is equipped with an emergency trunk release lever located inside the trunk. If someone is inadvertently locked in the trunk, moving the handle in the direction of the arrow will release the trunk latch mechanism and open the trunk.



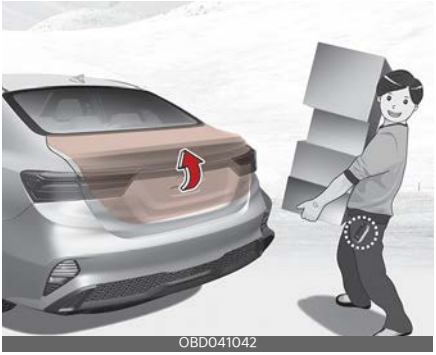

- You and your passengers must be aware of the location of the Emergency trunk safety release lever in this vehicle and how to open the trunk in case you are accidentally locked in the trunk.
- Your vehicle should be kept locked and the smart key should be kept out of the reach of children. Parents should teach their children about the dangers of playing in trunks.
- Use the release lever for emergencies only.

**WARNING**

NEVER allow anyone to occupy the trunk of the vehicle at any time. If the trunk is partially or totally latched and the person is unable to get out, serious injury or death could occur due to lack of ventilation, exhaust fumes and rapid heat build-up, or because of exposure to cold weather conditions. The trunk is also a highly dangerous location in the event of a crash because it is not a protected occupant space but is a part of the vehicle's crush zone.

## Smart Trunk (if equipped)

On a vehicle equipped with a smart key, the trunk can be opened using the Smart Trunk system.




### How to use the Smart Trunk

The trunk can be opened with no-touch activation satisfying all the conditions below.

- After 15 seconds when all doors are closed and locked
- Positioned in the detecting area for more than 3 seconds.

**NOTICE**

The Smart Trunk does not operate when:

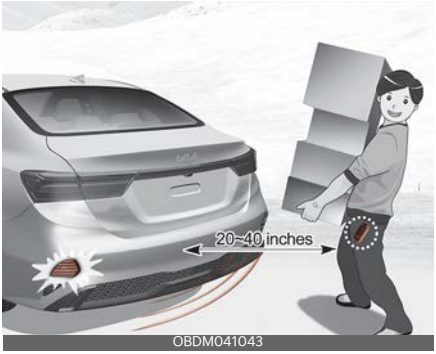
- The smart key is detected within 15 seconds after the doors are closed and locked, and is continuously detected.
- The smart key is detected within 15 seconds after the doors are closed and locked, and 60 inches (1.5 m) from the front door handles. (for vehicles equipped with Welcome Light)
- A door is not locked or closed.
- The smart key is in the vehicle.

### 1. Setting

Make sure the shift lever is in P (Park, for Dual Clutch Transmission/ Intelligent Variable Transmission) or first gear or R (Reverse, for Manual Transmission) and set the parking brake.

You can activate or deactivate the Smart Trunk by selecting 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Door → Smart Trunk'.

### 2. Detect and Alert



OBDM041043

If you are positioned in the detecting area (20 ~ 40 inches (50 ~ 100 cm) behind the vehicle) carrying a smart key, the hazard warning lights will blink and chime will sound to alert you the smart key has been detected and the trunk will open.

**NOTICE**

Do not approach the detecting area if you do not want the trunk to open. If you have unintentionally entered the detecting area and the hazard warning lights and chime starts to operate, leave the detecting area with the smart key. The trunk will stay closed.

### 3. Automatic opening

OBDM041044L

The hazard warning lights will blink and chime will sound 2 times and then the trunk will open.

- Make sure you close the trunk before driving your vehicle.
- Make sure there are no people or objects around the trunk before opening or closing the trunk.
- Make sure to deactivate the Smart Trunk when washing your vehicle. Otherwise, the trunk may open inadvertently.

**WARNING**

Make sure objects in the trunk do not come out when opening the trunk on a slope. It may cause serious injury.

**NOTICE**

The key should be kept out of reach of children. Children may inadvertently open the Smart Trunk while playing around the rear area of the vehicle.

## How to deactivate the Smart Trunk function using the smart key

ODL3A041656

1. Door lock
2. Door unlock
3. Trunk open
4. Panic
5. Remote start

If you press any button of the smart key during the Detect and Alert stage, the Smart Trunk function will be deactivated.

Make sure to be aware of how to deactivate the Smart Trunk function for emergency situations.

**✻ NOTICE**

- If you press the door unlock button (2), the Smart Trunk function will be deactivated temporarily. But, if you do not open any door for 30 seconds, the Smart Trunk function will be activated again.
- If you press the trunk open button (3) for more than 1 second, the trunk opens.
- If you press the door lock button (1) or trunk open button (3) when the Smart Trunk function is not in the Detect and Alert stage, the Smart Trunk function will not be deactivated.
- In case you have deactivated the Smart Trunk function by pressing the smart key button and opened a door, the Smart Trunk function can be activated again by closing and locking all doors.

## Detecting area

OBDM041045

- The Smart Trunk operates with a welcome alert if the smart key is detected within 20 ~ 40 inches (50 ~ 100 cm) from the trunk.
- The alert stops at once if the smart key is positioned outside the detecting area during the Detect and Alert stage.

**✻ NOTICE**

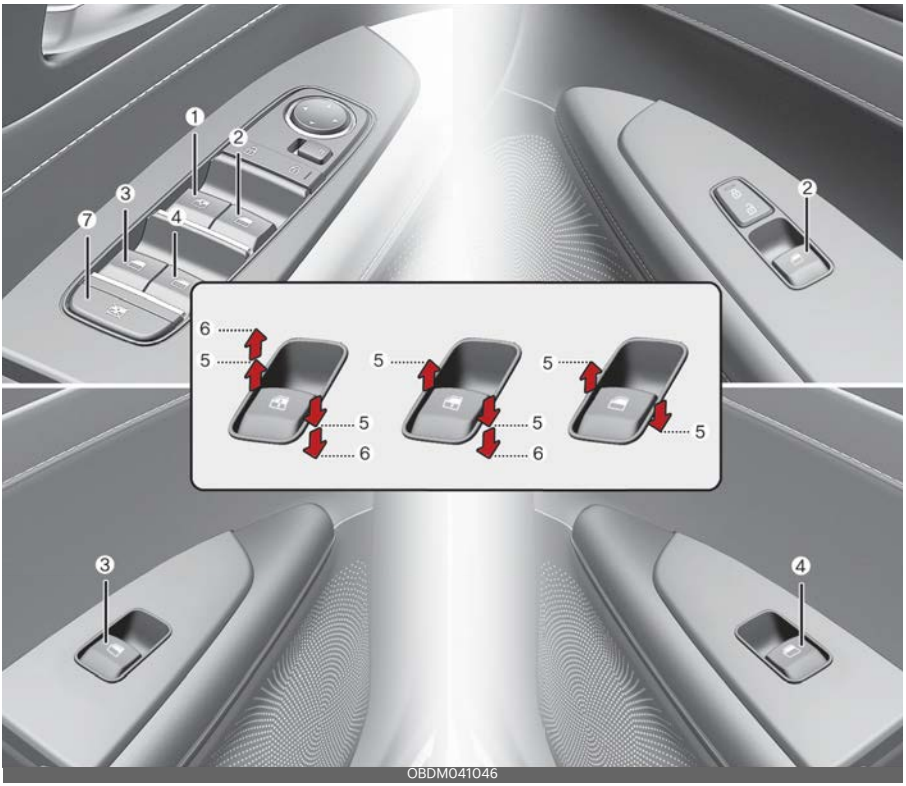
- The Smart Trunk function will not work if any of the following occurs:
  - The smart key is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the transmitter.
  - The smart key is near a mobile two way radio system or a cellular phone.

- Another vehicle's smart key is being operated close to your vehicle.

- The detecting range may decrease or increase when :
  - One side of the tire is raised to replace a tire or to inspect the vehicle.
  - The vehicle is slantingly parked on a slope or unpaved road, etc.

## 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 button

*: if equipped

**✻ NOTICE**

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

## Power windows

The ignition switch or ENGINE START/STOP button 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 button which can block the operation of rear passenger windows. The power windows can be operated for approximately 3 minutes after ignition switch or ENGINE START/STOP button turned to the ACC or LOCK/OFF position. However, if the front doors are opened, the power windows cannot be operated even within the 3 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.

**WARNING**

**Power windows**

Do not extend your face or arms outside of the window opening while the vehicle is in motion. Doing so could result in significant injury.

**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 1 inch (2.5 cm). 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 window area. Such objects will impact the proper function of the Automatic reversal "jam protection" feature described in "Automatic reversal" section of this manual.

## Window opening and closing

You can open and close windows using the power window switch.

OBD041084

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

## Auto down window (for driver's window) (if equipped)

OBD041405L

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 momentarily to the opposite direction of the window movement.

## Auto up/down window (for driver's window) (if equipped)

OBD041085

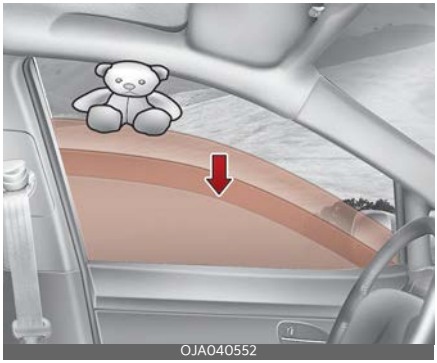
Pressing or pulling up the power window switch momentarily to the second detent position (6) completely lowers or raises the window even when the switch is released. To stop the window at the desired position while the window is in operation, pull up or press down and release the switch.

### To reset the power windows

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

1. Turn the ignition switch or ENGINE START/STOP button 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 Auto up/down window) (if equipped)


OJA040552

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 11.8 inches (30 cm) 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 1 inch (2.5 cm).

And 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.

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 0.16 of an inch (4 mm) 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**

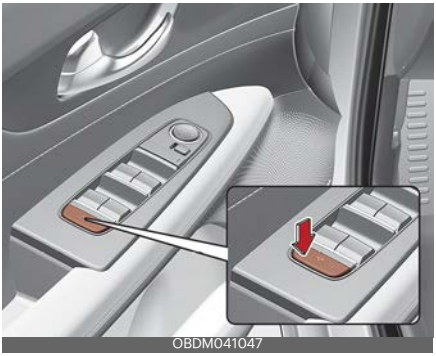
The automatic reverse feature doesn't activate while resetting the power window system. Make sure body parts or other objects are safely out of the way before closing the windows to avoid injuries or vehicle damage.

**⚠ CAUTION**

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 button

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




When the power window lock button is pressed:

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

**⚠ CAUTION**

**Opening/closing Window**

To prevent possible damage to the power window system, do not open or close two window 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.

**WARNING**

**Power windows**

Do not allow children to play with the power windows. Keep the power window lock button (on the driver's door) in the LOCK (pressed) position.

## Remote window opening system (if equipped)

OBDM041671

You can still control the windows movement with the engine turned off.

- Press the door unlock button (1) for more than 3 seconds. The window moves down after the doors are unlocked, as long as you press the door unlock button (1).

  The window movement stops, when you release the door unlock button (1).

You can activate or deactivate the remote window opening system by selecting 'User Settings (LCD display) or Settings → Vehicle (Infotainment System screen) → Door → Remote Window Control'.

**CAUTION**

- The remote window opening function may abruptly stop, when you move away from your vehicle during operation. Stay in close proximity from your vehicle, while monitoring the window movement.
- Be careful when using the remote window opening function, as the doors will be unlocked.

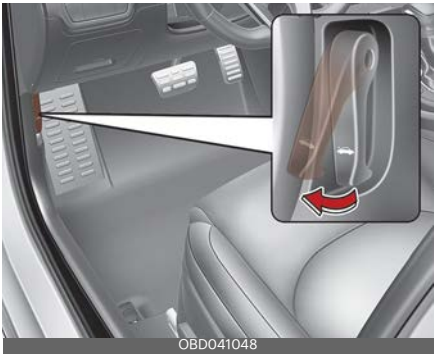
# Hood

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.


OBD041048

Open the hood after turning off the engine on a flat surface, shifting the shift lever to the P (Park, for Dual Clutch Transmission/ Intelligent Variable Transmission) or first gear or R (Reverse, for Manual Transmission) and set the parking brake.

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

OBDM041049L

3. Pull out the support rod.
4. Hold the hood opened with the support rod(3).

OBD041086

**WARNING**

**Hot parts**

Grasp the support rod in the area wrapped in rubber. The rubber will help prevent you from being burned by hot metal when the engine is hot.

## Hood open warning

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

OBD041540

The warning chime will operate when the vehicle is being driven at or above 2 mph (3 km/h) 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. Return the support rod to its clip to prevent it from ratting.
3. Lower the hood until it is about 12 inches (30 cm) above the closed position and let it drop. Make sure that it locks into place.

OBDM041678

4. Check that the hood has engaged properly.
   - 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 property damage.

**⚠ WARNING**

**Fire risk**

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

**⚠ WARNING**

**Unsecured engine 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.

**⚠ WARNING**

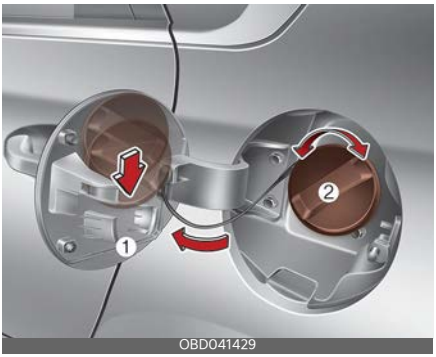
The support rod must be inserted completely into the hole whenever you inspect the engine compartment. This will prevent the hood from falling and possibly injuring you.

# Fuel filler door

## Opening the fuel filler door

The fuel-filler door must be opened from inside the vehicle by pulling up on the fuel-filler door opener located on the front floor area on the driver's seat.

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 up the fuel filler door opener.

3. Pull open the fuel filler door (1).
4. To remove the cap, turn the fuel filler cap (2) counterclockwise.
5. Refuel as needed.

**⚠ CAUTION**

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". 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.

**⚠ CAUTION**

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 illuminate.

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.

## 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.

OCD041534L

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 3 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 3 minute 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

OBD041544

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

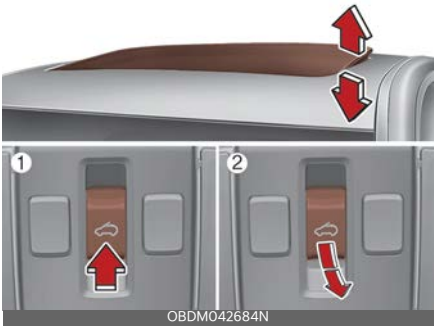
**INFORMATION**

The sunshade opens automatically when the sunroof glass is opened, but the sunshade does not close automatically when the sunroof glass is closed. Also, 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 tilted open, the sunroof glass closes.

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

**INFORMATION**

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.

**INFORMATION**

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

OBD041542

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

OCD041538L

In some circumstances resetting the sunroof operation may need to be per-

formed. 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 closed.

   Do not release the switch until the operation is completed. If you release the switch during operation, start the procedure again from step 2.

**INFORMATION**

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 equipped)

OBD041288

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 the Motor Driven Power Steering (MDPS) system.

## Motor Driven Power Steering (MDPS)

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 MDPS 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 power steering checked by an authorized Kia dealer.

**✻ NOTICE**

The following symptoms may occur during normal vehicle operation:

- The MDPS warning light does not illuminate.
- The steering effort is high immediately after turning the ignition switch or ENGINE START/STOP button on. This happens as the MDPS 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 MDPS relay after the ignition switch or ENGINE START/STOP button is turned to the ON or LOCK/OFF position.
- A motor noise may be heard when the vehicle is at a stop or at a low driving speed.
- 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.
- When the charging system warning light comes on due to low voltage (when the alternator or battery do not operate normally or malfunction), the steering wheel may require increased steering effort.
- 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.

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If the Motor Driven Power Steering System does not operate normally, the warning light will illuminate on the instrument cluster.The power steering system will not operate and steering effort can increase. Take your vehicle to an authorized Kia dealer and have the vehicle checked as soon as possible.

## 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.

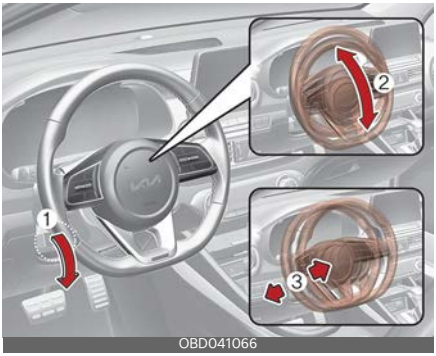
The steering wheel should be positioned so that it is comfortable for you to drive, while permitting you to see the instrument panel warning lights and gauges.

**⚠ 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



OBD041066

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). Move the steering wheel, so it points toward your chest, not toward your face. Make sure you can see the instrument panel warning lights and gauges. After adjusting, pull up the lock.
3. Pull up the lock-release lever to lock the steering wheel in place. Push the steering wheel both up and down to be certain it is locked in position.
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)

When the ignition switch is in the ON position or the ENGINE START/STOP button is in the ON position, pressing the heated steering wheel button warms the steering wheel. The indicator on the button will illuminate.

OBD041067

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).

OBD041068

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 inside and outside rear view mirrors to provide views of objects behind the vehicle.

## Inside rear view mirror

Adjust the rear view 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 out the rear window.

**WARNING**

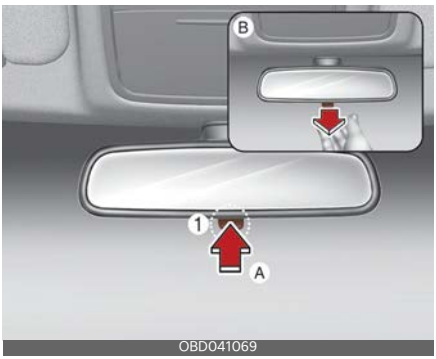
**Mirror adjustment**

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 and don't install a wide mirror. It could result in injury, during an accident or deployment of the air bag.

## Day/night rear view mirror (if equipped)




(A): Day, (B): Night

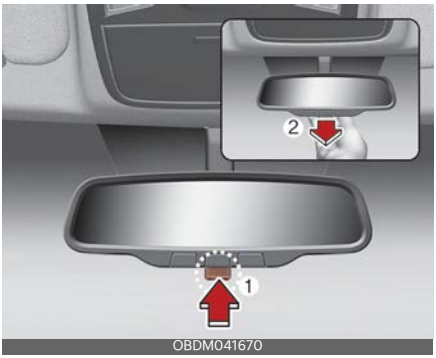
Make this adjustment before you start driving and while the day/night lever (1) is in the day position (A).

Pull the day/night lever (1) toward you (B) to reduce the glare from the headlights of the vehicles behind you during night driving.

Remember that you lose some rear view clarity in the night position (B).

## 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 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 (2).

### For Telematics button function:

OBDM042685N

Telematics buttons are also located on the mirror.

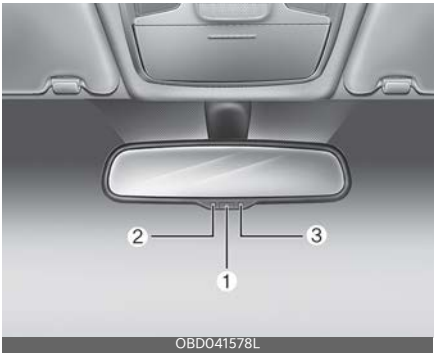
1. Virtual Assist button
2. Kia connect button
3. Roadside assist button

## Electric Chromic Mirror (ECM) (if equipped)

The electric rear view mirror automatically controls the glare from the headlights of the vehicles behind you in nighttime or low light driving conditions. The sensor 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.Whenever the shift lever is shifted into reverse (R), the mirror will automatically go to the brightest setting in order to improve the drivers view behind the vehicle.

**⚠ CAUTION**

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.



OBD041578L

To operate the electric rearview mirror:

- The mirror defaults to the ON position whenever the ignition switch is turned on.
- Press the ON/OFF button (1) to turn the automatic dimming function off. The mirror indicator light (2) will turn off.
- Press the ON/OFF button (1) to turn the automatic dimming function on. The mirror indicator light (2) will illuminate.

  * (2) : Indicator, (3) : Sensor

When the engine is running, the glare is automatically controlled by the sensor (3) mounted in the rear view mirror.

## Electric Chromic Mirror (ECM) with Telematics function (if equipped)

1. Virtual Assistant button
2. Kia connect button
3. Roadside assist button
4. Sensor

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.

## Outside rear view mirror

Be sure to adjust the mirror angles before driving.

Your vehicle is equipped with both left-hand and right-hand outside rearview mirrors. The mirrors can be adjusted remotely with the remote switch. The mirror heads can be folded back to prevent damage during an automatic vehicle wash or when passing through a narrow street.

The right outside rearview mirror is convex. Objects seen in the mirror are closer than they appear.

Use your interior rearview mirror or direct observation to determine the actual distance of following vehicles when changing lanes.

**⚠ CAUTION**

**Rearview mirror**

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 deicer 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.

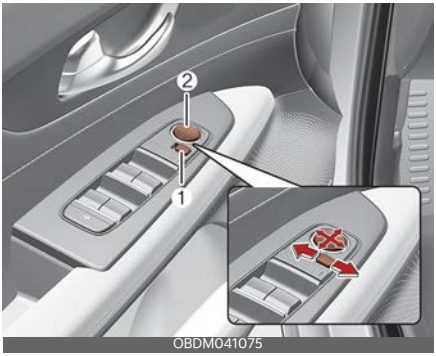
**⚠ WARNING**

**Mirror adjustment**

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

## Adjusting the outside rear view mirrors

The electric remote control mirror switch allows you to adjust the position of the left and right outside rear view mirrors.



OBDM041075

Adjusting the rear view mirrors:

1. Move the R or L switch (1) to select the right side mirror or the left side mirror.
2. Press a corresponding point (▲) on the mirror adjustment control (2) to position the selected mirror up, down, left or right.

**⚠ CAUTION**

**Outside mirror**

- 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 rear view mirror by hand. Doing so may damage the parts.
- When the mirror control, press exactly "▲" (2) marking area. Otherwise, the mirror will move to unintended direction or malfunction.

## Folding the outside rearview mirror

### Manual type

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

OBD041074L

# Instrument cluster

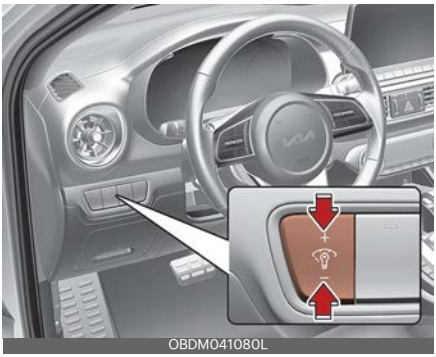
OBDM042264N

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

* The actual cluster in the vehicle may differ from the illustration. For more details, refer to the "Gauges" on page 4-54.

## Instrument Cluster Control

### Adjusting Instrument Cluster Illumination



OBDM041080L

**⚠ WARNING**

Never adjust the instrument cluster while driving. This could result in loss of control and lead to an accident that may cause death, serious injury, or property damage.

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

OBD041569L

- 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

### Speedometer

OBDM042290N

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

### Tachometer

OBDM042272N

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

This gauge indicates the temperature of the engine coolant when the ignition switch or the 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

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 8-7.
- The fuel gauge is supplemented by a low fuel warning light, which will illuminate 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.

**WARNING**

**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 (Empty)" level.

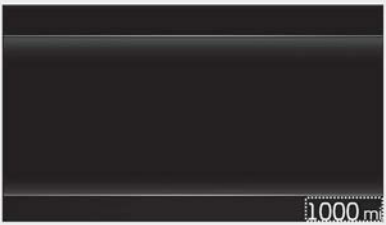
**CAUTION**

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

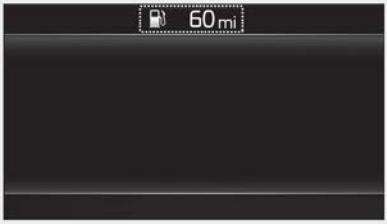



OBDM042570N

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 mi or 0 ~ 1,599,999 km

## Distance to empty




OBDM042573N

- The distance to empty is the estimated distance the vehicle can be driven with the remaining fuel.

  - Distance range: 1 ~ 9,999 mi or 1 ~ 9,999 km.
- If the estimated distance is below 1 mi. (1 km), the trip computer will display "---" as distance to empty.

**CAUTION**

- If the vehicle is not on level ground or the battery power has been interrupted, the distance to empty function may not operate correctly.
- The distance to empty may differ from the actual driving distance as it is an estimate of the available driving distance.
- The trip computer may not register additional fuel if less than 1.6 gallons (6 liters) of fuel are added to the vehicle.
- The distance to empty may vary significantly based on driving conditions, driving habits, and condition of the vehicle.

## Outside Temperature

OBDM042574N

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

- Temperature range: -40°F ~ 140°F (-40°C ~ 60°C)

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

The temperature unit (from °C to °F or from °F to °C) can be changed by:

- User Settings mode in the Cluster (if equipped) : You can change the temperature unit in the “Other - Temperature unit”.

  * For more details, refer to "LCD display" on page 4-58.
- Climate control system (for Automatic climate control system): While pressing the OFF button, press the AUTO button for 3 seconds or more. The temperature unit of the instrument cluster and climate control system will change at once.

## Transmission Shift Indicator

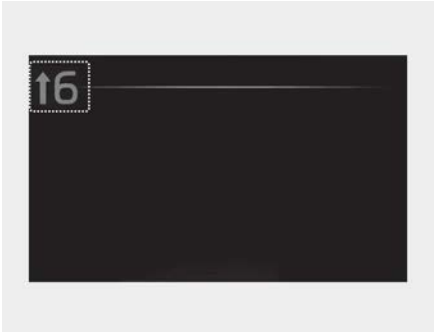
### Intelligent variable transmission Shift indicator (if equipped)

OBD041624L

This indicator displays which Intelligent variable transmission shift lever is selected.

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

### Manual Transmission Shift Indicator (if equipped)




OBDM041612L

This indicator informs which gear is recommended while driving to save fuel.

- Shifting up:
  ▲$_2$, ▲$_3$, ▲$_4$, ▲$_5$, ▲$_6$
- Shifting down:
  ▼$^1$, ▼$^2$, ▼$^3$, ▼$^4$, ▼$^5$

For example

▲$_3$: Indicates that shifting up to the 3rd gear is desired (currently the shift lever is in the 2nd or 1st gear).

▼$^4$: Indicates that shifting down to the 4th gear is desired (currently the shift lever is in the 5th or 6th gear).

When the system is not working properly, the indicator is not displayed.

### Dual clutch transmission shift indicator (if equipped)

OMQ4040519L

This indicator displays which shift lever is selected.

- Park: P
- Reverse: R
- Neutral: N
- Drive: D1, D2, D3, D4, D5, D6, D7
- Sports Mode: S

## LCD display

### LCD Display Control

OBD041598

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

1. : MODE button for change the LCD MODES
2. ∧/∨: MODE scroll switch for select the items
3. OK: SET/RESET button for the set the items or reset the items

## LCD display modes

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

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

* For controlling the LCD modes, refer to "LCD Display Control" on page 4-58".

## Driving Assist mode

OBD041580

- Lane Keeping Assist (if equipped)
  Smart Cruise Control (if equipped)
  Lane Following Assist (if equipped)
  Highway Driving Assist (if equipped)
- Driver Attention Warning (if equipped)

* For more details, refer to each system information in "Driving your vehicle" on page 5-6.

### Setting (if equipped)

To change the Driver Assistance settings, press the OK button on the steering wheel for more than 1 second when the Driving Assist mode is displayed.

**WARNING**

While driving, please do not change the settings. It may distract your attention and cause an accident.

| Item | Explanation |
|---|---|
| SCC Reaction | Fast/Normal/Slow |
| Driving Convenience | Highway Driving Assist/ Highway Auto Speed Change |
| Warning Timing | Normal/Late |
| Warning Volume | High/Medium/Low |
| Driver Attention Warning | Leading Vehicle Departure Alert/Inattentive Driving Warning |
| Forward Safety | Active Assist/Warning Only/Off |
| Lane Safety | Assist/Warning Only/Off |
| Blind-Spot Safety | Safe Exit Warning/Active Assist/Warning Only/Off |
| Parking Safety | Rear Cross-Traffic Safety |

**NOTICE**

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

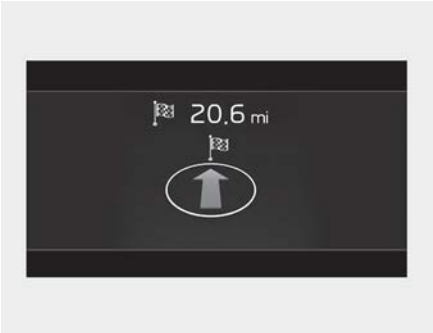
## Trip computer mode

OBDM042297N

The trip computer mode displays information related to vehicle driving parameters including Accumulated info, Driving information, and so on.

* For more details, refer to "Trip Computer" on page 4-70.

## Turn By Turn mode (if equipped)




OBDM041579

This mode displays the state of the navigation.

## Master warning mode

OBD041586

This warning light informs the driver the following situations.

- Forward Collision-Avoidance Assist malfunction (if equipped)
- Blind-Spot Collision Warning malfunction (if equipped)
- Blind-Spot Collision Warning radar blocked (if equipped)
- High Beam Assist malfunction
- Smart Cruise Control malfunction (if equipped)
- Smart Cruise Control radar blocked (if equipped)
- LED headlamp malfunction
- TPMS failure, low pressure (if equipped), etc.

At this time, a Master Warning icon (⚠) will appear on the LCD display. If the warning situation is solved, the master warning light will be turned off and the Master Warning icon will disappear.

## User settings mode (if equipped)

In this mode, you can change the settings of the instrument cluster, doors, lamps, etc.

* 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.

- Dual clutch transmission, Intelligent Variable Transmission

  For your safety, change the User Settings after parking the vehicle, applying the parking brake and moving the shift lever to P (Park).
- Manual Transmission

  For your safety, change the User Settings after parking the vehicle and engaging the parking brake.

## Driver Assistance (if equipped)

| Items | Explanation |
|---|---|
| SCC Reaction | • Fast/Normal/Slow<br>To select the functions.<br>* For more details, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-110. |
| Driving Convenience | • Highway Driving Assist<br>To select the function.<br>* For more details, refer to "Highway Driving Assist (HDA) (if equipped)" on page 5-133.<br>• Highway Auto Speed Change<br>To select the function.<br>* For more details, refer to "Navigation-based Smart Cruise Control (NSCC) (if equipped)" on page 5-124. |
| Warning Timing | • Normal/Late<br>To select the Warning Time. |
| Warning Volume | • High/Medium/Low<br>To select the Warning Volume. |
| Driver Attention Warning | • Leading vehicle departure alert<br>• Inattentive Drive Warning<br>To select the function.<br>* For more details, refer to "Driver Attention Warning (DAW) (if equipped)" on page 5-101 |
| Forward Safety | • Active Assist/Warning Only/Off<br>To select the functions.<br>* For more details, refer to "Forward Collision-Avoidance Assist (FCA) (Front view camera only) (if equipped)" on page 5-50 or "Forward Collision-Avoidance Assist (FCA) (Sensor fusion) (if equipped)" on page 5-61. |
| Lane Safety | • Assist/Warning Only/Off<br>To select the functions.<br>* For more details, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-73. |
| Blind-Spot Safety | • Safe Exit Warning<br>To select the function.<br>* For more details, refer to "Safe Exit Warning (SEW) (if equipped)" on page 4-22.<br>• Active Assist/Warning Only/Off<br>To select the function.<br>* For more details, refer to "Blind-Spot Collision Warning (BCW) (if equipped)" on page 5-78 or "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-87 |

| Items | Explanation |
|---|---|
| Parking Safety | • Rear Cross-Traffic Safety<br>To select the function.<br>* For more details, refer to "Rear Cross-Traffic Collision Warning (RCCW) (if equipped)" on page 5-139 or "Rear Cross-Traffic Collision-Avoidance Assist (RCCA) (if equipped)" on page 5-145. |

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

## Cluster (if equipped)

| Items | Explanation |
|---|---|
| Wallpaper | • Wallpaper A/Wallpaper B/Wallpaper C<br>To select the theme of instrument cluster LCD. |
| Wiper/Lights Display | • If this item checked, the Wiper/Lights Display will be activated. |
| Traffic Signs | • If this item checked, the Traffic Signs will be activated. |
| Icy Road Warning | • If this item checked, the Icy Road Warning display will be activated. |
| Welcome Sound | • If this item checked, the Welcome Sound will be activated. |

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

## Lights (if equipped)

| Items | Explanation |
|---|---|
| One Touch Turn Signal | • Off: The one touch turn signal function will be deactivated.<br>• 3, 5, 7 flashes: The turn signal indicator will blink 3, 5, or 7 times when the turn signal lever is moved slightly.<br>* For more details, refer to "One-touch lane change function" on page 4-90. |
| Ambient Light Brightness | • Off/Level 1,2,3,4<br>To adjust the brightness of the Ambient Light. |
| Ambient Light Color | • Blue Flight/Peaceful Forest/Dreamy Purple/Aurora Violet/Orange Delight/Golden Insight/Refreshing Sea<br>To select the color of the Ambient Light. |
| Headlight Delay | • To activate or deactivate the headlight delay function. |
| High Beam Assist | • To activate or deactivate High Beam Assist function.<br>* For more details, refer to "High Beam Assist (HBA)" on page 4-90. |

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

## Door (if equipped)

| Items | Explanation |
|---|---|
| Auto Lock | • Enable on shift (if equipped with Dual clutch transmission, Intelligent Variable 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.)<br>• Enable on speed: All doors will be automatically locked when the vehicle speed exceeds 9.3 mph (15 km/h). |
| Auto Unlock | • On shift to P (if equipped Dual clutch transmission, Intelligent Variable Transmission): All doors will be automatically unlocked if the gear is shifted to the P (Park) position. (with the engine ON, it is activated.)<br>• On key out/Vehicle off : All doors will be automatically unlocked when the ignition key is removed from the ignition switch or the ENGINE START/STOP button is set to the OFF position.<br>• Off : The auto door unlock operation will be canceled. |
| 2 Press Unlock | If this item is checked, the two press unlock will be activated.Press the door unlock button once to unlock the driver's door, and press the button once more within 4 seconds to unlock the rest of the doors. |
| Remote Window | • To activate or deactivate the Remote Window.<br>* For more details, refer to "Remote window opening system (if equipped)" on page 4-36. |
| Smart Trunk | • To activate or deactivate the Smart Trunk.<br>* For more details, refer to "Smart Trunk (if equipped)" on page 4-28. |

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

## Convenience (if equipped)

| Items | Explanation |
|---|---|
| Rear Occupant Alert | • To activate or deactivate Rear Occupant Alert function.<br>* For more details, refer to "Rear Occupant Alert (ROA) system" on page 4-21. |
| Service Interval | • Enable Service Interval : If this item is checked, the Service Interval function will be activated.<br>• Adjust Interval : If the Service Interval menu is activated, you may adjust the time and distance.<br>• Reset : To reset the Service Interval function. |
| Welcome Mirror/Light | • To activate or deactivate the Welcome Mirror/Light function. |
| Wireless Charging System | • To activate or deactivate the Wireless Charging System function.<br>* For more details, refer to "Wireless smart phone charging system (if equipped)" on page 4-127. |

If the service interval is activated and the time and distance is adjusted, messages are displayed in the following situations each time the vehicle is turned on.

- Service in: Displayed to inform the driver the remaining mileage and days to service.
- Service required: Displayed when the mileage and days to service has been reached or passed.

If any of the following conditions occur, the mileage and number of days to service may be incorrect.

- The battery cable is disconnected.
- The battery is discharged.

**✻ NOTICE**

To use the service interval menu, consult an authorized Kia dealer.

## Units

| Items | Explanation |
|---|---|
| Speed Unit | • km/h, MPH<br>To select the Speedometer unit. |
| Temperature Unit | • °C/°F<br>To select the Temperature unit. |
| Fuel Econ. Unit | • L/100km, km/L or US gallon, UK gallon<br>To select the Fuel economy unit. |
| Tire Pressure Unit | • psi, kPa, bar<br>To select the Tire Pressure Unit. |

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

## Language

| Items | Explanation |
|---|---|
| Language | • To select language. |

## Reset

| Items | Explanation |
|---|---|
| Reset | You can reset the menus in the User Settings mode. |

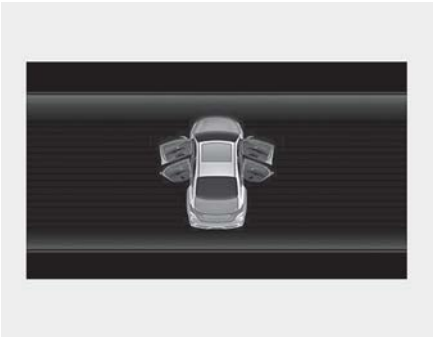
## Warning messages

Warning messages appear on the LCD to warn the driver. It is located in the center of the instrument cluster.

The warning message may appear differently depending on the type of instrument cluster and some may not show the warning message at all.

The warning message is shown in either symbol, symbol and text, or text type only.

## Door, hood, Trunk open



OBD041287

- This warning is displayed indicating which door, or the hood, or the trunk is open.

## Sunroof open (if equipped)

OBD041288

- This warning is displayed if you turn off the engine when the sunroof is open.

## Window open (if equipped)

OBD041294L

- This warning is displayed if you turn off the engine when any window is open.

## Lights mode

OBD041590L

- 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

OBD041591L

- 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.

## Engine Overheated

- This warning message illuminates when the engine coolant temperature exceeds the proper range. This mean that the engine is overheated and may be damaged.

* If your vehicle is overheated, refer to "If the engine overheats" on page 6-7.

## Shift to P (for smart key system and Dual clutch transmission, Intelligent Variable Transmission) (if equipped)

- This warning message illuminates if you try to turn off the engine without the gear in P (Park) position.
- At this time, the ENGINE START/STOP button turns to the ACC position.

## Low key battery (for smart key system) (if equipped)

- This warning message illuminates 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) (if equipped)

- This warning message illuminates if the steering wheel does not unlock normally when the ENGINE START/ STOP button is pressed.
- It means that you should press the ENGINE START/STOP button while turning the steering wheel right and left.

## Press clutch pedal to start engine (for smart key system and manual transmission) (if equipped)

- This warning message illuminates if the ENGINE START/STOP button changes to the ACC position twice by pressing the button repeatedly without depressing the clutch pedal.
- It means that you should depress the clutch pedal to start the engine.

## Press brake pedal to start engine (for smart key system) (if equipped)

- This warning message illuminates 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.

### Key not in vehicle (for smart key system) (if equipped)

- This warning message illuminates if the smart key is not in the vehicle when you press the ENGINE START/STOP button.
- It means that you should always have the smart key with you.

### Key not detected (for smart key system) (if equipped)

- This warning message illuminates if the smart key is not detected when you press the ENGINE START/STOP button.

### Press START button again (for smart key system) (if equipped)

- This warning message illuminates if you can not 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 illuminates each time you press the ENGINE START/STOP button, have your vehicle inspected by an authorized Kia dealer.

### Press START button with key (for smart key system) (if equipped)

- This warning message illuminates 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.

### Shift to P or N to start engine (for smart key system) (if equipped)

- This warning message illuminates if you try to start the engine with the shift gear not in the P (Park) or N (Neutral) position.

**✻ NOTICE**

You can start the engine with the shift lever in the N (Neutral) position. But, for your safety, we recommend that you start the engine with the gear in the P (Park) position.

### Low fuel

- This warning message is displayed if the fuel tank is almost out of fuel.
- When this message is displayed, the low fuel level warning light in the cluster will come on.
- It is recommended to look for the nearest fueling station and refuel as soon as possible.

### Low washer fluid

- This warning message is displayed if the washer fluid level in the reservoir is nearly empty.
- Have the washer fluid reservoir refilled.

### Check headlight LED (if equipped)

- This message is displayed if there is a problem with the LED headlamp.

  In this case, have your vehicle inspected by an authorized Kia dealer.

### Device in wireless charger (if equipped)

- This warning messages will illuminate when the vehicle ignition is in OFF and the smart phone is on the wireless charging pad in below two situations.

1. When the driver or passenger door is opened.
2. When one minute passed after the ignition has been turned OFF (and the door has not been opened for more than one minute).

* For more details, refer to "Wireless smart phone charging system (if equipped)" on page 4-127.

### 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.
- If the warning continues even after external electrical devices are removed, have your vehicle inspected by an authorized Kia dealer.

**✻ NOTICE**

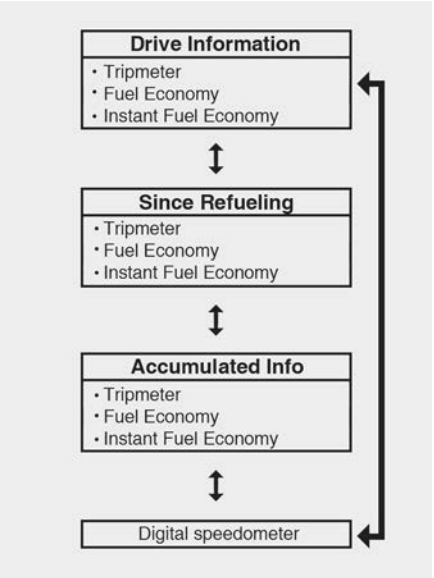
When there is a malfunction with the Electronic Stability Control (ESC), the Electronic Control Suspension (ECS) warning message may illuminate as well as the Electronic Stability Control (ESC) indicator light.

## Trip Computer

### Trip information (trip computer)

The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

### Trip Modes




OBD041616L

To change the trip mode, scroll the toggle the switch (⋀ / ⋁) on the steering wheel.

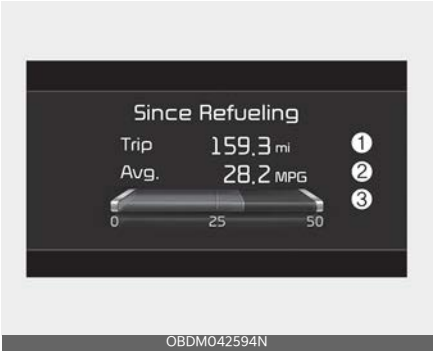
### Drive Info display

This display shows the trip distance (1), the average fuel efficiency (2), and the instant fuel economy (3) information once per one ignition cycle.

OBDM042592N

- Fuel efficiency is calculated after the vehicle has run for more than 0.2 miles (300 meters).
- If opening the driver's door after turning off the engine or 3 minutes passes after restarting the engine, Driving Information is reset.
- If you press "OK" button for more than 1 second after the Driving Information 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.

## Since Refueling




OBDM042594N

This display shows the accumulated trip distance (1), the average fuel efficiency (2), and the instant fuel economy (3) after refueling.

- Fuel efficiency is calculated after the vehicle has run for more than 0.2 miles (300 meters).
- After refueling more than 6 liters and driving over 1 mph (1 km/h), the Since Refueling will reset to default automatically.
- If you press "OK" button for more than 1 second after the 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.

## Accumulated driving information mode

This display shows the accumulated trip distance (1), the average fuel efficiency (2), and the instant fuel economy (3).

OBDM042605N

- Accumulated information is calculated after the vehicle has run for more than 0.2 miles (300 meters).
- If you press "OK" button for more than 1 second after the Cumulative Information 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 digital speedometer display shows the speed of the vehicle.

OBDM042595N

# 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 engine. If any light is still ON, this indicates a situation that needs attention.

## Air bag warning light

### This warning light illuminates:

- Once you set the ignition switch or the ENGINE START/STOP button to the ON position.
  - It illuminates for approximately 6 seconds and then goes off.
- When there is a malfunction with the SRS.

  In this case, have your 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

BRAKE

### This warning light illuminates:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It illuminates 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 illuminates 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 engine stopped, check the brake fluid level immediately and add fluid as required (For more details, refer to "Brake/clutch fluid" on page 7-26). 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 inspected by an authorized Kia dealer.

### 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, more than normal pedal travel and greater pedal pressure are required to stop the vehicle.

Also, the vehicle will not stop in as short a distance with only a portion of the brake system working.

If the brakes fail while you are driving, shift to a lower gear for additional engine braking and stop the vehicle as soon as it is safe to do so.

**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 illuminates 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 (ABS)

### This warning light illuminates:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It illuminates 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 illuminate 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.

**NOTICE**

**Electronic Brake Force Distribution (EBD) System Warning Light**

When the ABS Warning Light is on or both ABS and Parking Brake & Brake Fluid Warning Lights are on, the speedometer, odometer, or tripmeter may not work. Also, the MDPS Warning Light may illuminate and the steering effort may increase or decrease.

In this case, have your vehicle inspected by an authorized Kia dealer as soon as possible.

## Motor Driven Power Steering (MDPS) warning light

### This warning light illuminates:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - This indicator light comes on after the ignition key is turned to the ON position and then goes out after approximately 3 seconds.
- When there is a malfunction with the MDPS.

  In this case, have your vehicle inspected by an authorized Kia dealer.

## Charging System Warning Light

### This warning light illuminates:

- 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 your vehicle inspected by an authorized Kia dealer as soon as possible.

## Malfunction Indicator Lamp (MIL)

### This warning light illuminates:

- When you set the ignition switch or the ENGINE START/STOP button to the ON position.
  - The malfunction indicator light illuminates for about 3 seconds and then goes off.
- Whenever there is a malfunction with either the emission control system or the engine or the vehicle powertrain.

  In this case, have your vehicle inspected by an authorized Kia dealer.

**NOTICE**

Driving with the Malfunction Indicator Lamp (MIL) on may cause damage to the emission control system which could affect drivability and/or fuel economy.

**CAUTION**

If the Malfunction Indicator Lamp (MIL) illuminates, potential catalytic converter damage is possible which could result in loss of engine power. In this case, have your vehicle inspected by an authorized Kia dealer as soon as possible.

## Engine Oil Pressure Warning Light

### This warning light illuminates:

- 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 "Engine oil and filter" on page 7-21). 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 illuminate.

## Low Fuel Level Warning Light

### This warning light illuminates:

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.

## Master warning light ⚠

### This indicator light illuminates:

- This warning light informs the driver the following situations
- Forward Collision-Avoidance Assist malfunction (if equipped)
- Blind-Spot Collision Warning malfunction (if equipped)
- Blind-Spot Collision Warning radar blocked (if equipped)
- High Beam Assist malfunction
- Smart Cruise Control malfunction (if equipped)
- Smart Cruise Control radar blocked (if equipped)
- LED headlamp malfunction
- TPMS failure, low pressure (if equipped), etc.

To identify the details of the warning look at the LCD display.

If the warning situation is solved, the master warning light will turn off.

## Low Tire Pressure Warning Light

### This warning light illuminates:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It illuminates 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) (if equipped)" on page 6-8.

### This warning light remains on after blinking for approximately 70 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 as soon as possible.

* For more details, refer to "Tire Pressure Monitoring System (TPMS) (if equipped)" 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 or low pressure tires will cause the tires to overheat and fail.

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 brake s gradually with light force, and slowly move to a safe position off the road.

**⚠ 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.

## Electronic Parking Brake (EPB) Warning Light EPB (if equipped)

### This warning light illuminates:

- Once you set the ENGINE START/STOP button to the ON position.
  - It illuminates 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 illuminates when the Electronic Stability control (ESC) Indicator Light comes on to indicates that the ESC is not working properly (This does not indicate malfunction of the EPB).

## LED Headlamp Warning Light (if equipped)

### This warning light illuminates:

- When there is a malfunction with the LED headlamp.

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 can reduce LED headlamp (low beam) life.

## Forward Safety Warning light (if equipped)

### This indicator light illuminates:

- When you set the ignition switch or the ENGINE START/STOP button to the ON position.
  - The malfunction indicator light illuminates for about 3 seconds and then goes off.
- When there is a malfunction with Forward Collision-Avoidance Assist.

In this case, have your vehicle inspected by an authorized Kia dealer.

## Icy Road Warning Light (if equipped)

- This warning light is to warn the driver the road may be icy.

  When the temperature on the outside temperature gauge is approximately below 39°F (4°C), the Icy Road Warning Light and Outside Temperature Gauge blinks and then illuminates. Also, the warning chime sounds 1 time.

**NOTICE**

If the icy road warning light appears while driving, you should drive more attentively and safely, refraining from speeding, rapid acceleration, sudden braking or sharp turning, etc.

## Indicator lights

### Electronic stability control (ESC) indicator light

#### This indicator light illuminates:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It illuminates 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 5-42.

### Electronic stability control (ESC) OFF indicator light

#### This indicator light illuminates:

- Once you set the ignition switch or ENGINE START/STOP button to the ON position.
  - It illuminates 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 5-42.

### Immobilizer Indicator Light (Without Smart Key) (if equipped)

#### This indicator light illuminates:

- 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 your vehicle inspected by an authorized Kia dealer.

### Immobilizer Indicator Light (With Smart Key)

#### This indicator light illuminates 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 can not start the engine.

### This indicator light illuminates for 2 seconds and goes off:

- When the vehicle can not 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.
  - At this time, you can not start the engine. However, you can start the engine if you press the ENGINE START/STOP button with the smart key. (For more details, refer to "Immobilizer System" on page 4-14).
- When there is a malfunction with the immobilizer system.

  In this case, have your vehicle inspected by an authorized Kia dealer.

## AUTO HOLD Indicator Light AUTO HOLD

### This indicator light illuminates:

- [White] When you activate the auto hold system by pressing the AUTO HOLD button.
- [Green] When you stop the vehicle completely by depressing the brake pedal with the auto hold system activated.
- [Yellow] When there is a malfunction with the auto hold system.

  In this case, have the vehicle inspected by an authorized Kia dealer.

* For more details, refer to "AUTO HOLD (if equipped)" on page 5-38.

## Turn signal indicator light

### This indicator light blinks:

- When you turn the turn signal light on.
  - If any of the following occurs, there may 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 illuminates.
- The indicator light blinks more rapidly.
- The indicator light does not illuminate at all.

## Low beam indicator light (if equipped)

### This indicator light illuminates:

- When the headlights are on.

## High beam indicator light

### This indicator light illuminates:

- 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 AUTO

### This warning light illuminates :

- 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)" on page 4-90.

## Lane Safety indicator light (if equipped)

This indicator light illuminates:

- [Green] When Lane Keeping Assist operating conditions are satisfied.
- [Gray] When Lane Keeping Assist operating conditions are not satisfied.
- [Yellow] Whenever there is a malfunction with Lane Keeping Assist.

In this case, have your vehicle inspected by an authorized Kia dealer.

* For more details, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-73.

## Light ON indicator light

### This indicator light illuminates:

- When the tail lights or headlights are on.

## Front fog indicator light (if equipped)

### This indicator light illuminates:

- When the front fog lights are on.

## KEY OUT Indicator Light KEY OUT (if equipped)

When the ENGINE START/STOP button is in the ACC or ON position, if any door is open, the system checks for the smart key.

### This indicator light blinks:

When the smart key is not in the vehicle and any door is open with the ignition switch or ENGINE START/STOP button in the ACC or ON position.

- At this time, if you close all doors, the chime will also sound for approximately 5 seconds.
- The indicator will go off while the vehicle is moving.

## Cruise indicator light CRUISE

### This indicator light illuminates:

- When the cruise control system is enabled.

* For more details, refer to "Cruise Control (CC) (if equipped)" on page 5-107.

## SPORT Mode Indicator Light SPORT (if equipped)

### This indicator light illuminates :

- When you select “SPORT” mode as drive mode.

For more details, refer to "Drive mode integrated control system (if equipped)" on page 5-48.

## SMART Mode Indicator Light SMART (if equipped)

### This indicator light illuminates :

- When you select “SMART” mode as drive mode.

For more details, refer to "Drive mode integrated control system (if equipped)" on page 5-48.

# Rear View Monitor (RVM)

OBDM041055

Rear View Monitor will show the area behind the vehicle to assist you when parking or backing up.

## Detecting sensor

OBDM042658N

[1] : Wide-rear view camera

Refer to the picture above for the detailed location of the detecting sensor.

## Rear View Monitor setting

## Camera settings

OBDM041673

You can change Rear View Monitor 'Display Contents' of 'Display Settings' by touching the setup icon (⚙) on the screen while Rear View Monitor is operating, or selecting 'Setup → Vehicle → Driver Assistance → Parking Safety → Camera Settings' from the Infotainment System screen while the engine is on.

## Rear View Monitor operation

## Parking/View button (if equipped)

OBDM041053

[1] : Parking/View button

Press the Parking/View button to turn on Rear View Monitor.

## Rear view

### Operating conditions

- If the gear is shifted to R (Reverse), while rear view is displayed on the screen.
- Press the Parking/View button (1) while the gear is in P (Park), the image will appear on the screen. (if equipped)

### Off conditions

- The rear view will not be turned off with the gear R (Reverse).
- Press the Parking/View button (1) again while the gear is in P (Park) with the rear view on the screen, the rear view will turn off. (if equipped)
- If the gear is shifted from R (Reverse) to P (Park), the rear view will be turned off.

## Extended Rear View Monitor

If the gear is shifted from R (Reverse) to N (Neutral) or D (Drive), the rear view will be maintained to park the vehicle safely.

### Operating conditions

- If the gear is shifted from R (Reverse) to N (Neutral) or D (Drive), the rear view will be turned on.

### Off conditions

- The rear view will turn off when vehicle speed is above 6 mph (10 km/h).
- If the gear is shifted to P (Park), the function is turned off.
- Press the Parking/View button, the rear view will turn off. (if equipped)

## Rear top view (if equipped)

OBDM041674

When you touch the ( ) icon, the top view is displayed on the screen and shows the distance from the vehicle in the back of your vehicle while parking.

## 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 normally, We recommend that you have your vehicle inspected by 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**

- Rear View Monitor is not a safety device. It only serves to assist the driver in identifying objects directly behind the middle of the vehicle. The camera does not cover the complete area behind the vehicle.

- Never rely solely on the rear view monitor. As there are blind spots that do not appear on the camera while backing up and parking, You must always use methods of viewing the area behind you including looking over both shoulders as well as continuously checking all three rear view mirrors.
- Always look around your vehicle to make sure there are no objects or obstacles before moving the vehicle in any direction to prevent a collision.
- Always pay close attention when the vehicle is driven close to objects, particularly pedestrians, and especially children.
- 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.

## Reverse Parking Distance Warning (PDW) (if equipped)

Reverse Parking Distance Warning will warn the driver if an obstacle is detected when the vehicle is backing up at low speeds.

### Detecting sensors

OBDM042001N

[1] : Rear ultrasonic sensors

Refer to the picture above for the detailed location of the detecting sensors.

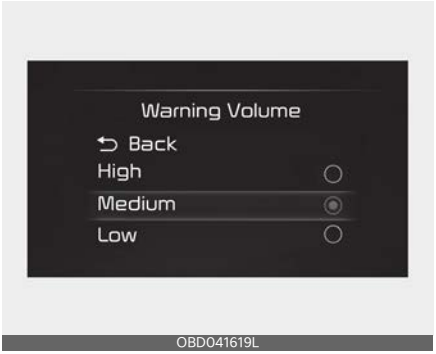
**⚠ WARNING**

- Reverse Parking Distance Warning may not operate normally when:
  - Moisture is frozen on the sensor
  - Sensor is covered with foreign matters, such as snow or water
  - Outside air temperature is extremely hot or cold.
  - Sensor components are arbitrarily removed.
  - The sensor is pushed, scratched or stuck with any hard and sharp objects that could damage the surface.
  - High pressure water is directly applied to ultrasonic sensor.

- Reverse Parking Distance Warning may malfunction when:
  - Driving on uneven road, gravel roads or bushes
  - Objects that generate ultrasonic waves such as vehicle horns, loud motorcycle engine sound or truck air brakes are near the sensor
  - Heavy rain or water spray is present
  - Wireless transmitters or mobile phones are present near the sensor
  - The sensor is covered with snow
  - Affected by another vehicle's sensors
  - Water flows on the surface of the sensor
  - Installing the license plate differently from the original location
  - The vehicle bumper height or sensor installation has been modified.
  - Any non-factory equipment or accessories have been installed.
- The function will operate normally when such foreign matters are removed.
- 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 40 inches (100 cm) in length and narrower than 6 inches (14 cm) in diameter
  - People, animal or objects located very close to the sensor.
- The indicator may operate differently when the people, animal or obstacle is located between sensors.
- Parking Distance Warning may not occur sequentially depending on vehicle speed or obstacle shape.
- Have your vehicle inspected by an authorized Kia dealer.

## Reverse Parking Distance Warning setting

### Warning Volume



OBD041619L

With the ignition switch or the ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the Settings menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Reverse Parking Distance Warning.

If you change the Warning Volume, the Warning Volume of other Driver Assistance functions may change.

## Reverse Parking Distance Warning operation

### Operating conditions

- Reverse Parking Distance Warning activates when the gear is R (Reverse) position.
- Reverse Parking Distance Warning assists the driver during reverse movement of the vehicle by chiming if any people, animal, or object is sensed when the vehicle speed is below 6 mph (10 km/h).
- When an obstacle is detected, it is displayed on the cluster and infotainment system screen.
- When more than two objects are detected at the same time, the closest one will be alerted with an audible warning.

### Types of warning sound and indicator

| Distance from object | Warning indicator | Warning sound |
|---|---|---|
| 24~48 inches (60~120 cm) | | Buzzer beeps intermittently |
| 12~24 inches (30~60 cm) | | Buzzer beeps frequently |
| within 12 inches (30 cm) | | Buzzer beeps continuously |

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 engine, a beep will sound when the gear is shifted to R (Reverse) to indicate the function is operating normally.

However, if one or more of the following occurs, first check whether the ultrasonic senior is damaged or whether the function is in a non-operating condition. If it still does not work properly, We recommend that you have your vehicle inspected by an authorized Kia dealer.

- The audible warning does not sound.
- The buzzer sounds intermittently.
- The 'Ultrasonic sensor error or blockage' warning message appears on the cluster.

OBD041550L

**WARNING**

- Reverse Parking Distance Warning is a supplemental function. The operation of the function 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.

- 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.
- Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants.

## Lighting

This vehicle is equipped with a variety of lights to illuminate the interior and exterior of the vehicle.

**⚠ CAUTION**

To prevent the battery from being discharged, do not leave the headlight and interior light on for a prolonged time while the engine is not running.

### 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 light 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 delay function (if equipped)

If you place the ENGINE START/STOP button in the ACC or OFF position with the headlamps ON, the headlamps (and/or position lamps) remain on for about 5 minutes. However, with the engine off if the driver's door is opened and closed, the headlamps (and/or position lamps) are turned off after 15 seconds.

The headlamps (and/or position lamps) can be turned off by pressing the lock button on the remote key or smart key twice or turning the light switch to the OFF or AUTO position. However, if you turn the light switch to the AUTO posi-

tion when it is dark outside, the headlamps will not be turned off.

You can activate or deactivate the Headlamp Delay function from the User Settings Mode in the LCD display. For more details, refer to "LCD display" on page 4-58. If your vehicle is equipped with additional navigation, please refer to the infotainment system manual separately supplied.

**✻ NOTICE**

If the driver exits the vehicle through another door besides the driver door, the battery saver function does not operate and the headlamp delay function does not turn OFF automatically.

This may cause the battery to discharge. To avoid battery discharge, turn OFF the headlamps manually from the headlamp switch before exiting the vehicle.

## Headlight welcome function (if equipped)

When the headlight switch is in the ON or AUTO position and all doors (and trunk) are closed and locked, if you press the door unlock button on the transmitter (or smart key), the headlights will come on for about 15 seconds.If the headlight switch is in the AUTO position, the function can only operate at night.At this time, if you press the door unlock button again or door lock button on the transmitter (or smart key), the headlights will turn off immediately.

## Daytime Running Light (DRL) (if equipped)

The Daytime Running Light (DRL) can make it easier for others to see the front of your vehicle during the day.

The DRL can be helpful in many different driving conditions, and it is especially helpful after dawn and before sunset.

The DRL will turn the dedicated lamp OFF when:

- The headlight switch is on.
- The vehicle is off.
- The front fog light is on. (if equipped)
- Engaging the Parking Brake.

## Lighting control

The light switch has a headlight and a position lamp position.

OSP2049032

To operate the lights, turn the knob at the end of the control lever to one of the following positions:

1. OFF position
2. Auto light position
3. Position & Tail lamp
4. Headlight position

## Position & Tail lamp

OSP2049034

When the light switch is in the position lamp position, the front position lamp and, tail, license light will turn ON.

## Headlight

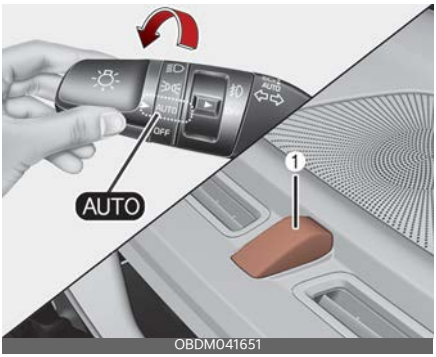
OSP2049035

When the light switch is in the head light position, The head, tail, position, license and instrument panel lights will turn ON.

**NOTICE**

The ignition switch or the ENGINE START/STOP button must be in the ON position to turn on the headlights.

## Auto light



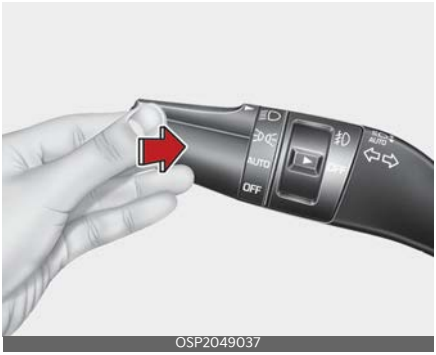

OBDM041651

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.
- Don't clean the sensor using a window cleaner, the cleaner may leave a light film which could interfere with sensor operation.
- 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



OSP2049037

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.

**WARNING**

Do not use high beam when there are other vehicles. Using high beam could obstruct the other driver's vision.

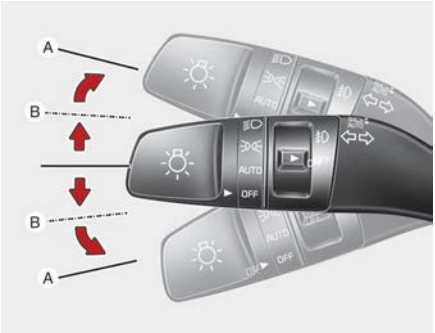
To flash the headlights:

- Pull the lever towards you.

OSP2049036

It will return to the normal (low beam) position when released. The head-light switch does not need to be on to use this flashing feature.

## Operating turn signals and lane change signals



OSP2049078

The ignition switch or the ENGINE START/STOP button 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.

## One-touch lane change function

To activate a one-touch lane change function, move the turn signal lever slightly and then release it. The lane change signals will blink 3, 5 or 7 times.

You can activate or deactivate the One Touch Turn Signal function or choose the number of blinking (3, 5, or 7) by selecting 'User Settings (LCD display) or Setup (Infotainment System screen) → Vehicle (Infotainment System screen) → Lights → One Touch Turn Signal'.

**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.

## 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.

OSP2049079

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 ON position.

**CAUTION**

When in operation, the fog lights consume large amounts of vehicle electrical power. Only use the fog lights when visibility is poor.

## High Beam Assist (HBA)

High Beam Assist is a function that automatically adjusts the headlamp range (switches between high beam and low beam) according to the brightness of other vehicles and road conditions.

OSP2049080

### High Beam Assist settings

The driver can activate HBA by placing the ignition switch or ENGINE START/STOP button to the ON position and by selecting: 'User Settings (LCD display) or Setup (Infotainment System screen) → Vehicle (Infotainment System screen) → Lights → High Beam Assist'. If you disable this setting, HBA will not work.

The setting of High Beam Assist will be maintained, as selected, when the engine is re-started.

### Operating condition

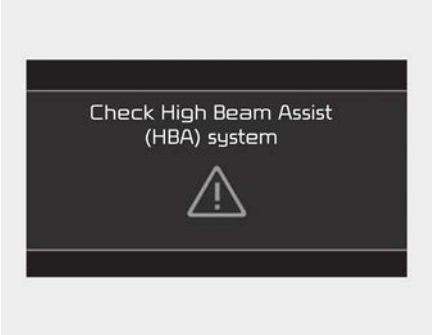
1. Place the light switch in the AUTO position.
2. Turn on the high beam by pushing the Light switch away from you.

3. High Beam Assist (AUTO) indicator will illuminate.
4. High Beam Assist will turn on when vehicle speed is above 25 mph (40 km/h).
   1) If the light switch is pushed away when High Beam Assist is operating, High Beam Assist will turn off and the high beam will be on continuously.
   2) If the light switch is pulled towards you when the high beam is off, the high beam will be on without cancellation of High Beam Assist. When you let go of the light switch, the lever will move to the middle and the high beam will turn off.
   3) If the light switch is pulled towards you when the high beam is on by High Beam Assist, the low beam will be on and High Beam Assist will turn off.
   4) If the light switch is placed to the headlamp position (AUTO), High Beam Assist will turn off and the low beam will be on continuously.

When High Beam Assist is operating, the high beam switches to low beam in the following conditions.

- When the headlamp of an on-coming 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.
- When the light switch is not in the AUTO position.
- When High Beam Assist is off.
- When vehicle speed is below 19 mph (30 km/h).

## Warning light and message




OBD041226L

When High Beam Assist is not working properly, the warning message will come on for a few seconds. After the message disappears, the master warning light ( ) will illuminate.

We recommend that you have your vehicle inspected by an authorized Kia dealer.

**CAUTION**

The function may not operate normally if any of the following conditions should occur:

1. When the illumination from an on-coming vehicle or a vehicle in front is dim. Such examples may include:
   - When the headlamps of an oncoming vehicle or the tail lamps of a vehicle in front is covered with dust, snow, or water
   - When the headlamps on an on-coming vehicle are OFF, but the fog lamps are ON)

2. When High Beam Assist is adversely affected by an external condition. Such examples may include:
   - When the vehicle's headlamps have been damaged or not repaired properly
   - When the vehicle headlamps are not aimed properly
   - When the vehicle is driven on a narrow curved road or rough road
   - When the vehicle is driven on an uphill road or downhill road
   - When only part of the vehicle in front is visible on a crossroad or curved road
   - When there is a traffic light, reflecting sign, flashing sign or mirror
   - When the road conditions are bad such as being wet or covered with snow
   - When a vehicle suddenly appears from a curve
   - When the vehicle is tilted from a flat tire or being towed
   - When Lane Keeping Assist warning light illuminates
   - When the light from the oncoming or front vehicle is not detected because of exhaust fume, smoke, fog, snow, etc.
   - When the front window is covered with foreign matters such as ice, dust, fog, or is damaged
3. When the forward visibility is poor. Such examples may include:
   - When the headlamps of an oncoming vehicle or a vehicle in front is not detected due to poor outside visibility (smog, smoke, dust, fog, heavy rain, snow, etc.)
   - When the windshield visibility is poor

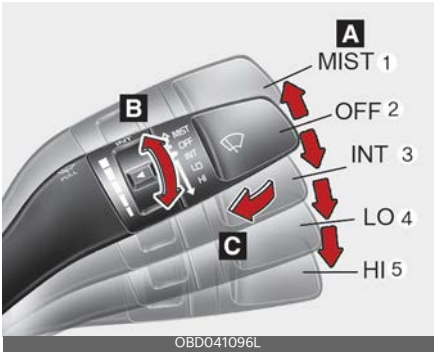
**⚠ CAUTION**

- The function may not work around 15 seconds after starting the vehicle or the initialization or rebooting of the front view camera.
- Do not attempt to disassemble the front view camera without the assistance of an authorized Kia dealer technician.
- If the front view camera is removed for any reason, the function may need to be re-calibrated. We recommend that the function be inspected by an authorized Kia dealer.
- If the windshield of your vehicle is replaced, most likely the front view camera will need to be re-calibrated. If this occurs, have your vehicle inspected and have the function re-calibrated by an authorized Kia dealer.
- Be careful that water doesn't get into related parts of High Beam Assist and do not remove or damage related parts the function.
- Do not place objects on the crash pad that reflect light such as mirrors, white paper, etc. The function may malfunction if sunlight is reflected.
- 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 the function does not operate normally, change the lamp position manually between the 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




OBD041096L

**A: Wiper speed control (front)**

1. MIST : Single wipe
2. OFF : Off
3. INT : Intermittent wipe
4. LO : Low wiper speed
5. HI : High wiper speed

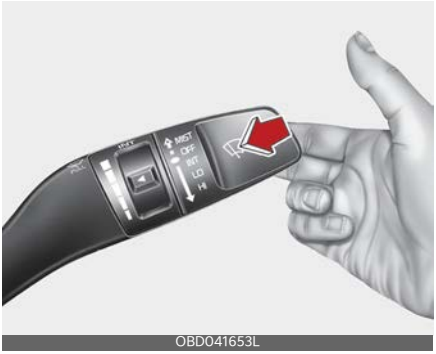
**B: Intermittent control wipe time adjustment/Auto control wipe time adjustment**

**C: Wash with brief wipes (front)**

**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.

## Operating windshield washers (front)



OBD041653L

1. Move the wiper speed control switch to OFF position.
2. Pull the lever gently toward you to spray washer fluid on the windshield and to run the wipers 1-3 cycles. Use this function when the windshield is dirty. 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 engine compartment on the passenger side.

**CAUTION**

To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.

**WARNING**

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**

- 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.
- To prevent possible damage to the wipers and washer system, use anti-freezing washer fluids in the winter season or cold weather.

## Welcome system (if equipped)

The welcome system is a function that illuminates the surroundings or the interior when the driver approaches or exits the vehicle.

### Door handle lamp (if equipped)

OBDM041013L

When all the doors (and trunk) are closed and locked, the door handle lamp will come on for about 15 seconds if any of the below is performed.

- When the door unlock button is pressed on the remote key or smart key.
- When the button of the outside door handle is pressed.
- When the vehicle is approached with the smart key in possession.

### Headlight 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 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 trunk) 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.

## Interior lights

This vehicle is equipped with lights throughout the vehicle to illuminate the interior.

**⚠ CAUTION**

Do not use the interior lights for extended periods when the engine is not running.

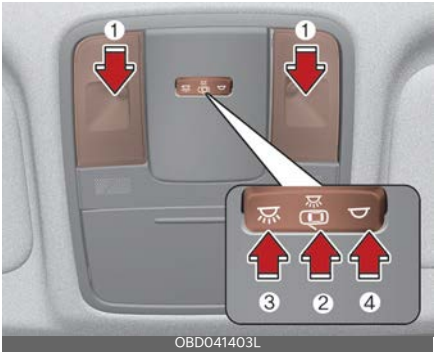
It may cause battery discharge.

**⚠ WARNING**

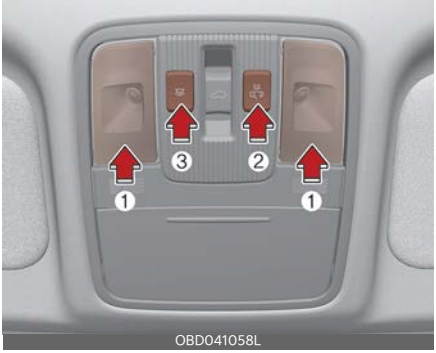
Do not use the interior lights when driving in the dark. Accidents could happen because the view may be obscured by interior lights.

## Map lamp

Type A



Type B



OBD041058L

- 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 smart key as long as the doors are not opened.
  - The map lamp and room lamp will stay on for approximately 10 minutes if a door is opened with the ignition switch or the ENGINE START/STOP button in the ACC or OFF position.
  - The map lamp and room lamp will stay on continuously if the door is opened with the ignition switch or the ENGINE START/STOP button in the ON position.
  - The map lamp and room lamp will go out immediately if the ignition switch or the 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).
- (3): Press this switch to turn the front map lamps on.
- (4): Press this switch to turn the front map lamps off.

**NOTICE**

The DOOR mode and ROOM mode can not be selected at the same time.

## Room lamp

Type A

OSKEV048007NR

Type B (if equipped)

OSK3048007NR

- : The light stays on at all times.

## Trunk room lamp

OBDM041060

The trunk room lamp comes on when the trunk is opened.

**⚠ CAUTION**

The trunk room lamp comes on as long as the trunk opens. To prevent unnecessary charging system drain, close the trunk securely after using the trunk room.

## Vanity mirror lamp (if equipped)

ODEEV068157NR

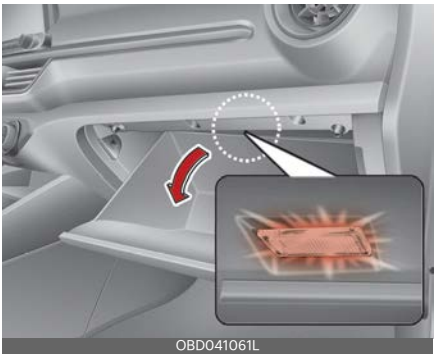
- : The lamp will turn on if this button is pressed.
- ◯ : The lamp will turn off if this button is pressed.

**⚠ 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)


OBD041061L

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.

# Climate control system

The climate control system uses cooling and heating to help maintain a pleasant environment inside the vehicle.

## 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 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 at the base of the windshield. Care should be taken that these are not blocked by leaves, snow, ice or other obstructions.
- To prevent fog from forming on the inside of the windshield:
  - Set the air intake control to the fresh air position and the fan speed to the desired position.
  - Turn on the air conditioning system, and adjust the temperature control to desired temperature.

### Air conditioning (A/C)

Kia air conditioning systems are filled with environmentally friendly refrigerant*.

1. Start the vehicle. Press the A/C 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-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. Refer to "Air conditioning refrigerant label" on page 4-100 for more detail location of air conditioning refrigerant label.

**⚠ 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**

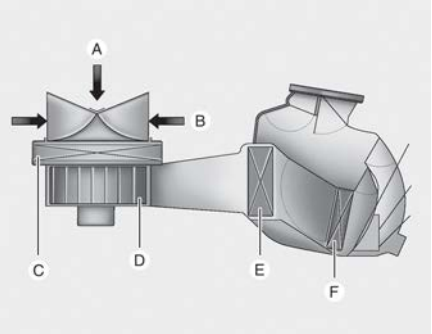
- When using the air conditioning system, monitor the temperature gauge closely while driving up hills or in heavy traffic when outside temperatures are high. Air conditioning system operation may cause engine overheating. Continue to use the blower fan but turn the air conditioning system off if the 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 vehicle speed as the air conditioning compressor cycles. This is a normal characteristic of system operation.
- To ensure maximum system performance, the air conditioning system should be ran for a few minutes each month.
- 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 characteristic of system operation.
- 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 characteristic of system operation.

## Climate control air filter

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.




ODEEV068230NR

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. This leads to moisture accumulating 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 a professional workshop. Kia recommends to visit 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 a professional workshop. Kia recommends to visit an authorized Kia dealer.

## Air conditioning refrigerant label

OKA4040574N

The actual air conditioning refrigerant label in the vehicle may differ from the illustration.

Each symbol and specification on the air conditioning refrigerant label is represented below:

1. Classification of refrigerant
2. Amount of refrigerant
3. Classification of Compressor lubricant
4. Caution
5. Flammable Refrigerant
6. To requires Registered Technician to service Air Conditioning system

The refrigerant label is located on the underside of the hood.

## 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 a professional workshop. Kia recommends to visit 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 Kia technicians.

**⚠ WARNING**

**Vehicles equipped with R-1234yf**

Since the refrigerant is mildly flammable and operated at high pressure, the air conditioning system should only be serviced by trained and certified technicians.

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.

# Manual climate control system

The manual climate control system uses cooling and heating to help maintain a pleasant environment inside the vehicle.

Type A

OBDM048300N

Type B

OBDM048301N

1. Fan speed control knob
2. Temperature control knob
3. Air conditioning button (if equipped)
4. Rear window defroster button
5. Air intake control button
6. Mode selection knob

**CAUTION**

Operating the blower when the ignition switch or ENGINE START/STOP button is in the ON position could cause the battery to discharge. Operate the blower when the engine is running.

## Heating and air conditioning

OBD041304N

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.
   If air conditioning is desired, turn the air conditioning system on.

## Mode selection

The mode selection buttons control the direction of the air flow through the ventilation system.

OBD041303L

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, F)

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, F)

Air flow is directed towards the face and the floor.

### Floor-Level (A, C, D, E, F)

Most of the air flow is directed to the floor, with a small amount of the air being directed to the windshield, side window defrosters and side air vents.

### Floor/Defrost-Level (A, C, D, E, F)

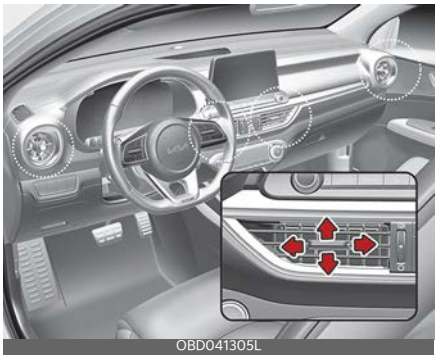
Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters and side air vents.

### 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 and side air vents.

## Instrument panel vents

Type A



OBD041305L

Type B

OBD041308L

OBD041309L

- Type A

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.

- Type B

The outlet vents can be opened or closed separately turning the knob right or left. Also, you can adjust the direction of air delivery from these vents moving the knob freely to any directions.

## Temperature control

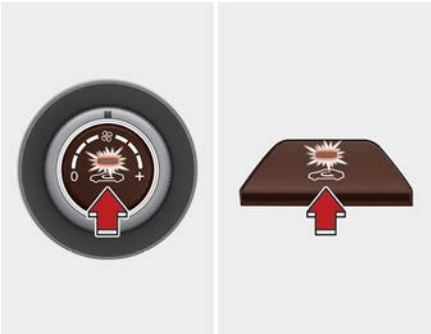
The temperature control knob allows you to control the temperature of the air flowing from the ventilation system.

OBD041306L

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.

## Controlling air intake

The air intake control is used to select the outside (fresh) air position or recirculated air position.

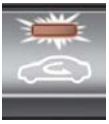



OBD041307N

To change the air intake control position.

- Push the desired control button

## Recirculated air position



The indicator light on the button illuminates when the recirculated air position is selected.

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

The indicator light on the button illuminates when the recirculated air position is selected.

The indicator light on the button will turn off when the outside (fresh) air position is selected.

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 make the air in the passenger compartment 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.

**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.
- Continuously 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 or the ENGINE START/STOP button must be in the ON position for fan operation.

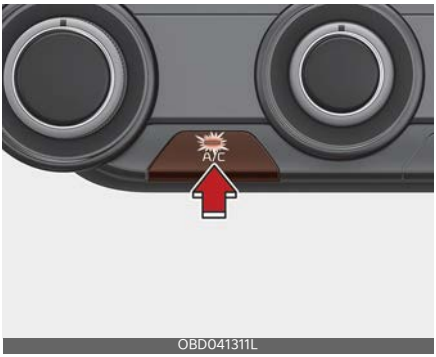
- To change the fan speed:
- Turn the knob to the right for higher speed or left for lower speed.

OBD041412N

To turn off the blowers:

- Turn the fan speed control knob to the "0" position.

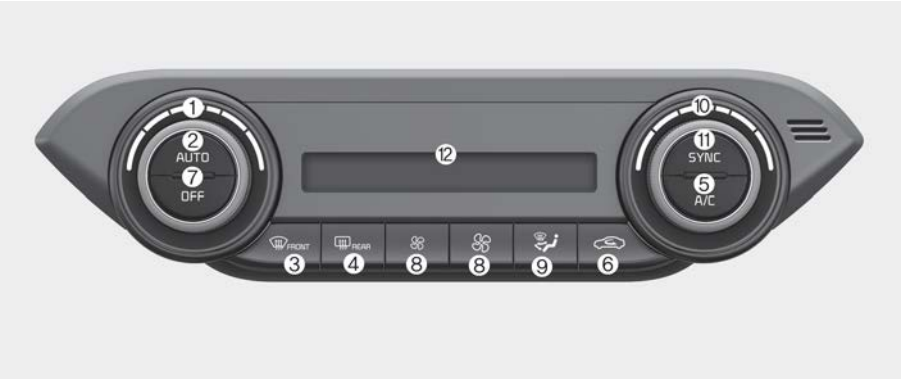
## Air conditioning (A/C)




- 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.

## Automatic climate control system (if equipped)

The automatic climate control system uses cooling and heating to help maintain a pleasant environment inside the vehicle.




OBD041312N

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 or ENGINE START/STOP button 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.

OBD041313L

2. Set the temperature control knob to set the desired temperature.

OBD041333L

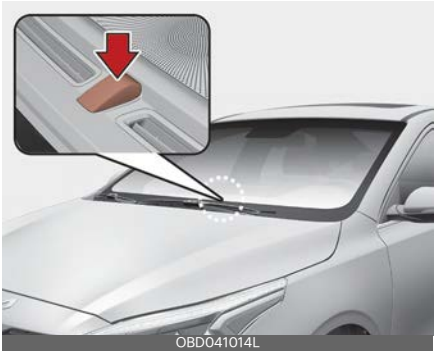
**NOTICE**

- 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 will illuminate on the information display once again.)
  - Fan speed control knob

  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**

Never place anything over the sensor located on the instrument panel to ensure better control of the heating and cooling system.


OBD041014L

## Heating and air conditioning manually

The heating and cooling system can be controlled manually by pressing buttons other than the AUTO button.

OBD041304N

In this case, the system works sequentially according to the order of buttons 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 fully automatic control of the system.

## Mode selection

The mode selection button controls the direction of the air flow through the ventilation system.

OBD041314N

The air flow outlet ports are switched in the following sequence:

### Face-Level (B, D, F)

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, F)

Air flow is directed towards the face and the floor.

### Floor-Level (A, C, D, E, F)

Most of the air flow is directed to the floor, with a small amount of the air being directed to the windshield, side window defrosters and side air vents.

### Floor/Defrost-Level (A, C, D, E, F)

Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters and side air vents.

## Defrost mode

OBD041315N

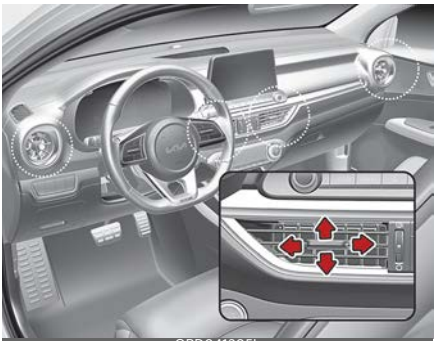
When you select the defrost mode, the following system settings will be made automatically:

- The air conditioning system will be turned on.
- The outside (fresh) air position will be selected.
- The fan speed will be set to the high speed.

To turn the defrost mode off, press the mode button or defrost button again or AUTO button.

## Instrument panel vents

Type A



OBD041305L

Type B

OBD041308L

OBD041309L

- Type A

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.

- Type B

The outlet vents can be opened or closed separately turning the knob right or left. Also, you can adjust the direction of air delivery from these vents moving the knob freely to any directions.

## Temperature control

OBD041333L

The temperature will increase to the maximum (HI) by rotating the knob clockwise direction.

The temperature will decrease to the minimum (Lo) by rotating the knob anti clock wise direction.

When rotating the knob, the temperature will increase or decrease by 1℉ (0.5 ℃). When set to the lowest temperature setting, the air conditioning will operate continuously.

### Adjusting the driver and passenger side temperature equally

OBD041317L

1. 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.

2. 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

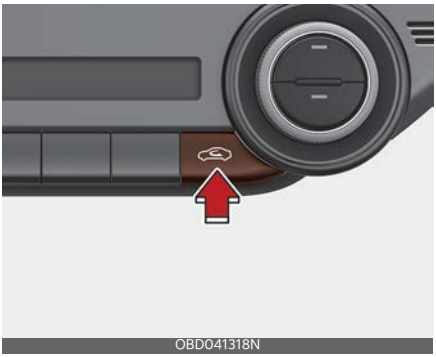
1. Press the "SYNC" button again to adjust the driver and passenger side temperature individually. The button indicator will turn off.
2. Operate the driver side temperature control knob to adjust the driver side temperature.
3. Operate the passenger side temperature control knob to adjust the passenger side temperature.

### Temperature conversion (°C ↔ °F)

You can switch the temperature mode between Centigrade to Fahrenheit as follows; While pressing the OFF button, depress the AUTO button for 3 seconds or more. The display will change from Centigrade to Fahrenheit, or from Fahrenheit to Centigrade.

## 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 desired 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**

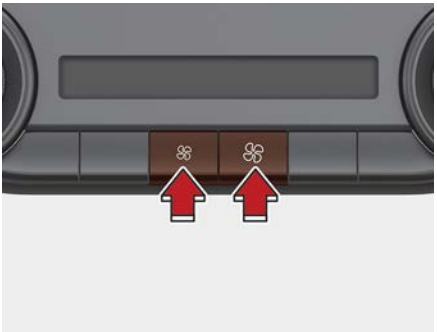
- Continued climate control system operation in the recirculated air position may allow humidity to increase inside the vehicle which may fog the glass and obscure visibility.
- Do not sleep in a vehicle with the air conditioning or heating system on. It may cause serious harm or death due to a drop in the oxygen level and/or body temperature.
- Continued climate control system operation 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 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.



OBD041319N

To turn the fan speed control off:

- Press the OFF button.

## Air conditioning (A/C)

OBD041320L

- 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.

## Turning off the front air climate control

OBD041322L

- Press the OFF button to turn off the air climate control system. However, you can still operate the mode and air intake buttons as long as the ignition switch or the ENGINE START/STOP button is in the ON position.

## 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.

## Defogging inside windshield with manual climate control system

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.

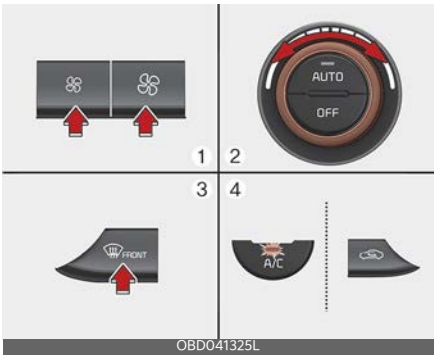
If the air conditioning and outside (fresh) air position are not selected automatically, press the corresponding button manually.

## Defrosting outside windshield with manual climate control system

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.

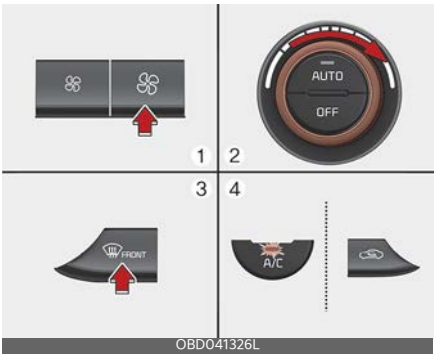
## Defogging inside windshield with automatic climate control




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.

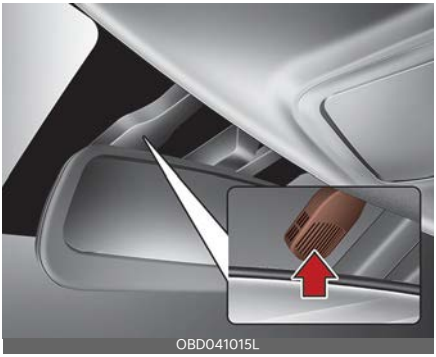
## Defrosting outside windshield with automatic climate control




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.

## Auto defogging system (only for automatic climate control system, if equipped)

Auto defogging helps reduce the possibility of fogging up the inside of the windshield by automatically sensing the moisture on inside the windshield.




AUTO The auto defogging system operates when the heater or air conditioning is on.

When the Auto Defogging System operates, the indicator will illuminate.

If a high amount of humidity is detected in the vehicle, the Auto Defogging System will be enabled.

The following steps will be performed automatically:

1. The A/C button will turn ON.
2. The air intake control will change to Fresh mode under low outside temperature.
3. The mode will be changed to defrost to direct airflow to the windshield.
4. The fan speed will be increased.

To cancel or reset the Auto Defogging System

Press the front windshield defroster button for 3 seconds when the ignition switch or ENGINE START/STOP button is in the ON position.

When the Auto Defogging System is canceled, defrost button indicator will blink 3 times.

When the Auto Defogging System is reset, defrost button indicator will blink 6 times without a signal.

**NOTICE**

- When the air conditioning is turned on by Auto defogging system, if you try to turn off the air conditioning, the indicator will blink 3 times and the air conditioning will not be turned off.
- To maintain the effectiveness and efficiency of the Auto Defogging System, do not select Recirculation mode while the system is operating.
- When the Auto Defogging System is operating, the fan speed adjustment knob, the temperature adjustment knob, and the air intake control button are all disabled.

**NOTICE**

Do not remove the sensor cover located on the upper end of the driver side windshield glass.

Damage to system parts could occur and may not be covered by your vehicle warranty.

## Sunroof inside air recirculation

The outside (fresh) air position is automatically selected, when the sunroof is opened.When you select the recirculated air position, the system maintains the recirculated air position for 3 minutes and then automatically converts to the outside (fresh) air position.When the sunroof is closed, the air intake position will return to the original position that was selected.

## Automatic Air Ventilation

When operating heater and air conditioner for the vehicle ventilation, if you maintain the Recirculation mode for 30 minutes or over at low temperature, it automatically changes to Fresh mode.

## Automatic Air Ventilation control procedure

When set up or release the automatic air ventilation function, select the Mode Selection button at heater or air conditioner is on. And press the Air Intake Control button for 5 times or over within 3seconds together with pressing the Air conditioning button. When release the automatic ventilation function, the Recirculation mode indicator will blink 3 times at 0.5 second intervals and air direction, air volume, Recirculation/Fresh mode, and air conditioner is automatically controlled.

When it set the automatic ventilation function, the Recirculation mode indicator will blink 6 times at 0.25 seconds intervals and air direction, air volume, Recirculation/Fresh mode, and air conditioner is automatically controlled.Auto dehumidify is activated when you select 'Setup → Vehicle → Climate → Automatic Ventilation → Auto dehumidify' from the Settings in the Infotainment System screen.

**For more details, please scan the QR code in a separately supplied Car Infotainment System Quick Reference Guide.**

## Activate upon Washer Fluid Use

To prevent the odor from entering inside the vehicle, the ventilation system changes to Recirculated Air Mode for a while when the windshield washer fluid is sprayed.

However, at low outside temperatures, to prevent windshield fogging, the system continues to use outside air mode.

## System setting

1. ignition switch or the ENGINE START/STOP Button is ON.
2. Select Floor-Level ( ) air flow direction by pressing Mode Selection button.
3. With pressing Air Conditioning button, press the Recirculated Air button more than 4 times within 2 seconds.
4. If the system is set up, the indicator on Recirculated Air button will blinks 6 times.

## System cancellation

1. ignition switch or the ENGINE START/STOP Button is ON.
2. Select Floor-Level ( ) air flow direction by pressing Mode Selection button.
3. With pressing Air Conditioning button, press the Recirculated Air button more than 4 times within 2 seconds.
4. If the system is cancelled, the indicator on Recirculated Air button will blinks 3 times.

Activation on washer fluid is activated when you select 'Setup → Vehicle → Climate → Recirculate Air → Activate upon Washer Fluid Use' from the Settings in the Infotainment System screen.

**For more details, please scan the QR code in a separately supplied Car Infotainment System Quick Reference Guide.**

## Recirculation Mode Plus (if equipped)

To prevent the inflow of polluted air indoors when passing through the tunnel and odor area, this function automatically switches the air conditioner to Recirculation Mode about 7 seconds before the vehicle enters the tunnel based on the map information of the navigation and the speed of the vehicle.

## Operating Condition

- Type of Road: Expressway,
- Air Intake Condition: Fresh Mode

You may activate or deactivate this function from the Setup in the Infotainment System screen as 'Setup → Vehicle → Climate → Recirculate Air → Recirculation Mode Plus'.

**For more details, please scan the QR code in a separately supplied Car Infotainment System Quick Reference Guide.**

## 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.

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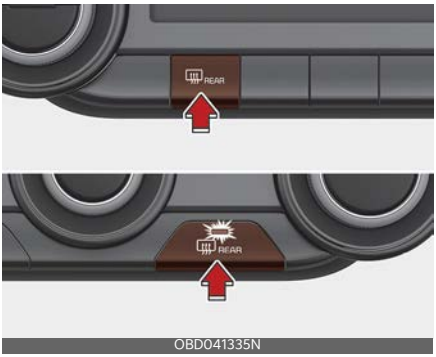
If you want to defrost and defog the front windshield, refer to "Windshield defrosting and defogging" on page 4-115.

## Operating rear window defroster

The defroster heats the window to remove frost, fog and thin ice from the rear window, while the engine 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 heater control panel.

  The indicator on the rear window defroster button illuminates when the defroster is ON.

  The rear window defroster automatically turns off after approximately 20 minutes or when the ignition switch or the ENGINE START/STOP button is turned off.

To turn off the defroster:

- Press the rear window defroster button again.

## Outside mirror defroster (if equipped)

If your vehicle is equipped with the outside 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 0.6~6 mph (1~10 km/h) with the gear position in "D" or "R".

If the vehicle stops or the vehicle speed is over 6 mph (10 km/h), the rear window defroster turns on again.

## Storage compartment

These compartments can be used to store small items required by the driver or passengers.

**CAUTION**

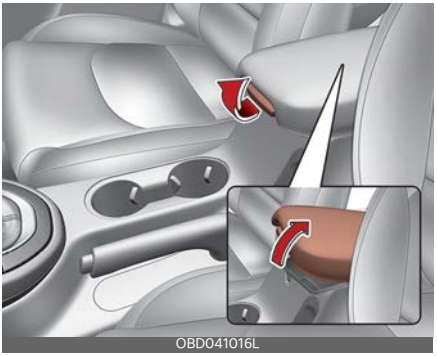
- To avoid possible theft, do not leave valuables in the storage compartment.
- Always keep the storage compartment covers closed while driving. Do not attempt to place so many items in the storage compartment that the storage compartment cover cannot close securely.

**WARNING**

**Flammable materials**

Do not store, propane cylinders 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.

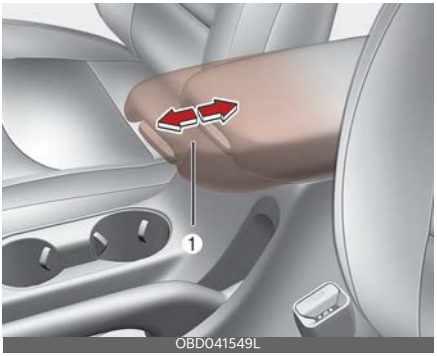
### Center console storage




To open the center console storage:

- Pull up the lever.

## Sliding armrest (if equipped)



OBD041549L

### To move forward

Grab the front portion of the armrest then press up the lever (1) and pull it forward.

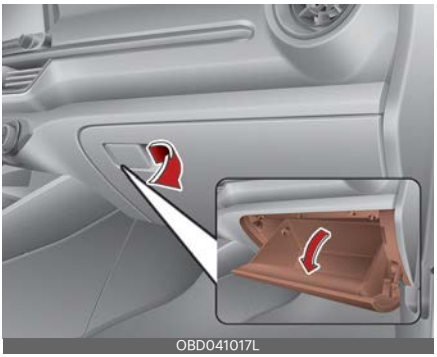
### To move rearward

Push the armrest rearward with your palm.

**WARNING**

Do not grab the front portion of the armrest (1) when moving the armrest rearward. It may pinch your fingers.

## Glove box


OBD041017L

To open the glove box:

- Pull the handle and the glove box will automatically open.

Close the glove box after use.

**WARNING**

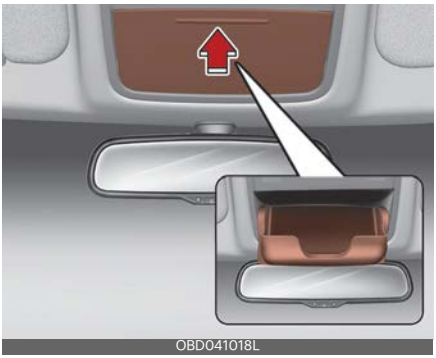
**Glove box**

To reduce the risk of injury in an accident or sudden stop, always keep the glove box door closed while driving.

**CAUTION**

Do not keep food in the glove box for a long time.

## Sunglass holder


OBD041018L

To open the sunglass holder, press the cover and the holder will slowly open. Place your sunglasses with the lenses facing out. To close the sunglass holder, push it up.

**WARNING**

- Do not keep objects except sunglasses inside the sunglass 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 sunglass holder while the vehicle is moving. The rear view

mirror of the vehicle can be blocked by an opened sunglass holder.

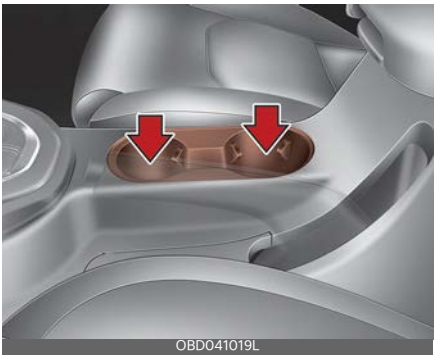
- Do not put the glasses forcibly into a sunglass holder to prevent breakage or deformation of the glasses. It may cause personal injury if you try to open it forcibly when the glasses are jammed in the holder.

# Interior features

There are various features inside the vehicle for the convenience of the occupants.

## Cup holder

Front




Rear (if equipped)

Cups or small beverage cans may be placed in the cup holders.

**⚠ 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 could burn yourself. Such a burn to the driver could lead to loss of control of the vehicle.

- To reduce the risk of personal injury in the event of sudden stop or collision, do not place uncovered or unsecured bottles, glasses, cans, etc., in the cup holder while the vehicle is in motion.

**WARNING**

Keep cans or bottles out of direct sun light and do not put them in a vehicle that is heated up. It may explode.

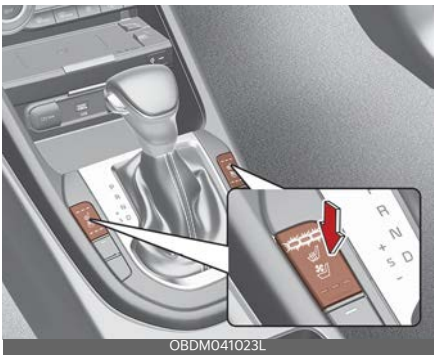
**NOTICE**

- 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 dry the cup holder at high temperature. This may damage the cup holder.

## Seat warmer (if equipped)

The seat warmer is provided to warm the front seats during cold weather.

Front seat



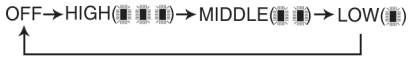

With the ignition switch or ENGINE START/STOP button in the ON position:

- Push either of the buttons to warm the driver's seat or the front passenger's seat.

During mild weather or under conditions where the operation of the seat warmer is not needed, keep the levers/switch in the "OFF" position.

### Temperature control (Manual)

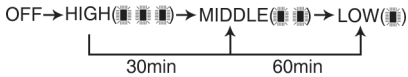
- Each time you press the button, the temperature setting of the seat will change as follows:




- 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.




You may manually press the button to increase the seat temperature. However, it soon returns to the automatic mode again.

- When pressing the button 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 the ENGINE START/STOP button is in the ON position.

**NOTICE**

With the seat warmer button in the ON position, the heating system in the seat turns off or on automatically depending on the seat temperature.

**CAUTION**

- When cleaning the seats, do not use an organic solvent such as paint thinner, benzene, alcohol and gasoline. Doing so may damage the surface of the heater or seats.
- To prevent overheating the seat warmer, do not place anything on the seats that insulates against heat, such as blankets, cushions or seat covers while the seat warmer is in operation.
- Do not place heavy or sharp objects on seats equipped with seat warmers. Damage to the seat warming components could occur.
- Do not change the seat cover. It may damage the seat warmer or air ventilation system.

**WARNING**

**Seat warmer burns**

Passengers should use extreme caution when using seat warmers due to the possibility of excess heating or burns. The seat warmer may cause burns even at low temperatures, especially if used for long periods of time. In particular, the driver must exercise extreme care for the following types of passengers:

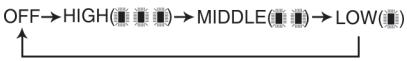
1. Infants, children, elderly or handicapped persons, or hospital outpatients
2. Persons with sensitive skin or those that burn easily
3. Fatigued individuals
4. Intoxicated individuals
5. Individuals taking medication that can cause drowsiness or sleepiness (sleeping pills, cold tablets, etc.)

## Air ventilation seat (if equipped)

The temperature setting of the seat changes according to the button position.

- To ventilate your seat cushion, press the button.

  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 the ENGINE START/STOP button is turned on.

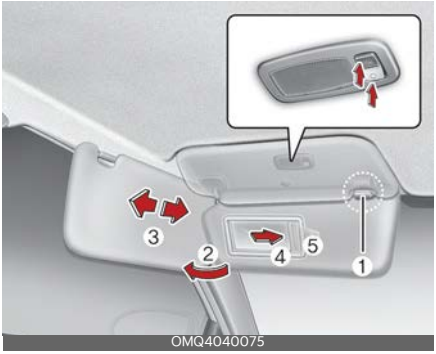
**CAUTION**

**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.

## Sun visor

Use the sun visor to shield direct light through the front or side windows.



OMQ4040075

- To use the sun visor, pull it downward.
- To use the sun visor for the side window, pull it downward, unsnap it from the bracket (1) and swing it to the side (2). You can slide the sun visor if necessary (3) (if equipped).
- To use the vanity mirror, pull down the visor and slide the mirror cover (4).

  Press the ON button ( ) to turn on the lamp inside the sun visor when using a mirror. Before returning the sun visor to the original position, be sure to press the OFF button (◯) to turn it off.

  The ticket holder (5) is provided for holding a tollgate ticket.

**⚠ WARNING**

For your safety, do not block your view when using the sun visor.

**✻ NOTICE**

Do not put several tickets in the ticket holder at one time. This could cause damage to the ticket holder.

## USB charger (if equipped)

The USB car charger allows drivers to charge their digital devices like smartphones, and PC tablets.

Front

OBD041026L

2nd row (if equipped)

OBD041552L

Plug the cable into the USB port, and charging will begin.

The USB car charger is available with either the ACC on 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 smart phone or tablet 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. Quick Charge 2.0 is available on the smart phone or the table PC equipped with fast charging capabilities. The list of applicable devices is as follows: (https://www.qualcomm.com/documents/quick-charge-device-list)

The smart phone or PC tablet without fast charging is charged at a regular speed.

Rated output:

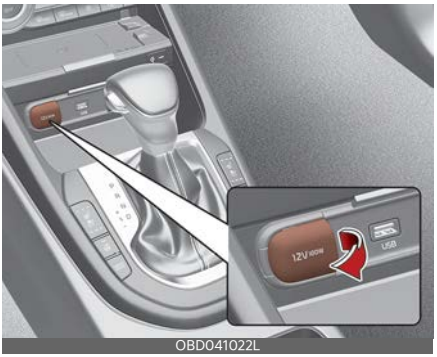
- Digital devices with fast charging:
  - 9.0 V, 1.67 A
- Digital devices with normal charging:
  - 5.0 V, 2.1 A

**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 use the 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.

## Power outlet

The power outlet is designed to provide power for mobile telephones or other devices designed to operate with vehicle electrical systems.



OBD041022L

The devices should draw less than 15 amps with the vehicle on.

**WARNING**

- 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 15 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.

## Wireless smart phone charging system (if equipped)

A wireless smart phone charging system is located in front of the center console.

OBD041657L

Firmly close all doors, and the ignition switch or ENGINE START/STOP button is 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.

**WARNING**

If any metallic object such as coins is located between the wireless charging system and the smart phone, the charging may be disrupted. Also, the metallic object may heat up.

### Wireless smart phone charging

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.
3. The indicator light will change to orange once the wireless charging begins. After the charging is complete, the orange light will change to green.
4. 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 4-53 for details).

If the wireless charging does not work, gently move your smart phone around the pad until the charging indicator light

turns yellow. 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 ignition is in 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.

**✻ NOTICE**

For some manufacturers' smart phones, the system may not warn you even though the smart phone is left on the wireless charging unit. This is due to the particular characteristic of the smart phone and not a malfunction of the wireless charging.

**⚠ CAUTION**

- When the interior temperature of the wireless charging system rises above a set temperature, the wireless charging will cease to function. After the interior temperature drops below the threshold, the wireless charging function will resume.
- If there is any metallic object between the smart phone and the wireless charging pad, immediately remove the smart phone. Remove the metallic object after it has completely cooled down.
- The wireless charging may not function properly when there is a heavy accessory cover on the smart phone.
- The wireless charging will stop when using the wireless smart key search function to prevent radio wave disruption.
- The wireless charging will stop when the smart key is moved out of the vehicle with the ignition in ON.
- The wireless charging will stop when any of the doors is opened (applicable for vehicles equipped with smart keys).
- The wireless charging 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, telephone card, bankbook, any transportation ticket and such 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 builtin wireless charging system, an appropriate accessory has to be equipped.
- 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 yel-

low 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.

- 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 the Qi specification ( ).
- For certain cellular phones with their own protection, the wireless charging speed may decrease and the wireless charging may stop.

## 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.

## Coat hook

A Coat hook is next to the rear grab handle.

OSK3048028NR

* 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 body injury.

OSK3040409NR

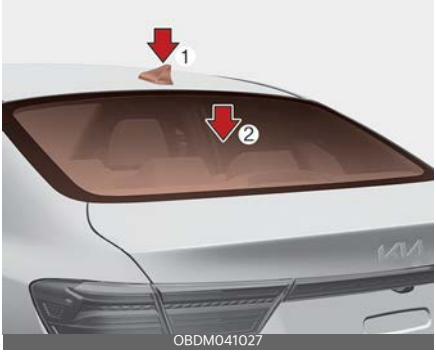
# Infotainment system

**✻ 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 Infotainment system, refer to a separately supplied manual for detailed information.

## Antenna



OBDM041027

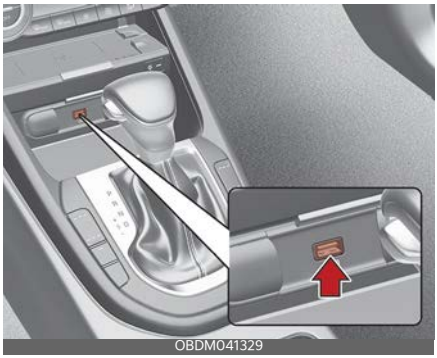
1. Shark fin antenna (1, if equipped)
   The shark fin antenna receives transmitted data. (for example : GPS)
2. Glass antenna (2)
   Your vehicle uses a glass antenna to receive both AM and FM signals.

**✻ NOTICE**

- To prevent damage to the rear glass antenna, never use sharp instruments or window cleaner containing abrasives to clean the window. Clean the inside surface of the rear glass window with a piece of soft cloth.
- When putting a sticker on the inside surface of the rear window, be careful not to damage to the rear glass antenna.
- Avoid adding metallic coatings such as Ni, Cd, etc.
- These can degrade the receiving AM and FM broadcast signals.
- Do not put sharp instruments nearby the rear glass antenna.
- Tinted rear window may affect the proper functioning of the antenna.

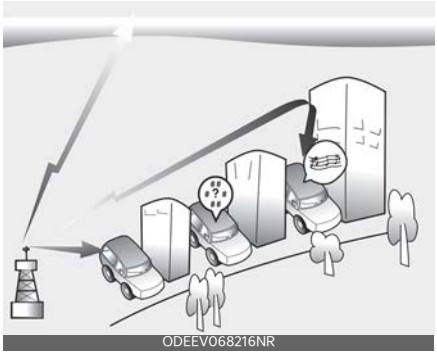
## USB port

You can use the USB port to plug in a USB.


OBDM041329

## How vehicle radio works

### FM reception


ODEEV068216NR

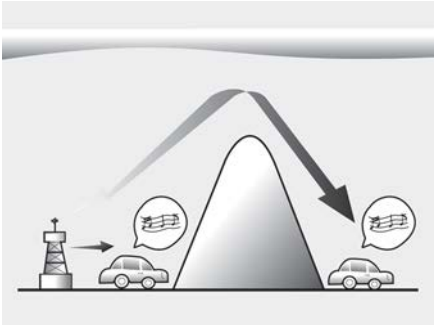
AM and FM radio signals are broadcast from transmitter towers located around your city. They are intercepted by the

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.

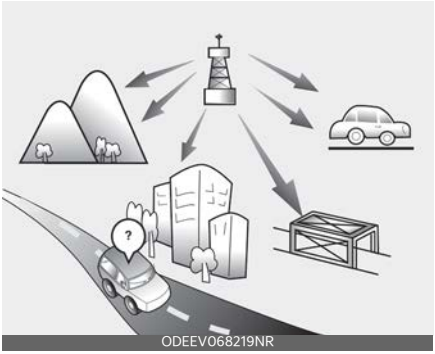
## AM reception



ODEEV068217NR

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

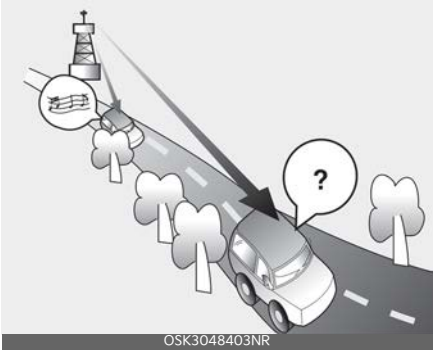


ODEEV068219NR

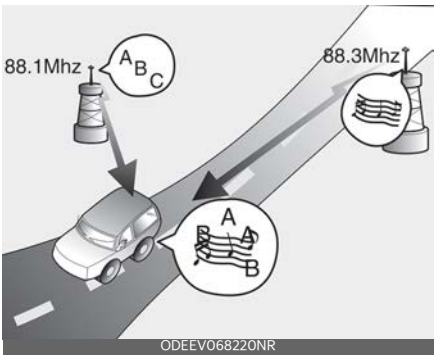
FM broadcasts are transmitted at high frequencies and do not bend to follow the earth's surface. Because of this, FM broadcasts generally begin to fade within short distances from the station. Also, FM signals are easily affected by buildings, mountains, and obstructions. This can lead to undesirable 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 only the internal antenna, it may interfere with the vehicle's electrical system and adversely affect the 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 permissable by law.

These should never be used during the operation of the vehicle.

# Declaration of Conformity

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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, includ-

ing interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum 8 inches (20 cm) 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 FCC.

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# Driving your vehicle

**⚠ WARNING**

**ENGINE EXHAUST CAN BE DANGEROUS!**

Engine exhaust fumes can be extremely dangerous. If, at any time, you smell exhaust fumes inside the vehicle, open the windows immediately.

- **Do not inhale exhaust fumes.**

  Exhaust fumes contain carbon monoxide, a colorless, odorless gas that can cause unconsciousness and death by asphyxiation.
- **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.
- **Do not run the engine in an enclosed area.**

  Letting the engine idle in your garage, even with the garage door open, is a hazardous practice. Never run the engine in your garage any longer than it takes to start the engine and back the car out.
- **Avoid idling the engine for prolonged periods with people inside the car.**

  If it is necessary to idle the engine for a prolonged period with people inside the car, be sure to do so only in an open area with the air intake set at "Fresh" and fan operating at one of the higher speeds so fresh air is drawn into the interior.

If you must drive with the trunk lid open because you are carrying objects that make this necessary:

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 one of the higher speeds.

To assure proper operation of the ventilation system, be sure the ventilation air intakes located just in front of the windshield are kept clear of snow, ice, leaves or other obstructions.

# 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, with the exact interval depending on the fluid. Refer to "Maintenance services" on page 7-5 for further details.

**⚠ WARNING**

Driving while distracted can result in a loss of vehicle control, that may lead to an accident, severe personal 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.

## Before starting

- Close and lock all doors.
- Position the seat so that all controls are easily reached.
- 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 or ENGINE START/STOP button 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**

All passengers must be properly belted whenever the vehicle is moving. Refer to "Seat belts" on page 3-16 for more information on their proper use.

**⚠ WARNING**

Always check the surrounding areas near your vehicle for people, especially children, before putting a car into D (Drive) or R (Reverse).

**⚠ WARNING**

**Driving under the influence of alcohol or drugs**

Drinking and driving is dangerous. Drunk driving is the number one contributor to the highway death toll each year. Even a small amount of alcohol will affect your reflexes, perceptions and judgment. Driving while under the influence of drugs is as dangerous or more dangerous than driving drunk.

You are much more likely to have a serious accident if you drink or take drugs and drive.

If you are drinking or taking drugs, don't drive. Do not ride with a driver who has been drinking or taking drugs. Choose a designated driver or call a cab.

**⚠ WARNING**

- 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.
- 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. Keep all things in the vehicle safely stored.
- If you do not focus on driving, it may cause an accident. Be careful when operating what may disturb driving such as audio or heater. It is the responsibility of the driver to always drive safely.

# Key positions (if equipped)

## Illuminated ignition switch (if equipped)

Whenever a front door is opened, the ignition switch will illuminate for your convenience, provided the ignition switch is not in the ON position.

OMQ4050264L

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.

Type A

OSK3058160NR

Type B

OYB056068

## LOCK (1)

The steering wheel locks to protect against theft. The ignition key can be removed only in the LOCK position.

## ACC (Accessory) (2)

The steering wheel is unlocked and electrical accessories are operative.

**NOTICE**

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.

**WARNING**

**Ignition switch**

OBDM061111

- 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 inserted key to inadvertently change the ignition position to the ACC position while the vehicle is moving, thereby increasing the risk of an accident and deactivating several safety features.
- 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.
- 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 1st gear for Manual Transmission or 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.

- Never reach for the ignition switch, or any other 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, 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**

- Always wear appropriate shoes when operating your vehicle. Unsuitable shoes (high heels, ski boots, etc.) may interfere with your ability to use the brake and accelerator pedal, and the clutch. (if equipped)
- 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 gasoline engine

1. Make sure the parking brake is applied.
2. **Manual Transmission** - Depress the clutch pedal fully and shift the transmission into Neutral. Keep the clutch pedal and brake pedal depressed while turning the ignition switch to the start position.

   **Dual Clutch Transmission/Intelligent Variable Transmission** - Place the transmission shift lever in P (Park). Depress the brake pedal fully.

   You can also start the engine when the shift level 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 pedal.**

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.)

**✻ NOTICE**

If the engine does not start within 10 seconds after the preheating is completed, turn the ignition key once more to the LOCK position for 10 seconds, and then to the ON position, in order to preheat again.

## 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.

**⚠ CAUTION**

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**

- Do not engage the starter for more than 10 seconds. If the engine stalls or fails to start, wait 5 to 10 seconds before reengaging the starter. Improper use of the starter may damage it.
- Do not turn the ignition switch to the START position with the engine running. It may damage the starter.

## Stopping the engine

### Manual Transmission

1. Make sure the vehicle is completely stopped and keep the clutch pedal and brake pedal depressed.
2. Shift the transmission into Neutral while depressing the clutch pedal and brake pedal.
3. Engage the parking brake while depressing the brake pedal.
4. Turn the ignition key to the LOCK position and remove it.

## ENGINE START/STOP button (if equipped)

### Illuminated ENGINE START/STOP button (if equipped)

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

### OFF

#### With Manual Transmission

To turn off the engine (START/RUN position) or vehicle power (ON position), stop the vehicle then press the ENGINE START/STOP button.

#### With Dual Clutch Transmission/ Intelligent Variable Transmission

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:

- Manual Transmission - Press the ENGINE START/STOP button with shift ever in neutral and clutch pedal depressed.
- Dual Clutch Transmission/Intelligent Variable Transmission - Press the ENGINE START/STOP button when vehicle speed is 3 mph or over.

## ACC (Accessory)

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### With Manual Transmission

Press the ENGINE START/STOP button when the button is in the OFF position without depressing the clutch pedal.

### With Dual Clutch Transmission/ Intelligent Variable Transmission

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

### With Manual Transmission

Press the ENGINE START/STOP button when the button is in the ACC position without depressing the clutch pedal.

### With Dual Clutch Transmission/ Intelligent Variable Transmission

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

### With Manual Transmission

To start the engine, depress the clutch pedal and brake pedal, then press the ENGINE START/STOP button with the shift lever in the N (Neutral) position.

### With Dual Clutch Transmission/ Intelligent Variable Transmission

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 clutch pedal for Manual Transmission vehicles or without depressing the brake pedal for Dual Clutch Transmission/Intelligent Variable Transmission vehicles, 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 (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), 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**

- Always wear appropriate shoes when operating your vehicle. Unsuitable shoes (high heels, ski boots, etc.) may interfere with your ability to use the brake, accelerator and clutch pedal.
- 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 gasoline engine

1. Carry the smart key or leave it inside the vehicle.
2. Make sure the parking brake is firmly applied.
3. **Manual Transmission** - Depress the clutch pedal fully and shift the transmission into Neutral. Keep the clutch pedal and brake pedal depressed while starting the engine.

   **Dual Clutch Transmission/Intelligent Variable Transmission** - 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 will blink or the warning "Key is not in vehicle" will illuminate on the LCD display. 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.

**⚠ 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.

**✻ 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 can't start the engine normally. 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.

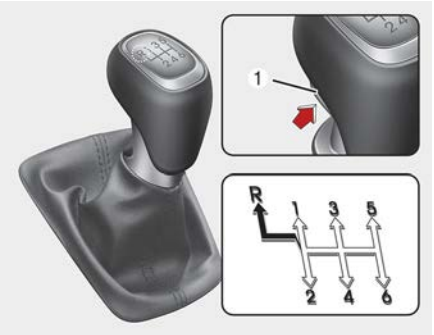
## Stopping the engine

### Manual Transmission

1. Make sure the vehicle is completely stopped and keep the clutch pedal and brake pedal depressed.
2. Shift the transmission into Neutral while depressing the clutch pedal and brake pedal.
3. Engage the parking brake while depressing the brake pedal.
4. Turn the ignition key to the LOCK position and remove it.

# Manual Transmission (if equipped)

## Manual Transmission operation



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⇨The shift lever can be moved without pushing the button (1).

➡The button (1) should be pressed when moving the shift lever into reverse.

The Manual Transmission has 6 forward gears.

This shift pattern is imprinted on the shift knob. The transmission is fully synchronized in all forward gears so shifting to either a higher or a lower gear is easily accomplished.

Depress the clutch pedal down fully while shifting, then release it slowly.

If your vehicle is equipped with an ignition lock switch, the engine will not start when starting the engine without depressing the clutch pedal. (if equipped)

The shift lever must be returned to the neutral position before shifting into R (Reverse).

Push the button located immediately below the shift knob and pull the gearshift lever to the left sufficiently, and then shift into reverse (R) gear position.

Make sure the vehicle is completely stopped before shifting into R (Reverse).

Never operate the engine with the tachometer (rpm) in the red zone.

**⚠ CAUTION**

- When downshifting from fifth gear to fourth gear, caution should be taken not to inadvertently press the shift lever sideways in such a manner that the second gear is engaged. Such a drastic downshift may cause the engine speed to increase to the point that the tachometer will enter the red-zone. Such over-revving of the engine and transmission may possibly cause engine damage.
- Do not downshift more than 2 gears or downshift the gear when the engine is running at high speed (5,000 RPM or higher). Such downshifting may damage the engine, clutch and the transmission.

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- During cold weather, shifting may be difficult until the transmission lubricant is warmed up. This is normal and not harmful to the transmission.
- If you've come to a complete stop and it's hard to shift into 1st or R (Reverse), leave the shift lever at N (Neutral) position and release the clutch. Depress the clutch pedal back down, and then shift into 1st or R (Reverse) gear position.

**⚠ CAUTION**

- To avoid premature clutch wear and damage, do not drive with your foot resting on the clutch pedal. Also, don't use the clutch to hold the vehicle stopped on an uphill grade, while waiting for a traffic light, etc.

- Do not use the shift lever as a handrest during driving, as this can result in premature wear of the transmission shift forks.
- To prevent possible damage to the clutch system, do not start with the 2nd (second) gear engaged except when you start on a slippery road.
- Do not overload the vehicle. Driving with the vehicle overloaded could cause abnormal friction heat to the clutch disk and damage the clutch cover and disk.

**WARNING**

- Before leaving the driver's seat, always set the parking brake fully and shut the engine off. Then make sure the transmission is shifted into 1st gear when the vehicle is parked on a level or uphill grade, and shifted into R (Reverse) on a downhill grade. 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.

## Using the clutch

The clutch should be depressed all the way to the floor before shifting, then released slowly. The clutch pedal should always be fully released while driving. Do not rest your foot on the clutch pedal while driving. This can cause unnecessary wear. Do not partially engage the clutch to hold the vehicle on an incline. This causes unnecessary wear. Use the foot brake or parking brake to hold the vehicle on an incline. Do not operate the clutch pedal rapidly and repeatedly.

**CAUTION**

When operating the clutch pedal, depress the clutch pedal down fully. If you don't depress the clutch pedal fully, the clutch may be damaged or noise may occur.

**WARNING**

### Using the clutch

Depress the clutch pedal as far as possible. Be aware not to apply the pedal again before it returns to the normal position. If the pedal is repeatedly depressed before returning to its normal position, the clutch system might be damaged. Do not overload the vehicle.Starting or driving a vehicle in this situation generates too much frictional heat to the clutch disk which might cause damage to the clutch cover and disk.When starting the vehicle or driving backwards, releasing the clutch pedal too soon after shifting the lever might turn off the engine and lead to an accident.

## Downshifting

When you must slow down in heavy traffic or while driving up steep hills, downshift before the engine starts to labor. Downshifting reduces the chance of stalling and gives better acceleration when you again need to increase your speed. When the vehicle is traveling down steep hills, downshifting helps maintain safe speed and prolongs brake life.

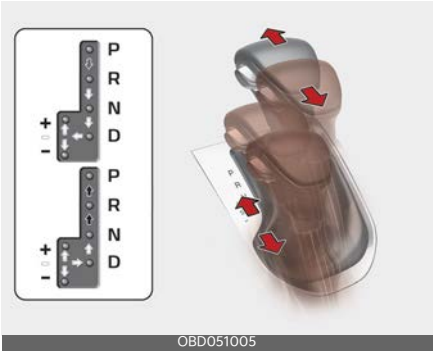
## Good driving practices

- Never take the vehicle out of gear and coast down a hill. This is extremely hazardous. Always leave the vehicle in gear.
- Don't "ride" the brakes. This can cause them to overheat and malfunction. Instead, when you are driving down a long hill, 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. This will help avoid over-revving the engine, which can cause damage.
- Slow down when you encounter cross winds. This gives you much better control of your vehicle.
- Be sure the vehicle is completely stopped before you attempt to shift into reverse. The transmission can be damaged if you do not.
- 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.

**WARNING**

- 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 rollover is greatly increased if you lose control of your vehicle at highway speeds.
- Loss of 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.

## Dual Clutch Transmission (DCT) (if equipped)



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➡ 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.

* To move the shift lever from/to P (Parking) or between R (Reverse) and D (Drive), you must depress the brake pedal for the vehicle to stand still.

**⚠ WARNING**

To reduce the risk of serious injury or death:

- ALWAYS check the surrounding areas near your vehicle for people, especially children, before shifting a vehicle 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, and place the ignition switch or ENGINE START/STOP button in the LOCK/OFF position. Unexpected and sudden vehicle movement can occur if these precautions are not followed.
- Do not use engine braking (shifting from a high gear to lower gear) rapidly on slippery roads. The vehicle may slip causing an accident.

### Dual Clutch Transmission operation

The dual clutch transmission has 7 forward speeds and one reverse speed.

The individual speeds are selected automatically when the shift button is in the D (Drive) position.

- The dual clutch transmission can be thought of as an automatically shifting manual transmission. It gives the driving feel of a manual transmission, yet provides the ease of a fully automatic transmission.
- When D (Drive) is selected, the transmission will automatically shift through the gears similar to a conventional automatic transmission. Unlike a traditional automatic transmission, the gear shifting can sometimes be felt and heard as the actuators engage the clutches and the gears are selected.
- The dual clutch transmission incorporates a dry-type dual clutch mechanism, which allows for better acceleration performance and increased fuel efficiency while driving. But it differs from a conventional automatic transmission because it does not incorporate a torque converter. Instead, the transition from one gear to the next is managed by clutch slip, especially at lower speeds.

As a result, shifts are sometimes more noticeable, and a light vibration can be felt as the transmission shaft speed is matched with the engine shaft speed.

This is a normal condition of the dual clutch transmission.

- The dry-type clutch transfers torque more directly and provides a direct-drive feeling which may feel different from a conventional automatic transmission. This may be more noticeable when launching the vehicle from a stop-and-go vehicle speeds.
- When rapidly accelerating from a lower vehicle speed, the engine rpm may increase dramatically as a result of clutch slip as the dual clutch transmission selects the correct gear. This is a normal condition.
- When accelerating from a stop an incline, depress the accelerator smoothly and gradually to avoid any shudder feeling or jerkiness.
- When traveling at a lower vehicle speed, if you release the accelerator pedal quickly, you may feel engine braking before the transmission changes gears. This engine braking feeling is similar to operating a manual transmission at low speed.
- When driving downhill, you may wish to move the gear shift button to Manual Shift mode and downshift to a lower gear in order to control your speed without using the brake pedal excessively.
- When you turn the engine on and off, you may hear clicking sounds as the system goes through a self-test. This a normal sound for the dual clutch transmission.
- During the first 1,000 miles (1,500 km), you may feel that the vehicle may not be smooth when accelerating at low speed. During this break-in period, the shift quality and performance of your new vehicle is continuously optimized.

**WARNING**

Due to transmission failure, the vehicle may not move and the position indicator (D, R) will blink on the cluster. In this case, have the system checked by an authorized Kia dealer.

## DCT warning messages

This warning message is displayed when vehicle is driving slowly on a grade and the vehicle detects that the brake pedal is not applied.

## Steep grade

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Driving up hills or on steep grades:

- To hold the vehicle on an incline use the foot brake or the parking brake.
- When in stop-and-go traffic on an incline, keep some distance ahead before moving the vehicle forward. Then hold the vehicle on the incline with the foot brake.
- If the vehicle is held on a hill by applying the accelerator pedal or by creeping with brake pedal disengaged, the clutch and transmission may overheat which can result in damage. At this

time, a warning message will appear on the LCD display.
- If the LCD warning is active, the foot brake must be applied.
- Ignoring the warnings can lead to damage to the transmission.

## Transmission high temperature

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- Under certain conditions, such as repeated stop-and-go launches on steep grades, sudden take off or acceleration, or other harsh driving conditions, the transmission clutch temperatures will increase excessively. Finally the clutch in transmission could be overheated.
- When the clutch is overheated, the safe protection mode engages and the gear position indicator on the cluster blinks with a chime. At this time, "Transmission temp. is high! Stop safely" warning message will appear on the LCD display and driving may not be smooth.
- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply the brakes and shift the vehicle to P (Park), and allow the transmission to cool.
- If you ignore this warning, the driving condition may become worse. You may experience abrupt shifts, frequent shifts, or jerkiness. To return to the normal driving condition, stop the vehicle and apply the foot brake or shift into P (Park).

  Then allow the transmission to cool for a few minutes with engine on, before driving off.
- When possible, drive the vehicle smoothly.

## Transmission overheated

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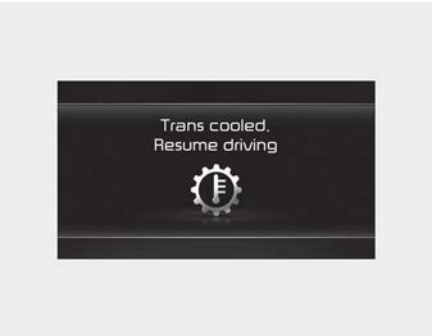

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- If the vehicle continues to be driven and the clutch temperatures reach the maximum temperature limit, the "Transmission Hot! Park with engine on" warning will be displayed. When this occurs the clutch is disabled until the clutch cools to normal temperatures.
- The warning will display a time to wait for the transmission to cool.
- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply the brakes and shift the vehicle to P (Park), and allow the transmission to cool.
- When the message "Trans cooled. Resume driving." appears you can continue to drive your vehicle.
- When possible, drive the vehicle smoothly.

If any of the warning messages in the LCD display continue to blink, for your safety, have the system checked by an authorized Kia dealer.

## Transmission ranges

The indicator in the instrument cluster displays the shift lever position when the ignition switch or ENGINE START/STOP button is in the ON position.

### P (Park)

Always come to a complete stop before shifting into P (Park).

To shift from P (Park), you must depress firmly on the brake pedal and make sure your foot is off the accelerator pedal.

The shift lever must be in P (Park) before turning the engine off.

**⚠ WARNING**

- Shifting into P (Park) while the vehicle is in motion may cause you to lose control of the vehicle.
- After the vehicle has stopped, always make sure the shift lever is in P (Park), apply the parking brake, and turn the engine off.
- Do not use the P (Park) position in place of the parking brake.

### 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 (Reverse) while the vehicle is in motion.

### N (Neutral)

The wheels and transmission are not engaged.

**⚠ WARNING**

Do not shift into gear unless your foot is firmly on the brake pedal. Shifting into gear when the engine is running at high speed can cause the vehicle to move

very rapidly. You could lose control of the vehicle and hit people or objects.

**⚠ WARNING**

Do not drive with the shift lever in N (Neutral).

The engine brake will not work and could lead to an accident.

## D (Drive)

This is the normal driving position. The transmission will automatically shift through a 7 gear sequence, providing the best fuel economy and power.

For extra power when passing another vehicle or driving uphill depress the accelerator pedal further until you feel the transmission downshift to a lower gear.

To stop the vehicle during driving, please depress brake pedal fully to prevent unintended movement.

## Manual mode

Whether the vehicle is stationary or in motion, manual 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.

In manual 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**

- Only the 7 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.
- Downshifts are made automatically when the vehicle slows down. When the vehicle stops, 1st gear is automatically selected.
- When the engine rpm approaches the red zone shift points are varied to upshift automatically.
- If the driver presses the lever to + (Up) or - (Down) position, the transmission may not make the requested gear change if the next gear is outside of the allowable engine rpm range. The driver must execute upshifts in accordance with road conditions, taking care to keep the engine rpms below the red zone.

## Paddle shifter (if equipped)

The paddle shifter is available when the shifter lever is the D (Drive) position or the manual mode.

### With the shift lever in the D position

The paddle shifter will operate when the vehicle speed is more than 2 mph. Pull the [+] or [-] paddle shifter once to shift up or down one gear and the system changes from automatic mode to manual mode. When the vehicle speed is lower than 2 mph, if you depress the accelerator pedal gently for more than 6 seconds or if you shift the shift lever from D (Drive) to manual mode and shift it from manual mode to D (Drive) again or pull the [+] paddle shifter for more than 1 second, the system changes from manual mode to automatic mode.

### With the shift lever in the manual mode

Pull the [+] or [-] paddle shifter once to shift up or down one gear.

**NOTICE**

If you pull the [+] and [-] paddle shifters at the same time, you cannot shift the gear.

### Shift lock system

For your safety, the Dual clutch transmission 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 or ENGINE START/STOP button 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 & vibration 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.

## 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, and then do the following:

1. Remove the shift lever boots from the console by using a plastic trim tool.
2. After removing the boots, press and hold the button (1) on the left front side with a pointed tool and change it to the N (Neutral) position.

If the shift lever does not move even after performing this procedure, have the system inspected by an authorized Kia dealer.

**⚠ CAUTION**

- Be careful not to damage the cover when removing the shift lever boots.
- Be sure that the vehicle is in flat level ground when releasing the shift-lock.

## 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 car is completely stopped before you attempt to shift into R (Reverse) or D (Drive).
- Never take the car out of gear and coast down a hill. This may be extremely hazardous. Always leave the car 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 the car.
- 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 car from moving.
- 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.

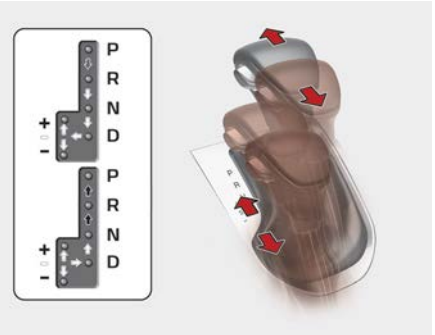
- Always buckle-up! In a collision, an unbelted occupant is significantly more likely to be seriously injured or killed than a properly belted occupant.
- Avoid high speeds when cornering or turning.
- Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.
- The risk of rollover is greatly increased if you lose control of your vehicle at highway speeds.
- Loss of 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.

## 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.

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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.

**⚠ 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.

## IVT warning message

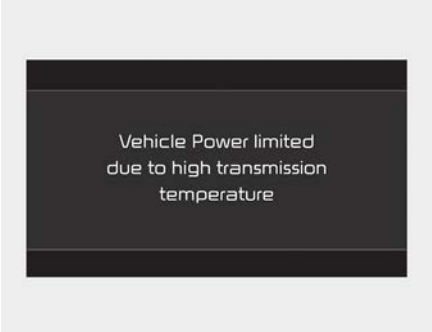
A warning message is displayed on the LCD in a warning condition.

## Transmission overheated

OMQ4050023L

- When driving under severe conditions such as repeated suddenstarts and sudden acceleration, the transmission may overheat, and a warning sound and a waring message appear on the instrument cluster due to the self-protection mode.
- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply brakes and shift the gear to P (Park), and allow the transmission to cool.
- If the warning message continues to appear, have the system checked by an authorized Kia dealer to prevent unexpected accidents. Overheated transmissions may lead to accidents.

## Vehicle power limited



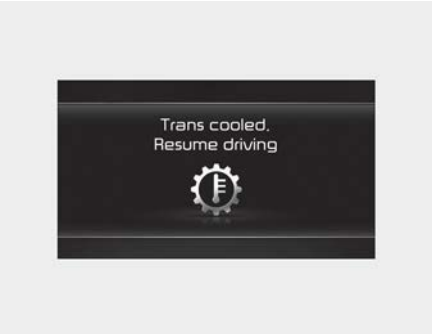

OBD041618L

- If the transmission continues to drive overheating and reaches its maximum temperature, the above warning message appears. In this case, the vehicle limits transmission power by its self-protection mode.
- When such a situation occurs, normal driving is restricted until the transmission goes down to normal temperature, so after moving the vehicle to a safe place, shift the gear to P (Park) with the engine running and wait sev-

eral minutes until the warning on the screen disappears.

- If the warning message continues to appear, have the system checked by an authorized Kia dealer to prevent unexpected accidents.

## Transmission cooled




OMQ4050032L

- When the message "Trans cooled. Resume driving" appears you can continue to drive your vehicle.

## Transmission ranges

The indicator in the instrument cluster displays the shift lever position when the ignition switch or ENGINE START/STOP button 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.

**CAUTION**

The RPM (revolution per minute) may increase or decrease when performing the Intelligent Variable Transmission (IVT) self-diagnosis.

### 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" on page 5-167.

### 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 and lead to an accident.

## 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).

## Manual mode

Whether the vehicle is stationary or in motion, manual 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.

Manual mode manages the driving dynamics by automatically adjusting the steering effort, and the engine and transmission control logic for enhanced driver performance.

In manual mode, moving the shift lever backwards and forwards will allow you to make gearshifts rapidly. In contrast to a manual transmission, the manual mode allows gearshifts with the accelerator pedal depressed.

- Up (+): Push the lever forward once to shift up one gear.
- Down (-): Pull the lever backwards once to shift down one gear.

**✻ NOTICE**

- Only the 7 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.
- Downshifts are made automatically when the vehicle slows down. When the vehicle stops, 1st gear is automatically selected.
- 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 gearshifts 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 manual 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 manual 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 or ENGINE START/STOP button 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.

## 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, and then do the following:

1. Remove the shift lever boots from the console by using a plastic trim tool.
2. After removing the boots, press and hold the button (1) on the left front side with a pointed tool and change it to the N (Neutral) position.

If the shift lever does not move even after performing this procedure, have the system inspected by an authorized Kia dealer.

**⚠ CAUTION**

- Be careful not to damage the cover when removing the shift lever boots.
- Be sure that the vehicle is in flat level ground when releasing the shift-lock.

## 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.
- 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, 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.

## Brake system

### 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.

**WARNING**

**Brakes**

- Do not drive with your foot resting on the brake pedal. This will create abnormal high brake temperatures, excessive brake lining and pad wear, and increased stopping distances.
- When descending a long or steep hill, shift to a lower gear and avoid continuous application of the brakes. Continuous brake application will cause the brakes to over heat 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.
- Always, confirm the position of the brake and accelerator pedal before driving. If you don't check the position of the accelerator and brake pedal before driving, you may depress the accelerator instead of the brake pedal. It may cause a serious accident.

## 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**

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

Your vehicle has disc brakes.

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.

**CAUTION**

- To avoid costly brake repairs, do not continue to drive with worn brake pads.
- Always replace the front or rear brake pads as pairs.

**WARNING**

**Brake wear**

This brake wear warning sound means your vehicle needs service. If you ignore this audible warning, you will eventually lose braking performance, which could lead to a serious accident.

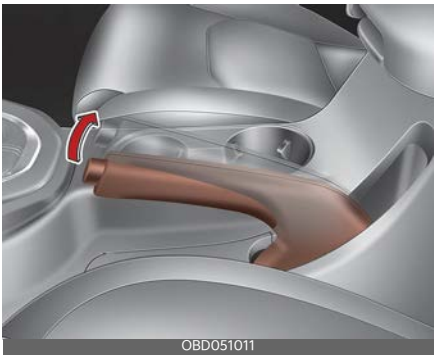
## Rear drum brakes (if equipped)

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 (Hand-type) (if equipped)

### Applying the parking brake


OBD051011

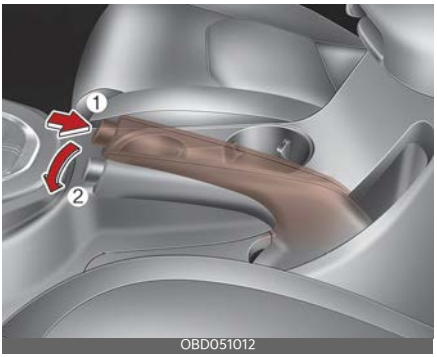
To engage the parking brake, first apply the foot brake and then pull up the parking brake lever as far as possible.

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 endanger driving safety.

### Releasing the parking brake



OBD051012

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 a professional workshop. Kia recommends to visit 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 illuminated when the parking brake is applied with the ignition switch or ENGINE START/STOP button in the START or ON position.

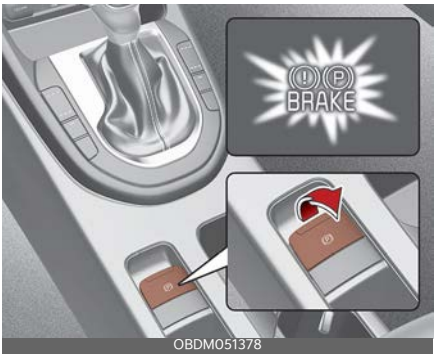
Before driving, be sure the parking brake is fully released and the brake warning light is off.

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)

## Applying the parking brake

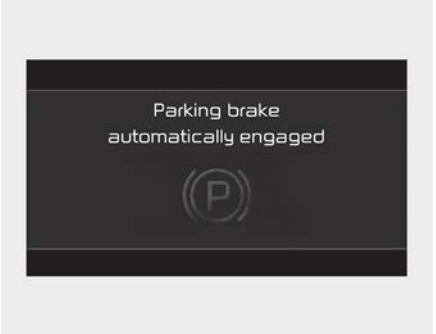



### To apply the EPB (electronic parking brake) manually:

1. Stop the vehicle.
2. Depress the brake pedal and pull up the EPB switch. Make sure the warning light comes on.

### EPB may be automatically applied when:

- Requested by other systems.
- If the driver applies the EPB while the engine is ON then turn the engine off, the EPB may be applied again automatically.



OBD041227L

- If the driver turns the engine off by mistake while Auto Hold (if equipped) is operating, EPB will be automatically applied. But if the driver turns the engine off and pushes the EPB switch for 1 second, the EPB does not apply.

### Emergency braking

- 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. If you hand off the EPB switch, the braking force is lost. If you hold the EPB switch and the vehicle stop, the EPB is applied.
- During emergency braking by the EPB, the parking brake warning light will illuminate and the warning sounds will occur to indicate that the system is operating.
- The braking distance may be longer than under normal braking conditions.

* EPB stands for Electronic Parking Brake.

**WARNING**

Do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the vehicle system and endanger driving safety.

**CAUTION**

If you continuously notice a noise or burning smell when the EPB is used for emergency braking, have the system checked by an authorized Kia dealer.

## Releasing the parking brake

OBD051379L

### To release the EPB manually:

Press the EPB switch in the following condition.

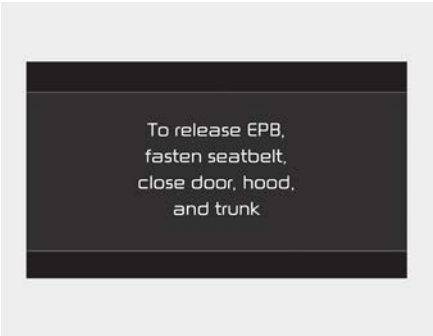
- Have the ignition switch or ENGINE START/STOP button in the ON position.
- Depress the brake pedal.
- Make sure the brake warning light goes off.

### To release EPB automatically :

1. Close the driver's door, engine hood and trunk.
2. Fasten the driver's seat belt.
3. Start the engine.
4. If the shift lever is in P (Park), depress the brake pedal and shift out of P (Park) to R (Rear) or D (Drive), the EPB

is released automatically. Make sure the brake warning light goes off.

5. If the shift lever is in N (Neutral), depress the brake pedal and shift out of N (Neutral) to R (Rear) or D (Drive), the EPB is released automatically. Make sure the brake warning light goes off.
   - If you try to drive off depressing the accelerator pedal with the EPB applied, but doesn't release automatically, a warning will sound once and a message will appear.



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   - If the driver's seat belt is not fastened, driver's door is opened, the engine hood is opened in D or the trunk is opened in R, a warning will sound once and a message will appear.
   - If there is a problem with the vehicle, a warning may sound once and a message may appear. If the above situation occurs, depress the brake pedal and release EPB by pressing the EPB switch.

**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.
- Do not place any objects around the EPB switch. They could release the EPB switch.

**CAUTION**

- To prevent unintentional movement when stopped and leaving the vehicle, do not use the shift lever in place of the parking brake. Set the parking brake and make sure the shift lever is securely positioned in P (Park). Use wheel chock if necessary.
- In winter or cold conditions, the EPB may freeze. Park the vehicle with the shift lever in P on an even and safe place without applying the EPB. And use wheel chock.
- Do not drive your vehicle with the EPB applied. It may cause excessive wear of brake pad and brake rotor.
- A click sound may be heard while operating or releasing the EPB, but 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.
- When the battery is drained, the EPB does not apply or release. In this case, jump start your vehicle.

## Malfunction of EPB

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If the EPB malfunction indicator remains on, it indicates that the EPB may have malfunctioned. If this occurs, have the system checked by an authorized Kia dealer.

The EPB malfunction indicator may illuminate 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.

**⚠ CAUTION**

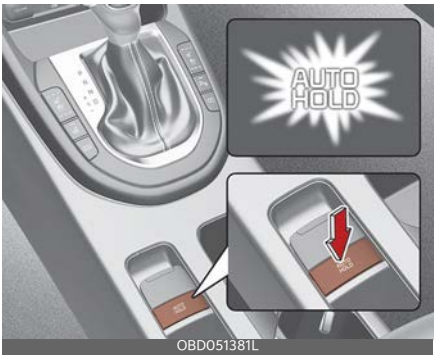
- The EPB warning light may illuminate if the EPB switch operates abnormally. Shut the engine off and turn it on again after a few minutes. The warning light will go off and the EPB switch will operate normally. However, if the EPB warning light is still on, have the system checked by an authorized Kia dealer.
- If the parking brake warning light does not illuminate 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 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 the system checked by an authorized Kia dealer.

## AUTO HOLD (if equipped)

The Auto Hold is designed to maintain the vehicle in a standstill even though the brake pedal is not depressed after the driver brings the vehicle to a complete stop by depressing the brake pedal.

### Applying Auto Hold function

1. Depress 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.



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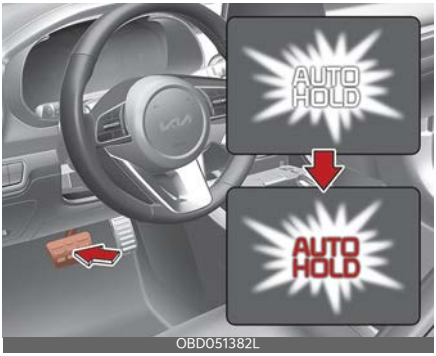
Before the Auto Hold will engage, the driver's door, trunk, and engine hood must be closed.



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When coming to a complete stop by depressing 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.

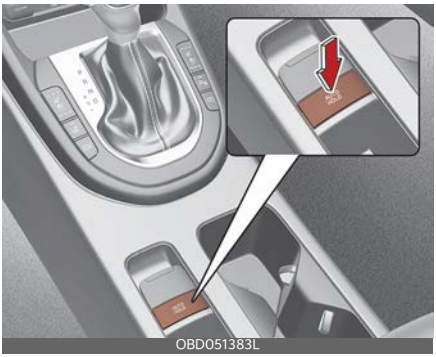
If EPB is applied, Auto Hold will be released.

If you depress the accelerator pedal with the gear in D (Drive), R (Reverse) 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 depressing the accelerator pedal, always check the surrounding area near your vehicle.

Slowly depress the accelerator pedal for a smooth launch.

## Canceling Auto Hold function


OBD051383L

- 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, depress 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 trunk is opened
  - The gear is in P (Park)
  - 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 trunk 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, depress 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 to an authorized Kia dealer and have the system checked.

**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, trunk, or engine hood open detection system, the Auto Hold may not work properly.

Take your vehicle to an authorized Kia dealer and have the system checked.

**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.

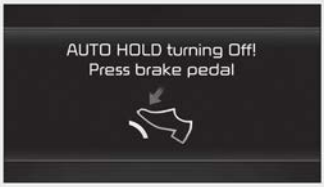
## Warning messages

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.

OBD041227L

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.

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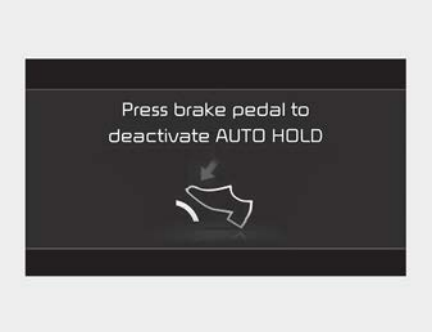
**NOTICE**

When this message is displayed, the Auto Hold and EPB may not operate. For your safety, depress 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.




OBD041229L

When you press the [AUTO HOLD] switch, if the driver's door, trunk, and engine hood are not closed, a warning will sound and a message will appear on the LCD display.

OBD041230L

At this moment, press the [AUTO HOLD] button after closing the driver's door, engine hood and trunk.

## Anti-lock brake system (ABS)

**⚠ WARNING**

ABS (or ESC) will not prevent accidents due to improper or dangerous driving maneuvers. Even though vehicle control is improved during emergency braking, always maintain a safe distance between you and objects ahead. Vehicle speeds should always be reduced during extreme road conditions.

The braking distance for cars equipped with an anti-lock braking system (or Electronic Stability Control system) may be longer than for those without it in the following road conditions.

During these conditions the vehicle should be driven at reduced speeds:

- Rough, gravel or snow-covered roads.
- With tire chains installed.
- On roads where the road surface is pitted or has different surface height.

The safety features of an ABS (or ESC) equipped vehicle should not be tested by high speed driving or cornering. This could endanger the safety of yourself or others.

The ABS continuously senses the speed of the wheels. If the wheels are going to lock, the ABS system repeatedly modulates the hydraulic brake pressure to the wheels.

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 ABS is active.

In order to obtain the maximum benefit from your ABS in an emergency situation, do not attempt to modulate your brake pressure and do not try to pump your brakes. Depress your brake pedal as hard as possible or as hard as the situation warrants and allow the ABS to control the force being delivered to the brakes.

**✻ 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 anti-lock brake system is functioning properly.

- Even with the anti-lock brake system, your vehicle still requires sufficient stopping distance. Always maintain a safe distance from the vehicle in front of you.
- Always slow down when cornering. The anti-lock brake system cannot prevent accidents resulting from excessive speeds.
- On loose or uneven road surfaces, operation of the anti-lock brake system may result in a longer stopping distance than for vehicles equipped with a conventional brake system.

**CAUTION**

- If the ABS warning light is on and stays on, you may have a problem with the ABS. In this case, however, your regular brakes will work normally.
- The ABS warning light will stay on for approximately 3 seconds after the ignition switch or ENGINE START/STOP button is ON. During that time, the ABS will go through self diagnosis and the light will go off if everything is normal. If the light stays on, you may have a problem with your ABS. Contact an authorized Kia dealer as soon as possible.

**CAUTION**

- When you drive on a road having poor traction, such as an icy road, and operate your brakes continuously, the ABS will be active continuously and the ABS warning light may illuminate. Pull your car over to a safe place and stop the engine.
- Restart the engine. If the ABS warning light is off, then your ABS system is normal. Otherwise, you may have a problem with the ABS. Contact an authorized Kia dealer as soon as possible.

**NOTICE**

When you jump start your vehicle because of a drained battery, the engine may not run as smoothly and the ABS warning light may turn on at the same time. This happens because of the low battery voltage. It does not mean your ABS is malfunctioning.

- Do not pump your brakes!
- Have the battery recharged before driving the vehicle.

## Electronic Stability Control (ESC)

OBDM051363L

The Electronic Stability Control (ESC) system is designed to stabilize the vehi-

cle 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**

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 switch or ENGINE START/STOP button is turned ON, ESC and ESC OFF indicator lights illuminate for approximately 3 seconds, then ESC is turned on.
- Press the ESC OFF button after turning the ignition switch or ENGINE START/STOP button ON to turn ESC off. (ESC OFF indicator will illuminate). 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 depress 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

OMQ4050059L

Press the ESC OFF button shortly (ESC OFF indicator light and message illuminates). 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

OMQ4050060L

Press the ESC OFF button for more than 3 seconds. ESC OFF indicator light and message illuminates 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 the ignition switch or ENGINE START/STOP button is turned to ON, the indicator light illuminates, then goes off if the ESC system is operating normally.

The ESC indicator light blinks whenever ESC is operating or illuminates when ESC fails to operate.

The 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. Make sure they are the same type, size, brand, construction and tread pattern as the original tires and wheels installed.

**⚠ 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 illuminated).
- 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 depress 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)

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 in reverse
- ESC OFF indicator light (OFF) remains on the instrument cluster
- MDPS 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 (OFF) illuminates.

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 Motor Driven Power Steering (MDPS) system or VSM system.

If the ESC indicator light ( ) or MDPS warning light remains on, take your vehicle to an authorized Kia dealer and have the system checked.

**⚠ 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 in inclement weather and on a slippery road.
- Driving with varying tire or wheel sizes may cause the VSM system to malfunction. Make sure they are the same type, size, brand, construction and tread pattern as the original tires and wheels installed.

## Good braking practices

**⚠ WARNING**

- Whenever leaving vehicle or parking, always set the parking brake as far as possible and fully engage the vehicle's transmission into the park position. Vehicles not fully engaged in park with the parking brake set are at risk for moving inadvertently and injuring yourself or others.
- All vehicles should always have the parking brake fully engaged when parking to avoid inadvertent movement of the car which can injure occupants or pedestrians.

- After parking the vehicle, check to be sure the parking brake is not engaged and that 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 car is washed. Wet brakes can be dangerous! Your car will not stop as quickly if the brakes are wet. Wet brakes may cause the car 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 car 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 car out of gear. This is extremely hazardous. Keep the car in gear at all times, use the brakes to slow down, then shift to a lower gear so that engine 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 it can result in the brakes overheating and losing 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 car 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 shift lever in P (Park). If your car is facing downhill, turn the front wheels into the curb to help keep the car from rolling. If your car is facing uphill, turn the front wheels away from the curb to help keep the car from rolling. If there is no curb or if it is required by other conditions to keep the car 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 P (Park) and block the rear wheels so the car 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.

# Drive mode integrated control system (if equipped)

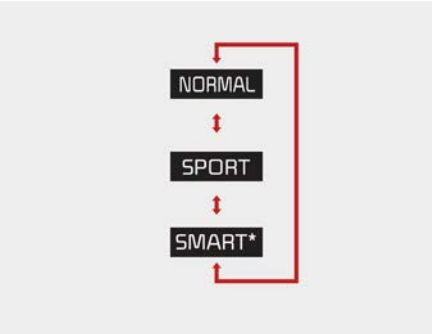
## Drive mode

The drive mode may be selected according to the driver's preference or road condition.

**✻ NOTICE**

If there is a problem with the instrument cluster, the drive mode will be in NORMAL mode and may not change to SPORT mode.

The mode changes when you press the DRIVE MODE button.




OBDM041672

* : if equipped

When NORMAL mode is selected, it is not displayed on the instrument cluster.

- NORMAL mode :

  NORMAL mode provides smooth driving and comfortable riding.
- SPORT mode :

  SPORT mode provides sporty but firm riding.
- SMART mode :

  SMART mode automatically adjusts the driving mode in accordance with the driver's driving habits.

The drive mode will change to NORMAL mode when the engine is restarted.

## SPORT mode

SPORT

SPORT mode manages the driving dynamics by automatically adjusting the steering effort, the engine and transmission control logic for enhanced driver performance.

- When SPORT mode is selected by using the DRIVE MODE button, the SPORT indicator will illuminate.
- Whenever the engine is restarted, the Drive Mode will revert back to NORMAL mode. If SPORT mode is desired, re-select SPORT mode from the DRIVE MODE button.
- 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

**✻ NOTICE**

In SPORT mode, the fuel efficiency may decrease.

## SMART mode (if equipped)

SMART

SMART mode selects the proper driving mode among NORMAL, and SPORT by judging the driver's driving habits (i.e. Economic or Aggressive (Sportive)) from the brake pedal depression or the steering wheel operation.

- Press the DRIVE MODE button to select SMART mode. When SMART mode is selected, the indicator illuminates on the instrument cluster.
- SMART mode automatically controls the vehicle driving, such as gear shifting patterns and engine torque, in accordance with the driver's driving habits.

**✻ NOTICE**

- When you mildly drive the vehicle in SMART mode, the driving mode changes to NORMAL mode to improve fuel efficiency. However, the actual fuel efficiency may differ in accordance with your driving situations (i.e. upward/downward slope, vehicle deceleration/acceleration).
- When you dynamically drive the vehicle in SMART mode by abruptly decelerating or sharply turning the driving mode changes to SPORT mode. However, it may adversely affect fuel economy.

### Various driving situations, which you may encounter in SMART mode

- The driving mode automatically changes to NORMAL mode after a certain period of time, when you gently depress the accelerator pedal. (Your driving is categorized to be economic.)
- The driving mode automatically changes from SMART ECO mode to SMART NORMAL mode after a certain period of time, when you sharply or repetitively depress the accelerator pedal.
- The driving mode automatically changes to SMART NORMAL mode with the same driving patterns, when the vehicle starts to drive on an upward slope of a certain angle. The driving mode automatically returns to SMART ECO mode, when the vehicle enters a leveled road.
- The driving mode automatically changes to SMART SPORT, when you abruptly accelerate the vehicle or repetitively operate the steering wheel. (Your driving is categorized to be sporty.) In this mode, your vehicle drives in a lower gear for abrupt accelerating/decelerating and increases the engine brake performance.
- You may still sense the engine braking performance, even when you release the accelerator pedal in SMART SPORT mode. It is because your vehicle remains in lower gear over a certain period of time for next acceleration. Thus, it is a normal driving situation, not indicating any malfunction.
- The driving mode automatically changes to SMART SPORT mode only in harsh driving situations. In most of the normal driving situations, the driving mode sets to be either in SMART ECO mode or in SMART NORMAL mode.

### Limitation of SMART mode

The SMART mode may be limited in following situations. (The OFF indicator illuminates in those situations.)

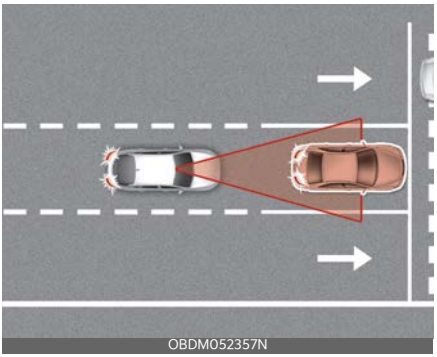
- Cruise Control is activated:

  Cruise Control may deactivate the SMART mode when the vehicle is controlled by the set speed of Smart Cruise Control. (SMART mode is not deactivated just by activating Cruise Control.)
- The transmission oil temperature is either extremely low or extremely high:

  The SMART mode can be active in most of the normal driving situations. However, an extremely high/low transmission oil temperature may temporarily deactivate the SMART

mode, because the transmission condition is out of normal operation condition.

## Forward Collision-Avoidance Assist (FCA) (Front view camera only) (if equipped)




Forward Collision-Avoidance Assist is designed to help detect and monitor the vehicle ahead or help detect a pedestrian in the roadway and warn the driver that a collision is imminent with a warning message, audible warning and apply emergency braking.

### Detecting sensor

[1]: Front view camera

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 sensor has been replaced or repaired, have your 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.

## Forward Collision-Avoidance Assist setting

### Forward Safety

OMQ4AH050344

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Forward Safety' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to set whether to use each function.

- If 'Active Assist' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking assist may be applied depending on the collision risk levels. Braking assist will be applied depending on the collision risk.
- If 'Warning Only' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking will not be assisted. The driver must apply the brake pedal if necessary.
- If 'Off' is selected, Forward Collision-Avoidance Assist will be turned off.

  The warning light will illuminate 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 engine is restarted, Forward Collision-Avoidance Assist will always turn on.
- If 'Off' is selected from the settings menu, Forward Collision-Avoidance Assist will not operate so the driver should always be aware of the surroundings and drive safely.

**CAUTION**

If 'Warning Only' is selected, braking is not assisted.

**NOTICE**

Forward Collision-Avoidance Assist will turn off when ESC is turned off by pressing and holding the ESC OFF button and the warning light will illuminate on the cluster.

## Warning Timing

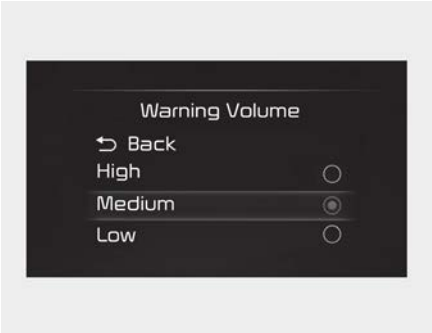
OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the initial warning activation time for Forward Collision-Avoidance Assist.

When the vehicle is first delivered, Warning Timing is set to 'Normal'.

If you change the Warning Timing, the Warning Timing of other Driver Assistance systems may change.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Forward Collision-Avoidance Assist.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**CAUTION**

- The setting of the Warning Timing and Warning Volume applies to all functions of Forward Collision-Avoidance Assist.
- Even though 'Normal' 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 engine is restarted, Warning Timing and Warning Volume will maintain the last setting.

## Forward Collision-Avoidance Assist operation

### Warning and control

The basic function for Forward Collision-Avoidance Assist is to warn and help control the vehicle depending on the collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.

#### Collision Warning

OBD041231L

- To warn the driver of a collision, the 'Collision Warning' warning message will appear on the cluster, and an audible warning will sound.
- If a vehicle is detected in front, the function will operate when your vehicle speed is between approximately 6~112 mph (10~180 km/h).
- If a pedestrian is detected in front, the function will operate when your vehicle speed is between approximately 6~37 mph (10~60 km/h).
- If 'Active Assist' is selected, braking may be assisted.

#### Emergency Braking

OBD041232L

- To warn the driver that Emergency Braking will be assisted, the 'Emergency Braking' warning message will appear on the cluster, and an audible warning will sound.
- If a vehicle is detected in front, the function will operate when your vehicle speed is between approximately 6~37 mph (10~60 km/h).
- If a pedestrian is detected in front, the function will operate when your vehicle speed is between approximately 6~37 mph (10~60 km/h).
- In emergency braking situation, braking is assisted with strong braking power by the function to help prevent collision with the vehicle or pedestrian ahead.

## Stopping vehicle and ending brake control

OBD041233L

- When the vehicle is stopped due to Emergency Braking, the 'Drive carefully' 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, only change the settings after parking the vehicle at a safe location.
- With 'Active Assist' or 'Warning Only' selected, when ESC is turned off by pressing and holding the ESC OFF button, Forward Collision-Avoidance Assist will turn off automatically. In this case, Forward Collision-Avoidance Assist cannot be set from the settings menu and the warning light will illuminate on the cluster which is normal. If ESC is turned on by pressing the ESC OFF button, Forward Collision-Avoidance Assist will maintain the last setting.
- 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 test 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 function'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.

**WARNING**

- 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 in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. The function may only warn the driver, or the function may not operate.

**NOTICE**

In a situation where a collision is imminent, braking may be assisted by Forward Collision-Avoidance Assist when braking is insufficient by the driver.

## Forward Collision-Avoidance Assist malfunction and limitations

### Forward Collision-Avoidance Assist malfunction

OMQ4050074L

When Forward Collision-Avoidance Assist is not working properly, the 'Check Forward Safety system' warning message will appear (turns off after a certain time), and the and warning lights will illuminate on the cluster. In this case, have the vehicle inspected by an authorized Kia dealer.

### Forward Collision-Avoidance Assist disabled

OMQ4050073L

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 Forward Collision-Avoidance Assist.

If this occurs, the 'Forward Safety system disabled. Camera obscured' warning message will appear (turns off after a certain time), and the and warning lights will illuminate on the cluster.

Forward Collision-Avoidance Assist will operate properly when snow, rain or foreign matter is removed. Always keep it clean.

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 engine.

## 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 the external 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
- 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 through steam, smoke or shadow
- Only part of the vehicle, pedestrian is detected
- The vehicle 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, over-

turned, or the side of the vehicle is visible, etc.

- The front vehicle's ground clearance is low or high
- A vehicle or pedestrian 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 lanes or suddenly reduces speed
- The vehicle in front is bent out of shape
- The front vehicle's 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 lanes at low speed
- The vehicle in front is covered with snow
- You are departing or returning to the lane
- You are driving unstably
- You are on a roundabout and the vehicle 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 is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright
- The pedestrian is wearing clothing or equipment that makes it difficult to detect

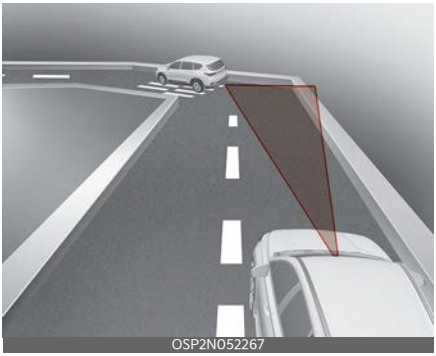
Following image shows the image the sensor recognizes as vehicle and pedestrian.

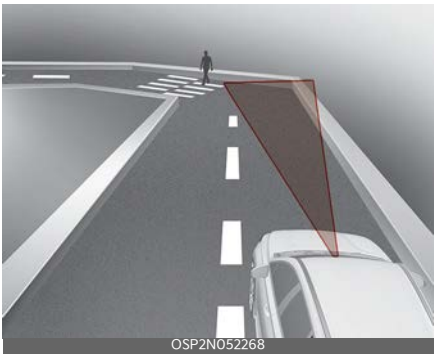
- The pedestrian in front is moving very quickly
- The pedestrian in front is short or is posing a low posture
- The pedestrian in front has impaired mobility
- The pedestrian in front is moving intersected with the driving direction
- There is a group of pedestrians or a large crowd in front
- The pedestrian is wearing clothing that easily blends into the background, making it difficult to detect
- The pedestrian is difficult to distinguish from the similarly shaped structure in the surroundings
- You are driving by a pedestrian, traffic signs, structures, etc. near the intersection
- You are driving by a pedestrian, traffic signs, structures, etc. near the intersection
- Driving in a parking lot
- Driving through a tollgate, 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
- 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 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

**⚠ WARNING**

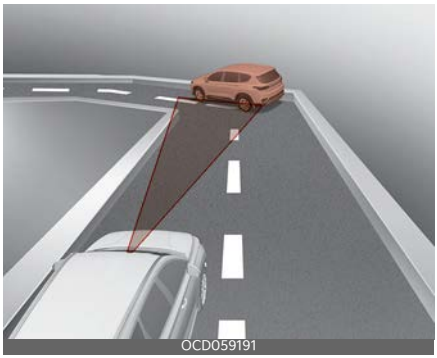
- **Driving on a curved road**


OSP2N052267


OSP2N052268

Forward Collision-Avoidance Assist may not detect other vehicle, pedestrian in front of you when driving on curved roads adversely affecting the performance of the sensors. This may result in no warning or no 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.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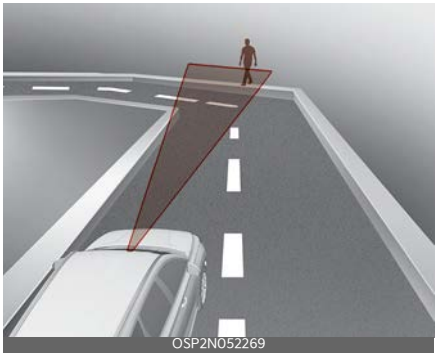

OSP2N052269

Forward Collision-Avoidance Assist may detect a vehicle or pedestrian 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 or

steering wheel. Always check the traffic conditions around the vehicle.

- **Driving on an inclined road**

OSP2N052270

OSP2N052271

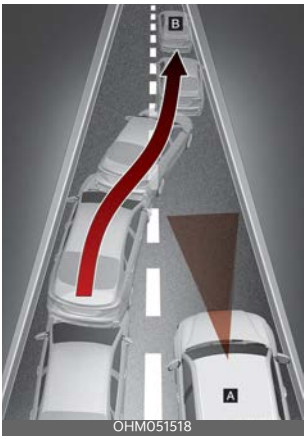
Forward Collision-Avoidance Assist may not detect other vehicles, pedestrians in front of you while driving uphill or downhill adversely affecting the performance of the sensors.

This may result in unnecessary warning, braking assist or no warning or no braking assist when necessary.

Also, vehicle speed may rapidly decrease when a vehicle or pedestrian 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**

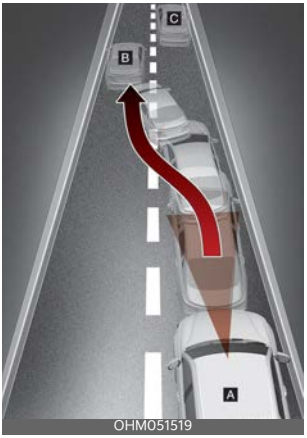


OHM051518

[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.



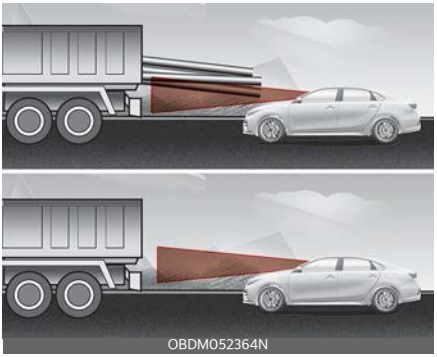

[A]: Your vehicle

[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**



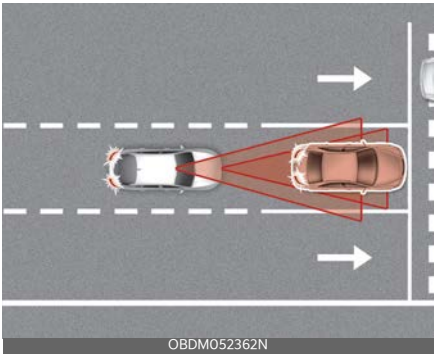

If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. Forward Collision-Avoidance Assist may not be able to detect the cargo extending from the vehicle. In these instances, 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, we recommend that Forward Collision-Avoidance Assist is turned off due to safety reasons.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles and pedestrians are detected.
- Forward Collision-Avoidance Assist does not operate on bicycles, motorcycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers that are dragged by a pedestrian.
- Forward Collision-Avoidance Assist may not operate properly if interfered with by strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for approximately 15 seconds after the vehicle is started, or the front view camera is initialized.

## Forward Collision-Avoidance Assist (FCA) (Sensor fusion) (if equipped)

Forward Collision-Avoidance Assist is designed to help detect and monitor the vehicle ahead or help detect a pedestrian or cyclist in the roadway and warn the driver that a collision is imminent with a warning message, audible warning and apply emergency braking.


OBDM052362N

### Detecting sensor

OBDM052015N

OBDM052014N

[1]: Front view camera, [2]: 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 sensor has been replaced or repaired, have your 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 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. In this case, have your 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 setting

### Forward Safety

OMQ4AH050344

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Forward Safety' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to set whether to use each function.

- If 'Active Assist' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message, an audible warning depending on the collision risk levels. Braking assist will be applied depending on the collision risk.
- If 'Warning Only' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message, an audible warning depending on the collision risk levels. Braking will not be assisted. The driver must apply the brake pedal if necessary.
- If 'Off' is selected, Forward Collision-Avoidance Assist will be off. The warning light will illuminate 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 engine is restarted, Forward Collision-Avoidance Assist will always turn on.
- If 'Off' is selected from the settings menu, Forward Collision-Avoidance Assist will not operate so the driver should always be aware of the surroundings and drive safely.

**CAUTION**

If 'Warning Only' is selected, braking is not assisted.

**NOTICE**

Forward Collision-Avoidance Assist will turn off when ESC is turned off by pressing and holding the ESC OFF button and the warning light will illuminate.

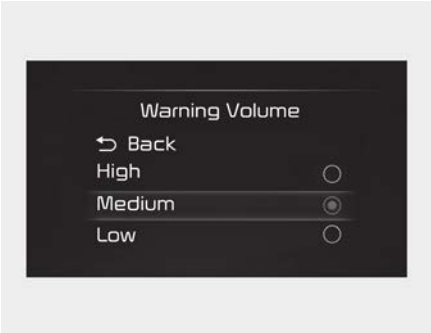
## Warning Timing

OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the initial warning activation time for Forward Collision-Avoidance Assist.

When the vehicle is first delivered, Warning Timing is set to 'Normal'. If you change the Warning Timing, the Warning Timing of other Driver Assistance systems may change.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Forward Collision- Avoidance Assist.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**CAUTION**

- The setting of the Warning Timing and Warning Volume applies to all functions of Forward Collision-Avoidance Assist.
- Even though 'Normal' 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 engine is restarted, Warning Timing and Warning Volume will maintain the last setting.

## Forward Collision-Avoidance Assist operation

### Warning and control

The basic function for Forward Collision-Avoidance Assist is to warn and help control the vehicle depending on the collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.

#### Collision Warning

OBD041231L

- To warn the driver of a collision, the 'Collision Warning' warning message will appear on the cluster, an audible warning will sound.
- If a vehicle is detected in front, the function will operate when your vehicle speed is between approximately 6~112 mph (10~180 km/h).
- If a pedestrian or cyclist is detected in front, the function will operate when your vehicle speed is between approximately 6~53 mph (10~85 km/h).
- If 'Active Assist' is selected, braking may be assisted.

#### Emergency Braking

OBD041232L

- To warn the driver that emergency braking will be assisted, the 'Emergency Braking' warning message will appear on the cluster, an audible warning will sound.
- If a vehicle is detected in front, the function will operate when your vehicle speed is between approximately 6~53 mph (10~85 km/h).
- If a pedestrian or cyclist is detected in front, the function will operate when your vehicle speed is between approximately 6~40 mph (10~65 km/h).
- In emergency braking situation, braking is assisted with strong braking power by the function to help prevent collision with the vehicle, pedestrian or cyclist ahead.

## Stopping vehicle and ending brake control

OBD041233L

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' 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.
- With 'Active Assist' or 'Warning Only' selected, when ESC is turned off by pressing and holding the ESC OFF button, Forward Collision-Avoidance Assist will turn off automatically. In this case, Forward Collision-Avoidance Assist cannot be set from the settings menu and the warning light will illuminate on the cluster which is normal. If ESC is turned on by pressing the ESC OFF button, Forward Collision-Avoidance Assist will maintain the last setting.
- 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 function'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.

**WARNING**

- 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.

**WARNING**

- 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. The function may only warn the driver, or the function may not operate.
- It operates only under certain conditions by judging the danger according to a condition of the oncoming vehicle, driving direction, speed and the surrounding environment.

**NOTICE**

In a situation collision is imminent, braking may be assisted by Forward Collision-Avoidance Assist when braking is insufficient by the driver.

## Forward Collision-Avoidance Assist malfunction and limitations

### Forward Collision-Avoidance Assist malfunction

OMQ4050074L

When Forward Collision-Avoidance Assist is not working properly, the 'Check Forward Safety system' warning message will appear (turns off after a certain time), and the and warning lights will illuminate on the cluster. In this case, have the vehicle inspected by an authorized Kia dealer.

### Forward Collision-Avoidance Assist disabled

OMQ4050073L

OMQ4050079L

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 'Forward Safety system disabled. Radar blocked' warning message will appear (turns off after a certain time), and the and warning lights will illuminate on the cluster.

Forward Collision-Avoidance Assist will operate properly when snow, rain or foreign matter is removed. If Forward Collision-Avoidance Assist does not operate properly after it 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 engine.

## 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 the external environment
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign matters (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
- 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 through steam, smoke or shadow
- Only part of the vehicle, pedestrian or cyclist is detected

- The vehicle 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 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 large 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 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
- 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
- You are driving unstably
- You are on a roundabout and the vehicle 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 as a pedestrian or cyclist

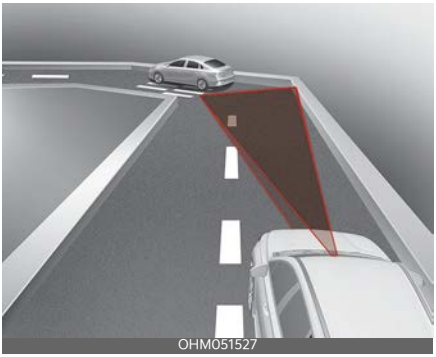
Following image shows the image the sensor recognizes as vehicle, pedestrian, and cyclist.

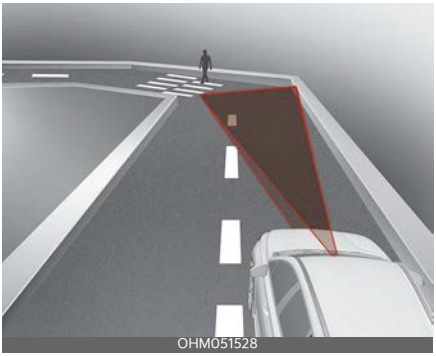
OADAS044

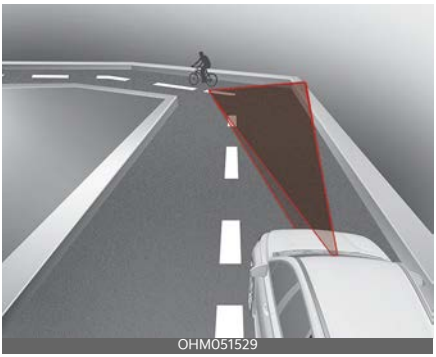
- The pedestrian or cyclist in front is moving very quickly
- The pedestrian or cyclist in front is short or is posing a low posture
- The pedestrian or cyclist in front has impaired mobility
- The pedestrian or cyclist in front is moving intersected with the driving direction
- There is a group of pedestrians, 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
- Driving in a parking lot
- Driving through a tollgate, 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
- 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 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

**WARNING**

- **Driving on a curved road**

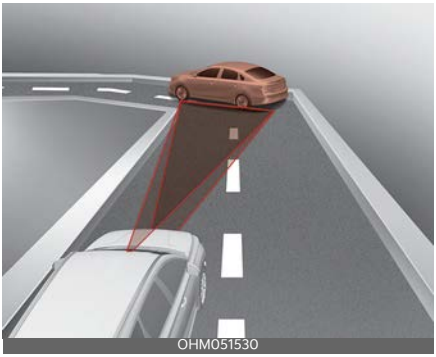

OHM051527

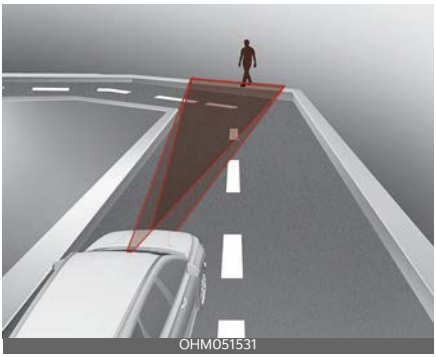

OHM051528

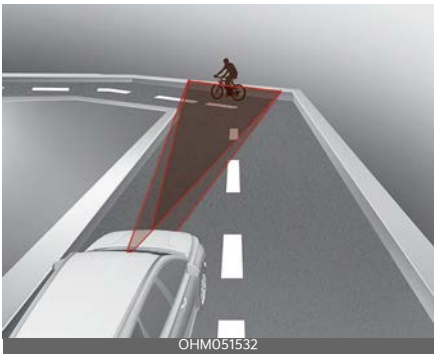

OHM051529

The front view camera or radar sensor recognition function may not detect the vehicle, pedestrian or cyclist traveling in front on a curved road.

Always pay attention to road and driving conditions, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.




Forward Collision-Avoidance Assist may detect a vehicle or pedestrian in the next lane or outside the lane when driving on a curved road. If this occurs, the unnecessarily alarm the driver and apply the brake. Always check the traffic conditions around the vehicle.

- **Driving on an inclined road**

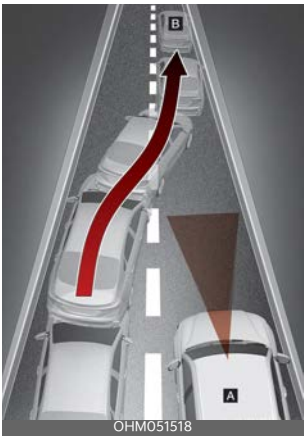
Forward Collision-Avoidance Assist may not detect other vehicle, pedes-

trian or cyclist in front while driving uphill or downhill and this may result in no warning, or braking assist when necessary.

When the function suddenly recognizes the vehicle, pedestrian or cyclist in front while passing over a slope, you may experience sharp deceleration.

Always keep your eyes forward while driving upward or downward on a slope, and, if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

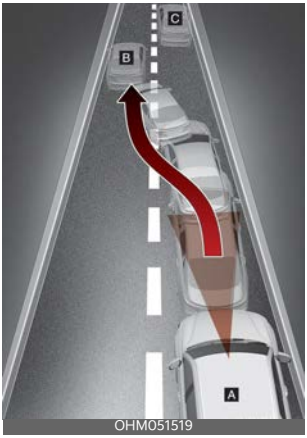
- **Changing lanes**




[A]: Your vehicle

[B]: Lane changing vehicle

When a vehicle changes lanes in front of you, Forward Collision-Avoidance Assist may not immediately detect the vehicle, especially if 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.



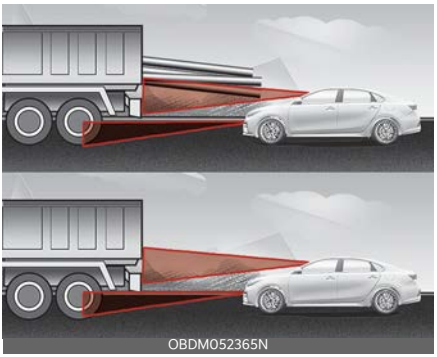

[A]: Your vehicle

[B]: Lane changing vehicle

[C]: Same lane vehicle

When driving in stop-and-go traffic, and a stopped vehicle in front of you merges out of the lane, Forward Collision-Avoidance Assist may not immediately detect the new vehicle that is now in front of you. 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.

- **Detecting vehicle**




When the vehicle in front has heavy loading extended rearward, or when the vehicle in front has higher ground clearance, it may induce a hazardous situation. Always pay attention to road and driving conditions, while driving and, if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

**WARNING**

- When you are towing a trailer or another vehicle, we recommend that Forward Collision-Avoidance Assist is turned off due to safety reasons.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, pedestrians or cyclists are detected.
- Forward Collision-Avoidance Assist does not operate on bicycles, motorcycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers that are dragged by a pedestrian or a cyclist.
- 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 Part 15 of the FCC rules.

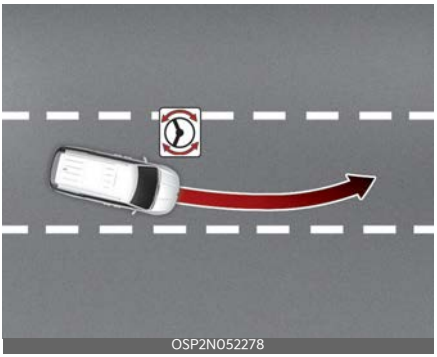
Operation is subject to the following three conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

## Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.This transmitter must not be colocated or operating in conjunction with any other antenna or transmitter.

## Lane Keeping Assist (LKA) (if equipped)


OSP2N052278

Lane Keeping Assist is designed to help detect the lane markers 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

OBDM052015N

[1]: Front view camera

The front view camera is used as a detecting sensor to detect lane markings.

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) (Sensor fusion) (if equipped)" on page 5-61.

### Lane Keeping Assist setting

### Lane Safety

OBD041251L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Lane Safety' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to set whether to use each function.

- If 'Assist' 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 'Warning Only' is selected, Lane Keeping Assist will warn the driver with an audible warning when lane departure is detected. In this mode, Lane Keeping Assist will not assist with steering the vehicle.
- If 'Off' is selected, Lane Keeping Assist will turn off. The indicator light ( ) will turn off on the cluster.

**WARNING**

- If 'Warning Only' is selected, steering is not assisted.
- 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 'Off' is selected.

## Turning Lane Keeping Assist On/Off

OBD051366

With the ignition switch or ENGINE START/STOP button in the ON position, press and hold the Lane Driving Assist button ( ) located on the steering wheel to turn off Lane Keeping Assist. Press and hold the button again to turn on the function.

The indicator ( ) in the cluster display will initially illuminate gray. If you press and hold the Lane Driving Assist button located on the steering wheel, Lane Keeping Assist will be turned off and the indicator on the cluster display will go off.

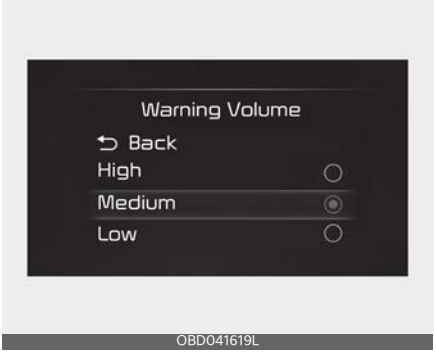
**INFORMATION**

If the engine is restarted, Lane Keeping Assist will maintain the last setting.

**NOTICE**

When Lane Keeping Assist is turned off with the Lane Driving Assist button, Lane Safety settings will turn off.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Lane Keeping Assist.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may be changed.

## Lane Keeping Assist operation

### Warning and control

Lane Keeping Assist will warn and control the vehicle with Lane Departure Warning and Lane Keeping Assist.

## Lane Departure Warning

Left

OBD041263

Right

OBD041266

- To warn the driver that the vehicle is departing from the projected lane in front, the green ( ) indicator light will blink on the cluster, the lane line will blink on the cluster depending on which direction the vehicle is veering, and an audible warning will sound.
- Lane Keeping Assist will operate when your vehicle speed is between approximately 40~120 mph (60~200 km/h).

## Lane Keeping Assist

- To warn the driver that the vehicle is departing from the projected lane in front, the green ( )indicator light will blink on the cluster, and the steering wheel will make adjustments to keep vehicle inside the lane.
- Lane Keeping Assist will operate when your vehicle speed is between approximately 40~120 mph (60~200 km/h).

### Hands-off warning

OBD041236L

If the driver takes their hands off the steering wheel for several seconds, the 'Keep hands on steering wheel' 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.
- The hands-off warning message may appear late depending on road condi-

tions. 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.

**NOTICE**

- For more details on setting the functions in the infotainment system, refer to "LCD display modes" on page 4-59.
- When lane markings are detected, the lane lines on the cluster will change from gray to the green ( ) indicator light will illuminate if Lane Keeping Assist is operable.

Lane undetected

OBDM041267L

Lane detected

OBD041268

- 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

OMQ4050214L

When Lane Keeping Assist is not working properly, the 'Check Lane Keeping Assist (LKA) system', warning message will appear and the yellow ( ) indicator light will illuminate on the cluster. In this case, 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 are covered with rain, snow, dirt, oil, etc.
  - The color of the lane marking is not distinguishable from the road
  - There are markings on the road near the lane or the markings on the road look similar to the lane markings
  - The lane marking is indistinct or damaged
  - The shadow is on the lane marking by a median strip, trees, guardrail, noise barriers, etc.
- There are more than two lane markings on the road
- The lane number increases or decreases, or the lane markings are crossing
- The lane markings are complicated or a structure substitutes for the lines, such as a construction area
- There are road markings, such as zigzag lanes, crosswalk markings and road signs
- The lane suddenly disappears, such as at the intersection
- The lane 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

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Sensor fusion) (if equipped)" on page 5-61.

**⚠ WARNING**

Take the following precautions when using Lane Keeping Assist:

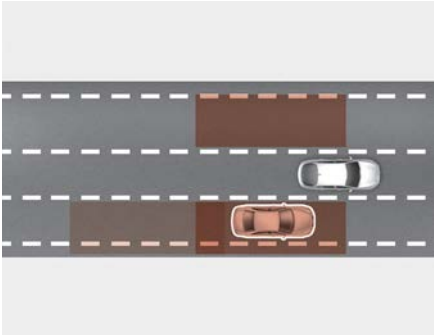
- The driver should hold the responsibility to safely drive and control the vehicle. Do not solely rely on Lane Keeping Assist and drive dangerously.
- The operation of Lane Keeping Assist can be cancelled or not work properly depending on road conditions and surroundings. Always be cautious while driving.
- Refer to "Limitations of Lane Keeping Assist" on page 5-77, if the lane is not detected properly.
- When you are towing a trailer or another vehicle, we recommend that Lane Keeping Assist is turned off due to safety reasons.
- 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 function'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.
- 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 35 mph (55 km/h) or above 130 mph (210 km/h)
  - The vehicle makes sharp lane changes
  - The vehicle is suddenly stopped

## Blind-Spot Collision Warning (BCW) (if equipped)

Blind-Spot Collision Warning 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.

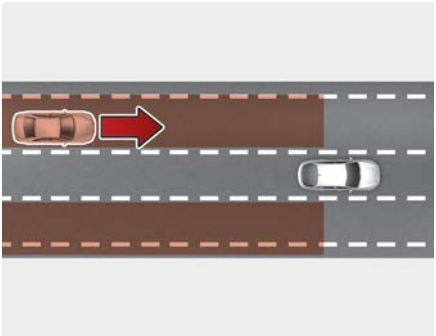


OBDM052411N

Blind-Spot Collision Warning 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 Warning may not warn you when you pass by at high speed.



OBDM052412N

Blind-Spot Collision Warning 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.

## Detecting sensor

OBDM052367N

[1]: Rear corner radar

Refer to the picture above for the detailed location of the detecting sensor.

**⚠ CAUTION**

- Never disassemble the rear corner radar or radar assembly, or cause any damage to it.
- If the rear corner radar or near the radar has been damaged or impacted in any way, even though the warning message does not appear on the cluster, Blind-Spot Collision Warning may not operate properly. In this case, have your vehicle inspected by an authorized Kia dealer.
- If the rear corner radar has been replaced or repaired, have your 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 object, such as a bumper sticker, film or a bumper guard near the rear corner radar.
- Blind-Spot Collision Warning may not work properly if the bumper has been replaced, or the surroundings of the rear corner radar have 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 Warning may not operate.

## Blind-Spot Collision Warning setting

### Blind-Spot Safety

OBDM041252L

With the ignition switch or ENGINE START/STOP button in the ON position, select or deselect 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)→ Driver Assistance → Blind-Spot Safety' to set whether to use each function.

If 'Warning Only' is selected, Blind-Spot Collision Warning will warn the driver with a warning message or an audible warning depending on the collision risk levels.

If 'Off' is selected, Blind-Spot Collision Warning will turn off.

OMQ4050293L

When the engine is restarted with Blind-Spot Collision Warning off, the 'Blind-Spot Safety System is Off' message will appear on the cluster.

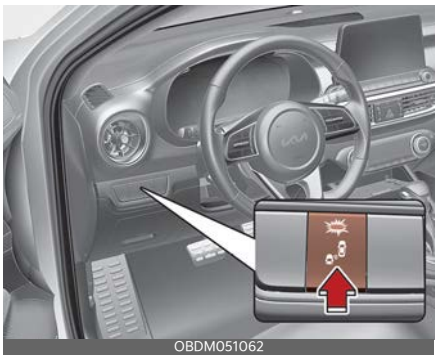
If you change the setting from 'Off' to 'Warning Only', the warning light on the side view mirror will blink for three seconds.

In addition, if the engine is turned on, when Blind-Spot Collision Warning is set to 'Warning Only', the warning light on the side view mirror will blink for three seconds.

**⚠ WARNING**

- If 'Warning Only' is selected, steering is not assisted.
- If 'Off' is selected, the driver should always be aware of the surroundings and drive safely.

### Turning Blind-Spot Collision Warning On/Off



OBDM051062

The indicator on the button will illuminate when Blind-Spot Safety button is pressed with the ignition switch or ENGINE START/STOP button in the ON position. If you press the button again, the button indicator and the function will be turned off. If the ignition switch or ENGINE START/STOP button is turned

OFF and ON, the function returns to the previous state. When the function is not being used, turn the function off by pressing the button.

**NOTICE**

If the engine is restarted, Blind-Spot Collision Warning will maintain the last setting.

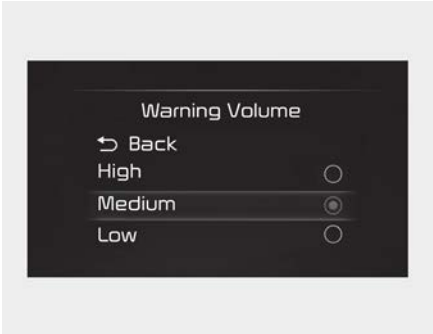
## Warning Timing

OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' to change the initial warning activation time for Blind-Spot Collision Warning.

When the vehicle is first delivered, Warning Timing is set to 'Normal'. If you change the Warning Timing, the Warning Timing of other Driver Assistance systems may change.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' to change the Warning Volume to 'High', 'Medium', 'Low' for Blind-Spot Collision Warning.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**CAUTION**

- The setting of the Warning Timing and Warning Volume applies to all functions of Blind-Spot Collision Warning.
- Even though 'Normal' is selected for Warning Timing, if a vehicle approaches at high speed, the warning may seem late.
- Select 'Late' for Warning Timing when traffic is light and when driving speed is slow.

## Blind-Spot Collision Warning

### Vehicle detection

OBD051385L

- To warn the driver a vehicle is detected, the warning light on the side view mirror and will illuminate
- Blind-Spot Collision Warning will operate when your vehicle speed is above 12 mph (20 km/h) and the speed of the vehicle in the blind spot area is above 7 mph (10 km/h).

### Collision Warning

ODEEV078092NR

ODEEV078093NR

[A]: Warning sound

- Collision Warning will operate when the turn signal is turned on in the direction of the detected vehicle.
- To warn the driver of a collision, the warning light on the side view mirror will blink.
- When the turn signal is turned off or you move away from the lane, the Collision Warning will be canceled and Blind-Spot Collision Warning will return to vehicle detection state.

**⚠ WARNING**

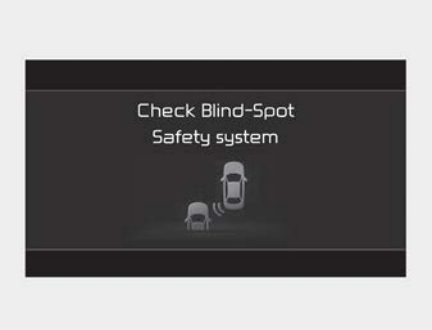
- The detecting range of the rear corner radar is determined by the standard road width, therefore, on a narrow road, Blind-Spot Collision Warning may detect other vehicles in the next lane and warn you. In contrast, on a wide road, Blind-Spot Collision Warning may not be able to detect a vehicle driving in the next lane and may not warn you.
- When the hazard warning light is on, the Collision Warning by the turn signal will not operate.

Take the following precautions when using Blind-Spot Collision 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, Blind-Spot Collision Warning'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 Warning if the surrounding is noisy. Blind-Spot Collision Warning 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 Warning. Maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.

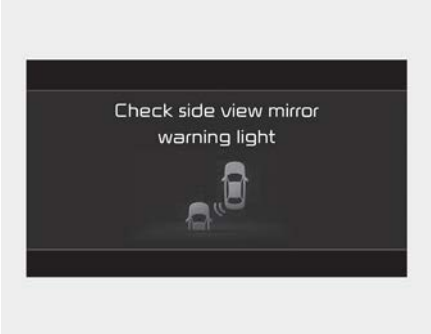
## Blind-Spot Collision Warning malfunction and limitations

### Blind-Spot Collision Warning malfunction




OBD041239L

When Blind-Spot Collision Warning is not working properly, the 'Check Blind-Spot Safety system' warning message will appear on the cluster, and the function will turn off automatically, or the function will be limited. In this case, have your vehicle inspected by an authorized Kia dealer.




OBD041240L

When the side view mirror warning light is not working properly, the 'Check side view mirror warning light' warning message will appear on the cluster. In this case, have your vehicle inspected by an authorized Kia dealer.

### Blind-Spot Collision Warning disabled

OMQ4050230L

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 tempo-

rarily limit or disable Blind-Spot Collision Warning.

If this occurs, the 'Blind-Spot Safety system disabled. Radar blocked' warning message will appear on the cluster.

Blind-Spot Collision Warning will operate properly when such foreign material or trailer, etc. is removed, and then the engine is restarted.

If Blind-Spot Collision Warning does not operate properly after it is removed, have your vehicle inspected by an authorized Kia dealer.

**WARNING**

- Even though the warning message does not appear on the cluster, Blind-Spot Collision Warning may not properly operate.
- Blind-Spot Collision Warning may not properly operate in an area (for example, open terrain), where any objects are not detected right after the engine is turned on, or when the detecting sensor is blocked with foreign material right after the engine is turned on.

**CAUTION**

Turn off Blind-Spot Collision Warning to install a trailer, carrier, etc., or remove the trailer, carrier, etc. to use Blind-Spot Collision Warning.

## Limitations of Blind-Spot Collision Warning

Blind-Spot Collision Warning 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 rear corner radar is covered with snow, rain, dirt, etc.
- The temperature around the rear corner radar is high or low
- Driving on a highway (or motorway) ramp
- 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 in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)Driving through a narrow road where trees or grass are overgrown
- 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 lanes
- 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

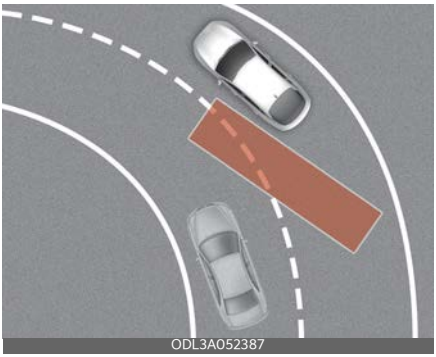
- The bumper around the rear corner radar is covered with objects, such as a bumper sticker, bumper guard, bike rack, etc.
- The bumper around the rear corner radar is impacted, damaged or the radar is out of position
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.

Blind-Spot Collision Warning may not operate properly or it may operate unexpectedly 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

**WARNING**

- **Driving on a curved road**


ODL3A052387

Blind-Spot Collision Warning may not operate properly when driving on a curved road. The function may not detect the vehicle in the next lane.

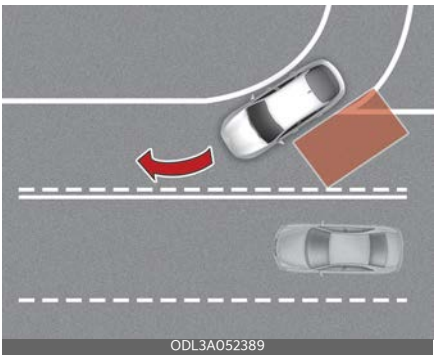
Always pay attention to road and driving conditions while driving.

ODL3A052388

Blind-Spot Collision Warning may not operate properly when driving on the curved road. The function may recognize the vehicle in the same lane.

Always pay attention to road and driving conditions while driving.

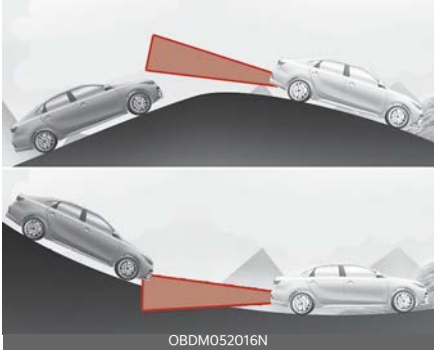
- **Driving where the road is merging/ dividing**


ODL3A052389

Blind-Spot Collision Warning 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.

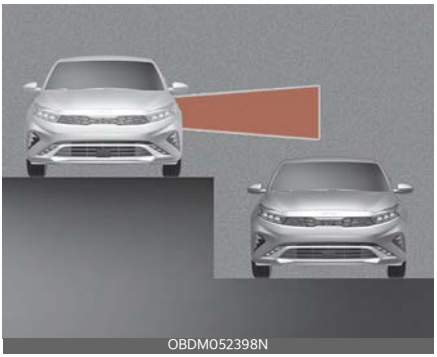
- **Driving on a sloped road**




Blind-Spot Collision Warning may not operate properly when driving on a sloped road. 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 heights of the lanes are different**




Blind-Spot Collision Warning 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**

Blind-Spot Collision Warning may not operate properly if interfered with by strong electromagnetic waves.

Blind-Spot Collision Warning may not operate for 3 seconds after the vehicle is started, or the rear corner radars are initialized.

## This device complies with Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

## Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

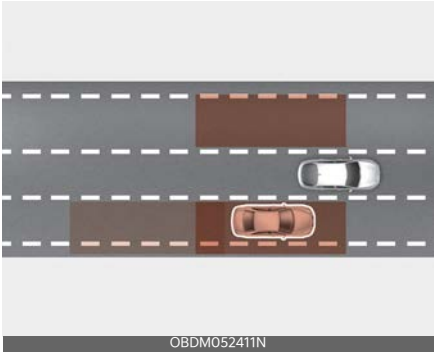
This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## 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 changing lanes or driving forward out of a parking space, Blind-Spot Collision-Avoidance Assist can help avoid collision by applying the differential braking.

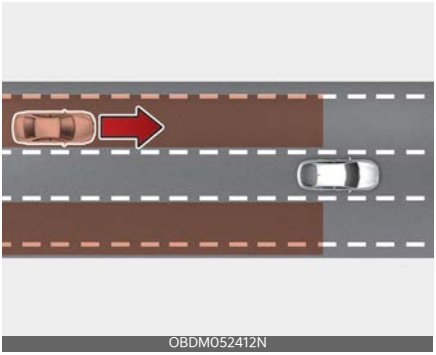


OBDM052411N

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.

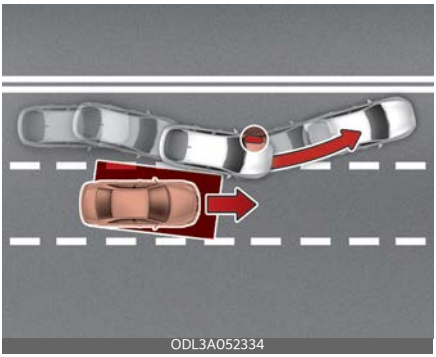


OBDM052412N

Blind-Spot Collision-Avoidance Assist helps detect and informs the driver that a vehicle is approaching at high speed from the blind spot area.

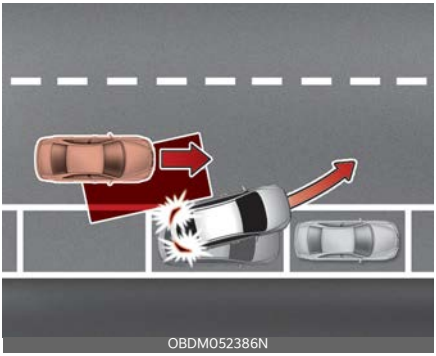
**⚠ CAUTION**

Warning Timing may vary depending on the speed of the vehicle approaching at high speed.



ODL3A052334

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 collisions by applying the brake.


OBDM052386N

When changing lanes by detecting the lane ahead, 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 collisions by applying the differential brake.

## Detecting sensor

OBDM052015N

OBDM052387N

[1] : Front view camera, [2] : Rear corner 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 rear corner radar or radar assembly, or cause any damage to it.
- If the rear corner radar or near the radar 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. In this case, have your vehicle inspected by an authorized Kia dealer.
- If the rear corner radars have been replaced or repaired, have your vehicle inspected by an authorized Kia dealer.

**⚠ CAUTION**

- 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 has been replaced, or the surroundings of the rear corner radar have 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) (Sensor fusion) (if equipped)" on page 5-61.

## Blind-Spot Collision-Avoidance Assist setting

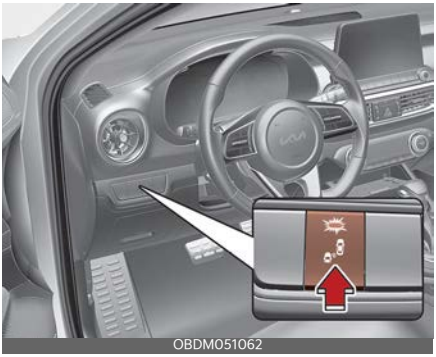
### Blind-Spot Safety

OBD041252L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Blind-Spot Safety' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to set whether to use each function.

- If 'Active Assist' is selected, Blind-Spot Collision-Avoidance Assist will warn the driver with a warning message, an audible warning and braking assist will be applied depending on the collision risk levels.
- If 'Warning Only' is selected, Blind-Spot Collision-Avoidance Assist will warn the driver with a warning message or an audible warning depending on the collision risk levels. Braking will not be assisted.
- If 'Off' is selected, Blind-Spot Collision-Avoidance Assist will turn off.

### Blind-Spot Safety button


OBDM051062

If you press the Blind-Spot Safety button while 'Warning Only' or 'Active Assist' selected the indicator on the button extinguishes and the function deactivates, and if you press the Blind-Spot Safety button while the function is off, indicator on the button illuminates and the function will operate as before it was turned off.

OMQ4050293L

When the engine is restarted with the function off, the 'Blind-Spot Safety System is Off' message will appear on the cluster.

If you change the setting from 'Off' to 'Active Assist' or 'Warning Only', the warning light on the side view mirror will blink for approximately 3 seconds.

In addition, if the engine is turned on, when the function is set to 'Active Assist' or 'Warning Only', the warning light on the side view mirror will blink for approximately 3 seconds.

**WARNING**

- If 'Warning Only' is selected, braking is not assisted.
- If 'Off' is selected, the driver should always be aware of the surroundings and drive safely.

**NOTICE**

If the engine is restarted, Blind-Spot Collision-Avoidance Assist will maintain the last setting.

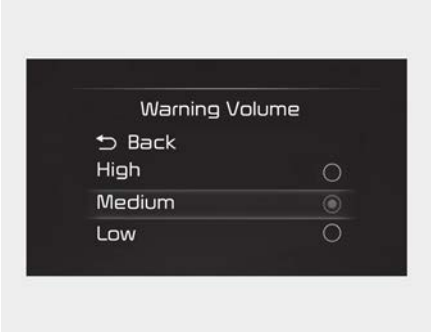
## Warning Timing

OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the initial warning activation time for Blind-Spot Collision-Avoidance Assist.

When the vehicle is first delivered, Warning Timing is set to 'Normal'. If you change the Warning Timing, the Warning Timing of other Driver Assistance systems may change.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Vol-

ume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Blind-Spot Collision-Avoidance Assist.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**⚠ CAUTION**

- The setting of the Warning Timing and Warning Volume applies to all functions of Blind-Spot Collision-Avoidance Assist.
- Even though 'Normal' is selected for Warning Timing, if a vehicle approaches at high speed, the warning may seem late.
- Select 'Late' for Warning Timing when traffic is light and when driving speed is slow.

## Blind-Spot Collision-Avoidance Assist operation

### Warning and control

#### Vehicle detection

- To warn the driver a vehicle is detected, the warning light on the side view mirror will illuminate.
- Blind-Spot Collision-Avoidance Assist will operate when your vehicle speed is above 12 mph (20 km/h) and the speed of the vehicle in the blind spot area is above 7 mph (10 km/h).

#### Collision warning

- Collision warning will operate when the turn signal is turned on in the direction of the detected vehicle.
- 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.
- To warn the driver of a collision, the warning light on the side view mirror will blink.
- 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.

**⚠ WARNING**

- The detecting range of the rear corner radar is determined by a standard road width, therefore, on a narrow road, Blind-Spot Collision-Avoidance Assist may detect other vehicles in the second lane from your vehicle 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 light 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 left lane. If the driver's seat is on the right side, the collision warning may occur when you turn right. Maintain a proper distance with the vehicles in the right lane.

## Collision-Avoidance Assist (while driving)

OBD041237L

- To warn the driver of a collision, the warning light on the side view mirror will blink and a warning message will appear on the cluster.
- Blind-Spot Collision-Avoidance Assist will operate when your vehicle speed is between 40~120 mph (60~200 km/h) and both lane markings of the driving lane are detected.
- Emergency braking may activate to help prevent a collision with a vehicle in the blind spot area.

**WARNING**

- Collision-Avoidance Assist will be canceled under the following circumstances:
  - Your vehicle enters the next lane by a certain distance
  - Your vehicle is away from the collision risk
  - The steering wheel is sharply steered
  - The brake pedal is depressed
  - Forward Collision-Avoidance Assist is operating
- After Blind-Spot Collision-Avoidance Assist operation or changing lane, you must drive to the center of the lane. Blind-Spot Collision-Avoidance Assist will not operate if the vehicle is not driven in the center of the lane.

## Collision-Avoidance Assist (while departing)

OBD041238L

- To warn the driver of a collision, the warning light on the side view mirror will blink and a warning message will appear on the cluster.
- Blind-Spot Collision-Avoidance Assist will operate when your vehicle speed is below 2 mph (3 km/h) and the speed of the vehicle in the blind spot area is above 3 mph (5 km/h).
- Emergency braking may activate to help prevent a collision with a vehicle in the blind spot area.

## Stopping vehicle and ending brake control

OBD041233L

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' 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 function'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.
- If changing the gear quickly during reversing the vehicle, Blind-Spot Collision-Avoidance Assist may not work or may operate unnecessarily.
- 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 test Blind-Spot Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.

**WARNING**

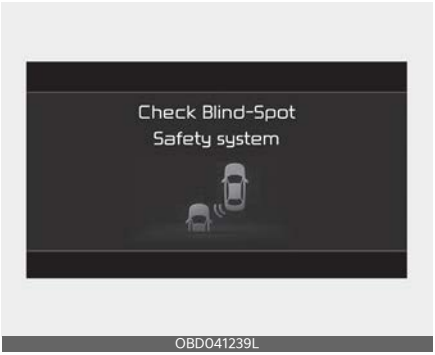
The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

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.

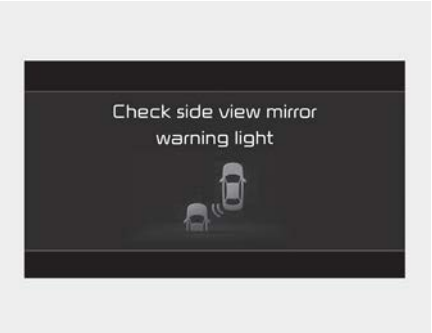
## Blind-Spot Collision-Avoidance Assist malfunction and limitations

### Blind-Spot Collision-Avoidance Assist malfunction




OBD041239L

When Blind-Spot Collision-Avoidance Assist is not working properly, the 'Check Blind-Spot Safety system' warning message will appear (turns off after a certain time), and ⚠ warning light will illuminate on the cluster. In this case, have your vehicle inspected by an authorized Kia dealer.




OBD041240L

When the warning light on the side view mirror is not working properly, the 'Check side view mirror warning light' warning message will appear (turns off after a certain time), and ⚠ warning light will illuminate on the cluster. In this case, have your vehicle inspected by an authorized Kia dealer.

### Blind-Spot Collision-Avoidance Assist disabled

OMQ4050230L

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 'Blind-Spot Safety system disabled. Radar blocked' 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 engine is restarted.

If Blind-Spot Collision-Avoidance Assist does not operate properly after it is removed, have your vehicle 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 engine is turned on, or when the detecting sensor is blocked with foreign material right after the engine is turned on.

**⚠ CAUTION**

Turn off Blind-Spot Collision-Avoidance Assist to install a trailer, carrier, etc., or remove the trailer, carrier, etc. to use Blind-Spot Collision-Avoidance Assist.

## 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 rear corner radar is covered with snow, rain, dirt, etc.
- The temperature around the rear corner radar is high or low
- Driving on a highway (or motorway) ramp
- 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 in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- Driving through a narrow road where trees or grass are overgrown
- 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 change 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, bumper guard, 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.

Blind-Spot Collision-Avoidance Assist may not operate properly or it may operate unexpectedly 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 in the following circumstances:

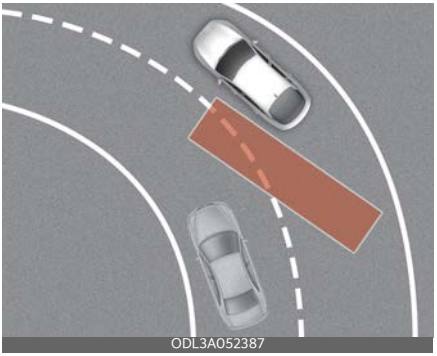
- The vehicle severely vibrates when driving on a bumpy, uneven or concrete road
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The brake is reworked
- The vehicle makes abrupt lane changes

**NOTICE**

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Sensor fusion) (if equipped)" on page 5-61.

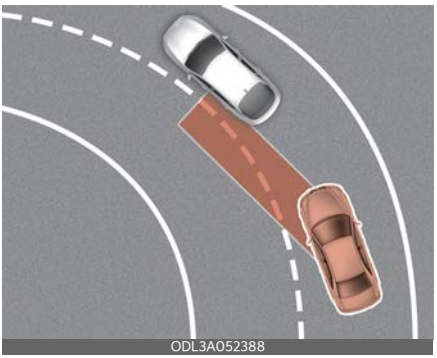
**WARNING**

- **Driving on a curved road**




Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. The function may not detect the vehicle in the next lane.

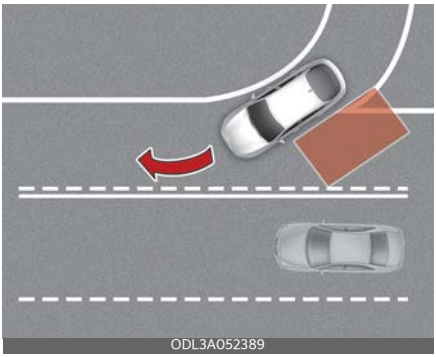
Always pay attention to road and driving conditions while driving.




Blind-Spot Collision-Avoidance Assist may not operate properly when driving on the curved road. The function may recognize the vehicle in the same lane.

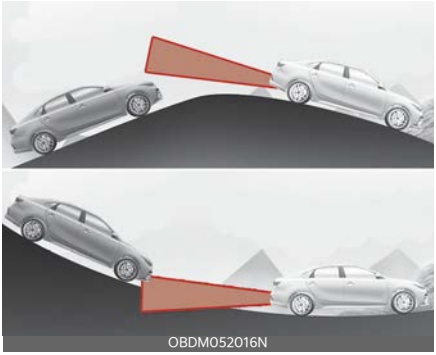
Always pay attention to road and driving conditions while driving.

- **Driving where the road is merging/ dividing**


ODL3A052389

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.

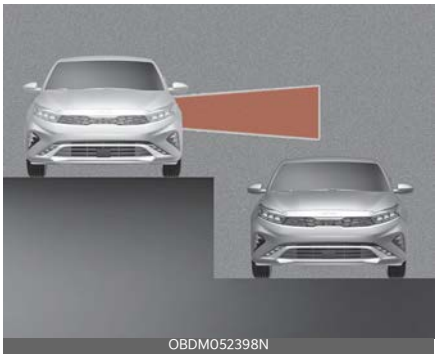
- **Driving on an inclined road**


OBDM052016N

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 heights of the lanes are different**


OBDM052398N

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.
- Blind-Spot Collision-Avoidance Assist may not operate properly if interfered with by strong electromagnetic waves.
- Blind-Spot Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the rear corner radars are initialized.

## This device complies with Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

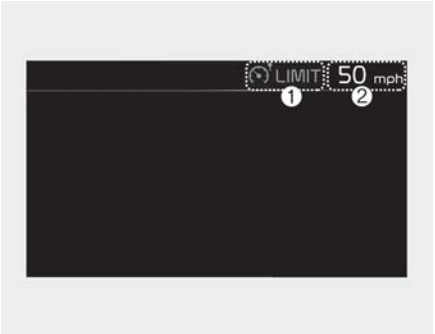
### Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Manual Speed Limit Assist (MSLA)




OBDM052077N

(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 will operate (set speed limit will blink and chime will sound) until the vehicle speed returns within the speed limit.

### Manual Speed Limit Assist operation

### Setting the speed limit

OBDM051369

1. Press and hold the Driving Assist button on the steering wheel, at the

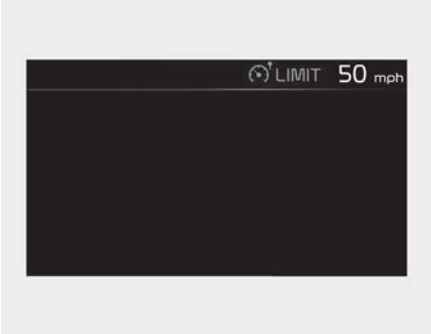
desired speed. The Speed Limit indicator will Illuminate on the cluster.

2. Push the + switch up or - switch down, and release it at the desired speed.

OBD051021

OBD051020

Push the + switch up or - switch down and hold it. The speed will increase or decrease to the nearest multiple of five (multiple of ten in km/h) at first, and then increase or decrease by 5 mph (10 km/h).




OBDM052388N

3. The set speed limit will be displayed on the cluster. If you would like to drive over the preset speed limit, depress the accelerator pedal beyond the pressure point to activate the kick-down function.

   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 function when the accelerator pedal is depressed beyond the pressure point.

## Temporarily pausing Manual Speed Limit Assist

OBD051370

Press the || ⟲ switch to temporarily pause the set speed limit. The set speed limit will turn off but the Speed Limit indicator will stay on.

## Resuming Manual Speed Limit Assist

OBD051021

To resume Manual Speed Limit Assist after the function was canceled, push the +, - or (Pause/Resume symbol) switch.

If you push the + switch up or - switch down, set speed will be set to the current speed on the cluster. If the current speed of the vehicle is less than 19 mph (30 km/h), the set speed will set as 19 mph (30 km/h). If you press the (Pause/Resume symbol) switch, set speed will resume to the preset speed.

## Turning off Manual Speed Limit Assist

OBDM051369

Press the Driving Assist button to turn Manual Speed Limit Assist off. The Speed Limit indicator will go off. Always press the Driving Assist button to turn Manual Speed Limit Assist off when not in use.

**⚠ WARNING**

Take the following precautions when using Manual Speed Limit Assist:

- Always set the vehicle speed to 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 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.

# 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. The function will recommend a break when the driver's attention level falls below a certain level to help drive safely.

## Leading Vehicle Departure Alert

Leading Vehicle Departure Alert will inform the driver when a detected vehicle in front departs from a stop.

## Detecting sensor

OBDM052015N

[1]: 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) (Sensor fusion) (if equipped)" on page 5-61.

## Driver Attention Warning setting

### Driver Attention Warning

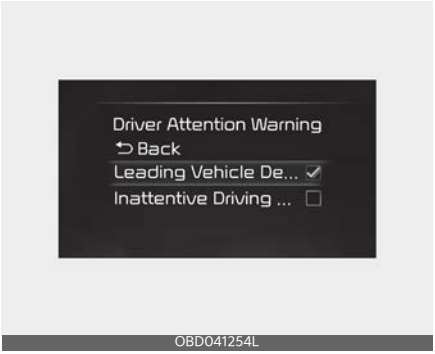
OBD041253L

- With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Driver Attention Warning' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to set whether to use each function.
- If 'Inattentive Driving Warning' is selected, Driver Attention Warning will inform the driver the driver's attention level and will recommend taking a break when the level falls below a certain level.

**NOTICE**

If the engine is restarted, Inattentive Driving Warning will maintain the last setting.

## Leading Vehicle Departure Alert




OBD041254L

If 'Leading Vehicle Departure Alert' is selected, the function will inform the driver when a detected vehicle in front departs from a stop.

## Warning Timing

OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the initial warning activation time for Driver Attention Warning. When the vehicle is first delivered, Warning Timing is set to 'Normal'. If you change the Warning Timing, the Warning Timing of other Driver Assistance systems may change. Make sure to check the Warning Timing before changing it.

**NOTICE**

If the engine is restarted, Warning Timing will maintain the last setting.

## Driver Attention Warning operation

## Basic function

### Display and warning

The basic function of Driver Attention Warning is to inform the driver the 'Attention Level' and to warn the driver 'Consider taking a break'.

### Attention Level

Off

OMQ4050113L

Standby

OBDM051322

Attentive driving

OBDM041255

Inattentive driving

OBDM041256

- The driver can monitor his/her driving conditions on the cluster.
  - When the 'Inattentive Driving Warning' is deselected from the settings menu, 'System Off' is displayed.
  - The function will operate when vehicle speed is between 0~130 mph (0~210 km/h).
  - When vehicle speed is not within the operating speed, the message 'Standby' will be displayed.
- The driver's attention level is displayed on the scale of 1 to 5. The lower the level is, the more inattentive the driver is.
- The level decreases when the driver does not take a break for a certain period of time.

## Taking a break

OBD041241L

- The 'Consider taking a break' 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 1.
- Driver Attention Warning will not suggest a break when the total driving time is shorter than 10 minutes or 10 minutes has not passed after the last break was suggested.

**WARNING**

For your safety, only 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 setting the functions in the infotainment system, refer to "Instrument cluster" on page 4-53.
- Driver Attention Warning will reset the last break time to 0:00 in the following situations:
  - The engine is turned off
  - The driver unfastens the seat belt and opens the driver's door.
  - The vehicle is stopped for more than 10 minutes.
- When the driver resets Driver Attention Warning, the last break time is set to 0:00 and the driver's attention level is set to High.

## Leading Vehicle Departure Alert

OBD041242L

When a detected vehicle in front departs from a stop, Leading Vehicle Departure Alert will inform the driver by displaying the 'Leading vehicle is driving away' message on the cluster and an audible warning will sound.

**WARNING**

- If any other function's warning message is displayed or audible warning is generated, Leading Vehicle Departure Alert 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 Warning is a supplemental function and may not warn the driver whenever the front vehicle departs from a stop.
- Always check the front of the vehicle and road conditions before departure.

## Driver Attention Warning malfunction and limitations

### Driver Attention Warning malfunction

OMQ4050118L

When Driver Attention Warning is not working properly, the 'Check Driver Attention Warning (DAW) system' warning message will appear on the cluster (turns off after a certain time) and ⚠ warning light will illuminate. In this case, have your vehicle inspected by an authorized Kia dealer.

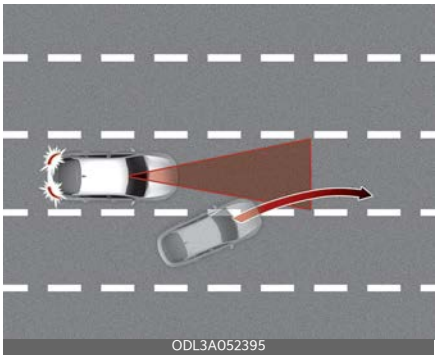
### Limitations of Driver Attention Warning

Driver Attention Warning may not work properly in the following situations:

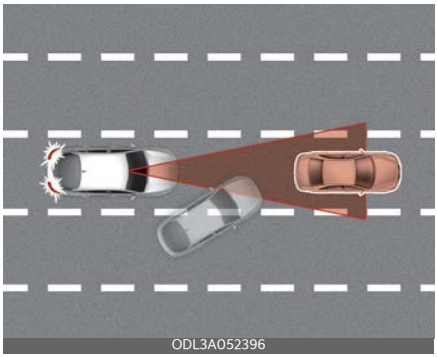
- The vehicle is driven violently
- The vehicle intentionally crosses over lanes frequently
- The vehicle is controlled by Driver Assistance system, such as Lane Keeping Assist.

## Leading Vehicle Departure Alert

- When the vehicle cuts in



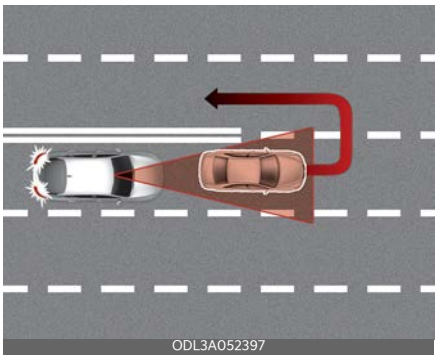
ODL3A052395



ODL3A052396

If a vehicle cuts in front of your vehicle, Leading Vehicle Departure Alert may not operate properly.

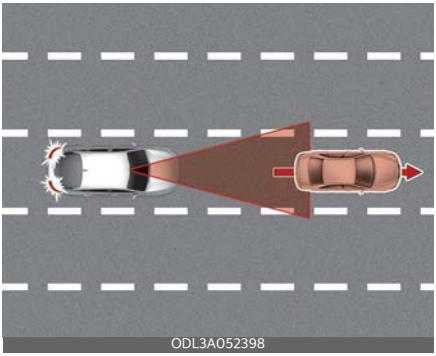
- When the vehicle ahead sharply steers



ODL3A052397

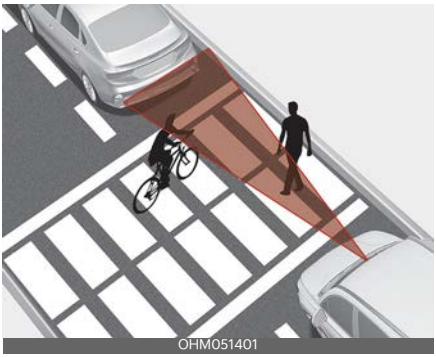
If the vehicle in front makes a sharp turn, such as to turn left or right or make a U-turn, etc., Leading Vehicle Departure Alert may not operate properly.

- When the vehicle ahead abruptly departs


ODL3A052398

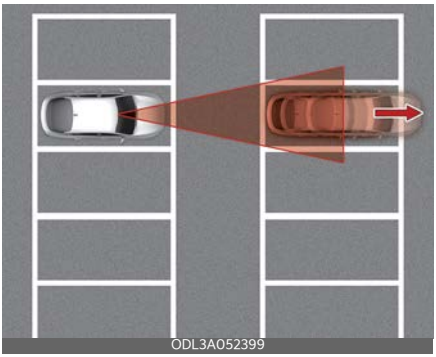
If the vehicle in front abruptly departs, Leading Vehicle Departure Alert may not operate properly.

- When a pedestrian or cyclist is between you and the vehicle ahead


OHM051401

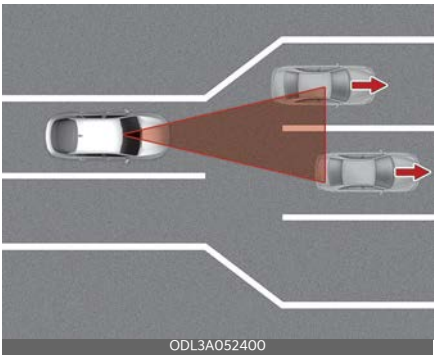
If there is a pedestrian or cyclist in between you and the vehicle in front, Leading Vehicle Departure Alert may not operate properly.

- When in a parking lot


ODL3A052399

If a vehicle parked in front drives away from you, Leading Vehicle Departure Alert may warn you that the parked vehicle is driving away.

- When driving at a tollgate or intersection, etc.


ODL3A052400

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.

**NOTICE**

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA) (Sensor fusion) (if equipped)" on page 5-61.

# Cruise Control (CC) (if equipped)

OBDM052384N

(1) Cruise indicator

(2) Set speed

Cruise Control will allow you to drive at speeds above 20 mph (30 km/h) without depressing the accelerator pedal.

## Cruise Control operation

### Setting set speed

1. Accelerate to the desired speed, which must be more than 20 mph (30 km/h).

OBDM051369

2. Press the Driving Assist button at the desired speed. The set speed and Cruise (CRUISE) indicator will illuminate on the cluster.
3. Release the accelerator pedal.

   Vehicle speed will maintain the set speed even when the accelerator pedal is not depressed.

**✻ NOTICE**

On a steep slope, the vehicle may slightly slow down or speed up while driving uphill or downhill.

### Increasing set speed

OBD051371

- Push the + switch up and release it immediately. The set speed will increase by 1 mph (1 km/h) 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 five (multiple of ten in km/h) at first, and then increase by 5 mph (10 km/h) 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.

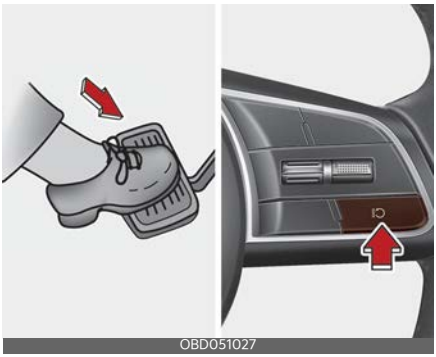
## Decreasing set speed

OBD051372

- Push the - switch down and release it immediately. The set speed will decrease by 1 mph (1 km/h) 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 five (multiple of ten in km/h) at first, and then decrease by 5 mph (10 km/h) each time the switch is operated in this manner.

  Release the switch at the speed you want to maintain.

## Temporarily pausing Cruise Control



OBD051027

Cruise Control will be paused when:

- Depressing the brake pedal.
- Pressing the || button.
- Shifting the gear to N (Neutral).
- Decreasing vehicle speed to less than approximately 20 mph (30 km/h).
- ESC (Electronic Stability Control) is operating.
- The vehicle speed is above 120 mph (190 km/h)

The set speed will turn off but the Cruise (CRUISE) indicator will stay on.

## Resuming Cruise Control

OBD051373

Operate the +, - switch or || button.

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 || button, vehicle speed will resume to the preset speed.

Vehicle speed must be above 20 mph (30 km/h) for the function to resume.

## Turning off Cruise Control

OBDM051369

Press the Driving Assist button to turn Cruise Control off. The Cruise indicator will go off.

Always press the Driving Assist button to turn Cruise Control off when not in use.

**NOTICE**

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.

**CAUTION**

During cruise-speed driving with the manual transmission vehicle, do not shift into neutral without depressing the clutch pedal, since the engine will be over-revved. If this happens, depress the clutch pedal or press the Driving Assist button to turn Cruise Control off.

## Smart Cruise Control (SCC) (if equipped)

Smart Cruise Control allows you to program the vehicle to maintain constant speed and distance detecting the vehicle ahead without depressing the accelerator or brake pedal.

### Overtaking Acceleration Assist

While Smart Cruise Control is operating, if the function judges that the driver is determined to overtake the vehicle in front, acceleration will be assisted.

### Detecting sensor

OBDM052015N

OBDM052014N

[1]: Front view camera, [2]: Front radar

The front view camera and front radar are used as a detecting sensor to detect vehicles in front. 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) (Sensor fusion) (if equipped)" on page 5-61.

### Smart Cruise Control setting

### Turning on Smart Cruise Control

OBDM051369

- 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, but if there is a vehicle in front of you, the speed may decrease 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 0~20 mph (0~30 km/h) when you press the Driving Assist button, Smart Cruise Control speed will be set to 20 mph (30 km/h).
- The symbol of the Driving Assist button may vary depending on your vehicle option.

## Setting Vehicle Distance

OBD051374

Each time the Vehicle Distance button is pressed, the Vehicle Distance changes as follows:

Distance 4 → Distance 3 → Distance 2 → Distance 1 → Distance 4

**✻ NOTICE**

- If you drive at 56 mph (90 km/h), the distance is maintained as follows:
  - Distance 4 - approximately 172 ft. (52.5 m)
  - Distance 3 - approximately 130 ft. (40 m)
  - Distance 2 - approximately 106 ft. (32.5 m)
  - Distance 1 - approximately 82 ft. (25 m)
- The distance is set to the last set distance when the engine is restarted, or when Smart Cruise Control was temporarily canceled.

## Increasing set speed

OBD051021

- Push up the + switch, and release it immediately. The set speed will increase by 1 mph (1 km/h) each time the switch is operated in this manner.
- Push up the + switch, and hold it while monitoring the set speed on the cluster. The set speed will increase by 5 mph or 10 km/h 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. Speed can increase the set speed to 110 mph (180 km/h).

**⚠ WARNING**

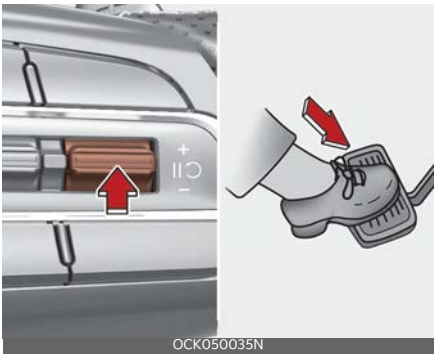
Check the driving condition before using the + switch. Driving speed may sharply increase when you push up and hold the + switch.

## Decreasing set speed

OBD051020

- Push down the - switch, and release it immediately. The set speed will decrease by 1 mph (1 km/h) each time the switch is operated in this manner.
- Push down the - switch, and hold it while monitoring the set speed on the cluster. The set speed will decrease by 5 mph or 10 km/h each time the switch is operated in this manner.
- Release the switch at the speed you want to maintain. Speed can decrease the set speed to 20 mph (30 km/h).

## Temporarily canceling Smart Cruise Control



OCK050035N

Press the || ↺ switch or depress the brake pedal to temporarily cancel Smart Cruise Control.

## Resuming Smart Cruise Control

OBD051375

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 press the || ↺ switch. Driving speed may sharply increase or decrease when you press the || ↺ switch.

## Turning off Smart Cruise Control

OBDM051369

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

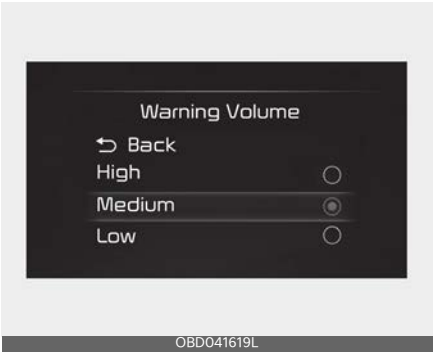
Driving Assist button to turn off Smart Cruise Control. However Manual Speed Limit Assist will turn on.

## SCC Reaction

OBD041248L

The sensitivity of vehicle speed when following the front vehicle to maintain the set distance can be adjusted. With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → SCC Reaction' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to set one of the three stages you prefer.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Smart Cruise Control.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**✻ NOTICE**

If the engine is restarted, Warning Volume will maintain the last setting.

## Smart Cruise Control operation

### Operating conditions

Smart Cruise Control will operate when the following conditions are satisfied.

#### Basic function

- The gear is in D (Drive)
- The driver's door is closed
- EPB (Electronic Parking Brake) is not applied
- Your vehicle speed is within the operating speed range

  5~110 mph (10~180 km/h): when there is no vehicle in front

  0~110 mph (0~180 km/h): when there is a vehicle in front
- ESC (Electronic Stability Control), TCS (Traction Control System) and ABS is on
- ESC (Electronic Stability Control), TCS (Traction Control System) and ABS is not controlling the vehicle
- Engine rpm is not in the red zone
- Forward Collision-Avoidance Assist brake control is not operating

**NOTICE**

When stopped behind another vehicle, the driver can turn on Smart Cruise Control while the brake pedal is depressed.

## Overtaking 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:

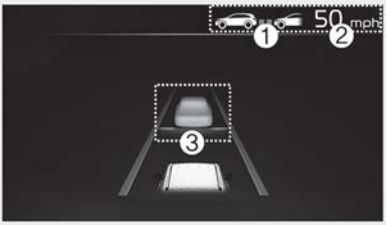
- Your vehicle speed is above 40 mph (60 km/h)
- The hazard warning flasher is off
- A vehicle is detected in front of your vehicle
- Deceleration is not needed to maintain distance with the vehicle in front

**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.

## Basic function

Operating




OBDM052389N

Temporarily canceled

OBDM051390

You can see the status of Smart Cruise Control operation in the Driving Assist view on the cluster. Refer to "Instrument cluster" on page 4-53.

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

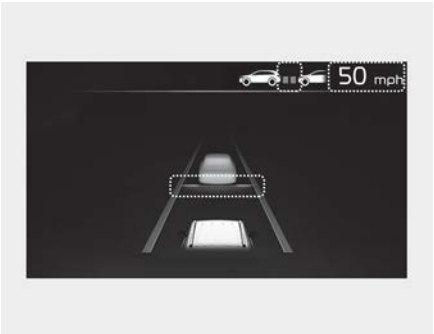
(1) CRUISE indicator

(2) The previous set speed

**NOTICE**

- The actual distance with the front vehicle is displayed.
- The target distance may vary according to the vehicle speed and the set distance level. If the vehicle speed is low, even though the vehicle distance have changed, the change of the target vehicle distance may be small.

## Accelerating temporarily




OBDM052391N

If you want to speed up temporarily when Smart Cruise Control is on, depress the accelerator pedal for a certain amount. While depressing the accelerator pedal for a certain amount, the set speed, distance level and target distance will blink on the cluster. However, if the accelerator pedal is insufficiently depressed, the vehicle may slow down.

**WARNING**

Be careful when accelerating temporarily, because the speed is not controlled automatically even if there is a vehicle in front of you.

## Temporarily canceling Smart Cruise Control

OMQ4050134L

Smart Cruise Control will be temporarily canceled automatically when:

- The vehicle speed is above 110 mph (180 km/h)
- 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 Smart Cruise Control to operate is not satisfied

If Smart Cruise Control is temporarily canceled, the 'Smart Cruise Control canceled' warning message will appear on the cluster, and an audible warning will sound to warn the driver.

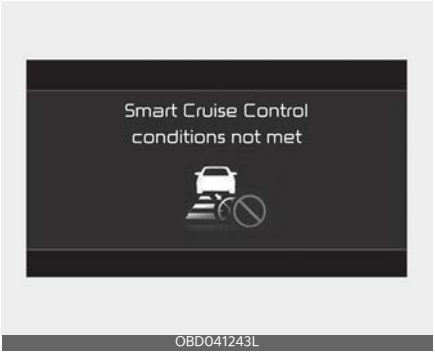
If Smart Cruise Control is temporarily canceled while the vehicle is at a standstill with the function operating, EPB (Electronic Parking Brake) may be applied.

**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.

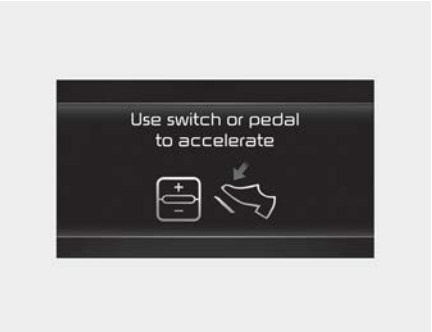
## Smart Cruise Control conditions not satisfied




OBD041243L

If the Driving Assist button, +, - or || ↻ switch is operated when Smart Cruise Control's operating conditions are not satisfied, the 'Smart Cruise Control conditions not met' will appear on the cluster, and an audible warning will sound.

## In traffic situation




OMQ4050288L

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 has passed, the 'Use switch or pedal to accelerate' message will appear on the cluster. Depress the accelerator pedal or operate the + switch, - switch or || ↻ switch to start driving.

**⚠ WARNING**

While the message is displayed on the cluster, if there is no vehicle in front or the vehicle is far away from you, and the + switch, - switch or || ↻ switch is operated, Smart Cruise Control will automatically cancel and the EPB will be applied. However, if the accelerator pedal is depressed, EPB will not be applied even though Smart Cruise Control is canceled. Always pay attention to the road condition ahead.

## Warning road conditions ahead

OBD041244L

In the following situation, the 'Watch for surrounding vehicles' warning message will appear on the cluster, and an audible warning will sound to warn the driver of road conditions ahead.

The vehicle in front disappears when Smart Cruise Control is maintaining the distance with the vehicle ahead while driving in low speed.

**⚠ 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.

## Collision warning

OBD041231L

While Smart Cruise Control is operating, when the collision risk with the vehicle ahead is high, the 'Collision Warning' 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.
  - The distance from the front vehicle is near, or the vehicle speed of the other 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

**⚠ WARNING**

Take the following precautions when using Smart Cruise Control :

- 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 vehicle distance.
- Keep a safe distance according to road conditions and vehicle speed. If the vehicle 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, we recommend that Smart Cruise Control is turned off due to safety reasons.
- Turn off Smart Cruise Control when your vehicle is being towed.
- Smart Cruise Control may not operate properly if interfered with 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's 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 function'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 state.

**NOTICE**

- Smart Cruise Control may not operate in few seconds after the vehicle is started 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

OMQ4050145L

When Smart Cruise Control is not working properly, the 'Check Smart Cruise Control system' warning message will appear (turns off after a certain time), and the ⚠ warning light will illuminate on the cluster. In this case, take your vehicle to an authorized Kia dealer and have the function checked.

## Smart Cruise Control disabled

OMQ4050144L

When the front radar cover or sensor is covered with snow, rain, or foreign matters, it can reduce the detecting performance and temporarily limit or disable Smart Cruise Control.

If this occurs, the 'Smart Cruise Control disabled. Radar blocked' warning message will appear for a certain period of time on the cluster.

Smart Cruise Control will operate properly when such snow, rain or foreign matter is removed.

**⚠ WARNING**

Even though the warning message does not appear on the cluster, Smart Cruise Control may not properly operate.

**⚠ CAUTION**

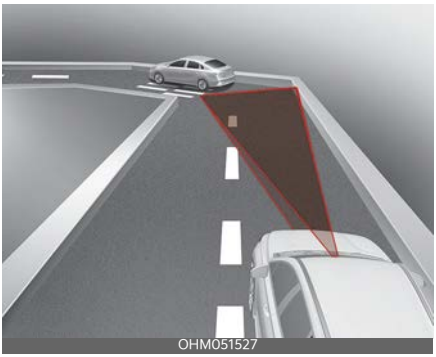
Smart Cruise Control may not properly operate in an area (for example, open terrain), where any objects are not detected after turning ON the engine.

## 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 stuck of foreign matters (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 in 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.

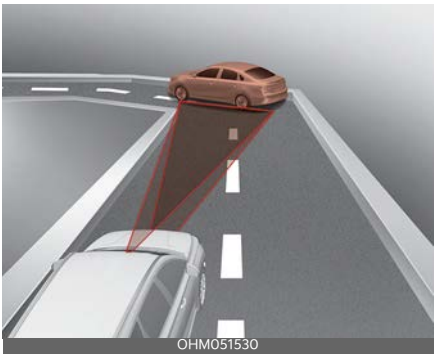
- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or does not look normal (for example, tilted, overturned, etc.)
- The front vehicle's ground clearance is low or high
- Your vehicle is being towed
- A vehicle suddenly cuts in front
- Driving through a tunnel or railroad bridge
- 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
- Driving in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- 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 a 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 at low speed
- The vehicle in front is covered with snow
- You are driving unstably
- You are on a roundabout and the vehicle in front is not detected
- You are continuously driving in a circle
- 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
- 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 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**




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.

Apply the accelerator pedal and select the appropriate set speed. Check to be sure that the road conditions permit safe operation of Smart Cruise Control.

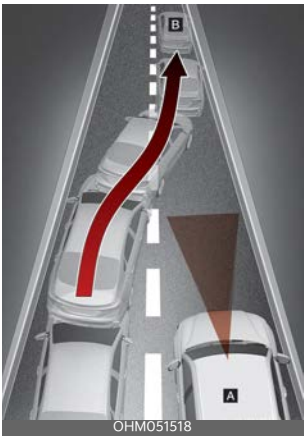
- **Driving on an inclined road**

During uphill or downhill driving, 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 moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range.

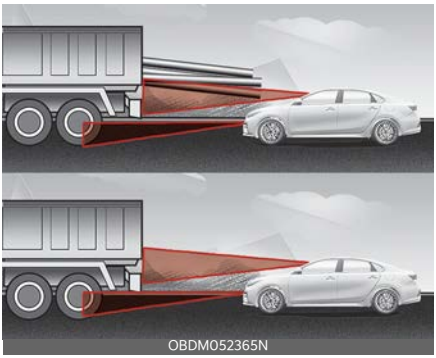
Smart Cruise Control may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- **Detecting vehicle**

ODL3A052415

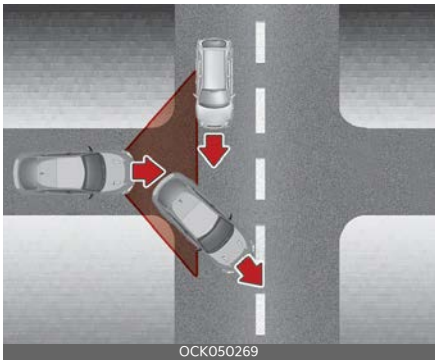
In the following cases, some vehicles in your lane cannot be detected by the sensor:

- Vehicles offset to one side
- Slow-moving vehicles or sudden-decelerating vehicles
- Oncoming vehicles
- Stopped vehicles
- Vehicles with small rear profile, such as trailers
- Narrow vehicles, such as motorcycles or bicycles
- Special vehicles
- Animals and pedestrians

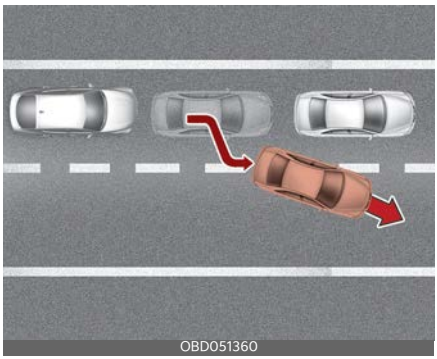

OBDM052365N

In the following cases, the vehicle in front cannot be detected by the sensor:

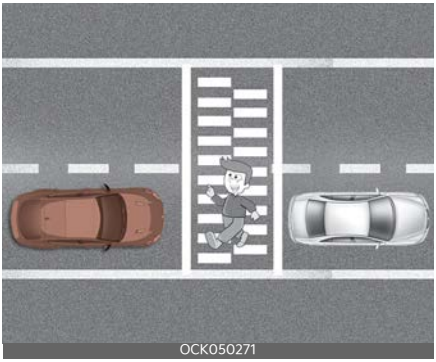
- Vehicles with higher clearance or vehicles carrying loads that stick out of the back of the vehicle
- Vehicles that have the front lifted due to heavy loads
- You are steering your vehicle
- Driving on narrow or sharply curved roads


OCK050269

When a vehicle ahead disappears at an intersection, your vehicle may accelerate. Always pay attention to road and driving conditions while driving.


OBD051360

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 pedestrian when your vehicle is maintaining a distance with the vehicle ahead.

## This device complies with Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

## Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## 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.

**⚠ WARNING**

Navigation-based Smart Cruise Control 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 Slowdown

If vehicle speed is high, Highway Curve Zone Auto Slowdown function will temporarily decelerate your vehicle to help you drive safely on a curve, based on the curve information from the navigation.

### Set Speed Auto Change

Set Speed Auto Change function changes Smart Cruise Control set speed based on the speed limit information from the navigation.

### Navigation-based Smart Cruise Control setting

### Highway Auto Curve Slowdown

OSP2N052273

- With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Driv-

ing Convenience → Highway Auto Curve Slowdown' from the 'Setup → Vehicle (Infotainment System screen)' menu to set whether to use each function.

**✻ 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 or highways (or motorways)

**✻ NOTICE**

For more details on how to operate Smart Cruise Control, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-110.

### 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

OBDM052413N

If the operating conditions are satisfied, the white (AUTO) symbol will illuminate.

#### Navigation-based Smart Cruise Control operating

OBDM052414N

If temporary deceleration is required in the standby state and Navigation-based Smart Cruise Control is operating, the green (AUTO) symbol will illuminate on the cluster.

If the Set Speed Auto Change function operates, the green (AUTO) symbol and green set speed will illuminate on the cluster, and an audible alarm will sound.

**⚠ WARNING**

'Drive carefully' warning message will appear in the following circumstances:

OBD041233L

- Navigation-based Smart Cruise Control is not able to slow down your vehicle to a safe speed.

**✻ NOTICE**

Highway Curve Zone Auto Slowdown and Set Speed Auto Change function uses the same (AUTO) symbol.

## Highway Curve Zone Auto Slowdown

- 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, the faster the vehicle will decelerate.

## Set Speed Auto Change

- Set Speed Auto Change function will operate when Smart Cruise Control set speed and the highway (or motorway) speed limit is matched.
- While Set Speed Auto Change function is operating, when the highway (or motorway) speed limit changes, Smart Cruise Control set speed automatically changes to the changed speed limit.
- If Smart Cruise Control set speed is adjusted different from the speed limit, Set Speed Auto Change function will be in the standby state.
- If Set Speed Auto Change function has changed to the standby state by driving on a road other than the highway (or motorway) main road, Set Speed Auto Change function will operate again when you drive on the main road again. At this time, the set speed does not need to be adjusted.
- If Set Speed Auto Change function has changed to the standby state by depressing the brake pedal, press the (|| ↻) switch to restart the Highway Set Speed Auto Change function.
- Set Speed Auto Change function does not operate on highway interchanges or junctions.

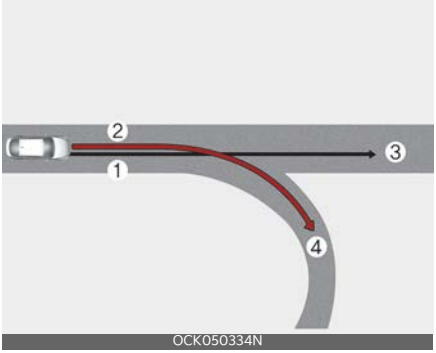
**✻ NOTICE**

- Set Speed Auto Change function only operates based on the speed limits of the highway (or motorway), but it does not work with the speed cameras.
- When Set Speed Auto Change function is operating, the vehicle automatically accelerates or decelerates when the highway (or motorway) speed limit changes.
- If the speed limit is higher than the speed limit of the speed camera while Set Speed Auto Change function is

operating, an audible warning may sound.
- The maximum set speed for Set Speed Auto Change function to operate is 90 mph (140 km/h).
- If the speed limit of a new road is not reflected in the navigation, Set Speed Auto Change function may not operate properly.
- If the speed unit is set to a unit other than the speed unit used in your state, Set Speed Auto Change function may not operate properly.

## Limitations of Navigation-based Smart Cruise Control

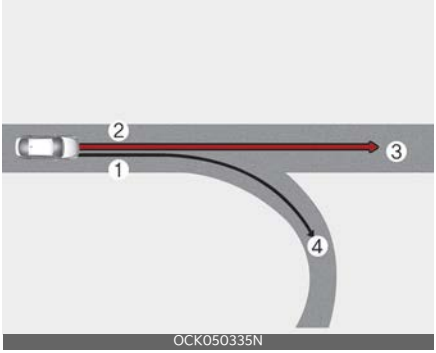
Navigation-based Smart Cruise Control may not operate properly under the following circumstances:
- The navigation is not working properly.
- The navigation is not updated to include the latest information about road curvature and changes.
- Speed limit and road information in the navigation is not updated
- 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 (including TPEG change)
- 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 vehicle enters a service station or rest area
- The speed limit of some sections changes depending on the road situations
- Android Auto or CarPlay is operating
- The navigation is being updated while driving
- The navigation is being restarted while driving




[1]: Driving route, [2]: Set route, [3]: Main road, [4]: Branch line

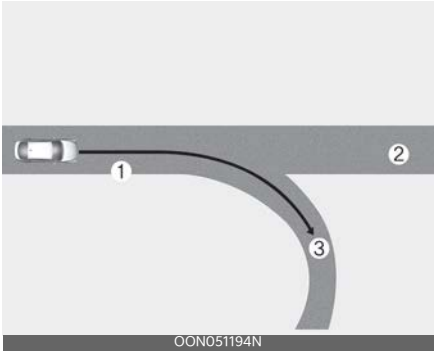
- When there is a difference between the navigation set route (branch line) and the driving route (main road), Highway Curve Zone Auto Slowdown function may not operate until the driving route is recognized as the main road.
- When the vehicle's driving route is recognized as the main road by maintaining 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]: Driving route, [2]: Main road, [3]: Set route, [4]: Branch line

- When there is a difference between the navigation route (main road) and the driving route (branch line), Highway Curve Zone Auto Slowdown function may temporarily operate due to the navigation information of the highway curve section.
- When it is judged that you are driving out of the route by entering the highway interchange and junction, Highway Curve Zone Auto Slowdown function will not operate.




[1]: Driving route, [2]: Main road, [3]: Branch line

- 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 Slowdown function may temporarily operate due to navigation information of the highway curve section.

**WARNING**

- 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.
- Highway Curve Zone Auto Slowdown and Set Speed Auto Change function will automatically cancel when you leave the main road of the highway. 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, we recommend that Navigation-based Smart Cruise Control is turned off due to safety reasons.
- After you pass through a tollgate on a highway, Navigation-based Smart Cruise Control operates based on the first lane. If you enter one of the other lanes, Navigation-based Smart Cruise Control might not properly decelerate.
- The vehicle will accelerate if the driver depresses the accelerate pedal while Navigation-based Smart Cruise Con-

trol is operating, and function will not decelerate the vehicle. However, if the accelerator pedal is insufficiently depressed, the vehicle may slow down.
- 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**

- When the function is activated, the vehicle decelerates automatically before reaching the curved road according to its curvature, and the driving speed returns to the speed set by Smart Cruise Control after passing the curved section.
- The speed information on the cluster and navigation may differ.
- A time gap could occur between the navigation's guidance and when Navigation-based Smart Cruise Control operation starts and ends.
- Even if you are driving at a speed lower than Smart Cruise Control set speed, acceleration may be limited by speed cameras and 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 not be sufficient due to road conditions such as uneven road surfaces, narrow lanes, etc.

## This device complies with Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

## Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Lane Following Assist (LFA) (if equipped)

Lane Following Assist is designed to detect lane markings or vehicles on the road, and assists the driver's steering to help center the vehicle in the lane.

### Detecting sensor

OBDM052015N

[1]: 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) (Sensor fusion) (if equipped)" on page 5-61.

## Lane Following Assist setting

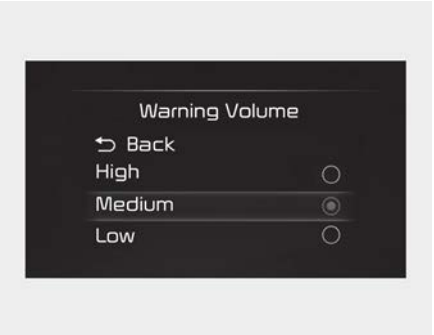
### Turning Lane Following Assist On/Off

OBD051366

With the ignition switch or ENGINE START/STOP button in the ON position, press the Lane Driving Assist button located on the steering wheel to turn on Lane Following Assist. The white or green (🚗) indicator light will illuminate on the cluster.

Press the Lane Driving Assist button again to turn off the function.

### Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD dis-

play) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Hands-off warning.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

## Lane Following Assist operation

## Warning and control

### Lane Following Assist

OBDM052392N

If the vehicle ahead or both lane markings are detected and your vehicle speed is below 110 mph (180 km/h), the green (⊛) indicator light will illuminate on the cluster, and the function will help center the vehicle in the lane by controlling the steering wheel.

**⚠ CAUTION**

When the steering wheel is not controlled, the green (⊛) indicator light will blink and change to white.

### Hands-off warning

OBD041236L

If the driver takes their hands off the steering wheel for several seconds, the 'Keep hands on 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

OMQ4040509L

If the driver still does not have their hands on the steering wheel after the hands-off warning, the 'Lane Following Assist (LFA) canceled' 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 the function 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**

- For more details on setting the functions in the infotainment system, refer to "LCD display modes" on page 4-59.
- When both lane markings are detected, the lane lines on the cluster will change from gray to white.

Lane undetected

OBDM042267N

Lane detected

OBDM042268N

- If lane markings are not detected, steering wheel control by Lane Following 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 the function than when it is not.

## Lane Following Assist malfunction and limitations

### Lane Following Assist malfunction

OMQ4050157L

When Lane Following Assist is not working properly, the 'Check Lane Following Assist (LFA) system' warning message will appear on the cluster (turns off after a certain time) and the ⚠ warning light will illuminate. In this case, have the function checked by an authorized Kia dealer.

### Limitations of Lane Following Assist

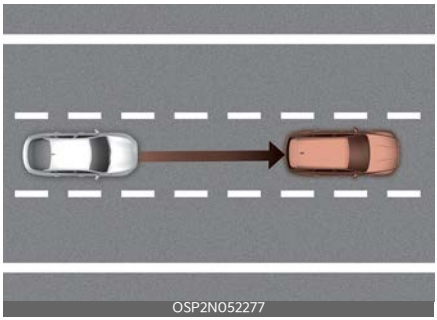
For more details on system limitations, refer to "Limitations of Lane Keeping Assist" on page 5-77.

**⚠ CAUTION**

For more details on the function precautions, refer to "Lane Keeping Assist (LKA) (if equipped)" on page 5-73.

## Highway Driving Assist (HDA) (if equipped)

Highway Driving Assist is designed to help detect vehicles and lanes ahead, and help maintain distance from the vehicle ahead, maintain the set speed, and help center the vehicle in the lane.




**✻ NOTICE**

Highway Driving Assist operates on main roads of highways (or motorways), and does not operate on interchanges or junctions.

**✻ 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.

## Detecting sensors

OBDM052015N

OBDM052014N

[1] : Front view camera, [2]: 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 5-61.

## Highway Driving Assist setting

### Highway Driving Assist

OSP2N052275

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Driving Convenience' from the Setup menu to set whether to use each function.

- If 'Highway Driving Assist' is selected, it helps maintain distance from the vehicle ahead, maintain the set speed, and center the vehicle in the lane.

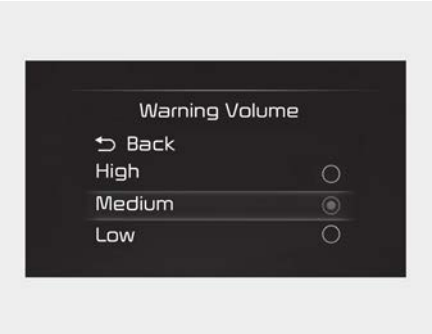
**NOTICE**

- If there is a problem with the functions, the settings cannot be changed. We recommend that you have your vehicle inspected by an authorized Kia dealer.
- If the engine is restarted, the functions will maintain the last setting.

**WARNING**

For your safety, only change the settings after parking the vehicle at a safe location.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' to change the Warning Volume to 'High', 'Medium', 'Low' for Highway Driving Assist.

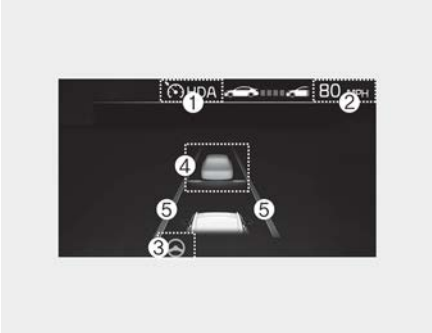
If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

## Highway Driving Assist operation

### Display and control

Highway Driving Assist will be displayed as below depending on the status of the function.

Operating




OMQ4A050236

Standby

OBDM052415N

1. Highway Driving Assist indicator, whether there is a vehicle ahead and the selected distance level are displayed.
   - Green (HDA): Operating state
   - White (HDA): Standby state
2. Set speed
3. Lane Following Assist indicator
4. Whether there is a vehicle ahead and the selected distance level
5. Whether the lane is detected or not is displayed

For more details and limitations of Smart Cruise Control, refer to "Smart Cruise Control (SCC) (if equipped)" on page 5-110.

For more details and limitations of Lane Following Assist, refer to "Lane Following Assist (LFA) (if equipped)" on page 5-130.

## Highway Driving Assist operating

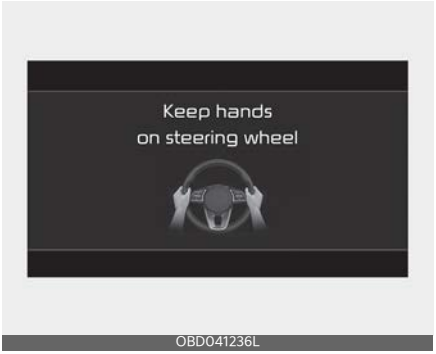
- When driving on the main roads of highways (or motorways) where Highway Driving Assist can operate, Highway Driving Assist will turn on if pressing Driving Assist button.
- With Smart Cruise Control and Lane Following Assist on, when entering the main roads of highways (or motorways) where Highway Driving Assist can operate, Highway Driving Assist will automatically operate.

## Restarting after stopping

OMQ4050288L

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 'Use switch or pedal to accelerate' message will appear on the cluster. Depress the accelerator pedal or push the + switch, - switch or (|| ⟲) switch to start driving.

## Hands-off warning




OBD041236L

The hands-off warning appears when the function detects that the driver's hands are not on the steering wheel while Highway Driving Assist is in work.

- First warning: warning message
- Second warning: warning message with warning sound

OMQ4050219L

If the driver still does not have their hands on the steering wheel after the hands-off warning, the 'Highway Driving Assist (HDA) canceled' warning message will appear and Highway Driving will be automatically canceled.

## Highway Driving Assist standby

When Smart Cruise Control is temporarily canceled while Highway Driving Assist is operating, Highway Driving

Assist will be in standby state. At this time, Lane Following Assist will operate properly.

## Highway Driving Assist malfunction and limitations

### Highway Driving Assist malfunction

OMQ4050220L

When Highway Driving Assist is not working properly, the 'Check Highway Driving Assist (HDA) system' warning message will appear, and the ( ⚠ ) warning light will illuminate on the cluster.

Have your vehicle 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 function. 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 responsible for any traffic violation or accidents caused by the driver.
- Highway Driving Assist may not be able to determine 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, unspecified objects or structures such as guardrails and tollgates, 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 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, we recommend that Highway Driving Assist is turned off due to 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 Highway Driving Assist.
- Highway Driving Assist will not operate when the engine 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 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 performing functions such as route search, video playback, voice recognition, etc. are performing simultaneously
- GPS signals are blocked in areas such as a tunnel
- The driver goes off course or 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 CarPlay 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)

**⚠ CAUTION**

For more details on the limitations of the front view camera, front radar, refer to "Forward Collision-Avoidance Assist (FCA) (Sensor fusion) (if equipped)" on page 5-61.

### This device complies with Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

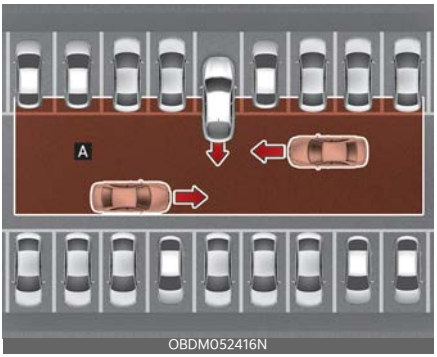
### Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Rear Cross-Traffic Collision Warning (RCCW) (if equipped)

Rear Cross-Traffic Collision Warning is designed to detect vehicles approaching from the rear left and right side while your vehicle is reversing, and warning the driver that a collision is imminent with a warning message and an audible warning.



OBDM052416N

[A]: Rear Cross-Traffic Collision Warning operating range

**⚠ CAUTION**

Warning Timing may vary depending on vehicle speed of the approaching vehicle.

### Detecting sensor

OBDM052367N

[1]: Rear corner radar

Refer to the picture above for the detailed location of the detecting sensor.

**⚠ CAUTION**

For more details on the precautions of the rear corner radar, refer to "Blind-Spot Collision Warning (BCW) (if equipped)" on page 5-78.

### Rear Cross-Traffic Collision Warning setting

### Rear Cross-Traffic Safety

OBD041259L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Parking Safety → Rear Cross-Traffic Safety' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to turn on Rear Cross-Traffic Collision Warning and deselect to turn off the function.

**⚠ WARNING**

When the engine is restarted, Rear Cross-Traffic Collision Warning will always turn on. However, if 'Off' is selected after the engine is restarted, the driver should always be aware of the surroundings and drive safely.

**NOTICE**

If the engine is restarted, Warning Timing and Warning Volume will maintain the last setting.

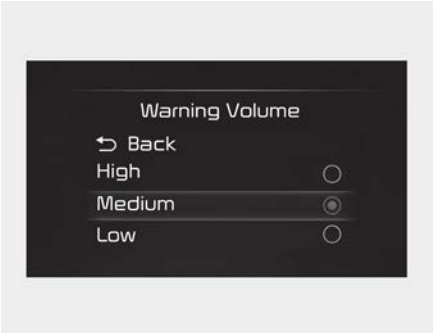
## Warning Timing

OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' to change the initial warning activation time for Rear Cross-Traffic Collision Warning.

When the vehicle is first delivered, Warning Timing is set to 'Normal'. If you change the Warning Timing, the Warning Timing of other Driver Assistance systems may change.

## Warning Volume




OBD041619L

With the ignition switch or ENGINE-START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' to change the Warning Volume to 'High', 'Medium', 'Low' for Rear Cross-Traffic Collision Warning.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**CAUTION**

- The setting of the Warning Timing and Warning Volume applies to all functions of Rear Cross-Traffic Collision Warning.
- Even though 'Normal' is selected for Warning Timing, if a vehicle from the left or right side approaches at high speed, the warning may seem late.
- Select 'Late' for Warning Timing when traffic is light and when driving speed is slow.

**NOTICE**

If the ENGINE START/STOP button is changed to the ON position, Warning

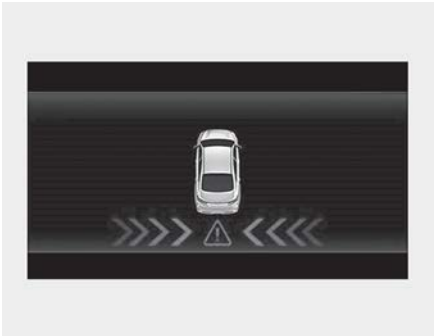
Timing and Warning Volume will maintain the last setting.

## Rear Cross-Traffic Collision Warning

Rear Cross-Traffic Collision Warning will warning the driver when a collision is imminent.

### Collision warning

OBD051385L



OBD041269

To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the side view mirror will blink and a warning will appear on the cluster. At the same time, an audible warning will sound. If Rear View Monitor is operating, a warning will also appear on the infotainment screen.

Rear Cross-Traffic Collision Warning will operate when the following conditions are satisfied:

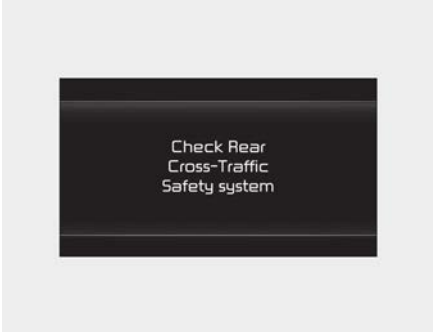
- Your vehicle gear is shifted to R (Reverse)
- Your vehicle speed is below 5 mph (8 km/h)
- The approaching vehicle is within approximately 82 feet (25 m) from the left or right side of your vehicle
- The speed of the vehicle approaching from the left or right side is above 3 mph (5 km/h)

**✻ 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 mph (0 km/h).

## Rear Cross-Traffic Collision Warning malfunction and limitations

### Rear Cross-Traffic Collision Warning malfunction




OMQ4050290L

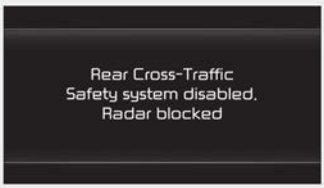
When Rear Cross-Traffic Collision Warning is not working properly, the 'Check Rear Cross-Traffic Safety system' warning message will appear on the cluster,

and the function will turn off automatically, or the function will be limited. In this case, have your vehicle inspected by an authorized Kia dealer.

OBD041240L

When the side view mirror warning light is not working properly, the 'Check side view mirror warning light' warning message will appear on the cluster. In this case, have your vehicle inspected by an authorized Kia dealer.

## Rear Cross-Traffic Collision Warning disabled




OMQ4050292L

When the rear bumper around the rear-side radar or sensor is covered with foreign matters, 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 Warning.

If this occurs, the 'Rear Cross-Traffic Safety disabled. Radar blocked' warning message will appear on the cluster.

Rear Cross-Traffic Collision Warning will operate properly when such foreign matters or trailer, etc. is removed.

If Rear Cross-Traffic Collision Warning 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 Warning may not properly operate.
- Rear Cross-Traffic Collision Warning may not properly operate in an area (for example, open terrain), where any objects are not detected after turning ON the engine.

**⚠ CAUTION**

Turn off Rear Cross-Traffic Collision Warning to install a trailer, carrier, etc., or remove the trailer, carrier, etc. to use Rear Cross-Traffic Collision Warning.

## Limitations of Rear Cross-Traffic Collision Warning

Rear Cross-Traffic Collision Warning may not operate properly or it may operate unexpectedly under the following circumstances:

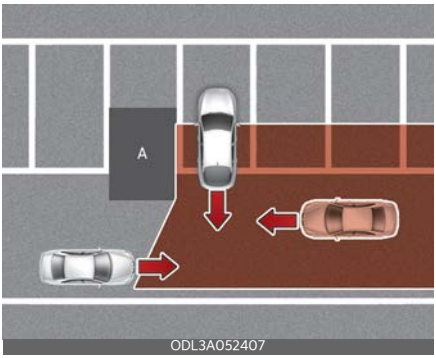
- Departing from where trees or grass is overgrown
- Departing from where roads are wet
- Speed of the approaching vehicle is fast or slow

**CAUTION**

For more details on the limitations of the rear corner radar, refer to "Blind-Spot Collision Warning (BCW) (if equipped)" on page 5-78.

**WARNING**

- **Driving near a vehicle or structure**

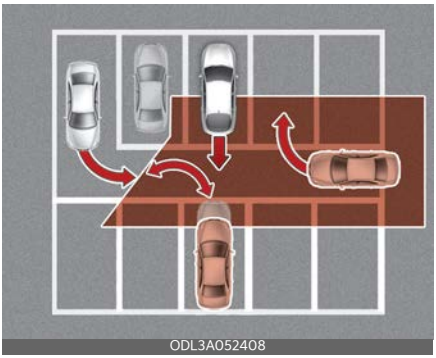



[A]: Structure

Rear Cross-Traffic Collision Warning 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 when necessary.

Always check your surroundings while backing up.

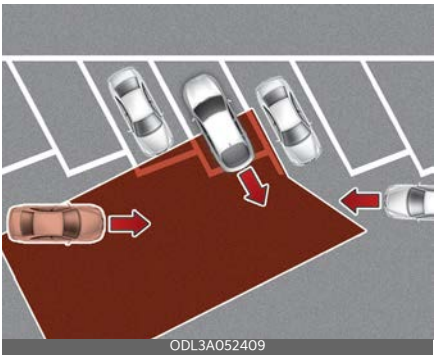
- **When the vehicle is in a complex parking environment**




Rear Cross-Traffic Collision Warning may detect vehicles which are parking or pulling out near your vehicle (for 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.

Always check your surroundings while backing up.

- **When the vehicle is parked diagonally**



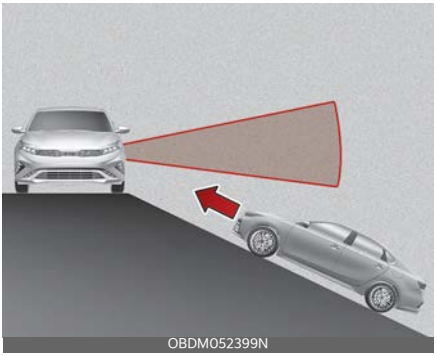

[A]: Vehicle

Rear Cross-Traffic Collision Warning may be limited when backing up diagonally, and may not detect the vehicle

approaching from the left or right. If this occurs, the function may not warn the driver when necessary.

Always check your surroundings while backing up.

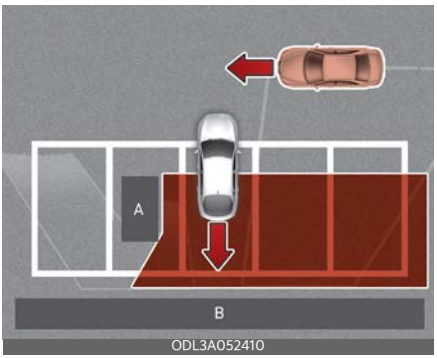
- **When the vehicle is on or near a slope**


OBDM052399N

Rear Cross-Traffic Collision Warning 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 when necessary.

Always check your surroundings while backing up.

- **Pulling into the parking space where there is a structure**



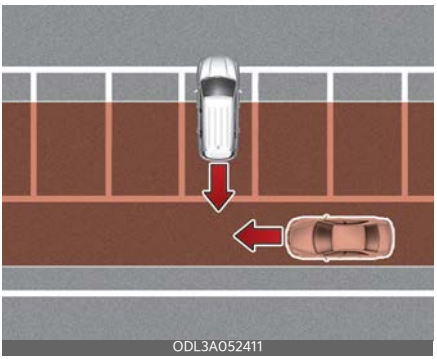
ODL3A052410

[A]: Structure, [B]: Wall

Rear Cross-Traffic Collision Warning may detect vehicles passing by in front of you when parking backwards 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.

Always check your surroundings while backing up.

- **When the vehicle is parked rearward**


ODL3A052411

Rear Cross-Traffic Collision Warning may detect vehicles passing by behind you when parking backwards into a parking space. If this occurs, the function may unnecessarily warn the driver.

Always check your surroundings while backing up.

**⚠ WARNING**

- Rear Cross-Traffic Collision Warning may not operate properly if interfered with by strong electromagnetic waves.
- Rear Cross-Traffic Collision Warning may not operate for 3 seconds after the vehicle is started, or the rear corner radars are initialized.

### This device complies with Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

### Radio frequency radiation exposure information:

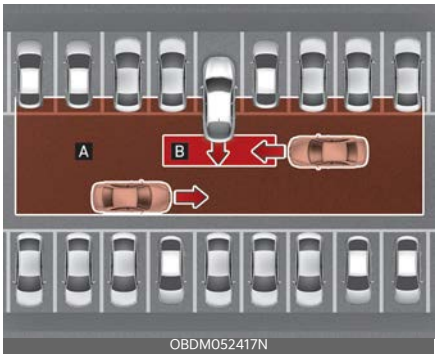
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Rear Cross-Traffic Collision-Avoidance Assist (RCCA) (if equipped)

Rear Cross-Traffic Collision-Avoidance Assist is designed to detect vehicles approaching from the rear left and right side while your vehicle is reversing, and warning the driver that a collision is imminent with a warning message and an audible warning. Also, to help prevent collisions, braking assist may be applied.




[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

OBDM052367N

[1]: Rear corner radar

Refer to the picture above for the detailed location of the detecting sensor.

**CAUTION**

For more details on the precautions of the rear corner radar, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-87.

## Rear Cross-Traffic Collision-Avoidance Assist setting

### Rear Cross-Traffic Safety

OBD041259L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Parking Safety → Rear Cross-Traffic Safety' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to turn on Rear Cross-Traffic Collision-Avoidance Assist and deselect to turn off the function.

**WARNING**

When the engine is restarted, Rear Cross-Traffic Collision-Avoidance Assist will always turn on. However, if 'Off' is selected after the engine is restarted, the driver should always be aware of the surroundings and drive safely.

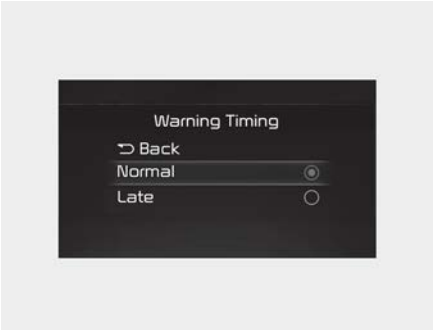
**NOTICE**

Settings for Rear Cross-Traffic Collision-Avoidance Assist include Rear Cross-Traffic Collision Warning and Rear Cross-Traffic Collision-Avoidance Assist.

**NOTICE**

If the engine is restarted, Warning Timing and Warning Volume will maintain the last setting.

### Warning Timing



OMQ4AH050334

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning

Timing' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the initial warning activation time for Rear Cross-Traffic Collision-Avoidance Assist.

When the vehicle is first delivered, warning timing is set to Normal. If you change the Warning Timing, the Warning Timing of other Driver Assist systems may change.

Always be aware before changing the Warning Timing.

## Warning Volume

OBD041619L

With the ignition switch or ENGINE START/STOP button in the ON position, select 'Driver Assistance → Warning Volume' from the 'User Settings (LCD display) or Setup → Vehicle (Infotainment System screen)' menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Rear Cross-Traffic Collision-Avoidance Assist.

If you change the Warning Volume, the Warning Volume of other Driver Assistance systems may change.

**⚠ CAUTION**

- The setting of the Warning Timing and Warning Volume applies to all functions of Rear Cross-Traffic Collision-Avoidance Assist.
- Even though 'Normal' is selected for Warning Timing, if a vehicle from the left or right side approaches at high speed, the warning may seem late.
- Select 'Late' for Warning Timing when traffic is light and when driving speed is slow.

## Rear Cross-Traffic Collision-Avoidance Assist operation

### Warning and control

Rear Cross-Traffic Collision-Avoidance Assist will provide a warning and control the vehicle depending on collision level: 'Collision warning', 'Emergency braking' and 'Stopping vehicle and ending brake control'.

#### Collision warning

OBD051385L

OBD041269

OBDM041676

- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the side view mirror will blink and a warning message will appear on the cluster. At the same time, an audible warning will sound.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when the following conditions are satisfied:
  - Your vehicle gear is shifted to R (Reverse)
  - Your vehicle speed is below 5 mph (8 km/h)
  - The approaching vehicle is within approximately 82 ft. (25 m) from the left or right side of your vehicle
  - The speed of the vehicle approaching from the left or right side is above 3 mph (5 km/h)

**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 mph (0 km/h).

## Emergency Braking

OBD051385L

OBD041246L

OBDM041676

- Your vehicle, the warning light on the side view mirror will blink and a warning message will appear on the cluster. At the same time, an audible warning will sound.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when the following conditions are satisfied:
  - Your vehicle gear is shifted to R (Reverse)
  - Your vehicle speed is below 5 mph (8 km/h)
  - The approaching vehicle is within approximately 5 ft. (1.5 m) from the left or right side of your vehicle
  - The speed of the vehicle approaching from the left or right side is above 3 mph (5 km/h)
- Emergency braking will be assisted to help prevent collision with approaching vehicles from the left and right.

**WARNING**

- Brake control will end when:
  - 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

OBD041247L

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' 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.
- 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 function's warning message is displayed or audible warning

is generated, Rear Cross-Traffic Collision-Avoidance Assist 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 normally.

**WARNING**

- During emergency braking, braking control by the function will automatically cancel when the driver excessively depresses the accelerator pedal.
- Rear Cross-Traffic Collision-Avoidance Assist does not operate in all situations and 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 test Rear Cross-Traffic Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.

**CAUTION**

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

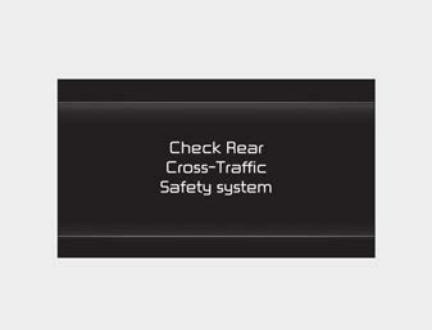
**NOTICE**

The driver must immediately depress the brake pedal and check vehicle surroundings.

- Brake control will end when the driver depresses the brake pedal with sufficient power.
- After shifting the gear to R (Reverse), braking control will operate once for left and right vehicle approach.

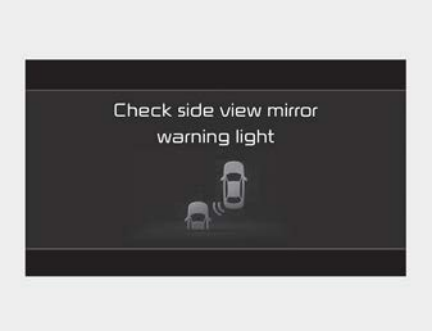
## Rear Cross-Traffic Collision-Avoidance Assist malfunction and limitations

### Rear Cross-Traffic Collision-Avoidance Assist malfunction




OMQ4050290L

When Rear Cross-Traffic Collision-Avoidance Assist is not working properly, the 'Check Rear Cross-Traffic Safety system' warning message will appear (turns off after a certain time), and the ⚠ warning light will illuminate on the cluster. In this case, have your vehicle inspected by an authorized Kia dealer.




OBD041240L

When the warning light on the side view mirror (outside mirror) is not working properly, the 'Check side view mirror warning light' warning message will appear (turns off after a certain time), and the ⚠ warning light will illuminate on the cluster. In this case, have your vehicle inspected by an authorized Kia dealer.

### Rear Cross-Traffic Collision-Avoidance Assist disabled

OMQ4050292L

When the rear bumper around the rear corner radar or sensor is covered with foreign matters, 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 'Rear Cross-Traffic Safety system disabled. Radar blocked' warning message will appear on the cluster. It is not a malfunction.

Rear Cross-Traffic Collision-Avoidance Assist will operate properly when such foreign matters or trailer, etc. is removed.

Always keep the rear view camera and rear ultrasonic sensors clean.

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 properly operate.
- Rear Cross-Traffic Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any objects are not detected after turning ON the engine.

**CAUTION**

Turn off Rear Cross-Traffic Collision-Avoidance Assist to install a trailer, carrier, etc., and remove the trailer, carrier, etc. to use Rear Cross-Traffic Collision-Avoidance Assist.

## 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 is overgrown
- Departing from where roads are wet
- Speed of the approaching vehicle is fast or slow

Braking control may not work in the following circumstances:

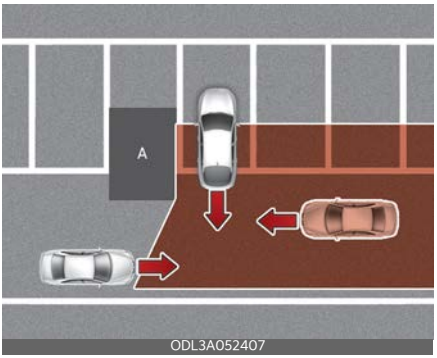
- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The brake is reworked

**NOTICE**

For more details on the limitations of the rear corner radar, refer to "Blind-Spot Collision-Avoidance Assist (BCA) (if equipped)" on page 5-87.

**WARNING**

- **Driving near a vehicle or structure**

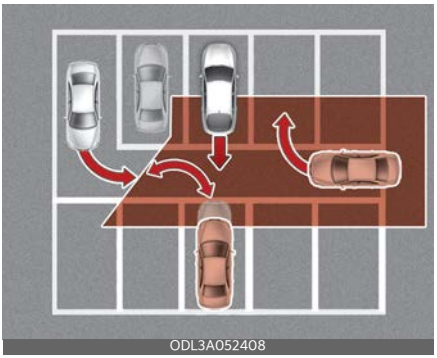



[A]: Structure

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.

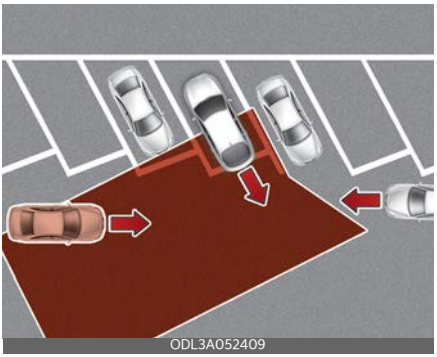
- **When the vehicle is in a complex parking environment**


ODL3A052408

Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles which are parking or pulling out near your vehicle (for 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**

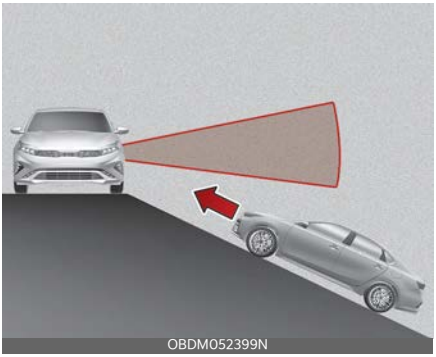

ODL3A052409

[A]: Vehicle

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. 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 on or near a slope**

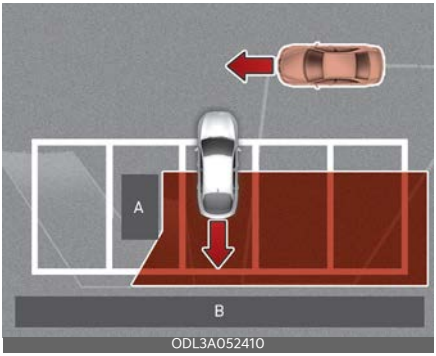

OBDM052399N

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.

**⚠ WARNING**

- **Pulling into the parking space where there is a structure**

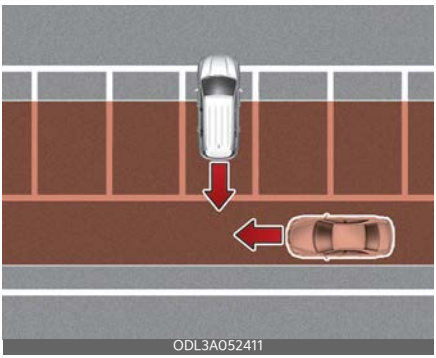



[A]: Structure, [B]: Wall

Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by in front of you when parking backwards 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 backwards 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, we recommend that Rear Cross-Traffic Collision-Avoidance Assist is turned off due to safety reasons.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate normally if interfered with 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 Part 15 of the FCC rules.

Operation is subject to the following three 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.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

## Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in (20 cm) between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

# Declaration of conformity (if equipped)

## The radio frequency components (Front Radar) complies:

### For Taiwan

第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

OCD051480L

### For Republic of Korea

1.상호 : 현대모비스㈜
2.기기명칭 및 모델명 :
특정소출력 무선기기(차량
충돌방지용 레이더 무선기기)/
MAR320A
3.제조자 및 제조국가 :
현대모비스/한국

OCD051483L

## For Thailand

กสทช.

เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้รับใบอนุญาตให้มี ใช้ซึ่งเครื่องวิทยุคมนาคม หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช. เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุคมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาตวิทยุคมนาคม ตามพระราชบัญญัติวิทยุคมนาคม พ.ศ. 2498

กสทช. โทรคมนาคม
กำกับดูแลเพื่อประชาชน
Call Center 1200 (โทรฟรี)

OCD051484L

## For Indonesia

72511/SDPPI/2021
10239

OCD051481L

## For Singapore

Complies with
IMDA Standards
DA105282

OCD051482L

## For CE (Europe)

Trade mark or Trade name : Hyundai Mobis
203, Teheran-ro, Gangnam-gu, Seoul, 06141,
Republic of Korea
Frequency : 76-77 GHz
Max EIRP(Peak) :
- Normal Resolution 27.60 dBm
- High Resolution : 32.58 dBm

The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Hereby, Hyundai Mobis Co.,Ltd declares that the radio equipment type MAR320A is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
https://www.mobis.co.kr/upload/CE/MOBIS_MAR320A.pdf

OCD051485L

## For Ukraine

UA RF: 3MOBS320A

Hyundai Mobis Co.,ТОВ
Гангнам-гу 203, Тегеран-ро Сеул 06141
Республіка Корея
UNIT ASSY-FR RADAR
MAR320A
Частотний діапазон: 76 – 77 ГГц
Потужність передачі: 27.60 дБм (макс.)
EIRP, 32.58 дБм (макс.) EIRP

справжнім Hyundai Mobis Co.,ТОВ заявляє, що тип радіообладнання MAR320A відповідає Технічному регламенту радіообладнання; повний текст декларації про відповідність доступний на вебсайті за такою адресою:

https://www.mobis.co.kr/upload/CE/MOBIS_MAR320A.pdf

OCD051486L

## For Moldova

Prin prezenta, Hyundai Mobis Co.,Ltd. declară că tipul de echipamente radio MAR320A este în conformitate cu Reglementarea tehnică „Punerea la dispoziție pe piață a echipamentelor radio". Textul integral al declarației de conformitate este disponibil la următoarea adresă de Internet: https://www.mobis.co.kr/upload/CE/MOBIS_MAR320A.pdf

OCD051488L

## For Jordan

Hyundai Mobis Co.,Ltd
UNIT ASSY-FR RADAR
MAR320A

OCD051489L

## For United Arab Emirates

TRA – United Arab Emirates
Dealer ID :
TA RTTE :
Model:
Type:

OCD051490L

## For Ghana

NCA Approved: SR0-1M-7E4-2AA

OCD051491L

## For Serbia

И 038 21

OCD051492L

## For South Africa

ICASA
TA-2020/8181
APPROVED

OCD051487L

## For Zambia

ZICTA
ZMB/ZICTA/TA/2021/01/16

OCD051493L

## For Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

OCD051494L

## For Morocco

AGREE PAR L'ANRT MAROC
Numéro d'agrément : MR00026876ANRT2020
Date d'agrément : 24/12/2020

OCD051495L

## For CU (Russia)

EAC

Model : MAR320A
Hyundai Mobis
Rating : 12V DC, 1.5A
MADE IN KOREA
Hyundai Mobis Co.,Ltd
203, Teheran-ro, Gangnam-gu, Seoul, 06141, Republic of Korea
Local representative : Proxy
Local rep Address : Of. 216, bl.2, Obolenskoe road, Protvino, Moscow region, 142281
Local rep contact : Tel. 7 (495) 369-00-84 , E-mail: proxy.russia@gmail.com

OCD051496L

## For Oman

| |
|---|
| Oman – TRA |
| D192564 |
| TRA/TA-R/10701/20 |

OCD051497L

## For Malaysia

MCMC
CIDF16000007

OCD051498L

## For Israel

תואם מיוחדים אופנית המשרד:
א. השימוש במכשיר הינו על בסיס "משל" ופטור מרשיון הפעלה אלחוטי.
כלומר – לא מוגן מהפרעות וללא הפרעה למערכות אחרות המופעלות כדין.
ב. רק "במעלת בזק" לשימוש עצמי של הלקוח בלבד, הינה פטור מרשיון הפעלה אלחוטי.
מתן "שרות בזק" לצד ג' מחייב רשיון מאשר מאשרי התקשרת.
ג. אסור להתליף את האנטנה המקורית של המכשיר, ולא לעשות בו כל שינוי סכי אחר.

שם המוצר ושמה המסחרי : צוד לרכב – ראר

שם היצרן : Hyundai Mobis - יזמאי מובים

שם היבואן וכתובתו: טלקאר חברה בע"מ

המפעל 2

תל אביב - יפו

שם דגם: MAR320A

ארץ מוצר: קוריאה

**הוראות בטיחות Hyundai Mobis MAR320A**

יש לפעול ע"פ כללי הבטיחות הבאים:

אין לפתוח את המוצר, במקרה של בעיה כלשהי, יש לפנות למעבדת השירות הקרובה.

יש להחליק את המוצר מנחלים.

במקרה של ריח מחר, רעשים שמקורם במוצר, יש לתקן מידית מהמקור אספקה

ולפנות למעבדת שירות.

**אזהרה:**

יש להתקין את האנטנה כך שתתקיים מרחק הפרדה מינימלי של לפחות20 ס"מ בין האנטנה וכל האנשים בכל עת.

OCD051499L

## For Unite States and United States territories

The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

OCD051500L

## For Canada

This device complies with Innovation, Science and Economic Development Canada's 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.

OCD051503L

## For Brazil

ANATEL
Agência Nacional de Telecomunicações

17417-20-04902

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados

OCD051501L

## For Mexico

IFETEL:RLVHYMA21-1124

"La operación de este equipo está sujeta a las siguientes dos condiciones:
(1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

OCD051502L

## For Paraguay

CONATEL

NR : 2021-01-I-0013
Hyundai Mobis Co.,Ltd
MAR320A
Hyundai Mobis

OCD051504L

## For China

车辆驾驶辅助雷达系统型号：MAR320A
执行标准：信部无[2005]423号
频率范围：76-77 GHz
放射功率：≤55dBm（EIRP）
天线类型：集成型微带贴片阵列天线
用户控制：不可
使用温度：+24.1 °C
电压：DC 12.0 V

不得擅自更改发射频率、加发射功率（包括额外加装射频功率放大器），不得擅自外接天线或改用其它发射天线

使用时不得对各种合法的无线电通信业务产生有害干扰；一旦发现有干扰现象时，应立即停止使用，并采取措施消除干扰后方可继续使用

使用微功率无线电设备，必须耐受各种无线电业务的干扰或工业、科学及医疗应用设备的辐射干扰

机场等的电磁环境保护区域内使用微功率设备，应当遵守电磁环境保护及相关行业主管部门的规定

OCD051505L

## For Argentina

RAMATEL
H-26025

OCD051506L

5

## For Pakistan

Approved by PTA
TAC NO : 9.28/2021

OCD051507L

## For Benin

AGREE PAR L'ATRPT BENIN
numéro d'agrément:
N038/ARCEP/SE/DJPC/DAR/GU/2021
Date d'agrément: 26 FEB 2021

OCD051508L

## The radio frequency components (Rear Corner Radar) complies:

## For United States and American territories, Micronesia, Dominican Republic, Honduras

OYB060040L

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.

OYB060041L

## For Canada

Model: RS4
IC: 2694A – RS4

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.;
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.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas etre place au meme endroit ou utilise simultanement avec un autre transmetteur ou antenne.

OYB060042L

## For Taiwan

電信法第 48 條，低功率電波輻射性電機管理辦法
第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Article 12
Without permission, any company, firm or user shall not alter the frequency, increa se the power, or change the characteristi cs and functions of the original design of the certified lower power frequency elect ric machinery.
Article 14
The application of low power frequency el ectric machineries shall not affect the na vigation safety nor interface a legal com munication, if an interference is found, th e service will be suspended until improve ment is made and the interference no longer exist.

OYB060043L

## For Indonesia

54473/SDPPI/2018
6051

OYB060044L

5

## For Malaysia

MCMC
CID F 15000578

OYB060045L

## For Singapore

Complies with
IMDA Standards
DA 103238

OYB060046L

## For Vietnam

Suntech VietNam Technology Company Limited
C0173191017AF04A2

ICT

OYB060047L

## For Brazil

ANATEL
03563-17-05364

OYB060048L

Este equipamento não tem direito à prote
ção contra interferência
prejudicial enão pode causar interferência
em sistemas devidamente autorizados

OYB060049L

## For Mexico

Radar de corto alcance
RS4
Hella KGaA Hueck & Co
IFETEL: RLVHERS17-0286

"La operación de este equipo está sujeta a las siguientes dos condiciones:
(1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

OYB060050L

## For Japan

This device is granted pursuant to the Japanese Radio Law
under the grant ID n° : 204-750001
This device should not be modified (otherwise the granted designation number will become invalid)

本製品は、電波法に基づく特定無線設備の技術基準適合証明などを受けております。 認証番号: 204-750001
本製品の改造は禁止されています。（適合証明番号などが無効となります。）

OYB060051L

## For Ukraine

UA RF: 1HELLARS4

OYB060052L

Цим HELLA GmbH & Co. KGaA заявляє, що радіотехнічне обладнання типу RS4 відповідає Технічному регламенту радіотехнічного обладнання та Директиві 2014/53/ЄС.
Повний текст декларації про відповідність доступний за адресою: www.hella.com/hyundai
Частотний діапазон: 24,05 – 24,25 ГГц
Потужність передачі: 20 дБм (макс.) EIRP

OYB060053L

## For Jordan

TRC No. TRC/LPD/2017/63

OYB060054L

## For Oman

OMAN - TRA
TRA/TA-R/3957/17
D080134

OYB060055L

## For United Arab Emirates

TRA
Registered No:
ER53878/17
Dealer No:
DA44932/15

OYB060056L

## For Botswana

BTA
REGISTERED No :

BOCRA/TA/2018/3372

OYB060057L

## For Ghana

NCA Approved: 1R3-1M-7E1-0B7

OYB060058L

## For Zambia

ZICTA
ZMB/ZICTA/TA/2017/6/7

OYB060059L

## For Jamaica

This product contains a Type Approved Module b
y Jamaica: SMA – "RS4"

OYB060060L

## For Paraguay

PARAGUAY
CONATEL
NR:2017-07-1-0000220

OYB060061L

## For Uzbekistan

STZ

ODL3059239L

## For Mozambique

Approval No: N 1/R/SRA/2017
HELLA RS4

OYB060062L

## Europe and countries subject to CE certification

In the user manual :

Hereby, Hella KgaA Hueck & Co. Declares that the radio equipment type RS4 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet adress:
www.hella.com/hyundai

Technical information:
Frequency range: 24.05 ... 24.25 GHz
Transmission power: 20 dBm (maximum) EIRP

Manufacturer and Address:
Hella KGaA Hueck & Co.
Rixbecker Straße 75, 59552 Lippstadt, Germany

OYB060063L

# 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 car in good condition. For better fuel economy and reduced maintenance costs, maintain your car in accordance with the "Scheduled maintenance service" on page 7-8. If you drive your car in severe conditions, more frequent maintenance is required. (Refer to "Scheduled maintenance service" on page 7-8 for details.)
- Keep your car 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 car. This extra weight can result in increased fuel consumption and also contribute to corrosion.
- Travel lightly. Don't carry unnecessary weight in your car. 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 warmup period.
- Don't "lug" or "over-rev" the engine. Lugging is driving too slowly in too high a gear resulting in the 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 speeds.
- 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. Instead, keep the engine on and downshift to an appropriate gear for engine braking effect. In addition, turning off the ignition while driving could engage the steering wheel lock resulting in loss of vehicle steering which could cause serious injury or death.

# Special driving conditions

## 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.

**WARNING**

**ABS**

Do not pump the brake pedal on a vehicle equipped with ABS.

- If stalled in snow, mud, or sand, use second gear. Accelerate slowly to avoid spinning the drive wheels.
- Use sand, rock salt, tire chains, or other non-slip material under the drive wheels to provide traction when stalled in ice, snow, or mud.

## 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 1st (First) and R (Reverse) in vehicles equipped with a Manual Transmission R (Reverse) and any forward gear in vehicles equipped with an Intelligent Variable Transmission/Dual Clutch Transmission. Do not race the engine, 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 engine overheating and possible damage to the transmission.

**CAUTION**

Prolonged rocking may cause engine over-heating, transmission damage or failure, and tire damage.

**WARNING**

**Spinning tires**

Do not spin the wheels, especially at speeds more than 35 mph (56 km/h). Spinning the wheels at high speeds when the vehicle is stationary could cause a tire to overheat which could result in tire damage that may injure bystanders.

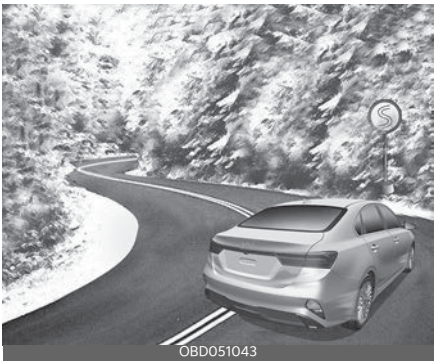
**NOTICE**

The ESC system should be turned OFF prior to rocking the vehicle.

**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 of backward as it becomes unstuck, causing injury or damage to nearby people or objects.

## Smooth cornering


OBD051043

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

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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

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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 of roots of trees. Become familiar with the off-road conditions where you are going to drive before you begin driving.

# Highway driving

## Tires

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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.

**NOTICE**

Never exceed the maximum tire inflation pressure shown on the tires.

**WARNING**

Underinflated or overinflated tires can cause poor handling, loss of vehicle control, and sudden tire failure leading to accidents, injuries, and even death. Always check tires for proper inflation before driving. For proper tire pressures, refer to "Tires and wheels" on page 7-35.

### Fuel, engine coolant and engine oil

High speed travel consumes more fuel than urban motoring. Do not forget to check both engine coolant and engine oil.

### Drive belt

A loose or damaged drive belt may result in overheating of the engine.

## Winter driving

More severe weather conditions of winter result in greater wear and other problems. To minimize winter driving problem, you should follow these suggestions:

### 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.

### Snowy or icy conditions

To drive your vehicle in deep snow, it may be necessary to use snow tires or to install tire chains 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 car. Furthermore, speeding, rapid acceleration, sudden brake applications, and sharp turns are potentially very hazardous practices.

During deceleration, use engine 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 and your vehicle. Also, apply the brake gently. It should be noted that installing tire chains on the tire will provide a greater driving force, but will not prevent side skids.

**NOTICE**

Tire chains are not legal in all countries. Check the country laws before fitting tire chains.

## 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.

**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.

Do not install studded tires without first checking local, state and municipal regulations for possible restrictions against their use.

## Tire chains

Since the sidewalls of radial tires are thinner, they can be damaged by mounting some types of snow chains on them. Therefore, the use of snow tires is recommended instead of snow chains. Do not mount tire chains on vehicles equipped with aluminum wheels; snow chains may cause damage to the wheels. If snow chains must be used, use wire-type chains with a thickness of less than 0.59 in (15 mm). Damage to your vehicle caused by improper snow chain use is not covered by your vehicle manufacturers warranty.

Install tire chains only on the front tires.

**CAUTION**

- Make sure the snow chains are the correct size and type for your tires. Incorrect snow chains can cause damage to the vehicle body and suspension and may not be covered by your vehicle manufacturer warranty. Also, the snow chain connecting hooks may be damaged from contacting vehicle components causing the snow chains to come loose from the tire. Make sure the snow chains are SAE class "S" certified.

- Always check chain installation for proper mounting after driving approximately 0.3 to 0.6 miles (0.5 to 1 km) to ensure safe mounting. Retighten or remount the chains if they are loose.
- Even with the appropriate chain installed, do not make a full turn (turn the steering wheel fully to one side) when driving the vehicle. (If you are making a full turn, drive with the speed below 6 mph.)

## Chain installation

When installing chains, follow the manufacturer's instructions and mount them as tightly as you can. Drive slowly with chains installed. If you hear the chains contacting the body or chassis, stop and tighten them. If they still make contact, slow down until it stops. Remove the chains as soon as you begin driving on cleared roads.

**WARNING**

**Mounting chains**

When mounting snow chains, park the vehicle on level ground away from traffic. Turn on the vehicle Hazard Warning flashers and place a triangular emergency warning device behind the vehicle if available. Always place the vehicle in P (Park), apply the parking brake and turn off the engine before installing snow chains.

**WARNING**

**Tire chains**

- The use of chains may adversely affect vehicle handling.
- Do not exceed 20 mph (30 km/h) or the chain manufacturer’s recommended speed limit, whichever is lower.
- Drive carefully and avoid bumps, holes, sharp turns, and other road hazards, which may cause the vehicle to bounce.
- Avoid sharp turns or locked wheel braking.

**CAUTION**

- Chains that are the wrong size or improperly installed can damage your vehicle's brake lines, suspension, body and wheels.
- Stop driving and retighten the chains any time you hear them hitting the vehicle.

**CAUTION**

If your vehicle has 225/40R18 size tires, do not use tire chain; they can damage your vehicle (wheel, suspension and body).

## 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 in accordance with the "Scheduled maintenance service" on page 7-8.

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 as described under "Battery" on page 7-33. The level of charge in your battery can be checked by an authorized Kia dealer or a service station.

## Change to "winter weight" oil if necessary

In some climates it is recommended that a lower viscosity "winter weight" oil be used during cold weather. Refer to "Recommended lubricants and capacities" on page 8-7. If you aren't sure what weight oil you should use, consult an authorized Kia dealer.

## Check spark plugs and ignition system

Refer to "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 engine 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. When there is the risk that your parking brake may freeze, temporarily apply it with the shift lever in P (Intelligent Variable Transmission/Dual Clutch Transmission) in first or reverse gear (for Manual Transmission). Also, block the rear wheels in advance, so the vehicle may not 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 car to be sure the movement of the front wheels and the steering components is 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 tire chains, 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.

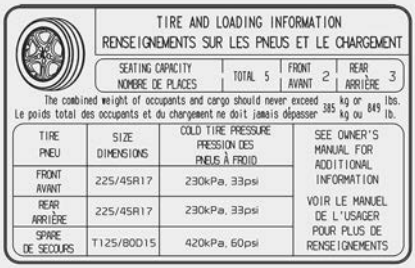
Water in the exhaust pipes may cause noise, etc., but it is drained driving at medium to high speed.

## TRAILER TOWING

**We do not recommend using this vehicle for trailer towing.**

# Vehicle load limit

## Tire and loading information label



TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY / NOMBRE DE PLACES | TOTAL 5 | FRONT / AVANT 2 | REAR / ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or / kg ou 849 lbs. / lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE / PNEU | SIZE / DIMENSIONS | COLD TIRE PRESSURE / PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION / VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT / AVANT | 225/45R17 | 230kPa, 33psi | |
| REAR / ARRIÈRE | 225/45R17 | 230kPa, 33psi | |
| SPARE / DE SECOURS | T125/80D15 | 420kPa, 60psi | |

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TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY / NOMBRE DE PLACES | TOTAL 5 | FRONT / AVANT 2 | REAR / ARRIÈRE 3 |
|---|---|---|---|

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| TIRE / PNEU | SIZE / DIMENSIONS | COLD TIRE PRESSURE / PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION / VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT / AVANT | 225/45R17 | 230kPa, 33psi | |
| REAR / ARRIÈRE | 225/45R17 | 230kPa, 33psi | |
| SPARE / DE SECOURS | NONE / AUCUN | | |

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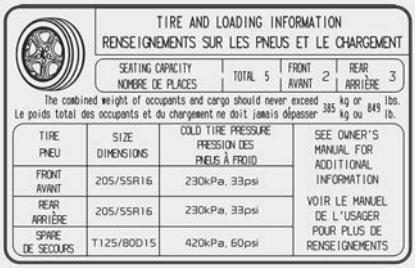


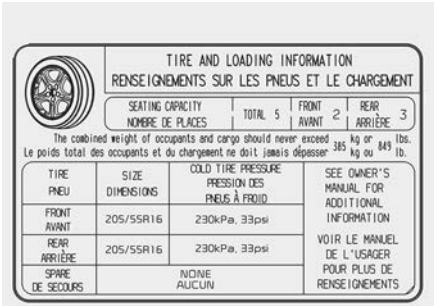
TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY / NOMBRE DE PLACES | TOTAL 5 | FRONT / AVANT 2 | REAR / ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or / kg ou 849 lbs. / lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE / PNEU | SIZE / DIMENSIONS | COLD TIRE PRESSURE / PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION / VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT / AVANT | 205/55R16 | 230kPa, 33psi | |
| REAR / ARRIÈRE | 205/55R16 | 230kPa, 33psi | |
| SPARE / DE SECOURS | T125/80D15 | 420kPa, 60psi | |

OBDM058122N



TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY / NOMBRE DE PLACES | TOTAL 5 | FRONT / AVANT 2 | REAR / ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or / kg ou 849 lbs. / lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE / PNEU | SIZE / DIMENSIONS | COLD TIRE PRESSURE / PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION / VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT / AVANT | 205/55R16 | 230kPa, 33psi | |
| REAR / ARRIÈRE | 205/55R16 | 230kPa, 33psi | |
| SPARE / DE SECOURS | NONE / AUCUN | | |

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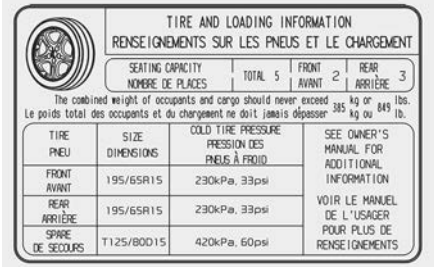

TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY / NOMBRE DE PLACES | TOTAL 5 | FRONT / AVANT 2 | REAR / ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or / kg ou 849 lbs. / lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE / PNEU | SIZE / DIMENSIONS | COLD TIRE PRESSURE / PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION / VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT / AVANT | 195/65R15 | 230kPa, 33psi | |
| REAR / ARRIÈRE | 195/65R15 | 230kPa, 33psi | |
| SPARE / DE SECOURS | T125/80D15 | 420kPa, 60psi | |

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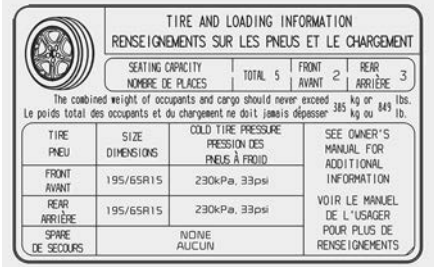

TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY / NOMBRE DE PLACES | TOTAL 5 | FRONT / AVANT 2 | REAR / ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or / kg ou 849 lbs. / lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE / PNEU | SIZE / DIMENSIONS | COLD TIRE PRESSURE / PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION / VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT / AVANT | 195/65R15 | 230kPa, 33psi | |
| REAR / ARRIÈRE | 195/65R15 | 230kPa, 33psi | |
| SPARE / DE SECOURS | NONE / AUCUN | | |

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TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY NOMBRE DE PLACES | TOTAL 5 | FRONT AVANT 2 | REAR ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or kg ou 849 lbs. lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE PNEU | SIZE DIMENSIONS | COLD TIRE PRESSURE PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT AVANT | 225/40R18 | 240kPa, 35psi | |
| REAR ARRIÈRE | 225/40R18 | 240kPa, 35psi | |
| SPARE DE SECOURS | T125/80D16 | 420kPa, 60psi | |

OBDM059158

TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY NOMBRE DE PLACES | TOTAL 5 | FRONT AVANT 2 | REAR ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or kg ou 849 lbs. lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE PNEU | SIZE DIMENSIONS | COLD TIRE PRESSURE PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT AVANT | 225/40R18 | 240kPa, 35psi | |
| REAR ARRIÈRE | 225/40R18 | 240kPa, 35psi | |
| SPARE DE SECOURS | NONE AUCUN | | |

OBDM059160

TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY NOMBRE DE PLACES | TOTAL 5 | FRONT AVANT 2 | REAR ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or kg ou 849 lbs. lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE PNEU | SIZE DIMENSIONS | COLD TIRE PRESSURE PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT AVANT | 225/40ZR18 | 240kPa, 35psi | |
| REAR ARRIÈRE | 225/40ZR18 | 240kPa, 35psi | |
| SPARE DE SECOURS | T125/80D16 | 420kPa, 60psi | |

OBDM059159

TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY NOMBRE DE PLACES | TOTAL 5 | FRONT AVANT 2 | REAR ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or kg ou 849 lbs. lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE PNEU | SIZE DIMENSIONS | COLD TIRE PRESSURE PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT AVANT | 225/40ZR18 | 240kPa, 35psi | |
| REAR ARRIÈRE | 225/40ZR18 | 240kPa, 35psi | |
| SPARE DE SECOURS | NONE AUCUN | | |

OBDM059161

TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY NOMBRE DE PLACES | TOTAL 5 | FRONT AVANT 2 | REAR ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or kg ou 849 lbs. lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE PNEU | SIZE DIMENSIONS | COLD TIRE PRESSURE PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT AVANT | 225/45R17 | 230kPa, 33psi | |
| REAR ARRIÈRE | 225/45R17 | 230kPa, 33psi | |
| SPARE DE SECOURS | T125/80D16 | 420kPa, 60psi | |

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TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

| SEATING CAPACITY NOMBRE DE PLACES | TOTAL 5 | FRONT AVANT 2 | REAR ARRIÈRE 3 |
|---|---|---|---|

The combined weight of occupants and cargo should never exceed 385 kg or kg ou 849 lbs. lb.
Le poids total des occupants et du chargement ne doit jamais dépasser

| TIRE PNEU | SIZE DIMENSIONS | COLD TIRE PRESSURE PRESSION DES PNEUS À FROID | SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS |
|---|---|---|---|
| FRONT AVANT | 205/55R16 | 230kPa, 33psi | |
| REAR ARRIÈRE | 205/55R16 | 230kPa, 33psi | |
| SPARE DE SECOURS | T125/80D16 | 420kPa, 60psi | |

OBD051404N

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.

## Vehicle capacity weight:

849 lbs. (385 kg)

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 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs.

(1400-750 (5 x 150) = 650 lbs.)

(5) Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

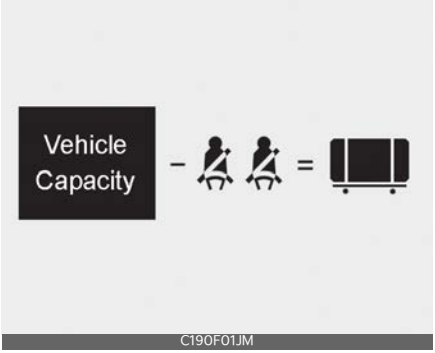
(6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

**⚠ 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 occupant during a sudden stop or crash.

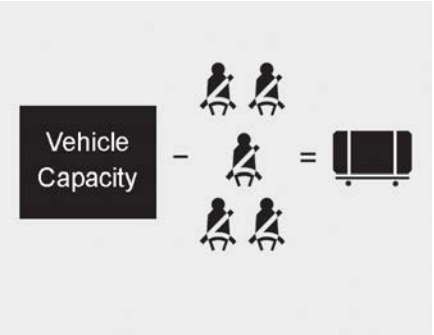
Example 1




C190F01JM

| Item | Description | Total |
|---|---|---|
| A | Vehicle Capacity Weight | 849 lbs (385 kg) |
| B | Subtract Occupant Weight 150 lbs (68 kg) × 2 | 300 lbs (136 kg) |
| C | Available Cargo and Luggage weight | 549 lbs (249 kg) |

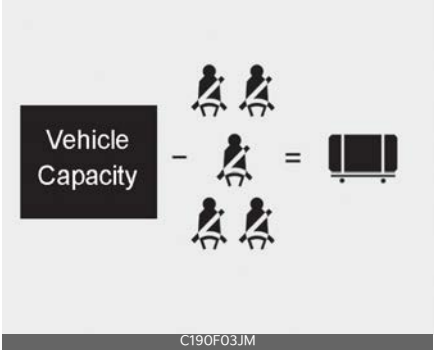
Example 2




C190F02JM

| Item | Description | Total |
|---|---|---|
| A | Vehicle Capacity Weight | 849 lbs (385 kg) |
| B | Subtract Occupant Weight 150 lbs (68 kg) × 5 | 750 lbs (340 kg) |
| C | Available Cargo and Luggage weight | 99 lbs (45 kg) |

Example 3




C190F03JM

| Item | Description | Total |
|---|---|---|
| A | Vehicle Capacity Weight | 849 lbs (385 kg) |
| B | Subtract Occupant Weight 161 lbs (73 kg) × 5 | 805 lbs (365 kg) |
| C | Available Cargo and Luggage weight | 44 lbs (20 kg) |

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

OJFA055280

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, fuel 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 section will guide you in the proper loading of your vehicle, to keep your loaded vehicle weight within its design rating capability. 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, from the vehicle's specifications and the certification 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 certification 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 (or front passenger's) door sill.

# What to do in an emergency 6

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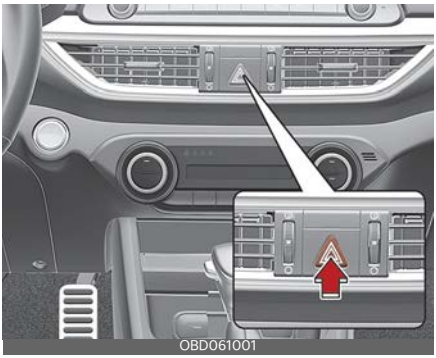
# What to do in an emergency

## Road warning

### 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.

Press the flasher switch with the ignition switch or ENGINE START/STOP button in any position. The flasher switch is located in the center console switch 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 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 you have a flat tire while driving

If a tire goes flat while you are driving:

1. Take your foot off the accelerator pedal and let the vehicle slowdown 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 down 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 a firm level ground. If you are on a divided highway, do not park in the median area between the two traffic lanes.
2. When the vehicle is stopped, turn on your emergency hazard flashers, set the parking brake and put the transmission in P (for Intelligent Variable Transmission) or in reverse (for Manual Transmission).
3. 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.
4. When changing a flat tire, follow the instruction provided later in this section.

## If engine stalls while driving

1. Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place.
2. Turn on your emergency flashers.
3. Try to start the engine again. If your vehicle does not start, contact an authorized Kia dealer or seek other qualified assistance.

# 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.
5. Do not push or pull the vehicle to start it. See instructions for "Jump starting" on page 6-5.

**⚠ WARNING**

If the engine will not start, do not push or pull the vehicle to start it. This could result in a collision or cause other damage. In addition, push or pull starting may cause the catalytic converter to be overloaded and create a fire hazard.

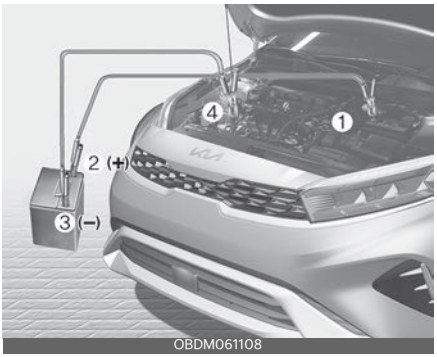
## If engine turns over normally but does not start

1. Check the fuel level.
2. With the ignition switch or ENGINE START/STOP button in the LOCK/OFF 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

Connect cables in numerical order and disconnect in reverse order.

(Gasoline) 1.6 MPI




## Jump starting

Jump starting can be dangerous if done incorrectly. Therefore, to avoid harm to yourself or damage to your vehicle or battery, follow the jump starting procedures. If in doubt, we strongly recommend that you have a competent technician or towing service jump start your vehicle.

**⚠ CAUTION**

Use only a 12-volt jumper system. You can damage a 12-volt starting motor, ignition system, and other electrical parts beyond repair by use of a 24-volt power supply (either two 12-volt batteries in series or a 24-volt motor generator set)

**⚠ WARNING**

**Battery**

Never attempt to check the electrolyte level of the battery as this may cause the battery to rupture or explode causing serious injury.

**⚠ WARNING**

**Battery**

- Keep all flames or sparks away from the battery. The battery produces hydrogen gas which may explode if exposed to flame or sparks.

  If these instructions are not followed exactly, serious personal injury and damage to the vehicle may occur! If you are not sure how to follow this procedure, seek qualified assistance. Automobile batteries contain sulfuric acid.

  This is poisonous and highly corrosive. When jump starting, wear protective glasses and be careful not to get acid on yourself, your clothing or on the vehicle.
- Do not attempt to jump start the vehicle if the discharged battery is frozen or if the electrolyte level is low; the battery may rupture or explode.
- Do not allow the (+) and (-) jumper cables to touch. It may cause sparks.
- The battery may rupture or explode when you jump start with a low or frozen battery.

## Jump starting procedure

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 into contact.
3. Turn off all unnecessary electrical loads.
4. Connect the jumper cables in the exact sequence shown in the illustration. 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 on 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 (for example, the engine lifting bracket) away from the battery (4). Do not connect it to or near any part that moves when the engine is cranked.

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.

**⚠ CAUTION**

**Battery cables**

Do not connect the jumper cable from the negative terminal of the booster battery to the negative terminal of the discharged battery. This can cause the discharged battery to overheat and crack, releasing battery acid. 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.

5. Start the engine of the vehicle with the booster battery and let it run at 2,000 rpm, then start the engine of 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.

## Push-starting

Your manual transmission-equipped vehicle should not be push-started because it might damage the emission control system.

Vehicles equipped with Dual Clutch Transmission/Intelligent Variable Transmission cannot be push-started.

Follow the directions in this section for jump-starting.

**⚠ WARNING**

Never tow a vehicle to start it because the sudden surge forward when the engine starts could cause a collision with the tow vehicle.

## If the engine overheats

If your temperature gauge indicates overheating, you will experience a loss of power, or hear loud pinging or knocking, the engine is probably 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 (for Dual Clutch Transmission/Intelligent Variable Transmission) or in Neutral (for Manual Transmission) and set the parking brake. If the air conditioning is on, turn it off.
3. If engine coolant is running out under the vehicle or steam is coming out from the hood, stop the engine. Do not open the hood until the coolant has stopped running or the steaming has stopped. 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. If the fan is not running, turn the engine off.
4. Check to see if the water pump drive belt is missing. If it is not missing, check to see that it is tight.

   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**

•While the engine is running, keep hair, hands and clothing away from moving parts such as the fan and drive belts to prevent injury.

•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.

5. 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.
6. If you cannot find the cause of the overheating, wait until the engine temperature has returned to normal.Then, if coolant has been lost, carefully add coolant to the reservoir to bring the fluid level in the reservoir up to the halfway mark.
7. Proceed with caution, keeping alert for further signs of overheating. If overheating happens again, call an authorized Kia dealer for assistance.

**CAUTION**

- 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. Add engine coolant slowly in small quantities to prevent damage.

# Tire Pressure Monitoring System (TPMS) (if equipped)

OBDM061005

OBDM062112N

1. Low tire pressure indicator/TPMS malfunction indicator
2. Low tire pressure position telltale (Shown on the LCD display)

## Check tire pressure

- You can check the tire pressure in the information mode on the cluster.
  - Refer to "LCD display modes" on page 4-59.
- 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 "LCD display modes" on page 4-59).

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label.

(If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces 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 indi-

cator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately 1 minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the TPMS malfunction indicator remains illuminated after blinking for approximately 1 minute, 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 the TPMS, Low Tire Pressure indicator does not illuminate for 3 seconds when the ignition switch or ENGINE START/STOP button is turned to the ON position, or if it they remain illuminated after coming on for approximately 3 seconds, take your vehicle to your nearest authorized Kia dealer and have the system checked.

## Low tire pressure telltale

Low tire pressure position information

OBDM062113N

When the tire pressure monitoring system warning indicators are illuminated and warning message displayed on the cluster LCD display, one or more of your tires is significantly under-inflated.

If the telltale illuminates, 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 illuminate 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 illuminated 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.

## TPMS (Tire Pressure Monitoring System) malfunction indicator

The low tire pressure telltale will illuminate after it blinks for approximately one minute 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 illuminate both the TPMS malfunction and low tire pressure position telltales e.g. if Front Left sensor fails, the TPMS malfunction indicator illuminates, but if the Front Right, Rear Left, or Rear Right tire is under-inflated, the low tire pressure position telltales may illuminate 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 illuminated 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 illuminated 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).

## Changing a tire 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 illuminate 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 mile (1.6 km) 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 mile (1.6 km) in that 3 hour period.

Never use tire sealant if your vehicle is equipped with a Tire Pressure Monitoring System. The liquid sealant not approved by Kia may 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 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.

# If you have a flat tire (with spare tire) (if equipped)

## Jack and tools

The jack, jack handle, wheel lug nut wrench, towing hook are stored in the luggage compartment.

Pull up the luggage box cover to reach this equipment.

1. Jack handle
2. Jack
3. Wheel lug nut wrench
4. Towing hook (if equipped)
5. Rear towing hook (if equipped)

## Jacking instructions

The jack is provided for emergency tire changing only.

To prevent the jack from “rattling” while the vehicle is in motion, store it properly.

Follow jacking instructions to reduce the possibility of personal injury.

**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 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 jacking support.
- The vehicle can roll off the jack causing serious injury or death.
- Do not get under a vehicle that is supported by a jack.
- Do not start or run the engine while the vehicle is on the jack.
- 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.

## Removing and storing the spare tire (if equipped)

Turn the tire hold-down wing bolt counter clockwise.

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.

OBD061033L

**⚠ WARNING**

Ensure the spare tire retainer is properly aligned with the center of the spare tire to prevent the spare tire from "rattling".

Otherwise, it may cause the spare tire to fall off the carrier and lead to an accident.

## Changing tires

1. Park on a level surface and apply the parking brake firmly.
2. Place the transmission shift lever in P (Park) with Dual Clutch Transmission/ Intelligent Variable Transmission and R (Reverse) with Manual Transmission.
3. Activate the hazard warning flasher.

OBDM061099L

4. Remove the wheel lug nut wrench, jack, jack handle, and spare tire from the vehicle.
5. Block both the front and rear of wheel that is diagonally opposite the jack position.

OBDM061107

**WARNING**

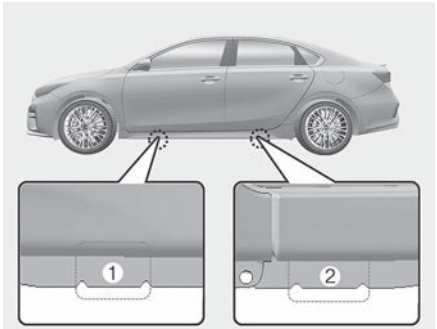
**Changing a tire**

- To prevent vehicle movement while changing a tire, always set the parking brake fully, and always block the wheel diagonally opposite the wheel being changed.
- We recommend that the wheels of the vehicle be chocked, and that no person remain in a vehicle that is being jacked.

6. Loosen the wheel lug nuts counterclockwise one turn each, but do not remove any nut until the tire has been raised off the ground.

OBD061026L

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 index with the jack.

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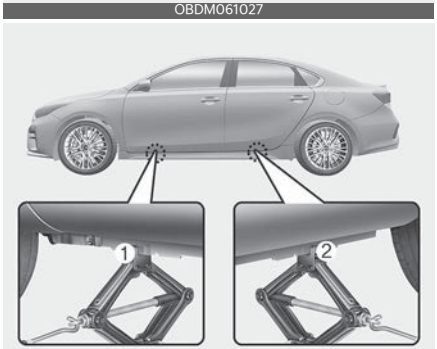



OBDM061028

**WARNING**

**Jack location**

To reduce the possibility of injury, be sure to use only the jack provided with the vehicle and in the correct jack position; never use any other part of the vehicle for jack support.

8. Insert the jack handle into the jack and turn it clockwise, raising the vehicle until the tire just clears the ground. This measurement is approximately 1.2 inches (30 mm). Before removing the wheel lug nuts, make sure the vehicle is stable and that there is no chance for movement or slippage. Refer to "Tires and wheels" on page 8-5 or the tire pressure label on the driver's door.

OBD061029L

9. 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. Then jiggle the wheel back and forth until the wheel can be slid over the other studs.

**WARNING**

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 interferes with the wheel from fitting solidly against the hub.

If there is, remove it. If there is not good contact on the mounting surface between the wheel and hub, 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. This may cause serious injury or death.

10. To reinstall 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.
11. Lower the vehicle to the ground by turning the wheel nut wrench counterclockwise.

Then 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 other nut until they are all tight. Then double-check each nut for tightness. After changing wheels, have an authorized Kia dealer tighten the wheel nuts to their proper torque as soon as possible.

**Wheel nut tightening torque:**

Steel wheel & aluminum alloy wheel: 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 tire pressure. If the cap is not replaced, 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 wheels, always secure the flat tire in its place and return the jack and tools to their proper storage locations.

**⚠ CAUTION**

Your vehicle has metric threads on the wheel studs and 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. Installation of a non-metric thread nut on a metric stud or vice-versa 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.

To prevent the jack, jack handle, wheel lug nut wrench and spare tire from rattling while the vehicle is in motion, store them properly.

**⚠ WARNING**

**Inadequate spare tire pressure**

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.

## Important - use of compact spare tire (if equipped)

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.

**⚠ CAUTION**

- 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**

The compact spare tire is for emergency use only. Do not operate your vehicle on this compact spare at the speed over 50 mph (80 km/h). The original tire should be repaired or replaced as soon as possible to avoid failure of the spare possibly leading to personal injury or death.

The compact spare should be inflated to 60 psi (420 kPa).

**NOTICE**

Check the inflation pressure after installing the spare tire. Adjust it to the specified pressure, as necessary.

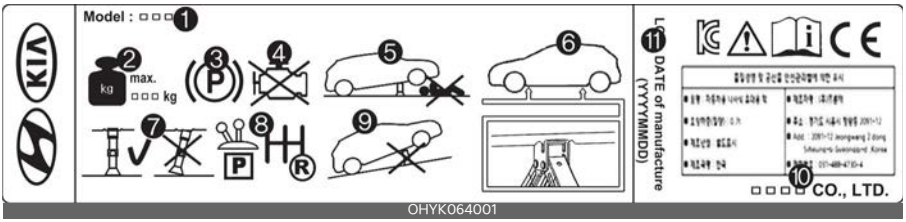
When using a compact spare tire, observe the following precautions:

- Under no circumstances should you exceed 50 mph (80 km/h); a higher speed could damage the tire.
- Ensure that you drive slowly enough 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 1 inch (2.5 cm), which could result in damage to the vehicle.
- Do not take the vehicle through an automatic car wash while the compact spare tire is installed.
- Do not use tire chains on the temporary compact tire. Because of the smaller size, a tire chain will not fit properly. This could damage the vehicle and result in loss of the chain.
- Temporary compact tire should not be installed on the front axle if the vehicle must be driven in snow or on ice.
- Do not use the temporary compact tire on any other vehicle because this tire has been designed especially for your vehicle.
- The temporary compact tire tread life is shorter than a regular tire. Inspect your temporary compact tire regularly and replace worn compact spare tires with the same size and design, mounted on the same wheel.
- The temporary compact tire should not be used on any other wheels, nor should standard tires, snow tires, wheel covers or trim rings be used with the temporary compact spare wheel. If such use is attempted, damage to these items or other car components may occur.
- Do not use more than one temporary compact tire at a time.
- Do not tow a trailer while the temporary compact tire is installed.

## Jack label

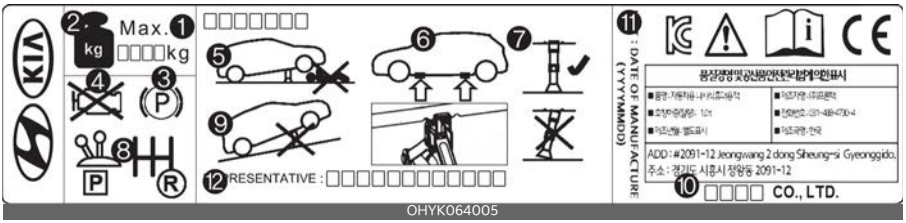
### Example

Type A




OHYK064001

Type B




OHYK064005

Type C

OHYK064002

* 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

## If you have a flat tire (with Tire Mobility Kit) (if equipped)

Please read the instructions before using the Tire Mobility Kit.

1. Compressor
2. Sealant bottle

The Tire Mobility Kit is a temporary fix to the tire and the tire should be inspected by an authorized Kia dealer as soon as possible.

**⚠ CAUTION**

**One sealant for one tire**

When two or more tires are flat, do not use the Tire Mobility Kit because the canister of sealant in the Tire Mobility Kit only contains enough sealant for one flat tire.

**⚠ WARNING**

**Speed with temporary fix**

Do not exceed a speed of 50 mph (80 km/h) when driving with a tire sealed with the Tire Mobility Kit. While driving, if you experience any unusual vibration, ride disturbance or noise, reduce your speed and drive with caution until you can safely pull off of the side of the road.

**⚠ WARNING**

**Tire wall**

Do not use the Tire Mobility Kit to repair large punctures or damage to the tire sidewalls. In these situations, the tire cannot be sealed completely and air will leak from the tire. This can result in tire failure.

**⚠ WARNING**

**Temporary fix**

Have your tire repaired as soon as possible.The tire may lose air pressure at any time after inflating with the Tire Mobility Kit.

**⚠ CAUTION**

- When replacing or repairing the tire after using tire sealant, make certain to remove the sealant attached to the inner part of the tire and wheel. If the sealant is not removed, noise and vibration may occur.
- If the TPMS warning light illuminates after using the Tire Mobility Kit, have your vehicle inspected by an authorized Kia dealer.
- When repairing a flat tire with the Tire Mobility Kit (TMK), quickly remove the sealant on the tire pressure sensor and wheel. When installing the repaired tire and wheel, tighten the wheel nut to a torque value of 79~94 lbf·ft (11~13 kgf·m).

## Introduction

With the Tire Mobility Kit (TMK) you stay mobile even after experiencing a tire puncture.

The system compressor and sealing compound effectively seal most punctures in a passenger car tire caused by nails or similar objects and reinflate the tire.

After you ensure that the tire is properly sealed, you can drive cautiously on the tire (up to 120 miles (200 km)) at a max. speed of 50 mph (80 km/h) in order to reach a vehicle or tire dealer to have the tire replaced.

It is possible that some tires, especially with larger punctures or damage to the sidewall, cannot be sealed completely.

Air pressure loss in the tire may adversely affect tire performance.

For this reason, you should avoid abrupt steering or other driving maneuvers, especially if the vehicle is heavily loaded or if a trailer is in use.

The Tire Mobility Kit is not designed or intended as a permanent tire repair method and is to be used for one tire only.

This instruction shows you step by step how to temporarily seal the puncture.

Refer to "Notes on the safe use of the Tire Mobility Kit" on page 6-20.

## Notes on the safe use of the Tire Mobility Kit

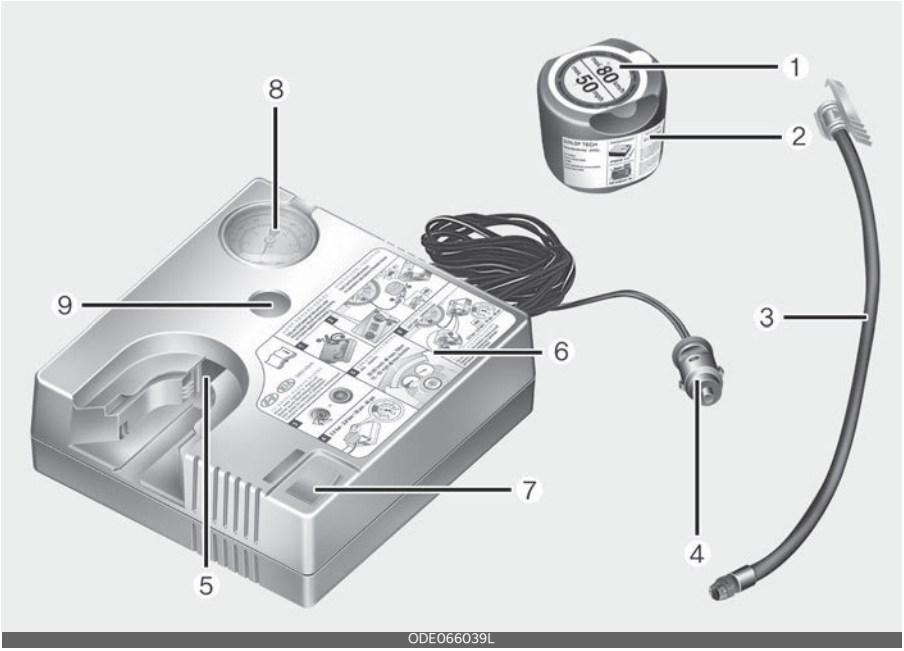
- Park your car at the side of the road so that you can work with the Tire Mobility Kit away from moving traffic. Place your warning triangle in a prominent place to make passing vehicles aware of your location.
- To be sure your vehicle will not move, even when you're on fairly level ground, always set your parking brake.
- Only use the Tire Mobility Kit for sealing/inflating passenger car tires. Do not use on motorcycles, bicycles or any other type of tires.
- Do not remove any foreign objects such as nails or screws -that have penetrated the tire.
- Before using the Tire Mobility Kit, read the precautionary advice printed on the sealant bottle!
- Provided the car is outdoors, leave the engine running. Otherwise operating the compressor may eventually drain the car battery.
- Never leave the Tire Mobility Kit unattended while it is being used.
- Do not leave the compressor running for more than 10 min. at a time or it may overheat.
- Do not use the Tire Mobility Kit if the ambient temperature is below -22°F (-30°C).
- When the tire and wheel are damaged, do not use Tire Mobility Kit for your safety.

**WARNING**

- If sealant comes into contact with skin, wash the affected areas thoroughly. Seek medical attention if irritation develops and persists.
- If sealant comes into contact with the eyes, flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.
- If sealant is swallowed, call a physician or poison control center immediately.

  Exposure to the sealant for a long time may cause damage to the bodily tissues.

## Components of the Tire Mobility Kit (TMK) (For 15/16 inch tire)




ODE066039L

1. Speed restriction label
2. Sealant bottle and label with speed restriction
3. Filling hose from sealant bottle to wheel
4. Connectors and cable for the power outlet direct connection
5. Holder for the sealant bottle
6. Compressor
7. On/off switch
8. Pressure gauge for displaying the tire inflation pressure
9. Tire pressure control release button

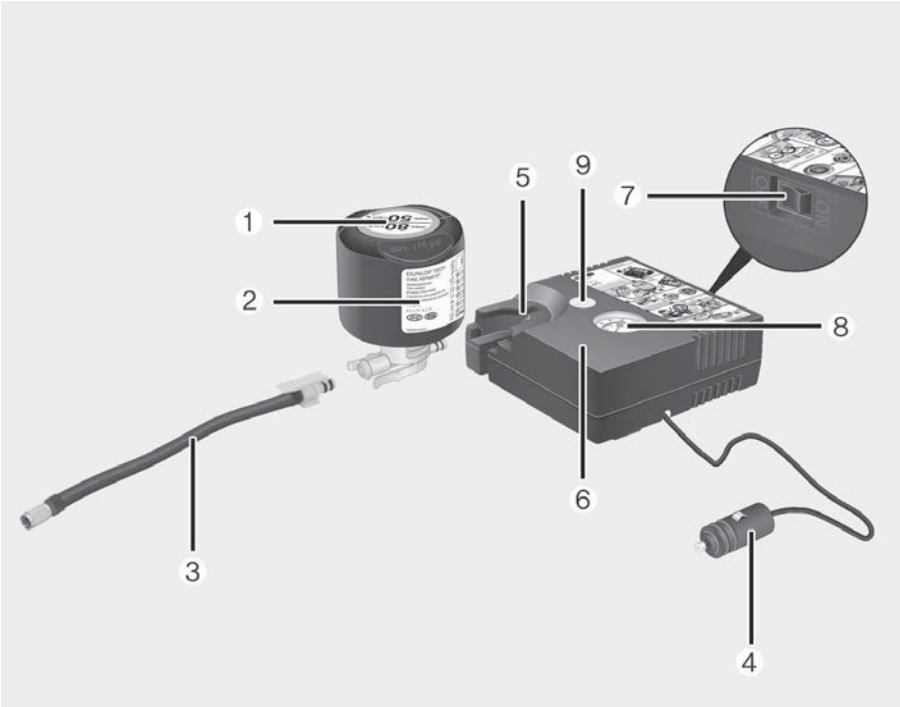
Connectors and cable are stored in the compressor housing.

**⚠ WARNING**

**Expired sealant**

Do not use the tire sealant after the sealant has expired (after the expiration date on the sealant container). This can increase the risk of tire failure.

## Components of the Tire Mobility Kit (TMK) (For 17/18 inch tire)




ODE067044

1. Speed restriction label
2. Sealant bottle and label with speed restriction
3. Filling hose from sealant bottle to wheel
4. Connectors and cable for the power outlet direct connection
5. Holder for the sealant bottle
6. Compressor
7. On/off switch
8. Pressure gauge for displaying the tire inflation pressure
9. Tire pressure control release button

Connectors and cable are stored in the compressor housing.

**WARNING**

**Expired sealant**

Do not use the tire sealant after the sealant has expired (after the expiration date on the sealant container). This can increase the risk of tire failure.

**WARNING**

**Sealant**

- Keep out of reach of children.
- Avoid contact with eyes.
- Do not swallow.

**NOTICE**

The sealant container and insert hose (3) cannot be reused. Purchase an extra after use.

## Using the Tire Mobility Kit

1. Detach the speed restriction label (1) from the sealant bottle (2), and place it in a highly visible place inside the vehicle such as on the steering wheel to remind the driver not to drive too fast.
2. Filling the sealant Strictly follow the specified sequence, otherwise the sealant may escape under high pressure.

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**CAUTION**

Before using the Tire Mobility Kit, please read carefully the instruction attached on the sealant case. Detach the speed limit label on the sealant case and put it on a highly visible place. Always drive within the speed limit.

3. Shake the sealant bottle.

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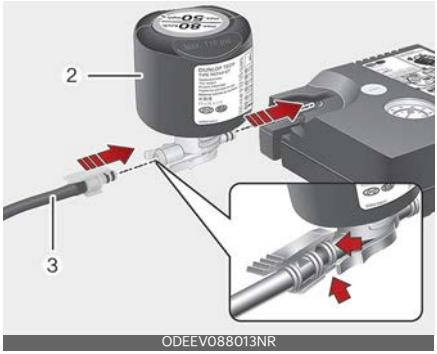
4. Connect the filling hose (3) onto the connector of the sealant bottle.



ODEEV088013NR

5. Ensure that button (7) on the compressor is not pressed.
6. Unscrew the valve cap from the valve of the defective wheel and screw filling hose (3) of the sealant bottle onto the valve.

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7. Insert the sealant bottle into the housing (5) of the compressor so that the bottle is upright.
8. Ensure that the compressor is switched off.
9. Connect between compressor and the vehicle power outlet using the cable and connectors (4).

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10. With the ignition switch or ENGINE START/STOP button position on: switch on the compressor and let it run for approximately 5~7 minutes to fill the sealant up to proper pressure. (Refer to "Tires and wheels" on page 7-35.) Be careful not to overinflate the tire and stay away from the tire when filling it. When the tire and wheel are damaged, do not use Tire Mobility Kit for your safety.

**⚠ WARNING**

**Tire pressure**

Do not attempt to drive your vehicle if the tire pressure is below 29 psi (200 kPa, 2 bar).

This could result in an accident due to sudden tire failure.

11. Switch off the compressor.
12. Detach the hose from the sealant bottle connector and from the tire valve.

Return the Tire Mobility Kit to its storage location in the vehicle.

**⚠ WARNING**

Carbon monoxide poisoning and suffocation is possible if the engine is left running in a poorly ventilated or unventilated location (such as inside a building).

## Distributing the sealant

13. Immediately drive approximately 4 ~ 6 miles (7 ~ 10 km or, about 10 minutes) to evenly distribute the sealant in the tire.

**⚠ CAUTION**

Do not exceed a speed of 50 mph (80 km/h). If possible, do not fall below a speed of 12 mph (20 km/h).

While driving, if you experience any unusual vibration, ride disturbance or noise, reduce your speed and drive with caution until you can safely pull off of the side of the road. Call for road side service or towing.

When you use the Tire Mobility Kit, the wheel may be stained by sealant. Therefore, remove the tire pressure sensors and have your vehicle inspected by an authorized Kia dealer.

## Checking the tire inflation pressure

1. After driving approximately 4 ~ 6 miles (7 ~ 10 km or about 10 minutes), stop at a suitable location.
2. Connect the filling hose (3) of the compressor (clip mounted side) directly and then connect the filling hose (3) (opposite side) to the tire valve.
3. Connect between compressor and the vehicle power outlet using the cable and connectors.
4. Adjust the tire inflation pressure to 29 psi (200 kPa). With the ignition switch or ENGINE START/STOP button ON position, proceed as follows.
   - **To increase the inflation pressure:** Switch on the compressor, position I. To check the current inflation pressure setting, briefly switch off the compressor.

**⚠ WARNING**

Do not let the compressor run for more than 10 minutes, otherwise the device will overheat and may be damaged.

- **To reduce the inflation pressure:** Press the button (9) on the compressor.

**⚠ WARNING**

The tire inflation pressure must be at least 29 psi (200 kPa, 2 bar). If it is not, do not continue driving.

Call for road side service or towing.

## Technical Data

- For 15/16 inch tire

System voltage: DC 12 V

Working voltage: DC 10 - 15 V

Amperage rating: MAX. 10 ± 1 A (at DC 12V operation)

Suitable for use at temperatures: -22 ~ +158 °F (-30 ~ +70 °C)

Max. working pressure: 87 psi (6 bar)

Size

Compressor: 5.1 x 4.6 x 2 in. (130 x 118 x 52 mm)

Sealant bottle: ø3 x 4.8 in. (ø76 x 121 mm)

Compressor weight: 1.04 lbs ± 0.7 lbs (470 g ± 30 g)

Sealant volume: 18.3 cu. In. (300 ml)

- For 17/18 inch tire

System voltage: DC 12 V

Working voltage: DC 10 - 15 V

Amperage rating: Max. 15 A ± 1A (at DC 12V operation)

Suitable for use at temperatures: -22 ~ +158 °F (-30 ~ +70 °C)

Max. working pressure: 87 psi (6 bar)

Size

Compressor: 5.1 x 4.6 x 2.4 in. (130 x 118 x 60 mm)

Sealant bottle: ø3 x 4.8 in. (ø76 x 121 mm)

Compressor weight: 1.50 lbs ± 0.7 lbs (680 g ± 30 g)

Sealant volume: 18.3 cu. In. (300 ml)

* Sealant and spare parts can be obtained and replaced at an authorized vehicle or tire dealer. Empty sealant bottles may be disposed of at home. Liquid residue from the sealant should be disposed of by your vehicle

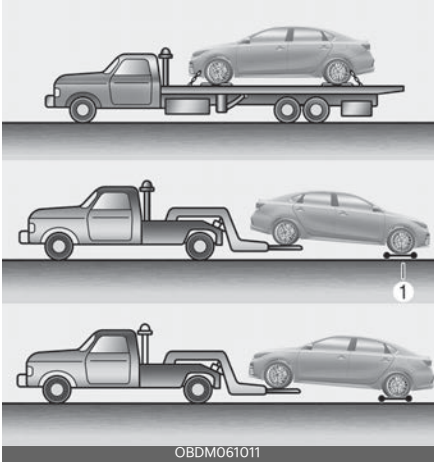
or tire dealer or in accordance with local waste disposal regulations.

# Towing

## Towing service

If emergency towing is necessary, we recommend having it done by an authorized Kia dealer or a commercial tow-truck service. Proper lifting and towing procedures are necessary to prevent damage to the vehicle. The use of wheel dollies (1) or flatbed is recommended.

It is acceptable to tow the vehicle with the rear wheels 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.

**✻ NOTICE**

If the Electronic Parking Brake (EPB) does not release normally, take your vehicle to an authorized Kia dealer by

loading the vehicle on a flatbed tow truck and have the system checked.

**⚠ WARNING**

**Side and curtain Air bag**

If your vehicle is equipped with side and curtain air bags set the ignition switch or ENGINE START/STOP button to the LOCK or ACC position when the vehicle is being towed. The side and curtain air bag may deploy when the ignition is in the ON position and the rollover sensor detects a rollover situation.

**⚠ CAUTION**

- Do not tow the vehicle backwards with the front wheels on the ground as this may cause damage to the vehicle.
- Do not tow with sling-type equipment. Use wheel lift or flatbed equipment.

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OBD061096

When towing your vehicle in an emergency without wheel dollies:

1. Set the ignition switch or ENGINE START/STOP button in the ACC position.
2. Place the transmission shift lever in N (Neutral).
3. Release the parking brake.

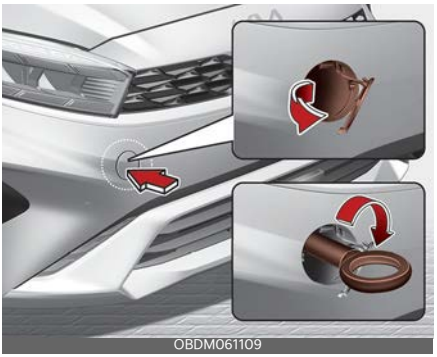
**⚠ CAUTION**

Failure to place the transmission shift lever in N (Neutral) may cause internal damage to the transmission.

## Removable towing hook (if equipped)

1. Open the trunk, and remove the towing hook from the tool case.

Front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Rear

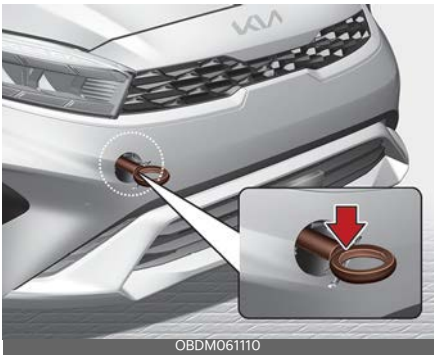
OBD061012

2. Remove the hole cover pressing the lower (front) 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

Front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Rear -Type A

OBD061106

Rear -Type B

OBDM061106L

**If towing is necessary, we recommend you to have it done by an authorized Kia dealer or a commercial tow truck service.**

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. 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**

- Attach a towing strap to the tow hook.
- Using a portion of the vehicle other than the tow hooks for towing may damage the body of your vehicle.
- Use only a cable or chain specifically intended for use in towing vehicles. Securely fasten the cable or chain to the towing hook provided.
- 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.

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- 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.

**⚠ WARNING**

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.

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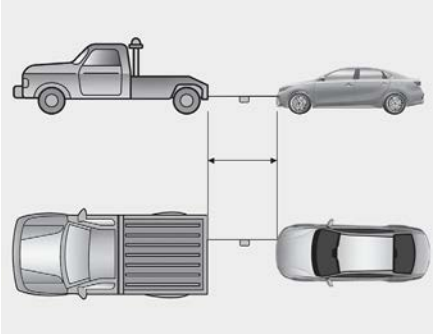
- Use a towing strap less than 16 feet (5 m) long. Attach a white or red cloth (about 12 inches (30 cm) wide) in the middle of the strap for easy visibility.
- Drive carefully so that the towing strap is not loosened during towing.
- The driver must be in the vehicle for steering and braking operations when the vehicle is towed and passengers other than the driver must not be allowed to be on board.



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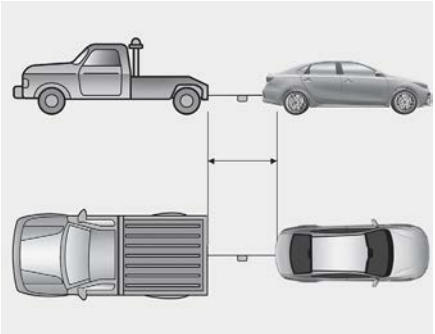

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## Emergency towing precautions

- Turn the ignition switch to ACC so the steering wheel isn't locked.
- Place the transmission shift lever in N (Neutral).
- Release the parking brake.
- Depress the brake pedal with more force than normal since you will have reduced brake performance.
- More steering effort will be required because the power steering system will be disabled.
- 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.
- The vehicle should be towed at a speed of 15 mph (25 km/h) or less within the distance of 12 miles (20 km). (For Manual Transmission vehicle)
- To avoid serious damage to the Dual Clutch Transmission/Intelligent Variable Transmission, limit the vehicle speed to 10 mph (15 km/h) and drive less than 1 mile (1.5 km) when towing. (for Dual Clutch Transmission/Intelligent Variable Transmission vehicle)

**⚠ CAUTION**

**Dual Clutch Transmission/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/Dual Clutch Transmission for fluid leaks under your vehicle. If the Intelligent Variable Transmission/Dual Clutch Transmission fluid is leaking, flatbed equipment or a towing dolly must be used.

# Maintenance 7

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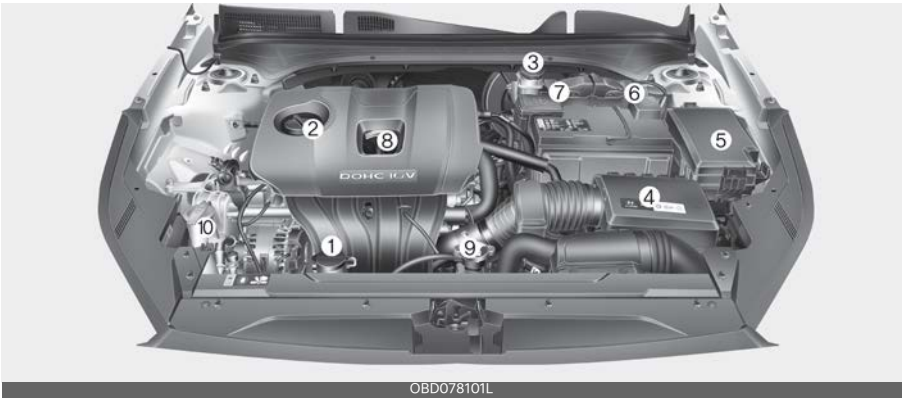
# Maintenance

## Engine compartment

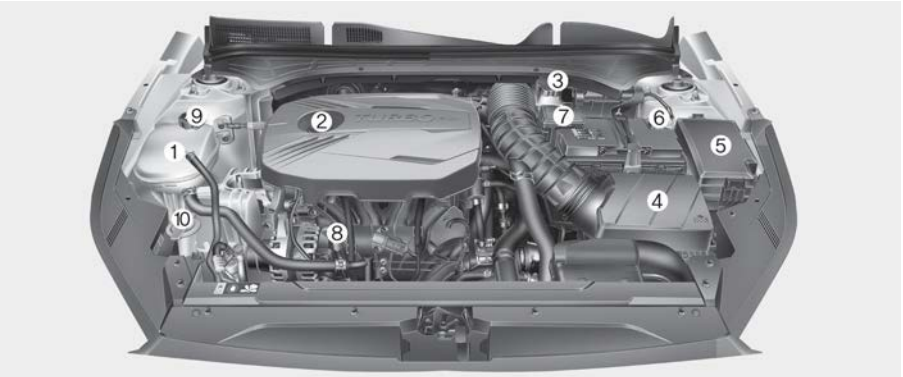
Open the hood to see the engine compartment.

(Gasoline) 2.0 MPI




OBD078101L

(Gasoline) 1.6 T-GDi



OBD071135L

* 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.

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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. Authorized Kia dealers meet Kia's high service quality standards and receive technical support from Kia in order to provide you with a high level of service satisfaction.

**✻ NOTICE**

**NHTSA Safety Corrosion Alert**

The National Highway Traffic Safety Administration (NHTSA) has issued a general warning to all vehicle owners of all brands regarding the risks associated with vehicle underbody corrosion. From your initial purchase, take the following steps to prevent unsafe corrosion damage to your vehicle:

- 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.
- NHTSA further advises that after a vehicle is 7 years old, it is essential that you take these indicated maintenance steps to ensure that you protect yourself from unsafe corrosion conditions.

---

## 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 detail the vehicle checks and inspections that should be performed by the owner or an authorized Kia dealer. They should be performed at the indicated frequencies to help ensure the safe and 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.

### 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:

- 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 twice a year (i.e., every Spring and Fall):

- 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 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 weather-strips.
- 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

Follow the Normal Maintenance Schedule if the vehicle is usually operated where none of the following conditions apply.

Follow the Maintenance Under Severe Usage Conditions if any of the following conditions apply.

- Repeated driving short distance of less than 5 miles (8 km) in normal temperature or less than 10 miles (16 km) 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 or 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.

**NOTICE**

After 10 years or 100,000 miles (150,000 km), we recommend to use severe maintenance schedule.

## Normal Maintenance Schedule- Turbo Models

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.

R : Replace or change.

I : Inspect and if necessary, adjust, correct, clean or replace.

| 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 | | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 |
| Km×1,000 | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| Tire rotation | | Rotate every 6,000 miles (10,000 km) | | | | | | | | | | | | | | |
| Fuel additives*1 | | Add every 6,000 miles (10,000 km) or 12 months | | | | | | | | | | | | | | |
| Engine oil and engine oil filter *2 | (Gasoline) 1.6 T-GDi | R | 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 | I |
| Air cleaner filter (Engine) | | I | I | I | R | I | I | I | R | I | I | I | R | I | I | I |
| Spark plugs *3 | (Gasoline) 1.6 T-GDi | Replace every 42,000 miles (70,000 km) | | | | | | | | | | | | | | |
| Brake fluid | | Inspect every 6,000 miles (10,000 km) or 12 months, Replace every 48,000 miles (80,000 km) or 48 months | | | | | | | | | | | | | | |
| Coolant (Engine)*4 | | At first, replace at 120,000 miles (200,000 km) or 10 years : after that, replace every 24,000 miles (40,000 km) or 24 months | | | | | | | | | | | | | | |
| Battery condition | | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| Vacuum hose | | | | | | | | | | | | | | | | |
| Air conditioner refrigerant | | | | | | | | | | | | | | | | |
| Exhaust system | | | | | | | | | | | | | | | | |
| Brake lines, hoses and connections | | | | | | | | | | | | | | | | |
| Brakes disc and pads | | | | | | | | | | | | | | | | |
| Suspension ball joints | | | | | | | | | | | | | | | | |
| Steering gear rack, linkage and boots | | | | | | | | | | | | | | | | |
| Air conditioner compressor | | | | | | | | | | | | | | | | |

| 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 | | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 |
| Km×1,000 | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| Intercooler, in/out hose, air intake hose | (Gasoline) 1.6 T-GDi | At first, inspect at 6,000 miles (10,000 km) or 12months, After that, inspect every 12,000 miles (20,000 km) or 24months. | | | | | | | | | | | | | | |
| Parking brake | | - | I | - | I | - | I | - | I | - | I | - | I | - | I | - |
| Drive shaft and boots | | | | | | | | | | | | | | | | |
| Fuel tank and fuel cap | | | | | | | | | | | | | | | | |
| Fuel lines, hoses and connections | | | | | | | | | | | | | | | | |
| Fuel tank air filter | | | | | | | | | | | | | | | | |
| Cooling system | | - | - | - | I | - | I | - | I | - | I | - | I | - | I | - |
| Valve clearance*5 | (Gasoline) 1.6 T-GDi | Inspect every 60,000 miles (100,000 km) or 72 months | | | | | | | | | | | | | | |
| Drive belts*6 | | At first, inspect at 60,000 miles (100,000 km) or 72 months, after that, inspect every 12,000 miles (20,000 km) or 24 months | | | | | | | | | | | | | | |
| Manual transmission fluid *7 | | No service required | | | | | | | | | | | | | | |
| Dual clutch transmission fluid *7 | | | | | | | | | | | | | | | | |

* 1. Fuel additives : Kia recommends that you use Tier 1 unleaded gasoline which has an octane number ((R+M)/2) of 87 (Research Octane Number 91) or higher. For customers who do not use good quality gasolines including fuel additives regularly, and have problems starting or the engine does not run smoothly, one bottle of additives should be added to the fuel tank at every 6,000 miles (10,000 km). Additives are available from an authorized Kia dealer. Do not mix with other additives.
* 2. 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.
* 3. Spark plug : For your convenience, it can be replaced prior to it's interval when you do maintenance of other items.
* 4. 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.

* 5. Valve clearance : Inspect for excessive valve noise and/or engine vibration and adjust if necessary. Have an authorized Kia dealer perform the operation.
* 6. 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.
* 7. Manual transmission fluid / Dual clutch transmission (DCT) fluid : If the vehicle has been submerged in water or in a flooded area, the fluids should be changed as a precaution

- 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.
  - 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.

## Maintenance Under Severe Usage Conditions - Turbo Models

The following items must be serviced more frequently on cars normally used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

R : Replace

I : Inspect and, after inspection, clean, adjust, repair or replace if necessary

| Maintenance item | | Maintenance operation | Maintenance intervals | Driving condition |
|---|---|---|---|---|
| Engine oil and engine oil filter | (Gasoline) 1.6 T-GDi | R | Every 3,000 miles (5,000 km) or 6 months | A, B, C, D, E, F, G, H, I, J, K |
| Manual transmission fluid / Dual clutch transmission (DCT) fluid | | R | Every 72,000 miles (120,000 km) | C, D, E, F, G, H, I, J |
| Climate control air filter | | R | More frequently | C, E, G |
| Spark plugs | | R | More frequently | A, B, F, G, H, I, K |
| Air cleaner filter | | I | More frequently | C, E |
| Parking brake | | I | More frequently | C, D, G, H |
| Brake discs, pads and calipers | | I | More frequently | C, D, E, G, H, I, J, K |
| Suspension ball joints | | I | More frequently | C, D, E, G, H, I |
| Steering gear rack, linkage and boots | | I | More frequently | C, D, E, F, G, H, I |
| 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 5 miles (8 km) in normal temperature or less than 10 miles (16 km) 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 road repeatedly.
- H: Using for towing or camping, and driving with loading on the roof.
- I: Driving as a patrol car, taxi, other commercial use or vehicle towing.
- J: Frequently driving under high speed or rapid acceleration/deceleration.
- K: Frequently driving in stop-and-go conditions

## Normal maintenance schedule - Non Turbo Models

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.

R: Replace or change

I: Inspect and if necessary, adjust, correct, clean or replace.

| Number of months or driving distance, whichever comes first | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Months | | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |
| Miles×1,000 | | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| Km×1,000 | | 13 | 26 | 39 | 52 | 65 | 78 | 91 | 104 | 117 | 130 | 143 | 156 |
| Tire rotation | | Rotate every 8,000 miles (13,000 km) | | | | | | | | | | | |
| Engine oil and engine oil filter *1 | (Gasoline) 2.0 MPI | 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 |
| Air cleaner filter (Engine) | | I | I | R | I | I | R | I | I | R | I | I | R |
| Brake fluid | | Inspect every 8,000 miles (13,000 km) or 12 months, Replace every 48,000 miles (78,000 km) or 48 months | | | | | | | | | | | |
| Spark plugs *2 | (Gasoline) 2.0 MPI | Replace every 96,000 miles (156,000 km) | | | | | | | | | | | |
| Coolant (Engine) *3 | | At first, replace at 120,000 miles (195,000 km) or 120 monthsAfter that, replace every 24,000 miles (39,000 km) or 24 months | | | | | | | | | | | |
| Battery condition | | I | I | I | I | I | I | I | I | I | I | I | I |
| Vacuum hose | | | | | | | | | | | | | |
| Air conditioner refrigerant | | | | | | | | | | | | | |
| Exhaust system | | | | | | | | | | | | | |
| Brake lines, hoses and connections | | | | | | | | | | | | | |
| Parking brake | | | | | | | | | | | | | |
| Brake discs and pads | | | | | | | | | | | | | |
| Suspension ball joints and mounting bolts | | | | | | | | | | | | | |
| Steering gear rack, linkage and boots | | | | | | | | | | | | | |
| Air conditioner compressor | | | | | | | | | | | | | |

| Number of months or driving distance, whichever comes first | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Months | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |
| Miles×1,000 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| Km×1,000 | 13 | 26 | 39 | 52 | 65 | 78 | 91 | 104 | 117 | 130 | 143 | 156 |
| Drive shaft and boots | - | I | - | I | - | I | - | I | - | I | - | I |
| Fuel tank and fuel cap | | | | | | | | | | | | |
| Fuel lines, hoses and connections | | | | | | | | | | | | |
| Fuel tank air filter | | | | | | | | | | | | |
| Cooling system | - | - | - | I | - | I | - | I | - | I | - | I |
| Drive belts *4 | At first, inspect at 64,000 miles (104,000 km) or 72 months, after that, inspect every 16,000 miles (26,000 km) or 24 months | | | | | | | | | | | |
| Manual transmission fluid *5 | No service required | | | | | | | | | | | |
| Intelligent Variable Transmission (IVT) fluid | | | | | | | | | | | | |

* 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.
* 2. Spark plug : For your convenience, it can be replaced prior to it's interval when you do maintenance of other items.
* 3. 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.
* 4. 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.
* 5. Manual transmission fluid : If the vehicle has been submerged in water or in a flooded area, the fluids should be changed as a precaution

- 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.
  - If there are some important problems 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.

## Maintenance Under Severe Usage Conditions - Non Turbo Models

The following items must be serviced more frequently on cars mainly used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

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 | (Gasoline) 2.0 MPI | R | Every 5,000 miles (8,000 km) or 6 months | A, B, C, D, E, F, G, H, I, J, K |
| Intelligent Variable Transmission (IVT) fluid | | R | Every 56,000 miles (91,000 km) | A, C, F, G, H, I, J, K |
| Manual transmission fluid | | R | Every 72,000 miles (117,000 km) | C, D, E, F, G, H, I, J |
| Air cleaner filter | | R | More frequently | C, E |
| Spark plugs | | R | More frequently | A, B, F, G, H, I, K |
| Climate control air filter | | I | More frequently | C, E, G |
| Parking brake | | I | More frequently | C, D, G, H |
| Brake discs, pads and calipers | | I | More frequently | C, D, E, G, H, I, J, K |
| Suspension ball joints and mounting bolts | | I | More frequently | C, D, E, G, H, I |
| Steering gear rack, linkage and boots | | I | More frequently | C, D, E, F, G |
| 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 5 miles (8 km) in normal temperature or less than 10 miles (16 km) in freezing temperature.

B: Extensive low speed driving for long distances.

C: Driving on rough, dusty, muddy, unpaved, graveled or salt-spread 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.

H: Using for towing or camping and driving with loading on the roof

I: Driving as a patrol car, taxi, other commercial use or 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 or fuel cap is correctly replaced.

## Vacuum crankcase ventilation hoses

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.

## Valve clearance (if equipped)

Inspect for excessive valve noise and/or engine vibration and adjust if necessary. An authorized Kia dealer should perform the operation.

## 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.

## Dual clutch transmission fluid

Inspect the dual clutch transmission fluid according to the maintenance schedule.

## Intelligent Variable Transmission (IVT) fluid

The Intelligent Variable Transmission (IVT) fluid should not be checked under normal usage conditions. But in severe conditions, the fluid should be changed at an authorized Kia dealer in accordance to the scheduled maintenance at the beginning of this chapter. (Refer to the "Maintenance Under Severe Usage Conditions - Non Turbo Models" on page 7-16.)

**NOTICE**

The Intelligent Variable Transmission (IVT) fluid color is amber. As the vehicle is driven, the Intelligent Variable Transmission (IVT) fluid will begin to look darker. This is normal, and you should

not judge the need to replace the fluid based upon the changed color.

**⚠ CAUTION**

Use only specified Intelligent Variable Transmission (IVT) fluid. The use of non-specified fluid (even marked as compatible with genuine) could result in shift quality deterioration and vibrations, and eventually, transmission failure. (Refer to the "Recommended lubricants and capacities" on page 8-7.)

## Manual transmission fluid

Inspect the manual transmission fluid according to the maintenance schedule.

## Brake hoses and lines

Visually check for proper installation, chafing, cracks, deterioration and any leakage. Replace any deteriorated or damaged parts immediately.

**✻ NOTICE**

### NHTSA Safety Corrosion Alert

NHTSA has warned all vehicle owners of all brands that they must maintain their vehicles in a manner which will prevent brake hose and brake line failures due to corrosion when such vehicles are exposed to winter road salt and related chemicals. While serious corrosion conditions typically only manifest themselves as safety issues after 7 years of vehicle use, the corrosion process starts immediately and thus underbody cleaning maintenance must commence from your vehicle's first exposure to road salts and chemicals. NHTSA urges vehicle owners to take the following steps to prevent corrosion:

1. Wash the undercarriage of your vehicle regularly throughout the winter and do a thorough washing in the spring to remove road salt and other de-icing chemicals.
2. Monitor the brake system for signs of corrosion by having regular professional inspections and watching for signs of problems, including loss of brake fluid, unusual leaks and soft or spongy feel in the brake pedal.
3. Replace the entire brake pipe assembly if you find severe corrosion that causes scaling or flaking of brake components.

## 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 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

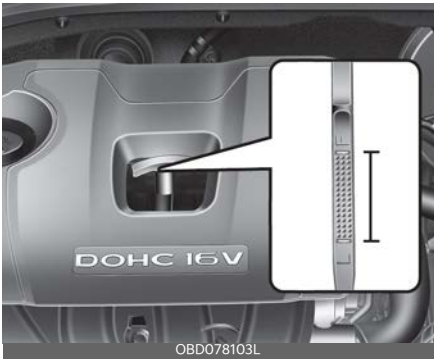
When checking engine oil, engine coolant, brake fluid, and washer fluid, always be sure to clean the area around any filler plug, drain plug, or dipstick before checking or draining any lubricant or fluid. This is especially important in dusty or sandy areas and when the vehicle is used on unpaved roads. 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

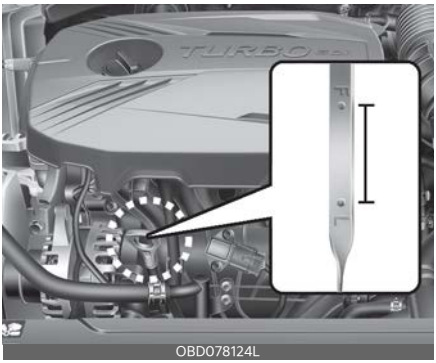
Engine oil is used for lubricating, cooling, and operating various hydraulic components in the engine. Engine oil consumption while driving is normal, and it is necessary to check and refill the engine oil regularly. Also, check and refill the oil level within the recommended maintenance schedule to prevent deterioration of oil performance.Check the engine oil following the below procedure.

(Gasoline) 2.0 MPI



OBD078103L

(Gasoline) 1.6 T-GDi



OBD078124L

1. Be sure the vehicle is on level ground.
2. Start the engine and allow it to reach normal operating temperature.
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.
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.

**⚠ WARNING**

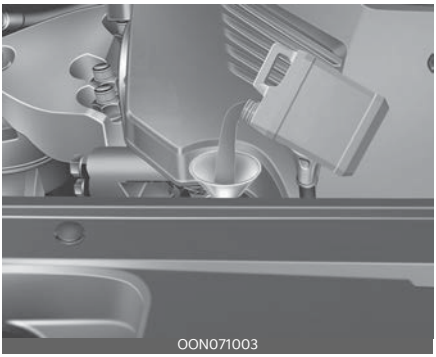
**Radiator hose**

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.

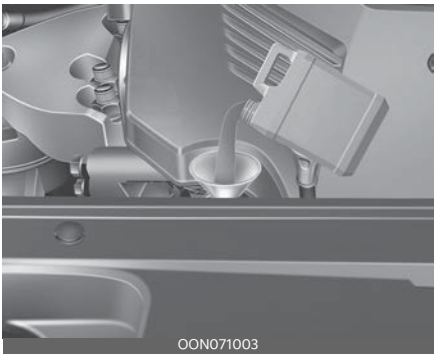
**⚠ CAUTION**

When you wipe the oil level gauge, you should wipe it with a clean cloth. When mixed with debris, it can cause engine damage.

(Gasoline) 2.0 MPI


OON071003

(Gasoline) 1.6 T-GDi




**Use a funnel to help prevent oil from being spilled on engine components. Use only the specified engine oil.**
(Refer to "Recommended lubricants and capacities" on page 8-7.)

- 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 4,000 miles (6,000 km).
- 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. Used engine oil contains chemicals that have caused cancer in laboratory animals. 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.

### Checking the coolant level

**WARNING**

**Radiator cap**

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 bodily injury from escaping hot coolant or steam.

- Turn the engine off and wait until it cools down. Use extreme care when removing the radiator cap. Wrap a thick towel around it, and turn it counterclockwise slowly to the first stop. Step back while the pressure is released from the cooling system.

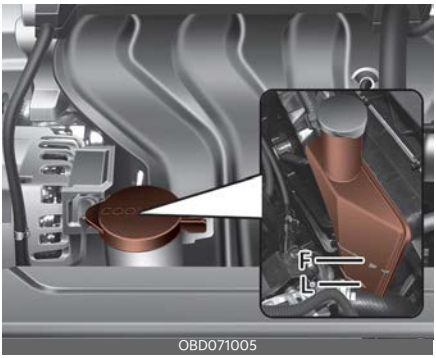
  When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.
- Even if the engine is not operating, do not remove the radiator cap or the drain plug while the engine and radiator are hot. Hot coolant and steam may still blow out under pressure, causing serious injury.

**WARNING**

**Cooling fan**

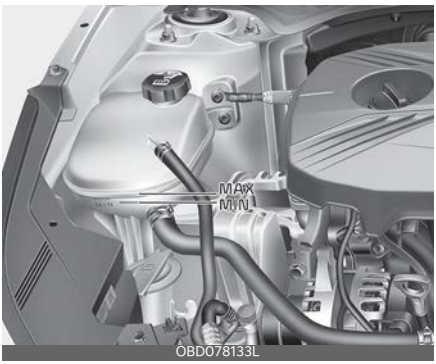
Use caution when working near the blade of the cooling fan. The electric motor (cooling fan) is controlled by engine coolant temperature, refrigerant pressure and vehicle speed. It can operate even when the engine is not running.

(Gasoline) 2.0 MPI




OBD071005

(Gasoline) 1.6 T-GDi




OBD078133L

Check the condition and connections of all cooling system hoses and heater hoses. Replace any swollen or deteriorated hoses.

The coolant level should be filled between F and L (or MAX and MIN) marks on the coolant level gauge when the engine is cool.

If the coolant level is low, add enough specified coolant to provide protection against freezing and corrosion. Bring the level to F (or MAX), but do not overfill. If frequent additions are required, see an authorized Kia dealer for a cooling system inspection.

**✻ NOTICE**

Make sure the coolant cap is properly closed after refill of coolant.

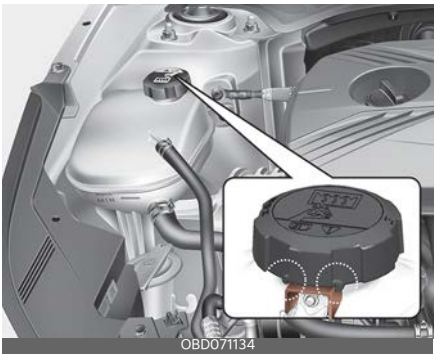
Otherwise the engine could be overheated while driving.

1. Check if the radiator cap label is on straight.

Engine room front view

2. Make sure that the tiny protrusions inside the coolant cap are securely interlocked.

Engine room rear view




## Recommended engine coolant

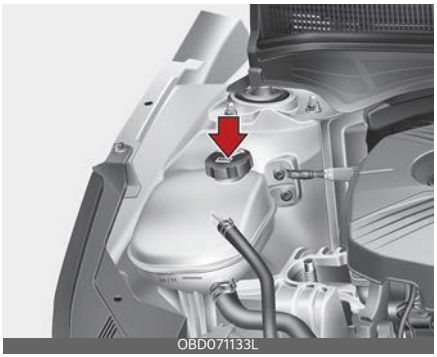
- When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious malfunction or engine damage.
- The engine in your vehicle has aluminum engine parts and must be protected by an ethylene-glycol with phosphate based 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. This would reduce the effectiveness of the solution.

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 |

(Gasoline) 2.0 MPI

(Gasoline) 1.6 T-GDi




**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.

## Changing the coolant

Have the coolant changed by an authorized Kia dealer according to the Maintenance Schedule at the beginning of this chapter.

**CAUTION**

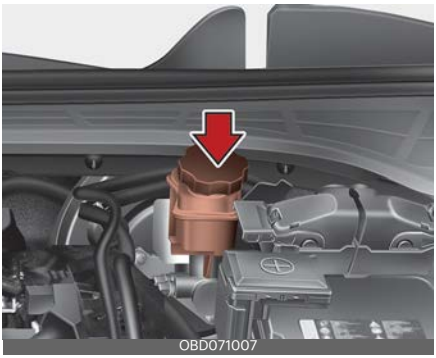
Put a thick cloth or fabric around the radiator cap before refilling the coolant in order to prevent the coolant from overflowing into engine parts such as the generator.

# Brake/clutch 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/clutch 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/clutch fluid, clean the area around the reservoir cap thoroughly to prevent brake/clutch fluid contamination.

**⚠ CAUTION**

**Proper fluid**

Only use brake/clutch 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/clutch 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/clutch fluid. (Refer to "Recommended lubricants and capacities" on page 8-7.)

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/clutch fluid, handle it carefully. Do not let it come in contact with your eyes. If brake/clutch 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/clutch fluid**

Do not allow brake/clutch fluid to contact the vehicle's body paint, as paint damage will result.

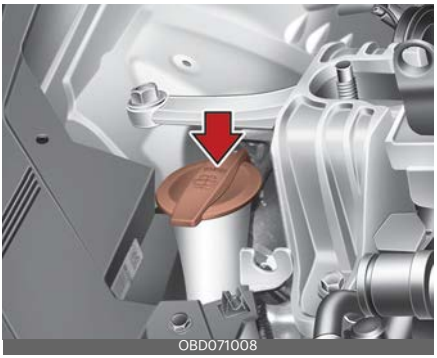
Brake/clutch fluid, which has been exposed to open air for an extended time should never be used as its quality cannot be guaranteed. It should be disposed of properly.

**⚠ CAUTION**

To maintain your vehicle’s best brake and ABS/ESC performance, use Kia genuine brake fluid as in the specification. (Classification : SAE J1704 DOT4 LV, ISO4925 CLASS-6,FMVSS116 DOT-4)

# Washer fluid

## 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 antifreeze in the washer fluid reservoir.
- Radiator coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control.

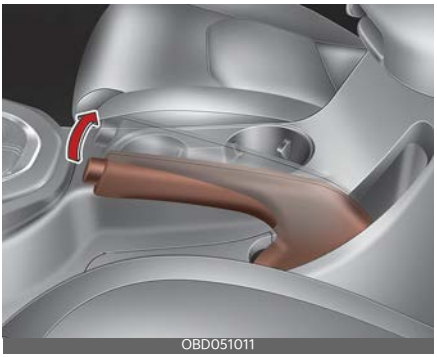
**WARNING**

**Windshield fluid**

Do not drink the windshield washer fluid. The windshield washer fluid is poisonous to humans and animals.

# Parking brake (Hand type) (if equipped)

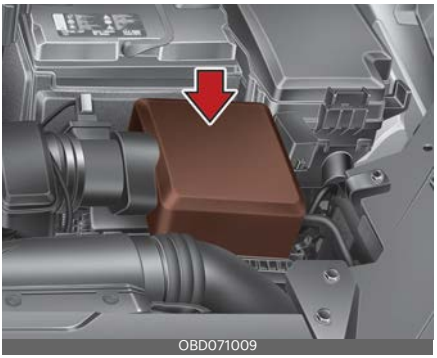
## Checking the parking brake


OBD051011

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. If the stroke is more or less than specified, have the parking brake adjusted by an authorized Kia dealer.

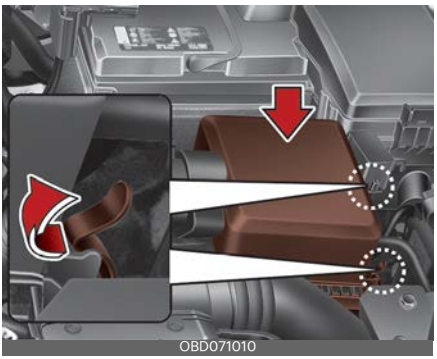
# Air cleaner

## Filter replacement

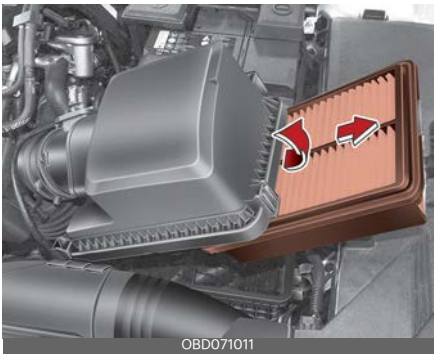

OBD071009

It must be replaced when necessary, and should not be washed.

1. Loosen the air cleaner cover attaching clips and open the cover.


OBD071010

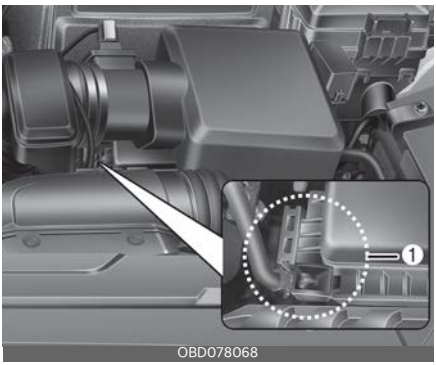
2. Wipe the inside of the air cleaner.




3. Replace the air cleaner filter.
4. Lock the cover with the cover attaching clips.

**NOTICE**

Insert the hinge(1) and engage the clips when mounting the air cleaner cover.




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 "Recommended lubricants and capacities" on page 8-7.)

**CAUTION**

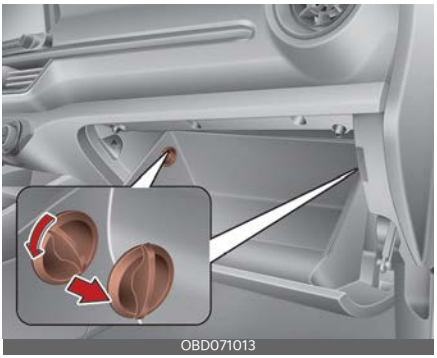
- Do not drive with the air cleaner removed; this will result in excessive engine wear.
- When removing the air cleaner filter, be careful that dust or dirt does not enter the air intake, or damage may result.
- Use a Kia genuine part. Use of a non-genuine part could damage the air flow sensor.

# Climate control air filter

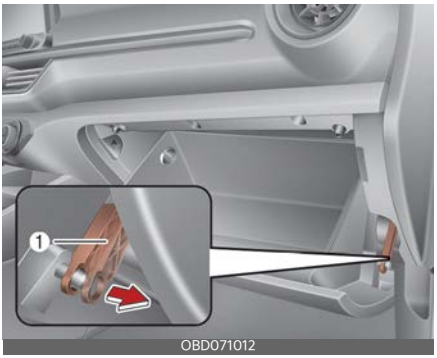
## Filter inspection

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. 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 and remove the stoppers on both sides.

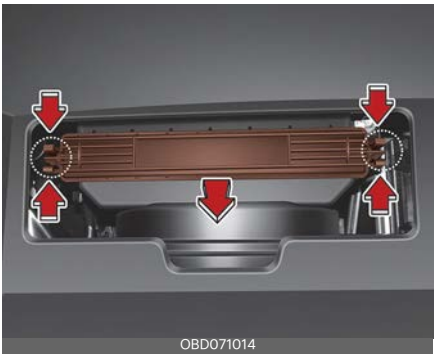

OBD071013

2. With the glove box open, pull the support strap (1).



OBD071012

3. Remove the climate control air filter cover while pressing the lock on the left side of the cover.


OBD071014

4. Replace the climate control air filter.

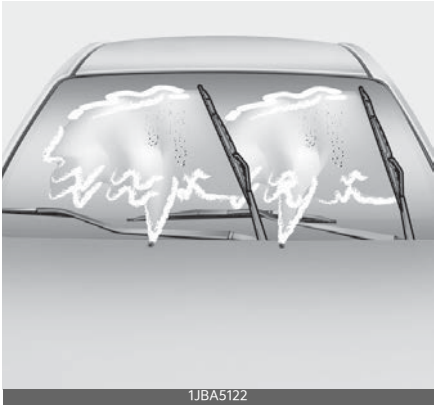
OJA070096

5. 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

## Blade inspection




**NOTICE**

Commercial hot waxes applied by automatic car 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 car 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**

To prevent damage to the wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.

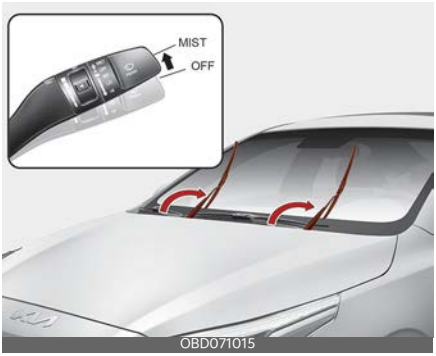
## Blade replacement

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.

Aftermarket wiper blades may result in wiper malfunction and/or failure. It is recommended to use certified Kia parts.

## Front windshield wiper blade




For your convenience, move the windshield wiper blades to the service position as follows;

After turning off the engine, move the wiper switch to the single wiping (MIST) position within 20 seconds and hold the switch more than 2 seconds until the wiper blade is in the fully up position.

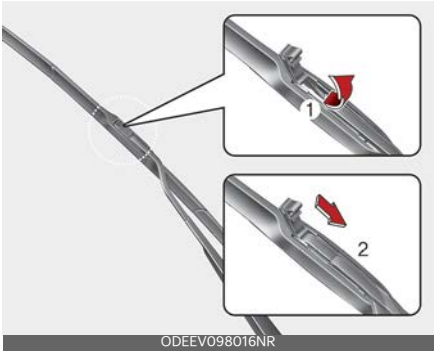
**CAUTION**

**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 the arm could chip the hood paint.

## Type A

1. Raise the wiper arm.
2. Lift up the wiper blade clip (1). Then pull down the blade assembly (2) and remove it.



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3. Install the new blade assembly.

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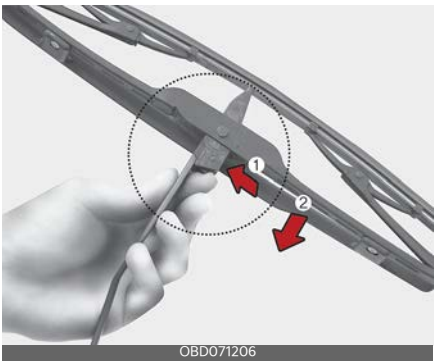
4. Return the wiper arm on the windshield.
5. Turn ignition to the ON position and wiper arms will return to the normal operating position.

## Type B

1. Raise the wiper arm and turn the wiper blade assembly to expose the plastic locking clip.

OBD071205

2. Compress the clip (1) and slide the blade assembly (2) downward.



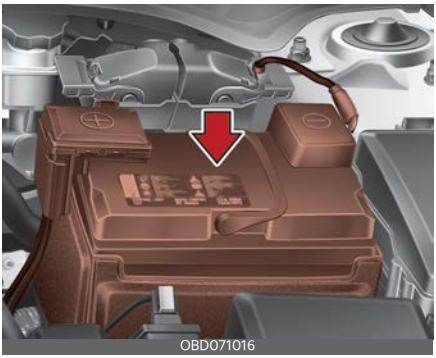
OBD071206

1JBA7038

3. Lift it off the arm.
4. Install the new blade assembly.
5. Return the wiper arm on the windshield.
6. Turn ignition to the ON position and wiper arms will return to the normal operating position.

# Battery

## 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.

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 shock you.

**⚠ 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

- If the battery becomes discharged in a short time (because, for example, the headlights or interior lights were left on while the vehicle was not in use), recharge it by slow charging (trickle) for 10 hours.
- If the battery gradually discharges because of high electric load while the vehicle is being used, recharge it at 20~30 A for two hours.

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 in following cases:
  1. the battery cells begin gassing (boiling) violently
  2. the electrolyte temperature 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 "Power windows" on page 4-33.)
- Sunroof (Refer to "Sunroof (if equipped)" on page 4-42.)
- Trip computer (Refer to "Trip Computer" on page 4-70.)
- Climate control system (Refer to "Climate control system" on page 4-98.)

# Tires and wheels

For proper maintenance, safety, and maximum fuel economy, you must always maintain the recommended tire inflation pressures and stay within the load limits and weight distribution recommended for your vehicle.

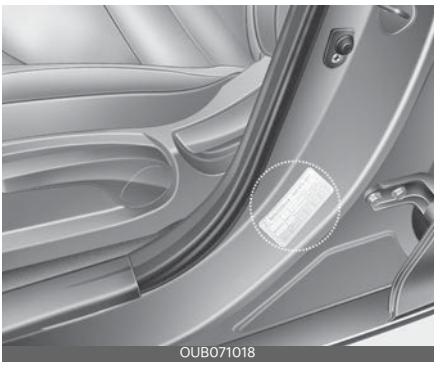
## Recommended cold tire inflation pressures

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 mile (1.6 km).

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. Driv-

ing on under-inflated tires not only compromises your vehicle's driving stability but also may lead to tire damage and the risk of an accident.Severe under inflation (10 psi (70 kPa) or more) can lead to severe heat build up, causing blowouts, tread separation and other tire failures that can result in the loss of vehicle control.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 mile (1.6 km) 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 4~6 psi (28~41 kPa). 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 mile (1.6 km).

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. This could result in 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 6,000 miles (10,000 km) (for Turbo engine), 8,000 miles (13,000 km) (for Non Turbo engine) or sooner if irregular wear develops.

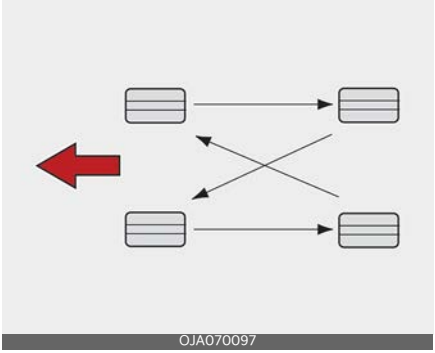
During rotation, check the tires for correct balance.

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. (proper torque is 79~94 lbf·ft [11~13 kgf·m])

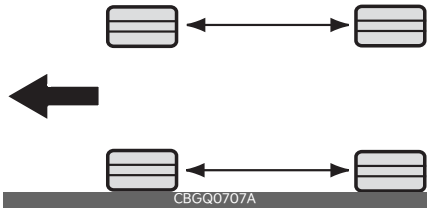
Refer to "Tires and wheels" on page 8-5.

Disc brake pads should be inspected for wear whenever tires are rotated.

Without a spare tire




Directional tires (if equipped)




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 use the compact spare tire (if equipped) for tire rotation.
- 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 (A) will appear as a solid band across the tread.

This shows there is less than 1/16 inch (1.6 mm) 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 Anti-lock Brake System (ABS) 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 and Electronic Stability Control (ESC) 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 with an incorrect size may adversely affect many things: wheel and bearing life, braking and stopping abilities, handling characteristics, ground clearance, body-to-tire clearance, snow chain clearance, speedometer and odometer calibration, headlight aiming 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

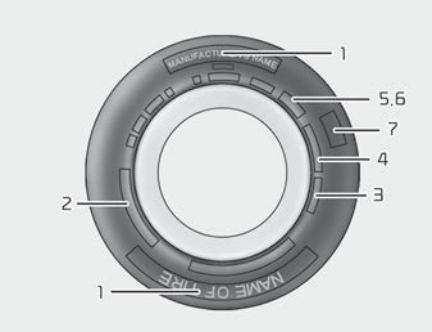
In addition to proper inflation, correct wheel alignment helps to decrease tire wear.

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.

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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 | 112 mph (180 km/h) |
| T | 118 mph (190 km/h) |
| H | 130 mph (210 km/h) |
| V | 149 mph (240 km/h) |
| W | 168 mph (270 km/h) |
| Y | 186 mph (300 km/h) |

## 3. Checking tire life

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 5-175 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. Performance 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 & C

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 degrade and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger vehicle tires must meet under the Federal Motor Vehicle Safety Standard No. 109. 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** 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** 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** A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation motor vehicle safety standards. The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand and date of production.

**GVWR** Gross Vehicle Weight Rating

**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 lbs. (68 kg).

**Occupant Distribution** Designated seating positions.

**Outward Facing Sidewall** The side of a 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 5 lb. (2.3 kg) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight. Examples include 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 1/16 inch (1.6 mm) 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 weight of designated seating positions multiplied by 150 lbs. (68 kg) 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.

**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 4 psi (28 kPa) 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 75 mph (120 km/h) 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.

## Tire chains

Tire chains, if necessary, should be installed on the front wheels.

Be sure that the chains are installed in accordance with the manufacturer's instructions.

To minimize tire and chain wear, do not continue to use tire chains when they are no longer needed.

- When driving on roads covered with snow or ice, drive at less than 20 mph (30 km/h).
- Use the SAE "S" class or wire chains.
- If you hear noise caused by chains contacting the body, retighten the chain to avoid contact with the vehicle body.
- To prevent body damage, retighten the chains after driving 0.3~0.6 miles (0.5~1.0 km).
- Do not use tire chains on vehicles equipped with aluminum wheels. In unavoidable circumstance, use a wire type chain.
- Use wire chains less than 0.47 inches (12 mm) to prevent damage to the chain's connection.

## 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 compared 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 1,900 miles (3,000 km).

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- 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.

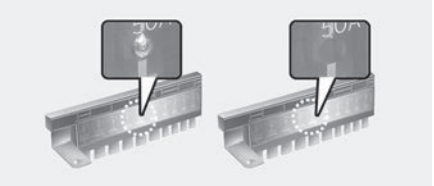
Blade type

ODEEV098032NR

Cartridge type

ODEEV098077NR

Multi fuse



ODEEV098078NR

BFT

ODEEV098079NR

* Left side: Normal, Right side: Blown

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.

**CAUTION**

Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.

**NOTICE**

- When replacing a fuse, Turn the ignition OFF position and turn off switches of all electrical devices then remove battery (-) terminal.

- The actual fuse/relay panel label may differ from equipped items.

**⚠ 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.
- Do not remove fuses, relays and terminals fastened withbolts or nuts. The fuses, relays and terminals may not be fastened correctly which may cause vehicle damage.

**⚠ 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 aftermarket wiring into the terminal originally designed for fuse 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.

**⚠ 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.

**⚠ 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**

**Rewiring 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.

**✻ NOTICE**

**Window tinting precaution**

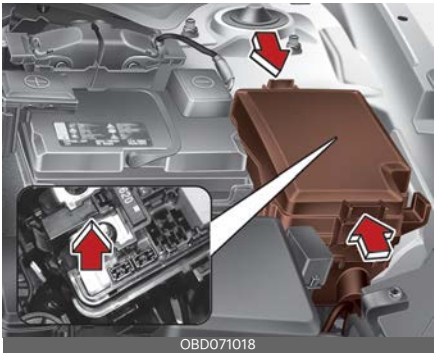
Window tint (especially metallic film) might cause communication errors or poor radio reception, and a malfunctioning automatic lighting system due to reflections from the mirror tint inside the vehicle. The tint installation solution used might also leak into the electronic components, causing malfunctions or damage.

## Replacing inner panel fuse

1. Turn the ENGINE START/STOP button to the OFF position and all other switches off.
2. Open the fuse panel cover.

OBDM071017L

3. Pull the suspected fuse straight out. Use the removal tool provided on the engine fuse panel cover.


OBD071018

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.

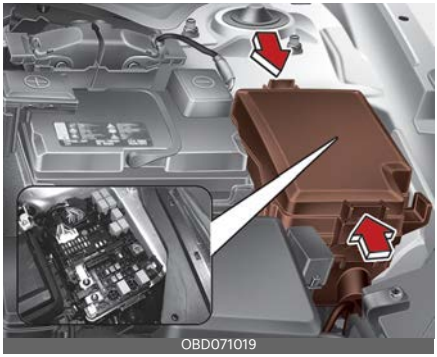
If the head lamp, turn signal lamp, stop signal lamp, fog lamp, DRL, tail lamp or High Mounted Stop Lamp (HMSL) do not work and the fuses are OK, check the fuse panel in the engine compartment. If a fuse is blown, it must be replaced.

**NOTICE**

If the headlamp, fog lamp, turn signal lamp, or tail lamp malfunction 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 ENGINE START/STOP button to the OFF position and all other switches off.
2. Remove the fuse panel cover by pressing the tab and pulling the cover up.


OBD071019

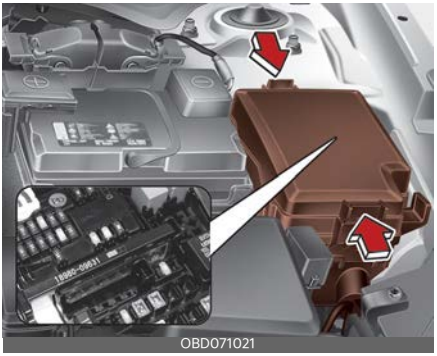
3. Check the removed fuse; replace it if it is blown. To remove or insert the fuse, use the fuse puller in the engine compartment fuse panel.

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



OBD071021

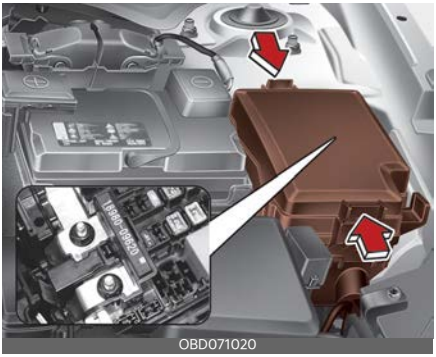
If the multi fuse is blown, it must be removed as follows:

1. Turn the ENGINE START/STOP button to the OFF position 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 or 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



OBD071020

If the main fuse is blown, it must be removed as follows:

1. Turn the ENGINE START/STOP button to the OFF position 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 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 or 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.

OBD071022

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.

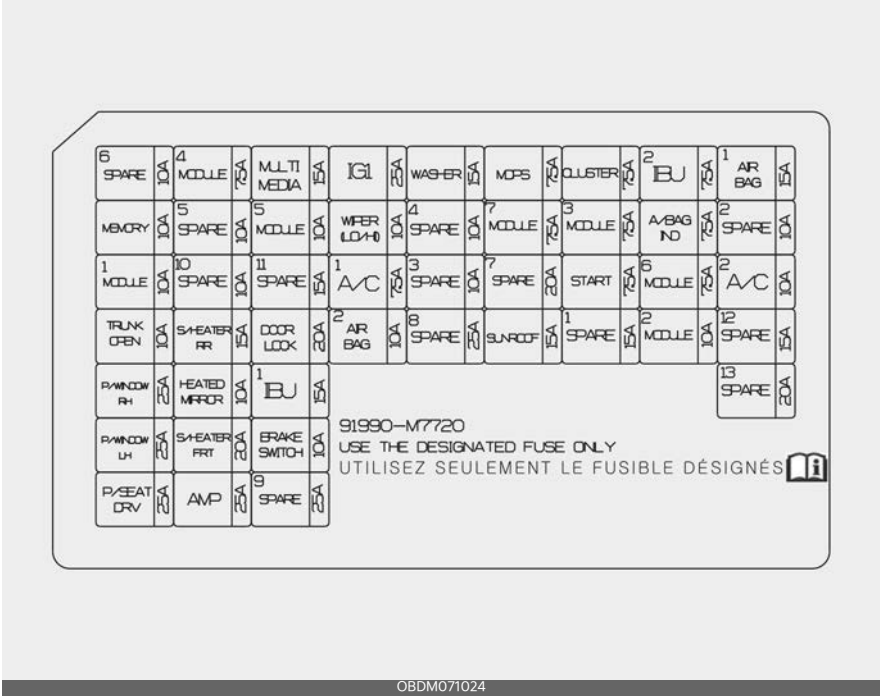
## Driver's side fuse panel

OBDM071023L

**✻ 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.

## Driver's side fuse panel



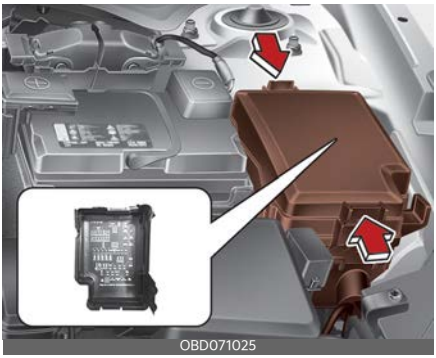

Refer to the following table for a description of the fuse.

| Fuse Name | Fuse rating | Circuit Protected |
|---|---|---|
| MEMORY | 10A | Air Conditioner Control Module, Instrument Cluster |
| MODULE 1 | 10A | Key Interlock Switch, Multipurpose Check Connector, Data Link Connector, ICM (Integrated Circuit Module) Relay Box (Outside Mirror Folding/Unfolding Relay), Hazard Switch, Driver/Passenger Smart Key Outside Handle, Mood Lamp Control Unit, Mood Lamp |
| TRUNK | 10A | Trunk Relay |
| POWER WINDOWRH | 25A | Power Window Right Handle side Relay |
| POWER WINDOWLH | 25A | Power Window Left Handle side Relay, Driver Safety Power Window Module |
| POWER SEATDRIVER | 25A | Driver Power Switch |
| MODULE 4 | 7.5A | Front View Camera, IBU (Integrated Body Control Unit), Front Radar, Mood Lamp |

| Fuse Name | Fuse rating | Circuit Protected |
|---|---|---|
| SEAT HEATER-REAR | 15A | Rear Seat Warmer Control Module |
| HEATED MIRROR | 10A | Driver/Passenger Power Outside Mirror, Air Conditioner Control Module, ECM (Engine Control Module)/PCM (Power train Control Module) |
| SEAT HEATER-FRONT | 20A | Front Seat Warmer Control Module, Front Air Ventilation Seat Control Module |
| AMP | 25A | AMP (Amplifier) |
| MULTI MEDIA | 15A | Audio, Audio/Video & Navigation Head Unit |
| MODULE 5 | 10A | Audio/Video & Navigation Head Unit, Audio, Air Conditioner Control Module, Rear Seat Warmer Control Module, Front Seat Warmer Control Module, Front Air Ventilation Seat Control Module, Multipurpose Check Connector |
| DOOR LOCK | 20A | Door Lock/Unlock Relay |
| IBU 1 | 15A | IBU (Integrated Body Control Unit) |
| BRAKE SWITCH | 10A | IBU (Integrated Body Control Unit), Stop Lamp Switch |
| IG 1 | 25A | Engine Room Junction Block (Fuse - ABS, ECU, TCU, SENEOR) |
| WIPER (LO/HI) | 10A | Engine Room Junction Block (Front Wiper (Low) Relay), Front Wiper Motor, ECM (Engine Control Module)/PCM (Power train Control Module), IBU (Intergrated Body Control Unit) |
| AIRCONDITIONER 1 | 7.5A | Engine Room Junction Block (PTC HEATER Relay), Air Conditioner Control Module |
| AIR BAG 2 | 10A | SRS (Supplemental Restraint System) Control Module |
| WASHER | 15A | Multifunction Switch |
| MDPS | 7.5A | MDPS (Motor Driven Power Steering) Unit |
| MODULE 7 | 7.5A | Rear Seat Warmer Control Module, Front Seat Warmer Control Module, Front Air Ventilation Seat Control Module, ESG_Unit |
| SUNROOF | 15A | Sunroof Motor |
| CLUSTER | 7.5A | Instrument Cluster |
| MODULE 3 | 7.5A | Sport Mode Switch, Stop Lamp Switch |
| START | 7.5A | ICM (Integrated Circuit Module) Relay Box (Burglar Alarm Relay), Transaxle Range Switch, Engine Room Junction Block (PDM 3 (IG1) Relay), IBU (Integrated Body Control Unit), ECM (Engine Control Module), PCM (Power train Control Module) |
| IBU 2 | 7.5A | IBU (Integrated Body Control Unit) |
| AIR BAGINDICATOR | 7.5A | Instrument Cluster, Air Conditioner Control Module |
| MODULE 6 | 7.5A | IBU (Integrated Body Control Unit) |

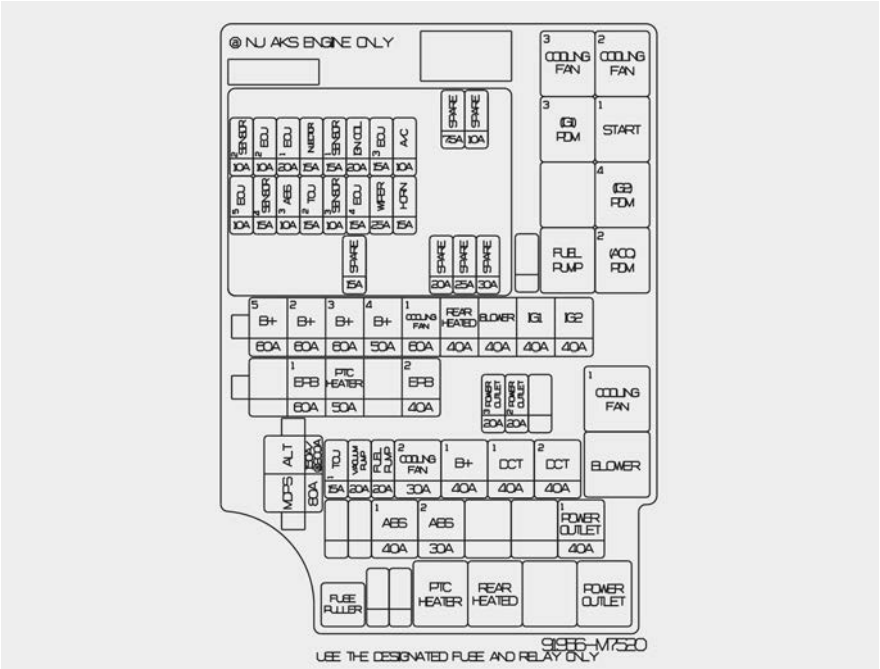
| Fuse Name | Fuse rating | Circuit Protected |
|---|---|---|
| MODULE 2 | 10A | Audio, Audio/Video & Navigation Head Unit, IBU (Integrated Body Control Unit), Rear USB Charger, Wireless Charger, Power Outside Mirror Switch, Engine Room Junction Block (Power Outlet), AMP |
| AIR BAG 1 | 15A | SRS (Supplemental Restraint System) Control Module |
| AIRCONDITIONER 2 | 10A | Engine Room Junction Block (BLOWER Relay), Air Conditioner Control Module, Blower Resistor, Blower Motor |

## Engine compartment fuse panel



OBD071025

## Engine compartment fuse panel




OBDM071026

Refer to the following table for a description of the fuse.

| Fuse Name | Fuse rating | Circuit Protected |
|---|---|---|
| ALTERNATOR | 150/ 200A | Fuse : BURGLAR ALARM, ABS1, ABS2, POWER OUTLET1, Alternator |
| MDPS | 80A | MDPS (Motor Driven Power Steering) Unit |
| BATTERY 5 | 60A | Fuse : ECU3, A/CON, ECU4, WIPER, HORN, Engine Control Relay |
| BATTERY 2 | 60A | Instrument Panel Junction Block |
| BATTERY 3 | 60A | Instrument Panel Junction Block |
| BATTERY 4 | 50A | Instrument Panel Junction Block (Fuse :TRUNK, POWER WINDOW RH, POWER WINDOWLH, POWER SEAT DRIVER, SEAT HEATER FRONT, AMP, SUNROOF1) |
| COOLING FAN 1 | 60A | COOLING FAN 1 Relay |
| REAR HEATED | 40A | REAR HEATED Relay |
| BLOWER | 40A | BLOWER Relay |
| IG1 | 40A | Ignition Switch, PDM 3 (IG1) Relay, PDM 2 (ACC) Relay |
| IG2 | 40A | Ignition Switch, START Relay, PDM 4 (IG2) Relay |
| VACUUM PUMP | 20A | Vacuum pump |
| EPB 1 | 60A | EPB (Electronic Parking Brake) |
| PTC HEATER | 50A | PTC HEATER Relay |
| EPB 2 | 40A | EPB (Electronic Parking Brake) |
| POWEROUT-LET 3 | 20A | Front Power Outlet |
| POWEROUT-LET 2 | 20A | Front Power Outlet |
| TCU 1 | 15A | TCM (Transmission Control Module) |
| FUEL PUMP | 20A | FUEL PUMP Relay |
| COOLING FAN 2 | 30A | COOLING FAN 3 Relay, COOLING FAN 2 Relay |
| BATTERY 1 | 40A | Instrument Panel Junction Block (LONG TERM LOAD LATCH RELAY, Fuse : MODULE1,SEAT HEATER REAR, DOOR LOCK, IBU1, BRAKE SWITCH, AIR BAG2) |
| DCT 1 | 40A | TCM (Transmission Control Module) |
| DCT 2 | 40A | TCM (Transmission Control Module) |
| ABS 1 | 40A | ABS (Anti-lock brake system) Control Module, ESC (Electronic Stability Control) Control Module |
| ABS 2 | 30A | ABS (Anti-lock brake system) Control Module, ESC (Electronic Stability Control) Control Module |

| Fuse Name | Fuse rating | Circuit Protected |
|---|---|---|
| POWEROUT-LET 1 | 40A | POWER OUTLET Relay |
| SENSOR 2 | 10A | [(Gasoline) 2.0 MPI] Purge Control Solenoid Valve, Variable Intake Solenoid Valve, COOLING FAN 3 Relay, COOLING FAN 2 Relay, Oil Control Valve #1/#2, A/CON Relay, CCV, Air Flow Sensor, OCV #3<br>[(Gasoline) 1.6 T-GDi] Oil Control Valve #1/#2, CCV, Cooling Fan 1 Relay, PCSV, RCV |
| ECU 2 | 10A | [(Gasoline) 1.6 T-GDi] ECM (Engine Control Module<br>[(Gasoline) 2.0 MPI] PCM (Power train Control Module) |
| ECU 1 | 20A | [(Gasoline) 1.6 T-GDi] ECM (Engine Control Module<br>[(Gasoline) 2.0 MPI] PCM (Power train Control Module) |
| INJECTOR | 15A | [(Gasoline) 2.0 MPI] INJECTOR #1~#4 |
| SENSOR 1 | 15A | [(Gasoline) 1.6 T-GDi] Oxygen Sensor (UP/Down)<br>[(Gasoline) 2.0 MPI] Oxygen Sensor (UP/Down) |
| IGNITION COIL | 20A | [(Gasoline) 1.6 T-GDI, (Gasoline) 2.0 MPI] Ignition Coil #1~#4 |
| ECU 3 | 15A | [(Gasoline) 1.6 T-GDi] ECM (Engine Control Module)<br>[(Gasoline engine) 2.0 MPI] PCM (Power train Control Module) |
| AIRCONDI-TIONER | 10A | Air Conditioner Relay |
| ECU 5 | 10A | [(Gasoline) 1.6 T-GDi] ECM (Engine Control Module)<br>[(Gasoline) 2.0 MPI] PCM (Power train Control Module) |
| SENSOR 4 | 15A | [(Gasoline) 1.6 T-GDi] Electric Vacuum Pump |
| ABS 3 | 10A | ABS (Anti-lock brake system)/ESC (Electronic Stability Control) Control Module, EPB (Electronic Parking Brake) |
| TCU 2 | 15A | [(Gasoline) 2.0 MPI] Transaxle Range Switch<br>[(Gasoline) 1.6 T-GDI] Transaxle Range Switch, TCM(Transmission Control Module) |
| SENSOR 3 | 10A | FUEL PUMP Relay |
| ECU 4 | 15A | [(Gasoline) 1.6 T-GDi] ECM (Engine Control Module)<br>[(Gasoline) 2.0 MPI] PCM (Power train Control Module) |
| WIPER | 25A | Wiper Relay |
| HORN | 15A | Horn Relay |

## Relay

| Relay Name | Type |
|---|---|
| COOLING FAN 3 Relay | MICRO |
| COOLING FAN 2 Relay | MICRO |
| PDM 3 (IG1) Relay | MICRO |
| START 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 Relay | MICRO |
| REAR HEATED Relay | MICRO |
| POWER OUTLET Relay | MICRO |

## Engine compartment fuse panel (Battery terminal cover)

OBD071022

**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.

### Battery box fuse panel

OBDM071311

# Light bulbs

## 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 engine 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 the ignition switch is turned to the LOCK position and turn off the lights to avoid sudden movement of the vehicle burns to your skin or fingers, or 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.

- **Lamp part malfunction due to network failure**

The headlamp, taillight, and fog light may light up when the head lamp switch is turned ON, and not light up when the taillight or for light switch is turned ON. This may be caused by network failure or vehicle electrical control system malfunction. If there is a problem, we recommend the system be serviced by an authorized Kia dealer.

- **Lamp part malfunction due to electrical control system stabilization**

A normally functioning lamp may flicker momentarily. This momentary occurrence is due to the stabilization function of the vehicle's electrical control system. If the lamp stops flickering after a few moments, the vehicle does not require service.

However, if the lamp goes out after the momentary flickering, or the flickering continues, we recommend the system be serviced by an authorized Kia dealer.

**✻ 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**

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, we recommend that you have the vehicle checked by an authorized Kia dealer.

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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.

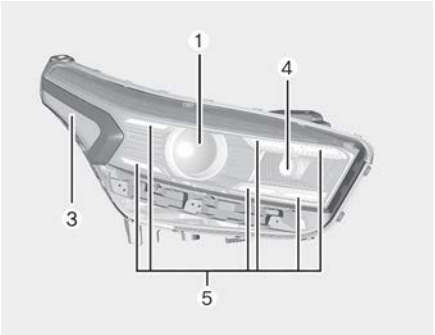
Do not install extra lamps or LEDs to the vehicle. If additional lights are installed, it may lead to lamp malfunctions and flickering. Additionally, the fuse box and other wiring may be damaged.

## Light bulb position (Front)

Head lamp - Type A

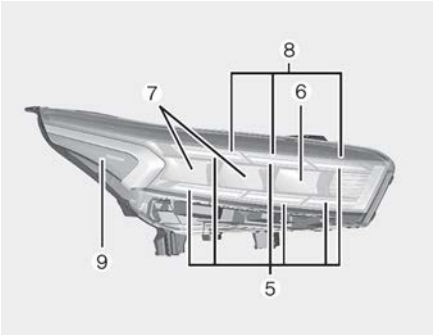
OBDM071303L

Head lamp - Type B



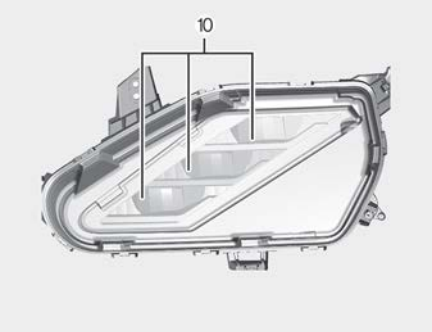

OBDM071028

Head lamp - Type C




OBDM071302

Fog lamp




OBDM071209

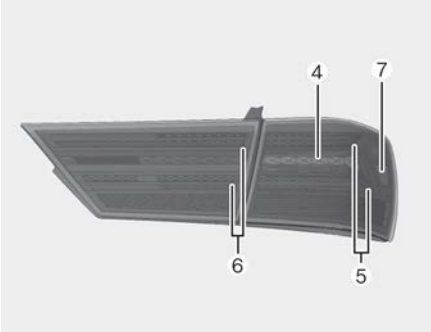
1. Headlamp (High/Low) (Bulb type)
2. Front turn signal lamp/Position lamp (Bulb type)
3. Side marker (Bulb type)
4. Front turn signal lamp (Bulb type)
5. Position lamp / Day time running lamp (LED type)
6. Headlamp (High) (LED type)
7. Headlamp (Low) (LED type)
8. Front turn signal lamp (LED type)
9. Side marker (LED type)
10. Front fog lamp (LED type)

## Light bulb position (Rear)

Rear combination lamp - Type A

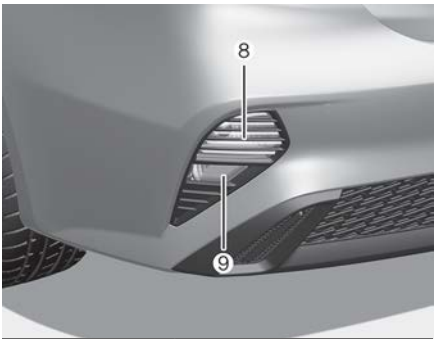
OBDM078033N

Rear combination lamp - Type B




OBDM071300L

Rear turn signal lamp / Back up lamp




OBDM071035L

License plate lamp

OBDM071036L

High mounted stop lamp

1. Stop/Tail lamp (Bulb type)
2. Tail lamp (Bulb type)
3. Side marker (Bulb type)
4. Stop lamp (LED type)
5. Stop and Tail lamp (LED type)
6. Tail lamp (LED type)
7. Side marker (LED type)
8. Rear turn signal lamp (Bulb type)
9. Back Up lamp (Bulb type)
10. License plate lamp (Bulb type)
11. High mounted stop lamp (Bulb or LED type)

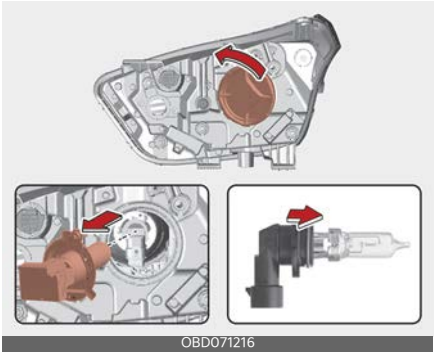
## Light bulb position (Side)

Side repeater lamp

1. Side repeater lamp (Bulb type)

## Headlamp (High/Low) (Bulb type) bulb replacement

Head lamp - Type A, B




1. Open the hood.
2. Remove the headlamp bulb cover by turning it counterclockwise.
3. Disconnect the headlamp bulb socket-connector.
4. Remove the bulb-socket from the headlamp assembly by turning the bulb-socket counterclockwise until the tabs on the bulb-socket align with the slots on the headlamp assembly.
5. Install a new bulb-socket assembly in the headlamp assembly by aligning the tabs on the bulb-socket with the slots in the headlamp assembly. Push the bulb-socket into the headlamp assembly and turn the bulb-socket clockwise.
6. Connect the headlamp bulb socket-connector.
7. Install the headlamp bulb cover by turning it clockwise.

## Headlamp bulb

OJA070102

**WARNING**

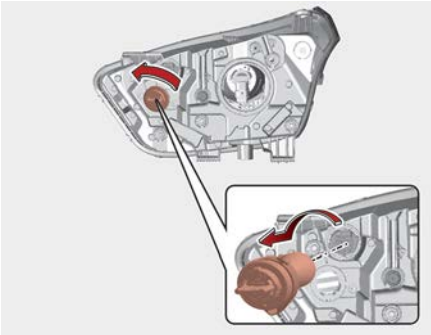
### Halogen bulbs

- 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 headlight.
- 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.

## Front turn signal lamp/Position lamp (Bulb type) bulb replacement

Head lamp - Type A, B

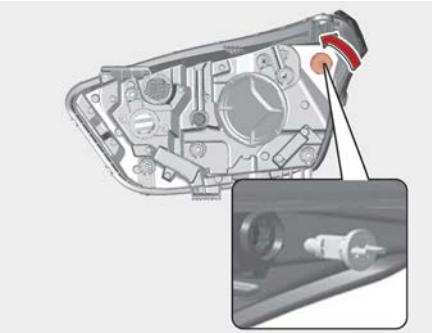


OBD071217

1. Open the hood.
2. Remove the bulb-socket from the headlamp assembly by turning the bulb-socket counterclockwise until the tabs on the bulb-socket align with the slots on the headlamp assembly.
3. Remove the bulb from the bulb-socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the bulb-socket. Pull the bulb out of the bulb-socket.
4. Insert a new bulb by inserting it into the bulb-socket and rotating it until it locks into place.
5. Install the socket in the headlamp assembly by aligning the tabs on the bulb-socket with the slots in the assembly. Push the bulb-socket into the headlamp assembly and turn the socket clockwise.

## Side marker (Bulb type) bulb replacement

Headlamp Type A,B



OBDM071122L

1. Open the hood.
2. Remove the bulb-socket from the headlamp assembly by turning the bulb-socket counterclockwise until the tabs on the bulb-socket align with the slots on the headlamp assembly.
3. Remove the bulb from the bulb-socket by pulling it out.
4. Insert a new bulb by inserting it into the bulb-socket.
5. Install the bulb-socket in the head lamp assembly by aligning the tabs on the bulb-socket with the slots in the headlamp assembly.Push the bulb-socket into the headlamp assembly and turn the bulb-socket clockwise.

## Position lamp/Daytime running lamp (LED type) bulb replacement

Headlamp Type B

OBDM071312

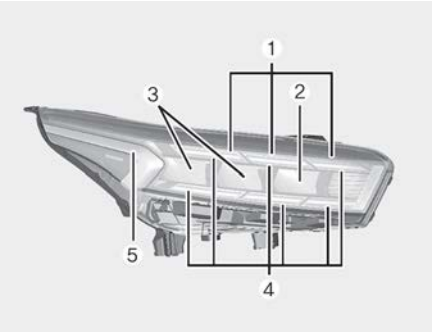
If the position lamp/daytime running lamp (LED) (1) does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the position lamp/daytime running lamp (LED), for it may damage related parts of the vehicle.

## Headlamp (LED type) bulb replacement

Headlamp Type C



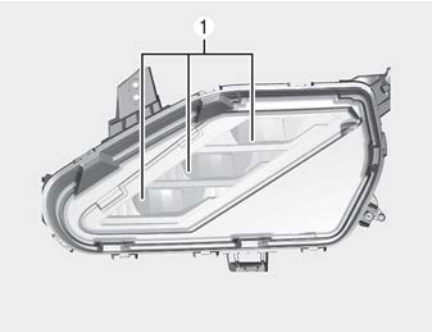

OBDM071210

If the Front turn signal lamp (1), High beam lamp (2), Low beam lamp (3), Day time running lamp/Position lamp(4), side marker (5) does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the head lamp (LED), for it may damage related parts of the vehicle.

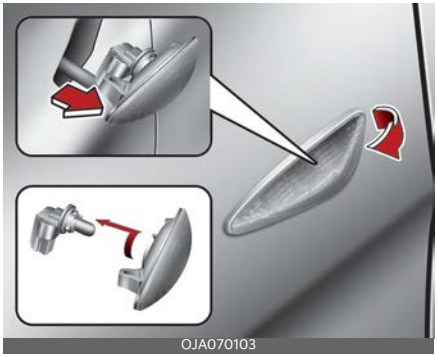
## Front fog lamp (LED type) bulb replacement




OBD071211

If the front fog lamp (LED) (1), does not operate, have the vehicle checked by an authorized Kia dealer. The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.A skilled technician should check or repair the front fog lamp (LED), for it may damage related parts of the vehicle.

## Side repeater lamp (Bulb type) bulb Replacement



OJA070103

1. Remove the lamp assembly from the vehicle by prying the lens and pulling the assembly out.
2. Disconnect the bulb electrical connector.
3. Separate the socket and the lens parts by turning the socket counterclockwise until the tabs on the socket align with the slots on the lens part.
4. Remove the bulb by pulling it straight out.
5. Insert a new bulb in the socket.
6. Reassemble the socket and the lens part.
7. Connect the bulb electrical connector.
8. Reinstall the lamp assembly to the body of the vehicle.

## Stop and tail lamp/side marker (Bulb type) bulb replacement

### Rear combination lamp - Type A

1. Open the trunk lid.
2. Open the service cover.

OBD071045

3. Loosen the nuts and disconnect the connector.

OBD078046

4. Remove the rear combination lamp assembly from the body of the vehicle.

OBD071228

5. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.

OBD071048

6. 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. Pull the bulb out of the socket.
7. Insert a new bulb by inserting it into the socket and rotating it untilit locks into place.
8. 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.

9. Install the rear combination lamp assembly to the body of the vehicle.
10. Install the service cover.

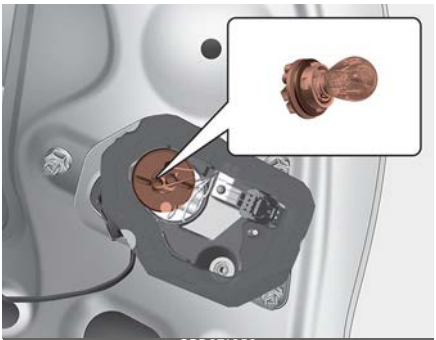
## Tail lamp (Inside) (Bulb type) bulb replacement

### Rear combination lamp - Type A

1. Open the trunk lid.

OBDM071049L

2. Loosen the retaining screw of the trunk lid cover and then remove the cover.
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.

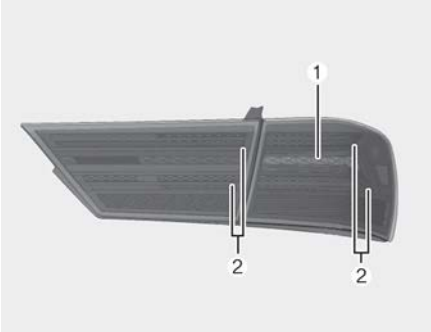


OBD071050

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 untilit 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 trunk lid cover.

## Stop and tail lamp (LED type) bulb replacement

Rear combination lamp - Type B




OBD071219L

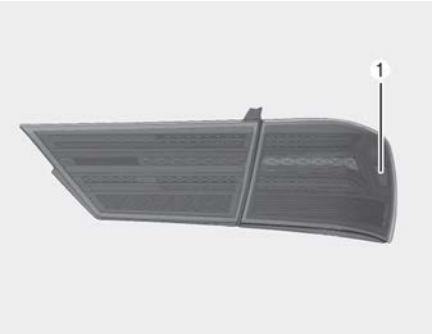
If the stop (1) and tail (2) lamp (LED), does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the stop and tail lamp (LED), for it may damage related parts of the vehicle.

## Side marker (LED type) bulb replacement

Rear combination lamp - Type B




OBDM071305L

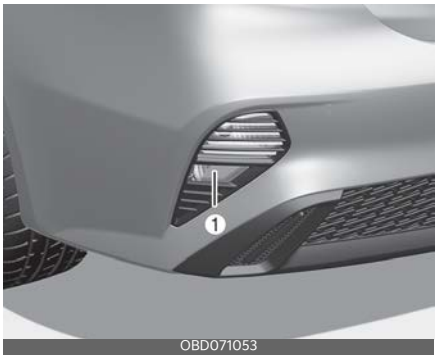
If the side marker (LED) (1) does not operate, have the vehicle checked by an authorized Kia dealer. The LED lamp cannot be replaced as a single component because it is an integrated unit. The LED lamp has to be replaced with the unit. A skilled technician should check or repair the side marker (LED), for it may damage related parts of the vehicle.

## Rear turn signal lamp (Bulb type) bulb replacement

OBD071128

If the rear turn signal lamp (1) does not operate, have the vehicle checked by an authorized Kia dealer.

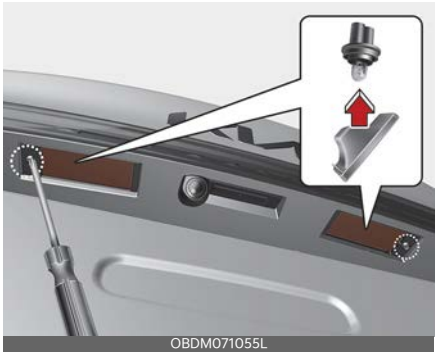
## Back up lamp (Bulb type) bulb replacement




OBD071053

If the back up lamp (1) does not operate, have the vehicle checked by an authorized Kia dealer.

## License plate lamp (Bulb type) bulb replacement



OBDM071055L

1. Using a flat-blade screwdriver, gently pry the lens cover from lamp housing.
2. Remove the socket from the assembly by turning the socket counterclockwise 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. Align the lens cover tabs with the lamp housing notches and snap the lens into place.

## High mounted stop lamp (bulb type) bulb replacement

1. Open the trunk lid.
2. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
3. 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. Pull the bulb out of the socket.
4. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
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.

## High mounted stop lamp (LED type) bulb replacement

If the high mounted stop lamp (1) does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single component because it is an integrated unit. The LED lamps have 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.

## Map lamp (Bulb type) bulb replacement

OBD071056

**WARNING**

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.
4. Align the lens cover tabs with the lamp housing notches and snap the lens into place.

**CAUTION**

Be careful not to dirty or damage the lens, lens tab, and plastic housings. Allow the bulb to cool down before handling it.

## Map lamp (LED type) bulb replacement

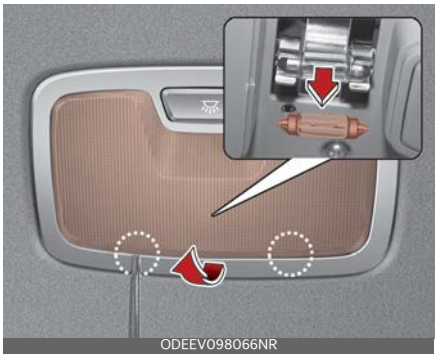
OBD071057

If the map lamp (LED) (1), does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has 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.

## Room lamp (Bulb type) bulb replacement


ODEEV098066NR

**WARNING**

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.
4. Align the lens cover tabs with the lamp housing notches and snap the lens into place.

**CAUTION**

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

## Room lamp (LED type) bulb replacement

ODEEV098067NR

If the room lamp (LED) (1), does not operate, have the vehicle checked by an authorized Kia dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has 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.

## Vanity mirror lamp (Bulb type) bulb replacement

OYB070154L

**WARNING**

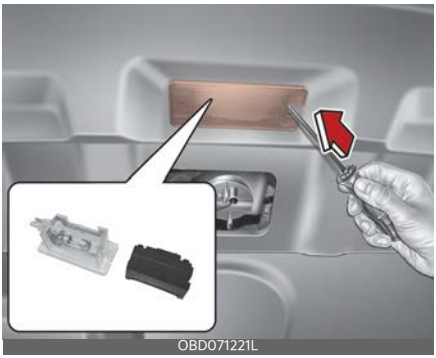
Prior to working on the Interior lamps, ensure that the "OFF" button is depressed to avoid burning your fingers or receiving an electric shock.

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.

**CAUTION**

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

## Trunk room lamp (Bulb type) bulb replacement




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.

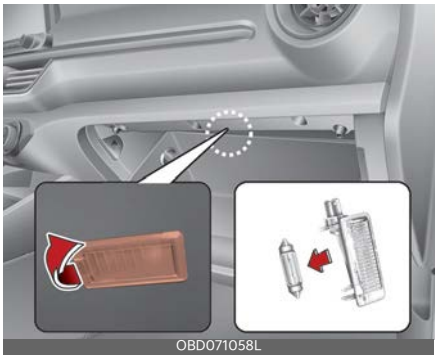
**CAUTION**

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

**NOTICE**

If the LED lamp does not operate, have the vehicle checked by an authorized Kia dealer.

## Glove box lamp (Bulb type) replacement




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.

**CAUTION**

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

# Appearance care

## Exterior care

**✻ 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.

### 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.

**⚠ CAUTION**

- Water washing in the engine compartment including high pressure water washing may cause the failure of electrical 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.

**WARNING**

**Wet brakes**

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.

## 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. Do not apply wax on embossed unpainted unit, as it may tarnish the unit.

**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.

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 brightmetal 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. The National Highway Traffic Safety Administration has warned all vehicle owners of all brands of the need to take the following steps:

- 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 spongey 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 car wash brushes.
- Do not use any alkaline or acid detergent. It may damage and corrode the aluminum wheels coated with a clear protective finish.

## Corrosion protection

### Protecting your vehicle from corrosion

By using advanced design and construction practices to combat corrosion, we produce vehicles of the highest quality. However, this is only part of the job. To achieve the longterm 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 evaporate 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 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 getting started 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 moisture 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

## Interior general precautions

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.

## 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.

## Taking care of leather seats (if equipped)

- 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 using precautions (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.

## 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 (if equipped)

**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.

## California perchlorate notice

Perchlorate Material-special handling may apply, See

https://dtsc.ca.gov/perchlorate

Notice to California Vehicle Dismantlers:

Perchlorate containing materials, such as air bag inflators, seatbelt pretensioners and keyless remote entry batteries, must be disposed of according to Title 22 California Code of Regulations Chapter 67384.10 (a).

# Specifications, Consumer information and Reporting safety

8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# Specifications, Consumer information and Reporting safety defects

## Dimensions

| Item | | in (mm) |
|---|---|---|
| Overall length | | 182.7 (4,640) |
| Overall width | | 70.9 (1,800) |
| Overall height | | 56.5 (1,435) |
| Front tread | 195/65R15 | 61.5 (1,563) |
| | 205/55R16 | 61.2 (1,555) |
| | 225/45R17 | 61.0 (1,549) |
| | 225/40 ZR18 | 60.8 (1,545) |
| Rear tread | 195/65R15 | 61.9 (1,572) |
| | 205/55R16 | 61.6 (1,564) |
| | 225/45R17 | CTBA : 61.3 (1,558)/ Multi-Link : 61.5 (1,563) |
| | 225/40 ZR18 | 61.4 (1,559) |
| Wheelbase | | 106.3 (2,700) |

## Engine

| Item | Gasoline Engine | |
|---|---|---|
| | (Gasoline) 2.0 MPI | (Gasoline) 1.6 T-GDi |
| Displacement [cu.in (cc)] | 121.9 (1,999) | 97.09 (1,591) |
| Bore x Stroke [in. (mm)] | 3.19 x 3.82 (81 x 97) | 3.03 x 3.36 (77 x 85.44) |
| Firing order | 1-3-4-2 | 1-3-4-2 |
| No. of cylinders | 4, In-line | 4, In-line |

## Gross vehicle weight

| Item | | lbs (kg) |
|---|---|---|
| Gasoline 2.0 MPI | 6MT | 3,638 (1,650) |
| | IVT | 3.792 (1,720) |
| Gasoline 1.6 T-GDi | 6MT | 3,880 (1,760) |
| | 7DCT | 3,968 (1,800) |

## Luggage volume

| Item | Volume |
|---|---|
| VDA / SAE [cu ft (L)] | 17.7 (502) / 15.3 (434) |

## Air conditioning system

| Item | Weight of volume | Classification |
|---|---|---|
| Refrigerant [oz. (g)] | 17.6 ± 0.88 (500 ± 25) | R-1234yf |
| Compressor lubricant [oz. (cc)] | 3.87 ± 0.35 (110 ± 10) | PAG 46 |

Contact an authorized Kia dealer for more details.

# Bulb wattage

| Light Bulb | | | | Wattage (W) | Bulb type |
|---|---|---|---|---|---|
| Front | Headlamps | High/Low | Type A, B | 60 | HB3 |
| | | Low | Type C | LED | LED |
| | | High | | LED | LED |
| | Position lamp | | Type A | 8 | P28/8W |
| | | | Type B, C | LED | LED |
| | Turn signal lamp | | Type A, B | 28 | P28/8W |
| | | | Type C | LED | LED |
| | Side marker | | Type A, B | 5W | W5W |
| | | | Type C | LED | LED |
| | Daytime running light* | | | LED | LED |
| | Fog lamp* | | | LED | LED |
| Rear | Stop | | Type B | LED | LED |
| | Stop/Tail* | | Type A | 28 | P28/8W |
| | | | Type B | LED | LED |
| | Tail | | Type A | 5 | W5W |
| | | | Type B | LED | LED |
| | Side marker | | Type A | 8 | P28/8W |
| | | | Type B | LED | LED |
| | Turn signal lamp | | | 27 | PY27W |
| | Back up lamp | | | 16 | W16W |
| | High mounted stop lamp | | | 21 | P21W or LED |
| | License plate lamp | | | 5W X 2EA | W5W |
| Interior | Map lamps | | | 10W X 2EA | W10W |
| | Room lamp | | | 10 | FESTOON |
| | Luggage lamp | | | 5 | FESTOON |
| | Glove box lamp | | | 8 | FESTOON |
| | Vanity mirror lamps | | | 5 | FESTOON |

* If equipped

# Tires and wheels

| Item | Tire size | Wheel size | LoadCa-pacity | | Speedca-pacity | | Inflation pressure [bar(psi, kPa)] | | | | Wheel lugnut torque Kgf·m (lbf·ft, N·m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Normal load | | Maximum load | | |
| | | | LI*1 | Kg | SS*2 | Km/h | Front | Rear | Front | Rear | |
| Full size tire | 195/65R15 | 6.0J×15 | 91 | 615 | H | 210 | 2.3 (33,230) | 2.3 (33,230) | 2.3 (33,230) | 2.3 (33,230) | 11 ~ 13(79 ~ 94,107 ~ 127) |
| | 205/55R16 | 6.5J×16 | 91 | 615 | H | 210 | 2.3 (33,230) | 2.3 (33,230) | 2.3 (33,230) | 2.3 (33,230) | |
| | 225/45R17 | 7.0J×17 | 91 | 615 | W | 270 | 2.3 (33,230) | 2.3 (33,230) | 2.3 (33,230) | 2.3 (33,230) | |
| | 225/40R18 | 7.5Jx18 | 88 | 560 | W | 270 | 2.4 (35,240) | 2.4 (35,240) | 2.4 (35,240) | 2.4 (35,240) | |
| | 225/40ZR18 | 7.5Jx18 | 92 | 630 | Y | 300 | 2.4 (35,240) | 2.4 (35,240) | 2.4 (35,240) | 2.4 (35,240) | |
| Compact spare tire | T125/80D15 | 4.0T×15 | 95 | 690 | M | 130 | 4.2 (60, 420) | | | | |
| | T125/80D16 | 4.0T×16 | 97 | 730 | M | 130 | | | | | |

*1 : Load Index

*2 : Speed Symbol

## NOTICE

- It is permissible to add 3psi to the standard tire pressure specification if colder temperatures are expected soon.
  Tires typically loose 1psi for every 12°F 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 check the tire pressure and add more air when necessary. Additionally required tire air pressure per km above sea level: 1.5psi/km

**⚠ CAUTION**

When replacing tires, use the same size originally supplied with the vehicle.

Using tires of a different size can damage the related parts or make it work irregularly.

## 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*1 (drain and refill)<br>Kia TotalEnergies | (Gasoline) 2.0 MPI | | 4.2 US qt. (4.0 L) | Full synthetic SAE 5W-20, API Latest (ILSAC Latest) |
| | (Gasoline) 1.6 T-GDi | | 4.2 US qt. (4.0 L) | Full synthetic SAE 5W-30 /API Latest (ILSAC Latest) or ACEA A5/B5 |
| Manual transmission fluid | (Gasoline) 2.0 MPI | | 1.79 ~ 1.9 US qt. (1.7 ~ 1.8 L) | API GL-4, SAE 70W- SK : HK SYN MTF 70W- H.K.SHELL:SPIRAX S6 GHME 70W MTF- GS CALTEX: GS MTF HD 70W |
| | (Gasoline) 1.6 T-GDi | | | |
| Dual clutch transmission fluid | (Gasoline) 1.6 T-GDi | | 2.01~2.11 US qt. (1.9~2.0 L) | - HK D DCTF TGO-10 PLUS (SK)<br>- SPIRAX S6 GHDE 70W DCTF PLUS (H.K.SHELL) |
| Intelligent Variable Transmission (IVT) fluid | (Gasoline) 2.0 MPI | | 7.1 US qt. (6.7 L) | Kia Genuine SP-CVT1*2 |
| Coolant | (Gasoline) 2.0 MPI | M/T | 5.9 US qt. 5.6 L) | Mixture of antifreeze and water (Ethylene glycol base coolant for aluminum radiator) |
| | | IVT | 5.9 US qt. (5.6 L) | |
| | (Gasoline) 1.6 T-GDi | M/T | 7.3 US qt. (6.9 L) | |
| | | DCT | | |
| Brake / clutch fluid *3 | | | 0.7 ~ 0.8 US qt. (0.7~0.8 L) | SAE J1704 DOT-4 LV, ISO4925 CLASS-6,FMVSS116 DOT-4 |
| Fuel | | | 14.0 US gal. (53 L) | - |

*1. Refer to "Recommended SAE viscosity number" on page 8-8.

*2. Use only specified genuine intelligent variable transmission fluid. The use of non-specified fluid (even marked as compatible with genuine) could result in shift quality deterioration and vibrations, eventually, transmission failure.

*3. To maintain your vehicle's best brake and ABS/ESC performance, use Kia genuine brake fluid as in the specification.

## Recommended SAE viscosity number

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.

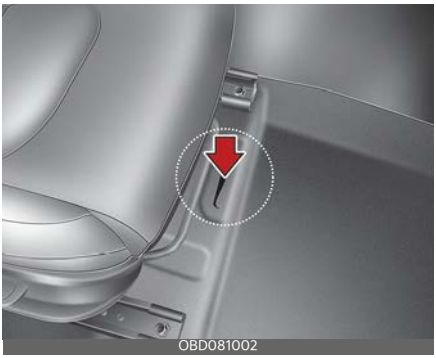
| Temperature Range for SAE Viscosity Numbers | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Temperature | °C | -30 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 |
| | (°F) | -10 | 0 | 20 | 40 | 60 | 80 | 100 | 120 | |
| (Gasoline) 1.6 T-GDi | | 5W-30 | | | | | | | | |
| (Gasoline) 2.0 MPI | | 5W-20 | | | | | | | | |

An engine oil displaying this American Petroleum Institute (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

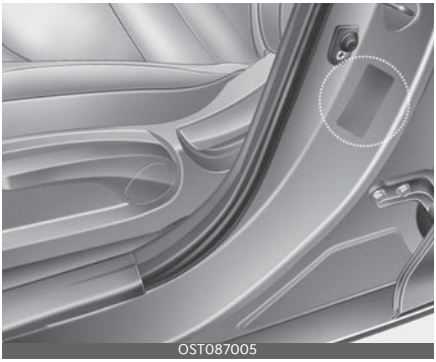



The number is punched on the floor under the passenger seat. To check the number, open the cover.

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.

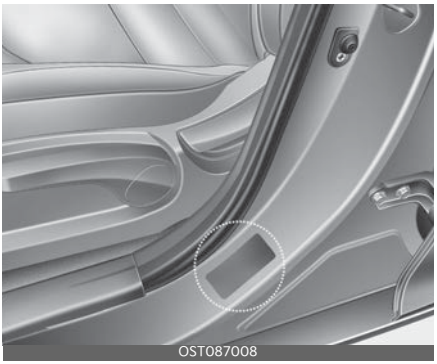
VIN label (if equipped)

## Vehicle certification label




The vehicle certification label attached on the driver's (or front passenger's) side center pillar gives the vehicle identification number (VIN).

## Tire specification and pressure label



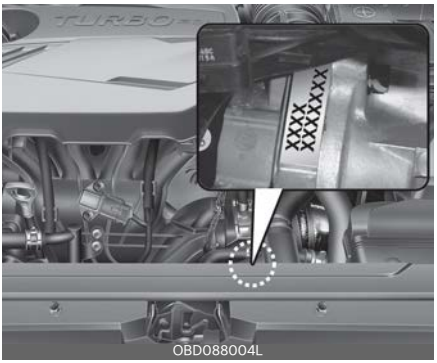

The tires supplied on your new vehicle are chosen to provide the best performance for normal driving.

The tire label located on the driver's side center pillar gives the tire pressures recommended for your vehicle.

## Engine number

(Gasoline) 2.0 MPI

(Gasoline) 1.6 T-GDi




The engine number is stamped on the engine block as shown in the drawing.

## Refrigerant label

The refrigerant label is located on the underside of the hood.

* For more details, refer to "Air conditioning refrigerant label" on page 4-100.

## Consumer Assistance (U.S. only)

Roadside Assistance is provided on all new current model year Kia Vehicles from the date the vehicle is delivered to the first retail buyer or otherwise put into use (inservice date), whichever is earlier, for a period of 60 months or 60,000 miles, whichever is earlier, subject to the terms, conditions and exclusions set forth in the Kia Warranty and Consumer Information Manual applicable to your model year vehicle.

Kia America, Inc. reserves the right to limit or deny services or other benefits to any owner or driver when, in Kia America, Inc.'s judgment, the claims and/or service requests are excessive in frequency or type of occurrence.

### Toll free consumer assistance

from 5:00 AM to 6:00 PM PST, Monday through Friday and is accessible by dialing 1-800-333-4Kia (4542).

For more information regarding assistance available, please refer to your Kia Warranty & Consumer Information Manual.

### Emergency roadside assistance

24 hours a day, 365 days a year and is accessible by dialing 1-800-333-4Kia (4542).

Please note that you must provide your Vehicle Identification Number (VIN) to verify coverage at the time of your call. The VIN can be found on the dash of your vehicle on the driver's side, on the door jamb of the driver's door, your vehicle's registration or proof of insurance card.

Kia utilizes a network of over 30,000 roadside assistance providers. Should you accidentally run out of fuel, require a battery jump, or need help changing a tire, a Kia Roadside Assistance Representative will dispatch someone to deliver a small quantity of gas, change a flat tire with your inflated spare, or arrange a battery jump to allow you to proceed to your destination. We have access to a network of over 10,000 locksmiths to help you should you become locked out of your Kia.

In the event that mechanical difficulty renders your vehicle undriveable due to a warranty-related concern, Kia's Roadside Assistance Representative will arrange to transport your vehicle to the nearest Kia dealer or to an authorized Kia alternative service location.

Your vehicle must be accessible to our dispatch transport vehicle, as determined by our driver, to receive this service.

**✻ NOTICE**

Roadside Assistance benefits are not available for any Kia vehicle that has ever been or should be issued a "salvage" title or similar "branded" title under any state's law or has been declared a "total loss" or equivalent by a financial institution or insurance company.

## Trip interruption

Trip interruption expense benefits are provided in the event that a warranty-related disablement occurs more than 150 miles from your home, and the repairs require more than 24 hours to complete. Reasonable reimbursement is included for meals, lodging, or rental vehicle expenses. Trip interruption coverage is limited to $100 per day subject to a three day maximum limit per incident. You must contact the Kia Roadside Assistance Center to obtain pre-authorization of expenses. Once the Kia Roadside Assistance Center gives authorization for trip interruption benefits, they will assist you in making the necessary arrangements. Insurance deductibles, expenses, and claims paid by your insurance company or other providers are not eligible for reimbursement.

Fleet vehicles are excluded from reimbursement under Kia's Trip Interruption Policy.

## Registering your vehicle in a foreign country

If you plan to register your vehicle in a foreign country, you should confirm that it conforms to the regulations in that country. Even if you successfully register the vehicle in a foreign country, you may experience the following problems and should therefore consider the possibility of having to deal with them:

1. The fuel specified for your vehicle may be unavailable. If other than the specified fuel is used, it could cause damage to the engine, the fuel injection system, and other fuel-related parts which may not be covered under your New Vehicle Emissions Limited Warranty.
2. We must, therefore, clearly state that when you leave the country in which you purchased your Kia new and register it in another country, problems arising from the use of fuel other than the specified fuel are not subject to manufacturer's warranty. Because vehicles like yours may not be mar-

keted in the new country of registration, parts, servicing techniques and tools necessary to maintain and repair your vehicle may be unavailable.

Even if vehicles like yours are sold there, mechanical specifications required by the government may vary enough from the country of purchase to cause additional problems.

3. There may not be an Authorized Kia Dealer in the area in which you plan to register your vehicle. You may additionally experience difficulty in obtaining services in a foreign country for any number of reasons.

Further, we cannot assume any responsibility for problems that result from unsatisfactory service or lack of service outside of the United States.

## Electrical Equipment (U.S. only)

The electrical system of your vehicle is designed to perform under all reasonably expected operating conditions.

However, before any additional electrical equipment is installed in your vehicle, consult an Authorized Kia Dealer, in order to ensure that you do not void your warranty.

Certain electrical equipment, or the way in which it is installed, may adversely affect the operation of your vehicle, including such systems as the engine control system, the audio system and the electrical charging system and thus potentially void all or part of your warranty.

We assume no responsibility for any expense you may incur or for any malfunction of your vehicle or any of its components or systems that may result from the installation of additional electrical equipment that is not supplied, or recommended for installation by Kia.

### Installation of a mobile two-way radio system

If a mobile two-way radio system is installed improperly, or if an excessively powerful type of system is used, other electronic systems may be adversely affected. To avoid damage to your vehicle, consult an Authorized Kia Dealer concerning the proper equipment and installation.

Kia vehicles are designed and manufactured to meet or exceed all applicable safety standards.

For your safety, however, we strongly urge you to read and follow all directions in this Owner's Manual, particularly the

information under the headings "NOTICE", "CAUTION" and "WARNING".

If, after reading this manual, you have any questions regarding the operation of your vehicle, safety issues and defects please contact your Kia's toll-free Consumer Assistance hot line as below:

National Consumer Affairs Manager

Kia America, Inc.

P.O. Box 52410

Irvine, CA 92619-2410

1-800-333-4Kia (4542)

## Reporting Safety Defects (U.S. only)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Kia America, Inc..

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Kia America, Inc..

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to http://www.safercar.gov; download the SaferCar mobile application; or write to: Administrator, NHTSA, 1200 New Jersey Ave. SE., Washington, DC 20590.

You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

# Online factory authorized manuals (U.S. only)

The following publications are available on www.KiaTechinfo.com.

## Service manual

This manual covers maintenance and recommended procedures for repair to engine and chassis components. It is written for the Journeyman mechanic, but is simple enough for most mechanically inclined owners to understand.

## Electrical troubleshooting manual

This manual complements the Service Manual by providing indepth troubleshooting information for each electrical circuit in your vehicle.

## Owner's manual

This manual describes the overall features and operating procedures for the vehicle.

# Abbreviation A

# Abbreviation

**ABS**
Anti-lock Brake System

**BCA**
Blind-Spot Collision-Avoidance Assist

**BCW**
Blind-Spot Collision Warning

**BVM**
Blind-Spot View Monitor

**CC**
Cruise Control

**CRS**
Child Restraint System

**DAW**
Driver Attention Warning

**DRL**
Daytime Running Light

**EBD**
Electronic Brake force Distribution

**ECM**
Electric Chromic Mirror

**ESC**
Electronic Stability Control

**ESS**
Emergency Stop Signal

**FCA**
Forward Collision-Avoidance Assist

**HAC**
Hill-start Assist Control

**HBA**
High Beam Assist

**HMSL**
High Mounted Stop Lamp

**HUD**
Head-Up Display

**LATCH**
Lower Anchors and Tether for Children

**LFA**
Lane Following Assist

**LKA**
Lane Keeping Assist

**MDPS**
Motor Driven Power Steering

**MIL**
Malfunction Indicator Lamp

**MSLA**
Manual Speed Limit Assist

**ODS**
Occupant Detection System

**PCA-R**
Reverse Parking Collision-Avoidance Assist

**PDW**
Reverse Parking Distance Warning

**RCCA**
Rear Cross-Traffic Collision-Avoidance Assist

**RCCW**
Rear Cross-Traffic Collision Warning

**RVM**

Rear View Monitor

**SCC**

Smart Cruise Control

**SRS**

Supplemental Restraint System

**SRSCM**

SRS Control Module

**SVM**

Surround View Monitor

**TBT**

Turn By Turn

**TCS**

Traction Control System

**TIN**

Tire Identification Number

**TPMS**

Tire Pressure Monitoring System

**VIN**

Vehicle Identification Number

**VSM**

Vehicle Stability Management

# Index I

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