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⚠ 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, we recommend that the system be checked 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 vehicle out.

- **Avoid idling the engine for prolonged periods with people inside the vehicle.**

  If it is necessary to idle the engine for a prolonged period with people inside the vehicle, 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 tailgate 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. Further details are provided in chapter 8, “Maintenance”.

⚠ WARNING

Driving while distracted can result in a loss of vehicle control, that may lead to an accident, severe personal injury, and death. The driver’s primary responsibility is in the safe and legal operation of a vehicle, and use of any handheld devices, other equipment, or vehicle systems which take the driver’s eyes, attention and focus away from the safe operation of a vehicle or which are not permissible by law should never be used during 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 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" in chapter 3 for more information on their proper use.

⚠ WARNING

Always check the surrounding areas near your vehicle for people, especially children, before putting a vehicle 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 judgement. 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

Illuminated ignition switch (If equipped)


OQLE055065

Whenever a front door is opened, the ignition switch will be illuminated for your convenience, provided the ignition switch is not in the ON position. The light will go off immediately when the ignition switch is turned on or go off after about 30 seconds when the door is closed.

Ignition switch position

LOCK


OQLE055066

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

ACC (Accessory)

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

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

Turn the ignition key 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 lamp can be checked in this position.

⚠ WARNING - Ignition key

- **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 P (Park) for the dual clutch transaxle, set the parking brake fully and shut the engine off. Unexpected and sudden vehicle movement may occur if these precautions are not taken.**

(Continued)

(Continued)

- **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 hybrid system

⚠ WARNING

- **Always wear appropriate shoes when operating your vehicle. Unsuitable shoes, such as high heels, ski boots, sandals, flip-flops, etc., may interfere with your ability to use the brake and accelerator pedals.**
- **Do not start the vehicle with the accelerator pedal depressed.**

  The vehicle can move and lead to an accident.

✻ NOTICE

The hybrid system will start by turning the ignition switch to START.

1. Make sure the parking brake is applied.
2. Make sure the shift lever is in P (Park).
3. Depress the brake pedal.
4. Turn the ignition switch to START. If the hybrid system starts, the " " indicator will come on.

✻ NOTICE

- **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.)
- **Always start the vehicle with your foot on the brake pedal. Do not depress the accelerator while starting the vehicle. Do not race the engine while warming it up.**
- **If ambient temperature is low, the " " indicator may remain illuminated longer than the normal amount of time.**

✻ NOTICE

To prevent damage to the vehicle:

- **If the " " indicator turns off 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 START. In an attempt to restart the hybrid system.
- **Do not push or tow your vehicle to start the hybrid system.**

ENGINE START/STOP BUTTON

Illuminated engine start/stop button



Whenever the front door is opened, the engine start/stop button will illuminate for your convenience. The light will go off after about 30 seconds when the door is closed. It will also go off immediately when the engine start/stop button is ON position.

Engine start/stop button position

OFF



Not illuminated

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, we recommend that the system be 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.

⚠ CAUTION

You are able to turn off the engine (START/RUN) or vehicle power (ON), only when the vehicle is not in motion. 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, you can restart the engine without depressing the brake pedal by pressing the engine start/stop button with the shift lever in the N (Neutral) position.

ACC (Accessory)



Amber

Press the engine start/stop button while it is in the OFF position without depressing the brake pedal.

The steering wheel unlocks (if equipped with anti-theft steering column lock) 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



Redish orange

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



Not illuminated

To start the engine, depress the brake pedal and press the engine start/stop button with the shift lever in the P (Park) or the N (Neutral) position. For your safety, start the engine with the shift lever in the P (Park) position.

✻ NOTICE

If you press the engine start/stop button without depressing the brake pedal for dual clutch transaxle 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.**

(Continued)

(Continued)

- **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 hybrid system

⚠ WARNING

- **Always wear appropriate shoes when operating your vehicle. Unsuitable shoes, such as high heels, ski boots, sandals, flip-flops, etc., may interfere with your ability to use the brake and accelerator pedals.**
- **Do not start the vehicle with the accelerator pedal depressed.**

  The vehicle can move and lead to an accident.

✻ NOTICE

- **The hybrid system will start by pressing the Engine Start/Stop button, only when the smart key is in the vehicle.**
- **Even when the smart key is in the vehicle, and when it is far away from the driver, the hybrid system may not start.**
- **When the Engine Start/Stop button is in the ACC or ON position, any door is open, the system checks for the smart key. When the smart key is not in the vehicle, the "🚗" indicator will blink and the warning "Key not in vehicle" will come on. When all doors are closed, the chime will also sound for about 5 seconds. Keep the smart key in the vehicle when in the ACC position or if the hybrid system is ON.**

1. Always carry the smart key with you.
2. Make sure the parking brake is applied.
3. Make sure the shift lever is in P (Park).
4. Depress the brake pedal.
5. Press the Engine Start/Stop button. If the hybrid system starts, the " " indicator will come on.

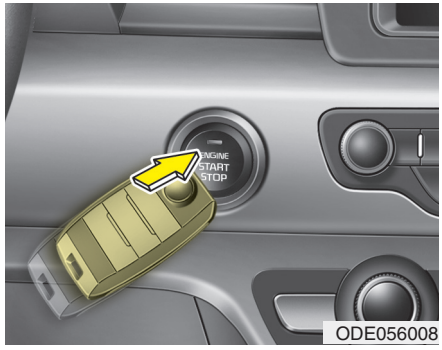
✻ NOTICE

- **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.)
- **Always start the vehicle with your foot on the brake pedal. Do not depress the accelerator while starting the vehicle. Do not race the engine while warming it up.**
- **If ambient temperature is low, the " " indicator may remain illuminated longer than the normal amount of time.**

✻ NOTICE

To prevent damage to the vehicle:

- **If the " " indicator turns off 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 press the Engine Start/Stop button in an attempt to restart the hybrid system.
- **Do not push or tow your vehicle to start the hybrid system.**



ODE056008

✻ 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 be contacted 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.

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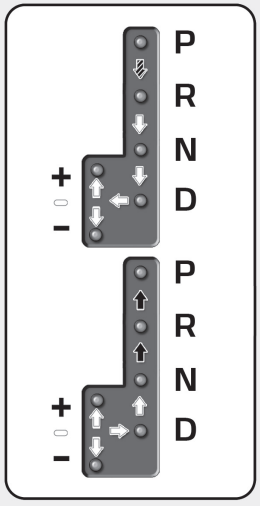
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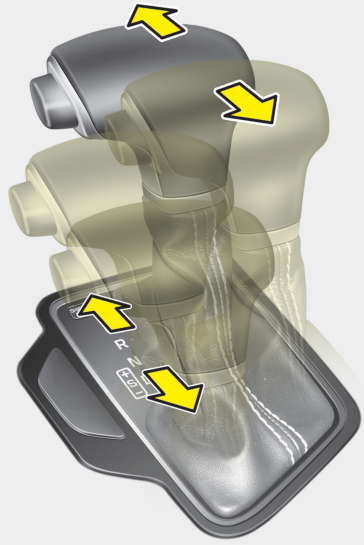
- **When the stop lamp fuse is blown, you cannot start the engine normally.**
  Replace the fuse with a new one. If it is not possible, you can start the engine by pressing the engine start/stop button for 10 seconds while it is in the ACC position. The engine can start without depressing the brake pedal. But for your safety always depress the brake pedal 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.

DUAL CLUTCH TRANSMISSION (DCT)





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.

ODE056010

Dual clutch transmission operation

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

The individual speeds are selected automatically in the D (Drive) position.

⚠ 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 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.**

- The Dual Clutch Transmission gives the driving feel of a manual transmission, yet provides the ease of a fully automatic transmission. Unlike a traditional automatic transmission, the gear shifting can be felt (and heard) on the dual clutch transmission
  - Think of it as an automatically shifting manual transmission.
  - Shift into Drive range and get fully automatic shifting, similar to a conventional automatic transmission.
- Dual clutch transmission adopts dry-type dual clutch, which is different from torque converter of automatic transmission, and shows better acceleration performance during driving. But, initial launch might be little bit slower than Automatic Transmission.
- The dry-type clutch transfers torque and provides a direct driving feeling which may feel different from a conventional automatic transmission with a torque converter. This may be more noticeable when starting from a stop or low vehicle speed.
- When rapidly accelerating at low vehicle speed, engine could rev at high rpm depending on vehicle drive condition.
- For smooth launch uphill, press down the accelerator pedal smoothly depending on the current conditions.
- If you release your foot from the accelerator pedal at low vehicle speed, you may feel strong engine brake, which is similar to manual transmission.
- When driving downhill, you may use Sports Mode to 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 is a normal sound for the Dual Clutch Transmission.

⚠ CAUTION

- *To hold the vehicle on a hill use the foot brake or the parking brake. If the vehicle is held by applying the accelerator pedal on a hill the clutch and transmission will be overheated resulting in damage.*

  At this time, a warning message ("Steep grade! Press brake pedal") will appear on the LCD display and you may feel a vibration.
- *If the clutch becomes overheated by excessive use of the clutch to hold on a hill, you may notice a shudder feeling and a blinking display on the instrument cluster. When this occurs, the clutch is disabled until the clutch cools to normal temperatures. If this occurs, pull over to a safe location, shift into P (Park) and apply the foot brake for a certain time on the LCD warning until it disappears.*

(Continued)

(Continued)

- *If the LCD warning is active, the foot brake must be applied.*
- *Ignoring the warnings can lead to damage to the transmission.*
- *If the display continues to blink, for your safety, we recommend that you contact an authorized Kia dealer.*
- *Under certain conditions such as repeated launch on steep grades, the clutch in the transmission could overheat.*

  When the clutch is overheated, the safe protection mode engages. If the safe protection mode engages, the gear position indicator on the cluster blinks with a chime sound.

(Continued)

(Continued)

At this time, a warning message ("Transmission temp. is high! Stop safely", "Trans Cooling. Remain parked for 00 min.", "Trans Cooled. Resume driving") will appear on the LCD display and driving may not be smooth.

If you ignore this warning, the driving condition may become worse. To return the normal driving condition, stop the vehicle and apply the foot brake for a few minutes before driving off.

- *Gear shifts may be more noticeable than a conventional automatic transmission. This is a normal characteristic of this type of dual clutch transmission.*

(Continued)

(Continued)

- *The overheated Dual clutch transmission may change the gear shifting characteristics, and illuminate the warning message on the LCD display under the conditions that operation of the kickdown mechanism is repetitively used.*
- *Do not use the kickdown mechanism to return to the normal driving condition. Also, temporarily stop the vehicle at a safe location, when the warning message illuminates on the LCD display.*
- *During the first 1,500 km (1,000 miles), 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.*

(Continued)

(Continued)

- *Always come to a complete stop before shifting into D (Drive) or R (Reverse).*
- *Do not put the shift lever in N (Neutral) while driving.*

The indicator in the instrument cluster displays the shift lever position when the ignition switch is in the ON position.

P (Park)

Always come to a complete stop before shifting into P (Park).

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.

Use N (Neutral) if you need to restart a stalled engine, or if it is necessary to stop with the engine ON. Shift into P (Park) if you need to leave your vehicle for any reason.

Always depress the brake pedal when you are shifting from N (Neutral) to another gear.

⚠ 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 lead to an accident.

- Parking in N (Neutral) gear

Follow below steps when parking and you want the vehicle to move when pushed.

1. After parking your vehicle, step on the brake pedal and move the shift lever to P with the ignition button in ON or while the engine is running.
2. If the parking brake is applied unlock the parking brake.
3. While pressing the brake pedal, turn the ignition button OFF.
   - For smart key equipped vehicles, the ignition switch can be moved to OFF only when the shift lever is in P.
4. Change the gear shift lever to N (Neutral) while pressing the brake pedal and pushing [SHIFT LOCK RELEASE] button or inserting, pressing down a tool (e.g. flathead screw-driver) into the [SHIFT LOCK RELEASE] access hole at the same time. Then, the vehicle will move when external force is applied.

⚠ CAUTION

- ***With the exception of parking in neutral gear, always park the vehicle in P (Park) for safety and engage the parking brake.***
- ***Before parking in N (Neutral) gear, first make sure the parking ground is level and flat. Do not park in N gear on any slopes or gradients.***

  If parked and left in N, the vehicle may move and cause serious damage and injury.

D (Drive)

This is the normal driving position. The transmission will automatically shift through a six-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.



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 six 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 the transmission will 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 rpm range.**

SPORT Mode / ECO Mode

When you drive after changing the gear shift lever to manual mode, the vehicle will automatically shift to SPORT mode. When you drive the vehicle after putting the gear shift lever to 'D', the vehicle will automatically shift to ECO mode. Each automatic change in shift will be displayed on the instrument cluster.

- ECO mode

This driving mode increases fuel efficiency. The actual fuel mileage will depend on your driving habits and road conditions.

- SPORT mode

This driving mode provides sporty driving experience. Be aware that fuel efficiency may decrease in this mode.

Shift lock system

For your safety, the Dual clutch transmission has a shift lock system which prevents shifting the transaxle from P (Park) into R (Reverse) unless the brake pedal is depressed.

To shift the transaxle from P (Park) into R (Reverse):

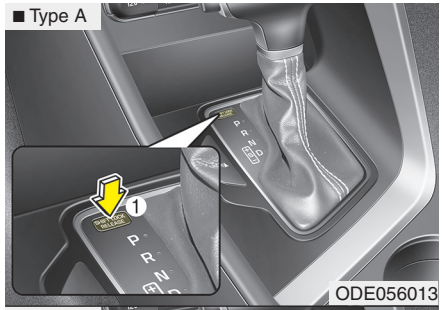
1. Depress and hold the brake pedal.
2. Start the engine or turn the ignition switch to the ON position.
3. Move the shift lever.

If the brake pedal is repeatedly depressed and released with the shift lever in the P (Park) position, a chattering noise & vibration near the shift lever may be heard. This is a normal condition.

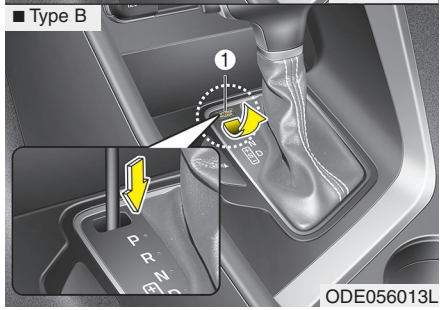
⚠ WARNING

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 car.

■ Type A



■ Type B



Shift-lock override

If the shift lever cannot be moved from the P (Park) position into R (Reverse) position with the brake pedal depressed, continue depressing the brake, then do the following:

1. Place the ignition switch in the LOCK/OFF position.
2. Apply the parking brake.
3. Carefully remove the cap (1) covering the shift-lock release access hole.
4. Insert a tool (e.g. flathead screwdriver) into the access hole and press down on the tool.
5. Move the shift lever.
6. Remove the tool from the shiftlock override access hole then install the cap.
7. We recommend that the system be inspected by an authorized Kia dealer.

Ignition key interlock system (if equipped)

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 transaxle 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

- **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 of backward as it becomes unstuck, causing injury or damage to nearby people or objects.

BRAKE SYSTEM

Power brakes

Your vehicle's brake system is power-assisted by the electric hydraulic pump.

In the event the brakes lose power because of a brake control system malfunction, unstable power supply 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. Please have the system checked as soon as possible.

If the brake pedal does not return to its normal position when released, there may be a malfunction in the brake system. We recommend that you contact an authorized Kia dealer.

⚠ 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.**

(Continued)

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- **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 overheat and could result in a temporary loss of braking performance.**
- **Wet brakes may impair the vehicle's ability to safely slow down; the vehicle may also pull to one side when the brakes are applied. Applying the brakes lightly will indicate whether they have been affected in this way.**

  Always test your brakes in this fashion after driving through deep water. To dry the brakes, apply them lightly while maintaining a safe forward speed until brake performance returns to normal.

(Continued)

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- **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.**

✻ NOTICE

- **Do not depress the brake pedal continuously without the " " indicator ON. The battery may be discharged.**
- **Some noise and vibration may occur during braking. This is normal.**
- **In below cases, some electric brake pump noise and motor vibration may occur temporarily. This is normal operation.**
  - **When the pedal is pushed down very quickly**
  - **When the pedal is pushed down multiple times in short intervals**
  - **When the ABS function is activated during braking**

Disc brakes wear indicator

When your brake pads are worn and new pads are required, you will hear a high-pitched warning sound from your front brakes or rear brakes (if equipped). You may hear this sound come and go or it may occur whenever you depress the brake pedal.

Please remember that some driving conditions or climates may cause a brake squeal when you first apply (or lightly apply) the brakes. This is normal and does not indicate a problem with your brakes.

⚠ 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.

Foot parking brake

Applying the parking brake



ODE056015

To engage the parking brake, first apply the foot brake and then depress the parking brake pedal down as far as possible.

⚠ CAUTION

- ***Driving with the parking brake applied will cause excessive brake pad (or lining) and brake rotor wear.***
- ***Do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the vehicle system and make endanger driving safety.***

Releasing the parking brake



To release the parking brake, depress the parking brake pedal a second time while applying the foot brake. The pedal will automatically extend to the fully released position.

⚠ WARNING

- **Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, then apply the parking brake, and place the Engine Start/Stop button in the OFF position.**

  Vehicles with the parking brake not fully engaged are at risk for moving inadvertently and causing injury to yourself or others.
- **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.**



WK-23_TF

Check the brake warning light by pressing engine start/stop button switch ON (do not start the engine). This light will be illuminated when the parking brake is applied with the engine start/stop button switch 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 the 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.

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 vehicle equipped with an anti-lock braking system (or Electronic Stability Control) 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.**

(Continued)

(Continued)

- **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. Press 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.



W-78

⚠ 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.*

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- *The ABS warning light will stay on for approximately 3 seconds after the ignition switch 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. We recommend that you contact an authorized Kia dealer.*

⚠ 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 vehicle over to a safe place and stop the engine.*

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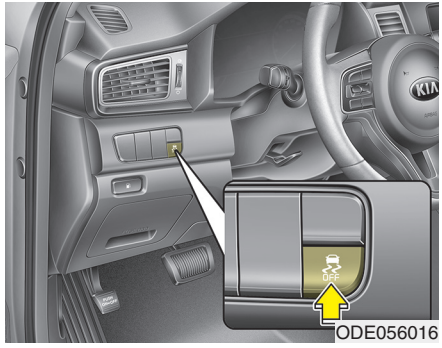
- *Restart the engine. If the ABS warning light is off, then your ABS system is normal. Otherwise, you may have a problem with the ABS. We recommend that you contact an authorized Kia dealer.*

✻ 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) (if equipped)



The Electronic Stability Control (ESC) system is designed to stabilize the vehicle during cornering maneuvers. ESC checks where you are steering and where the vehicle is actually going. ESC applies the brakes at individual wheels and intervenes with engine management system to stabilize the vehicle.

⚠ WARNING

Never drive too fast for the road conditions or too quickly when cornering. Electronic stability control (ESC) will not prevent accidents. Excessive speed in turns, abrupt maneuvers and hydroplaning on wet surfaces can still result in serious accidents. Only a safe and attentive driver can prevent accidents by avoiding maneuvers that cause the vehicle to lose traction. Even with ESC installed, always follow all the normal precautions for driving - including driving at safe speeds for the conditions.

The Electronic stability control (ESC) system is an electronic system designed to help the driver maintain vehicle control under adverse conditions. It is not a substitute for safe driving practices. Factors including speed, road conditions and driver steering input can all affect whether ESC will be effective in preventing a loss of control. It is still your responsibility to drive and corner at reasonable speeds and to leave a sufficient margin of safety.

When you apply your brakes under conditions which may lock the wheels, you may hear a “tik-tik” sound from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ESC is active.

✻ NOTICE

A click sound may be heard in the engine compartment when the vehicle begins to move after the engine is started. These conditions are normal and indicate that the Electronic stability control (ESC) System is functioning properly.

ESC operation

ESC ON condition

-

- When the ignition is turned ON, ESC and ESC OFF indicator lights illuminate for approximately 3 seconds, then ESC is turned on.
- Press the ESC OFF button for at least half a second after turning the ignition 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, 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 slippery road, the engine rpm (revolution per minute) may not increase even if you press the accelerator pedal deeply. This is to maintain the stability and traction of the vehicle and does not indicate a problem.

ESC operation off

ESC OFF state



This car has 2 kinds of ESC off states.

If the engine stops when ESC is off, ESC remains off. Upon restarting the engine, the ESC will automatically turn on again.

"Traction Control disabled"

• ESC off state 1

To cancel ESC operation, press the ESC OFF button (ESC OFF) shortly (ESC OFF indicator light (ESC OFF) illuminates) and an above LCD message will come up. At this state, the engine control function does not operate. It means the traction control function does not operate. Brake control function only operates.

"Traction & Stability Control disabled"

• ESC off state 2

To cancel ESC operation, press the ESC OFF button (ESC OFF) for more than 3 seconds. ESC OFF indicator light (ESC OFF) illuminates and an above LCD message will come up and ESC OFF warning chime will sound. At this state, the engine control function and brake control function do not operate. It means the car stability control function does not operate any more.

Indicator light

■ ESC indicator light



■ ESC OFF indicator light



When ignition switch 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.

ESC OFF indicator light comes on when the ESC is turned off with the button.

⚠ CAUTION

Driving with varying tire or wheel sizes may cause the ESC system to malfunction. When replacing tires, make sure they are the same size as your original tires.

⚠ 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.

⚠ WARNING

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 by pressing the ESC OFF button for more than 3 seconds (ESC OFF light illuminated). If the ESC is left on, it may prevent the vehicle speed from increasing, and result in false diagnosis.**
- **Turning the ESC off does not affect ABS or brake system operation.**

Vehicle stability management (VSM) (if equipped)

This system provides further enhancements to vehicle stability and steering responses when a vehicle is driving on a slippery road or a vehicle detected changes in coefficient of friction between right wheels and left wheels when braking.

VSM operation

When the VSM is operating:

- ESC (Electronic Stability Control) ( ) light will blink.
- The steering wheel may be controlled.

When the vehicle stability management is operating properly, you can feel a slight pulsation in the vehicle. This is only the effect of brake control and indicates nothing unusual.

The VSM does not operate when:

- Driving on bank road such as gradient or incline
- Driving rearward
- ESC OFF indicator light ( ) remains on the instrument cluster
- EPS (Electronic Power Steering) 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 ( ) 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 EPS (Electronic Power Steering) system or VSM system. If the ESC indicator light ( ) or EPS warning light remains on, we recommend that the system be checked by an authorized Kia dealer.

✻ NOTICE

- **The VSM is designed to function above approximately 22 km/h (13 mph) on curves.**
- **The VSM is designed to function above approximately 10 km/h (6 mph) when a vehicle is braking on a split-mu road. The split-mu road is made of surfaces which have different friction forces.**

⚠ 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 the VSM installed. 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. When replacing tires, make sure they are the same size as your original tires.**

Hill-start assist control (HAC) (if equipped)

A vehicle has the tendency to slip back on a steep hill when it starts to go after stopping. The Hill-start Assist Control (HAC) prevents the vehicle from slipping back by operating the brakes automatically for about 1~2 seconds. The brakes are released when the accelerator pedal is depressed or after about 1~2 seconds.

⚠ WARNING

The HAC is activated only for about 1~2 seconds, so when the vehicle is starting off always depress the accelerator pedal.

✻ NOTICE

- **The HAC does not operate when the transaxle 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.**

Emergency Stop Signal (ESS) (if equipped)

The Emergency Stop Signal system alerts the driver behind by blinking the stop light when the vehicle is braked rapidly and severely.

The system is activated when:

- The vehicle suddenly stops (vehicle speed is over 55km/h and the vehicle deceleration at greater than 7 m/s^2)
- The ABS is activating

When the vehicle speed is under 40 km/h and the ABS deactivates or the sudden stop situation is over, the stop light blinking will stop. Instead, the hazard warning flasher will turn on automatically.

The hazard warning flasher will turn off when vehicle speed is over 10km/h after the vehicle has stopped. Also, it will turn off when the vehicle is driven at low speed for some time. You can turn it off manually by pushing the hazard warning flasher switch.

⚠ CAUTION

The Emergency Stop Signal (ESS) system will not work if the hazard warning flasher is already on.

Good braking practices

⚠ WARNING

- **Whenever you leave or park your vehicle, always set the parking brake as far as possible and fully engage the vehicle's transaxle into the P (Park) position. If the parking brake is not fully engaged, the vehicle may move inadvertently and injure yourself and others.**
- **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 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 vehicle is washed. Wet brakes can be dangerous! Your vehicle will not stop as quickly if the brakes are wet. Wet brakes may cause the vehicle to pull to one side.

  To dry the brakes, apply the brakes lightly until the braking action returns to normal, taking care to keep the vehicle under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so and we recommend that you call an authorized Kia dealer.
- Do not coast down hills with the vehicle out of gear. This is extremely hazardous. Keep the vehicle in gear at all times, use the brakes to slow down, then shift to a lower gear so that engine braking will help you maintain a safe speed.
- Do not "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 vehicle pointed straight ahead while you slow down. When you are moving slowly enough for it to be safe to do so, pull off the road and stop in a safe place.
- If your vehicle is equipped with an Dual clutch transmission, do not let your vehicle creep forward. To avoid creeping forward, keep your foot firmly on the brake pedal when the vehicle is stopped.
- Be cautious when parking on a hill. Firmly engage the parking brake and place the shift lever in P (dual clutch 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 P (Dual clutch 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 transaxle to overheat. Always use the brake pedal or parking brake.

ASSIST EMERGENCY BRAKING (AEB) (IF EQUIPPED)

The AEB system is to reduce or to avoid accident risk. It recognizes the distance from the vehicle ahead or the pedestrian through the sensors (i.e. radar and camera), and, if necessary, warns the driver of accident risk with the warning message or the warning alarms.

⚠ WARNING

Take the following precautions when using the Assist Emergency Braking (AEB):

- **This system is only a supplemental system and it is not intended to, nor does it replace the need for extreme care and attention of the driver. The sensing range and objects detectable by the sensors are limited. Pay attention to the road conditions at all times.**
- **NEVER drive too fast in accordance with the road conditions or while cornering.**
- **Always drive cautiously to prevent unexpected and sudden situations from occurring. AEB does not stop the vehicle completely and does not avoid collisions.**

System setting and activation

System setting

The driver can activate the AEB by placing the ignition switch to the ON position and by selecting 'User Settings', 'Driving Assist', and 'Assist Emergency Braking'. The AEB deactivates, when the driver cancels the system setting.



The warning light illuminates on the LCD display, when you cancel the AEB system. The driver can monitor the AEB ON/OFF status on the LCD display. When the warning light remains ON with the AEB activated, we recommend you to have the system checked by an authorized Kia dealer.

The driver can select the initial warning activation time in the User Settings in the instrument cluster LCD display. The options for the initial Forward Collision Warning include the following:

- EARLY - When this condition is selected, the initial Forward Collision Warning is activated earlier than normal. This setting maximizes the amount of distance between the vehicle or pedestrian ahead before the initial warning occurs.
- NORMAL - When this condition is selected, the initial Forward Collision Warning is activated normally. This setting allows for a nominal amount of distance between the vehicle or pedestrian ahead before the initial warning occurs.
- LATE - When this condition is selected, the initial Forward Collision Warning is activated later than normal. This setting reduces the amount of distance between the vehicle or pedestrian ahead before the initial warning occurs.

Prerequisite for activation

The AEB gets ready to be activated, when the AEB is selected on the LCD display, and when the following prerequisites are satisfied.

- The ESC is activated.
- The driving speed is over 10km/h. (However, AEB is activated within certain driving speed.)
- When recognizing the vehicle or the pedestrian in front. (However, AEB does not activate according to conditions in front and vehicle systems, but it notices only certain warnings.)

⚠ WARNING

- **The AEB automatically activates upon placing the ignition switch to the ON position. The driver can deactivate the AEB by canceling the system setting on the LCD display.**
- **The AEB automatically deactivates upon canceling the ESC. When the ESC is canceled, the AEB cannot be activated on the LCD display.**
- **Set or cancel AEB with controlling switches on steering wheel after stopping the vehicle in the safe place for your safety.**

AEB warning message and system control

The AEB produces warning messages and warning alarms in accordance with the collision risk levels of followings like vehicle's sudden braking in front or lack of vehicle to vehicle distance or collision to pedestrians. Also, it controls the brakes in accordance with the collision risk levels.

Forward Warning (1st warning)



ODE056075L

The warning message appears on the LCD display with the warning alarms.

Collision Warning (2nd warning)



ODE056076L

- The warning message appears on the LCD display with the warning alarms.
- The AEB controls the brakes within certain limit to release shock from the collision.

Emergency braking (3rd warning)



ODE056077L

- The warning message appears on the LCD display with the warning alarms.
- The AEB controls the brakes within certain limit to release shock from the collision.

  The AEB controls the maximum brakes just before the collision.

Brake operation

- In an urgent situation, the braking system enters into the ready status for prompt reaction against the driver's depressing the brake pedal.
- The AEB provides additional braking power for optimum braking performance, when the driver depresses the brake pedal.
- The braking control is automatically deactivated, when the driver sharply depresses the brake pedal, or when the driver abruptly operates the steering wheel.
- The braking control is automatically canceled, when risk factors disappear.

⚠ CAUTION

The driver should always pay great caution to vehicle operation, even though there is no warning message or warning alarm.

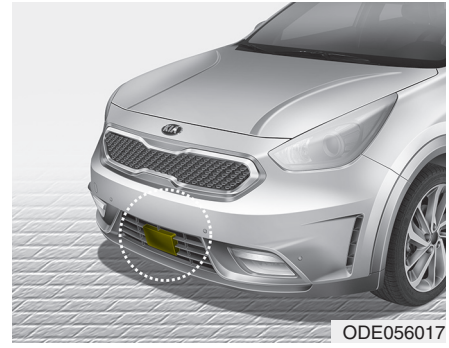
⚠ WARNING

The AEB cannot avoid all collisions. The AEB might not completely stop the vehicle before collision, due to ambient, weather and road conditions. The driver has the responsibility to drive safely and control the vehicle.

⚠ WARNING

The AEB operates in accordance with the risk levels, such as the distance from the vehicle/passer-by in front, the speed of the vehicle/passer-by in front, and the driver's vehicle operation.

Sensor to detect the distance from the vehicle in front (front radar)


ODE056017

The sensor is to maintain a certain distance from the vehicle in front. However, the smudged sensor lens with foreign substances, such as snow and rain, adversely affects the sensing performance. It may even temporarily cancel the AEB. Always keep the sensor lens clean.

Warning message and warning light



ODE056078L

When the sensor cover or the sensor lens is smudged with the foreign substances, such as snow or rain, the AEB operation may temporarily stop. In this case, the warning message appears to warn the driver.

This is not a malfunction with the AEB. To operate the AEB again, remove the foreign substances.

If the AEB system cannot detect any external object after engine ignition, (when the vehicle is located in open, empty surroundings) the AEB system may not operate properly.

✻ NOTICE

- **Do not install any accessories, such as license plate molding or sticker, on the sensor area. Nor arbitrarily replace the bumper. Those may adversely affect the sensing performance.**
- **Always keep the sensor/bumper area clean.**
- **Use only soft clothes to wash the vehicle. Also, do not spray highly-pressurized water on the sensor installed on the bumper.**
- **Be careful not to apply unnecessary force on the frontal sensor area. When the sensor moves out of the correct position due to external force, the system may not normally operate even without the warning light or message. In this case, we recommend you to have the vehicle inspected by an authorized Kia dealer.**
- **Use only the genuine Kia sensor cover. Do not arbitrarily apply paint on the sensor cover.**

System malfunction



ODE056079L

- When the AEB is not working properly, the AEB warning light ( ) will illuminate and the warning message will appear for a few seconds. After the message disappears, the master warning light ( ) will illuminate. In this case, we recommend you to have the vehicle inspected by an authorized Kia dealer.
- The AEB warning message may appear along with the illumination of the ESC warning light.

⚠ WARNING

- **The AEB is only a supplemental system for the driver's convenience. The driver should hold the responsibility to control the vehicle operation. Do not solely depend on the AEB system. Rather, maintain a safe braking distance, and, if necessary, depress the brake pedal to lower the driving speed.**
- **The AEB may unnecessarily produce the warning message and the warning alarms. Also, due to the sensing limitation, the AEB may not produce the warning message and the warning alarm at all.**
- **When there is a malfunction with the AEB, the braking control does not operate upon detecting a collision risk even with other braking systems normally operating.**

(Continued)

(Continued)

- **The AEB operates only for the vehicle / pedestrian in front, while driving forward. It does not operate for any animals or vehicles in the opposite direction.**
- **The AEB does not recognize the vehicle, which horizontally drives across the crossroad, or the vehicle, which is parked in the horizontal direction.**
- **If the vehicle in front stops suddenly, you may have less control of the brake system. Therefore, always keep safe distance between your vehicle and the vehicle in front of you.**
- **The AEB system may activate during braking and the vehicle may stop suddenly. And the load in the vehicle may endanger passengers. Therefore, always be mindful of the load volume in the vehicle.**

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- **The AEB system may not activate if the driver applies the brake pedal to avoid risk of collision.**

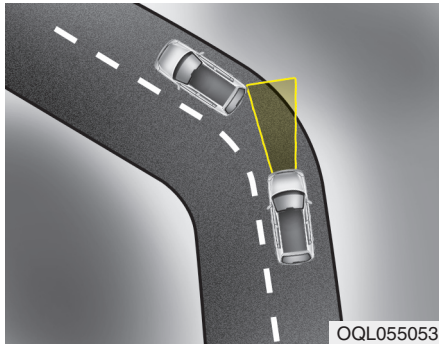
Limitation of the system

The AEB is an assistant system for a driver in a certain risky driving condition and it does not take every responsibility for all risks from driving condition.

The AEB monitors the driving situations through the radar and the camera sensor. Thus, for a situation out of the sensing range, the AEB may not normally operate. The driver should pay great caution in the following situations. The AEB operation may be limited.

Recognizing vehicles

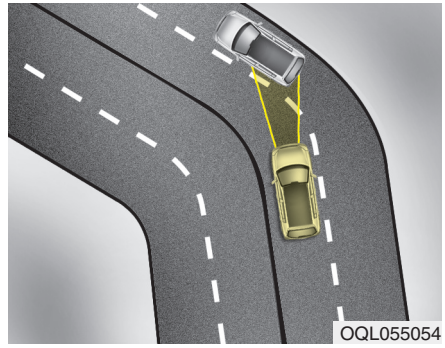
- The radar or the camera is contaminated with foreign substances.
- It heavily rains or snows.
- There is interruption by electric waves.
- There is severe irregular reflection from the radar.
- The vehicle in front has a narrow body. (i.e. motor cycle and bicycle)
- The driver's view is unclear due to the backlight, the reflected light, or darkness.
- The camera cannot contain the full image of the vehicle in front.
- The vehicle in front is a special vehicle, such as a heavily-loaded truck or a trailer. The vehicle in front does not turn ON the rear lights, does not have rear lights, has asymmetric rear lights, or has rear lights out of angle.
- When the vehicle is on unpaved or uneven rough surfaces, or roads with sudden gradient changes.
- When the vehicle is moving under ground level or inside a building.
- The outside brightness is greatly changed, such as entering/exiting the tunnel.
- The vehicle driving is unstable.
- The radar/camera sensor recognition is limited.


OQL055053

- Driving on a curve

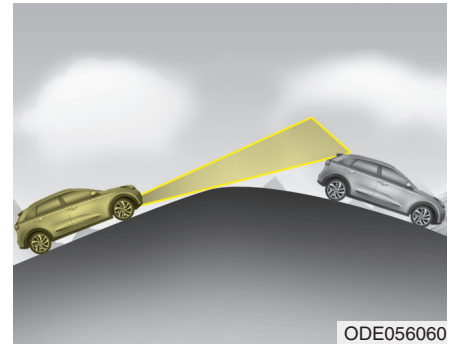
The AEB performance decreases while driving on a curve. The AEB may not recognize the vehicle in front even in the same lane. It may unnecessarily produce the warning message and the warning alarm, or it may not produce the warning message and the warning alarm at all.

While driving on a curve, pay great caution, and, if necessary, depress the brake pedal.


OQL055054

While driving on a curve, the AEB may recognize the vehicle in front in the next lane. Pay great caution, and, if necessary, depress the brake pedal.

Or, depress the accelerator pedal to maintain the driving speed. Always, take a look around the vehicle for your safety.

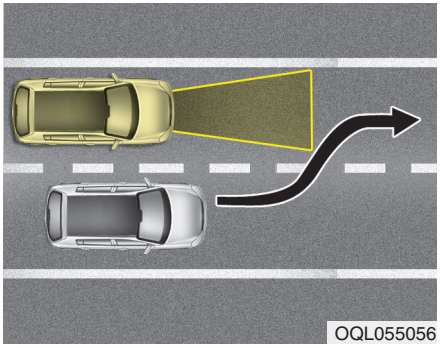

ODE056060

- Driving on a slope

The AEB performance decreases while driving upward or downward on a slope, not recognizing the vehicle in front in the same lane. It may unnecessarily produce the warning message and the warning alarm, or it may not produce the warning message and the warning alarm at all.

When the AEB suddenly recognizes the vehicle in front while passing over a slope, you may experience sharp deceleration.

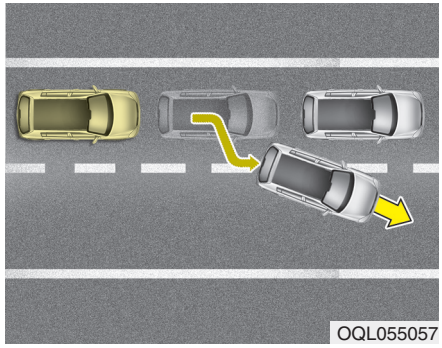
Always keep your eyes forward while driving upward or downward on a slope, and, if necessary, depress the brake pedal.


OQL055056

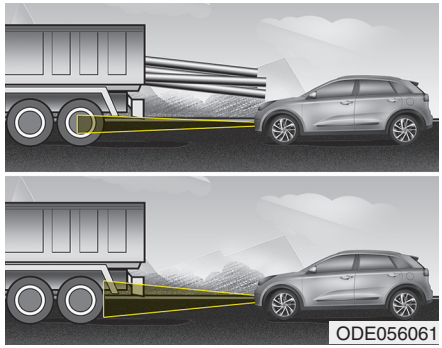
- Changing lanes

Even though the vehicle in the next lane enters into your lane, it may not be recognized by the AEB, until it enters the AEB sensing range.

Especially when the vehicle in the next lane abruptly enters into your lane, it is more likely not be recognized. Always pay great attention.


OQL055057

When the stopped vehicle in front gets out of the lane, it may not be recognized by your AEB. Always pay great attention.


ODE056061

- Recognizing the 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.

Recognizing pedestrians

- The pedestrian is not fully captured by the camera sensor, or the pedestrian does not walk in the upright position.
- The pedestrian moves very fast.
- The pedestrian abruptly appears in front.
- The pedestrian wears clothes in the color similar to the background.
- The outside is too bright or too dark.
- The vehicle drives at night or in the darkness.
- There is an item similar to a person's body structure.
- The pedestrian is small.
- The pedestrian has impaired mobility.
- It is difficult to distinguish the pedestrian from the surroundings.
- The sensor recognition is limited.
- There is a group of pedestrians.

⚠ WARNING

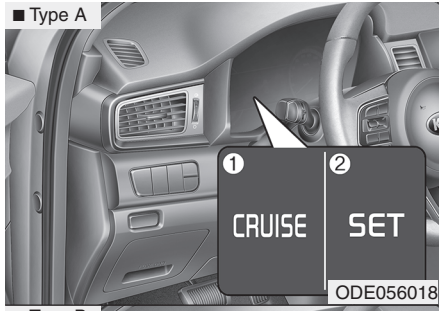
- **Cancel the AEB in the User Settings on the LCD display, before towing another vehicle. While towing, the brake application may adversely affect your vehicle safety.**
- **Pay great caution to the vehicle in front, when it has heavy loading extended rearward, or when it has higher ground clearance.**
- **The sensor only detects pedestrian, not carts, bicycles, motorcycles, luggage bags, or strollers.**
- **The AEB does not operate in a certain situation. Thus, never test-operate the AEB against a person or an object. It may cause a severe injury or even death.**

✻ NOTICE

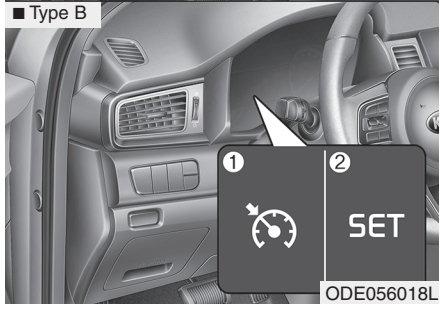
The system may temporarily cancel due to the strong electric waves.

CRUISE CONTROL SYSTEM (IF EQUIPPED)

■ Type A



■ Type B



1. Cruise indicator
2. Cruise set indicator

The cruise control system allows you to program the vehicle to maintain a constant speed without pressing the accelerator pedal.

This system is designed to function above approximately 30 km/h (20 mph).

⚠ WARNING

- **If the cruise control is left on, (cruise indicator light is illuminated), the cruise control can be switched on accidentally. Keep the cruise control system off when the cruise control is not in use, to avoid inadvertently setting a speed.**
- **Use the cruise control system only when traveling on open highways in good weather.**
- **Do not use the cruise control when it may not be safe to keep the vehicle at a constant speed, for instance, driving in heavy or varying traffic, or on slippery (rainy, icy or snow-covered) or winding roads or over 6% up-hill or down-hill roads.**

(Continued)

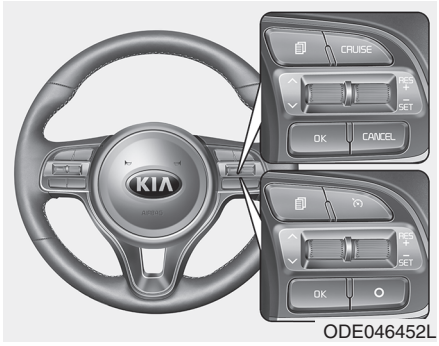
(Continued)

- **Pay particular attention to the driving conditions whenever using the cruise control system.**
- **Be careful when driving downhill using the cruise control system, which may increase the vehicle speed.**

✻ NOTICE

- **During normal cruise control operation, when the SET switch is activated or reactivated after applying the brakes, the cruise control will energize after approximately 3 seconds. This delay is normal.**
- **To activate cruise control, depress the brake pedal at least once after turning the ignition switch to the ON position or starting the engine. This is to check if the brake switch which is important part to cancel cruise control is in normal condition.**

Cruise control switch



ODE046452L

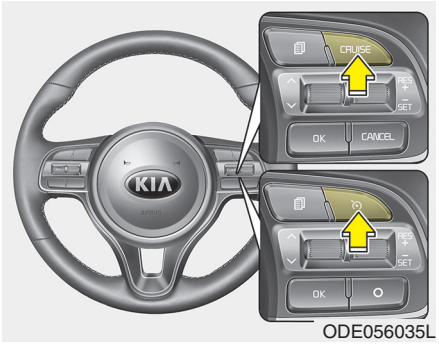
CANCEL/O : Cancels cruise control operation.

CRUISE / : Turns cruise control system on or off.

RES+ : Resumes or increases cruise control speed.

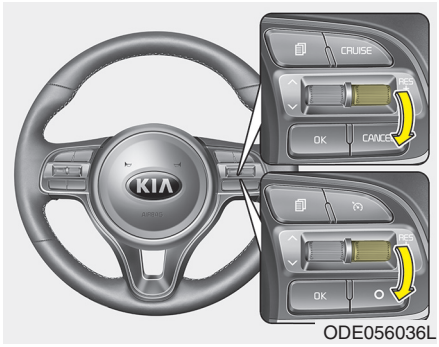
SET- : Sets or decreases cruise control speed.

To set cruise control speed:



ODE056035L

1. Press the CRUISE / button on the steering wheel, to turn the system on. The cruise indicator light will illuminate.
2. Accelerate to the desired speed, which must be more than approximately 30 km/h (20 mph).

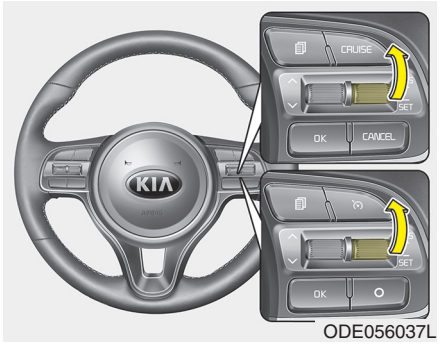


ODE056036L

3. Move the lever down (to SET-), and release it at the desired speed. The cruise set indicator light will illuminate. Release the accelerator pedal at the same time. The desired speed will automatically be maintained.

On a steep grade, the vehicle may slow down or speed up slightly while going downhill.

To increase cruise control set speed:

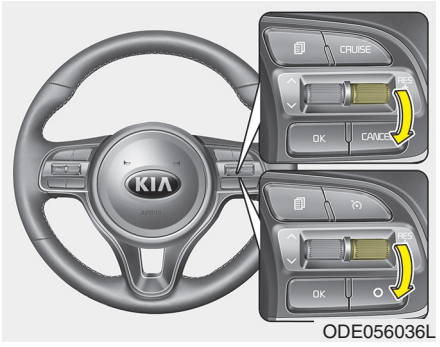


ODE056037L

Follow either of these procedures:

- Move the lever up (to RES+) and hold it. Your vehicle will accelerate. Release the lever at the speed you want.
- Move the lever up (to RES+) and release it immediately. The cruising speed will increase by 2 km/h (1 mph) each time you move the lever up (to RES+) in this manner.

To decrease the cruising speed:



ODE056036L

Follow either of these procedures:

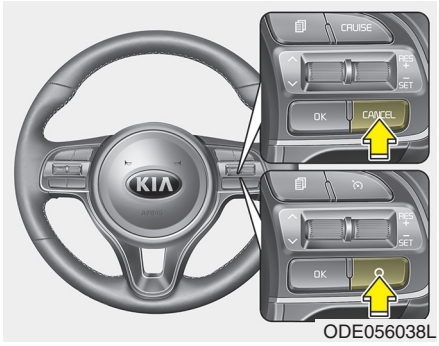
- Move the lever down (to SET-) and hold it. Your vehicle will gradually slow down. Release the lever at the speed you want to maintain.
- Move the lever down (to SET-) and release it immediately. The cruising speed will decrease by 2 km/h (1 mph) each time you move the lever down (to SET-) in this manner.

To temporarily accelerate with the cruise control on:

If you want to speed up temporarily when the cruise control is on, depress the accelerator pedal. Increased speed will not interfere with cruise control operation or change the set speed.

To return to the set speed, take your foot off the accelerator pedal.

To cancel cruise control, do one of the following:

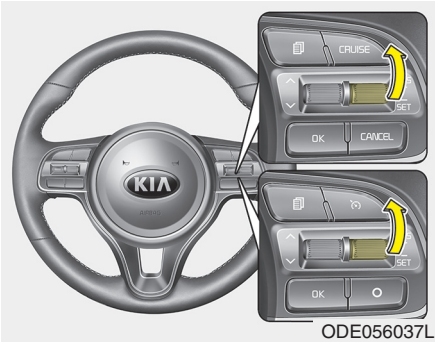


ODE056038L

- Depress the brake pedal.
- Shift into N (Neutral) if equipped with an Dual clutch transmission.
- Press the CANCEL/O button located on the steering wheel.
- Decrease the vehicle speed lower than the memory speed by approximately 20 km/h (12 mph).
- Decrease the vehicle speed to less than approximately 25 km/h (15 mph).

Each of these actions will cancel cruise control operation (the cruise set *indicator light will go off), but it will not turn the system off. If you wish to resume cruise control operation, move up the lever (to RES+) located on your steering wheel. You will return to your previously preset speed.*

To resume cruising speed at more than approximately 30 km/h (20 mph).



ODE056037L

If any method other than the CRUISE / button was used to cancel cruising speed and the system is still activated, the most recent set speed will automatically resume when the RES+ switch is pushed.

It will not resume, however, if the vehicle speed has dropped below approximately 30 km/h (20 mph).

To turn cruise control off, do one of the following:

- Press the CRUISE/ button (the cruise indicator light will be turn off).
- If your vehicle equipped the speed limit system, press the CRUISE/ MODE button twice. (The cruise indicator light will be turn off.)
- Turn the ignition off.

Both of these actions cancel cruise control operation. If you want to resume cruise control operation, repeat the steps provided in "To set cruise control speed" on the previous page.

SMART CRUISE CONTROL SYSTEM (IF EQUIPPED)



ODE056095L

① Cruise indicator
② Set speed
③ Vehicle-to-vehicle distance

The smart cruise control system allows you to program the vehicle to maintain constant speed and distance detecting the vehicle ahead without depressing the accelerator or brake pedal.

⚠ WARNING

For your safety, please read the owner's manual before using the smart cruise control system.

✻ NOTICE

To activate smart cruise control, depress the brake pedal at least once after turning the engine start/stop button switch to the ON position or starting the engine. This is to check if the brake switch which is important part to cancel smart cruise control is in normal condition.

⚠ WARNING

- **If the smart cruise control is left on, (cruise indicator in the instrument cluster illuminated) the smart cruise control can be activated unintentionally. Keep the smart cruise control system off (cruise indicator turn off) when the smart cruise control is not used.**
- **Use the smart cruise control system only when traveling on open highways in good weather.**
- **Do not use the smart cruise control when it may not be safe to keep the car at a constant speed. For instance.**
  - **Highway interchange and tollgate**
  - **Road surrounded by abnormally multiple steel constructions (subway construction, steel tunnel, etc)**

(Continued)

(Continued)

- **Parking lot**
- **Lanes beside guard rail on a road**
- **Slippery road with rain, ice, or snow covered**
- **Abrupt curved road**
- **Steep hills**
- **Windy roads**
- **Off roads**
- **Rods under construction**
- **Rumble strip**
- **The sensing ability decreases if the level of front and rear vehicle is changed from the factory.**

• **Pay particular attention to the driving conditions whenever using the smart cruise control system.**

(Continued)

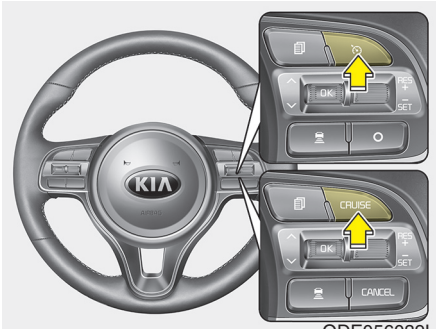
(Continued)

• **The smart cruise control system is not a substitute for safe driving. It is the responsibility of the driver to always check the speed and distance of the vehicle ahead.**

• **Be careful when driving downhill using the SCC.**

Speed setting

To set cruise control speed:



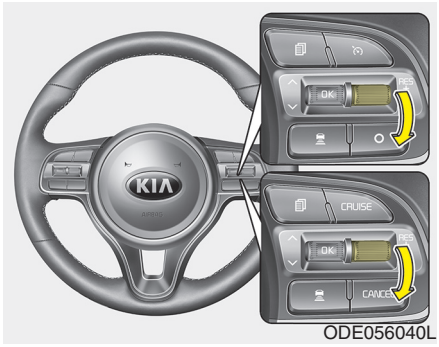
ODE056039L

1. Press the CRUISE button, to turn the system on. The CRUISE indicator in the instrument cluster will illuminate.
2. Accelerate to the desired speed.

   The smart cruise control speed can be set as follows:

   • 30 km/h (20mph) ~ 180 km/h (110 mph): when there is no vehicle in front

   • 10 km/h (6.2mph) ~ 180 km/h (110 mph): when there is a vehicle in front



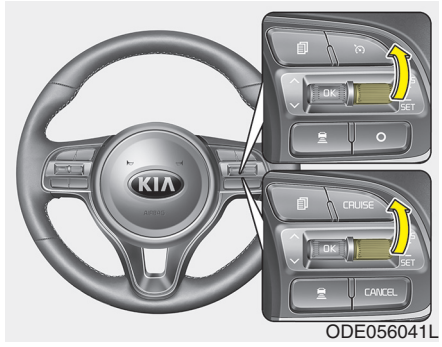
ODE056040L

3. Move the lever down (to SET-), and release it at the desired speed. The set speed and vehicle to vehicle distance on the LCD screen will illuminate.
4. Release the accelerator pedal. The desired speed will automatically be maintained.

If there is a vehicle in front of you, the speed may decrease to maintain the distance to the vehicle ahead.

On a steep grade, the vehicle may slow down or speed up slightly while going uphill or downhill.

To increase cruise control set speed:

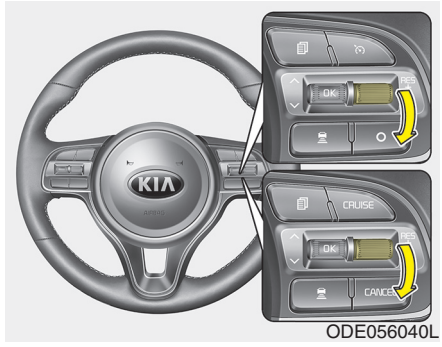


ODE056041L

Follow either of these procedures:

- Move the lever up (to RES+), and hold it. Your vehicle set speed will increase by 10 km/h (5 mph). Release the lever at the speed you want.
- Move the lever up (to RES+), and release it immediately. The cruising speed will increase by 1.0 km/h (1.0 mph) each time you move the lever up (to RES+) in this manner.
- You can set the speed to 180 km/h (110 mph).

To decrease the crusie control set speed:



ODE056040L

Follow either of these procedures:

- Move the lever down (to SET-), and hold it. Your vehicle set speed will decrease by 10 km/h (5 mph). Release the lever at the speed you want.
- Move the lever down (to SET-), and release it immediately. The cruising speed will decrease by 1.0 km/h (1.0 mph) each time you move the lever down (to SET-) in this manner.
- You can set the speed to 30 km/h (20 mph).

To temporarily accelerate with the cruise control on:

If you want to speed up temporarily when the cruise control is on, depress the accelerator pedal. Increased speed will not interfere with cruise control operation or change the set speed.

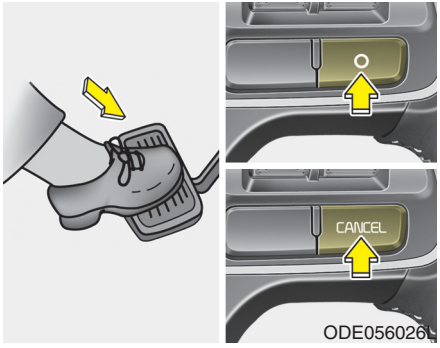
To return to the set speed, take your foot off the accelerator.

If you move the lever down (to SET-) at increased speed, the cruising speed will be set again.

✻ NOTICE

Be careful when accelerating temporarily, because the speed is not controlled automatically at this time even if there is a vehicle in front of you.

smart cruise control will be temporarily canceled when:



Cancelled manually

The smart cruise control is temporarily canceled when the brake pedal is depressed or the CANCEL button is pressed. The speed and vehicle to vehicle distance indicator on the cluster is disappeared and the CRUISE indicator is illuminated continuously.

Cancelled automatically

- The driver's door is opened.
- The shift lever is shifted to N (Neutral), R (Reverse) or P (Paking).
- The EPB (electronic parking brake) is applied.
- The vehicle speed is over 190 km/h (120 mph)
- The ESC, ABS or TCS is operating.
- The ESC is turned off.
- The sensor or the cover is dirty or blocked with foreign matter.
- The accelerator pedal is continuously depressed for long time.
- The engine speed is in dangerous range.

- The SCC system has malfunctioned.

  Each of these actions will cancel the smart cruise control operation. (the set speed and vehicle to vehicle distance on the LCD display will go off.)

  In a condition the smart cruise control is cancelled automatically, the smart cruise control will not resume even though the RES+ or SET- lever is moved.
- When activating the AEB (Assist Emergency Braking)
- When the parking brake is locked
- Speed of the vehicle has been decreased to less than 10km/h
- Engine has some problems

⚠ CAUTION

If the smart cruise control is cancelled by other than the reasons mentioned, we recommend have the system checked by an authorized Kia dealer.

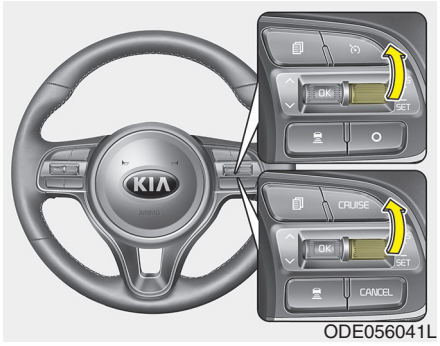
⚠ CAUTION

If the system is automatically cancelled, the warning chime will sound and a message ("Smart Cruise Control canceled") will appear for a few seconds.

You must adjust the vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

Always check the road conditions. Do not rely on the warning chime.

To resume cruise control set speed:



ODE056041L

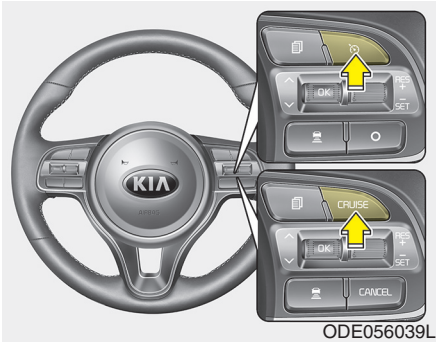
If any method other than the CRUISE button was used to cancel cruising speed and the system is still activated, the cruising speed will automatically resume when you move the lever up (to RES+).

If you move the lever up (to RES+), the speed will resume to the recently set speed. When the speed of the vehicle is greater than or equal to 10 km/h but less than 30 km/h, the smart cruise control system will be reset only when there is a vehicle in front.

✻ NOTICE

To reduce the risk of an accident, always check the road conditions when reactivating the smart cruise control using the RES+ lever to ensure the road conditions permit safe use of the cruise control.

To turn cruise control off:

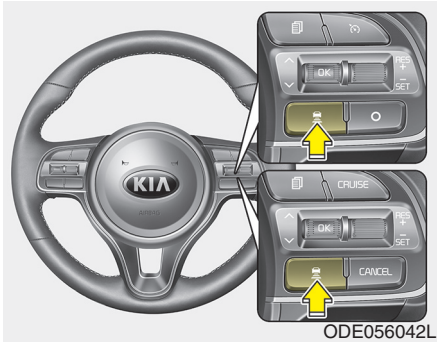


ODE056039L

Press the CRUISE button. (the CRUISE indicator in the instrument cluster will go off).

Vehicle to vehicle distance setting

To set vehicle to vehicle distance:



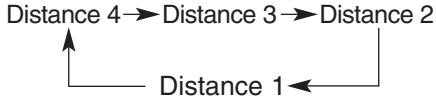
ODE056042L

This function allows you to program the vehicle to maintain relative distance to the vehicle ahead without depressing the accelerator pedal or brake pedal.

The vehicle to vehicle distance will automatically activate when the smart cruise control system is on.

Select the appropriate distance according to road conditions and vehicle speed.

Each time the button is pressed, the vehicle to vehicle distance changes as follows:



For example, if you drive at 90 km/h (56 mph), the distance maintain as follows;

Distance 4 - approximately 52.5 m
Distance 3 - approximately 40 m
Distance 2 - approximately 32.5 m
Distance 1 - approximately 25 m

✻ NOTICE

The level of distance between vehicles will be set to the level designated by the driver. (Last mode save feature)

✻ NOTICE

The 'Distance 4' is always set when the system is used for the first time after starting the engine.
The smart cruise control system remember the last vehicle to vehicle distance which the driver used in the vehicle with AEB.



Distance 4

ODE056080



Distance 3

ODE056081



Distance 2

ODE056082



Distance 1

ODE056083

- The vehicle will maintain the set speed, when the lane ahead is clear.
- The vehicle will slow down or speed up to maintain the selected distance, when there is a vehicle ahead of you in the lane. (A vehicle will appear in front of your vehicle in the LCD display only when there is an actual vehicle in front of you)
- If the vehicle ahead speeds up, your vehicle will travel at a steady cruising speed after accelerating to the selected speed.

⚠ CAUTION

- ***The warning chime sounds and LCD display blinks if it is hard to maintain the selected distance to the vehicle ahead.***
- ***If the warning chime sounds, actively adjust the vehicle speed by depressing the brake pedal according to the road condition ahead and driving condition.***
- ***Even if the warning chime is not activated, always pay attention to the driving conditions to prevent dangerous situations from occurring.***

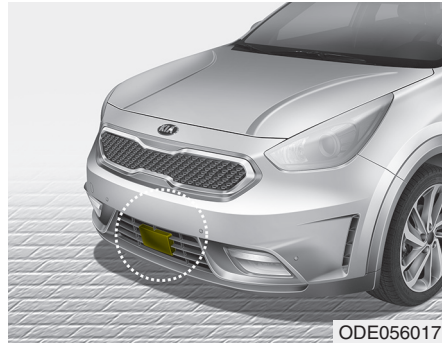


ODE056084L

⚠ CAUTION

If the vehicle ahead (vehicle speed: less than 30km/h) disappears to the next lane, the warning chime will sound and a message will appear. Adjust your vehicle speed for vehicles or objects that can suddenly appear in front of you by depressing the brake pedal according to the road condition ahead and driving condition.

Radar to detect distance to the vehicle ahead



ODE056017

The sensor detects the distance to the vehicle ahead.

If the sensor is covered with dirt or other foreign matter, the vehicle to vehicle distance control may not operate correctly.

Always keep the area in front of the sensor clean.

Radar check message

If the radar or cover is dirty or obscured with foreign matter such as snow, this message **("Smart Cruise Control disabled temporarily")** will appear and it will disappear after for a while. In this case, the system may not function temporarily, but it does not indicate a malfunction of the smart cruise control System. Clean the radar or cover by using a soft cloth and it will operate normally.

If the radar front is polluted after the engine has been turned on, or the radar cannot detect any external object (when the vehicle is located in open, empty surroundings), the smart cruise control system may not operate properly.

SCC (smart cruise control) malfunction message

The message **("Check Smart Cruise Control System")** will appear when the vehicle to vehicle distance control system is not functioning normally.

We recommend have the system checked by an authorized Kia dealer.

⚠ CAUTION

- ***Do not install accessories around the sensor and do not replace the bumper by yourself. It may interfere with the sensor performance.***
- ***Always keep the sensor and bumper clean.***
- ***To prevent sensor cover damage from occurring, wash the car with a soft cloth.***
- ***Do not damage the sensor or sensor area by a strong impact. If the sensor moves slightly off position, the smart cruise control system will not operate correctly without any warning or indicator from the cluster.***

  If this occurs, we recommend that the system be checked by an authorized Kia dealer.
- ***Use only a genuine Kia sensor cover for your vehicle. Do not paint anything on the sensor cover.***

To adjust the sensitivity of smart cruise control

The sensitivity of vehicle speed when following the front vehicle to maintain the set distance can be adjusted. Go to the User Settings Mode and select the Driving Assist and select SCC (smart cruise control) and select the Response. You may select one of the three stages you prefer.

- Slow:

  Vehicle speed following the front vehicle to maintain the set distance is slower than normal speed.
- Normal:

  Vehicle speed following the front vehicle to maintain the set distance is normal
- Fast:

  Vehicle speed following the front vehicle to maintain the set distance is faster than normal speed.

✻ NOTICE

The last selected mode is remained in the system

To convert to cruise control mode:

“Smart Cruise Control or Cruise Control”

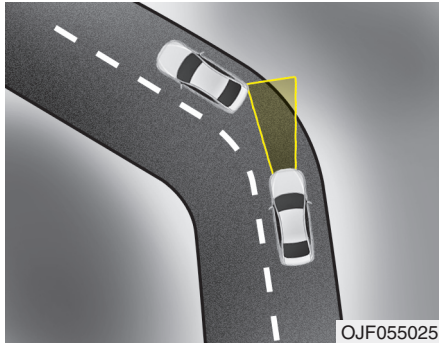
The driver may choose to only use the cruise control mode (speed control function) by doing as follows:

1. Turn the smart cruise control system on (the cruise indicator light will be on but the system will not be activated).
2. Push the distance to distance switch for more than 2 seconds.
3. Choose between "smart cruise control (SCC) mode" and "Cruise control (CC) mode".

⚠ WARNING

When using the cruise control mode, you must manually access the distance to other vehicles as the system will not automatically brake to slow down for other vehicles.

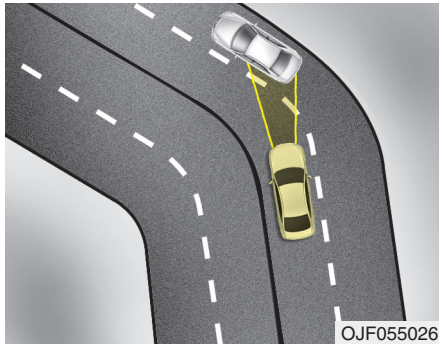
Limitations of the system



The smart cruise control system may have limits to its ability to detect distance to the vehicle ahead due to road and traffic conditions.

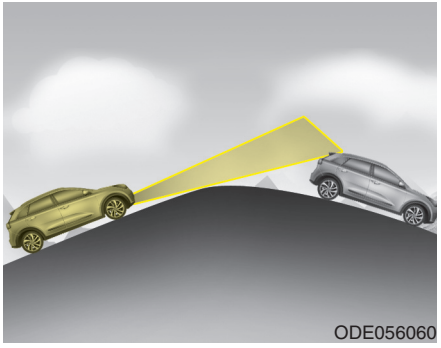
On curves

- On curves, the smart cruise control system may not detect a moving vehicle in your lane, and then your vehicle could accelerate to the set speed. Also, the vehicle speed will rapidly down when the vehicle ahead is recognized suddenly.
- Select the appropriate set speed on curves and adjust your vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.


OJF055026

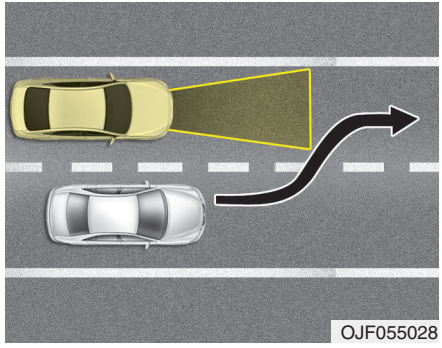
- Your vehicle speed can be reduced due to a vehicle in the adjacent lane. Adjust your vehicle speed by depressing the brake pedal according to the road condition ahead and driving condition. Apply the accelerator pedal and select the appropriate set speed. Check to be sure that the road conditions permit safe operation of the smart cruise control.

On inclines

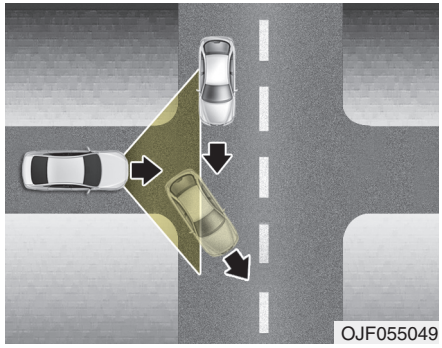

ODE056060

- During uphill or downhill driving, the smart cruise control system may not detect a moving vehicle in your lane, and cause your vehicle to accelerate to the set speed. Also, the vehicle speed will rapidly down when the vehicle ahead is recognized suddenly.
- Select the appropriate set speed on inclines and adjust your vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

Lane changing

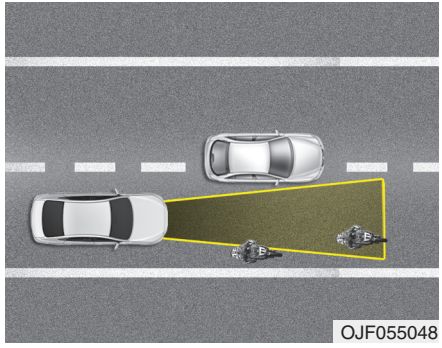

OJF055028

- A vehicle which moves into your lane from an adjacent lane cannot be recognized by the sensor until it is in the sensor's detection range.
- The sensor may not detect immediately when a vehicle cuts in suddenly. Always pay attention to the traffic, road and driving conditions.
- If a vehicle which moves into your lane is slower than your vehicle, your speed may decrease to maintain the distance to the vehicle ahead.
- If a vehicle which moves into your lane is faster than your vehicle, your vehicle will accelerate to the selected speed.


OJF055049

- Your vehicle may accelerate when a vehicle ahead of you disappears.
- When you are warned that the vehicle ahead of you is not detected, drive with caution.

Vehicle recognition


OJF055048

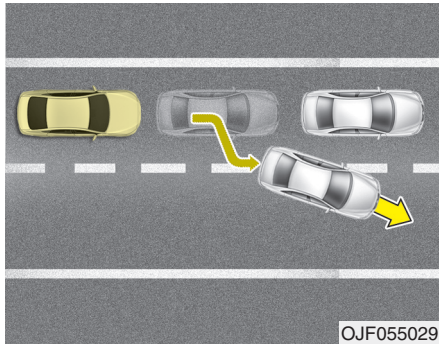
Some vehicles ahead in your lane cannot be recognized by the sensor as follows:

- Narrow vehicles such as motorcycles or bicycles
- Vehicles offset to one side
- Slow-moving vehicles or sudden-decelerating vehicles
- Stopped vehicles
- Vehicles with small rear profile such as trailers with no loads

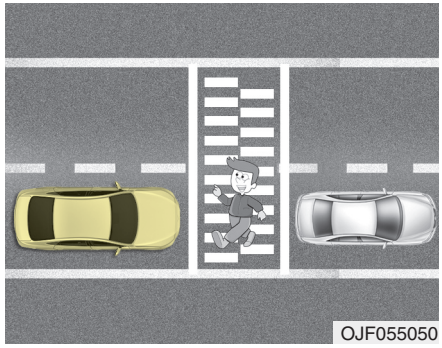
A vehicle ahead cannot be recognized correctly by the sensor if any of following occurs:

- When the vehicle is pointing upwards due to overloading in the trunk
- While making turns by steering
- When driving to one side of the lane
- When driving on narrow lanes or on curves

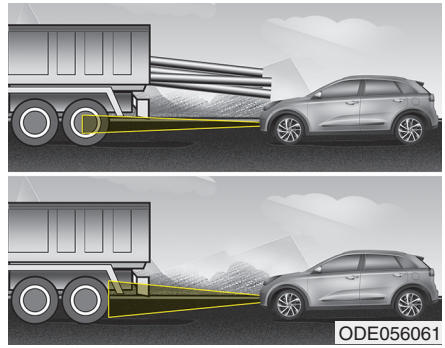
Adjust your vehicle speed by depressing the brake pedal according to the road condition ahead and driving condition.


OJF055029

- If the vehicle right in front moves to another direction, the SCC system may not sense stopped vehicle in front and may crash. Always maintain safe distance.


OJF055050

- Always look out for pedestrians when your vehicle is maintaining a distance with the vehicle ahead.


ODE056061

- Always be cautious for vehicles with higher height or vehicles carrying loads that sticks out to the back of the vehicle.

⚠ WARNING

- **The smart cruise control system cannot guarantee the stop for every emergency situation.**

  If an emergency stop is necessary, you must apply the brakes.
- **Keep a safe distance according to road conditions and vehicle speed. If the vehicle to vehicle distance is too close during a high-speed driving, a serious collision may result.**
- **The smart cruise control system cannot recognize a stopped vehicle, pedestrians or an oncoming vehicle. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.**
- **SCC system may have difficulty in maintaining the correct distance or speed, if the vehicle is driving on a steep incline or towing a trailer.**

(Continued)

(Continued)

- **When other vehicles are changing lanes in front of you frequently, the smart cruise control system may not operate appropriately. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.**
- **The smart cruise control system is not a substitute for safe driving practices but a convenience function only. It is the responsibility of the driver to always check the speed and the distance to the vehicle ahead.**
- **Always be aware of the selected speed and vehicle to vehicle distance.**
- **Always maintain sufficient braking distance and decelerate your vehicle by applying the brakes if necessary.**

(Continued)

(Continued)

- **As the smart cruise control system may not recognize complex driving situations, always pay attention to driving conditions and control your vehicle speed.**
- **For safe operation, carefully read and follow the instructions in this manual before use.**
- **After an engine start, please stop for several seconds. If system initialization is not completed, the SCC does not normally operate.**
- **After an engine start, if any objects are not detected or the sensor cover is obscured with foreign substances, there is a possibility that the SCC system may not work.**
- **Below conditions are not allowed: over baggage loading in a trunk, suspension remodeling, tire replacement with unauthorized tires or tires with different worn-out and pressure levels.**

⚠ CAUTION

The smart cruise control system may not operate temporarily due to electrical interference.

SPEED LIMIT CONTROL SYSTEM (IF EQUIPPED)

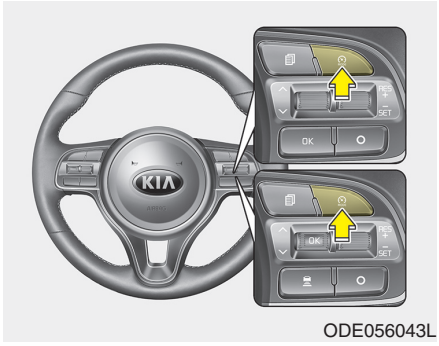
You can set the speed limit when you do not want to drive over a specific speed.

If you drive over the preset speed limit, the warning system operates (set speed limit will blink and chime will sound) until the vehicle speed returns within the speed limit.

✻ NOTICE

While speed limit control is in operation, the cruise control system cannot be activated.

To set speed limit :



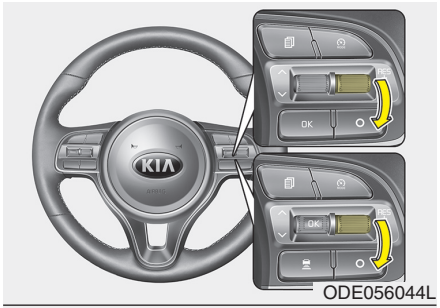
ODE056043L

1. Press the CRUISE & SPEED LIMIT MODE (MODE) button twice on the steering wheel, to turn the system on.

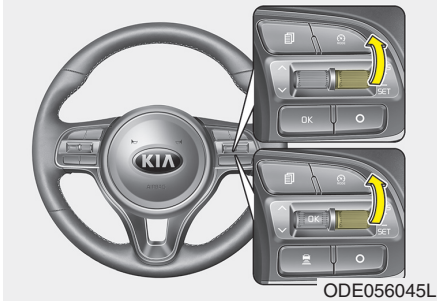


OQLE055137

The speed limit indicator light will illuminate.



ODE056044L

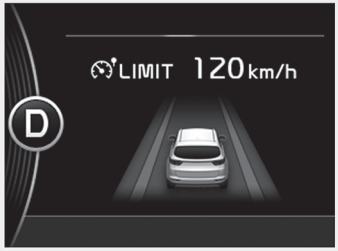


ODE056045L

2. Move the lever down (to SET-).
3. Move the lever up (to RES+) or down (to SET-), and release it at the desired speed. Move the lever up (to RES+) or down (to SET-) and hold it. The speed will increase or decrease by 5 km/h (3 mph).

Move the lever up (to RES+) or down (SET-) and release it immediately. The speed will increase or decrease by 1 km/h.

The set speed limit will display on the instrument cluster.



OQLE045113

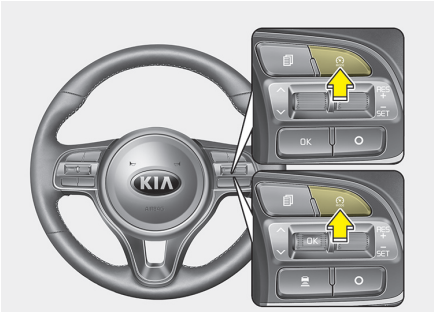
The set speed limit will be displayed.

To drive over the preset speed limit you must depress hard on the accelerator pedal (more than approximately 80%) until the kick down mechanism works with a clicking noise. Then the set speed limit will blink and chime will sound until you return the vehicle speed within the speed limit.

✻ NOTICE

- **Depressing the accelerator pedal less than approximately 50%, the vehicle will not speed over the preset speed limit but maintain the vehicle speed within the speed limit.**
- **A clicking noise heard from the kick down mechanism by depressing the accelerator pedal fully is a normal condition.**

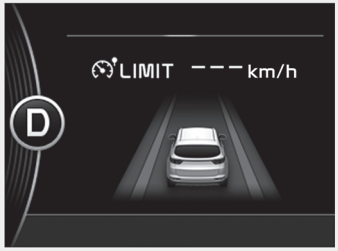
To turn off the speed limit control, do one of the following:



ODE056043L

- Press the CRUISE & SPEED LIMIT MODE switch.
- Turn the ignition off.

If you press the cancel O switch once, the set speed limit will cancel, but it will not turn the system off. If you wish to reset the speed limit, move the lever up (to RES+) or down (to SET-) to the desired speed.



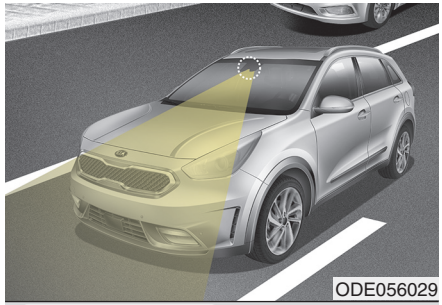
OQLE055137

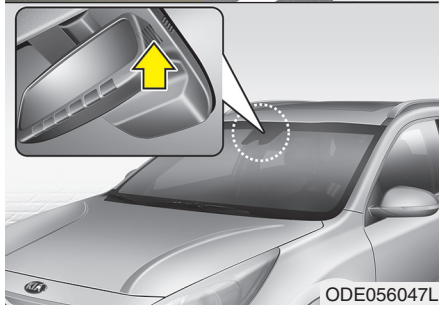
⚠ CAUTION

The "---" indicator will blink if there is a problem with speed limit control system.

If this occurs, we recommend that the system be checked by an authorized Kia dealer.

LANE KEEPING ASSIST SYSTEM (LKAS) (IF EQUIPPED)





The Lane Keeping Assist System detects lane markers on the road, and assists the driver's steering to help keep the vehicle between lanes.

When the system detects the vehicle straying from its lane, it alerts the driver with a visual and audible warning, while applying a slight counter-steering torque, trying to prevent the vehicle from moving out of its lane.

⚠ WARNING

- **The steering wheel is not continuously controlled so if the vehicle speed is very fast when leaving a lane the vehicle may not be controlled by the system.**
- **It is the responsibility of the driver to drive safely.**
- **Do not steer the steering wheel suddenly when the steering wheel is being assisted by the system.**

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- **LKAS prevents the driver from moving out of the lane unintentionally by assisting the driver's steering. However, the driver should not solely rely on the system but always pay attention on the steering wheel to stay in the lane.**
- **Always check the road condition and surroundings and be cautious when the system cancels, does not operate or malfunctions.**
- **Do not place any accessories, stickers or tint the windshield near the rearview mirror.**
- **The system detects lane markers and controls the steering wheel by a camera, therefore, if the lane markers are hard to detect, the system may not work properly.**

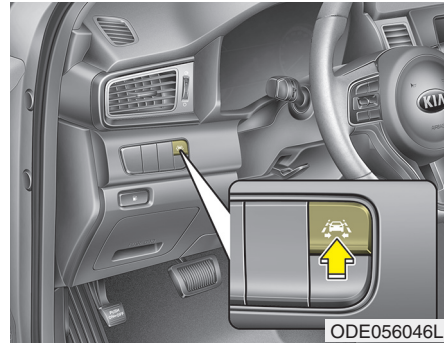
  Please refer to "Driver's Attention".

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- **Do not remove any LKAS parts or apply impact.**
- **Do not place objects on the dashboard that reflects light such as mirrors, white paper, etc. The system may malfunction if the sunlight is reflected.**
- **Loud audio sounds may interfere with the passenger from hearing warning chimes.**
- **Always have your hands on the steering wheel while the LKAS system is activated. If you continue to drive with your hands off the steering wheel after the "Hand on" warning, the system will turn off automatically.**
- **If you drive very fast, the vehicle may stray out of the lane. Always be cautious when using the system.**
- **When you tow the trailer, make sure that you turn off LKAS function.**

LKAS operation



- To turn on the LKAS, push the button with the ignition switch in the ON position.
- The LKAS indicator (green) will illuminate.
- To turn off the system, press the button again. The indicator turns off.

- LKAS indicator
  - green : LKAS
  - white : LDWS
  - yellow : FAIL

LKAS activation



ODE056098L

- The LKAS screen will appear on the LCD display if the system is activated.
- When both lanes are detected and all the conditions to activate the LKAS are satisfied, the steering wheel will be controlled (green steering wheel indicator will illuminate).

⚠ WARNING

The Lane Keeping Assist System is a system to prevent the driver from leaving the lane. However, the driver should not solely rely on the system but always check the road conditions when driving.

■ Lane undetected ■ Lane detected



ODE056070L/ODE056098L

- If the system detects a lane, the color changes from gray to white.
- If the system detects the left lane, the left lane color will change from gray to white.
- If the system detects the right lane, the right lane color will change from gray to white.
- Both lanes must be detected for the system to fully activate.
- If only one of the lane is detected, the system will warn (warning beep and blinking yellow lane) the driver when the driver crosses the detected lane.

Warning

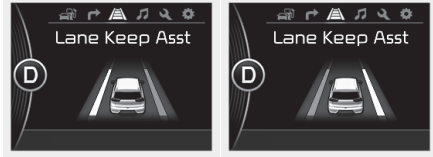
■ Left lane ■ Right lane



ODE056096L/ODE056097L

- If you cross a lane, the lane you cross will blink (yellow) and symbol will blink green on LCD with an audible warning during max 3 seconds.
- If the steering wheel appears, the system will control the vehicle's steering to prevent the vehicle from crossing the lane.

■ Left lane ■ Right lane



ODE056071L/ODE056073L

- If all the conditions to activate LKAS are not satisfied, the system will convert to LDWS and warn the driver only when the driver crosses the lane markers.



ODE056099L

- If the driver takes one's hands off the steering wheel while the LKAS is activated, the system will warn the driver after several seconds with a visual and audible warning.

⚠ WARNING

The warning message may appear late according to road conditions. Therefore, always have your hands on the steering wheel while driving.

If the driver still does not have one's hand on the steering wheel after several seconds, LKAS does not activate.

While LKAS deactivation, if the driver have one's hand on the steering wheel, LKAS activate again.

⚠ WARNING

- **The driver is responsible for accurate steering.**
- **Turn off the system and drive the vehicle personally in below situations.**
  - **In bad weather**
  - **In bad road condition**
  - **When the steering wheel needs to be controlled by the driver frequently.**

✻ NOTICE

- **Even though the steering is assisted by the system, the driver may control the steering.**
- **The steering wheel may feel heavier when the steering wheel is assisted by the system than when it is not.**

The system will be cancelled when:

- Vehicle speed is below 55km/h (34.2mph) and over 180 Km (111.8 mph).
- Only one lane is detected.
- Always turn on the turn signal to change lanes. If you change lanes without the turn signal on, the steering wheel might be controlled.
- The hazard warning light is on.
- The width of the lane is below 2.6 m and over 4.5 m.
- ESC(Electronic Stability Control) and VSM(Vehicle stability management) are activated.
- When the system is on or after changing a lane, drive in the middle of the lane. If not, the system will not provide the steering assist function.
- The steering will not be assisted when you drive fast on a sharp curve.
- The steering will not be assisted when you change lanes fast.
- The steering will not be assisted when you brake suddenly.

DRIVER'S ATTENTION

The driver must be cautious in the below situations for the system may not assist the driver and may not work properly.

- **The lane is not visible due to snow, rain, stain, a puddle or many other things.**
- **The brightness of the outside changes suddenly such as passing through a tunnel.**
- **Not turning on the headlight or the light is weak even at night or in a tunnel.**
- **Difficult to distinguish the color of the lane marker from the road.**
- **Driving on a steep grade or a curve.**
- **Light reflects from the water on the road such as sunlight, streetlight or the light of oncoming vehicles.**
- **The lens or windshield is stained with foreign matter.**
- **The sensor cannot detect the lane because of fog, heavy rain or heavy snow.**
- **The surrounding of the inside rear view mirror temperature is high due to direct light.**

(Continued)

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- **The lane is very wide or narrow.**
- **The lane marker is damaged or indistinct.**
- **The shadow is on the lane marker by a median strip.**
- **There is a mark similar to a lane marker.**
- **There is a boundary structure.**
- **The distance from vehicle ahead is very short or the vehicle ahead drives hiding the lane marker.**
- **The vehicle shakes heavily.**
- **The lane number increases or decreases or the lane marker are crossing complicatedly.**
- **Placing something on the dashboard.**
- **Driving with the sun in front of you.**
- **Driving in areas under construction.**
- **The lane marker is more than two.**
- **The lane marker in a tunnel is hard to distinguish due to dust or grease.**
- **The lane marker is hard to distinguish after raining at night.**
- **The lane marker is hard to distinguish due to dust.**

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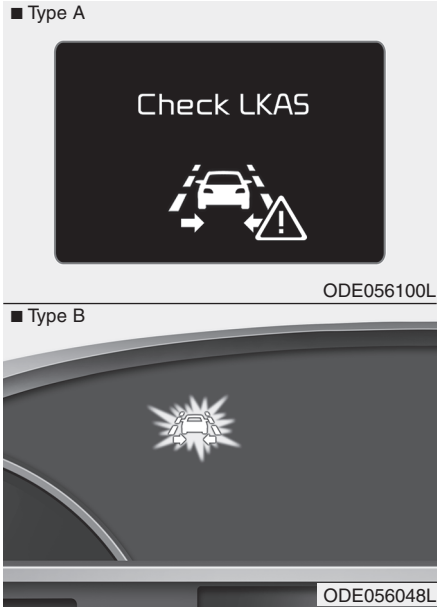
- **EPS (Electronic Power Steering) is not operational.**
- **Some objects are attached in steering wheel.**
- **The windshield is fogged by humid air in the vehicle.**
- **The distance from the vehicle ahead is very short or the vehicle ahead drives covering the lane line.**
- **The lane line is merged or divided.**
- **Driving through a toll plaza or toll gate.**
- **Driving on uneven surface.**
- **An object on roadside which may resemble road markers.**

LKAS malfunction



- If there is a problem with the system a message will appear. If the problem continues the LKAS fail indicator will illuminate.

LKAS fail indicator



The LKAS fail indicator (yellow) will illuminate with an audible warning if the LKAS is not working properly. We recommend that you contact an authorized Kia dealer.

When there is a problem with the system do one of the following:

- Turn the system on after turning the engine off and on again.
- Check if the ignition switch is in the ON position.
- Check if the system is affected by the weather. (ex: fog, heavy rain, etc.)
- Check if there is foreign matter on the camera lens

If the problem is not solved, we recommend that the system be checked by an authorized Kia dealer.

LKAS function change

The driver can change LKAS to Lane Departure Warning System (LDWS) or change the LKAS mode between Standard LKA and Active LKA from the User Settings Mode on the LCD display. The driver can choose them by placing the ignition switch to the ON position and by selecting ‘User Settings’, ‘Driving Assist’, and ‘Lane Keeping Assist System’.

The system is automatically set to Standard LKA.

Lane Departure Warning system (LDWS)

- The system can be converted to LKA to LDW at the User setting mode.
- Refer to User setting in section 4.
- LDWS alerts the driver with a visual and audible warning when the system detects the vehicle straying from its lane.
- If the LDWS is operating the indicator yellow/white will illuminate.
- The steering wheel will not be controlled.

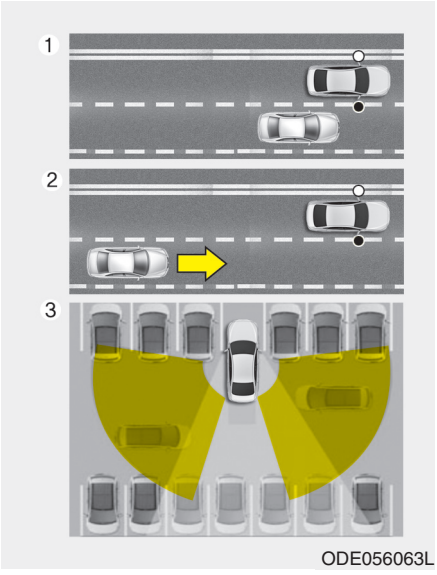
Standard LKA

- LKAS only starts intervention when the vehicle is predicted to cross the line.
- It's useful to a driver who dislikes frequent intervention by LKAS
- LDW is generated when the vehicle is about to cross the line.

Active LKA

- LKAS operates for a vehicle to keep the region of lane center more efficiently.
- The steering assistance is activated more frequently and earlier than standard LKA.
- LDW is generated when the vehicle is about to cross the line.

BLIND SPOT DETECTION SYSTEM (IF EQUIPPED)



ODE056063L

The Blind spot detection system uses a radar sensor to alert the driver while driving.

It senses the rear side territory of the vehicle and provides information to the driver.

① Blind spot detection

Warning range is dependent on your vehicle speed. However, if the speed of your vehicle is faster by 10km/h or more than other nearby vehicles, the warning is not operated.

② Lane change assist

When vehicles are approaching to your vehicle at high speed, the warning is operated.

③ Rear cross traffic alert

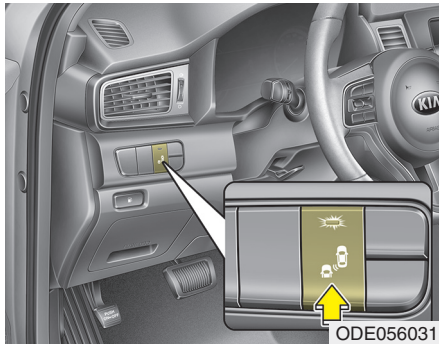
When your vehicle moves backward, the sensor detects approaching vehicles to the left or right side direction and warning is operated.

⚠ WARNING

- **Always check the road condition while driving for unexpected situations even though the Blind spot detection system is operating.**
- **Blind spot detection system is a system made for convenience. Do not solely rely on the system but always pay attention to drive safely.**

Blind spot detection / Lane change assist

Operating conditions


ODE056031

The indicator on the switch will illuminate when the Blind spot detection system switch is pressed with the ignition switch ON. If the vehicle speed exceeds 30 km/h (18.6 mph), the system will activate.

If you press the switch again, the switch indicator and system will be turned off.

If the ignition switch is turned OFF and ON the system returns to the previous state.

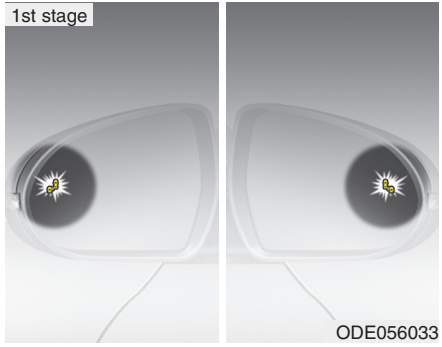
When the system is not used turn the system off by pressing the switch.

When the system is turned on the warning light will illuminate for 3 seconds on the outside rearview mirror.

Warning type

The system will activate when:

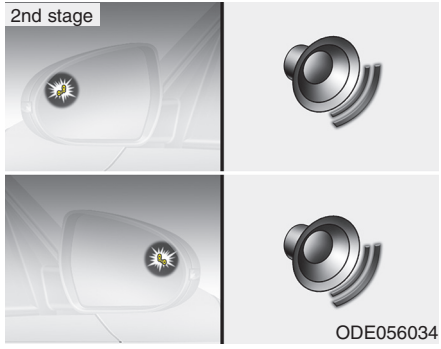
1. The system is on
2. Vehicle speed is above 30 km/h (18.6 mph)
3. Other vehicles are detected in the rear side



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If a vehicle is detected within the boundary of the system, a warning light will illuminate on the outside rearview mirror.

If the detected vehicle is not in detection range, the warning will be turned off.



The second stage alarm will activate when:

1. The first stage alert is on
2. The turn signal is on to change a lane

When the second stage alert is activated, a warning light will be blinking on the outside rearview mirror and an alarm will sound.

If you move the turn signal switch to origin position, the second stage alert will be deactivated.

- The second stage alarm can be deactivated.

• To activate the alarm:

  Go to the User Settings Mode → Sound and select Blind Spot Detection Sound on the LCD display.

• To deactivate the alarm:

  Go to the User Settings Mode → Sound and deselect Blind Spot Detection Sound on the LCD display.

⚠ CAUTION

The alarm function helps alert the driver. Deactivate this function only when it is necessary

Detecting sensor



The sensors are located inside the rear bumper.

Always keep the rear bumper clean for the system to work properly.

Warning message

The message **(“Blind Spot Detection disabled temporarily”)** will appear to notify the driver if there are foreign substances on the rear bumper or it is hot near the rear bumper. The light on the switch and the system will be turned off automatically.

Remove the foreign substance on the rear bumper.

After the foreign substance is removed, if you drive for approximately 10 minutes, the system will work normally.

If the system does not work normally even though the foreign substance is removed, take your vehicle to an authorized Kia dealer and have the system checked.

It is possible to get the message with no foreign substance on the rear bumper, for example, when driving in sparse rural or open area, such as desert, where there is insufficient data for operation.

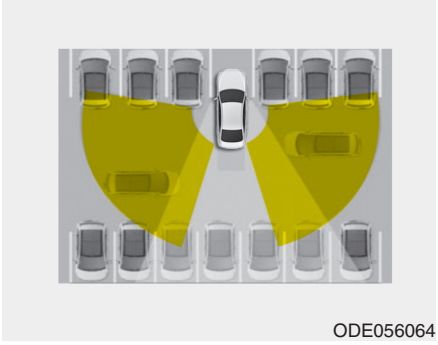
This message may also activate during heavy rain or due to road spray.

In this case, the vehicle does not need service.

If the system does not work properly, a warning message **(“Check BSD System”)** will appear and the light on the switch will turn off. The system will turn off automatically.

We recommend you to have the system checked by an authorized Kia dealer.

Rear cross traffic alert



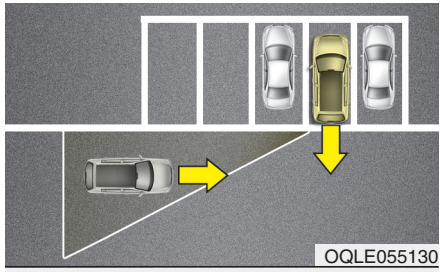
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When your vehicle moves backwards from a parking position, the sensor detects approaching vehicles to the left or right side direction and gives information to the driver.

Operating conditions

- Go to the User Settings Mode → Driving Assist → Rear Collision Warning and select "Rear Cross Traffic Alert" on the LCD display. The system will turn on and stand by to be activated.
- Select Rear cross traffic alert again, to turn the system off.
- If the vehicle is turned off and on again, the Rear cross traffic alert system will return to the state right before the vehicle was turned off. Turn the Rear cross traffic alert system off when not in use.
- The system is operated when the vehicle speed is below 10km/h with the shift lever in R (Reverse).
- The Rear cross traffic alert detection range is 0.5m~20m based on side direction. If an approaching vehicle speed is 4 km/h~36 km/h in detection range, The warning is on. However, the system sensing range is different based on conditions. Always pay attention to surrounding.

Warning type


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- If an approaching vehicle detected by sensors, the warning is chime and the warning light will blink on the outside rearview mirror.
- If the detected vehicle is out of detection range, moving away in the opposite direction or moving slow, the warning is cancelled.
- The system may not be operating properly due to other factors or circumstances, so always pay attention to your surrounding.

❈ If the bumper on either side is blocked by a barrier or vehicles, the system sensing ability may be deteriorated.

⚠ WARNING

- **The warning light on the outside rearview mirror will illuminate whenever a vehicle is detected at the rear side by the system.**

  To avoid accidents, do not focus only on the warning light and neglect to see the surrounding of the vehicle.
- **Drive safely even though the vehicle is equipped with a Blind spot detection system. Do not solely rely on the system but check for yourself before changing lanes.**

  The system may not alert the driver in some conditions so always check the surroundings while driving.

⚠ CAUTION

- ***The system may not work properly if the bumper has been replaced or if a repair work has been done near the sensor.***
- ***The detection area differs according to the roads width. If the road is narrow the system may detect other vehicles in the second next lane.***
- ***On the contrary, if the road is very wide the system may not detect other vehicles in the next lane.***
- ***The system might be turned off due to strong electromagnetic waves.***

Non-operating condition

Outside rearview mirror may not alert the driver when:

- The outside rearview mirror housing is damaged or covered with debris.
- The window is covered with debris.
- The windows are severely tinted.

Driver's Attention

The driver must be cautious in the below situations, because the system may not detect other vehicles or objects in certain circumstances.

- **The vehicle drives on a curved road or through a tollgate.**
- **The sensor is polluted with rain, snow, mud, etc.**
- **The rear bumper, in which the sensor is located, is covered or blocked with a foreign matter such as a sticker, a bumper guard, a bicycle stand, etc.**
- **The rear bumper is damaged, or the sensor is out of the original default position.**
- **The vehicle height gets lower or higher due to heavy loading in a tailgate, abnormal tire pressure, etc.**
- **The vehicle drives in a bad weather such as heavy rain or snow.**

(Continued)

(Continued)

- **There is a fixed object near the vehicle, such as a guardrail.**
- **A big vehicle is near such as a bus or truck.**
- **A motorcycle or bicycle is near.**
- **A flat trailer is near.**
- **If the vehicle has started at the same time as the vehicle next to you and has accelerated.**
- **When the other vehicle passes at a very fast speed.**
- **While changing lanes.**
- **When going down or up a steep, uneven road.**
- **When the other vehicle approaches very close.**
- **When a trailer or carrier is installed.**
- **When the temperature of the rear bumper is very high or low.**

(Continued)

(Continued)

- **When the sensors are blocked by other vehicles, walls or parking-lot pillars.**
- **When the detected vehicle also moves back, as your vehicle drives back.**
- **If there are small things like shopping cart and baby carriage.**
- **If there is low height vehicle like sport vehicle.**
- **When other vehicles are close to your vehicle.**
- **When 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.**
- **When driving through a narrow road with many plants.**
- **When driving on wet surface.**

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 kilometers (miles) you can get from a liter (gallon) 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. Do not make "jackrabbit" starts or full-throttle shifts and maintain a steady cruising speed. Do not race between stoplights. Try to adjust your speed to the traffic so you do not 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.
- Do not "ride" the brake or clutch pedal. This can increase fuel consumption and also increase wear on these components. In addition, driving with your foot resting on the brake pedal may cause the brakes to overheat, which reduces their effectiveness and may lead to more serious consequences.
- Take care of your tires. Keep them inflated to the recommended pressure. Incorrect inflation, either too much or too little, results in unnecessary tire wear. Check the tire pressures at least once a month.
- Be sure that the wheels are aligned correctly. Improper alignment can result from hitting curbs or driving too fast over irregular surfaces. Poor alignment causes faster tire wear and may also result in other problems as well as greater fuel consumption.
- Keep your vehicle in good condition. For better fuel economy and reduced maintenance costs, maintain your vehicle in accordance with the maintenance schedule in section 8. If you drive your vehicle in severe conditions, more frequent maintenance is required (see section 8 for details).
- Keep your vehicle clean. For maximum service, your vehicle should be kept clean and free of corrosive materials. It is especially important that mud, dirt, ice, etc. not be allowed to accumulate on the underside of the vehicle. This extra weight can result in increased fuel consumption and also contribute to corrosion.
- Travel lightly. Do not carry unnecessary weight in your vehicle. Weight reduces fuel economy.
- Do not let the engine idle longer than necessary. If you are waiting (and not in traffic), turn off your engine and restart only when you're ready to go.

- Remember, your vehicle does not require extended warm-up. After the engine has started, allow the engine to run for 10 to 20 seconds prior to placing the vehicle in gear. In very cold weather, however, give your engine a slightly longer warm-up period.
- Do not "lug" or "over-rev" the engine. Lugging is driving too slowly in too high a gear resulting 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, we recommend that the system be serviced by an authorized Kia dealer.

⚠ 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 (if equipped) 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.

⚠ WARNING - Downshifting

Downshifting with an dual clutch transaxle, while driving on slippery surfaces can cause an accident. The sudden change in tire speed could cause the tires to skid. Be careful when downshifting on slippery surfaces.

Reducing the risk of a rollover

This multi-purpose passenger vehicle is defined as a Sports Utility Vehicle (SUV).

SUV's have higher ground clearance and a narrower track to make them capable of performing in a wide variety of road applications. Specific design characteristics give them a higher center of gravity than ordinary vehicles. An advantage of the higher ground clearance is a better view of the road, which allows you to anticipate problems. They are not designed for cornering at the same speeds as conventional passenger vehicles. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts. In a rollover crash, an unbelted person is more likely to die than a person wearing a seat belt. There are steps that a driver can make to reduce the risk of a rollover. If at all possible, avoid sharp turns or abrupt maneuvers, do not load your roof rack with heavy cargo, and never modify your vehicle in any way.

⚠ WARNING - Rollover

As with other Sports Utility Vehicle (SUV), failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover.

- **Utility vehicles have a significantly higher rollover rate than other types of vehicles.**
- **Specific design characteristics (higher ground clearance, narrower track, etc.) give this vehicle a higher center of gravity than ordinary vehicles.**
- **A SUV is not designed for cornering at the same speeds as conventional vehicles.**
- **Avoid sharp turns or abrupt maneuvers.**
- **In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Make sure everyone in the vehicle is properly buckled up.**

⚠ WARNING

Your vehicle is equipped with tires designed to provide safe ride and handling capability. Do not use a size and type of tire and wheel that is different from the one that is originally installed on your vehicle. It can affect the safety and performance of your vehicle, which could lead to steering failure or rollover and serious injury. When replacing the tires, be sure to equip all four tires with the tire and wheel of the same size, type, tread, brand and load-carrying capacity. If you nevertheless decide to equip your vehicle with any tire/wheel combination not recommended by Kia for off road driving, you should not use these tires for highway driving.

Rocking the vehicle

If it is necessary to rock the vehicle to free it from snow, sand, or mud, first turn the steering wheel right and left to clear the area around your front wheels. Then, shift back and forth between R (Reverse) and any forward gear in vehicles equipped with an 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 transaxle.

⚠ CAUTION

Prolonged rocking may cause engine over-heating, transaxle damage or failure, and tire damage.

⚠ WARNING - Spinning tires

Do not spin the wheels, especially at speeds more than 56 km/h (35 mph). Spinning the wheels at high speeds when the vehicle is stationary could cause 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 or backward as it becomes unstuck, causing injury or damage to nearby people or objects.

Smooth cornering

Avoid braking or gear changing in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration. If you follow these suggestions, tire wear will be held to a minimum.

Driving at night

Because night driving presents more hazards than driving in the daylight, here are some important tips to remember:

- Slow down and keep more distance between you and other vehicles, as it may be more difficult to see at night, especially in areas where there may not be any street lights.
- Adjust your mirrors to reduce the glare from other driver's headlights.
- Keep your headlights clean and properly aimed on vehicles not equipped with the automatic headlight aiming feature. Dirty or improperly aimed headlights will make it much more difficult to see at night.
- Avoid staring directly at the headlights of oncoming vehicles. You could be temporarily blinded, and it will take several seconds for your eyes to readjust to the darkness.

Driving in the rain

Rain and wet roads can make driving dangerous, especially if you're not prepared for the slick pavement. Here are a few things to consider when driving in the rain:

- A heavy rainfall will make it harder to see and will increase the distance needed to stop your vehicle, so slow down.
- Keep your windshield wiping equipment in good shape. Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield.
- If your tires are not in good condition, making a quick stop on wet pavement can cause a skid and possibly lead to an accident. Be sure your tires are in good shape.
- Turn on your headlights to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.
- If you believe you may have gotten your brakes wet, apply them lightly while driving until normal braking operation returns.

Driving in flooded areas

Avoid driving through flooded areas unless you are sure the water is no higher than the bottom of the wheel hub. Drive through any water slowly. Allow adequate stopping distance because brake performance may be affected.

After driving through water, dry the brakes by gently applying them several times while the vehicle is moving slowly.

Driving off-road

Drive carefully off-road because your vehicle may be damaged by rocks of roots of trees. Become familiar with the off-road conditions where you are going to drive before you begin driving.

Highway driving

Tires

Adjust the tire inflation pressures to specification. Low tire inflation pressures will result in overheating and possible failure of the tires.

Avoid using worn or damaged tires which may result in reduced traction or tire failure.

✻ 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 the tires for proper inflation before driving. For proper tire pressures, refer to section 9, "Tires and wheels".**
- **Driving on tires with no or insufficient tread is dangerous. Worn-out tires can result in loss of vehicle control, collisions, injury, and even death. Worn-out tires should be replaced as soon as possible and should never be used for driving. Always check the tire tread before driving your vehicle. For further information and tread limits, refer to section 8, "Tires and wheels".**

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

Severe weather conditions in the winter result in greater wear and other problems. To minimize the problems of winter driving, you should follow these suggestions:

❊ Snow tires and tire chains for the national language (Icelandic, Bulgarian) see the Appendix to chapter 10.

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 vehicle. 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


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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 12mm (0.47in). Damage to your vehicle caused by improper snow chain use is not covered by your vehicle manufacturers warranty.

When using tire chains, 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 0.5 to 1 km (0.3 to 0.6 miles) to ensure safe mounting. Retighten or remount the chains if they are loose.***
- ***If your vehicle has 18 inch tires, do not use tire chains. They can damage your vehicle (wheel, suspension and body).***

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 30 km/h (20 mph) 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.***

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 maintenance schedule in section 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 in section 8. We recommend that the level of charge in your battery be checked by an authorized Kia dealer.

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. See section 9 for recommendations. If you aren't sure what weight oil you should use, we recommend that you consult an authorized Kia dealer.

Check spark plugs and ignition system

Inspect your spark plugs as described in section 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. If there is a risk the parking brake may freeze, apply it only temporarily while you put the shift lever in P (Dual clutch transmission) and block the rear wheels so the vehicle cannot roll. Then release the parking brake.

Don't let ice and snow accumulate underneath

Under some conditions, snow and ice can build up under the fenders and interfere with the steering. When driving in severe winter conditions where this may happen, you should periodically check underneath the vehicle to be sure the movement of the front wheels and the steering components 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.

TRAILER TOWING

If you are considering towing with your vehicle, you should first check with your country's Department of Motor Vehicles to determine their legal requirements.

Since laws vary the requirements for towing trailers, cars, or other types of vehicles or apparatus may differ. We recommend that you ask an authorized Kia dealer.

⚠ WARNING - Towing a trailer

If you don't use the correct equipment and/or drive improperly, you can lose control when you pull a trailer. For example, if the trailer is too heavy, the brakes may not work well - or even at all. You and your passengers could be seriously or fatally injured. Pull a trailer only if you have followed all the steps in this section.

⚠ WARNING - Weight limits

Before towing, make sure the total trailer weight, GCW (gross combination weight), GVW (gross vehicle weight), GAW (gross axle weight) and trailer tongue load are all within the limits.

✻ NOTICE - For Europe

- **The technically permissible maximum load on the rear axle(s) may be exceeded by not more than 15 % and the technically permissible maximum laden mass of the vehicle may be exceeded by not more than 10 % or 100 kg (220.4 lbs.), whichever value is lower.**
  In this case, do not exceed 100 km/h (62.1 mph) of vehicle speed.
- **When towing a trailer, the additional load imposed at the trailer coupling device may cause the rear tire maximum load ratings to be exceed, but not by more than 15 %. In such a case, do not exceed 100 km/h (62.1 mph) of vehicle speed, and the rear tire pressure should be inflated 20 kPa (0.2 bar) more than the tire pressure(s) as recommended for normal use (i.e. without a trailer attached.)**

⚠ CAUTION

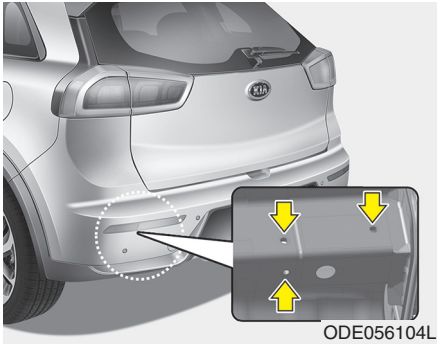
Pulling a trailer improperly can damage your vehicle and result in costly repairs not covered by your warranty. To pull a trailer correctly, follow the advice in this section.

Your vehicle can tow a trailer. To identify what the vehicle trailering capacity is for your vehicle, you should read the information in “Weight of the trailer” that appears later in this section.

Remember that trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability, and fuel economy. Successful, safe trailering requires correct equipment, and it has to be used properly.

This section contains many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. Please read this section carefully before you pull a trailer.

Load-pulling components such as the engine, transaxle, wheel assemblies, and tires are forced to work harder against the load of the added weight. The engine is required to operate at relatively higher speeds and under greater loads. This additional burden generates extra heat. The trailer also considerably adds wind resistance, increasing the pulling requirements.


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✻ NOTICE - Location of trailer mounting

The mounting hole for hitches are located on both sides of the underbody behind the rear tires.

Hitches

It's important to have the correct hitch equipment. Crosswinds, large trucks going by, and rough roads are a few reasons why you'll need the right hitch. Here are some rules to follow:

- Do you have to make any holes in the body of your vehicle when you install a trailer hitch? If you do, then be sure to seal the holes later when you remove the hitch.
- The bumpers on your vehicle are not intended for hitches. Do not attach rental hitches or other bumper-type hitches to them. Use only a frame-mounted hitch that does not attach to the bumper.
- A Kia accessory trailer hitch is available at an authorized Kia dealer.

Safety chains

You should always attach chains between your vehicle and your trailer. Cross the safety chains under the tongue of the trailer so that the tongue will not drop to the road if it becomes separated from the hitch.

Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer. Follow the manufacturer's recommendation for attaching safety chains. Always leave just enough slack so you can turn with your trailer. And, never allow safety chains to drag on the ground.

Trailer brakes

If your trailer is equipped with a braking system, make sure it conforms to your country's regulations and that it is properly installed and operating correctly.

If your trailer weight exceeds the maximum allowed weight without trailer brakes, then the trailer will also require its own brakes as well. Be sure to read and follow the instructions for the trailer brakes so you'll be able to install, adjust and maintain them properly.

- Do not tap into or modify your vehicle's brake system.

⚠ WARNING - Trailer brakes

Do not use a trailer with its own brakes unless you are absolutely certain that you have properly set up the brake system. This is not a task for amateurs. Use an experienced, competent trailer shop for this work.

Driving with a trailer

Towing a trailer requires a certain amount of experience. Before setting out for the open road, you must get to know your trailer. Acquaint yourself with the feel of handling and braking with the added weight of the trailer. And always keep in mind that the vehicle you are driving is now a good deal longer and not nearly so responsive as your vehicle is by itself.

Before you start, check the trailer hitch and platform, safety chains, electrical connector(s), lights, tires and mirror adjustment. If the trailer has electric brakes, start your vehicle and trailer moving and then apply the trailer brake controller by hand to be sure the brakes are working. This lets you check your electrical connection at the same time.

During your trip, check occasionally to be sure that the load is secure, and that the lights and any trailer brakes are still working.

Following distance

Stay at least twice as far behind the vehicle ahead as you would when driving your vehicle without a trailer. This can help you avoid situations that require heavy braking and sudden turns.

Passing

You'll need more passing distance up ahead when you're towing a trailer. And, because of the increased vehicle length, you'll need to go much farther beyond the passed vehicle before you can return to your lane.

Backing up

Hold the bottom of the steering wheel with one hand. Then, to move the trailer to the left, just move your hand to the left. To move the trailer to the right, move your hand to the right. Always back up slowly and, if possible, have someone guide you.

Making turns

When you're turning with a trailer, make wider turns than normal. Do this so your trailer won't strike soft shoulders, curbs, road signs, trees, or other objects. Avoid jerky or sudden maneuvers. Signal well in advance.

Turn signals when towing a trailer

When you tow a trailer, your vehicle has to have a different turn signal flasher and extra wiring. The green arrows on your instrument panel will flash whenever you signal a turn or lane change. Properly connected, the trailer lights will also flash to alert other drivers you're about to turn, change lanes, or stop.

When towing a trailer, the green arrows on your instrument panel will flash for turns even if the bulbs on the trailer are burned out. Thus, you may think drivers behind you are seeing your signals when, in fact, they are not. It is important to check occasionally to be sure the trailer bulbs are still working. You must also check the lights every time you disconnect and then reconnect the wires.

Do not connect a trailer lighting system directly to your vehicle's lighting system. Use only an approved trailer wiring harness.

An authorized Kia dealer can assist you in installing the wiring harness.

⚠ WARNING

Failure to use an approved trailer wiring harness could result in damage to the vehicle electrical system and/or personal injury.

Driving on grades

Reduce speed and shift to a lower gear before you start down a long or steep downgrade. If you don't shift down, you might have to use your brakes so much that they would get hot and no longer operate efficiently.

On a long uphill grade, shift down and reduce your speed to around 70 km/h (45 mph) to reduce the possibility of engine and transaxle overheating.

If your trailer weighs more than the maximum trailer weight without trailer brakes and you have a dual clutch transmission, you should drive in D (Drive) when towing a trailer.

Operating your vehicle in D (Drive) when towing a trailer will minimize heat build up and extend the life of your transaxle.

⚠ CAUTION

- ***When towing a trailer on steep grades (in excess of 6%) pay close attention to the engine coolant temperature gauge to ensure the engine does not overheat.***

  If the needle of the coolant temperature gauge moves across the dial towards "H (HOT)", pull over and stop as soon as it is safe to do so, and allow the engine to idle until it cools down. You may proceed once the engine has cooled sufficiently.

- ***You must decide driving speed depending on trailer weight and uphill grade to reduce the possibility of engine and transaxle overheating.***

(Continued)

(Continued)

- ***When towing a trailer on steep grades, the clutch in the transmission could overheat.***

  When the clutch is overheated, the safe protection mode engages. If the safe protection mode engages, the gear position indicator on the cluster blinks with a chime sound.

  At this time, a warning message will appear on the LCD display and driving may not be smooth.

  If you ignore this warning, the driving condition may become worse.

  To return the normal driving condition, stop the vehicle on flat road and apply the foot brake for a few minutes before driving off.

Parking on hills

Generally, if you have a trailer attached to your vehicle, you should not park your vehicle on a hill. People can be seriously or fatally injured, and both your vehicle and the trailer can be damaged if unexpectedly roll down hill.

⚠ WARNING - Parking on a hill

Parking your vehicle on a hill with a trailer attached could cause serious injury or death, should the trailer break loose.

It can be very dangerous to hold your vehicle by applying accelerator on a hill.

However, if you ever have to park your trailer on a hill, here is how to do it:

1. Pull the vehicle into the parking space. Turn the steering wheel in the direction of the curb (left if headed down hill, right if headed up hill).
2. If the vehicle has a dual clutch transmission, place the car in P (Park).
3. Set the parking brake and shut off the vehicle.
4. Place chocks under the trailer wheels on the down hill side of the wheels.
5. Start the vehicle, hold the brakes, shift to neutral, release the parking brake and slowly release the brakes until the trailer chocks absorb the load.
6. Reapply the brakes, reapply the parking brake and shift the vehicle to P (Park) for dual clutch transmission.
7. Shut off the vehicle and release the vehicle brakes but leave the parking brake set.

⚠ WARNING - Parking brake

It can be dangerous to get out of your vehicle if the parking brake is not firmly set.

If you have left the engine running, the vehicle can move suddenly. You or others could be seriously or fatally injured.

When you are ready to leave after parking on a hill

1. With the dual clutch transmission in P (Park), apply your brakes and hold the brake pedal down while you:
   - Start your engine;
   - Shift into gear; and
   - Release the parking brake.
2. Slowly remove your foot from the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance when trailer towing

Your vehicle will need service more often when you regularly pull a trailer. Important items to pay particular attention to include engine oil, transaxle fluid, axle lubricant and cooling system fluid. Brake condition is another important item to frequently check. Each item is covered in this manual, and the Index will help you find them quickly. If you're trailering, it is a good idea to review these sections before you start your trip.

Do not forget to also maintain your trailer and hitch. Follow the maintenance schedule that accompanied your trailer and check it periodically. Preferably, conduct the check at the start of each day's driving. Most importantly, all hitch nuts and bolts should be tight.

⚠ CAUTION

- ***Due to higher load during trailer usage, overheating might occur in hot days or during uphill driving. If the coolant gauge indicates overheating, switch off the air conditioner and stop the vehicle in a safe area to cool down the engine.***
- ***When towing check transaxle fluid more frequently.***
- ***If your vehicle is not equipped with an air conditioner, you should install a condenser fan to improve engine performance when towing a trailer.***

If you do decide to pull a trailer

Here are some important points if you decide to pull a trailer:

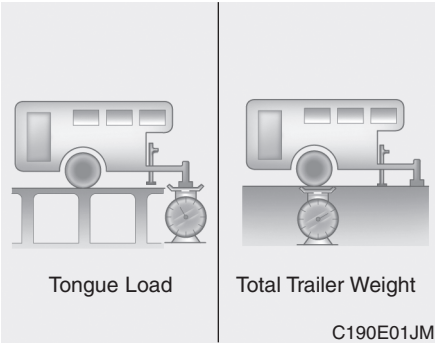
- Consider using a sway control. You can ask a hitch dealer about sway control.
- Do not do any towing with your car during its first 2,000 km (1,200 miles) in order to allow the engine to properly break in. Failure to heed this caution may result in serious engine or transaxle damage.
- When towing a trailer, we recommend that you consult an authorized Kia dealer on additional requirements such as a towing kit, etc.
- Always drive your vehicle at a moderate speed (less than 100 km/h (60 mph)).
- On a long uphill grade, do not exceed 70 km/h (45 mph) or the posted towing speed limit, whichever is lower.
- The chart contains important considerations that have to do with weight:

For Europe

Item		Kappa 1.6 GDI
		DCT
Maximum trailer weight kg (lbs.)	Unbraked	600 kg (1323 lbs.)
	Braked	1,300 kg (2,866 lbs.)
Technically permissible maximum static vertical load/mass on the coupling point kg (lbs.)		100 kg (220 lbs.)
Front axle to ball point of coupling device mm (inch)		3,415 mm (134 inch)
Rear axle to ball point of coupling device mm (inch)		715 mm (28 inch)
Maximum permissible overhang of the coupling point mm (inch)		910 mm (36 inch)

DCT : Dual clutch transmission

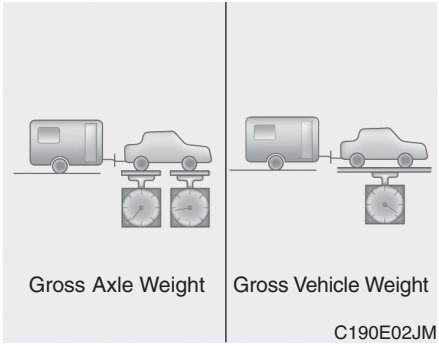
Weight of the trailer



What is the maximum safe weight of a trailer? It should never weigh more than the maximum trailer weight with trailer brakes. But even that can be too heavy.

It depends on how you plan to use your trailer. For example, speed, altitude, road grades, outside temperature and how often your vehicle is used to pull a trailer are all important. The ideal trailer weight can also depend on any special equipment that you have on your vehicle.

Weight of the trailer tongue



The tongue load of any trailer is an important weight to measure because it affects the total gross vehicle weight (GVW) of your vehicle. This weight includes the curb weight of the vehicle, any cargo you may carry in it, and the people who will be riding in the vehicle. And if you will tow a trailer, you must add the tongue load to the GVW because your vehicle will also be carrying that weight.

The trailer tongue should weigh a maximum of 10% of the total loaded trailer weight, within the limits of the maximum permissible trailer tongue load. After you've loaded your trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they aren't, you may be able to correct them simply by moving some items around in the trailer.

⚠ WARNING - Trailer

- **Never load a trailer with more weight in the rear than in the front. The front should be loaded with approximately 60% of the total trailer load; the rear should be loaded with approximately 40% of the total trailer load.**
- **Never exceed the maximum weight limits of the trailer or trailer towing equipment. Improper loading can result in damage to your vehicle and/or personal injury. Check weights and loading at a commercial scale or highway patrol office equipped with scales.**
- **An improperly loaded trailer can cause loss of vehicle control.**

✻ NOTICE

With increasing altitude the engine performance decreases. From 1,000m above sea level and for every 1,000m thereafter 10% of vehicle/trailer weight (trailer weighter + gross vehicle weight) must be deducted.

VEHICLE WEIGHT

This section will guide you in the proper loading of your vehicle and/or trailer, to keep your loaded vehicle weight within its design rating capability, with or without a trailer. Properly loading your vehicle will provide maximum return of the vehicle design performance. Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, with or without a trailer, from the vehicle's specifications and the 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.

Overloading

⚠ WARNING - Vehicle weight

The gross axle weight rating (GAWR) and the gross vehicle weight rating (GVWR) for your vehicle are on the certification label attached to the driver's (or front passenger's) door. Exceeding these ratings can cause an accident or vehicle damage. You can calculate the weight of your load by weighing the items (and people) before putting them in the vehicle. Be careful not to overload your vehicle.