

Driving your vehicle

Before Driving	5-4
Before Entering the Vehicle	5-4
Before Starting	5-4
Ignition Switch.....	5-6
Key Ignition Switch	5-6
Engine Start/Stop Button.....	5-9
Manual Transmission	5-16
Manual Transmission Operation.....	5-16
Good Driving Practices	5-18
Automatic Transmission	5-19
Automatic Transmission Operation.....	5-19
Good Driving Practices	5-24
Dual clutch transmission.....	5-26
Dual clutch transmission operation	5-26
LCD display for transmission temperature and warning message.....	5-28
Good Driving Practices	5-38
Braking System	5-40
Power Brakes	5-40
Disc Brakes Wear Indicator	5-41
Rear Drum Brakes.....	5-41
Parking Brake.....	5-41
Anti-lock Brake System (ABS)	5-43
Electronic Stability Control (ESC).....	5-45
Vehicle Stability Management (VSM).....	5-49
Hill-Start Assist Control (HAC)	5-50
Good Braking Practices	5-50
Drive Mode Integrated Control System	5-52
Blind-Spot Collision Warning (BCW).....	5-55
System description	5-55
System setting and activation.....	5-56
Warning and system control.....	5-57
Detecting sensor	5-59
Limitations of the system	5-61
Rear Cross-Traffic Collision Warning (RCCW) System	5-65
System description	5-65
System setting and activation.....	5-65
Warning and system control.....	5-67
Detecting sensor	5-68
Limitations of the system	5-70
Forward Collision Avoidance (FCA) System.....	5-74
System Setting and Activation.....	5-74
FCA Warning Message and System Control	5-76
FCA Sensor	5-79
System Malfunction	5-80
Limitations of the System.....	5-82

Forward Collision Avoidance (FCA) System (With Hyundai Smart Sense).....	5-87
System Setting and Activation.....	5-87
FCA Warning Message and System Control	5-90
FCA Sensor (Front Radar/Front Camera).....	5-92
System Malfunction	5-94
Limitations of the System.....	5-96
Lane Keeping Assist (LKA) System	5-101
LKA System Operation.....	5-102
Warning Light and Message	5-105
Limitations of the System.....	5-107
LKA System Function Change	5-109
Driver Attention Warning (DAW) System.....	5-110
System Setting and Activation	5-110
Resetting the System.....	5-111
System Standby.....	5-112
System Malfunction	5-112
Cruise Control.....	5-114
Cruise Control Operation	5-114
Smart Cruise Control System	5-119
Smart Cruise Control Switch	5-120
Smart Cruise Control Speed	5-121
Smart Cruise Control Vehicle-to-Vehicle Distance	5-125
Sensor to Detect Distance to the Vehicle Ahead	5-127
To Adjust the Sensitivity of Smart Cruise Control	5-129
To Convert to Cruise Control Mode	5-130
Limitations of the System.....	5-130
Special Driving Conditions	5-136
Hazardous Driving Conditions.....	5-136
Rocking the Vehicle.....	5-136
Smooth Cornering.....	5-137
Driving at Night	5-137
Driving in the Rain	5-137
Driving in Flooded Areas.....	5-138
Highway Driving	5-138
Winter Driving	5-139
Snow or Icy Conditions.....	5-139
Winter Precautions.....	5-139
Vehicle Load Limit.....	5-142
Tire Loading Information Label	5-143
Trailer Towing.....	5-148

WARNING

Carbon monoxide (CO) gas is toxic. Breathing CO can cause unconsciousness and death.

Engine exhaust contains carbon monoxide which cannot be seen or smelled.

Do not inhale engine exhaust.

If at any time you smell engine exhaust inside the vehicle, open the windows immediately. Exposure to CO can cause unconsciousness and death by asphyxiation.

Be sure the exhaust system does not leak.

The exhaust system should be checked whenever the vehicle is raised to change the oil or for any other purpose. If you hear a change in the sound of the exhaust or if you drive over something that strikes the underneath side of the vehicle, have the exhaust system checked as soon as possible by an authorized HYUNDAI 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. Run the engine only long enough to start the engine and to move the vehicle out of the garage.

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 control set to high so fresh air is drawn into the interior.

Keep the air intakes clear.

To assure proper operation of the ventilation system, keep the ventilation air intakes located in front of the windshield clear of snow, ice, leaves, or other obstructions.

If you must drive with the trunk open:

Close all windows.

Open instrument panel air vents.

Set the air intake control at "Fresh", the air flow control at "Floor" or "Face", and the fan control set to high.

BEFORE DRIVING

Before Entering the Vehicle

- Be sure all windows, outside mirror(s), and outside lights are clean and unobstructed.
- Remove frost, snow, or ice.
- Visually check the tires for uneven wear and damage.
- Check under the vehicle for any sign of leaks.
- Be sure there are no obstacles behind you if you intend to back up.

Before Starting

- Make sure the hood, the trunk, and the doors are securely closed and locked.
- Adjust the position of the seat and steering wheel.
- Adjust the inside and outside rearview mirrors.
- Verify all the lights work.
- Fasten your seat belt. Check that all passengers have fastened their seat belts.
- Check the gauges and indicators in the instrument panel and the messages on the instrument display when the ignition switch is in the ON position.
- Check that any items you are carrying are stored properly or fastened down securely.



WARNING

To reduce the risk of SERIOUS INJURY or DEATH, take the following precautions:

- **ALWAYS wear your seat belt. All passengers must be properly belted whenever the vehicle is moving. For more details, refer to "Seat Belts" in chapter 2.**
- **Always drive defensively. Assume other drivers or pedestrians may be careless and make mistakes.**
- **Stay focused on the task of driving. Driver distraction can cause accidents.**
- **Leave plenty of space between you and the vehicle in front of you.**

 WARNING

NEVER drink or take drugs and drive.

Drinking or taking drugs and driving is dangerous and may result in an accident and **SERIOUS INJURY or DEATH.**

Drunk driving is the number one contributor to the highway death toll each year. Even a small amount of alcohol will affect your reflexes, perceptions and judgment. Just one drink can reduce your ability to respond to changing conditions and emergencies and your reaction time gets worse with each additional drink.

Driving while under the influence of drugs is as dangerous or more dangerous than driving under the influence of alcohol.

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 taxi.

IGNITION SWITCH

Key Ignition Switch

WARNING

To reduce the risk of **SERIOUS INJURY** or **DEATH**, take the following precautions:

- **NEVER** allow children or any person who is unfamiliar with the vehicle to touch the ignition switch or related parts. Unexpected and sudden vehicle movement can occur.
- **NEVER** reach through the steering wheel for the ignition switch, or any other control, while the vehicle is in motion. The presence of your hand or arm in this area may cause a loss of vehicle control resulting in an accident.



Whenever the front door is opened, the ignition switch will illuminate, 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. (if equipped)

WARNING

NEVER turn the ignition switch to the **LOCK** or **ACC** position while the vehicle is in motion except in an emergency. This will result in the engine turning off and loss of power assist for the steering and brake systems. This may lead to loss of directional control and braking function, which could cause an accident.

Before leaving the driver's seat, always make sure the shift lever is in 1st gear (for manual transmission vehicle) or P (Park, for automatic transmission/dual clutch transmission vehicle) position, apply the parking brake, and turn ignition switch to the LOCK position.

Unexpected vehicle movement may occur if these precautions are not followed.

Key ignition switch positions

Switch Position	Action	Notice
LOCK	To turn the ignition switch to the LOCK position, put the key in at the ACC position and turn the key towards the LOCK position. The ignition key can be removed in the LOCK position. (The shift lever must be in the P (Park) position for automatic transmission/dual clutch transmission vehicles)	
ACC	Electrical accessories are usable. The steering wheel unlocks.	
ON	This is the normal key position when the engine has started. All features and accessories are usable. The warning lights can be checked when you turn the ignition switch from ACC to ON.	Do not leave the ignition switch in the ON position when the engine is not running in order to prevent the battery from discharging.
START	To start the engine, turn the ignition switch to the START position. The switch returns to the ON position when you let go of the key.	The engine will crank until you release the key.

Starting the engine

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.

Vehicle with manual transmission:

1. Make sure the parking brake is applied.
2. Make sure the shift lever is in neutral.
3. Depress the clutch and brake pedals.
4. Turn the ignition switch to the START position. Hold the key (maximum of 10 seconds) until the engine starts and release it.

Information

Depress the brake pedal and clutch pedal until the engine starts.

Vehicle with automatic transmission/dual clutch transmission:

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 the START position. Hold the key (maximum of 10 seconds) until the engine starts and release it.

Information

- **It is best to maintain a moderate engine speed until the vehicle engine comes up to normal operating temperature. Avoid harsh or abrupt acceleration or deceleration while the engine is still cold.**
- **Whether the engine is cold or warm, 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.**

NOTICE

To prevent damage to the vehicle:

- **Do not hold the ignition key in the START position for more than 10 seconds. Wait 5 to 10 seconds before trying again.**
- **Do not push or tow your vehicle to start the engine.**

Engine Start/Stop Button



Whenever the front door is opened, the Engine Start/Stop button will illuminate and will go off 30 seconds after the door is closed.

WARNING

To reduce risk of serious injury or death, **NEVER** allow children or any person who is unfamiliar with the vehicle to touch the Engine Start/Stop button or related parts. Unexpected and sudden vehicle movement can occur.

WARNING

To turn the engine off in an emergency:

Press and hold the Engine Start/Stop button for more than two seconds **OR** rapidly press and release the Engine Start/Stop button three times (within three 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.

WARNING

- **NEVER** press the Engine Start/ Stop button while the vehicle is in motion except in an emergency. This will result in the engine turning off and loss of power assist for the steering and brake systems.

This may lead to loss of directional control and braking function, which could cause an accident.

- Before leaving the driver's seat, always make sure the shift lever is in the **P (Park)** position, set the parking brake, press the Engine Start/Stop button to the **OFF** position, and take the Smart Key with you. Unexpected vehicle movement may occur if these precautions are not followed.
- **NEVER** reach through the steering wheel for the Engine Start/Stop button or any other control while the vehicle is in motion. The presence of your hand or arm in this area may cause a loss of vehicle control resulting in an accident.

Engine Start/Stop button positions
- Vehicle with manual transmission

Button Position	Action	Notice
OFF The image shows a circular button with a silver-colored ring. The text "ENGINE START STOP" is printed in the center. The button is not illuminated. Not illuminated	To turn off the engine, stop the vehicle and then press the Engine Start/Stop button.	
ACC The image shows the same circular button as above, but it is now illuminated with a blue light. The text "ENGINE START STOP" is still visible. Orange indicator	Press the Engine Start/Stop button when the button is in the OFF position without depressing the clutch pedal. Electrical accessories are usable.	If you leave the Engine Start/Stop button in the ACC position for more than one hour, the battery power will turn off automatically to prevent the battery from discharging.

- Vehicle with manual transmission

Button Position	Action	Notice
ON  Blue indicator	Press the Engine Start/Stop button while it is in the ACC position without depressing the clutch pedal. The warning lights can be checked before the engine is started.	Do not leave the Engine Start/Stop button in the ON position when the engine is not running to prevent the battery from discharging.
START  Not illuminated	To start the engine, depress the clutch and brake pedals and press the Engine Start/Stop button with the shift lever in neutral.	If you press the Engine Start/Stop button without depressing the clutch pedal, the engine does not start and the Engine Start/Stop button changes as follows: OFF → ACC → ON → OFF

Engine Start/Stop button positions

- Vehicle with automatic transmission/dual clutch transmission

Button Position	Action	Notice
OFF 	To turn off the engine, press the Engine Start/Stop button with shift lever in P (Park). When you press the Engine Start/Stop button without the shift lever in P (Park), the Engine Start/Stop button does not turn to the OFF position, but turns to the ACC position.	
ACC 	Press the Engine Start/Stop button when the button is in the OFF position without depressing the brake pedal. Electrical accessories are usable.	If you leave the Engine Start/Stop button in the ACC position for more than one hour, the battery power will turn off automatically to prevent the battery from discharging.

- Vehicle with automatic transmission/dual clutch transmission

Button Position	Action	Notice
ON 	Press the Engine Start/Stop button while it is in the ACC position without depressing the brake pedal. The warning lights can be checked before the engine is started.	Do not leave the Engine Start/Stop button in the ON position when the engine is not running to prevent the battery from discharging.
START 	To start the engine, depress the brake pedal and press the Engine Start/Stop button with the shift lever in the P (Park) or in the N (Neutral) position. For your safety, start the engine with the shift lever in the P (Park) position.	If you press the Engine Start/Stop button without depressing the brake pedal, the engine does not start and the Engine Start/Stop button changes as follows: OFF → ACC → ON → OFF However, the engine may start if you depress the brake pedal within 0.5 second after pressing the Engine Start/Stop button from the OFF position.

Starting the engine

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.
- Wait until the engine rpm is normal. The vehicle may suddenly move if the brake pedal is released when the rpm is high.

Information

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

Vehicle with manual transmission:

1. Always carry the smart key with you.
2. Make sure the parking brake is applied.
3. Make sure the shift lever is in neutral.
4. Depress the clutch and brake pedals.
5. Press the Engine Start/Stop button.

Information

Depress the brake pedal and clutch pedal until the engine starts.

Vehicle with automatic transmission/dual clutch transmission:

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.

i Information

- Do not wait for the engine to warm up while the vehicle remains stationary. Start driving at moderate engine speeds. (Aggressive 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.

NOTICE

To prevent damage to the vehicle:

- If the engine stalls while you are in motion, do not attempt to move the shift lever to the P (Park) position.

If traffic and road conditions permit, you may put the shift lever in the N (Neutral) position while the vehicle is still moving and press the Engine Start/Stop button in an attempt to restart the engine.

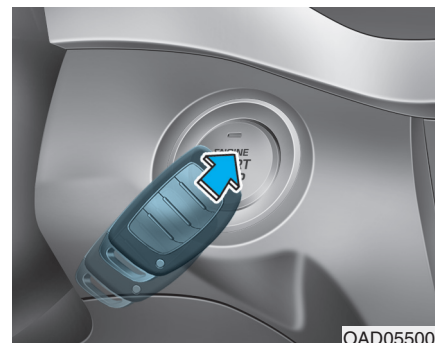
- Do not push or tow your vehicle to start the engine.

NOTICE

To prevent damage to the vehicle:
When the stop lamp switch fuse is blown, you can't start the engine normally. Replace the fuse with a new one. If you are not able to replace the fuse, you can start the engine by pressing and holding the Engine Start/Stop button for 10 seconds with the Engine Start/Stop button in the ACC position.

Do not press the Engine Start/Stop button for more than 10 seconds except when the stop lamp switch fuse is blown.

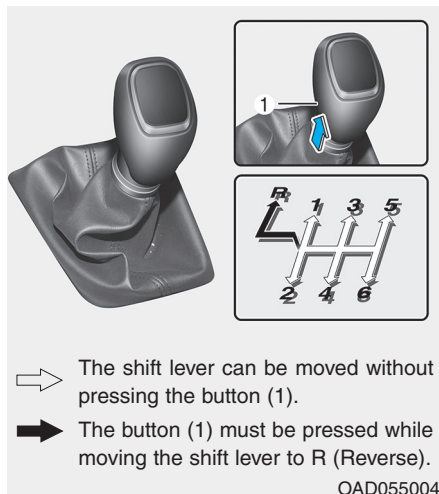
For your safety always depress the brake pedal before starting the engine.



i Information

If the smart key 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 in the direction of the picture above.

MANUAL TRANSMISSION



Manual Transmission Operation

The manual transmission has 6 forward gears. The transmission is fully synchronized in all forward gears so shifting to either a higher or a lower gear is easily accomplished.

⚠ WARNING

Before leaving the driver's seat, always make sure the shift lever is in 1st gear when the vehicle is parked on a uphill and in R (Reverse) on a downhill, set the parking brake, and place the ignition switch in the LOCK/OFF position. Unexpected vehicle movement may occur if these precautions are not followed.

To shift to R (Reverse), make sure the vehicle has completely stopped, and then move the shift lever to neutral before moving into R (Reverse).

When you've come to a complete stop and it's hard to shift into 1st gear or R (Reverse):

1. Put the shift lever in neutral and release the clutch pedal.
2. Depress the clutch pedal, and then shift into 1 (first) or R (Reverse) gear.

NOTICE

During cold weather, shifting may be difficult until the transmission lubricant has warmed up.

Using the clutch

The clutch pedal should be depressed all the way before:

- Starting the engine
The engine will not start without depressing the clutch pedal.
- Shifting into gear, up shifting to the next higher gear, or down shifting to the next lower gear.

When releasing the clutch pedal, release it slowly. The clutch pedal should always be fully released while driving.



CAUTION

To prevent unnecessary wear or damage to the clutch:

- Do not rest your foot on the clutch pedal while driving.
- Do not hold the vehicle with the clutch on an incline, while waiting for the traffic light, etc.
- Always depress the clutch pedal down fully to prevent noise or damage.
- Do not depress the clutch pedal again until it is fully released.
- Do not start with the 2nd (second) gear engaged except when you start on a slippery road.
- Do not drive with cargo loaded more than required loading capacity.

Downshifting

Down shift to a lower gear when slowing down in heavy traffic or driving up a steep hill to prevent high engine loads.

Also, downshifting reduces the chance of stalling and helps reaccelerate the vehicle when you need to increase your speed.

When the vehicle is going downhill, downshifting helps maintain safe speed by providing engine braking (brake power from the engine) and results in less wear on the brakes.

NOTICE

To prevent damage to the engine, clutch and transmission:

- When downshifting from 5th gear to 4th gear, be careful not to inadvertently push the shift lever sideways engaging the 2nd gear. A drastic downshift may cause the engine speed to increase to the point the tachometer will enter the red-zone and may cause engine damage.
- Do not downshift more than two gear at a time or downshift the gear when the engine is running at high speed (5,000 RPM or higher).
Such down shifting may damage the engine, clutch and the transmission.

Good Driving Practices

- Never take the vehicle out of gear and coast down a hill. This is extremely dangerous.

- Don't "ride" the brakes. This can cause the brakes and related parts to overheat and malfunction.

When you are driving down a long hill, slow down and shift to a lower gear. Engine braking will help slow down the vehicle.

- Slow down before shifting to a lower gear. This will help avoid over-revving the engine, which can cause damage.
- Slow down when you encounter cross winds. This gives you much better control of your vehicle.
- Be sure the vehicle is completely stopped before you shift into R (Reverse) to prevent damage to the transmission.

- 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 may cause loss of vehicle control resulting in an accident.

WARNING

Do not use aggressive engine braking (shifting from a higher gear to a lower gear) on slippery roads. This could cause the tires to slip and may result in an accident.

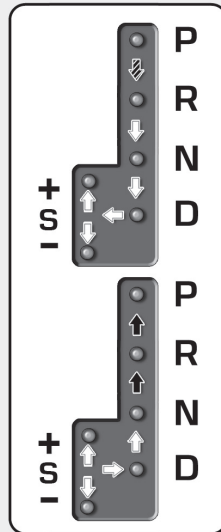
WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

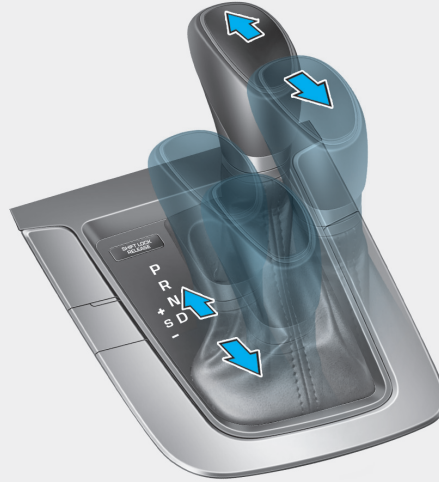
- **ALWAYS** wear your seat belt. In a collision, an unbelted occupant is significantly more likely to be seriously injured or killed than a properly belted occupant.

- **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 over steers 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.**
- **HYUNDAI recommends you follow all posted speed limits.**

AUTOMATIC TRANSMISSION



-  Press the shift button, then move shift lever.
-  Depress the brake pedal, press the shift button, and then move shift lever.
-  Move shift lever.



OAD058005N

Automatic Transmission Operation

The automatic 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.
- When using Manual Shift Mode, do not use aggressive engine braking (shifting from a higher gear to a lower gear) on slippery roads. This could cause the tires to slip and may result in an accident.

Transmission ranges

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

P (Park)

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

To shift from P (Park), you must depress firmly on the brake pedal and make sure your foot is off the accelerator pedal.

If you have done all of the above and still cannot shift the lever out of P (Park), see "Shift-Lock Release" in this section.

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.**
- **When parking on an incline, block the wheels to prevent the vehicle from rolling down.**
- **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. 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.

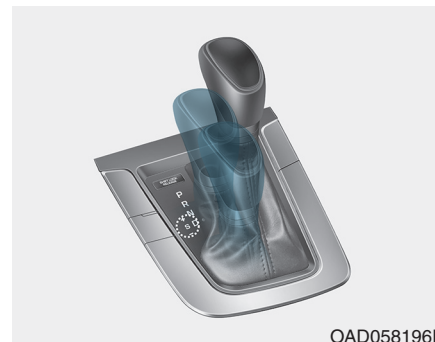
D (Drive)

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.

The DRIVE MODE switch, located on the shift lever console, allows the driver to switch from NORMAL mode to SPORT mode.

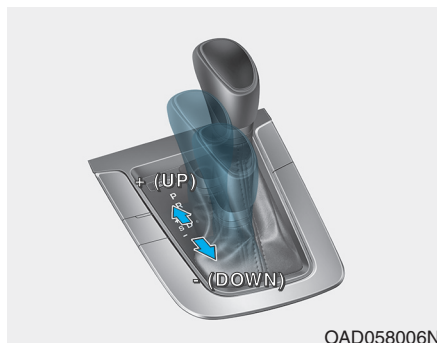
For more details, refer to "Drive Mode Integrated Control System" later in this chapter.



OAD058196N

S (Sport) mode

- To shift into S mode, move the shift lever from D (Drive) to the center of the manual shift mode. The engine and transmission control logic is automatically optimized for sporty driving.
- In S mode, if you move the shift lever to + (up) or - (down), the gear will change to manual shift mode. If the shift lever is moved back into D (Drive), it will change to D (Drive). The vehicle will perform according to the mode selected from drive mode (NORMAL, SPORT, SMART).



Manual shift mode

Whether the vehicle is stationary or in motion, manual shift 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 shift 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.

i Information

- 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 engine rpm range. The driver must execute upshifts in accordance with road conditions, taking care to keep the engine rpms below the red zone.
- When accelerating from a stop on a slippery road, push the shift lever forward into the + (Up) position. This allows the transmission to shift into the 2nd gear which is better for smooth driving on a slippery road. Push the shift lever to the - (Down) side to shift back to the 1st gear.
- When driving in Manual Shift Mode, slow down before shifting to a lower gear. Otherwise, the lower gear may not be engaged if the engine rpms are outside of the allowable range.

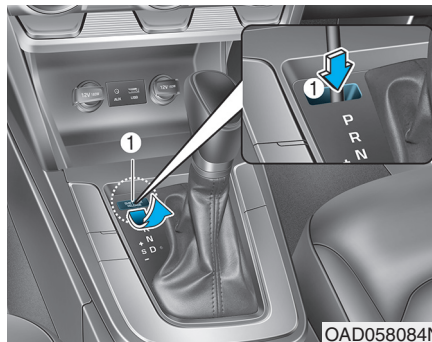
Shift-lock system

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

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

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

Shift-lock release



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

1. 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 shift-lock override access hole then install the cap.

If you need to use the shift-lock release, have your vehicle inspected by an authorized HYUNDAI dealer immediately.

Parking

Always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, apply the parking brake, and place the ignition switch in the LOCK/OFF position. Take the Key with you when exiting the vehicle.

WARNING

- **When you stay in the vehicle with the engine running, be careful not to depress the accelerator pedal for a long period of time. The engine or exhaust system may overheat and start a fire.**
- **The exhaust gas and the exhaust system are very hot. Keep away from the exhaust system components.**
- **Do not stop or park over flammable materials, such as dry grass, paper or leaves. They may ignite and cause a fire.**

Good Driving Practices

- Never move the shift lever from P (Park) or N (Neutral) to any other position with the accelerator pedal depressed.
- Never move the shift lever into P (Park) when the vehicle is in motion.
Be sure the vehicle is completely stopped before you attempt to shift into R (Reverse) or D (Drive).
- Do not move the shift lever to N (Neutral) when driving. Doing so may result in an accident because of a loss of engine braking.
- Do not drive with your foot resting on the brake pedal. Even light, but consistent pedal pressure can result in the brakes overheating, brake wear and possibly even brake failure.
- Do not hold the vehicle on an incline with the accelerator pedal. This can cause the transmission to overheat. Always use the brake pedal or parking brake.
- Depressing both accelerator and brake pedals at the same time can trigger logic for engine power reduction to assure vehicle deceleration. Vehicle acceleration will resume after the brake pedal is released.
- Always apply the parking brake when leaving the vehicle. Do not depend on placing the transmission in P (Park) to keep the vehicle from moving.
- Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in vehicle speed can cause the drive wheels to lose traction and may cause loss of vehicle control resulting in an accident.
- Optimum vehicle performance and economy is obtained by smoothly depressing and releasing the accelerator.

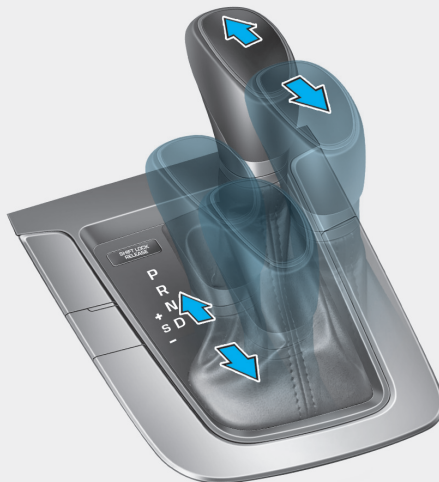
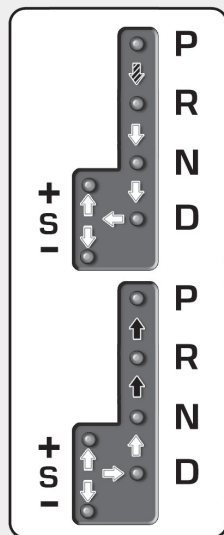
WARNING

To reduce the risk of **SERIOUS INJURY or DEATH**:

- **ALWAYS** wear your seat belt. 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 over steers 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.
- **HYUNDAI** recommends you follow all posted speed limits.

DUAL CLUTCH TRANSMISSION (IF EQUIPPED)



-  Press the shift button, then move shift lever.
-  Depress the brake pedal, press the shift button, and then move shift lever.
-  Move shift lever.

OAD058005N

Dual clutch transmission operation

The dual clutch transmission has seven forward speeds and one reverse speed. The individual speeds are selected automatically when the shift lever is in the D (Drive) position.

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

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

- The dry-type clutch transfers torque more directly and provides a direct-drive feeling which may feel different from a conventional automatic transmission. This may be more noticeable when launching the vehicle from a stop or when traveling at low, stop-and-go vehicle speeds.
- When rapidly accelerating from a lower vehicle speed, the engine rpm may increase dramatically as a result of clutch slip as the dual clutch transmission selects the correct gear. This is a normal condition.
- When accelerating from a stop on an incline, press the accelerator smoothly and gradually to avoid any shudder feeling or jerkiness.
- When traveling at a lower vehicle speed, if you release the accelerator pedal quickly, you may feel engine braking before the transmission changes gears. This engine braking feeling is similar to operating a manual transmission at low speed.
- When driving downhill, you may wish to move the gear shift lever to Manual Shift mode and downshift to a lower gear in order to control your speed without using the brake pedal excessively.
- When you turn the engine on and off, you may hear clicking sounds as the system goes through a self-test. This is a normal sound for the dual clutch transmission.
- During the first 1,600 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.

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 aggressive engine braking (shifting from a higher gear to a lower gear) on slippery roads. This could cause the tires to slip and may result in an accident.

NOTICE

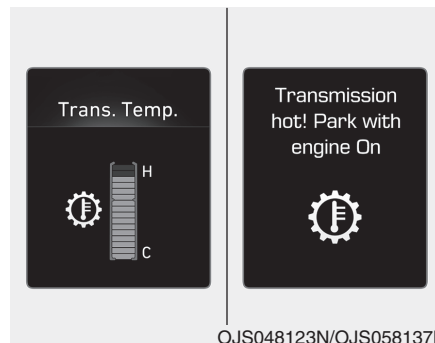
- Always come to a complete stop before shifting into D (Drive) or R (Reverse).
- Do not put the shift lever in N (Neutral) while driving.

WARNING

If the transmission cannot shift into Drive or Reverse, the position indicator D or R) on the cluster will blink. Contact an authorized Hyundai dealer to have the system checked.

LCD display for transmission temperature and warning message

Transmission temperature gauge



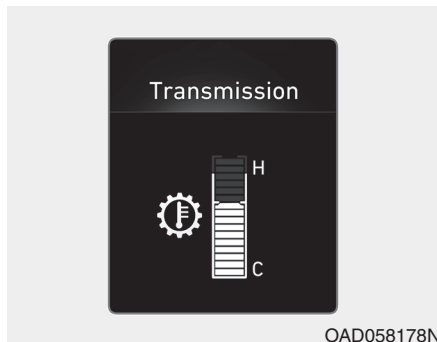
- Select trip computer mode on the LCD display and move to the transmission temperature screen to see the temperature of the dual clutch transmission.
- Try to drive so that the temperature gauge do not show high/overheat. When the transmission is overheated, the warning message will display on the LCD. Follow the displayed message.



CAUTION

- Increase (high temperature) of the transmission temperature gauge usually appears on an incline when the vehicle is stopped for a long time using accelerator pedal, without depressing the brake pedal.
- To maintain the optimal transmission performance, drive so that the white gauge is not exceeded (if equipped).

Normal (below marking 10)

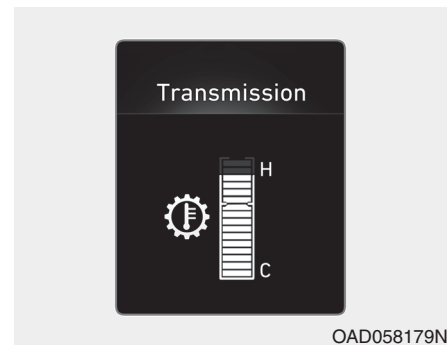


- In order to maintain the optimal gear shift performance, drive so that the temperature gauge is below the point (**below marking 10**).

i Information

The temperature gauge may increase rapidly if clutch slip occurs excessively due to repeated stop-and-go driving on steep grades and when Hill Hold is maintained for a long time. In order to prevent excessive temperature increase, use the brake during low speed driving or when stopping the vehicle on a hill.

Before entering High/Overheat (from marking 10 to 14)

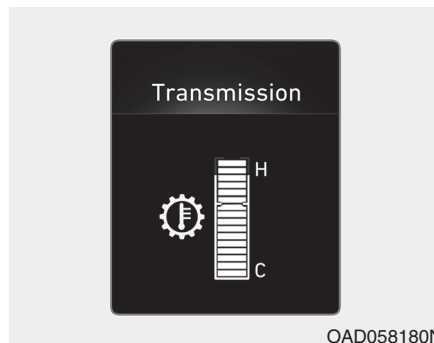


- This zone shows that the dual clutch temperature of the DCT is before entering the high/overheat zone. When the clutch temperature is within this zone (from marking 10 to 14), drive minimizing the clutch slip so that the temperature gauge is below the point (**marking 10**).

- If the dual clutch temperature continues to increase and reaches marking 14, the warning alarm sounds and the temperature gauge pops up on the cluster.

The DCT warning message is not displayed.

High/Overheat (from marking 15 to 16)



- This zone shows that the dual clutch temperature of the DCT has entered the high/overheat zone.

The DCT warning alarm sounds, warning message is displayed on the cluster and the temperature gauge disappears from the cluster.

Follow the displayed warning message.

- To check the temperature status of the dual clutch when overheated, move to the temperature gauge screen by selecting the trip computer mode. Then, you can check the temperature status of the dual clutch.

DCT warning messages



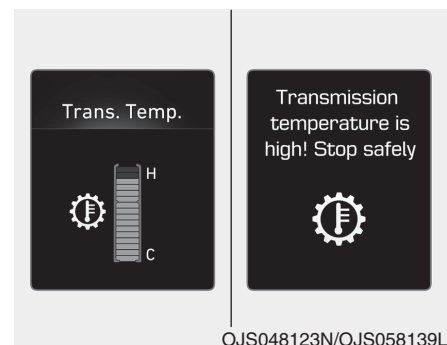
Steep grade

This warning message is displayed when vehicle is driven slowly on a grade and the vehicle detects that the brake pedal is not applied.

Driving up hills or on steep grades:

- To hold the vehicle on an incline use the foot brake or the parking brake.
- When in stop-and-go traffic on an incline, keep some distance ahead before moving the vehicle forward. Then hold the vehicle on the incline with the foot brake.

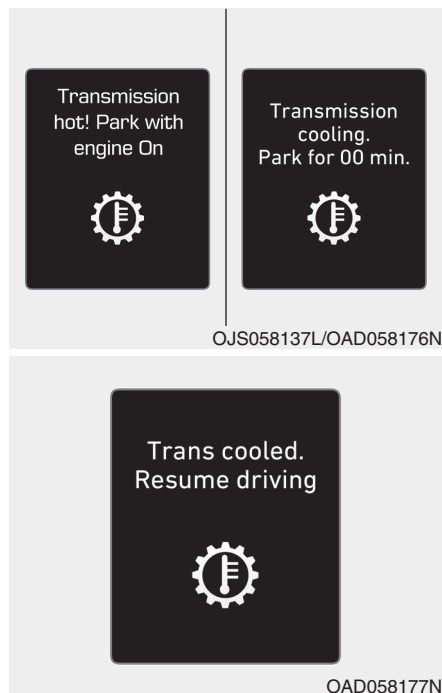
- If the vehicle is held on a hill by applying the accelerator pedal or by creeping with brake pedal disengaged, the clutch and transmission may overheat which can result in damage. At this time, a warning message will appear on the LCD display.
- If the LCD display warning is active, the foot brake must be applied.
- Ignoring the warnings can lead to damage to the transmission.



Transmission high temperature

- Under certain conditions, such as repeated stop-and-go launches on steep grades, sudden take off or acceleration, or other harsh driving conditions, the transmission clutch temperatures will increase excessively. Finally the clutch in transmission could be overheated.
- When the clutch is overheated, the safe protection mode engages and the gear position indicator on the cluster blinks with a chime. At this time, "Transmission temp. is high! Stop safely" warning message will appear on the LCD display and driving may not be smooth.

- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply the brakes and shift the vehicle to P (Park) with engine on, and allow the transmission to cool.
- If you ignore this warning, the driving condition may become worse. You may experience abrupt shifts, frequent shifts, or jerkiness. To return to the normal driving condition, stop the vehicle and apply the foot brake or shift into P (Park). Then allow the transmission to cool for a few minutes with engine on, before driving off.
- When possible, drive the vehicle smoothly.



Transmission overheated

- If the vehicle continues to be driven and the clutch temperatures reach the maximum temperature limit, the "Transmission Hot! Park with engine on" warning will be displayed.

When this occurs the clutch is disabled until the clutch cools to normal temperatures.

- The warning will display a time to wait for the transmission to cool.
- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply the brakes and shift the vehicle to P (Park) with engine on for a certain time, and allow the transmission to cool.
- When the message "Trans cooled. Resume driving" appears you can continue to drive your vehicle.
- When possible, drive the vehicle smoothly.

If any of the warning messages in the LCD display continue to blink, for your safety, contact an authorized HYUNDAI dealer and have the system checked.

Transmission ranges

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

P (Park)

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

To shift from P (Park), you must depress firmly on the brake pedal and make sure your foot is off the accelerator pedal.

If you have done all of the above and still cannot shift the lever out of P (Park), see "Shift-Lock Release" in this chapter.

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.**
- **When parking on an incline, place the shift lever in P (Park) and apply the parking brake to prevent the vehicle from rolling downhill.**
- **For safety, always engage the parking brake with the shift lever in the P (Park) position except for the case of emergency parking.**
- **Do not use the P (Park) position in place of the parking brake.**

R (Reverse)

Use this position to drive the vehicle backward.

NOTICE

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.

D (Drive)

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

The DRIVE MODE switch, located on the shift lever console, allows the driver to switch from NORMAL mode to SPORT mode.

For more details, refer to "Drive Mode Integrated Control System" later in this chapter.

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 may lose control of the vehicle and cause accidents.**
- **Do not drive with the shift lever in N (Neutral). The engine brake will not work and may lead to an accident.**

NOTICE

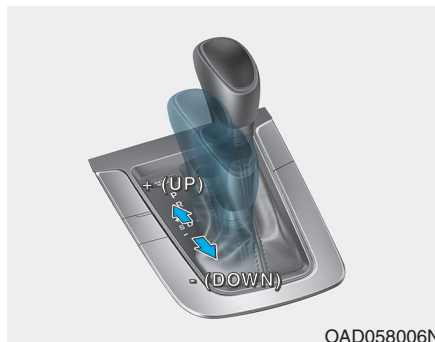
Always make sure the vehicle is stationary, at a complete stop, before selecting D (Drive).



OAD058196N

S (Sport) mode

- To shift into S mode, move the shift lever from D (Drive) to the center of the manual shift mode. The engine and transmission control logic is automatically optimized for sporty driving.
- In S mode, if you move the shift lever to + (up) or - (down), the gear will change to manual shift mode. If the shift lever is moved back into D (Drive), it will change to D (Drive). The vehicle will perform according to the mode selected from drive mode (NORMAL, SPORT, SMART).



OAD058006N

Manual shift mode

Whether the vehicle is stationary or in motion, manual shift 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.

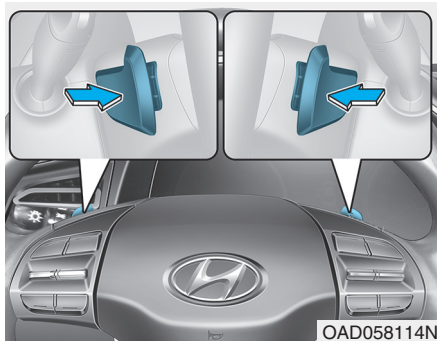
In Manual Shift Mode, moving the shift lever backwards and forwards will allow you to select the desired range of gears for the current driving conditions.

- + (Up) : Push the lever forward once to shift up one gear.
- (Down) : Pull the lever backwards once to shift down one gear.

i Information

- Only the seven 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 engine rpm range. The driver must execute upshifts in accordance with road conditions, taking care to keep the engine rpms below the red zone.

Paddle shifter (if equipped)



The paddle shifter is available when the shift lever is in the D (Drive) position or the manual shift mode.

With the shift lever in the D position

The paddle shifter will operate when the vehicle speed is more than 10 km/h (6 mph).

Pull the [+] or [-] paddle shifter once to shift up or down one gear and the system changes from automatic mode to manual mode.

When the vehicle speed is lower than 10 km/h (6 mph), if you depress the accelerator pedal for more than 5 seconds or if you move the shift lever from Manual Shift Mode to D (Drive), the system changes from manual mode to automatic mode.

With the shift lever in the manual shift mode

Pull the [+] or [-] paddle shifter once to shift up or down one gear.

NOTICE

If the [+] and [-] paddle shifters are pulled at the same time, gear change may not occur.

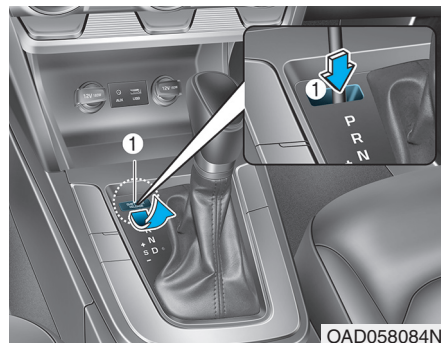
Shift-Lock System

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

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

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

Shift-Lock Release



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

1. 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 shift-lock override access hole then install the cap.

If you need to use the shift-lock release, have your vehicle inspected by an authorized HYUNDAI dealer immediately.

Parking

Always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, apply the parking brake, and place the ignition switch in the LOCK/OFF position. Take the key with you when exiting the vehicle.

WARNING

When you stay in the vehicle with the engine running, be careful not to depress the accelerator pedal for a long period of time. The engine or exhaust system may overheat and start a fire.

The exhaust gas and the exhaust system are very hot. Keep away from the exhaust system components.

Do not stop or park over flammable materials, such as dry grass, paper or leaves. They may ignite and cause a fire.

Good Driving Practices

- Never move the shift lever from P (Park) or N (Neutral) to any other position with the accelerator pedal depressed.

- Never move the shift lever into P (Park) when the vehicle is in motion.

Be sure the vehicle is completely stopped before you attempt to shift into R (Reverse) or D (Drive).

- Do not move the shift lever to N (Neutral) when driving. Doing so may result in an accident because of a loss of engine braking and the transmission could be damaged.
- Do not drive with your foot resting on the brake pedal. Even light, but consistent pedal pressure can result in the brakes overheating, brake wear and possibly even brake failure.
- Do not hold the vehicle on an incline with the accelerator pedal. This can cause the transmission to overheat. Always use the brake pedal or parking brake.

- Depressing both accelerator and brake pedals at the same time can trigger logic for engine power reduction to assure vehicle deceleration. Vehicle acceleration will resume after the brake pedal is released.
- When driving in Manual Shift Mode, slow down before shifting to a lower gear. Otherwise, the lower gear may not be engaged if the engine rpms are outside of the allowable range.
- Always apply the parking brake when leaving the vehicle. Do not depend on placing the transmission in P (Park) to keep the vehicle from moving.
- Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in vehicle speed can cause the drive wheels to lose traction and may cause loss of vehicle control resulting in an accident.
- Optimum vehicle performance and economy is obtained by smoothly depressing and releasing the accelerator.

WARNING

To reduce the risk of **SERIOUS INJURY** or **DEATH**:

- **ALWAYS** wear your seat belt. 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 over steers 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.
- **HYUNDAI** recommends you follow all posted speed limits.

BRAKING SYSTEM

Power Brakes

Your vehicle has power-assisted brakes that adjust automatically through normal usage.

If the engine is not running or is turned off while driving, the power assist for the brakes will not work. You can still stop your vehicle by applying greater force to the brake pedal than typical. The stopping distance, however, will be longer than with power brakes.

When the engine is not running, the reserve brake power is partially depleted each time the brake pedal is applied. Do not pump the brake pedal when the power assist has been interrupted.

Pump the brake pedal only when necessary to maintain steering control on slippery surfaces.

WARNING

Take the following precautions:

- **Do not drive with your foot resting on the brake pedal. This will create abnormal high brake temperatures, excessive brake lining and pad wear, and increased stopping distances.**
- **When descending down a long or steep hill, move the gear shift lever to Manual Shift Mode and manually downshift to a lower gear in order to control your speed without using the brake pedal excessively. Applying the brakes continuously 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, lightly tap the brake pedal to heat up the brakes while maintaining a safe forward speed until brake performance returns to normal. Avoid driving at high speeds until the brakes function correctly.**

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 or rear brakes. You may hear this sound come and go or it may occur whenever you depress the brake pedal.

Note 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.

NOTICE

To avoid costly brake repairs, do not continue to drive with worn brake pads.

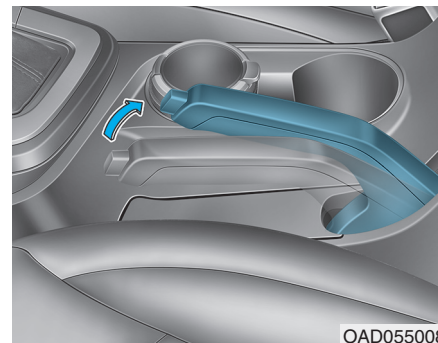
i Information

Always replace brake pads as complete front or rear axle sets.

Rear Drum Brakes (if equipped)

Your rear drum brakes do not have wear indicators. Therefore, have the rear brake linings inspected if you hear a rear brake rubbing noise. Also have your rear brakes inspected each time you change or rotate your tires and when you have the front brakes replaced.

Parking Brake



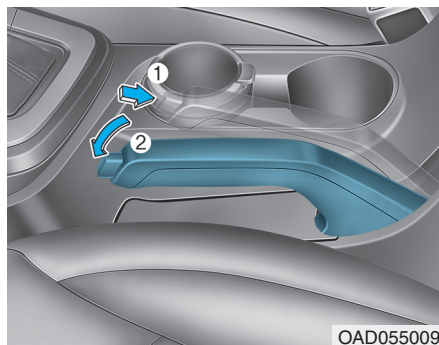
Always set the parking brake before leaving the vehicle. To apply the parking brake:

Firmly depress the brake pedal.

Pull up the parking brake lever as far as possible.

⚠ WARNING

To reduce the risk of **SERIOUS INJURY** or **DEATH**, do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the brake system and lead to an accident.



To release:

Firmly depress the brake pedal.

While pressing the release button (1), slightly pull up on the parking brake lever then lower the parking brake lever (2).

If the parking brake does not release or does not release all the way, have your vehicle checked by an authorized HYUNDAI dealer.

⚠ 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 P (Park) position, then apply the parking brake, and place the ignition switch in the LOCK/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.
- Only release the parking brake when you are seated inside the vehicle with your foot firmly on the brake pedal.

NOTICE

- **Do not apply the accelerator pedal while the parking brake is engaged. If you depress the accelerator pedal with the parking brake engaged, warning will sound. Damage to the parking brake may occur.**
- **Driving with the parking brake on can overheat the braking system and cause premature wear or damage to brake parts. Make sure the parking brake is released and the Brake Warning Light is off before driving.**



Check the Parking Brake Warning Light by placing the ignition switch to the ON position (do not start the engine).

This light will be illuminated when the parking brake is applied with the ignition switch in the START or ON position.

Before driving, be sure the parking brake is released and the Brake Warning Light is OFF.

If the Parking Brake Warning Light remains on after the parking brake is released while engine is running, there may be a malfunction in the brake system. Immediate attention is necessary.

If at all possible, cease driving the vehicle immediately. If that is not possible, use extreme caution while operating the vehicle and only continue to drive the vehicle until you can reach a safe location.

Anti-lock Brake System (ABS)**⚠ WARNING**

An Anti-Lock Braking System (ABS) or an Electronic Stability Control (ESC) system 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 of you. Vehicle speeds should always be reduced during extreme road conditions. The braking distance for cars equipped with ABS or ESC may be longer than for those without these systems in the following road conditions.

Drive your vehicle at reduced speeds during the following conditions:

- **Rough, gravel or snow-covered roads.**

- 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.

ABS is an electronic braking system that helps prevent a braking skid. ABS allows the driver to steer and brake at the same time.

Using ABS

To obtain the maximum benefit from your ABS in an emergency situation, do not attempt to modulate your brake pressure and do not try to pump your brakes. Depress your brake pedal as hard as possible.

When you apply your brakes under conditions which may lock the wheels, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ABS is active.

ABS does not reduce the time or distance it takes to stop the vehicle.

Always maintain a safe distance from the vehicle in front of you.

ABS will not prevent a skid that results from sudden changes in direction, such as trying to take a corner too fast or making a sudden lane change. Always drive at a safe speed for the road and weather conditions.

ABS cannot prevent a loss of stability. Always steer moderately when braking hard. Severe or sharp steering wheel movement can still cause your vehicle to veer into oncoming traffic or off the road.

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.

The ABS warning light () will stay on for several seconds after the ignition switch is in the ON position. During that time, the ABS will go through self-diagnosis and the light will go off if everything is normal. If the light stays on, you may have a problem with your ABS. Contact an authorized HYUNDAI dealer as soon as possible

WARNING

If the ABS warning light () is on and stays on, you may have a problem with the ABS. Your power brakes will work normally. To reduce the risk of serious injury or death, contact your HYUNDAI dealer as soon as possible.

CAUTION

When you drive on a road having poor traction, such as an icy road, and apply your brakes continuously, the ABS will be active continuously and the ABS warning light () may illuminate. Pull your car over to a safe place and turn the engine off.

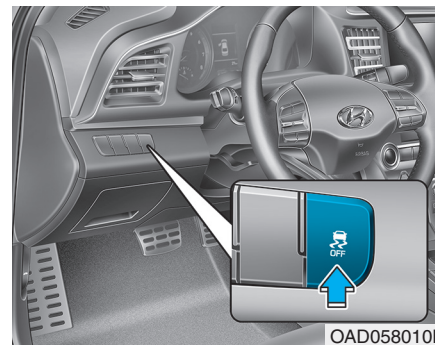
Restart the engine. If the ABS warning light is off, then your ABS system is normal.

Otherwise, you may have a problem with your ABS system. Contact an authorized HYUNDAI dealer as soon as possible.

Information

When you jump start your vehicle because of a drained battery, 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. Have the battery recharged before driving the vehicle.

Electronic Stability Control (ESC)



The Electronic Stability Control (ESC) system helps to stabilize the vehicle during cornering maneuvers. ESC checks where you are steering and where the vehicle is actually going. ESC applies braking pressure to any one of the vehicle's brakes and intervenes in the engine management system to assist the driver with keeping the vehicle on the intended path. It is not a substitute for safe driving practices. Always adjust your speed and driving to the road conditions.

 WARNING

Never drive too fast for the road conditions or too quickly when cornering. The ESC system will not prevent accidents.

Excessive speed in turns, abrupt maneuvers, and hydroplaning on wet surfaces can result in severe accidents.

ESC operation

ESC ON condition

When the ignition switch is in the ON position, the ESC and the ESC OFF indicator lights illuminate for approximately three seconds. After both lights go off, the ESC is enabled.

When operating



When the ESC is in operation, the ESC indicator light blinks:

- When you apply your brakes under conditions which may lock the wheels, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ESC is active.
- When the ESC activates, the engine may not respond to the accelerator as it does under routine conditions.

- If the Cruise Control was in use when the ESC activates, the Cruise Control automatically disengages. The Cruise Control can be reengaged when the road conditions allow. See "Cruise Control System" later in this chapter (if equipped).
- When moving out of the mud or driving on a slippery road, the engine RPM (revolutions 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 OFF condition

To cancel ESC operation :

• State 1

Press the ESC OFF button briefly. The ESC OFF indicator light and message (if equipped with supervision cluster) will illuminate. In this state, the traction control function of ESC (engine management) is disabled, but the brake control function of ESC (braking management) still operates.

• State 2

Press and hold the ESC OFF button continuously for more than 3 seconds. The ESC OFF indicator light and message (if equipped with supervision cluster) illuminates and a warning chime sounds. In this state, both the traction control function of ESC (engine management) and the brake control function of ESC (braking management) are disabled.

If the ignition switch is placed to the LOCK/OFF position when ESC is off, ESC remains off. Upon restarting the engine, the ESC will automatically turn on again.

Indicator lights

■ ESC indicator light (blinks)



■ ESC OFF indicator light (comes on)



When the ignition switch is placed to the ON position, the ESC indicator light illuminates, then goes off if the ESC system is operating normally.

The ESC indicator light blinks whenever the ESC is operating.

If ESC indicator light stays on, your vehicle may have a malfunction with the ESC system. When this warning light illuminates have your vehicle checked by an authorized HYUNDAI dealer as soon as possible.

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

 WARNING

When the ESC is blinking, this indicates the ESC is active:

Drive slowly and NEVER attempt to accelerate. NEVER turn the ESC off while the ESC indicator light is blinking or you may lose control of the vehicle resulting in an accident.

NOTICE

Driving with wheels and tires with different sizes may cause the ESC system to malfunction. Before replacing tires, make sure all four tires and wheels are the same size. Never drive the vehicle with different sized wheels and tires installed.

ESC OFF usage

When Driving

The ESC OFF mode should only be used briefly to help free the vehicle if stuck in snow or mud by temporarily stopping operation of the ESC to maintain wheel torque.

To turn ESC off while driving, press the ESC OFF button while driving on a flat road surface.

NOTICE

To prevent damage to the transmission:

- **Do not allow wheel(s) of one axle to spin excessively while the ESC, ABS, and parking brake warning lights are displayed. The repairs would not be covered by the vehicle warranty. Reduce engine power and do not spin the wheel(s) excessively while these lights are displayed.**
- **When operating the vehicle on a dynamometer, make sure the ESC is turned off (ESC OFF light illuminated).**

 Information

Turning the ESC off does not affect ABS or standard brake system operation.

Vehicle Stability Management (VSM)

The Vehicle Stability Management (VSM) is a function of the Electronic Stability Control (ESC) system. It helps ensure the vehicle stays stable when accelerating or braking suddenly on wet, slippery and rough roads where traction over the four tires can suddenly become uneven.

WARNING

Take the following precautions when using the Vehicle Stability Management (VSM):

- **ALWAYS** check the speed and the distance to the vehicle ahead. The VSM is not a substitute for safe driving practices.
- **Never drive too fast for the road conditions. The VSM system will not prevent accidents. Excessive speed in bad weather, slippery and uneven roads can result in severe accidents.**

VSM operation

VSM ON condition

The VSM operates when:

- The Electronic Stability Control (ESC) is on.
- Vehicle speed is approximately above 15 km/h (9 mph) on curve roads.
- Vehicle speed is approximately above 20 km/h (12 mph) when the vehicle is braking on rough roads.

When operating

When you apply your brakes under conditions which may activate the ESC, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your VSM is active.

NOTICE

The VSM does not operate when:

- **Driving on a banked road such as gradient or incline.**
- **Driving rearward.**
- **ESC OFF indicator light is on.**
- **EPS (Electric Power Steering) warning light (⊕!) is on or blinks.**

VSM OFF condition

To cancel VSM operation, press the ESC OFF button. ESC OFF indicator light () will illuminate.

To turn on VSM, press the ESC OFF button again. The ESC OFF indicator light will go out.

WARNING

If ESC indicator light () or EPS warning light () stays on or blinks, your vehicle may have a malfunction with the VSM system. When the warning light illuminates, have your vehicle checked by an authorized HYUNDAI dealer as soon as possible.

Driving with wheels and tires with different sizes may cause the ESC system to malfunction. Before replacing tires, make sure all four tires and wheels are the same size. Never drive the vehicle with different sized tires and wheels installed.

Hill-Start Assist Control (HAC)

The Hill-Start Assist Control (HAC) helps prevent the vehicle from rolling backwards when starting a vehicle from a stop on a hill. The system operates the brakes automatically for approximately 2 seconds and releases the brake after 2 seconds or when the accelerator pedal is depressed.

WARNING

Always be ready to depress the accelerator pedal when starting off on an incline. The HAC activates only for approximately 2 seconds.

NOTICE

- The HAC does not operate when the shift lever is in P (Park) or N (Neutral)
- The HAC activates even though the ESC (Electronic Stability Control) is off but does not activate when the ESC has malfunctioned.

Good Braking Practices

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 1st gear (for manual transmission vehicle) or P (Park, for automatic transmission vehicle) position, then apply the parking brake, and place the ignition switch in the LOCK/OFF position.

Vehicles parked with the parking brake not applied or not fully engaged may roll inadvertently and may cause injury to the driver and others. **ALWAYS** apply the parking brake before exiting the vehicle.

Wet brakes can be dangerous! The brakes may get wet if the vehicle is driven through standing water or if it is washed. Your vehicle will not stop as quickly if the brakes are wet. Wet brakes may cause the vehicle to pull to one side.

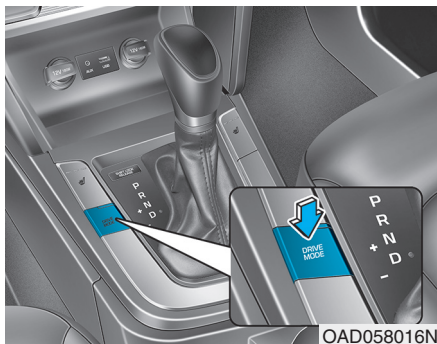
To dry the brakes, apply the brakes lightly until the braking action returns to normal, taking care to keep the vehicle under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so and call an authorized HYUNDAI dealer for assistance.

DO NOT drive with your foot resting on the brake pedal. Even light, but constant pedal pressure can result in the brakes overheating, brake wear, and possibly even brake failure.

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 location.

Keep your foot firmly on the brake pedal when the vehicle is stopped to prevent the vehicle from rolling forward.

DRIVE MODE INTEGRATED CONTROL SYSTEM



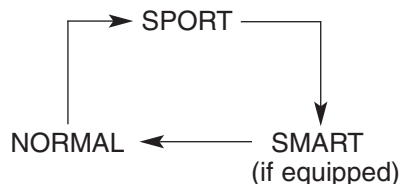
The drive mode may be selected according to the driver's preference or road condition.

The system resets to be in the NORMAL mode, when the engine is restarted.

i Information

If there is a problem with the instrument cluster, the drive mode will be in NORMAL mode and may not change to SPORT mode.

The mode changes, as below, whenever the DRIVE MODE button is pressed.



NORMAL mode

In NORMAL mode the engine and transmission control logic work together to provide regular daily driving performance with some fuel efficiency.

- When NORMAL mode is selected, it is not displayed on the instrument cluster.

SPORT mode



SPORT mode manages the driving dynamics by automatically adjusting the steering effort, and the engine and transmission control logic for enhanced driver performance.

- When SPORT mode is selected by pressing the DRIVE MODE button, the SPORT indicator will illuminate.
- Whenever the engine is restarted, the Drive Mode will revert back to NORMAL mode. If SPORT mode is desired, re-select SPORT mode from the DRIVE MODE button.
- When SPORT mode is activated:
 - The engine rpm will tend to remain raised over a certain length of time even after releasing the accelerator
 - Upshifts are delayed when accelerating

i Information

In SPORT mode, the fuel efficiency may decrease.

SMART mode

 SMART mode selects the proper driving mode between NORMAL and SPORT by judging the driver's driving habits (i.e. Economical or Aggressive) from the brake pedal depression or the steering wheel operation.

- Press the DRIVE MODE button to select SMART mode. When SMART mode is activated, the indicator illuminates on the instrument cluster.
- Vehicle's equipped with a supervision cluster the indicator illuminates in green, when the driver's driving is categorized to be economical. It illuminates in white, when the driver's driving is categorized to be normal. It illuminates in yellow, when the driver's driving is categorized to be sportive during abrupt braking or sharp curving.
- Whenever the engine is restarted, the drive mode will revert back to NORMAL mode. If SMART mode is desired, re-select SMART mode.

- SMART mode automatically controls gear shifting patterns, engine torque, in accordance with the driver's driving habits.

Information

When you dynamically drive the vehicle in SMART mode by abruptly decelerating or sharply turning the driving mode changes to SPORT mode. However, it may adversely affect fuel economy.

Various driving situations, which you may encounter in SMART mode

- The driving mode automatically changes to SMART SPORT, when you abruptly accelerate the vehicle or repetitively operate the steering wheel (Your driving is categorized to be sporty.). In this mode, your vehicle drives in a lower gear for abrupt accelerating/decelerating and increases the engine brake performance.
- You may still sense the engine braking performance, even when you release the accelerator pedal in SMART SPORT mode. It is because your vehicle remains in lower gear over a certain period of time for next acceleration. Thus, it is a normal driving situation, not indicating any malfunction.
- The driving mode automatically changes to SMART SPORT mode only in harsh driving situations. In most of the normal driving situations, the driving mode sets to be in SMART NORMAL mode.

Limitation of SMART mode

The SMART mode may be limited in following situations. (The OFF indicator illuminates in those situations.)

- The driver manually moves the shift lever :

It deactivates SMART mode. The vehicle drives, as the driver manually moves the shift lever.

- The cruise control is activated :

The cruise control system may deactivate the SMART mode when the vehicle is controlled by the set speed of the smart cruise control system. (SMART mode is not deactivated just by activating the cruise control system.)

- The transmission oil temperature is either extremely low or extremely high :

The SMART mode can be active in most of the normal driving situations. However, an extremely high/low transmission oil temperature may temporarily deactivate the SMART mode, because the transmission condition is out of normal operation condition.

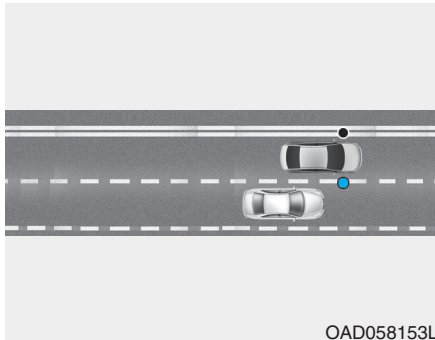
BLIND-SPOT COLLISION WARNING (BCW) (IF EQUIPPED)

System description

Blind-Spot Collision Warning (BCW)

The Blind-Spot Collision Warning (BCW) system uses radar sensors in the rear bumper to monitor and warn the driver of an approaching vehicle in the driver's blind spot area.

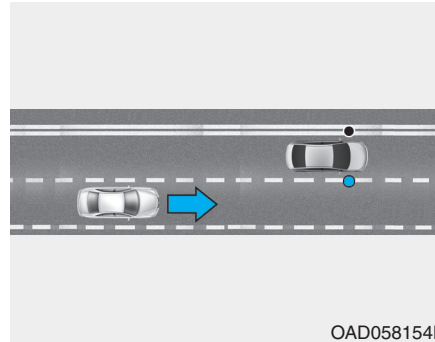
1) Blind-Spot Area



The blind spot detection range varies relative to vehicle speed.

Note that if your vehicle is traveling much faster than the vehicles around you, the warning will not occur.

2) Closing at high speed



The Lane Change Assist feature will alert you when a vehicle is approaching in an adjacent lane at a high rate of speed. If the driver activates the turn signal when the system detects an oncoming vehicle, the system sounds an audible alert.

WARNING

- Always be aware of road conditions while driving and be alert for unexpected situations even though the Blind-Spot Collision Warning (BCW) system is operating.
- The Blind-Spot Collision Warning (BCW) system is supplemental systems to assist you. Do not entirely rely on the systems. Always pay attention, while driving, for your safety.
- The Blind-Spot Collision Warning (BCW) system is not substitutes for proper and safe driving. Always drive safely and use caution when changing lanes or backing up the vehicle.

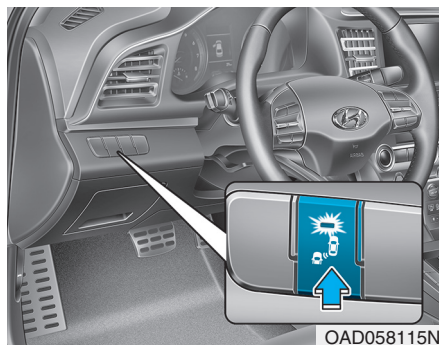
The Blind-Spot Collision Warning (BCW) system may not detect every object alongside the vehicle.

System setting and activation

System setting



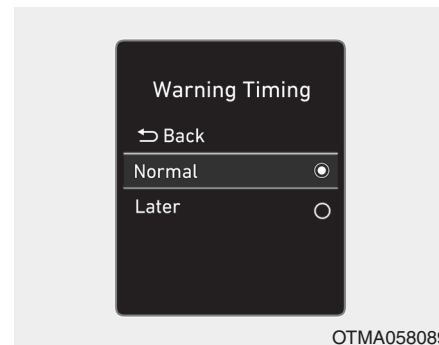
- The driver can activate the system by placing the ignition switch to the ON position and by selecting 'User Settings → Driver Assistance → Blind-Spot Safety'.
 - The BCW turns on and gets ready to be activated when 'Warning Only' is selected. Then, if a vehicle approaches the driver's blind spot area a warning sounds.
 - The system is deactivated and the indicator on the BCW button is extinguished when 'Off' is selected.



- If you press BCW switch while 'Warning Only' is selected the indicator on the button will turn off and the system will deactivate.
- If you press the BCW switch while the system is canceled the indicator on the button illuminates and the system activates.

When the system is initially turned on and when the engine is turned off then on again while the system is in activation, the warning light will illuminate for 3 seconds on the outer side view mirror.

- If the engine is turned off then on again, the system maintains the previous state.



- The driver can select the initial warning activation time in the User Settings in the LCD display by selecting 'User Settings → Driver Assistance → Warning Timing'.
- The options for the initial Blind-Spot Collision Warning includes the following:

- Normal:

When this condition is selected, the initial Blind-Spot Collision Warning is activated normally. If this setting feels sensitive change the option to 'later'.

The warning activation time may feel late if a vehicle at the side or rear abruptly accelerates.

- Later:

Select this warning activation time when the traffic is light and you are driving in a low speed.

i Information

If you change the warning timing, the warning time of other systems may change. Always be aware before changing the warning timing.

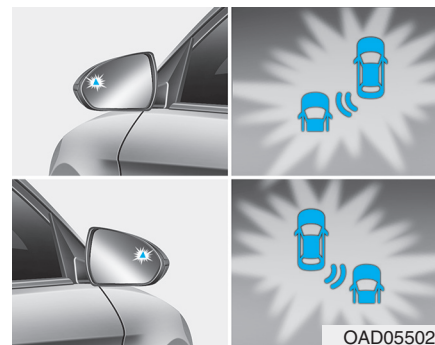
Operating Conditions

The system enters the ready status, when the following conditions are satisfied :

The vehicle speed is above approximately 30 km/h (20 mph).

Warning and system control

Blind-Spot Collision Warning (BCW) system



First stage alert

If a vehicle is detected within the boundary of the system, a yellow warning light will illuminate on the outer side view mirror.

Once the detected vehicle is no longer within the blind spot area, the warning will turn off according to the driving conditions of the vehicle.



[A] : Warning sound

Second stage alert

A warning chime to alert the driver will activate when:

1. A vehicle has been detected in the blind spot area by the radar system AND.
2. The turn signal is applied (same side as where the vehicle is being detected).

When this alert is activated, the warning light on the outer side view mirror will also blink. And a warning chime will sound.

If you turn off the turn signal indicator, the second stage alert will be deactivated.

Once the detected vehicle is no longer within the blind spot area, the warning will turn off according to the driving conditions of the vehicle.

⚠ WARNING

- The warning light on the outer side view 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 Collision Warning (BCW) system. Do not solely rely on the system but check your surrounding before changing lanes or backing the vehicle up.
- The system may not alert the driver in some conditions so always check your surroundings while driving.

⚠ CAUTION

- The driver should always use extreme caution while operating the vehicle, whether or not the warning light on the outside rearview mirror illuminates or there is a warning alarm.
- Playing the vehicle audio system at high volume may offset the Blind-Spot Collision Warning system warning sounds.
- If any other warning sound such as seat belt warning chime is already generated, the Blind-Spot Collision Warning (BCW) system warning may not sound.

Detecting sensor



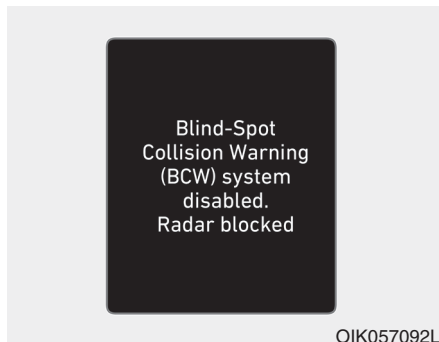
The rear radars are the sensors inside the rear bumper for detecting the side and rear areas. Always keep the rear bumper clean for proper operation of the system.

⚠ CAUTION

- The system may not work properly when the bumper has been damaged, or if the rear bumper has been replaced or repaired.
- The sensing range differs somewhat according to the width of the road. When the road is narrow, the system may detect other vehicles in the next lane.
- The system may turn off due to strong electromagnetic waves.
- Always keep the sensors clean.
- NEVER arbitrarily disassemble the sensor component nor apply any impact on the sensor component.

- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Do not apply foreign objects such as a bumper sticker or a bumper guard near the radar sensor or apply paint to the sensor area. Doing so may adversely affect the performance of the sensor.

Warning message



Blind-Spot Collision Warning (BCW) system disabled. Radar blocked

This warning message may appear when :

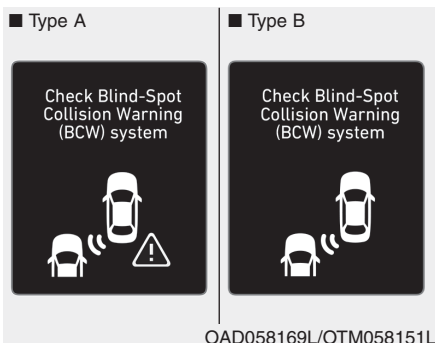
- One or both of the sensors on the rear bumper is blocked by dirt or snow or a foreign object.
- Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
- When there is inclement weather such as heavy snow or rain.

If any of these conditions occur, the light on the BCW switch and the system will turn off automatically.

When the BCW canceled warning message is displayed in the cluster, check to make sure that the rear bumper is free from any dirt or snow in the areas where the sensor is located. Remove any dirt, snow, or foreign material that could interfere with the radar sensors.

After any dirt or debris is removed, the system should operate normally after about 10 minutes of driving the vehicle.

If the system still does not operate normally have your vehicle inspected by an authorized HYUNDAI dealer.



Check Blind-Spot Collision Warning (BCW) system

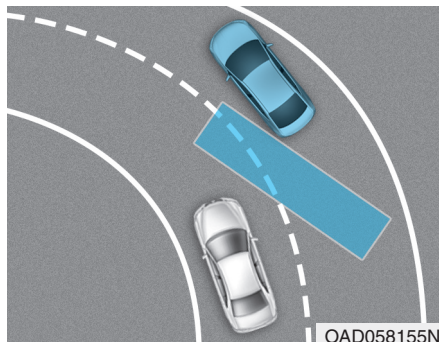
If there is a problem with the BCW system, a warning message will appear and the light on the switch will turn off. The system will turn off automatically. Have your vehicle inspected by an authorized HYUNDAI dealer.

Limitations of the system

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

- The vehicle is driven in inclement weather such as heavy rain or snow.
- The sensor is polluted with rain, snow, mud, etc.
- The rear bumper where the sensor is located is covered with a foreign object such as a bumper sticker, a bumper guard, a bike rack, 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 trunk, abnormal tire pressure, etc.
- When the temperature of the rear bumper is high.
- When the sensors are blocked by other vehicles, walls or parking-lot pillars.
- The vehicle is driven on a curved road.
- The vehicle is driven through a toll-gate.
- The road pavement (or the peripheral ground) abnormally contains metallic components (i.e. possibly due to subway construction).
- There is a fixed object near the vehicle, such as a guardrail.
- While going down or up a steep road where the height of the lane is different.
- Driving on a narrow road where trees or grass or overgrown.
- Driving in rural areas where the sensor does not detect another vehicle or structure for an extended period of time.
- Driving on a wet road.
- Driving on a road where the guardrail or wall is in double structure.
- A big vehicle is near such as a bus or truck.
- When the other vehicle approaches very close.
- When the other vehicle passes at a very fast speed.

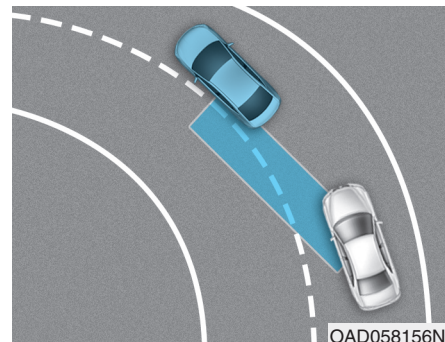
- While changing lanes.
- If the vehicle has started at the same time as the vehicle next to you and has accelerated.
- When the vehicle in the next lane moves two lanes away from you OR when the vehicle two lanes away moves to the next lane from you.
- A motorcycle or bicycle is near.
- A flat trailer is near.
- If there are small objects in the detecting area such as a shopping cart or a baby stroller.
- If there is a low height vehicle such as a sports car.
- Temperature is extremely low around the vehicle.



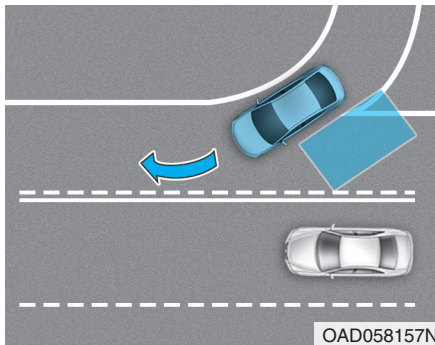
- Driving on a curve

The system may not operate properly when driving on a curved road. In certain instances, the system may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions, while driving.



The system may not operate properly when driving on a curved road. In certain instances, the system may recognize a vehicle in the same lane. Always pay attention to road and driving conditions, while driving.

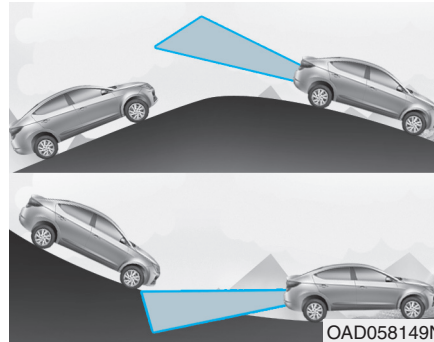


OAD058157N

- Driving where the road is merging/dividing

The system may not operate properly when driving where the road is merging/dividing. In certain instances, the system may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions, while driving.



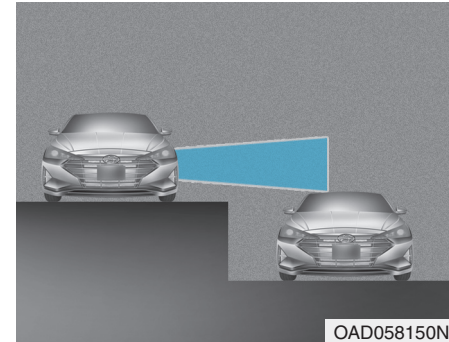
OAD058149N

- Driving on a slope

The system may not operate properly when driving on a slope. In certain instances, the system may not detect the vehicle in the next lane.

Also, in certain instances the system may wrongly recognize the ground or structures.

Always pay attention to road and driving conditions, while driving.



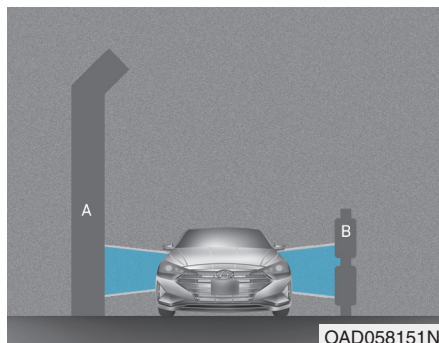
OAD058150N

- Driving where the heights of the lanes are different

The system may not operate properly when driving where the heights of the lanes are different.

In certain instances, the system may not detect the vehicle on a road with different lane heights (i.e. underpass joining section, grade separated intersections, etc.).

Always pay attention to road and driving conditions, while driving.



[A] : noise barrier, [B] : guardrail

- Driving where there is a structure beside the road

The system may not operate properly when driving where there is structure beside the road.

In certain instances, the system may wrongly recognize the structures (i.e. noise barriers, guardrail, double guardrail, median strip, bollard, street light, road sign, tunnel wall, etc.) beside the road.

Always pay attention to road and driving conditions, while driving.

i Information

This device complies with Industry Canada RSS-210 standard.

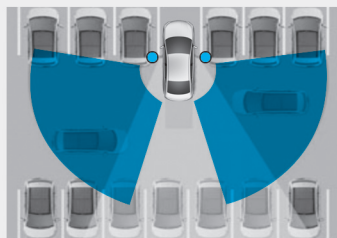
Operation is subject to the following two conditions:

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

REAR CROSS-TRAFFIC COLLISION WARNING (RCCW) SYSTEM (IF EQUIPPED)

System description

Rear Cross-Traffic Collision Warning (RCCW) system



OAD058158N

The Rear Cross-Traffic Collision Warning (RCCW) system uses radar sensors to monitor the approaching cross traffic from the left and right side of the vehicle when your vehicle is in reverse.

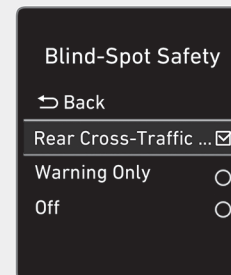
The blind spot detection range varies relative to the approaching vehicle speed.

⚠ WARNING

- Always be aware of road conditions while driving and be alert for unexpected situations even though the Rear Cross-Traffic Collision Warning system is operating.
- The Rear Cross-Traffic Collision Warning system is supplemental systems to assist you. Do not entirely rely on the systems. Always pay attention, while driving, for your safety.
- The Rear Cross-Traffic Collision Warning system is not substitutes for proper and safe driving. Always drive safely and use caution when backing up the vehicle.

System setting and activation

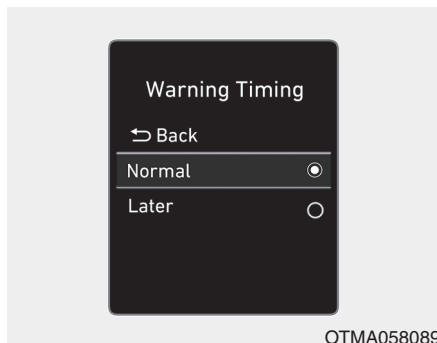
System setting



OTMA058095MX

- The driver can activate the systems by placing the ignition switch to the ON position and by selecting 'User Settings → Driver Assistance → Blind-Spot Safety → Rear Cross-Traffic Safety'. The RCCW turns on and gets ready to be activated when 'Rear Cross-Traffic Safety' is selected.
- When the engine is turned off then on again, the systems always get ready to be activated.

- When the system is initially turned on and when the engine is turned off then on again, the warning light will illuminate for 3 seconds on the outside rearview mirror.



The driver can select the initial warning activation time in the User Settings in the LCD display by selecting 'User Settings → Driver Assistance → Warning Timing'. The options for the initial Rear Cross-Traffic Collision Warning includes the following:

- Normal:

When this condition is selected, the initial Rear Cross-Traffic Collision Warning is activated normally. If this setting feels sensitive, change the option to 'Later'.

The warning activation time may feel late if a vehicle at the side or rear abruptly accelerates.

- Later:

Select this warning activation time when the traffic is light and you are driving in a low speed.

i Information

If you change the warning timing, the warning time of other systems may change. Always be aware before changing the warning timing.

Operating conditions

To operate:

Go to the 'User Settings → Driver Assistance → Blind-Spot Safety → Rear Cross-Traffic Safety' on the LCD display. The system will turn on and standby to activate.

The system will activate when vehicle speed is below 7 mph (10 km/h) and with the shift lever in R (Reverse).

* The system will not activate when the vehicle speed exceeds 7 mph (10 km/h). The system will activate again when the speed is below 7 mph (10 km/h).

The system's detecting range is approximately 0.5 – 20 m (1 - 65 ft). An approaching vehicle will be detected if their vehicle speed is within 4 - 36 km/h (2.5 - 22.5 mph).

Note that the detecting range may vary under certain conditions. As always, use caution and pay close attention to your surroundings when backing up your vehicle.

Warning and system control

Rear Cross-Traffic Collision Warning (RCCW) system



If the vehicle detected by the sensors approaches from the rear left/right side of your vehicle, the warning chime will sound, the warning light on the outside rearview mirror will blink and a message will appear on the LCD display. If the rear view monitor system is in activation, a message will also appear on the audio or AVN screen.

The warning will stop when:

- the detected vehicle moves out of the sensing area or
- when the vehicle is right behind your vehicle or
- when the vehicle is not approaching your vehicle or
- when the other vehicle slows down.



CAUTION

- When the operation condition of the Rear Cross-Traffic Collision Warning system is satisfied, the warning will occur every time a vehicle approaches the side or rear of your stopped (0 km/h vehicle speed) vehicle.
- The system's warning or brake may not operate properly if the left or right of your vehicle's rear bumper is blocked by a vehicle or obstacle.
- The driver should always use extreme caution while operating the vehicle, whether or not the warning light on the outside rearview mirror illuminates or there is a warning alarm.
- Playing the vehicle audio system at high volume may offset the system's warning sounds.

- If any other warning sound such as seat belt warning chime is already generated, the Rear Cross-Traffic Collision Warning system warning may not sound.

WARNING

- Drive safely even though the vehicle is equipped with a Rear Cross-Traffic Collision Warning system. Do not solely rely on the system but check your surrounding when backing the vehicle up.
- The driver is responsible for accurate brake control.
- Always pay extreme caution while driving. The Rear Cross-Traffic Collision Warning system may not operate properly or unnecessarily operate in accordance with your driving situations.

- The Rear Cross-Traffic Collision Warning system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.

Detecting sensor



The rear radars are the sensors inside the rear bumper for detecting the side and rear areas. Always keep the rear bumper clean for proper operation of the system.

CAUTION

- The system may not work properly when the bumper has been damaged, or if the rear bumper has been replaced or repaired.
- The system may turn off due to strong electromagnetic waves.

- Always keep the sensors clean.
- NEVER arbitrarily disassemble the sensor component nor apply any impact on the sensor component.
- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Do not apply foreign objects such as a bumper sticker or a bumper guard near the radar sensor or apply paint to the sensor area. Doing so may adversely affect the performance of the sensor.

Warning message



Blind-Spot Collision Warning (BCW) system disabled. Radar blocked

This warning message may appear when:

- One or both of the sensors on the rear bumper is blocked by dirt or snow or a foreign object.
- Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
- When there is inclement weather such as heavy snow or rain.

If any of these conditions occur, the light on the BCW switch and the system will turn off automatically.

When the BCW canceled warning message is displayed in the cluster, check to make sure that the rear bumper is free from any dirt or snow in the areas where the sensor is located. Remove any dirt, snow, or foreign material that could interfere with the radar sensors.

After any dirt or debris is removed, the system should operate normally after about 10 minutes of driving the vehicle.

If the system still does not operate normally have your vehicle inspected by an authorized HYUNDAI dealer.



Check Blind-Spot Collision Warning (BCW) system

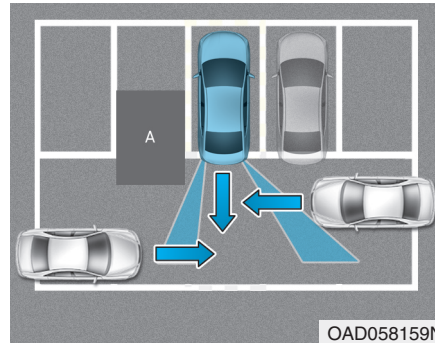
If there is a problem with the BCW system, a warning message will appear and the light on the switch will turn off. The system will turn off automatically. RCCW will not operate also if the BCW system turns off due to malfunction. Have your vehicle inspected by an authorized HYUNDAI dealer.

Limitations of the system

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

- The vehicle is driven in inclement weather such as heavy rain or snow.
- The sensor is polluted with rain, snow, mud, etc.
- The rear bumper where the sensor is located is covered with a foreign object such as a bumper sticker, a bumper guard, a bike rack, 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 trunk, abnormal tire pressure, etc.
- When the temperature of the rear bumper is high.
- When the sensors are blocked by other vehicles, walls or parking-lot pillars.
- The vehicle is driven on a curved road.
- The road pavement (or the peripheral ground) abnormally contains metallic components (i.e. possibly due to subway construction).
- There is a fixed object near the vehicle, such as a guardrail.
- While going down or up a steep road where the height of the lane is different.
- Driving on a narrow road where trees or grass or overgrown.
- Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
- Driving on a wet road.
- Driving on a road where the guardrail or wall is in double structure.
- A big vehicle is near such as a bus or truck.
- When the other vehicle approaches very close.
- When the other vehicle passes at a very fast speed.
- While changing lanes.

- If the vehicle has started at the same time as the vehicle next to you and has accelerated.
- 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.
- A motorcycle or bicycle is near.
- A flat trailer is near.
- If there are small objects in the detecting area such as a shopping cart or a baby stroller.
- If there is a low height vehicle such as a sports car.
- Temperature is extremely low around the vehicle.



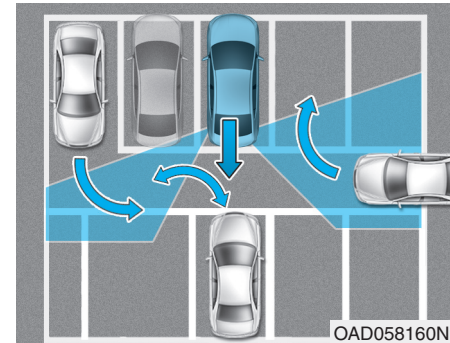
[A] : Structure

- Driving where there is a vehicle or structure near

The system may not operate properly when driving where there is a vehicle or structure near.

In certain instances, the system may not detect the vehicle approaching from behind and the warning may not operate properly.

Always pay attention to your surrounding while driving.

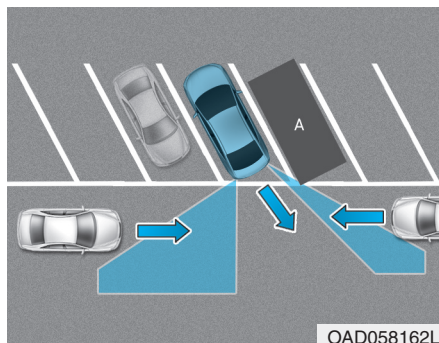


- When the vehicle is in a complex parking environment

The system may not operate properly when the vehicle is in a complex parking environment.

In certain instances, the system may not be able to exactly determine the risk of collision for the vehicles which are parking or pulling out near your vehicle (e.g. a vehicle escaping beside your vehicle, a vehicle parking or pulling out in the rear area, a vehicle approaching your vehicle making a turn, etc.).

If this occurs, the warning may not operate properly.



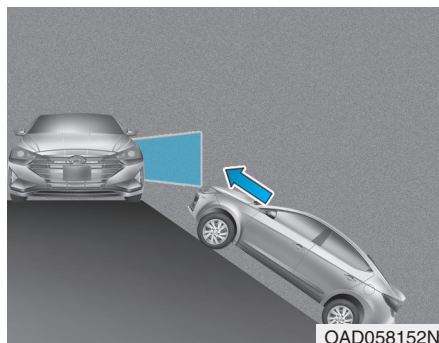
[A] : Vehicle

- When the vehicle is parked diagonally

The system may not operate properly when the vehicle is parked diagonally.

In certain instances, when the diagonally parked vehicle is pulled out of the parking space, the system may not detect the vehicle approaching from the rear left/right of your vehicle. In this case, the warning may not operate properly.

Always pay attention to your surrounding while driving.



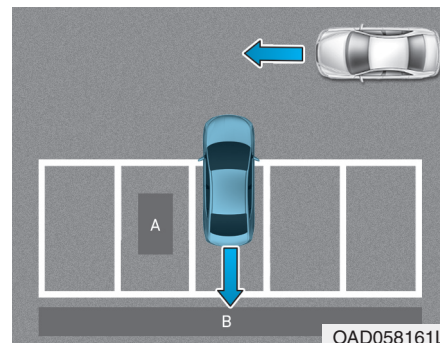
OAD058152N

- When the vehicle is on/near a slope

The system may not operate properly when the vehicle is on/near a slope.

In certain instances, the system may not detect the vehicle approaching from the rear left/right and the warning may not operate properly.

Always pay attention to your surrounding while driving.



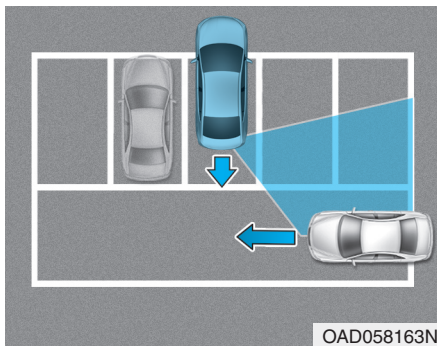
[A] : Structure, [B] : Wall

- Pulling into the parking space where there is a structure

The system may not operate properly when pulling in the vehicle to the parking space where there is a structure at the back or side of your vehicle.

In certain instances, when backing into the parking space, the system may not detect the vehicle moving in front of your vehicle. In this case, the warning may not operate properly.

Always pay attention to the parking space while driving.



- When the vehicle is parked rearward

If the vehicle is parked rearward and the sensor detects the another vehicle in the rear area of the parking space, the system warning may not work properly. Always pay attention to the parking space while driving.

i Information

This device complies with Industry Canada RSS-210 standard.

Operation is subject to the following two conditions:

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

FORWARD COLLISION AVOIDANCE (FCA) SYSTEM (IF EQUIPPED)

The Forward Collision-Avoidance Assist (FCA) system is designed to help detect and monitor the vehicle ahead in the roadway through camera recognition to warn the driver that a collision is imminent, and if necessary, apply emergency braking.

The camera type FCA system detects the vehicle ahead in the roadway through camera.

WARNING

Take the following precautions when using the Forward Collision-Avoidance Assist (FCA) system:

- **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. The Forward Collision-Avoidance system may not always stop the vehicle completely and is only intended to help mitigate a collision that is imminent.**

System Setting and Activation

System setting



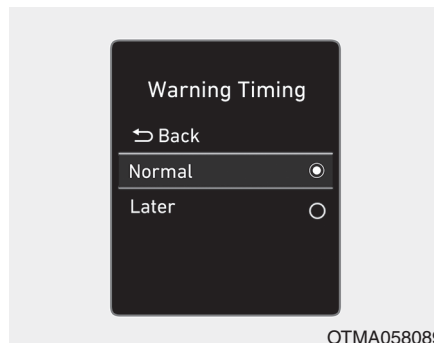
- The driver can activate the FCA by placing the ignition switch to the ON position and by selecting:
'User Settings → Driver Assistance → Forward Safety'
 - If you select "Active Assist", the FCA system activates. The FCA produces warning messages and warning alarms in accordance with the collision risk levels. Also, it controls the brakes in accordance with the collision risk levels.

- If you select "Warning Only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.
- If you select "Off", the FCA system deactivates,



The warning light illuminates on the LCD display, when you cancel the FCA system.

The driver can monitor the FCA ON/OFF status on the LCD display. Also, the warning light illuminates when the ESC (Electronic Stability Control) is turned off. If the warning light remains ON when the FCA is activated, have the system checked by an authorized HYUNDAI dealer.



OTMA058089

- The driver can select the initial warning activation time on the LCD display.

Go to the 'User Settings → Driver Assistance → Warning Timing → Normal/Later'.

The options for the initial Forward Collision Warning includes the following:

- Normal :

When this condition is selected, the initial Forward Collision Warning is activated sensitively. If you feel the warning activates too early, set the Forward Collision Warning to 'Later'.

Even though, 'Normal' is selected if the front vehicle suddenly stops the initial warning activation time may not seem fast.

- Later :

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 ahead before the initial warning occurs.

Select 'Later' when traffic is light and when driving speed is slow.

i Information

If you change the warning timing, the warning time of other systems may change. Always be aware before changing the warning timing.

Prerequisite for activation

The FCA system is on and ready when FCA is selected on the LCD display and when the following prerequisites are satisfied:

- The ESC (Electronic Stability Control) is on.
- Driving speed exceeds approximately 10 km/h (6 mph) (The FCA is only activated within a certain speed range.).
- The system detects a vehicle in front, which may collide with your vehicle. (The FCA may not be activated or may sound a warning alarm in accordance with the driving situation or vehicle condition.)

WARNING

- **Completely stop the vehicle on a safe location before operating the switch on the steering wheel to activate/deactivate the FCA system.**
- **The FCA automatically activates upon placing the ignition switch to the ON position. The driver can deactivate the FCA by canceling the system setting on the LCD display.**
- **The FCA automatically deactivates upon canceling the ESC (Electronic Stability Control). When the ESC is canceled, the FCA cannot be activated on the LCD display. The FCA warning light will illuminate which is normal.**

FCA Warning Message and System Control

The FCA produces warning messages and warning alarms in accordance with the collision risk levels, such as abrupt stopping of the vehicle in front, insufficient braking distance detection. Also, it controls the brakes in accordance with the collision risk levels.

The driver can select the initial warning activation time in the User Settings in the LCD display. The options for the initial Forward Collision Warning include Early or Later initial warning time.

Collision Warning (First warning)



This warning message appears on the LCD display with a warning chime. Additionally, some vehicle system intervention occurs by the engine management system to help decelerate the vehicle.

- Your vehicle speed may decelerate moderately.
- The FCA system limitedly controls the brakes to preemptively mitigate impact in a collision.

- If you select "Warning Only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

Emergency Braking (Second warning)



This warning message appears on the LCD display with a warning chime.

Additionally, some vehicle system intervention occurs by the engine management system to help decelerate the vehicle.

- The FCA system limitedly controls the brakes to preemptively mitigate impact in a collision. The brake control is maximized just before a collision.

- If you select "Warning Only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

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 FCA 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 accelerator pedal, or when the driver abruptly operates the steering wheel.
- The FCA braking control is automatically canceled, when risk factors disappear.



CAUTION

- The driver should always use **extreme caution while operating the vehicle**, whether or not there is a warning message or alarm from the FCA system.
- If any other warning sound such as seat belt warning chime is already generated, the **Forward Collision-Avoidance Assist (FCA) system warning may not sound.**



WARNING

The FCA braking control cannot completely stop the vehicle nor avoid all collisions. The driver should hold the responsibility to safely drive and control the vehicle.



WARNING

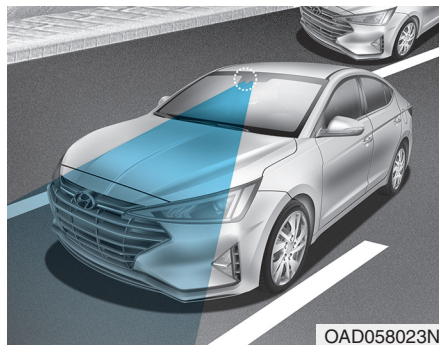
The FCA system logic operates within certain parameters, such as the distance from the vehicle ahead, the speed of the vehicle ahead, and the driver's vehicle speed. Certain conditions such as inclement weather and road conditions may affect the operation of the FCA system.



WARNING

Never deliberately drive dangerously to activate the system.

FCA Sensor



In order for the FCA system to operate properly, always make sure the camera is clean and free of dirt, snow, and debris.

Dirt, snow, or foreign substances on the sensor cover or sensor may adversely affect the sensing performance of the sensor.

NOTICE

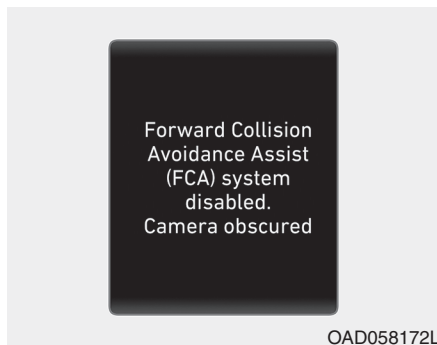
- **NEVER** install any accessories or stickers on the front windshield, nor tint the front windshield.
- **NEVER** locate any reflective objects (i.e. white paper, mirror) over the dashboard. Any light reflection may cause a malfunction of the system.
- Pay extreme caution to keep the camera out of water.
- **NEVER** disassemble the camera assembly, nor apply any impact on the camera assembly.
- If the sensor is forcibly moved out of proper alignment, the FCA system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Playing the vehicle audio system at high volume may offset the system warning sounds.

Information

Have the system checked by an authorized HYUNDAI dealer when:

- The windshield glass is replaced.

Warning message and warning light



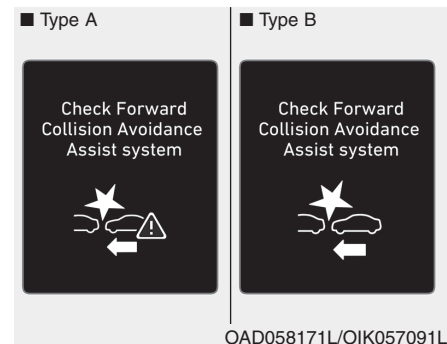
Forward Collision Avoidance Assist (FCA) system disabled. Camera obscured

When the front camera is blocked with dirt, snow, or debris, the FCA system operation may stop temporarily. If this occurs, a warning message will appear on the LCD display. Remove any dirt, snow, or debris and clean the front camera before operating the FCA system.

However, the FCA may not properly operate in an area (e.g. open terrain), where any substances are not detected or the camera is blocked with dirt, snow or debris after turning ON the engine.

Also, even though a warning message does not appear on the LCD display, the FCA may not properly operate.

System Malfunction



Check Forward Collision Avoidance Assist system

- When the FCA is not working properly, the FCA 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, have the vehicle inspected by an authorized HYUNDAI dealer.
- The FCA warning message may appear along with the illumination of the ESC (Electronic Stability Control) warning light.

WARNING

- The FCA 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 FCA system. Rather, maintain a safe braking distance, and, if necessary, depress the brake pedal to reduce the driving speed.

- In certain instances and under certain driving conditions, the FCA system may activate prematurely. This initial warning message appears on the LCD display with a warning chime.

Also, in certain instances the front camera recognition system may not detect the vehicle ahead. The FCA system may not activate and the warning message will not be displayed.

- If there is a malfunction with the FCA system, the Forward Collision avoidance assist system is not applied even though the braking system is operating normally.
- If the vehicle in front stops suddenly, you may have less control of the brake system. Therefore, always keep a safe distance between your vehicle and the vehicle in front of you.
- The FCA system may activate during braking and the vehicle may stop suddenly shifting loose objects toward the passengers. Always keep loose objects secured.
- The FCA system may not activate if the driver applies the brake pedal to avoid a collision.
- The brake control may be insufficient, possibly causing a collision, if a vehicle in front abruptly stops. Always pay extreme caution.

- The FCA system may not activate according to the road conditions, inclement weather, driving conditions or traffic conditions.
- Occupants may get injured, if the vehicle abruptly stops by the activated FCA system. Pay extreme caution.
- The FCA system does not detect all vehicles.

WARNING

- The FCA system operates only to detect vehicles in front of the vehicle.
- The FCA system does not operate when the vehicle is in reverse.
- The FCA system is not designed to detect other objects on the road such as animals.
- The FCA system does not detect vehicles in the opposite lane.
- The FCA system does not detect cross traffic vehicles that are approaching.
- The FCA system cannot detect the driver approaching the side view of a parked vehicle (for example on a dead end street).

In these cases, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce the driving speed in order to maintain a safe distance.

Limitations of the System

The Forward Collision Avoidance Assist (FCA) system is designed to monitor the vehicle ahead on the roadway through camera recognition to warn the driver that a collision is imminent, and if necessary, apply emergency braking.

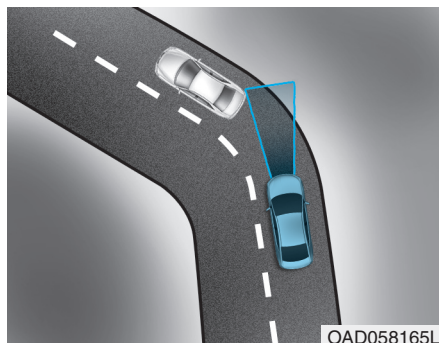
In certain situations, the camera may not be able to detect the vehicle ahead. In these cases, the FCA system may not operate normally. The driver must pay careful attention in the following situations where the FCA operation may be limited.

Detecting vehicles

The sensor may be limited when:

- The camera is blocked with a foreign object or debris
- Inclement weather such as heavy rain or snow obscures the field of view of the camera
- There is interference by electromagnetic waves
- The vehicle is on unpaved or uneven rough surfaces, or road with sudden gradient changes.
- The vehicle drives through a construction area, on an unpaved road, or above metal materials, such as a railway
- The vehicle in front is too small to be detected (for example a motorcycle or a bicycle, etc.)
- The camera's field of view is not well illuminated (either too dark or too much reflection or too much backlight that obscures the field of view)
- The camera does not recognize the entire vehicle in front.

- The vehicle in front is an oversize vehicle or trailer that is too big to be detected by the camera recognition system (for example a tractor trailer, etc.)
- The vehicle in front does not have rear lights or the rear lights are not turned ON or the rear lights are located unusually.
- The outside brightness changes suddenly, for example when entering or exiting a tunnel
- The vehicle is moving underground level or inside a building
- The vehicle drives inside a building, such as a basement parking lot
- The adverse road conditions cause excessive vehicle vibrations while driving
- You are on a roundabout and the vehicle in front circles
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or stuck of foreign matter (sticker, bug, etc.) on the glass
- The camera is damaged.
- The brightness outside is too low such as when the headlamps are not on at night or the vehicle is going through a tunnel.
- Light coming from a street light or an oncoming vehicle is reflected on a wet road surface such as a puddle in the road
- The field of view in front is obstructed by sun glare
- The shadow is on the road by a median strip, trees, etc.
- The vehicle drives through a toll-gate.
- The windshield glass is fogged up; a clear view of the road is obstructed
- The camera sensor recognition is limited
- The rear part of the vehicle in front is not normally visible (for example, the vehicle is spinning or the vehicle is overturned)
- The sensor recognition changes suddenly when passing over a speed bump
- The vehicle in front is driving erratically
- The vehicle in front is moving vertically to the driving direction
- The vehicle in front is stopped vertically
- The vehicle in front is driving towards your vehicle or reversing



- Driving on a curve

The performance of the FCA system may be limited when driving on a curved road.

In certain instances on a curved road, the FCA system may activate prematurely.

Also, in certain instances the front camera recognition system may not detect the vehicle traveling on a curved road.

In these cases, the driver must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

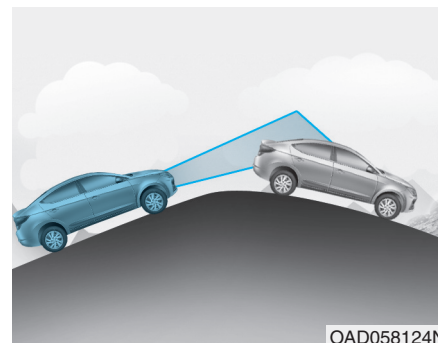


The FCA system may recognize a vehicle in the next lane when driving on a curved road.

In this case, the system may unnecessarily alarm the driver and apply the brake.

Always pay attention to road and driving conditions, while driving. If necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Also, when necessary depress the accelerator pedal to prevent the system from unnecessarily decelerating your vehicle.

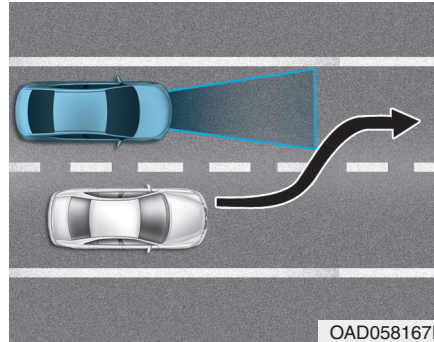


- Driving on a slope

The performance of the FCA system 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.

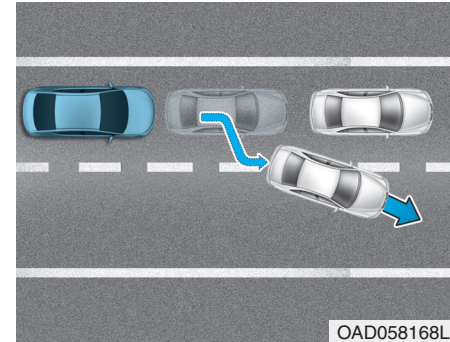
When the FCA suddenly recognizes the vehicle in front while passing over a slope, you may experience sharp deceleration.

Always keep your eyes forward while driving upward or downward on a slope, and, if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

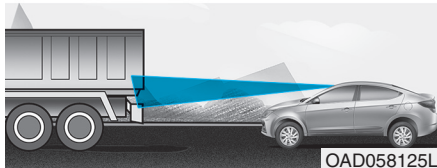
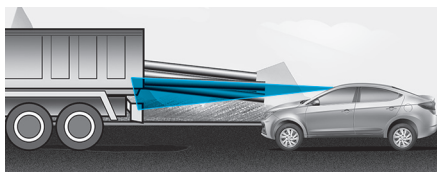


- Changing lanes

When a vehicle changes lanes in front of you, the FCA system may not immediately detect the vehicle, especially if the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



When driving in stop-and-go traffic, and a stopped vehicle in front of you merges out of the lane, the FCA system may not immediately detect the new vehicle that is now in front of you. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



- Detecting the vehicle in front of you
If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. The FCA system may not be able to detect the cargo extending from the vehicle. In these instances, you must maintain a safe braking distance from the rearmost object, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

i Information

In some instances, the FCA system may be canceled when subjected to electromagnetic interference.

i Information

This device complies with Industry Canada RSS-210 standard.

Operation is subject to the following two conditions:

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

⚠ WARNING

- Do not use the Forward Collision Avoidance Assist (FCA) system when towing a vehicle. Application of the FCA system while towing may adversely affect the safety of your vehicle or the towing vehicle.
- Use extreme caution when the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance.
- The FCA system is designed to detect and monitor the vehicle ahead in the roadway through camera recognition. It is not designed to detect pedestrians, bicycles, motorcycles, or smaller wheeled objects such as luggage bags, shopping carts, or strollers.
- Never try to test the operation of the FCA system. Doing so may cause severe injury or death.

FORWARD COLLISION AVOIDANCE (FCA) SYSTEM (WITH HYUNDAI SMART SENSE) (IF EQUIPPED)

The Forward Collision-Avoidance Assist (FCA) system is designed to help detect and monitor the vehicle ahead or help detect a pedestrian in the roadway through radar signals and camera recognition to warn the driver that a collision is imminent, and if necessary, apply emergency braking.

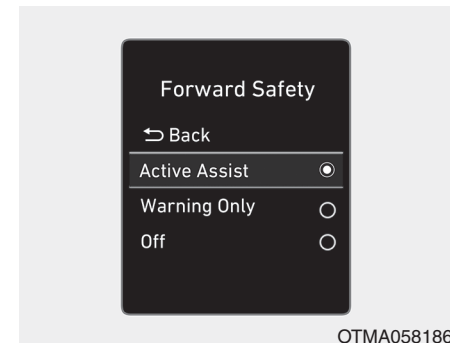
WARNING

Take the following precautions when using the Forward Collision-Avoidance Assist (FCA) system:

- **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. The Forward Collision-Avoidance system may not always stop the vehicle completely and is only intended to help mitigate a collision that is imminent.**

System Setting and Activation

System setting



- The driver can activate the FCA by placing the ignition switch to the ON position and by selecting:
'User Settings → Driver Assistance → Forward Safety'
 - If you select "Active Assist", the FCA system activates. The FCA produces warning messages and warning alarms in accordance with the collision risk levels. Also, it controls the brakes in accordance with the collision risk levels.

- If you select "Warning Only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.
- If you select "Off", the FCA system deactivates,



The warning light illuminates on the LCD display, when you cancel the FCA system.

The driver can monitor the FCA ON/OFF status on the LCD display. Also, the warning light illuminates when the ESC (Electronic Stability Control) is turned off. If the warning light remains ON when the FCA is activated, have the system checked by an authorized HYUNDAI dealer.



OTMA058089

- The driver can select the initial warning activation time on the LCD display.

Go to the 'User Settings → Driver Assistance → Warning Timing → Normal/Later'.

The options for the initial Forward Collision Warning includes the following:

- Normal :

When this condition is selected, the initial Forward Collision Warning is activated sensitively. If you feel the warning activates too early, set the Forward Collision Warning to 'Later'.

Even though, 'Normal' is selected if the front vehicle suddenly stops the initial warning activation time may not seem fast.

- Later :

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.

Select 'Later' when traffic is light and when driving speed is slow.

Information

If you change the warning timing, the warning time of other systems may change. Always be aware before changing the warning timing.

Prerequisite for activation

The FCA system is on and ready when FCA is selected on the LCD display and when the following prerequisites are satisfied:

- The ESC (Electronic Stability Control) is on.
- Driving speed exceeds approximately 10 km/h (6 mph) (The FCA is only activated within a certain speed range.).
- The system detects a pedestrian or a vehicle in front, which may collide with your vehicle. (The FCA may not be activated or may sound a warning alarm in accordance with the driving situation or vehicle condition.)
- If you select "Warning only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. (The FCA system may not operate properly depending on the frontal situation, the direction of pedestrian or cyclist (if equipped) and speed.)

WARNING

- **Completely stop the vehicle on a safe location before operating the switch on the steering wheel to activate /deactivate the FCA system.**
- **The FCA automatically activates upon placing the ignition switch to the ON position. The driver can deactivate the FCA by canceling the system setting on the LCD display.**
- **The FCA automatically deactivates upon canceling the ESC (Electronic Stability Control). When the ESC is canceled, the FCA cannot be activated on the LCD display. The FCA warning light will illuminate which is normal.**

FCA Warning Message and System Control

The FCA produces warning messages and warning alarms in accordance with the collision risk levels, such as abrupt stopping of the vehicle in front, insufficient braking distance, or pedestrian detection. Also, it controls the brakes in accordance with the collision risk levels.

The driver can select the initial warning activation time in the User Settings in the LCD display. The options for the initial Forward Collision Warning include Early or Later initial warning time.

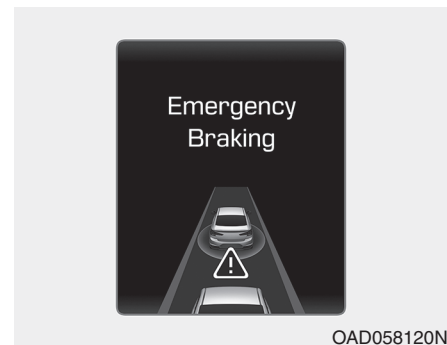
Collision Warning (First warning)



This warning message appears on the LCD display with a warning chime. Additionally, some vehicle system intervention occurs by the engine management system to help decelerate the vehicle.

- Your vehicle speed may decelerate moderately.
- The FCA system limitedly controls the brakes to preemptively mitigate impact in a collision.
- If you select "Warning Only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

Emergency Braking (Second warning)



This warning message appears on the LCD display with a warning chime.

Additionally, some vehicle system intervention occurs by the engine management system to help decelerate the vehicle.

- The FCA system limitedly controls the brakes to preemptively mitigate impact in a collision. The brake control is maximized just before a collision.

- If you select "Warning Only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

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 FCA 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 accelerator pedal, or when the driver abruptly operates the steering wheel.
- The FCA braking control is automatically canceled, when risk factors disappear.



CAUTION

- **The driver should always use extreme caution while operating the vehicle, whether or not there is a warning message or alarm from the FCA system.**
- **If any other warning sound such as seat belt warning chime is already generated, the Forward Collision-Avoidance Assist (FCA) system warning may not sound.**



WARNING

The FCA braking control cannot completely stop the vehicle nor avoid all collisions. The driver should hold the responsibility to safely drive and control the vehicle.



WARNING

The FCA system logic operates within certain parameters, such as the distance from the vehicle or pedestrian ahead, the speed of the vehicle ahead, and the driver's vehicle speed. Certain conditions such as inclement weather and road conditions may affect the operation of the FCA system.



WARNING

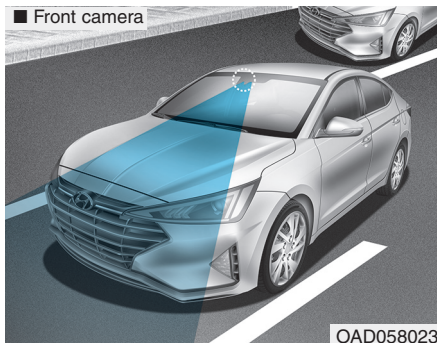
Never deliberately drive dangerously to activate the system.

FCA Sensor (Front Radar/Front Camera)

■ Front radar



■ Front camera



In order for the FCA system to operate properly, always make sure the sensor cover or sensor is clean and free of dirt, snow, and debris.

5-92

Dirt, snow, or foreign substances on the sensor cover or sensor may adversely affect the sensing performance of the sensor.

NOTICE

- Do not apply license plate frame or foreign objects such as a bumper sticker or a bumper guard near the sensor. Doing so may adversely affect the sensing performance of the radar.
- Always keep the sensor and cover clean and free of dirt and debris.
- Use only a soft cloth to wash the vehicle. Do not spray pressurized water directly on the sensor or sensor cover.
- Be careful not to apply unnecessary force on the sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the FCA system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.

- If the front bumper becomes damaged in the area around the sensor, the FCA system may not operate properly. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Use only genuine HYUNDAI parts to repair or replace a damaged sensor or sensor cover. Do not apply paint to the sensor cover.

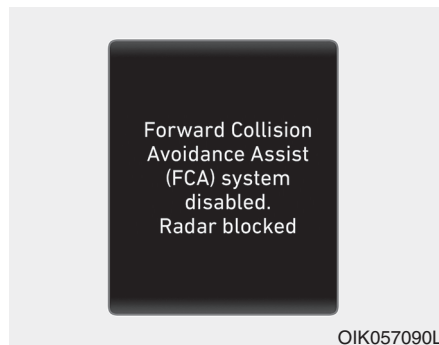
NOTICE

- **NEVER** install any accessories or stickers on the front windshield, nor tint the front windshield.
- **NEVER** locate any reflective objects (i.e. white paper, mirror) over the dashboard. Any light reflection may cause a malfunction of the system.
- Pay extreme caution to keep the camera out of water.
- **NEVER** disassemble the camera assembly, nor apply any impact on the camera assembly.
- Playing the vehicle audio system at high volume may offset the system warning sounds.

i Information

Have the system checked by an authorized HYUNDAI dealer when:

- The windshield glass is replaced.
- The radar sensor or cover gets damaged or replaced.

Warning message and warning light

**Forward Collision Avoidance Assist (FCA) system disabled.
Radar blocked**

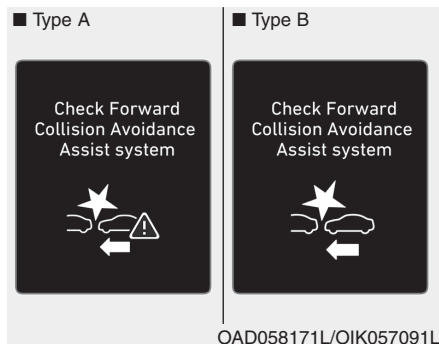
When the sensor cover is blocked with dirt, snow, or debris, the FCA system operation may stop temporarily. If this occurs, a warning message will appear on the LCD display. Remove any dirt, snow, or debris and clean the radar sensor cover before operating the FCA system.

However, the FCA may not properly operate in an area (e.g. open terrain), where any substances are not detected or the camera is blocked with dirt, snow or debris after turning ON the engine.

Also, even though a warning message does not appear on the LCD display, the FCA may not properly operate.

The system will operate normally when such dirt, snow or debris is removed.

System Malfunction



Check Forward Collision Avoidance Assist system

- When the FCA is not working properly, the FCA 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, have the vehicle inspected by an authorized HYUNDAI dealer.
- The FCA warning message may appear along with the illumination of the ESC (Electronic Stability Control) warning light.

⚠ WARNING

- The FCA 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 FCA system. Rather, maintain a safe braking distance, and, if necessary, depress the brake pedal to reduce the driving speed.

- In certain instances and under certain driving conditions, the FCA system may activate prematurely. This initial warning message appears on the LCD display with a warning chime.

Also, in certain instances the front radar sensor or camera recognition system may not detect the vehicle or pedestrian ahead. The FCA system may not activate and the warning message will not be displayed.

- If there is a malfunction with the FCA system, the Forward Collision avoidance assist system is not applied even though the braking system is operating normally.
- If the vehicle in front stops suddenly, you may have less control of the brake system. Therefore, always keep a safe distance between your vehicle and the vehicle in front of you.
- The FCA system may activate during braking and the vehicle may stop suddenly shifting loose objects toward the passengers. Always keep loose objects secured.
- The FCA system may not activate if the driver applies the brake pedal to avoid a collision.
- The brake control may be insufficient, possibly causing a collision, if a vehicle in front abruptly stops. Always pay extreme caution.

- The FCA system may not activate according to the road conditions, inclement weather, driving conditions or traffic conditions.
- Occupants may get injured, if the vehicle abruptly stops by the activated FCA system. Pay extreme caution.
- The FCA system does not detect all vehicles.

WARNING

- The FCA system operates only to detect vehicles or pedestrians in front of the vehicle.
- The FCA system does not operate when the vehicle is in reverse.
- The FCA system is not designed to detect other objects on the road such as animals.
- The FCA system does not detect vehicles in the opposite lane.
- The FCA system does not detect cross traffic vehicles that are approaching.
- The FCA system cannot detect the driver approaching the side view of a parked vehicle (for example on a dead end street).

In these cases, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce the driving speed in order to maintain a safe distance.

Limitations of the System

The Forward Collision Avoidance Assist (FCA) system is designed to monitor the vehicle ahead or a pedestrian on the roadway through radar signals and camera recognition to warn the driver that a collision is imminent, and if necessary, apply emergency braking.

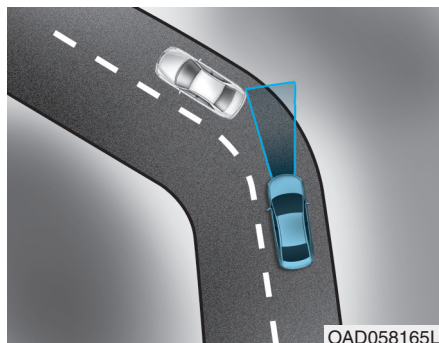
In certain situations, the radar sensor or the camera may not be able to detect the vehicle or pedestrian ahead. In these cases, the FCA system may not operate normally. The driver must pay careful attention in the following situations where the FCA operation may be limited.

Detecting vehicles

The sensor may be limited when:

- The radar sensor or camera is blocked with a foreign object or debris
- Inclement weather such as heavy rain or snow obscures the field of view of the radar sensor or camera
- There is interference by electromagnetic waves
- The vehicle is on unpaved or uneven rough surfaces, or road with sudden gradient changes.
- The vehicle drives through a construction area, on an unpaved road, or above metal materials, such as a railway
- The vehicle in front is too small to be detected (for example a motorcycle or a bicycle, etc.)
- The camera's field of view is not well illuminated (either too dark or too much reflection or too much backlight that obscures the field of view)
- The camera does not recognize the entire vehicle in front.
- The vehicle in front is an oversize vehicle or trailer that is too big to be detected by the camera recognition system (for example a tractor trailer, etc.)
- The vehicle in front does not have rear lights or the rear lights are not turned ON or the rear lights are located unusually.
- The outside brightness changes suddenly, for example when entering or exiting a tunnel
- The vehicle drives inside a building, such as a basement parking lot
- The adverse road conditions cause excessive vehicle vibrations while driving
- You are on a roundabout and the vehicle in front circles
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or stuck of foreign matter (sticker, bug, etc.) on the glass
- The camera is damaged.
- The brightness outside is too low such as when the headlamps are not on at night or the vehicle is going through a tunnel.
- Light coming from a street light or an oncoming vehicle is reflected on a wet road surface such as a puddle in the road
- The field of view in front is obstructed by sun glare
- The shadow is on the road by a median strip, trees, etc.
- The vehicle drives through a toll-gate.

- The windshield glass is fogged up; a clear view of the road is obstructed
- The radar/camera sensor recognition is limited
- The rear part of the vehicle in front is not normally visible (for example, the vehicle is spinning or the vehicle is overturned)
- There is severe irregular reflection from the radar sensor
- The sensor recognition changes suddenly when passing over a speed bump
- The vehicle in front is driving erratically
- The vehicle in front is moving vertically to the driving direction
- The vehicle in front is stopped vertically
- The vehicle in front is driving towards your vehicle or reversing



- Driving on a curve

The performance of the FCA system may be limited when driving on a curved road.

This may cause the alarm or braking to activate or not activate improperly.

Also, in certain instances the front radar sensor or camera recognition system may not detect the vehicle traveling on a curved road.

In these cases, the driver must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



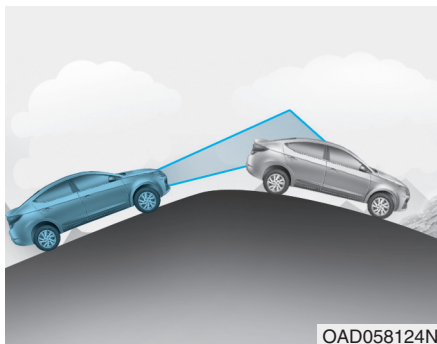
The FCA system may recognize a vehicle in the next lane when driving on a curved road.

In this case, the system may unnecessarily alarm the driver and apply the brake.

Always pay attention to road and driving conditions, while driving. If necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Also, when necessary depress the accelerator pedal to prevent the system from unnecessarily decelerating your vehicle.

Check the road conditions for safe operation of the FCA system.

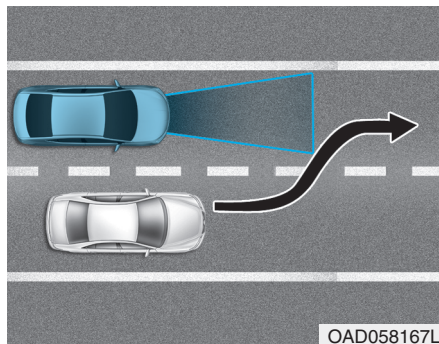


- Driving on a slope

The performance of the FCA 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.

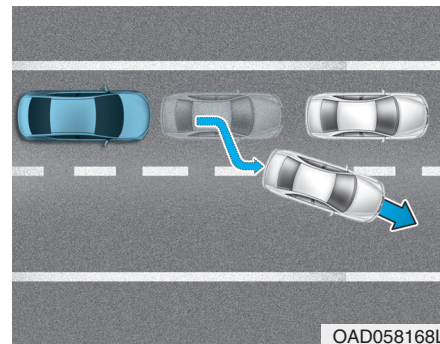
When the FCA suddenly recognizes the vehicle in front while passing over a slope, you may experience sharp deceleration.

Always keep your eyes forward while driving upward or downward on a slope, and, if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

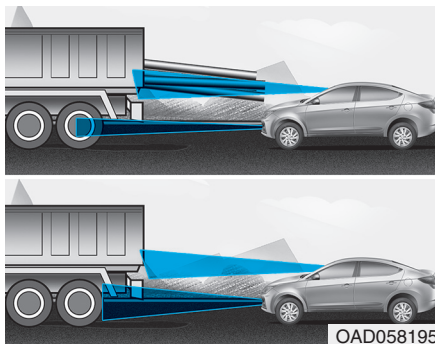


- Changing lanes

When a vehicle changes lanes in front of you, the FCA system may not immediately detect the vehicle, especially if the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



When driving in stop-and-go traffic, and a stopped vehicle in front of you merges out of the lane, the FCA system may not immediately detect the new vehicle that is now in front of you. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



- Detecting the vehicle in front of you
If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. The FCA system may not be able to detect the cargo extending from the vehicle. In these instances, you must maintain a safe braking distance from the rearmost object, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

Detecting pedestrians

The sensor may be limited when:

- The pedestrian is not fully detected by the camera recognition system, for example, if the pedestrian is leaning over or is not fully walking upright
- The pedestrian is moving very quickly or appears abruptly in the camera detection area
- The pedestrian is wearing clothing that easily blends into the background, making it difficult to be detected by the camera recognition system
- If the bicycle material is not reflected well on the radar
- When the pedestrian or cyclist suddenly interrupts in front of the vehicle
- When there is any other electromagnetic interference
- The outside lighting is too bright (e.g. when driving in bright sunlight or in sun glare) or too dark (e.g. when driving on a dark rural road at night)
- It is difficult to detect and distinguish the pedestrian from other objects in the surroundings, for example, when there is a group of pedestrians or a large crowd
- There is an item similar to a person's body structure
- The pedestrian is small
- The pedestrian has impaired mobility
- The sensor recognition is limited
- The radar sensor or camera is blocked with a foreign object or debris
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or stuck of foreign matter (sticker, bug, etc.) on the glass
- The brightness outside is too low such as when the headlamps are not on at night or the vehicle is going through a tunnel
- Inclement weather such as heavy rain or snow obscures the field of view of the radar sensor or camera

- When light coming from a street light or an oncoming vehicle is reflected on a wet road surface such as a puddle in the road
- The field of view in front is obstructed by sun glare
- The windshield glass is fogged up; a clear view of the road is obstructed
- The adverse road conditions cause excessive vehicle vibrations while driving
- The sensor recognition changes suddenly when passing over a speed bump
- You are on a roundabout

Information

In some instances, the FCA system may be canceled when subjected to electromagnetic interference.

Information

This device complies with Industry Canada RSS-210 standard.

Operation is subject to the following two conditions:

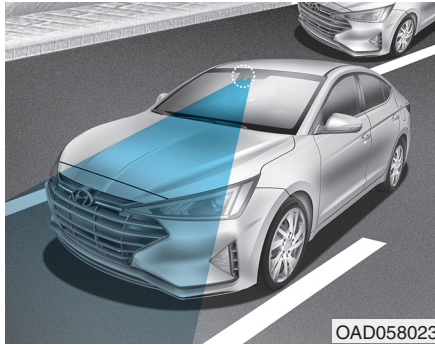
1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING

- Do not use the Forward Collision Avoidance Assist (FCA) system when towing a vehicle. Application of the FCA system while towing may adversely affect the safety of your vehicle or the towing vehicle.

- Use extreme caution when the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance.
- The FCA system is designed to detect and monitor the vehicle ahead or detect a pedestrian in the roadway through radar signals and camera recognition. It is not designed to detect bicycles, motorcycles, or smaller wheeled objects such as luggage bags, shopping carts, or strollers.
- Never try to test the operation of the FCA system. Doing so may cause severe injury or death.
- If the front bumper, front glass, radar or camera have been replaced or repaired, have the vehicle inspected by an authorized HYUNDAI dealer.

LANE KEEPING ASSIST (LKA) SYSTEM (IF EQUIPPED)



The Lane Keeping Assist (LKA) system helps detect lane markers on the road with a front view camera at the front windshield, 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 counter-steering torque, to try to prevent the vehicle from moving out of its lane.

WARNING

The Lane Keeping Assist (LKA) system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always be aware of the surrounding and steer the vehicle.

WARNING

Take the following precautions when using the Lane Keeping Assist (LKA) system:

- Do not steer the steering wheel suddenly when the steering wheel is being assisted by the system.
- LKA system helps to prevent 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.

- The operation of the LKA system can be canceled or not work properly according to road condition and surroundings. Always be cautious when driving.
- Do not disassemble the LKA system camera temporarily to tint the window or attach any types of coatings and accessories. If you disassemble the camera and assemble it again, take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.
- When you replace the windshield glass, LKA system camera or related parts of the steering wheel, take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.

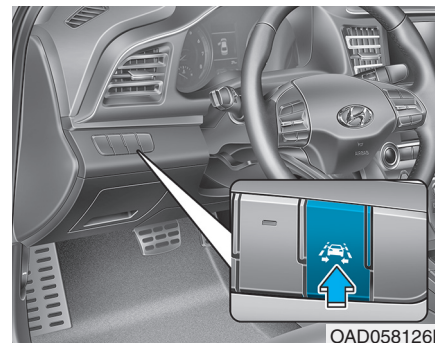
- The system helps detect lane markers and controls the steering wheel by a camera, therefore, if the lane markers are hard to detect, the system may not work properly.

Please refer to "Limitations of the system".

- Do not remove or damage the related parts of LKA system.
- You may not hear a warning sound of LKA system because of excessive audio sound.
- If any other warning sound such as seat belt warning chime is already generated, the Lane Keeping Assist (LKA) system warning may not sound.
- 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.

- Always have your hands on the steering wheel while the LKA system is activated. Also, when Active LKA is selected from the User Settings mode and if you continue to drive with your hands off the steering wheel after the "Keep hands on steering wheel" warning message appears, the system will stop controlling the steering wheel. However, if the driver has their hands on the steering wheel again, the system will start controlling the steering wheel.
- The steering wheel is not continuously controlled so if the vehicle speed is at a higher speed when leaving a lane the vehicle may not be able to be controlled by the system. The driver must always follow the speed limit when using the system.
- If you attach objects to the steering wheel, the system may not assist steering or the hands off alarm may not work properly. When you tow a trailer, make sure that you turn off the LKA system.

LKA System Operation



To activate/deactivate the LKA system:

With the ignition switch in the ON position, press the LKA system switch located on the instrument panel on the left hand side of the steering wheel. The indicator in the cluster display will initially illuminate white. This indicates the LKA system is in the READY but NOT ENABLED state.

If you press the LKA button again, the indicator on the switch and cluster display will go off.



Note that the vehicle speed must be at least approximately 64 km/h (40 mph) to ENABLE the

LKA system. The indicator in the cluster display will illuminate green.

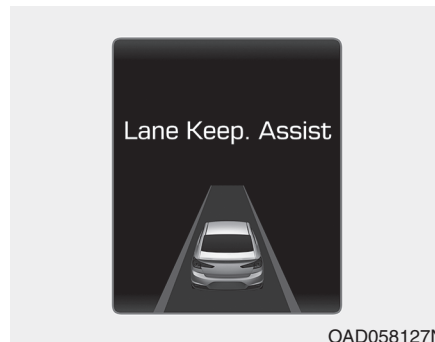
The color of indicator will change depending on the condition of LKA system.

- White : Sensor does not detect lane markers or vehicle speed is under 64 km/h (40 mph).
- Green : Sensor detects lane markers and the system is able to control vehicle steering.

i Information

If the indicator (white) is activated from the previous ignition cycle, the system will turn ON without any additional control. If you press the LKA switch again, the indicator on the cluster goes off.

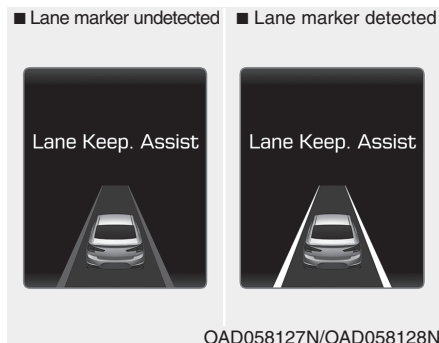
LKA system activation



- To see the LKA system screen on the LCD display in the cluster, select Assist mode (A). For more details, refer to "LCD Display Modes" in chapter 3.

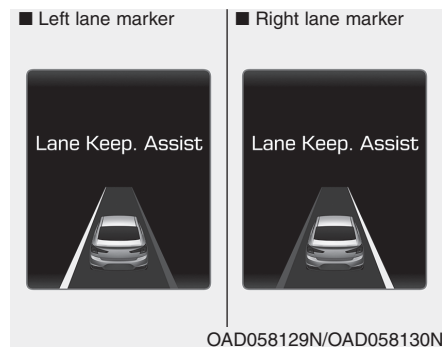
! WARNING

The Lane Keeping Assist (LKA) system is a system to help 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.



- If vehicle speed is over 64 km/h (40 mph) and the system detects lane markers, the color changes from gray to white.
- Both lane markers must be detected for the system to fully activate.

- If your vehicle departs from the projected lane in front of you, the LKA system operates as follows:



1. A visual warning appears on the cluster LCD display. Either the left lane marker or the right lane marker in the cluster LCD display will blink depending on which direction the vehicle is veering. Also, a warning sound will be heard.

2. The LKA system will control the vehicle's steering to prevent the vehicle from crossing the lane marker in below conditions.

- Vehicle speed is over 64 km/h (40 mph)
- The system detects both lane markers
- When driving, the vehicle is located between both lanes normally.
- The steering wheel is not turned suddenly.

When lanes are detected and all the conditions to activate the LKA system are satisfied, a LKA system indicator light will change from white to green. This indicates that the LKA system is in the ENABLED state and the steering wheel will be able to be controlled.

Warning Light and Message

Keep hands on steering wheel



If the driver takes their hands off the steering wheel for several seconds while the LKA system is activated, the system will warn the driver.

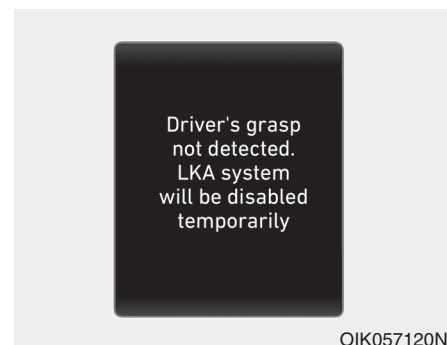
i Information

If the steering wheel is held very lightly, the message may still appear because the LKA system may not recognize that the driver has their hands on the wheel.

! WARNING

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

***Driver's grasp not detected.
LKA system will be disabled temporarily***



If the driver still does not have their hands on the steering wheel after the message "Keep hands on steering wheel", the system will not control the steering wheel and warn the driver only when the driver crosses the lane markers.

However, if the driver has their hands on the steering wheel again, the system will start controlling the steering wheel.

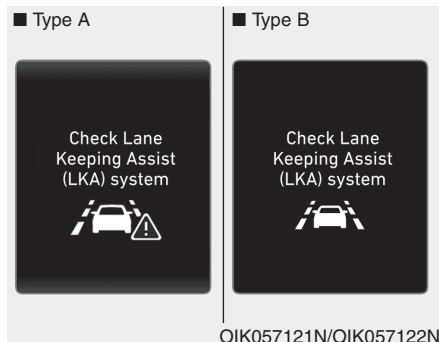
This warning message is available when Active LKA is selected from the User Settings mode.

WARNING

- The driver is responsible for accurate steering.
- Turn off the system in below situations.
 - In bad weather
 - In bad road condition
 - When the steering wheel needs to be controlled by the driver frequently.
 - When towing a vehicle or trailer

Information

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



Check Lane Keeping Assist (LKA) system

If there is a problem with the system a message will appear for a few seconds. If the problem continues the LKA system failure indicator will illuminate.

LKA system failure indicator



The LKA system failure indicator (yellow) will illuminate if the LKA system is not working properly. Have your vehicle checked by an authorized HYUNDAI 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, have your vehicle checked by an authorized HYUNDAI dealer.

The LKA system will not be in the ENABLED state and/or the steering wheel will not be assisted when:

- The turn signal is turned on before changing a lane. If you change lanes without the turn signal on, the steering wheel might be controlled.
- The vehicle is not driven in the middle of the lane when the system is turned on or right after changing a lane.
- ESC (Electronic Stability Control) or VSM (Vehicle Stability Management) is activated.
- The vehicle is driven on a sharp curve.
- Vehicle speed is below 64 km/h (40 mph) and over 177 km/h (110 mph).
- The vehicle makes sharp lane changes.
- The vehicle brakes suddenly.
- The lane is very wide or narrow.
- There are more than two lane markers on the road. (e.g. construction area)
- Only one side of the lane marker is detected.
- Radius of a curve is too small.
- The vehicle is driven on a steep incline.
- The steering wheel is turned suddenly.
- Driving on a steep slope or hill.

Limitations of the System

The LKA system may operate prematurely even if the vehicle does not depart from the intended lane, OR, the LKA system may not warn you if the vehicle leaves the intended lane under the following circumstances:

When the lane and road conditions are poor

- It is difficult to distinguish the lane marker from the road because the lane marker is covered with dust or sand.
- It is difficult to distinguish the color of the lane marker from the road.
- There are markings on the road surface that look like a lane marker that is inadvertently being detected by the camera.
- The lane marker is indistinct or damaged.
- The lane marker is merged or divided. (e.g. tollgate)
- The lane number increases or decreases or the lane marker are crossing complicatedly.

- There are more than two lane markers on the road in front of you.
- The lane marker is very thick or thin.
- The lane is very wide or narrow.
- The lane marker ahead is not visible due to rain, snow, water on the road, damaged or stained road surface, or other factors.
- The shadow is on the lane marker by a median strip, trees, guardrail, noise barriers, etc.
- The lane markers are complicated or a structure substitutes for the lines such as a construction area.
- There are crosswalk signs or other symbols on the road.
- The lane marker in a tunnel is stained with oil, etc.
- The lane suddenly disappears such as at the intersection.

When external condition is intervened

- The brightness outside changes suddenly such as when entering or exiting a tunnel, or when passing under a bridge.
 - The brightness outside is too low such as when the headlamps are not on at night or the vehicle is going through a tunnel.
 - There is a boundary structure in the roadway such as a concrete barrier, guardrail and reflector post that is inadvertently being detected by the camera.
 - When light coming from a street light or an oncoming vehicle is reflected on a wet road surface such as a puddle in the road.
 - The field of view in front is obstructed by sun glare.
 - There is not enough distance between you and the vehicle in front to be able to detect the lane marker or the vehicle ahead is driving on the lane marker.
- Driving on a steep grade, over a hill, or when driving on a curved road.
 - The adverse road conditions cause excessive vehicle vibrations while driving.
 - The surrounding of the inside rear view mirror temperature is high due to direct sunlight, etc.

When front visibility is poor

- The windshield or the camera lens is blocked with dirt or debris.
- The windshield glass is fogged up; a clear view of the road is obstructed.
- Placing objects on the dashboard, etc.
- The sensor cannot detect the lane because of fog, heavy rain or snow.

WARNING

The Lane Keeping Assist (LKA) system is a system to help prevent the driver from leaving the lane. However, the driver should not solely rely on the system but always take the necessary actions for safe driving practices.

LKA System Function Change

The driver can change LKA to Lane Departure Warning from the LCD display. Go to the 'User Settings → Driver Assistance → Lane Safety → Active LKA/Lane Keeping Assist /Lane Departure Warning/Off'.

Active LKA

The Active LKA mode provides more frequent steering wheel control in comparison with the Standard LKA mode. Active LKA can reduce the driver's fatigue to assist the steering for maintaining the vehicle in the middle of the lane.

Standard LKA

This mode guides the driver to help keep the vehicle within the lanes. It rarely controls the steering wheel, when the vehicle drives well inside the lanes. However, it starts to control the steering wheel, when the vehicle is about to deviate out of the lane.

Lane Departure Warning

LDW system alerts the driver with a visual warning and a warning alarm when the system detects the vehicle departing the lane. The steering wheel will not be controlled.

Off

If you select "Off", the LKA system is deactivated.

DRIVER ATTENTION WARNING (DAW) SYSTEM (IF EQUIPPED)

The Driver Attention Warning (DAW) system is designed as a safety feature to help reduce drowsy or inattentive driving. The DAW displays a bar graph that is intended to represent the driver's attention and fatigue level while driving.

System Setting and Activation

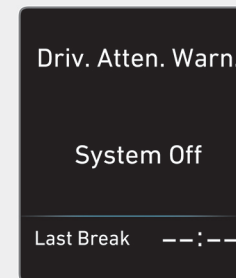
System setting

- To turn ON the Driver Attention Warning (DAW) system, turn on the engine, and then select 'User Settings → Driver Assistance → Driver Attention Warning → High sensitivity/Normal sensitivity/Off'

- The driver can select the mode of the Driver Attention Warning (DAW) system.
 - High sensitivity : The Driver Attention Warning system helps alert the driver of his/her fatigue level or inattentive driving practices faster than Normal mode.
 - Normal sensitivity : The Driver Attention Warning system helps alert the driver of his/her fatigue level or inattentive driving practices.
 - Off : The Driver Attention Warning system is deactivated.
- The set-up of the Driver Attention Warning system will be maintained, as selected, when the engine is re-started.

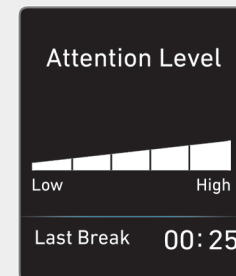
Driver's attention level

■ System off



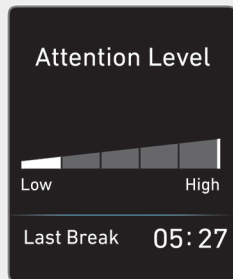
OIK057129N

■ Attentive driving



OIK057130N

■ Inattentive driving

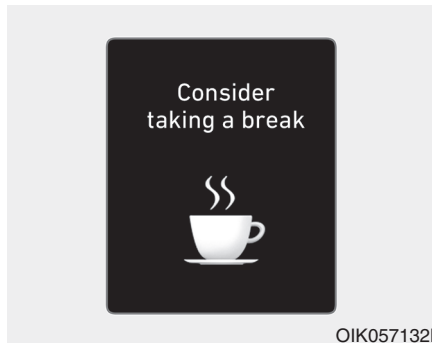


OIK057131N

- The driver can monitor their driving conditions on the LCD display.
The DAW screen will appear when you select the Assist mode tab (A) on the LCD display if the system is activated. **For more details, refer to "LCD Display Modes" in chapter 3.**
- The driver's attention level is displayed on the scale of 1 to 5. The lower the number is, the more inattentive the driver is.
- The number decreases when the driver does not take a break for a certain period of time.
- The number increases when the driver attentively drives for a certain period of time.

- When the driver turns on the system while driving, it displays 'Last Break time' and level.

Take a break



OIK057132L

- The "Consider taking a break" message appears on the LCD display and a warning sounds in order to suggest the driver to take a break, when the driver's attention level is below 1.
- The Driver Attention Warning (DAW) system does not suggest the driver to take a break, when the total driving time is shorter than 10 minutes.



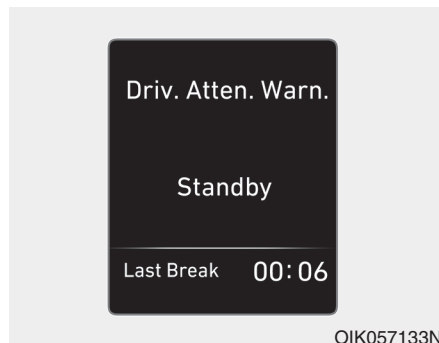
CAUTION

While other beeps such as the seat belt warning sound are in operation and override the DAW alarming system, DAW beeps may not occur.

Resetting the System

- The last break time is set to 00:00 and the driver's attention level is set to 5 (very attentive) when the driver resets the Driver Attention Warning (DAW) system.
- The Driver Attention Warning (DAW) system resets in the following situations.
 - The engine is turned OFF.
 - The driver unfastens the seat belt and then opens the driver's door.
 - The vehicle is stopped for more than 10 minutes.
- The Driver Attention Warning (DAW) system operates again, when the driver restarts driving.

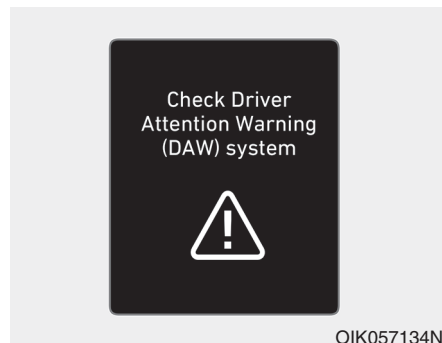
System Standby



The Driver Attention Warning (DAW) system enters the ready status and displays the 'Standby' screen in the following situations.

- The camera does not detect the lanes.
- Driving speed remains under 64 km/h (40 mph) or over 177 km/h (110 mph).

System Malfunction



Check Driver Attention Warning (DAW) system

When the warning message appears, the system is not working properly. In this case, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- The Driver Attention Warning system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.
- The system may suggest a break according to the driver's driving pattern or habits even if the driver doesn't feel fatigue.
- The driver, who feels fatigued, should take a break, even though there is no break suggestion by the Driver Attention Warning system.

NOTICE

The Driver Attention Warning system utilizes the camera sensor on the front windshield for its operation. To keep the camera sensor in the best condition, you should observe the followings:

- Do not disassemble the camera temporarily to tint the window or to attach any types of coatings and accessories. If you disassemble a camera and assemble it again, take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.
- NEVER install any accessories or stickers on the front windshield, nor tint the front windshield.
- NEVER locate any reflective objects (i.e. white paper, mirror) over the dashboard. Any light reflection may cause a malfunction of the Driver Attention Alert (DAW) system.
- Pay extreme caution to keep the camera sensor out of water.

**CAUTION**

The Driver Attention Warning (DAW) system may not properly operate with limited alerting in the following situations:

- The lane detection performance is limited. (For more details, refer to "Lane Keeping Assist (LKA) system" in this chapter.)
- The vehicle is violently driven or is abruptly turned for obstacle avoidance (e.g. construction area, other vehicles, fallen objects, bumpy road).
- Forward drivability of the vehicle is severely undermined (possibly due to wide variation in tire pressures, uneven tire wear-out, toe-in/toe-out alignment).
- The vehicle drives on a curvy road.

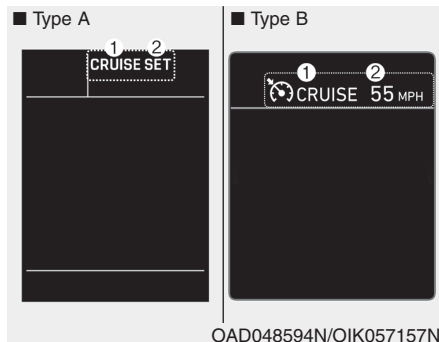
- The vehicle drives on a bumpy road.
- The vehicle drives through a windy area.
- The vehicle is controlled by the following driving assist systems:
 - Lane Keeping Assist (LKA) System
 - Forward Collision-Avoidance Assist (FCA) System
 - Blind-Spot Collision Warning (BCW)
 - Smart Cruise Control (SCC) System

**CAUTION**

Playing the vehicle audio system at high volume may offset the Driver Attention Warning (DAW) system warning sounds.

CRUISE CONTROL (IF EQUIPPED)

Cruise Control Operation



1. Cruise indicator
2. SET indicator (Type A) /
Set speed (Type B)

The Cruise Control system allows you to drive at speeds above 30 km/h (20 mph) without depressing the accelerator pedal.

WARNING

Take the following precautions:

- Always set the vehicle speed under the speed limit.
- If the Cruise Control is left on, (cruise indicator light in the instrument cluster is illuminated) the Cruise Control can be activated unintentionally. Keep the Cruise Control system off (cruise indicator light 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 be unsafe to keep the vehicle at a constant speed.

• Do not use when:

- Driving in heavy traffic or when traffic conditions make it difficult to drive at a constant speed
- Driving on rainy, icy, or snow-covered roads
- Driving on hilly or windy roads
- Driving in windy areas
- Driving with limited view (possibly due to bad weather such as fog, snow, rain and sandstorm)

NOTICE

During cruise-speed driving of a manual transmission vehicle, do not shift into neutral without depressing the clutch pedal, since the engine will be overrevved. If this happens, depress the clutch pedal or press the cruise control ON/OFF button.

i Information

- 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.
- Before activating the cruise control function, the system will check to verify that the brake switch is operating normally. Depress the brake pedal at least once after turning ON the ignition or starting the engine.

To set Cruise Control speed



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

i Information - Manual transmission

For manual transmission vehicles, you should depress the brake pedal at least once to set the cruise control after starting the engine.



3. Push the toggle switch down (SET-), and release it. The SET indicator or set speed on the LCD display will illuminate.
4. Release the accelerator pedal.

i Information

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

To increase Cruise Control speed



- Push the toggle switch up (RES+) and hold it to set the desired speed. The speed will increase by 10 km/h (5 mph).
- Push the toggle switch up (RES+) and release it immediately. The cruising speed will increase 1.0 km/h (1.0 mph) each time the toggle switch is operated in this manner.
- Depress the accelerator pedal. When the vehicle attains the desired speed, push the toggle switch down (SET-).

To decrease Cruise Control speed



- Push the toggle switch down (SET-) and hold it to set the desired speed. The speed will decrease by 10 km/h (5 mph).
- Push the toggle switch down (SET-) and release it immediately. The cruising speed will decrease 1.0 km/h (1.0 mph) each time the toggle switch is operated in this manner.
- Lightly tap the brake pedal. When the vehicle attains the desired speed, push the toggle switch down (SET-).

To temporarily accelerate with the Cruise Control ON

Depress the accelerator pedal. When you take your foot off the accelerator, the vehicle will return to the previously set speed.

If you push the toggle switch down (SET-) at the increased speed, the Cruise Control will maintain the increased speed.

Cruise Control will be canceled when:



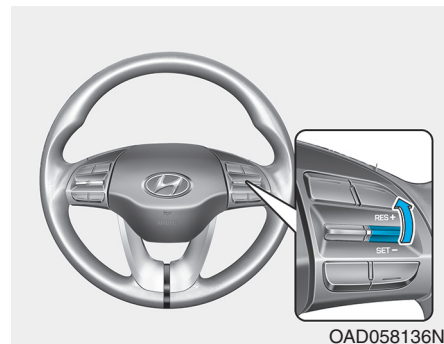
- Depressing the brake pedal.
- Depressing the clutch pedal. (for manual transmission vehicle)
- Pressing the CANCEL button located on the steering wheel.
- Pressing the CRUISE button. Both the cruise indicator and the SET indicator or set speed on the LCD display will turn OFF.
- Moving the shift lever into N (Neutral).(for automatic transmission/dual clutch transmission vehicle)

- Decreasing the vehicle speed to less than approximately 30 km/h (20 mph).
- The ESC (Electronic Stability Control) is operating.

***i* Information**

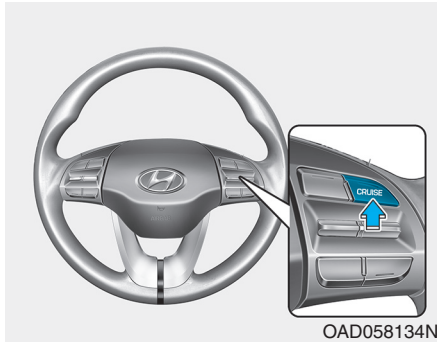
Each of the above actions will cancel Cruise Control operation (the set speed on the LCD display in the instrument cluster will go off), but only pressing the CRUISE button will turn the system off. If you wish to resume Cruise Control operation, push the toggle switch up (RES+) located on your steering wheel. You will return to your previously preset speed, unless the system was turned off using the CRUISE button.

To resume preset Cruising speed



Push the toggle switch up (RES+). If the vehicle speed is over 30 km/h (20 mph), the vehicle will resume the preset speed.

To turn Cruise Control off



- Press the CRUISE button (the cruise indicator light will go off).
- Turn the vehicle OFF.

SMART CRUISE CONTROL SYSTEM (IF EQUIPPED)



OAD058138C

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

To see the SCC screen on the LCD display in the cluster, select Assist mode (A). For more details, refer to "LCD Display Modes" in chapter 3.

The Smart Cruise Control system allows you to program the vehicle to maintain constant speed and minimum distance between the vehicle ahead.

The Smart Cruise Control system will automatically adjust your vehicle speed to maintain your programmed speed and following distance without requiring you to depress the accelerator or brake pedals.

⚠ WARNING

For your safety, please read the owner's manual before using the Smart Cruise Control system.

⚠ WARNING

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 distance to the vehicle ahead.

⚠ WARNING

Take the following precautions :

- Always set the vehicle speed under the speed limit.
- If the Smart Cruise Control is left on, (cruise indicator light in the instrument cluster is illuminated) the Smart Cruise Control can be activated unintentionally. Keep the Smart Cruise Control system off (cruise indicator light OFF) when the Smart Cruise Control is not in use, to avoid inadvertently setting a speed.
- 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 vehicle at a constant speed.
- Do not use when:
 - Driving in heavy traffic or when traffic conditions make it difficult to drive at a constant speed

- Driving on rainy, icy, or snow-covered roads
- Driving on a steep downhill or uphill
- Driving in windy areas
- Driving in parking lots
- Driving near crash barriers
- Driving on a sharp curve
- Driving with limited view (possibly due to bad weather, such as fog, snow, rain or sandstorm)
- The vehicle's sensing ability decreases due to vehicle modification, resulting in a level difference of the vehicle's front and rear
- Unexpected situations may lead to possible accidents. Pay attention continuously to road conditions and driving even when the smart cruise control system is being operated.

- The SCC 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 SCC system.

Smart Cruise Control Switch



CRUISE: Turns cruise control system on or off.

RES+: Resumes or increases cruise control speed.

SET-: Sets or decreases cruise control speed.

 : Sets vehicle-to-vehicle distance.

CANCEL: Cancels cruise control operation.

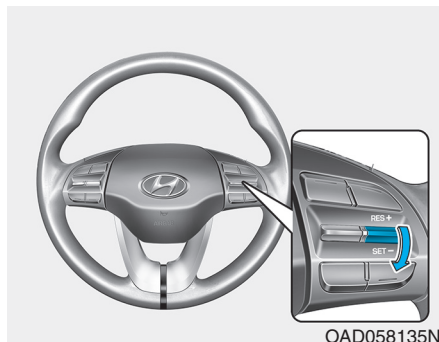
Smart Cruise Control Speed

To set Smart Cruise Control speed



1. Push the CRUISE button on the steering wheel to turn the system on. The cruise indicator will illuminate.
2. Accelerate to the desired speed. The Smart Cruise Control speed can be set when vehicle speed is between 10-180 km/h (5-110 mph).

However, 30 km/h (20 mph) is set when the vehicle speed is 10-30 km/h (5-20 mph).



3. Push the toggle switch down (SET-). The Set Speed and Vehicle-to-Vehicle Distance on the LCD display will illuminate.
4. Release the accelerator pedal. The desired speed will automatically be maintained.

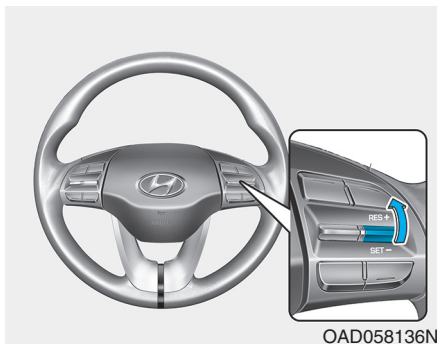
If there is a vehicle in front of you, the speed may decrease to maintain the distance to the vehicle ahead.

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

i Information

- Vehicle speed may decrease on an upward slope and increase on a downward slope.
- When vehicle speed is under 10 km/h (5 mph), the Smart Cruise Control is canceled. The driver must adjust the vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

To increase Smart Cruise Control set speed



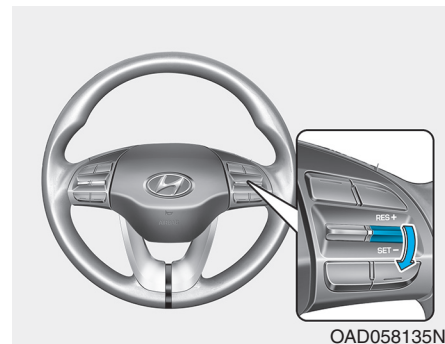
Follow either of these procedures:

- Push the toggle switch up (RES+), and release it immediately. The cruising speed will increase by 1 km/h (1 mph) each time you move the toggle switch up in this manner.
- Push the toggle switch up (RES+), and hold it. Your vehicle set speed will increase by 10 km/h (5 mph). Release the toggle switch at the speed you want.

CAUTION

Check the driving condition before using the toggle switch. Driving speed sharply increases, when you push up and hold the toggle switch.

To decrease the Smart Cruise Control set speed



Follow either of these procedures:

- Push the toggle switch down (SET-), and release it immediately. The cruising speed will decrease by 1 km/h (1 mph) each time you move the toggle switch down in this manner.
- Push the toggle switch down (SET-), and hold it. Your vehicle set speed will decrease by 10 km/h (5 mph). Release the toggle switch at the speed you want.
- You can set the speed to 30 km/h (20 mph).

To temporarily accelerate with the Smart Cruise Control on

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

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

If you push the toggle switch down (SET-) at increased speed, the cruising speed will be set again pedal.



CAUTION

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 set speed will be temporarily canceled when:



Canceled manually

- Depressing the brake pedal.
- Pushing the CANCEL button located on the steering wheel.

The Smart Cruise Control turns off temporarily when the Set Speed and Vehicle-to-Vehicle Distance indicator on the LCD display turns off.

The cruise indicator is illuminated continuously.

Canceled automatically

- The driver's door is opened.
- The vehicle is shifted to N (Neutral), R (Reverse) or P (Park).
- The vehicle speed is over 190 km/h (120 mph).
- The vehicle stops on a steep incline.
- The ESC (Electronic Stability Control), TCS (Traction Control System) or ABS is operating.
- The ESC is turned off.
- The sensor or the cover is dirty or blocked with foreign matter.
- The vehicle is stopped for a certain period of time.
- The vehicle stops and goes repeatedly for a long period of time.
- The accelerator pedal is continuously depressed for a long period of time.
- The engine performance is abnormal.
- Engine rpm is in the red zone.

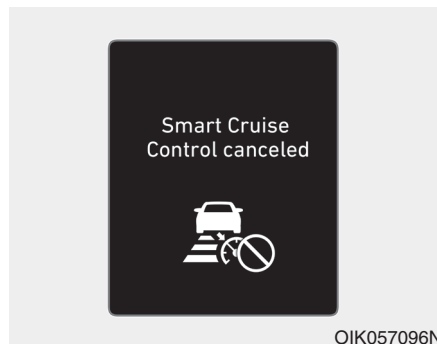
- The driver starts driving by pushing the toggle switch up (RES+)/down (SET-) or depressing the accelerator pedal, after the vehicle is stopped by the Smart Cruise Control system with no other vehicle ahead.
- The driver starts driving by pushing the toggle switch up (RES+)/down (SET-) or depressing the accelerator pedal, after stopping the vehicle with a vehicle stopped far away in front.
- The Forward Collision-Avoidance Assist (FCA) is activated.

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- toggle switch is pushed.

Information

If the Smart Cruise Control is canceled by other than the reasons mentioned, have the system checked by an authorized HYUNDAI dealer.



Smart Cruise Control canceled

If the system is cancelled, the warning chime will sound and a message 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 Smart Cruise Control set speed

If any method other than the cruise toggle switch was used to cancel cruising speed and the system is still activated, the cruising speed will automatically resume when you push the toggle switch up (RES+) or down (SET-).

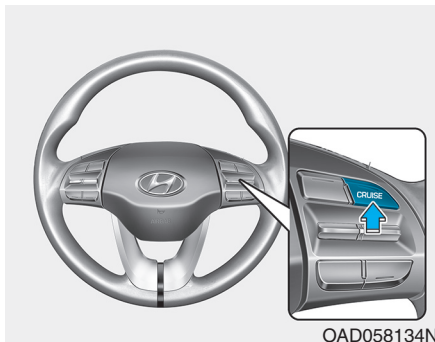
If you push the toggle switch up (RES+), the speed will resume to the recently set speed. However, if the vehicle speed is between 10 km/h (5 mph) and 30 km/h (20 mph), it will resume when there is a vehicle in front of your vehicle.



CAUTION

Always check the road conditions when you push the toggle switch up (RES+) to resume speed.

To turn Cruise Control off



- Push the CRUISE button (the cruise indicator light will go off).
If you wish not to use the cruise control system, always turn the system off by pushing the CRUISE button.

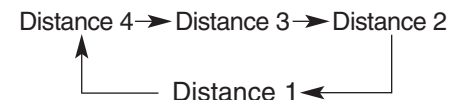
Smart Cruise Control Vehicle-to-Vehicle Distance

To set Vehicle-to-Vehicle Distance



When the Smart Cruise Control system is ON, you can set and maintain the distance from the vehicle ahead of you without pressing the accelerator or brake pedal.

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 is maintained as follows:

- Distance 4 - approximately 52.5 m (172 feet)
- Distance 3 - approximately 40 m (130 feet)
- Distance 2 - approximately 32.5 m (106 feet)
- Distance 1 - approximately 25 m (82 feet)

i Information

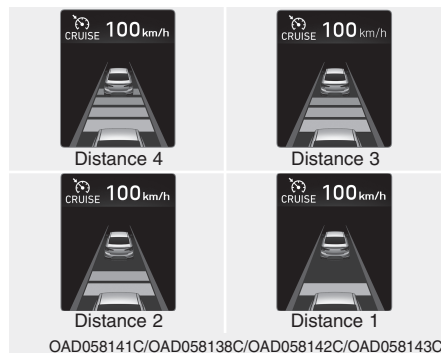
The distance is set to the last set distance when the system is used for the first time after starting the engine.

When the lane ahead is clear:



The vehicle speed will maintain the set speed.

When there is a vehicle ahead of you in your lane:



- Your vehicle speed will slow down or speed up to maintain the selected distance.
- If the vehicle ahead speeds up, your vehicle will travel at a steady cruising speed after accelerating to the set speed.

⚠ WARNING

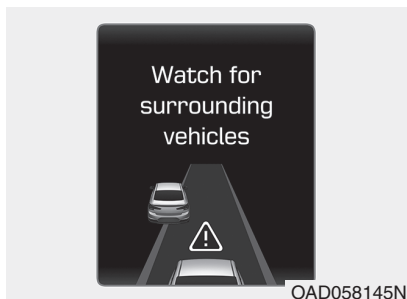


When using the Smart Cruise Control system:

- The warning chime sounds and the Vehicle-to Vehicle Distance indicator blinks if the vehicle is unable to maintain the selected distance from the vehicle ahead.
- If the warning chime sounds, depress the brake pedal to actively adjust the vehicle speed, and the distance to the vehicle ahead.

- Even if the warning chime is not activated, always pay attention to the driving conditions to prevent dangerous situations from occurring.
- Playing the vehicle audio system at high volume may offset the system warning sounds.

CAUTION



If the vehicle ahead (vehicle speed: less than 30 km/h (20 mph)) disappears to the next lane, the warning chime will sound and a message "Watch for surrounding vehicles" will appear. Adjust your vehicle speed for vehicles or objects that can suddenly appear in front of you by depressing the brake pedal.

Always pay attention to the road condition ahead.

Sensor to Detect Distance to the Vehicle Ahead

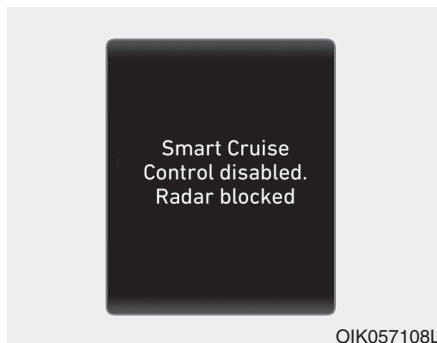


The Smart Cruise Control uses a sensor to detect distance to the vehicle ahead.

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

Always keep the sensor clean.

Warning message



Smart Cruise Control disabled. Radar blocked

When the sensor lens cover is blocked with dirt, snow, or debris, the Smart Cruise Control system operation may stop temporarily. If this occurs, a warning message will appear on the LCD display. Remove any dirt, snow, or debris and clean the radar sensor lens cover before operating the Smart Cruise Control system. The Smart Cruise Control system may not properly activate, if the radar is totally contaminated, or if any substance is not detected after turning on the engine (e.g. in an open terrain).

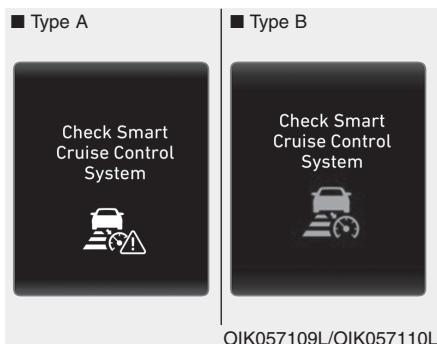
i Information

For the SCC operation is temporarily stopped if the radar is blocked, but you wish to use conventional cruise control mode (speed only control function), you must convert to the cruise control mode (refer to "To convert to Cruise Control mode" in the following page).

CAUTION

- Do not apply license plate frame or foreign objects such as a bumper sticker or a bumper guard near the radar sensor. Doing so may adversely affect the sensing performance of the radar.
- Always keep the radar sensor and lens cover clean and free of dirt and debris.
- Use only a soft cloth to wash the vehicle. Do not spray pressurized water directly on the sensor or sensor cover.

- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the Smart Cruise Control system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- If the front bumper becomes damaged in the area around the radar sensor, the Smart Cruise Control System may not operate properly. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Use only genuine HYUNDAI parts to repair or replace a damaged sensor or sensor cover. Do not apply paint to the sensor cover.

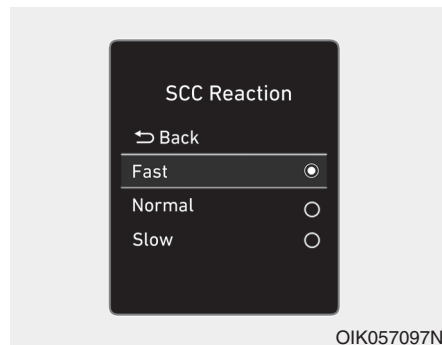


Check Smart Cruise Control System

The message will appear when the vehicle to vehicle distance control system is not functioning normally.

Take your vehicle to an authorized HYUNDAI dealer and have the system checked.

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 → Driver Assistance → SCC Reaction → Fast/Normal/Slow' on the LCD display. You may select one of the three stages you prefer.

- Fast:

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

- Normal:

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

- Slow:

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

i Information

The last selected speed sensitivity of the smart cruise control is remained in the system.

To Convert to Cruise Control Mode

The driver may choose to switch to use the conventional Cruise Control mode (speed only control function) by following these steps:

1. Push the CRUISE button on the steering wheel to turn the system on. The cruise ( CRUISE) indicator will illuminate.
2. Push and hold the Vehicle-to-Vehicle Distance button for more than 2 seconds.
3. Choose between "Smart Cruise Control" and "Cruise Control".

When the system is canceled using the CRUISE button or the CRUISE button is used after the engine is turned on, the Smart Cruise Control mode will turn on.

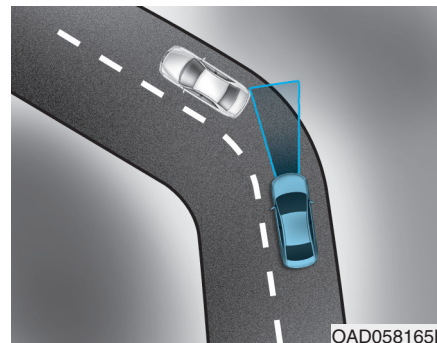
WARNING

When using the conventional Cruise Control mode, you must manually adjust the distance to other vehicles by depressing the brake pedal. The system does not automatically adjust the distance to vehicles in front of you.

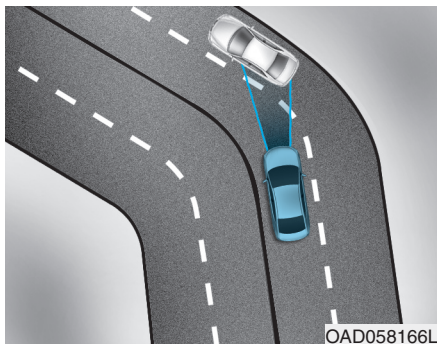
Limitations of the System

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

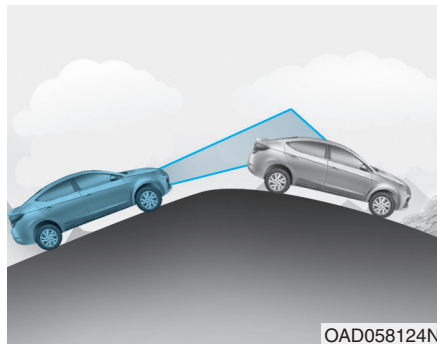


- The Smart Cruise Control system may not detect a moving vehicle in your lane, and then your vehicle could accelerate to the set speed. Also, the vehicle speed will decrease when the vehicle ahead is recognized suddenly.
- Select the appropriate set speed on curves and apply the brakes or accelerator pedal if necessary.



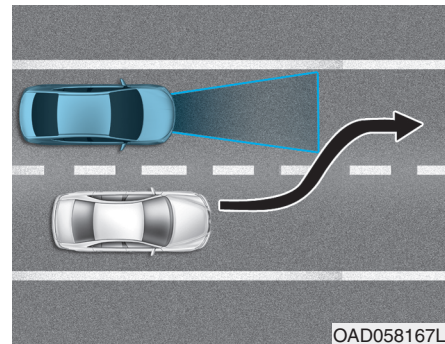
Your vehicle speed can be reduced due to a vehicle in the adjacent lane. Apply the accelerator pedal and select the appropriate set speed. Check to be sure that the road conditions permit safe operation of the Smart Cruise Control.

On inclines



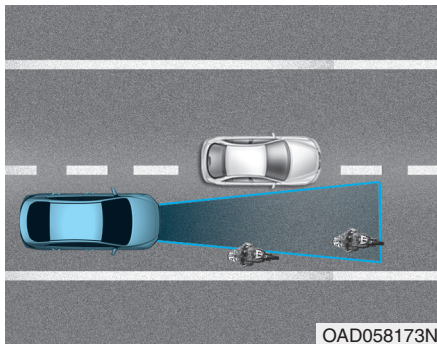
- During uphill or downhill driving, the Smart Cruise Control system may not detect a moving vehicle in your lane, and cause your vehicle to accelerate to the set speed. Also, the vehicle speed will rapidly decrease when the vehicle ahead is recognized suddenly.
- Select the appropriate set speed on inclines and apply the brake or accelerator pedal if necessary.

Lane changing



- 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 radar may not detect immediately when a vehicle cuts in suddenly. Always pay attention to the traffic, road and driving conditions.
- If a slower vehicle moves into your lane, your speed may decrease to maintain the distance to the vehicle ahead.
- If a faster vehicle which moves into your lane, your vehicle will accelerate to the set speed.

Detecting vehicles



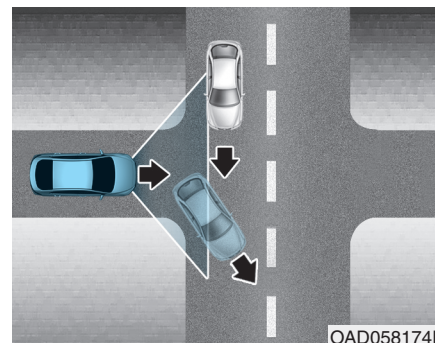
Some vehicles in your lane cannot be recognized by the sensor:

- 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

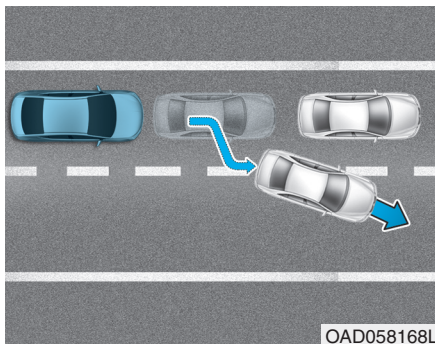
A vehicle ahead cannot be recognized correctly by the sensor if any of the following occurs:

- When the vehicle is pointing upwards due to overloading in the luggage compartment
- While the steering wheel is operating
- When driving to one side of the lane
- When driving on narrow lanes or on curves

Apply the brake or accelerator pedal if necessary.

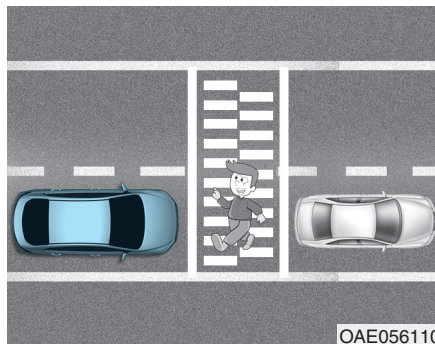


- Your vehicle may accelerate when a vehicle ahead of you disappears.
- When you are warned that the vehicle ahead of you is not detected, drive with caution.



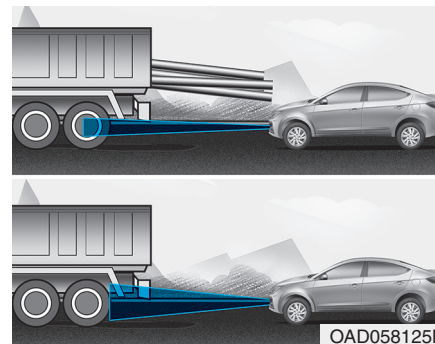
OAD058168L

- When driving in stop-and-go traffic, and a stopped vehicle in front of you merges out of the lane, the system may not immediately detect the new vehicle that is now in front of you. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



OAE056110

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



OAD058125N

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

WARNING

When using the Smart Cruise Control take the following precautions:

- If an emergency stop is necessary, you must apply the brakes. The vehicle cannot be stopped at every emergency situation by using the Smart Cruise Control system.
- 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.
- Always maintain sufficient braking distance and decelerate your vehicle by applying the brakes if necessary.
- 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.

- Vehicles moving in front of you with a frequent lane change may cause a delay in the system's reaction or may cause the system to react to a vehicle actually in an adjacent lane. Always drive cautiously to prevent unexpected and sudden situations from occurring.
- Always be aware of the selected speed and vehicle to vehicle distance. The driver should not solely rely on the system but always pay attention to driving conditions and control your vehicle speed.
- The Smart Cruise Control system may not recognize complex driving situations so always pay attention to driving conditions and control your vehicle speed.

Information

The Smart Cruise Control system may not operate temporarily due to:

- Electrical interference
- Modifying the suspension
- Differences of tire abrasion or tire pressure
- Installing different type of tires

i Information

This device complies with Industry Canada RSS-210 standard.

Operation is subject to the following three conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

i Information

Radio frequency radiation exposure information:

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

This equipment should be installed and operated with minimum distance of 20 cm (8 in.) between the radiator (antenna) and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

SPECIAL DRIVING CONDITIONS

Hazardous Driving Conditions

When hazardous driving elements are encountered such as water, snow, ice, mud and sand, take the below suggestions:

- Drive cautiously and keep a longer braking distance.
- Avoid abrupt braking or steering.
- When your vehicle is stuck in snow, mud, or sand, use second gear. Accelerate slowly to avoid unnecessary wheel spin.
- Put sand, rock salt, or other non-slip materials under the wheels to provide additional traction while the vehicle becomes stuck in ice, snow, or mud.

WARNING

Downshifting with an automatic transmission/dual clutch transmission 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.

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 a forward gear.

Try to avoid spinning the wheels, and do not race the engine.

To prevent transmission wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal while the transmission is in gear. Slowly spinning the wheels in forward and reverse directions causes a rocking motion that may free the vehicle.

WARNING

If the vehicle is stuck and excessive wheel spin occurs, the temperature in the tires can increase very quickly. If the tires become damaged, a tire blow out or tire explosion can occur. This condition is dangerous - you and others may be injured. Do not attempt this procedure if people or objects are anywhere near the vehicle.

If you attempt to free the vehicle, the vehicle can overheat quickly, possibly causing an engine compartment fire or other damage. Try to avoid spinning the wheels as much as possible to prevent overheating of either the tires or the engine. DO NOT allow the vehicle to spin the wheels above 56 km/h (35 mph).

Information

The ESC system must be turned OFF before rocking the vehicle.

NOTICE

If you are still stuck after rocking the vehicle a few times, have the vehicle pulled out by a tow vehicle to avoid engine overheating, possible damage to the transmission, and tire damage. See "Towing" in chapter 6.

Smooth Cornering

Avoid braking or gear changing in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration.

Driving at Night

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 headlamps.
- Keep your headlamps clean and properly aimed. Dirty or improperly aimed headlamps will make it much more difficult to see at night.
- Avoid staring directly at the headlamps 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. Here are a few things to consider when driving in the rain or on slick pavement:

- Slow down and allow extra following distance. A heavy rainfall makes it harder to see and increases the distance needed to stop your vehicle.
- Turn OFF your Cruise Control.
- Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield.
- Tires should be properly maintained with at least 1.6 mm (2/32 inch) of tread depth. If your tires do not have enough tread, making a quick stop on wet pavement can cause a skid and possibly lead to an accident. **See "Tire Replacement" in chapter 7.**

- Turn on your headlamps 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 your brakes may be wet, apply them lightly while driving until normal braking operation returns.

Hydroplaning

If the road is wet enough and you are going fast enough, your vehicle may have little or no contact with the road surface and actually ride on the water. The best advice is SLOW DOWN when the road is wet.

The risk of hydroplaning increases as the depth of tire tread decreases, refer to "Tire Replacement" in chapter 7.

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 reduced.

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

Highway Driving

Tires

Adjust the tire inflation, as specified. Under-inflation may overheat or damage the tires.

Do not install worn-out or damaged tires, which may reduce traction or adversely affect vehicle handling. This could lead to sudden tire failure that may cause loss of vehicle control resulting in an accident.

***i* Information**

Never over-inflate your tires above the maximum inflation pressure, as specified on your tires.

Fuel, engine coolant and engine oil

Driving at higher speeds on the highway consumes more fuel and is less efficient than driving at a slower, more moderate speed. Maintain a moderate speed in order to conserve fuel when driving on the highway.

Be sure to check both the engine coolant level and the engine oil before driving.

Drive belt

A loose or damaged drive belt may overheat the engine.

WINTER DRIVING

The severe weather conditions of winter quickly wear out tires and cause other problems. To minimize winter driving problems, you should take the following suggestions:

Snow or Icy Conditions

You need to keep sufficient distance between your vehicle and the vehicle in front of you.

Apply the brakes gently. 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 the vehicle to skid.

To drive your vehicle in deep snow, it may be necessary to use snow tires.

Always carry emergency equipment. Some of the items you may want to carry include, tow straps or chains, a flashlight, emergency flares, sand, a shovel, jumper cables, a window scraper, gloves, ground cloth, coveralls, a blanket, etc.

Snow tires

WARNING

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.

If you mount snow tires on your vehicle, make sure to use 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. The traction provided by snow tires on dry roads may not be as high as your vehicle's original equipment tires. Check with the tire dealer for maximum speed recommendations.

Information

Do not install studded tires without first checking local, country and municipal regulations for possible restrictions against their use.

Winter Precautions

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 chapter 7. Before winter, have your coolant tested to assure that its freezing point is sufficient for the temperatures anticipated during the winter.

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 chapter 8 for recommendations. If you aren't sure what weight oil you should use, consult an authorized HYUNDAI dealer.

Check battery and cables

Winter puts additional burdens on the battery system. Visually inspect the battery and cables as described in chapter 7. The level of charge in your battery can be checked by an authorized HYUNDAI dealer or a service station.

Check spark plugs and ignition system

Inspect your spark plugs as described in chapter 7 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.

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 HYUNDAI dealer and most auto parts outlets. Do not use engine coolant or other types of anti-freeze as these may damage the paint finish.

Do not let your parking brake freeze

Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. If there is a risk the parking brake may freeze, apply it only temporarily while you put the gear selector lever in P and block the rear wheels so the car cannot roll. Then release the parking brake.

Do not let ice and snow accumulate underneath

Under some conditions, snow and ice can build up under the fenders and interfere with the steering. When driving in severe winter conditions where this may happen, you should periodically check underneath the car to be sure the movement of the front wheels and the steering components is not obstructed.

Don't place foreign objects or materials in the engine compartment

Placement of foreign object or materials which prevent cooling of the engine, in the engine compartment, may cause a failure or combustion. The manufacturer is not responsible for the damage caused by such placement.

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.

VEHICLE LOAD LIMIT

Two labels on your driver's door sill show how much weight your vehicle was designed to carry: the Tire and Loading Information Label and the Certification Label.

Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, from the vehicle's specifications and the Certification Label:

Base Curb Weight

This is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include passengers, cargo, or optional equipment.

Vehicle Curb Weight

This is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.

Cargo Weight

This figure includes all weight added to the Base Curb Weight, including cargo and optional equipment.

GAW (Gross Axle Weight)

This is the total weight placed on each axle (front and rear) - including vehicle curb weight and all payload.

GAWR (Gross Axle Weight Rating)

This is the maximum allowable weight that can be carried by a single axle (front or rear). These numbers are shown on the Certification Label. The total load on each axle must never exceed its GAWR.

GVW (Gross Vehicle Weight)

This is the Base Curb Weight plus actual Cargo Weight plus passengers.

GVWR (Gross Vehicle Weight Rating)

This is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). The GVWR is shown on the Certification Label located on the driver's door sill.

Tire Loading Information Label

■ Type A

TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY NOMBRE DE PLACES	TOTAL 5	FRONT AVANT 2	REAR ARRIÈRE 3
--------------------------------------	---------	------------------	-------------------

The combined weight of occupants and cargo should never exceed 385 kg or 849 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser 385 kg ou 849 lb.

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS À FROID	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS
FRONT AVANT	195/65R15	250kpa, 36psi	
REAR ARRIÈRE	195/65R15	250kpa, 36psi	
SPARE DE SECOURS	T125/80D15	420kPa, 60psi	

■ Type B

TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY NOMBRE DE PLACES	TOTAL 5	FRONT 2	REAR 3
--------------------------------------	---------	---------	--------

The combined weight of occupants and cargo should never exceed 385 kg or 849 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser 385 kg ou 849 lb.

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS À FROID	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS
FRONT AVANT	205/55R16	250kpa, 36psi	
REAR ARRIÈRE	205/55R16	250kpa, 36psi	
SPARE DE SECOURS	T125/80D15	420kPa, 60psi	

■ Type C

TIRE AND LOADING INFORMATION

RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY NOMBRE DE PLACES	TOTAL 5	FRONT 2	REAR 3
--------------------------------------	---------	---------	--------

The combined weight of occupants and cargo should never exceed 385 kg or 849 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser 385 kg ou 849 lb.

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS À FROID
FRONT AVANT	225/45R17	230kpa, 33psi
REAR ARRIÈRE	225/45R17	230kpa, 33psi
SPARE DE SECOURS	T125/80D15	420kPa, 60psi

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

VOIR LE MANUEL
DE L'USAGER
POUR PLUS DE
RENSEIGNEMENTS

■ Type D

TIRE AND LOADING INFORMATION

RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY NOMBRE DE PLACES	TOTAL 5	FRONT AVANT 2	REAR ARRIÈRE 3
--------------------------------------	---------	------------------	-------------------

The combined weight of occupants and cargo should never exceed 385 kg or 849 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser 385 kg ou 849 lb.

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS À FROID
FRONT AVANT	195/65R15	250kpa, 36psi
REAR ARRIÈRE	195/65R15	250kpa, 36psi
SPARE DE SECOURS	NONE AUCUN	

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

VOIR LE MANUEL
DE L'USAGER
POUR PLUS DE
RENSEIGNEMENTS

■ Type E

TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY
NOMBRE DE PLACES

TOTAL 5

FRONT 2

REAR 3

The combined weight of occupants and cargo should never exceed 385 kg or 849 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser 385 kg ou 849 lb.

TIRE
PNEU

SIZE
DIMENSIONS

COLD TIRE PRESSURE
PRESSION DES
PNEUS À FROID

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

FRONT
AVANT

205/55R16

250kpa, 36psi

REAR
ARRIÈRE

205/55R16

250kpa, 36psi

VOIR LE MANUEL
DE L'USAGER
POUR PLUS DE
RENSEIGNEMENTS

SPARE
DE SECOURS

NONE
AUCUN

■ Type F

TIRE AND LOADING INFORMATION

RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY NOMBRE DE PLACES	TOTAL 5	FRONT 2	REAR 3
--------------------------------------	---------	---------	--------

The combined weight of occupants and cargo should never exceed 385 kg or 849 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser 385 kg ou 849 lb.

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS À FROID
FRONT AVANT	225/45R17	230kpa, 33psi
REAR ARRIÈRE	225/45R17	230kpa, 33psi
SPARE DE SECOURS	NONE AUCUN	

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

VOIR LE MANUEL
DE L'USAGER
POUR PLUS DE
RENSEIGNEMENTS

OAD055111N/OAD055110N/OAD055109N
OAD058111N/OAD058110N/OAD058109N

The label located on the driver's door sill gives the original tire size, cold tire pressures recommended for your vehicle, the number of people that can be in your vehicle and vehicle capacity weight.

Vehicle capacity weight

385 kg (849 lbs.)

Vehicle capacity weight is the maximum combined weight of occupants and cargo. If your vehicle is equipped with a trailer, the combined weight includes the tongue load.

Seating capacity

Total : 5 persons

(Front seat : 2 persons,

Rear seat : 3 persons)

Seating capacity is the maximum number of occupants including a driver, your vehicle may carry. However, the seating capacity may be reduced based upon the weight of all of the occupants, and the weight of the cargo being carried or towed. Do not overload the vehicle as there is a limit to the total weight, or load limit including occupants and cargo, the vehicle can carry.

Towing capacity

We do not recommend using this vehicle for trailer towing.

Cargo capacity

The cargo capacity of your vehicle will increase or decrease depending on the weight and the number of occupants and the tongue load, if your vehicle is equipped with a trailer.

Steps for determining correct load limit

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 635 kg (1400 lbs.) and there will be five 68 kg (150 lb.) passengers in your vehicle, the amount of available cargo and luggage load capacity is 295 kg (650 lbs.) (635 - 340 (5 x 68) = 295 kg or (1400 - 750 (5 x 150) = 650 lbs.))

5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

 WARNING

Do not overload the vehicle as there is a limit to the total weight, or load limit, including occupants and cargo, the vehicle can carry. Overloading can shorten the life of the vehicle. If the GVWR or the GAWR is exceeded, parts on the vehicle can break, and it can change the handling of your vehicle. These could cause you to lose control and result in an accident.

Example 1	Vehicle Capacity $\geq$  $+$  Maximum Load (635 kg) (1400 lbs.) Passenger Weight (68 kg $\times$ 2 = 136 kg) (150 lbs. $\times$ 2 = 300 lbs.) Cargo Weight (499 kg) (1100 lbs.)
Example 2	Vehicle Capacity $\geq$  $+$  Maximum Load (635 kg) (1400 lbs.) Passenger Weight (68 kg $\times$ 5 = 340 kg) (150 lbs. $\times$ 5 = 750 lbs.) Cargo Weight (295 kg) (650 lbs.)
Example 3	Vehicle Capacity $\geq$  $+$  Maximum Load (635 kg) (1400 lbs.) Passenger Weight (78 kg $\times$ 5 = 390 kg) (172 lbs. $\times$ 5 = 860 lbs.) Cargo Weight (245 kg) (540 lbs.)

Certification label

The certification label is located on the driver's door sill at the center pillar and shows the maximum allowable weight of the fully loaded vehicle. This is called the GVWR (Gross Vehicle Weight Rating). The GVWR includes the weight of the vehicle, all occupants, fuel and cargo.

This label also tells you the maximum weight that can be supported by the front and rear axles, called Gross Axle Weight Rating (GAWR).

The total weight of the vehicle, including all occupants, accessories, cargo, and trailer tongue load must not exceed the Gross Vehicle Weight Rating (GVWR) or the Gross Axle Weight Rating (GAWR). To find out the actual loads on your front and rear axles, you need to go to a weigh station and weigh your vehicle. Be sure to spread out your load equally on both sides of the centerline.

⚠ WARNING

Overloading

- **Never exceed the GVWR for your vehicle, the GAWR for either the front or rear axle and vehicle capacity weight. Exceeding these ratings can affect your vehicle's handling and braking ability, and cause an accident.**
- **Do not overload your vehicle. Overloading your vehicle can cause heat buildup in your vehicle's tires and possible tire failure, increased stopping distances and poor vehicle handling—all of which may result in a crash.**

NOTICE

Overloading your vehicle may cause damage. Repairs would not be covered by your warranty. Do not overload your vehicle.

⚠ WARNING

If you carry items inside your vehicle (e.g., suitcases, tools, packages, or anything else), they are moving as fast as the vehicle. If you have to stop or turn quickly, or if there is a crash, the items will keep going and can cause an injury if they strike the driver or a passenger.

- **Put items in the cargo area of your vehicle. Try to spread the weight evenly.**
- **Do not stack items, like suitcases, inside the vehicle above the tops of the seats.**
- **Do not leave an unsecured child restraint in your vehicle.**
- **When you carry something inside the vehicle, secure it.**

TRAILER TOWING

We do not recommend using this vehicle for trailer towing.