6. Driving Your Vehicle

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 be 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.

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 and all doors are securely closed and locked. Unless absolutely necessary for hauling cargo, etc. close the tailgate before driving your vehicle.
- If you are driving with the tailgate down use extra caution when backing up.
- Adjust the position of the seat and steering wheel.
- Adjust the inside and side view 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 information, refer to "Seat Belts" section in chapter 3.**
- **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 as 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.

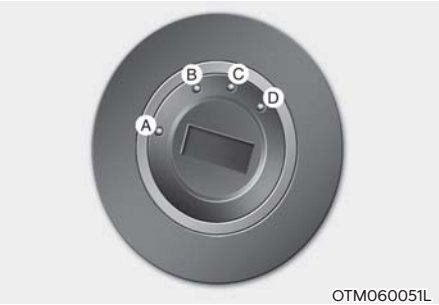
IGNITION SWITCH

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.**

Key Ignition Switch (if equipped)



[A] : LOCK, [B] : ACC
[C] : ON, [D] : START

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 P (Park, for dual clutch transmission vehicle) position, apply the parking brake, and turn the ignition switch to the LOCK position.**

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

NOTICE

Never use aftermarket keyhole covers. This may generate start-up failure due to communication failure.

Key Ignition Switch Positions

Switch Position	Action	Notes
LOCK	To turn the ignition switch to the LOCK position, push 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 steering wheel locks to protect the vehicle from theft. (if equipped)	
ACC	Some electrical accessories are usable. The steering wheel unlocks.	If difficulty is experienced turning the ignition switch to the ACC position, turn the key while turning the steering wheel right and left to release.
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 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 the accelerator and/or brake pedal.**
- **Do not start the vehicle with the accelerator pedal depressed.**
- **Keep your foot on the brake when shifting out of P (Park). Make sure the engine rpm is at idle before shifting. The vehicle may move suddenly when the brake pedal is released if the engine RPM is high.**

1. Make sure the Electronic 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

- **Do not wait for the engine to warm up while the vehicle remains stationary.**

  Start driving at moderate engine speeds. (Avoid hard acceleration when the engine is still cold.)
- **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 turn the ignition switch to the START position with the engine running. It may damage the starter.**
- **If traffic and road conditions permit, you may put the shift lever in the N (Neutral) position while the vehicle is still moving and turn the ignition switch to the START position in an attempt to restart the engine.**
- **Do not push or tow your vehicle to start the engine.**

Engine Start/Stop Button (if equipped)

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 turn the vehicle 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 vehicle without depressing the brake pedal by pressing the Engine Start/Stop button with the gear 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 vehicle 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 gear 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 Stop/Start Button Positions

Button Position	Action	Notes
OFF	To turn off the engine, press the Engine Start/Stop button with the vehicle shifted to P (Park). Note if the Engine Start/Stop button is pressed with the vehicle shifted to D (Drive) or R (Reverse), the gear will automatically shift to P (Park). If the Engine Start/Stop button is pressed with the gear shifted to N (Neutral), the Engine Start/ Stop button will change to the ACC position. The steering wheel locks to protect the vehicle from theft.	If the steering wheel is not locked properly when you open the driver's door, the warning chime will sound.
ACC	Press the Engine Start/Stop button when the button is in the OFF position without depressing the brake pedal. Some of the electrical accessories are usable. The steering wheel unlocks.	• 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. • If the steering wheel doesn't unlock properly, the Engine Start/ Stop button will not work. Press the Engine Start/Stop button while turning the steering wheel right and left to release.
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 gear shifted to the P (Park) or the N (Neutral) position. For your safety, start the engine with the gear shifted to 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 or ACC**

Starting the Engine

WARNING

- **Always wear appropriate shoes when operating your vehicle. Unsuitable shoes, such as high heels, ski boots, sandals, flipflops, etc., may interfere with your ability to use the brake and accelerator pedals.**
- **Do not start the vehicle with the accelerator pedal depressed.**
- **Keep your foot on the brake when shifting out of P (Park). Make sure the engine RPM is at idle before shifting. The vehicle may move suddenly when the brake pedal is released if the engine RPM is high.**

Information

- **The vehicle 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, and when 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. When the smart key is not in the vehicle, the "  " indicator will blink and the warning 'Key not in vehicle' will come on. When all doors are closed, the chime will also sound for about 5 seconds. Keep the smart key in the vehicle.**

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.

Information

- **Do not wait for the engine to warm up while the vehicle remains stationary.**

  Start driving at moderate engine speeds. (Avoid hard acceleration when the engine is still cold.)
- **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 shift the gear to the P (Park) position.**

  If traffic and road conditions permit, you may put the gear in N (Neutral) 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 vehicle.**

NOTICE

To prevent damage to the vehicle:

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

When the stop lamp fuse is blown, you cannot normally start the engine. 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.

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

Emergency starting

If the smart key battery is weak or the smart key does not work correctly, you can start the vehicle by pressing the Engine Start/Stop button with the smart key in the direction of the picture above.

Turning Off the Engine

1. Stop the vehicle and depress the brake pedal fully.
2. Make sure the shift lever is in P(Park).
3. Press the Engine Start/Stop button to the OFF position and apply the parking brake.

Remote Start (if equipped)

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You can start the vehicle using the Remote Start button of the smart key.

To start the vehicle remotely:

1. Press the door lock button within 10 m (32 feet) from the vehicle.
2. Press the remote start (HOLD) button for over 2 seconds within 4 seconds after locking the doors. The hazard warning lights will blink.
3. To turn off the remote start function, press the remote start (HOLD) button once.

- The remote start (HOLD) button may not operate if the smart key is not within 10 m (32 feet).
- The vehicle will not remotely start if the engine hood is opened.
- The vehicle must be in P (Park) for the remote start function to start.
- The engine turns off if you get in the vehicle without a registered smart key.
- The engine turns off if you do not get in the vehicle within 10 minutes after remotely starting the vehicle.
- Do not idle the engine for a long period.

Vehicle Auto-Shut Off (if equipped)

If your vehicle is parked and the engine is left on for a long period of time, the engine will turn off automatically to help reduce fuel consumption and prevent accidents caused by carbon dioxide poisoning.

Operating Conditions

Vehicle Auto-Shut Off timer operates when all the following conditions are satisfied:

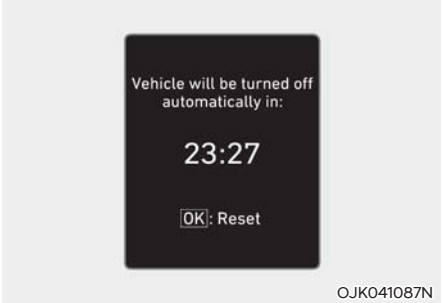
- Vehicle speed is below 3 km/h (1.8 mph), and the gear is shifted to P (Park)
- The brake pedal and accelerator pedal are not depressed
- The driver's seat belt is unfastened
- The passenger seat is empty
- The infotainment system is not being updated

Deactivating Conditions

Vehicle Auto-Shut Off timer turns off when one of the situation occur:

- Vehicle speed is above 3 km/h (1.8 mph)
- The gear is shifted to R (Reverse), D (Drive) or N (Neutral)
- The brake pedal or accelerator pedal is depressed
- The driver's seat belt is fastened
- A passenger is in the passenger's seat

System Operation



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When all the conditions are satisfied, the Vehicle Auto-Shut Off operates and turns the engine off automatically after 60 minutes.

A timer appears on the instrument cluster 30 minutes before vehicle shut off.

Resetting cluster timer

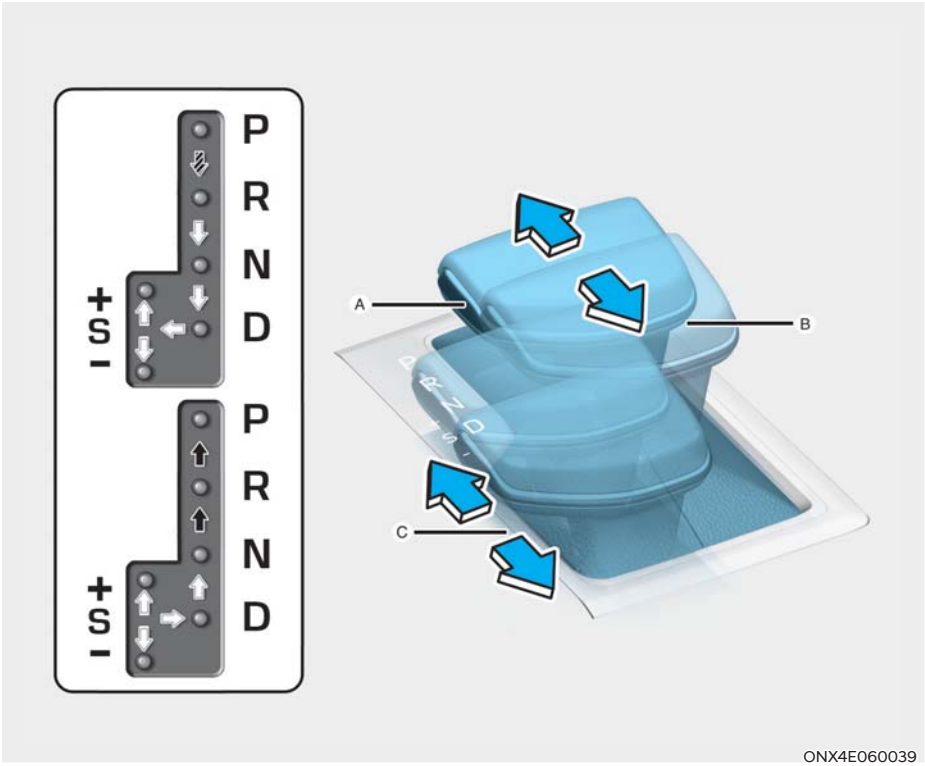
To reset the cluster timer, do one of following:

- Release the accelerator pedal or brake pedal after Vehicle Auto-Shut Off is complete.
- Press the OK button on the steering wheel while the timer appears on the instrument cluster.

CAUTION

Do not leave a passenger or a pet in the vehicle in hot weather since the air conditioning system turns off when the engine is off.

DUAL CLUTCH TRANSMISSION (IF EQUIPPED)



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Depress the brake pedal and press the shift button ahead of the shift lever while moving the shift lever.

Press the shift button while moving the shift lever.

The shift lever can freely operate.

Dual Clutch Transmission Operation

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

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

- The advanced wet-clutch dual clutchtransmission in your vehicle 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.
- With a wet-type dual clutch transmission, however, the engine torque that is transmitted directly from the engine to the transmission is transferred by a clutch pack that is lubricated in oil. The oil's primary purpose is to cool the clutch, and because of lubricating properties of the oil and this cooling effect, gear shifts are smooth as well as direct.
- The wet-type dual clutch transmission 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 wet-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 1,500 km (1,000 miles), you may feel that the vehicle may not be smooth when accelerating at low speed. During this break-in period, the shift quality and performance of your new vehicle is continuously optimized.

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/button in N (Neutral) while driving.**

WARNING

Due to transmission failure, you may not continue to drive and the position indicator and the position indicator (D, P) on the instrument cluster will blink. Contact an authorized HYUNDAI dealer and have the system checked.

DCT Warning Messages

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

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Steep grade! Press brake pedal

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, allow a gap to form ahead of you before moving the vehicle forward. Then hold the vehicle on the incline with the foot brake.
- If the vehicle is held or creeping forward on an incline by applying the accelerator pedal, the clutch and transmission may overheat which can result in damage. At this time, a warning message will appear on the cluster display.
- If the LCD warning is active, the foot brake must be applied.
- Ignoring the warnings can lead to damage to the transmission.

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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.
- When the clutch temperatures are too high, the “Transmission temp. is high! Stop safely” warning message will appear on the cluster display, a chime will sound, and the transmission shifting may not be smooth.
- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply the brakes and shift the vehicle to P (Park), and allow the transmission to cool.
- If you ignore this warning, the driving condition may become worse. You may experience abrupt shifts, frequent shifts, or jerkiness.
- When the message “Trans cooled. Resume driving.” appears you can continue to drive your vehicle.
- When possible, drive the vehicle smoothly.

■ Type A

OTMA060009

■ Type B

OTMA060010

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), 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 cluster 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.**

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.

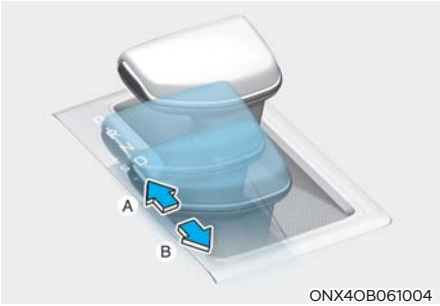
D (Drive)

This is the normal driving position. The transmission will automatically shift through a 8-gear sequence, providing the best fuel economy and power.

For extra power when passing another vehicle or driving uphill, depress the accelerator fully. The transmission will automatically downshift to the next lower gear (or gears, as appropriate).

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.



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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 (B) and forwards (A) will allow you to select the desired range of gears for the current driving conditions.

+ (Up) : Push the lever forward (A) once to shift up one gear.

- (Down) : Pull the lever backwards (B) once to shift down one gear.

Information

- **Only the eight forward gears can be selected in Manual Shift Mode. 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.**

Shift-lock system

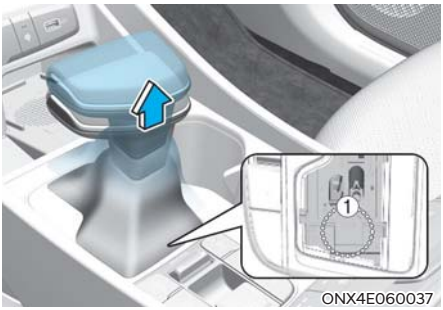
For your safety, the dual clutch transmission has a shift-lock system which prevents shifting the transmission from P (Park) to R (Reverse) unless the brake pedal is depressed.

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 to R (Reverse).

Shift-Lock Release

If the shift lever cannot be moved from the P (Park) position in to 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 shift lever boots.
4. Move the Shift lever while holding the release button (1) with a tool (e.g. flathead screw-driver). If you need to use the shift-lock release, have the system 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.

Moving Up a Steep Grade From a Standing Start

To move up a steep grade from a standing start, depress the brake pedal, shift the shift lever to D (Drive). Depress the accelerator pedal gradually while releasing the brake pedal.

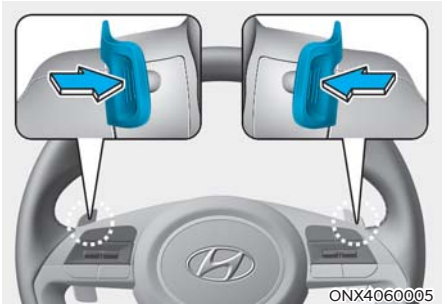
WARNING

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.

Using the Paddle Shifters (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 6mph.

Pull back on the [+] paddle (right side) to upshift or the [-] paddle (left side) to downshift. You will see the gear change in the LCD cluster display.

When using the paddle shifters and you wish to return from manual shift mode to 'D' Drive mode, do one of the following:

- Pull back on the [+] paddle (right side) for more than one second.
- Toggle the gear shift lever from 'D' (Drive) to the manual gate on the left side (towards the driver) and then toggle it back to the normal 'D' position.

The vehicle will automatically revert from paddle shifting manual shift mode to 'D' Drive mode if one of the following situations occur:

- When the accelerator pedal is gently depressed for more than 6 seconds while driving
- When the vehicle stops

Information

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

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.
- When driving uphill or downhill, always shift to D (Drive) for driving forward or shift to R (Reverse) for driving rearwards. After selecting D (Drive) or R (Reverse), check the gear position indicated on the cluster before driving. If the vehicle moves in the opposite direction of the selected gear, the engine may turn off and a serious accident might occur due to degraded brake performance.
- 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.
- When driving with shifter paddles, 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 seatbelt. 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-Assist 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.

Information

- **When the brake pedal is depressed under certain driving conditions or weather conditions, you may temporarily hear a noise. This is normal and does not indicate a problem with your brakes.**
- **While driving on a road with deicing chemicals, brake noise or abnormal tire wear may occur due to deicing chemicals. In a safe traffic condition, additionally apply the brakes to remove deicing chemicals on the brake discs and pads.**

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, use the paddle shifter 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.

NOTICE

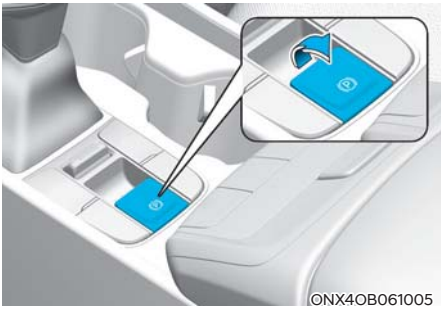
To avoid costly brake repairs, do not continue to drive with worn brake pads.

Information

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

Electronic Parking Brake (EPB)

Applying the Parking Brake



To apply EPB (Electronic Parking Brake):

1. Depress and hold the brake pedal.
2. Pull up the EPB switch.

Make sure the Parking Brake warning light comes on.

EPB (Electronic Parking Brake) may be automatically applied when:

- Requested by other systems
- The driver turns the vehicle off while Auto Hold is operating.

Emergency braking

If there is a problem with the brake pedal while driving, emergency braking is possible by pulling up and holding the EPB switch. Braking is possible only while you are holding the EPB switch. However, braking distance will be longer than normal.

WARNING

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

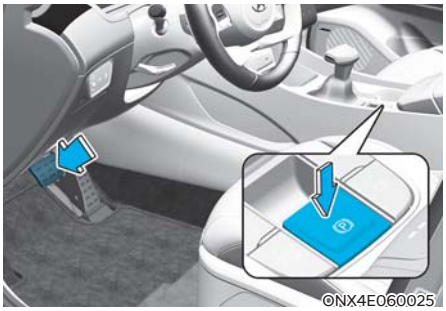
Information

During emergency braking, the Parking Brake warning light will illuminate to indicate that the system is operating.

NOTICE

If you continuously notice a noise or burning smell when the EPB is used for emergency braking, have the system checked by an authorized HYUNDAI dealer.

Releasing the Parking Brake



To release EPB (Electronic Parking Brake):

1. Press the Engine Start/Stop button to the ON or START position.
2. Press the EPB switch while depressing the brake pedal.

Make sure the Parking Brake warning light goes off.

To release EPB (Electronic Parking Brake) automatically:

- Gear in P (Park)

With the engine running depress the brake pedal and shift out of P (Park) to R (Reverse) or D (Drive).

- Gear in N (Neutral)

With the engine running depress the brake pedal and shift out of N (Neutral) to R (Reverse) or D (Drive).

- Satisfy the following conditions

1. The doors, hood and tailgate are closed.
2. With the engine running, depress the brake pedal and shift out of P (Park) to R (Reverse), D (Drive) or Manual shift mode.
3. Depress the accelerator pedal.

   Make sure the Parking Brake warning light goes off.

Information

- **For your safety, you can engage EPB even though the Engine Stop/Start button is in the OFF position (only if battery power is available), but you cannot release it.**
- **For your safety, depress the brake pedal and release the parking brake manually with the EPB switch when you drive downhill or when backing up the vehicle.**

NOTICE

- **If the Parking Brake warning light is still on even though the EPB has been released, have the system checked by an authorized HYUNDAI dealer.**
- **Do not drive your vehicle with EPB applied. It may cause excessive brake pad and brake rotor wear.**

Warning Messages

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To release EPB, fasten seatbelt and close door, hood and tailgate

- If you try to drive with EPB applied, a warning will sound and a message will appear.
- If the driver's seat belt is unfastened and the engine hood or tailgate is opened, a warning will sound and a message will appear.
- If there is a problem with the vehicle, a warning may sound and a message may appear.

If the situation occurs, depress the brake pedal and release EPB by pressing the EPB switch.

WARNING

- **Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal.**

  Shift the gear into P (Park), pull up the EPB switch, and press the Engine Start/Stop button to the OFF position. Take the Key with you when leaving the vehicle.

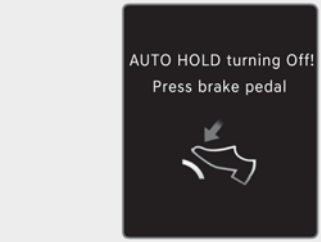
  Vehicles not fully engaged in P (Park) with the parking brake set are at risk for moving inadvertently and causing injury to yourself or others.
- **NEVER allow anyone who is unfamiliar with the vehicle to touch the EPB switch. If EPB is released unintentionally, serious injury may occur.**
- **Only release EPB 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 EPB engaged, a warning will sound and a message will appear. 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 EPB is released and the Parking Brake warning light is off before driving.**

Information

- **A clicking sound may be heard while operating or releasing the EPB. These conditions are normal and indicate that EPB is functioning properly.**
- **When leaving your keys with a parking attendant or assistant, make sure to inform him/her how to operate EPB.**



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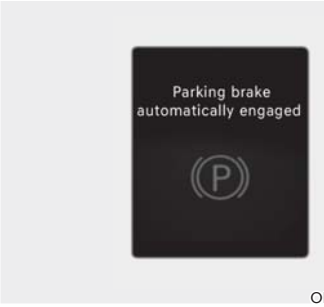
AUTO HOLD turning Off! Press brake pedal

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.



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Parking brake automatically engaged

When EPB is applied while Auto Hold is activated, a warning will sound and a message will appear.

EPB Malfunction

Electronic Parking Brake (EPB) warning light illuminates if the Engine Start/Stop button is pressed to the ON position and goes off in approximately 3 seconds if the system is operating normally.

If the EPB warning light remains on, comes on while driving, or does not come on when the Engine Start/Stop button is pressed to the ON position, this indicates that the EPB may have malfunctioned.

If this occurs, have the system checked by an authorized HYUNDAI dealer.

The EPB warning light may illuminate when the ESC indicator comes on to indicate that ESC is not working properly, but it does not indicate a malfunction of EPB.

NOTICE

- **If the EPB warning light is still on, have the system checked by an authorized HYUNDAI dealer.**
- **If the Parking Brake warning light does not illuminate or blinks even though the EPB switch was pulled up, EPB may not be applied.**
- **If the Parking Brake warning light blinks when the EPB warning light is on, press the switch, and then pull it up. Repeat this one more time. If the EPB warning does not go off, have the system checked by an authorized HYUNDAI dealer.**

Parking Brake Warning Light

Check the Parking Brake warning light by pressing the Engine Stop/Start button to the ON position.

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 Parking Brake warning light is OFF.

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

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

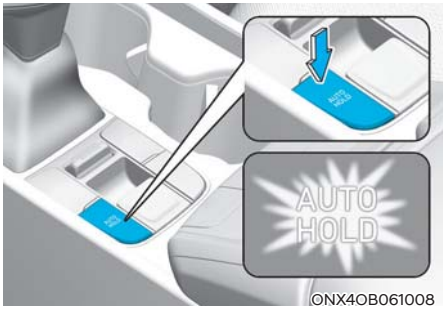
When the EPB (Electronic Parking Brake) does not release

If the EPB does not release normally, contact an authorized HYUNDAI dealer by loading the vehicle on a flatbed tow truck and have the system checked.

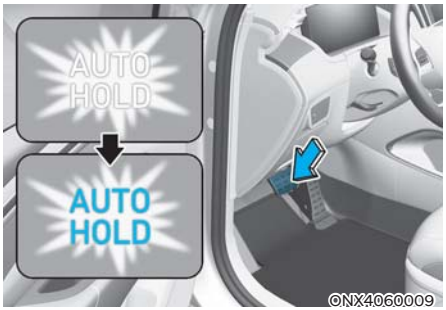
Auto Hold

Auto Hold maintains the vehicle in a standstill even though the brake pedal is not depressed after the driver brings the vehicle to a complete stop by depressing the brake pedal.

To apply:



1. With the driver's door and engine hood closed, press the AUTO HOLD switch. The white AUTO HOLD indicator will come on and the system will be in the standby position.



2. When you stop the vehicle completely by depressing the brake pedal, Auto Hold maintains the brake pressure to hold the vehicle stationary. The indicator changes from white to green.
3. The vehicle will remain stationary even if you release the brake pedal.
4. If EPB is applied, Auto Hold will be released.

To Release:

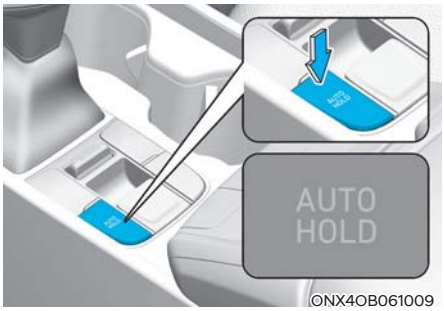
- If you depress the accelerator pedal with the gear in D(Drive) or Manual shift mode or R(vehicle equipped with shift button), the Auto Hold will be released automatically and the vehicle will start to move.The AUTO HOLD indicator changes from green to white.
- If the vehicle is restarted using the +/- switch operation while Auto Hold and Smart Cruise Control or Highway Driving Assist is operating, Auto Hold will be released regardless of accelerator pedal operation. The AUTO HOLD indicator changes from green to white.

WARNING

When Auto Hold is automatically released by depressing the accelerator pedal, always take a look around your vehicle.

Slowly depress the accelerator pedal for a smooth start.

To Cancel:



1. Depress and hold the brake pedal.
2. Press the AUTO HOLD switch.

The AUTO HOLD indicator will turn off.

WARNING

To prevent, unexpected and sudden vehicle movement, ALWAYS press your foot on the brake pedal to cancel the Auto Hold before you:

- **Drive downhill.**
- **Park the vehicle.**

Information

- **The Auto Hold does not operate when:**
  - **The gear is in P (Park)**
  - **EPB is applied**
  - **The gear is in R (Reverse)**
- **For your safety, the Auto Hold automatically switches to EPB when:**
  - **The driver's door is opened**
  - **The engine hood is opened**
  - **The vehicle is in a standstill for more than 10 minutes**
  - **The vehicle is standing on a steep slope**
  - **The vehicle moved several times**

  In these cases, the Parking Brake warning light comes on, the AUTO HOLD indicator changes from green to white, and a warning sound and a message will appear to inform you that EPB has been automatically engaged. Before driving off again, depress the brake pedal, check the surrounding area near your vehicle and release the parking brake manually with the EPB switch.
- **While operating Auto Hold, you may hear mechanical noise. However, it is normal operating noise.**

NOTICE

If the AUTO HOLD indicator changes to yellow, Auto Hold is not working properly. Contact an authorized HYUNDAI dealer.

WARNING

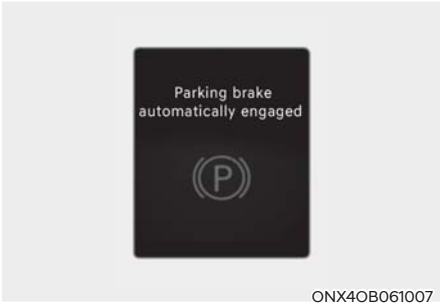
- **Depress the accelerator pedal slowly when you start the vehicle.**
- **For your safety, cancel Auto Hold when you drive downhill, back up the vehicle or park the vehicle.**

NOTICE

If there is a malfunction with the driver's door or engine hood open detection system, Auto Hold may not work properly.

Contact an authorized HYUNDAI dealer.

Warning Messages



Parking brake automatically engaged

When EPB is applied while Auto Hold is activated, a warning will sound and a message will appear.

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Press brake pedal to deactivate AUTO HOLD

If you did not apply the brake pedal when you release Auto Hold by pressing the AUTO HOLD switch, a warning will sound and a message will appear.

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AUTO HOLD conditions not met. Close door and hood.

When you press the AUTO HOLD switch, if the driver's door and engine hood are not closed, a warning will sound and a message will appear on the cluster display.

Press the AUTO HOLD switch after closing the driver's door and hood.

Anti-Lock Brake System (ABS)

WARNING

Anti-Lock Braking System (ABS) or 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 vehicles 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.**
- **Tire chains are installed on your vehicle.**

The safety features of 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 ((ABS)) warning light will stay on for several seconds after the ignition switch is in the ON position.

During that time, 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 ((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 authorized HYUNDAI dealer as soon as possible.

NOTICE

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

Restart the vehicle. 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 ((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)

Electronic Stability Control 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 when cornering. ESC 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 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 ESC activates, the engine may not respond to the accelerator as it does under routine conditions.
- If Cruise Control or Smart Cruise Control was in use when ESC activates, Cruise Control or Smart Cruise Control automatically disengages. Cruise Control or Smart Cruise Control can be reengaged when the road conditions allow. **See "Cruise Control (CC)" or "Smart Cruise Control (SCC)" section in chapter 7 (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/or message 'Traction Control disabled' 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/or message 'Traction & Stability Control disabled' 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 Engine Start/Stop button is pressed 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 ESC is operating.

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

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

WARNING

When ESC is blinking, this indicates ESC is active:

Drive slowly and NEVER attempt to accelerate. NEVER turn 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 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 ESC is turned off (ESC OFF light illuminated).**

Information

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

Vehicle Stability Management (VSM)

Vehicle Stability Management is a function of the Electronic Stability Control (ESC) system. It helps the vehicle stay 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 Vehicle Stability Management:

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

VSM Operation

When operating

When you apply your brakes under conditions which may activate 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.

Information

VSM does not operate when:

- **Driving on a banked road such as gradient or incline.**
- **Driving in reverse.**
- **The ESC OFF indicator light is on.**
- **The MDPS (Motor Driven Power Steering) warning light ( ) is on or blinks.**

VSM OFF condition

To cancel VSM operation, press the ESC OFF button. ESC OFF (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 the ESC (OFF) indicator light or MDPS (!) warning light stays illuminated or blinks, your vehicle may have a malfunction with the VSM system. When the warning light illuminates, have your vehicle be checked by an authorized HYUNDAI dealer as soon as possible.

NOTICE

Driving with wheels and tires with different sizes may cause the VSM 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.

Trailer Stability Assist (TSA)

Trailer stability assist is operated as a vehicle stability control system. The Trailer stability assist system stabilizes the vehicle and trailer when the trailer sways or oscillates. There are various reasons making vehicle sway and oscillate. Use caution when towing a trailer in high winds, which could cause your trailer to sway excessively. Also, reduce your highway speed while towing a trailer, especially when driving a downhill grade. The weight of the trailer behind your vehicle while driving on a downhill grade could cause the trailer to sway excessively.

Factors that may contribute to excessive trailer sway include:

- Higher vehicle speeds
- Strong crosswinds
- Improper or uneven loading of the trailer
- Sudden movements of the steering wheel in your vehicle
- Uneven or broken road conditions

The trailer stability assist system analyzes the vehicle and trailer condition while driving. If the system detects excessive sway from the trailer, the front brakes may be applied automatically to help stabilize the vehicle. In some cases the brakes may be applied on all wheels and the engine power may be reduced in order to minimize the sway condition.

Hill-Start Assist Control (HAC)

Hill-Start Assist Control 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 when the accelerator pedal is depressed.

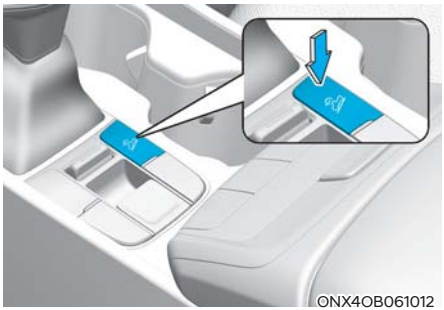
WARNING

Always be ready to depress the accelerator pedal when starting off an incline. Hill-Start Assist Control activates only for approximately 2 seconds.

Information

- **Hill-Start Assist Control does not operate when the gear is shifted to P (Park) or N (Neutral).**
- **Hill-Start Assist Control activates even when the ESC (Electronic Stability Control) is off. However, it does not activate, when ESC does not operate normally.**

Downhill Brake Control (DBC)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Downhill Brake Control assists the driver to descend down a steep hill without having to depress the brake pedal.

The system automatically applies the brakes to maintain vehicle speed below a certain speed and allows the driver to concentrate on steering the vehicle down hill.

The system is turned off whenever the engine is turned off.

Press the button to turn on the system and press the button again to turn it off.

System Operation

Mode	Indicator	Description
Standby	 Green light on	Press the Downhill Brake Control button when vehicle speed is under 60 km/h (37 mph). Downhill Brake Control will turn on and enter the standby mode. The system does not turn on if vehicle speed is over 60 km/h (37 mph).
Activated	 Green light blink	In the standby mode, Downhill Brake Control will activate under the following conditions: • The hill is steep enough. • The brake pedal or accelerator pedal is not depressed. • Vehicle speed is within 0-40 km/h (0-25 mph) range. Within the activation speed range 4-40 km/h (2-25 mph), the driver can control the vehicle speed by depressing the brake pedal or accelerator pedal.
Deactivated	 Green light off	Downhill Brake Control will turn off under the following conditions: • The Downhill Brake Control button is pressed again. • Vehicle speed is over 60 km/h (37 mph).
	 Green light on	Downhill Brake Control will be deactivated but maintain the standby mode under the following conditions: • The hill is not steep enough. • Vehicle speed is between 40-60 km/h (25-37 mph).
System malfunction	 Yellow light on	The yellow warning light illuminates when the system may have malfunctioned or may not work properly during activation. If this occurs, Downhill Brake Control is deactivated. Have the system be inspected by an authorized HYUNDAI dealer as soon as possible.

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Downhill Brake Control disabled. Control vehicle speed (manually)

When Downhill Brake Control is not working properly this warning message will appear on the cluster display and you will hear a warning sound. If this occurs, control vehicle speed by depressing the brake pedal.

WARNING

Always turn off Downhill Brake Control on normal roads. The system might activate inadvertently from the standby mode when driving through speed bumps or making sharp curves.

Information

- **Downhill Brake Control may not deactivate on steep inclines even though the brake pedal or accelerator pedal is depressed.**
- **Downhill Brake Control may not always maintain vehicle speed at a certain speed.**
- **Downhill Brake Control does not operate when:**
  - **The gear is in P (Park).**
  - **ESC is activated.**
- **Noise or vibration may occur from the brakes when Downhill Brake Control is activated.**
- **The rear stop light comes on when Downhill Brake Control is activated.**

Good Braking Practices

WARNING

Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal. Shift the gear to the P (Park) 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.

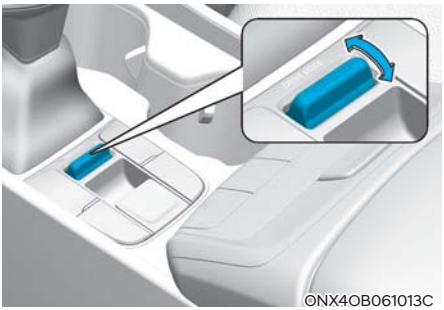
To dry the brakes, apply the brakes lightly until the braking action returns to normal. If the braking action does not return to normal, stop as soon as it is safe to do so and call an authorized HYUNDAI dealer for assistance.

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 (IF EQUIPPED)



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.

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 or TERRAIN MODE button is pressed or toggled.

- AWD

NORMAL ↔ SPORT ↔ SMART (Drive mode) ↔ MUD ↔ SAND ↔SNOW (Terrain mode)

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

SPORT mode provides sporty but firm riding.

In SPORT mode, the fuel efficiency may decrease.

- When SPORT mode is selected, the SPORT indicator will illuminate on the instrument cluster.
- Whenever the engine is restarted, the drive mode will revert back to COMFORT mode. If SPORT mode is desired, re-select SPORT mode.
- 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

SMART Mode

SMART

SMART mode selects the proper driving mode among COMFORT and SPORT by judging the driver's driving habits (For example mild or dynamic) from the brake pedal depression or the steering wheel operation.

- Press the DRIVE MODE button to activate SMART mode. When SMART mode is activated, the indicator illuminates on the instrument cluster.
- The vehicle starts in SMART mode, when the engine was turned OFF in SMART mode.
- SMART mode automatically controls gear shifting patterns, engine torque, in accordance with the driver's driving habits.

SNOW Mode

SNOW

SNOW mode offers special traction tuning for snow optimizing available traction in adverse conditions. Snow mode adjusts left and right wheel slip control, engine torque and shift patterns according to available traction levels.

Information

- **When you mildly drive the vehicle in SMART mode, the driving mode changes to ECO mode to improve fuel efficiency. However, the actual fuel efficiency may differ in accordance with your driving situations (i.e. upward/downward slope, vehicle deceleration/acceleration).**
- **When you dynamically drive the vehicle in SMART mode by abruptly decelerating or sharply curving, the driving mode changes to SPORT mode. However, it may adversely affect fuel economy.**

Various driving situations, which you may encounter in SMART mode

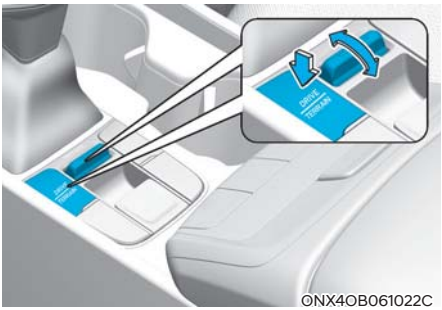
- The driving mode automatically changes to SMART SPORT, when you abruptly accelerate the vehicle or repetitively operate the steering wheel (Your driving is categorized to be sporty.). In this mode, your vehicle drives in a lower gear for abrupt accelerating/deceleratin and increases the engine brake 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 button : It deactivates SMART mode. The vehicle drives, as the driver manually moves the shift button.
- The vehicle is driven using the paddle shifter (manual shift mode) : SMART mode is deactivated determining that the driver wants to drive the vehicle manually
- Cruise Control or Smart Cruise Control is activated : Cruise Control or Smart Cruise Control may deactivate the SMART mode. When a higher system is set by Cruise Control or Smart Cruise Control, it starts to control vehicle speed and deactivates SMART mode. (SMART mode is not deactivated just by activing Cruise Control or Smart Cruise Control.)
- The transmission oil temperature is either extremely low or extremely high : The SMART mode can be active in most of the normal driving situations. However, an extremely high/ low transmission oil temperature may temporarily deactivate the SMART mode, because the transmission condition is out of normal operation condition.

ALL WHEEL DRIVE (AWD) (IF EQUIPPED)



The All Wheel Drive (AWD) System delivers engine power to both the front and rear wheels for maximum traction. AWD is useful when extra traction is required on roads such slippery, muddy, wet, or snow-covered roads.

Occasional off-road use such as established unpaved roads and trails are OK. It is always important that the driver carefully reduces the speed to a level that does not exceed the safe operating speed for those conditions.

WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

- **Do not drive in conditions that exceed the vehicles intended design such as challenging off-road conditions.**
- **Avoid high speeds when cornering or turning.**
- **Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.**
- **The risk of a rollover is greatly increased if you lose control of your vehicle at highway speeds.**
- **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.**

NOTICE

- **Do not drive in water if the water level is higher than the bottom of the vehicle.**
- **Check your brake condition once you are out of mud or water. Depress the brake pedal several times as you move slowly until you feel normal braking condition is returned.**
- **Shorten your scheduled maintenance interval if you drive in off-road conditions such as sand, mud or water (see "Maintenance Under Severe Usage Conditions" in chapter 7).**
- **Always wash your vehicle thoroughly after off road use, especially the bottom of the vehicle.**
- **Be sure to equip the vehicle with four tires of the same size and type.**
- **Make sure that a full time AWD vehicle is towed by a flat bed tow truck.**

AWD Operation

Four Wheel Drive (AWD) Mode Selection

Press the DRIVE/TERRAIN button to change from normal driving mode to multi terrain mode. After the button is pressed, push the knob within 4 seconds to select SNOW, MUD or SAND.

Selected mode		Description
Auto 4WD (Normal diving)	-	• Use this mode when driving on normal roads. • Under normal operating conditions, the vehicle operates similar to conventional 2WD vehicles. If the system determines there is a need for four wheel drive, the engine's driving power is distributed to all four wheels automatically.
SNOW		• Use this mode when driving on slippery roads. • The engine's driving power is properly distributed to the wheels, to help start the vehicle stably on slippery roads or keep tires from slipping.
MUD		• Use this mode when driving on muddy, unpaved or uneven roads • The engine's driving power is properly distributed to the wheels, to secure sufficient driving force that will help start the vehicle.
SAND		• Use this mode when driving on smooth, dry sand or deep gravel and unpaved roads. • The engine's driving power is properly distributed to the wheels, to help drive safely on smooth, dry sand or deep gravel and unpaved roads.

Be sure to maintain Auto 4WD mode when driving on normal roads. If you drive with the Multi Terrain mode on normal roads or curved roads, it may damage 4WD parts and cause vibration and noise. However, vibration and noise are normal conditions that will disappear when Auto 4WD mode is selected. Also, when the vehicle is changed from Multi Terrain mode (SNOW, MUD or SAND) to Auto 4WD, a sensation may be felt as driving power is delivered to the rear wheels.

WARNING

If the 4WD ( ) warning light stays on the instrument cluster, your vehicle may have a malfunction with the 4WD system. Whenever the 4WD ( ) warning light illuminates, have the vehicle inspected by an authorized retailer of HYUNDAI Branded products as soon as possible.

For Safe AWD Operation

Before driving

- Make sure all passengers are wearing seat belts.
- Sit upright and closer to the steering wheel than usual. Adjust the steering wheel to a position comfortable for you to drive.

Driving on snow-covered or icy roads

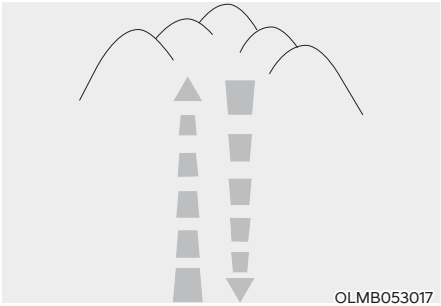
- Start off slowly by applying the accelerator pedal gently.
- Use snow tires or tire chains.
- Keep sufficient distance between your vehicle and the vehicle in front of you.
- Use engine braking during deceleration.
- Avoid speeding, rapid acceleration, sudden brake applications, and sharp turns to prevent skids.

Driving in sand or mud

- Maintain slow and constant speed.
- Use tire chains driving in mud if necessary.
- Keep sufficient distance between your vehicle and the vehicle in front of you.
- Reduce vehicle speed and always check the road condition.
- Avoid speeding, rapid acceleration, sudden brake applications, and sharp turns to prevent getting stuck.

CAUTION

When the vehicle is stuck in snow, sand or mud, place a non-slip material under the drive wheels to provide traction OR Slowly spin the wheels in forward and reverse directions which causes a rocking motion that may free the vehicle. However, avoid running the engine continuously at high RPM. Doing so may damage the AWD system.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Driving up or down hills

- Driving uphill
  - Before starting off, check if it is possible to drive uphill.
  - Drive as straight as possible.
- Driving downhill
  - Do not change gear while driving downhill. Select gear before driving downhill.
  - Drive slowly using engine braking while driving downhill.
  - Drive straight as possible.

WARNING

Exercise extreme caution driving up or down steep hills. The vehicle may flip depending on the grade, terrain and water/ mud conditions.


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WARNING

Do not drive across the contour of steep hills. A slight change in the wheel angle can destabilize the vehicle, or a stable vehicle may lose stability if the vehicle stops its forward motion. Your vehicle may roll over and lead to a serious injury or death.

Driving through water

- Try to avoid driving in deep standing water. It may stall your engine and clog your exhaust pipes.
- If you need to drive in water, stop your vehicle, set the vehicle in AWD LOCK mode and drive under 8 km/h (5 mph).
- Do not change gear while driving in water.

Additional driving conditions

- Become familiar with the off-road conditions before driving.
- Always pay attention when driving off-road and avoid dangerous areas.
- Drive slowly when driving in heavy wind.
- Reduce vehicle speed when cornering. The center of gravity of AWD vehicles is higher than conventional 2WD vehicles, making them more likely to roll over when you rapidly turn corners.


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- Always hold the steering wheel firmly when you are driving off-road.

WARNING

Do not grab the inside of the steering wheel when you are driving off-road. You may hurt your arm by a sudden steering maneuver or from steering wheel rebound due to an impact with objects on the ground. You could lose control of the steering wheel which may lead to serious injury or death.

Emergency Precautions

Tires

Do not use tire and wheel with different size and type from the one originally installed on your vehicle. It can affect the safety and performance of your vehicle, which could lead to steering failure or rollover causing serious injury.

When replacing the tires, be sure to equip all four tires with the tire and wheel of the same size, type, tread, brand and load-carrying capacity. If you equip your vehicle with any tire/wheel combination not recommended by HYUNDAI for off-road driving, you should not use these tires for highway driving.

WARNING

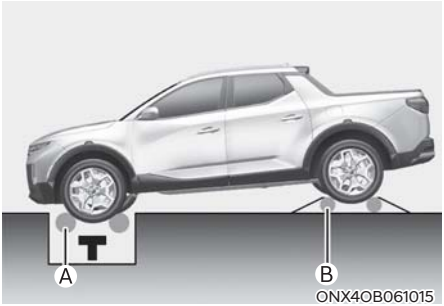
Never start or run the engine while a full-time AWD vehicle is raised on a jack. The vehicle can slip or roll off of a jack causing serious injury or death to you or those nearby.

Towing

AWD vehicles must be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground. For more details, refer to "Towing" in chapter 8.

Dynamometer Testing

A full-time AWD vehicle must be tested on a special four wheel chassis dynamometer.



A: Roll tester (Speedometer)
B: Temporary free roller

A full-time AWD vehicle should not be tested on a 2WD roll tester. If a 2WD roll tester must be used, perform the following procedure:

1. Check the tire pressures recommended for your vehicle.
2. Place the front wheels on the roll tester for a speedometer test as shown in the illustration.
3. Release the parking brake.
4. Place the rear wheels on the temporary free roller as shown in the illustration.

CAUTION

- **Never engage the parking brake while performing the test.**
- **When the vehicle is lifted up, do not operate the front and rear wheel separately. All four wheels should be operated.**

WARNING

Keep away from the front of the vehicle while the vehicle is in gear on the dynamometer. The vehicle can jump forward and cause serious injury or death.

SPECIAL DRIVING CONDITIONS

Hazardous Driving Conditions

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

- Drive cautiously and maintain 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, tire chains 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 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" section in chapter 8.

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 drivers' headlights.
- Keep your headlights clean and properly aimed. Dirty or improperly aimed headlights will make it much more difficult to see at night.
- Avoid staring directly at the headlights of oncoming vehicles. You could be temporarily blinded, and it will take several seconds for your eyes to readjust to the darkness.

Driving in the Rain

Rain and wet roads can make driving dangerous. 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. (if equipped)
- Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield.
- Be sure your tires have enough tread. 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 Tread" section in chapter 9**.
- Turn on your headlights to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.
- If you believe 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 Tread" section in chapter 9.

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 fail the braking operation.

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.

Reducing the Risk of a Rollover

Your multi-purpose passenger vehicle is defined as a Sports Utility Vehicle (SUV). SUV's have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. The specific design characteristics give them a higher center of gravity than ordinary vehicles making them more likely to roll over if you make abrupt turns. Utility vehicles have a significantly higher rollover rate than other types of vehicles. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

There are steps that a driver can make to reduce the risk of a rollover. If at all possible, avoid sharp turns or abrupt maneuvers, do not load your vehicle with heavy cargo on the roof, and never modify your vehicle in any way.

WARNING

Utility vehicles have a significantly higher rollover rate than other types of vehicles. To prevent rollovers or loss of control:

- **Take corners at slower speeds than you would with a passenger vehicle.**
- **Avoid sharp turns and abrupt maneuvers.**
- **Do not modify your vehicle in any way that you would raise the center of gravity.**
- **Keep tires properly inflated.**
- **Do not carry heavy cargo on the roof.**

WARNING

In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Make sure all passengers are wearing their seat belts.

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 or to install tire chains on your tires.

Always carry emergency equipment. Some of the items you may want to carry include tire chains, 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.

We recommend that you use snow tires when road temperature is below 7°C (45°F).

If you mount snow tires on your vehicle, make sure to use the same Inflation pressure 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.

Tire Chains

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Since the sidewalls of radial tires are thinner than other types of tires, they may be damaged by mounting some types of tire chains on them. Therefore, the use of snow tires is recommended instead of tire chains. If tire chains must be used, use genuine HYUNDAI Parts and install the tire chain after reviewing the instructions provided with the tire chains. Damage to your vehicle caused by improper tire chain use is not covered by your vehicle manufacturer's warranty.

245/60R18	Fabric-type
245/50R20	

When using tire chains, attach them to the drive wheels as follows.

AWD : All four wheels

If a full set of chains is not available for an AWD vehicle, chains may be installed on the front wheels only.

WARNING

The use of tire chains may adversely affect vehicle handling:

- **Drive less than 20 mph (30 km/h) or the chain manufacturer's recommended speed limit, whichever is lower.**
- **Drive carefully and avoid bumps, holes, sharp turns, and other road hazards, which may cause the vehicle to bounce.**
- **Avoid sharp turns or locked wheel braking.**

Information

- **Install tire chains only in pairs and on the front tires. It should be noted that installing tire chains on the tires will provide a greater driving force, but will not prevent side skids.**
- **Do not install studded tires without first checking local and municipal regulations for possible restrictions against their use.**

Chain Installation

When installing tire chains, follow the manufacturer's instructions and mount them as tightly possible. Drive slowly (less than 30 km/h (20 mph)) with chains installed. If you hear the chains contacting the body or chassis, stop and tighten them. If they still make contact, slow down until the noise stops. Remove the tire chains as soon as you begin driving on cleared roads.

When mounting snow chains, park the vehicle on level ground away from traffic. Turn on the vehicle Hazard Warning Flasher and place a triangular emergency warning device behind the vehicle (if available). Always place the vehicle in P (Park), apply the parking brake and turn off the engine before installing snow chains.

NOTICE

When using tire chains:

- **Wrong size chains or improperly installed chains can damage your vehicle's brake lines, suspension, body and wheels.**
- **Use SAE "S" class or wire chains.**
- **If you hear noise caused by chains contacting the body, retighten the chain to prevent contact with the vehicle body.**
- **To prevent body damage, retighten the chains after driving 0.5~1.0 km (0.3~0.6 miles).**
- **Do not use tire chains on vehicles equipped with aluminum wheels. If unavoidable, use a wire type chain.**
- **Use wire chains less than 12mm (0.47 in.) thick to prevent damage to the chain's connection.**

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

Check Battery and Cables

Winter temperatures affect battery performance. **Inspect the battery and cables, as specified in chapter 9.** The battery charging level can be checked by an authorized HYUNDAI dealer or in a service station.

Change to "winter weight" Oil if Necessary

In some regions during winter, it is recommended to use the "winter weight" oil with lower viscosity In addition, replace the engine oil and filter if it is close to the next maintenance interval. Fresh engine oil ensures optimum engine operation during the winter months. For further information, refer to chapter 2. When you are not sure about a type of winter weight oil, consult an authorized HYUNDAI dealer.

Check Spark Plugs and Ignition System

Inspect the Spark Plugs, as Specified in Chapter 8. If necessary, replace them. Also check all ignition wirings and components for any cracks, wear-out, and damage.

To Prevent Locks From Freezing

To prevent the locks from being frozen, spray approved de-icing fluid or glycerin into key holes. When a lock opening is already covered with ice, spray approved de-icing fluid over the ice to remove it. When an internal part of a lock freezes, try to thaw it with a heated key. Carefully use the heated key to avoid an injury.

Use approved window washer anti-freeze solution in system

To prevent the window washer from being frozen, add authorized window washer anti-freeze solution, as specified on the window washer container. Window washer anti-freeze solution is available from an authorized HYUNDAI dealer, and most vehicle accessory outlets. Do not use engine coolant or other types of anti-freeze solution, to prevent any damage to the vehicle paint.

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. When there is the risk that your parking brake may freeze, temporarily apply it with the gear in P (Park). Also, block the rear wheels in advance, so the vehicle may not 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 such conditions during the severe winter, you should check underneath the vehicle on a regular basis, to ensure that the front wheels and the steering components is unblocked.

Carry emergency equipment

In accordance with weather conditions, you should carry appropriate emergency equipment, while driving. Some of the items you may want to carry include tire chains, tow straps or chains, flashlight, emergency flares, sand, shovel, jumper cables, window scraper, gloves, ground cloth, coveralls, blanket, etc.

Do not place objects or materials in the engine compartment

Putting objects or materials in the engine compartment may cause an engine failure or combustion, because they may block the engine cooling. Such damage will not be covered by the manufacturer's warranty.

Drive your vehicle when water vapor condenses and accumulates inside the exhaust pipes

When the vehicle is stopped for a long time in winter while the engine is running, water vapor may condense and accumulate inside the exhaust pipes. Water in the exhaust pipes may cause noise, etc., but it is drained driving at medium to high speed.

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)

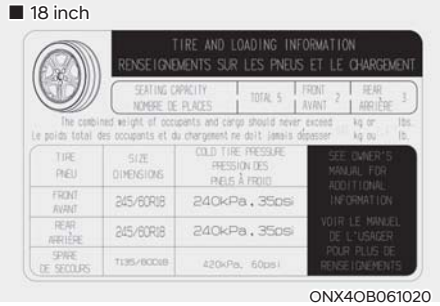
This is the Base Curb Weight plus actual Cargo Weight plus passengers.

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.

The Loading Information Label

■ 18 inch



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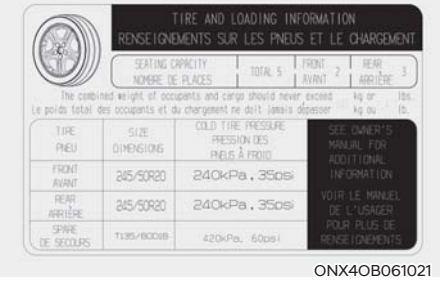
■ 20 inch



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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

5 persons : 640 kg (1,411 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

With brake system :

2.5 T-GDI (AWD) : 2,268 kg (5,000 lbs.)

Towing capacity is the maximum trailer weight including its cargo weight, your vehicle can tow.

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 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400 - 750 (5 x 150) = 650 lbs.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

WARNING

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 be broken and it can change the handling of your vehicle. These could cause you to lose control and result in an accident.

Maximum Load Limit

Carrying too much cargo or improperly storing it can affect your vehicle's handling, stability, stopping distance, and tires, and make it unsafe.

■ **Maximum Load For Your Vehicle**
The maximum load for your vehicle type is:

- **AWD : 640 kg (1,411 lbs.)**

WARNING

The bed cargo should never exceed 300 kg (661 lbs.)

Example 1	Vehicle Capacity	≥		+	
	Maximum Load (635 kg) (1,400 lbs.)		Passenger Weight (68 kg x 2 = 136 kg) (150 lbs. x 2 = 300 lbs.)		Cargo Weight (295 kg) (650 lbs.)
Example 2	Vehicle Capacity	≥		+	
	Maximum Load (635 kg) (1,400 lbs.)		Passenger Weight (78 kg x 5 = 390 kg) (172 lbs. x 5 = 860 lbs.)		Cargo Weight (245 kg) (540 lbs.)

Certification Label

OBH059070

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

If you are considering to tow with your vehicle, you should first know your country's legal requirements. As laws vary the requirements for towing trailers, cars, or other types of vehicles or apparatus may differ. When you are not sure about a type of winter weight oil, consult an authorized HYUNDAI dealer.

Remember that trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability, and fuel economy. Successful, safe trailering requires correct equipment, and it has to be used properly. Damage to your vehicle caused by improper trailer towing is not covered by your vehicle manufacturer's warranty.

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

WARNING

Take the following precautions:

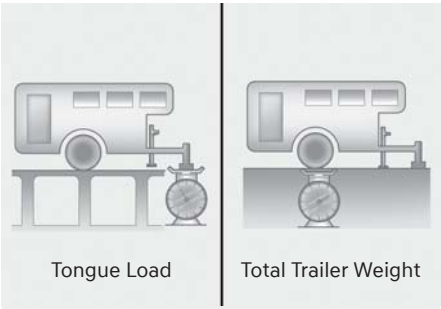
- **If you don't use the correct equipment and/or drive improperly, you can lose control of the vehicle when you are pulling a trailer. For example, if the trailer is too heavy, the braking performance may be reduced. You and your passengers could be seriously or fatally injured. Pull a trailer only if you have followed all the steps in this section.**
- **Before towing, make sure the total trailer weight, GCW (Gross Combination Weight), GVW (Gross Vehicle Weight), GAW (Gross Axle Weight) and trailer tongue load are all within the limits.**

Trailer Towing - Important Information

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

- Consider using a trailer hitch that incorporates sway control through the use of anti-sway bars. Consult your trailer hitch dealer about the different types of sway control trailer hitches for your vehicle and trailer.
- Do not do any towing with your vehicle during its first 2,000 km (1,200 miles) in order to allow the engine to properly break in. Failure to heed this caution may result in serious engine or transmission damage.
- When towing a trailer, consult an authorized HYUNDAI dealer for further information on additional requirements such as a towing kit, etc.
- Always drive your vehicle at a moderate speed (less than 100 km/h (60 mph)) or posted towing speed limit.
- On a long uphill grade, do not exceed 70 km/h (45 mph) or the posted towing speed limit, whichever is lower.
- Carefully observe the weight and load limits provided in the following pages.

Trailer Weight



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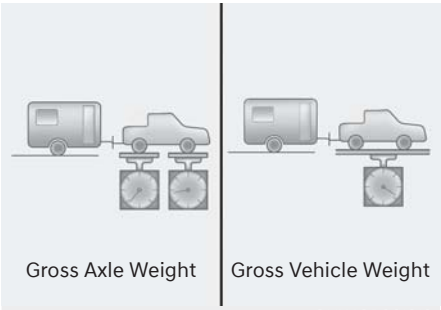
What is the maximum safe weight of a trailer? It should never weigh more than the maximum trailer weight with trailer brakes. But even that can be too heavy. It depends on how you plan to use your trailer. For example, speed, altitude, road grades, outside temperature and how often your vehicle is used to pull a trailer are all important. The ideal trailer weight can also depend on any special equipment that you have on your vehicle.

Tongue Load



The tongue load is an important weight to measure because it affects the total Gross Vehicle Weight (GVW) of your vehicle. The trailer tongue should weigh a maximum of 10% of the total loaded trailer weight, within the limits of the maximum trailer tongue load permissible.

After you've loaded your trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they aren't, you may be able to correct them simply by moving some items around in the trailer.

WARNING

Take the following precautions:

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

Information

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

Towing a Trailer - Towing Load Limits

Towing a Trailer - Towing Load Limits

The table below indicates the maximum trailer weight for your type of vehicle based on the number of vehicle occupants. Do not exceed the maximum allowable trailer weight as shown. The maximum trailer weight includes the weight of the trailer, any cargo in the trailer, and any other equipment or items attached to the trailer. Towing loads in excess of this can seriously affect vehicle handling and performance and can damage the engine and drivetrain.

Number of Occupants	Smartstream G2.5 T-GDI
	AWD
2	2,268 kg (5,000 lbs.)
4	2,131 kg (4,700 lbs.)
5	2,063 kg (4,550 lbs.)

NOTICE

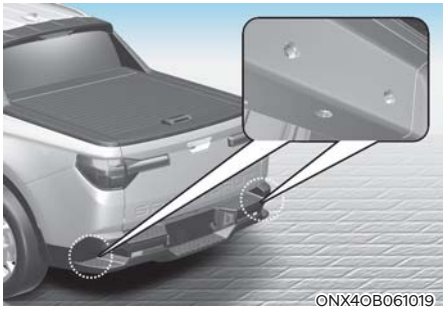
Weight limit recommendations are calculated based on the following assumptions:

- Occupants fill seats from the front of the vehicle to the back.
- Each occupant weighs 68 kg (150 lbs.).
- Each occupant has 7 kg (15 lbs.) of cargo in the cargo area.

Any additional weight, cargo, or accessories reduce the maximum trailer weight and maximum tongue load.

Trailer Towing Equipment

Hitches



Information

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

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

- Do you have to make any holes in the body of your vehicle when you install a trailer hitch? If you do, then be sure to seal the holes later when you remove the hitch. If you don't seal them, carbon monoxide (CO) from your exhaust can get into your vehicle, as well as dirt and water.
- The bumpers on your vehicle are not intended for hitches. Do not attach rental hitches or other bumper-type hitches to them. Use only a frame-mounted hitch that does not attach to the bumper.
- Any part of the rear number plate or lighting devices of the vehicle must not be obscured by the mechanical coupling device.

  If the rear number plate and/or lighting devices can be obscured partially by any part of the mechanical coupling device, mechanical coupling devices that can not be easily removed or repositioned without use of any tools, except an easily operated (i.e. an effort not exceeding 20Nm) release key which is supplied by the manufacturer of the coupling device, are not permitted for use.

  Please note that the mechanical coupling device that is fitted and not in use must always be removed or repositioned if the rear number plate and/or rear lighting devices are obscured by any part of the mechanical coupling device.
- A HYUNDAI trailer hitch accessory is available at an authorized HYUNDAI dealer.

CAUTION

If a separate battery is installed on the trailer, the 12 volt battery on the vehicle may discharge.

Safety Chains

You should always attach chains between your vehicle and your trailer.

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

Trailer Brakes

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

If your trailer weighs more than the maximum trailer weight without trailer brakes loaded, then it needs its own brakes and they must be adequate. Be sure to read and follow the instructions for the trailer brakes so you'll be able to install, adjust and maintain them properly. Be sure not to modify your vehicle's brake system.

WARNING

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

Driving With a TRAILER

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

Before you start, check the trailer hitch and platform, safety chains, electrical connector(s), lights, tires and brakes.

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

Distance

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

Passing

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

Backing Up

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

Making Turns

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

Turn Signals

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

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

WARNING

Do not connect a trailer lighting system directly to your vehicle's lighting system. Use an approved trailer wiring harness. Failure to do so could result in damage to the vehicle electrical system and/or personal injury. Consult an authorized HYUNDAI dealer for assistance.

Driving on Hills

Reduce speed and shift to a lower gear before you start down a long or steep downgrade. If you don't shift down, you might have to use your brakes so much that they would get overheated and may not operate efficiently.

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

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

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

NOTICE

To prevent engine and/or transmission overheating:

- **When towing a trailer on steep grades (in excess of 6%) pay close attention to the engine coolant temperature gauge to ensure the engine does not overheat. If the needle of the coolant temperature gauge moves towards "H" (HOT), pull over and stop as soon as it is safe to do so, and allow the engine to idle until it cools down. You may proceed once the engine has cooled sufficiently.**
- **If you tow a trailer with the maximum gross vehicle weight and maximum trailer weight, it can cause the engine or transmission to overheat. When driving in such conditions, allow the engine to idle until it cools down. You may proceed once the engine or transmission has cooled sufficiently.**
- **When towing a trailer, your vehicle speed may be much slower than the general flow of traffic, especially when climbing an uphill grade. Use the right hand lane when towing a trailer on an uphill grade. Choose your vehicle speed according to the maximum posted speed limit for vehicles with trailers, the steepness of the grade, and your trailer weight.**

Parking on Hills

Generally, if you have a trailer attached to your vehicle, you should not park your vehicle on a hill.

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

1. Pull the vehicle into the parking space.
   Turn the steering wheel in the direction of the curb (right if headed down hill, left if headed up hill).
2. Shift the gear to P (Park).
3. Set the parking brake and shut off the vehicle.
4. Place wheel chocks under the trailer wheels on the down hill side of the wheels.
5. Start the vehicle, hold the brakes, shift to neutral, release the parking brake and slowly release the brakes until the trailer chocks absorb the load.
6. Reapply the brakes and parking brakes.
7. Shift the gear to P (Park) when the vehicle is parked on a uphill grade and in R (Reverse) on a downhill.
8. Shut off the vehicle and release the vehicle brakes but leave the parking brake set.

WARNING

To prevent serious or fatal injury:

- **Do not get out of the vehicle without the parking brake firmly set. If you have left the engine running, the vehicle can move suddenly. You and others could be seriously or fatally injured.**
- **Do not apply the accelerator pedal to hold the vehicle on an uphill.**

Driving the Vehicle After it Has Been Parked on a Hill

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

Maintenance When Towing a Trailer

Your vehicle will need service more often when you regularly pull a trailer. Important items to pay particular attention to include engine oil, transmission fluid, axle lubricant and cooling system fluid. Brake condition is another important item to frequently check. If you're trailering, it's a good idea to review these items before you start your trip. Don't forget to also maintain your trailer and hitch. Follow the maintenance schedule that accompanied your trailer and check it periodically. Preferably, conduct the check at the start of each day's driving. Most importantly, all hitch nuts and bolts should be tight.

NOTICE

To prevent vehicle damage:

- **Due to higher load during trailer usage, overheating might occur on hot days or during uphill driving. If the coolant gauge indicates over-heating, switch off the air conditioner and stop the vehicle in a safe area to cool down the engine.**
- **Do not switch off the engine while the coolant gauge indicates over-heating.**

  (Keep the engine idle to cool down the engine)
- **When towing check transmission fluid more frequently.**
- **If your vehicle is not equipped with an air conditioner, you should install a condenser fan to improve engine performance when towing a trailer.**