

## 6. Driving your vehicle

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## BEFORE DRIVING

### Before entering the vehicle

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

### Before starting

- Make sure the hood, the tailgate, and the doors are securely closed and locked.
- Adjust the position of the seat and steering wheel.
- Adjust the inside and outside rearview mirrors.
- Verify all the lights work.
- Fasten your seat belt. Check that all passengers have fastened their seat belts.
- Check the gauges and indicators in the instrument panel and the messages on the instrument display when the vehicle 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 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.

## START/STOP BUTTON



Whenever the front door is opened, the 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 Start/Stop button for more than two seconds OR Rapidly press and release the 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 Start/Stop button with the gear in the N (Neutral) position.



### WARNING

- **NEVER** press the 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 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 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.

## Start/Stop button positions

Button Position	Action	Notes
<b>OFF</b>	<p>To turn off the vehicle, press the Start/Stop button with the vehicle shifted to P (Park).</p> <p>Note if the Start/Stop button is pressed with the vehicle shifted to D (Drive), R (Reverse) or N (Neutral), the gear will automatically shift to P (Park).</p> <p>If the Start/Stop button is pressed with the gear shifted to N (Neutral), the Start/Stop button will change to the ACC position.</p> <p>The steering wheel locks to protect the vehicle from theft.</p>	<p>If the steering wheel is not locked properly when you open the driver's door, the warning chime will sound.</p>
<b>ACC</b>	<p>Press the Start/Stop button when the button is in the OFF position without depressing the brake pedal.</p> <p>Some of the electrical accessories are usable.</p> <p>The steering wheel unlocks.</p>	<ul style="list-style-type: none"> <li>• If you leave the 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.</li> <li>• If the steering wheel doesn't unlock properly, the Start/Stop button will not work. Press the Start/Stop button while turning the steering wheel right and left to release.</li> </ul>
<b>ON</b>	<p>Press the Start/Stop button while it is in the ACC position without depressing the brake pedal.</p> <p>The warning lights can be checked before the vehicle is started.</p>	<p>Do not leave the Start/Stop button in the ON position when the vehicle is not running to prevent the battery from discharging.</p>
<b>START</b>	<p>To start the vehicle, depress the brake pedal and press the Start/ Stop button with the gear shifted to the P (Park) position.</p> <p>For your safety, start the vehicle with the gear shifted to the P (Park) position.</p>	<p>If you press the Start/Stop button without depressing the brake pedal, the vehicle does not start and the Start/Stop button changes as follows:  <b>OFF → ACC → ON → OFF or ACC</b></p>

\* To prevent vehicle battery discharge, the Start/Stop button changes to the OFF position when the Start/Stop button is in the ACC or ON position with the gear in P (Park) for a certain period of time. When the function operates, the tail lamps will turn off. To use the tail lamps again, turn the headlamp switch located on the steering column to the OFF and ON position again.

## Starting the vehicle




### 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.**  
The vehicle can move which can lead to an accident.



### Information


- The vehicle will start by pressing the 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 vehicle may not start.
- When the 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 when in the ACC position or if the vehicle is in the ready (READY) mode.

## Starting the vehicle

1. Always carry the smart key with you.
2. Make sure the parking brake is applied.
3. Make sure the gear is in P (Park).
4. Depress the brake pedal.
5. Press the START/STOP button. If the vehicle starts, the “READY” indicator will come on.



### Information

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

## NOTICE

To prevent damage to the vehicle:

- If the (READY) indicator turns off 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 Start/Stop button in an attempt to restart the vehicle.

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

**NOTICE**

To prevent damage to the vehicle:

Do not press the 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 vehicle. Replace the fuse with a new one. If you are not able to replace the fuse, you can start the vehicle by pressing and holding the Start/Stop button for 10 seconds with the Start/Stop button in the ACC position.

Pressing the brake pedal many times while "READY" indicator light is off will increase the possibility of discharging the 12V battery.

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

**Information****Virtual Engine Sound System(VESS)**

VESS generates virtual engine sound to make pedestrians to aware. VESS operates when the vehicle can be driven. When the vehicle in P(parking) gear status, VESS doesn't work.

**CAUTION**

- Because the vehicle doesn't make the engine sound, pay attention to the surrounding environment and drive carefully.
- After parking or waiting for a traffic light, please check around(children, obstacle, etc.) before departure.
- When reversing, check directly behind you before driving. Pedestrians may not be able to recognize vehicle sounds.

**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 Start/Stop button with the smart key in the direction of the picture above.

**Turning off the vehicle**

1. Stop the vehicle and depress the brake pedal fully.
2. Shift to P (Park).
3. Press the Start/Stop button to the OFF position and apply the parking brake.
4. Make sure the 'READY' indicator light is off in the instrument cluster.

**CAUTION**

If the "READY" indicator light on the instrument cluster is still on, the vehicle is not turned off and can move when the gear is in any position except P (Park).

### Remote start

■ Type A



ONE1061006L

■ Type B



ONE1061007L

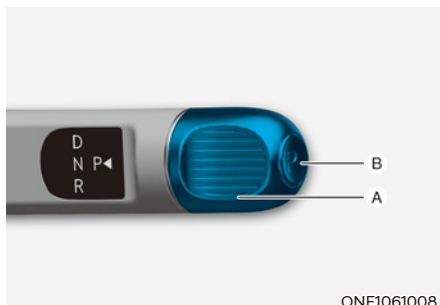
You can start the vehicle using the Remote Start button of the smart key.

To start the vehicle remotely:

1. Press the door lock button within 10 m (32 feet) from the vehicle.
  2. Press the remote start (⤵) button for over 2 seconds within 4 seconds after locking the doors.
  3. To turn off the remote start function, press the remote start (⤵) button once.
- The remote start (⤵) button may not operate if the smart key is not within 10 m (32 feet).
  - The vehicle will not remotely start if the hood or tailgate is opened.
  - The vehicle must be in P (Park) for the remote start function to start.
  - The vehicle turns off if you get in the vehicle without a registered smart key.
  - The vehicle turns off if you do not get in the vehicle within 10 minutes after remotely starting the vehicle.



## REDUCTION GEAR



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[A]: Rotary gear shift dial, [B]: P button

### Reduction gear operation

To change the gear, depress the brake pedal and rotate the rotary gear shift dial.



#### WARNING

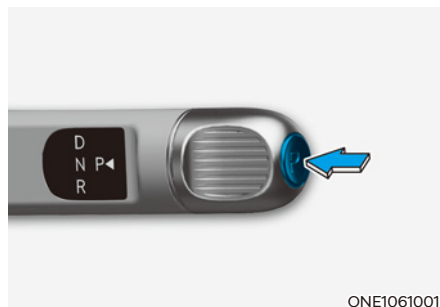
To reduce the risk of serious injury or death:

- **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 vehicle is shifted to the P (Park) position, then apply the parking brake, then press the Start/Stop button to the OFF position. Unexpected and sudden vehicle movement can occur if these precautions are not followed.

### Rotary shifter/ Rotary gear shift dial

#### P (Park)

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



ONE1061001

To shift the gear to P (Park), press the P button while depressing the brake pedal. If you turn the vehicle off in R (Reverse), N (Neutral) or D (Drive), the gear will automatically shift to P (Park).



#### 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 vehicle is in P (Park), apply the parking brake, and turn the vehicle off.
- When parking on an incline, shift the gear to P (Park) and apply the parking brake to prevent the vehicle from rolling downhill.



#### Information

For vehicles equipped with the Electronic Parking Brake (EPB), EPB applies automatically when the gear is shifted to P (Park).

### Automatic gear shift to P (Park)

The gear is shifted to P (Park) automatically for safety reasons under the following conditions:

- When the vehicle is turned off with the gear in R (Reverse), D (Drive) or N (Neutral).
- When the driver's door is open with the vehicle running, the gear in R (Reverse), D (Drive) or N (Neutral), and the vehicle at a standstill.
- When the driver's door is open with the gear in N (Neutral) and the vehicle is off.

In situations the gear must be in P (Park), always check if the gear is shifted to P (Park) by checking the cluster.

### R (Reverse)

Use this position to drive the vehicle rearward.



To shift the gear to R (Reverse), rotate the rotary gear shift dial to R (Reverse) while depressing the brake pedal.

When the vehicle is stopped in the R (Reverse) position, if you open the driver's door, the gear will automatically shift to P (Park).

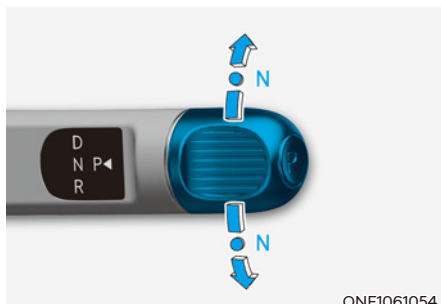
However, if the vehicle is in motion, the gear may not automatically shift to P (Park) to prevent reduction gear damage.

The direction of the rotary gear shift dial is the same as that of the wheel.

### NOTICE

**Always come to a complete stop before shifting into or out of R (Reverse); you may damage the reduction gear if you shift into R (Reverse) while the vehicle is in motion.**

## N (Neutral)



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To shift the gear to N (Neutral), rotate the rotary gear shift dial to N (Neutral) while depressing the brake pedal.

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

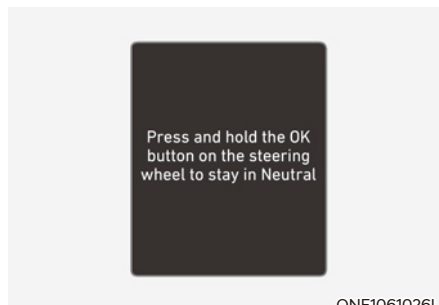
If you turn the vehicle off in N (Neutral), the gear will automatically shift to P (Park).

However, if you need to stay in N (Neutral) with the vehicle off, refer to “To stay in N (Neutral) when vehicle is OFF” in the following description.

To rotate the rotary gear shift dial to N (Neutral), rotate the rotary gear shift dial once clockwise or counterclockwise.

If the current gear position is in D (Drive), rotate the rotary gear shift dial counterclockwise. When the gear position is in R (Reverse), rotate the rotary gear shift dial clockwise.

## To stay in N (Neutral) when vehicle is OFF



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If you want to stay in N (Neutral) after the vehicle is in the ACC state, do the following.

1. Turn off Auto Hold and release Electronic Parking Brake when the vehicle is running.
2. Rotate the shift to N (neutral) while depressing the brake pedal.
3. When you take your foot off the brake pedal, the message ‘Press and hold OK button Press and hold the OK button on the steering wheel to stay in Neutral will appear on the cluster LCD display.

4. Press and hold the OK button on the steering wheel for more than 1 second.
5. When the message 'Vehicle will stay in (N). Change gear to cancel' (or 'N will stay engaged when the vehicle is Off') will appear on the cluster LCD display, press the Start/Stop button while depressing the brake pedal.

However, if you open the driver's door within 3 minutes in the ACC state, the gear will automatically shift to P (Park) and the Start/Stop button will change to the OFF position.

### NOTICE

- **With the gear in N (Neutral) the Start/Stop button will be in the ACC position. Note that the doors cannot be locked in the ACC position or the battery (12V) may discharge if left in the ACC position for a long period.**
- **Before entering an automatic car wash, release the Electronic Parking Brake (EPB) manually. If EPB is applied, it may damage the vehicle or automatic car wash.**



### Information

When the Electronic Parking Brake (EPB) is applied, press the EPB switch while depressing the brake pedal.

The Electronic Parking Brake (EPB) must be released manually because EPB does not release automatically even though the gear is shifted to N (Neutral).

### D (Drive)

This is the normal driving position.

The reduction gear automatically activates the regenerative braking system according to the road conditions.



To shift the gear to D (Drive), rotate the rotary gear shift dial to D (Drive) while depressing the brake pedal.

When the vehicle is stopped in the D (Drive) position, if you open the driver's door, the gear will automatically shift to P (Park).

However, if the vehicle is in motion, the gear may not automatically shift to P (Park) to prevent reduction gear damage.

### NOTICE

**Always come to a complete stop before shifting into D (Drive).**



### CAUTION

**When you start after stopping on a steep incline, even if the gear is in D (Drive), if you do not depress the accelerator or brake pedal, the vehicle may roll backwards, which can cause an accident.**

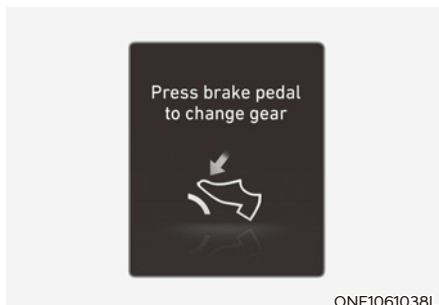
**When the battery (12V) is discharged**

You cannot shift gears, when the battery is discharged.

Jump start your vehicle (refer to "Jump Starting" in chapter 8) or we recommend that you contact an authorized HYUNDAI dealer.

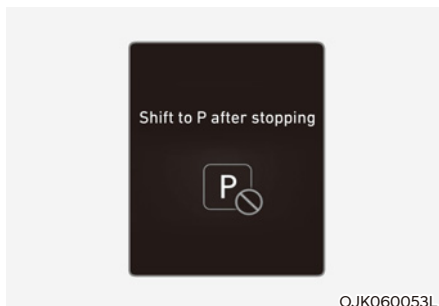
**Parking**

Always come to a complete stop and continue to depress the brake pedal. Shift the gear to P (Park), apply the parking brake, and press the Start/Stop button to the OFF position. Take the Key with you when leaving the vehicle.

**LCD display messages (cluster)****Press brake pedal to change gear**

This message is displayed when the brake pedal is not depressed while shifting the gear.

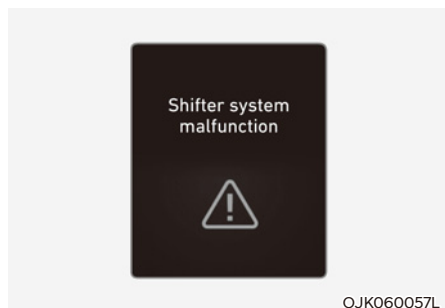
Depress the brake pedal and then shift the gear.

**Shift to P after stopping**

This message is displayed when the gear is shifted to P (Park) while the vehicle is moving.

Stop the vehicle before shifting to P (Park).

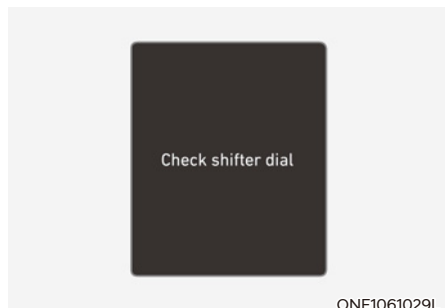
### **Shifter system malfunction**



This message is displayed when the shift gear does not properly operate in the P (Park) position.

We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

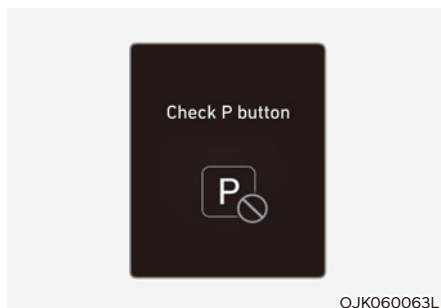
### **Check shifter dial**



This message is displayed when there is a malfunction with the rotary gear shift dial.

We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

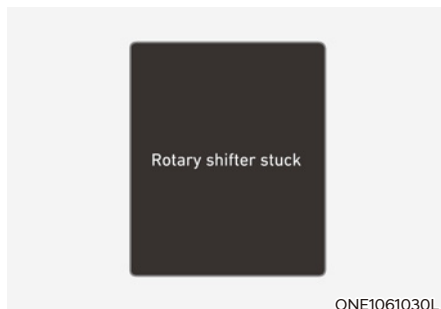
### **Check P button**



This message is displayed when there is a problem with the P button.

We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### **Rotary shifter stuck**



This message is displayed when the rotary gear shift dial does not return back to its normal position after rotating it.

We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

## Good driving practices

- Never shift the gear from P (Park) or N (Neutral) to any other position with the accelerator pedal depressed.
- Never shift the gear 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 shift the gear to N (Neutral) when driving. If the gear is shifted to N (Neutral) while driving. Doing so may increase the risk of an accident. Also, shift the gear back to D (Drive) while the vehicle is moving may severely damage the reduction gear.
- 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 vehicle 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.
- Always apply the parking brake when leaving the vehicle. Do not depend on placing the shift gear in P (Park) to keep the vehicle from moving.
- Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in vehicle speed can cause the drive wheels to lose traction and may cause loss of vehicle control resulting in an accident.

- Optimum vehicle performance and economy is obtained by smoothly depressing and releasing the accelerator.



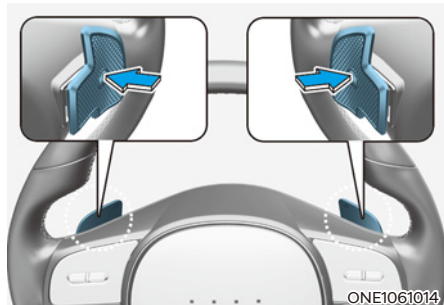
## WARNING

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

- **ALWAYS wear your seat belt. In a collision, an unbelted occupant is significantly more likely to be seriously injured or killed than a properly belted occupant.**
- **Avoid high speeds when cornering or turning.**
- **Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.**
- **The risk of rollover is greatly increased if you lose control of your vehicle at highway speeds.**
- **Loss of control often occurs if two or more wheels drop off the roadway and the driver over steers to reenter the roadway.**
- **In the event your vehicle leaves the roadway, do not steer sharply. Instead, slow down before pulling back into the travel lanes.**
- **HYUNDAI Vehicle recommends you to follow all posted speed limits.**

## REGENERATIVE BRAKING SYSTEM

### Regenerative braking (Paddle shifter)



The paddle shifter is used to adjust the regenerative braking level from 0 to 3 during decelerating.

- Left side (+⎓): Increases regenerative braking and deceleration.
- Right side (-⎓): Decreases regenerative braking and deceleration.
- Pull and hold the left side paddle shifter for more than 0.5 seconds and One pedal driving function is operated, increasing the regenerative braking. In this case, stopping the vehicle is possible by keep on pulling the paddle shifter.

**Refer to the following pages on "One pedal driving".**

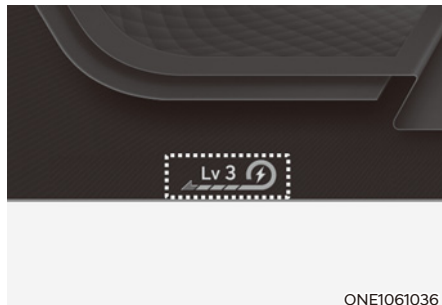
- Pull and hold the right side paddle shifter for over 1 second to turn on and off the automatic change of the regenerative braking.

**Refer to the following pages on "Smart Recuperation System".**

### Information

The paddle shifter does not operate when:

- The [+⎓] and [-⎓] paddle shifters are pulled at the same time.
- The vehicle is decelerating by depressing the brake pedal.
- The Cruise Control system or Smart Cruise Control system is activated.
- Selecting 0 step of the regenerative braking system, the brake disc cleaning function is operated around 10 times. While operating to clean the brake disc, the driving distance and the regenerative braking performance can be reduced. After finishing, the regenerative braking performance will be restored.



The selected regenerative braking level is displayed on the instrument cluster.


Initial setting of the regenerative braking level and adjustable range vary according to the selected Drive mode.

Drive mode	Adjustable Range
SNOW	0 to 1
ECO	0 to 3
NORMAL	0 to 3
SPORT	0 to 3

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



## One pedal driving

The driver can stop the vehicle by pulling the left side paddle shifter .

### To operate:

- Pull and hold the left side paddle shifter while coasting.
- When the vehicle speed is above 3 km/h, release the paddle shifter to return to the preset regenerative braking stage.
- When the vehicle speed is below 3 km/h, the function maintains control to stop the vehicle even though the paddle shifter is released.
- While the One pedal driving is in activation, the driver can control the vehicle stopping position using the accelerator pedal.

### Limitations

The vehicle may move even if one pedal driving is normally operated. Therefore, the driver should be careful to stop the vehicle by this function under circumstances as follows:

- Driving on icy, snowy, wet, sandy, muddy roads, manhole/pit hole surfaces
- Wheels not aligned
- Conditions in which wheel slip or spin occurs
- On heavy loading
- By leaning left or right
- Under bad tire wear
- Driving uphill or downhill
- Driving where the slope starts or ends
- By repeating stop and go on ramp

## Automatic engagement of EPB

After the vehicle is stopped by the One Pedal Driving function, EPB is automatically engaged when any of these conditions occur:

- The driver's seatbelt is unfastened and the driver's door is open.
- The hood is open.
- The tailgate is open.
- 5 minutes have passed after the vehicle has stopped.
- The system operation is limited due to other reasons.



### WARNING

- **Stopping the vehicle may not be possible according to the vehicle and road conditions. Pay attention to the road condition ahead and apply the brake if necessary.**
- **Please refrain to use the one pedal driving function with the road conditions are bad such as being wet, iced or covered with snow.**



### CAUTION

**When the vehicle is stopped or parked by One Pedal Driving on the steep hills, be sure to depress the brake pedal.**

### i-Pedal

i-Pedal is controlled by acceleration pedal. i-Pedal provides vehicle speed control (acceleration/deceleration, stopping) without manually controlling the paddle shifter.

To operate:

- Pull the left side paddle shifter at level 3 regenerative braking system.
- During the activation of i-Pedal, the vehicle is stopped when the vehicle speed is less than 3 km/h (1 mph) even if the brake pedal is not pressed.
- When you press the accelerator pedal at the same time during one-pedal driving by pulling the left paddle shift lever, the vehicle cannot be stopped.



### CAUTION

**When the vehicle is stopped or parked by i-Pedal on the steep hills, be sure to depress the brake pedal.**

To deactivate:

- The i-Pedal is deactivated when the driver turns off the vehicle. When the vehicle is turned on, the regenerative braking is set to be on level 3.
- The i-Pedal is turned off and the regenerative braking changes to level 3 when the gear is shifted to R.

### Limitations

The vehicle may move even if one pedal driving is normally operated. Therefore, the driver should be careful to stop the vehicle by this function under circumstances as follows:

- Driving on icy, snowy, wet, sandy, muddy roads, manhole/pit hole surfaces
- Wheels not aligned
- Conditions in which wheel slip or spin occurs
- On heavy loading
- By leaning left or right
- Under bad tire wear
- Driving uphill or downhill
- Driving where the slope starts or ends
- By repeating stop and go on ramp

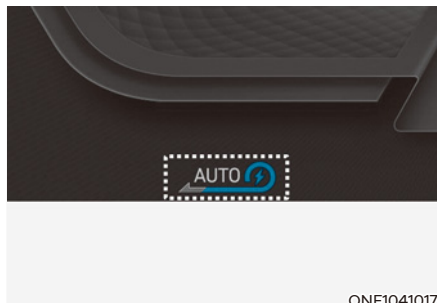
## SMART RECUPERATION SYSTEM

The Smart Recuperation System controls the regenerative braking automatically according to the road gradient and driving condition of the vehicle in front. The system minimizes the unnecessary operation of the brake and acceleration pedal, improving the electric energy efficiency and assisting the driver.

### Smart recuperation system setting

Pull and hold the right side paddle shifter for over 1 second to turn on and off the automatic change of the regenerative braking.

### To activate smart recuperation system

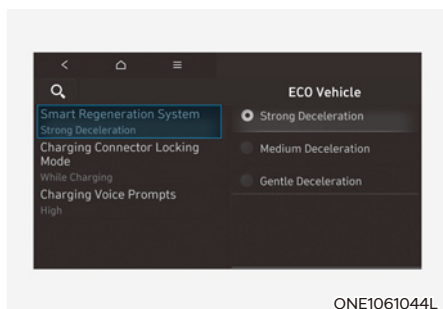


ONE1041017

When Smart Recuperation System is On in the infotainment system, 'AUTO' for the regenerative braking level is displayed on the cluster. The regenerative braking level is controlled automatically when vehicle speed is above 10 km/h (6 mph) and one of the condition below is met.

- The road gradient changes
- Distance from the vehicle ahead reduces or increases
- Speed of the vehicle ahead reduces or increases

## Information



The regenerative braking level can be adjusted based on the driver's deceleration style (strong/medium/gentle)

To adjust the level, select 'Settings → ECO vehicle → Smart Regeneration System' in the infotainment system.

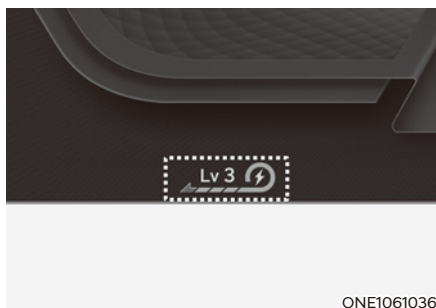
## WARNING

When vehicle speed is under 10 km/h (6 mph), the Smart Recuperation System is cancelled. The driver must adjust the vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

Smart Recuperation System relies on front view camera in the vehicle. Foreign substances on the front view camera may cause the malfunction of Smart Recuperation System. Be sure to maintain clear view for the front view camera.

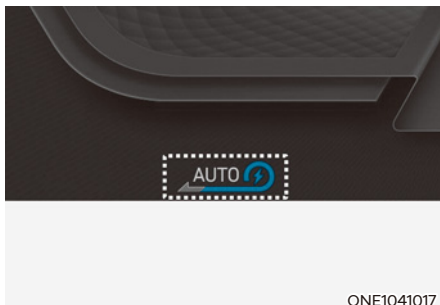
The Smart Recuperation System will not operate when the Forward Collision-Avoidance Assist (FCA) system warning light on the cluster. The driver must adjust the vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

## Ready to operate



Regenerative braking level is displayed on cluster.

## How to operate



Pulling the paddle-shift (↶↷) for 1 or more seconds, the smart recuperation system will operate. The indicator of the regenerative braking will be changed to 'AUTO' from the level indicator.



### WARNING

The Smart Recuperation System which automatically controls the regenerative braking level when coasting is only a supplemental system for the driver's convenience. The system cannot completely stop the vehicle nor avoid all collisions. The brake control may be insufficient depending on the speed of the vehicle in front and when the vehicle in front suddenly stops, a vehicle cuts in suddenly and there is a steep slope. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.

## Smart recuperation system will be temporarily cancelled when:

- Cancelled manually  
Pulling and holding the right side paddle shifter for more than 1 second. The Smart Recuperation System turns off temporarily and "AUTO" will be replaced with regenerative braking level indicator.
- Cancelled automatically
  - The vehicle is shifted to N (Neutral), R (Reverse) or P (Park).
  - Cruise Control system (including Smart Cruise Control system) is in activation.
  - The ESC (Electronic Stability Control) or ABS is operating.



### WARNING

When the Smart Recuperation System is cancelled automatically, adjust the vehicle speed directly by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

## To resume Smart Recuperation System

To re-activate the Smart Recuperation System while driving, pull and hold the right side paddle shifter for more than 1 second again. Then, AUTO for the regenerative braking level will appear on the cluster.

## Vehicle-to-vehicle distance recognition sensor (Front radar)



[2] : Front radar

For detail location of sensor, refer to the picture above.

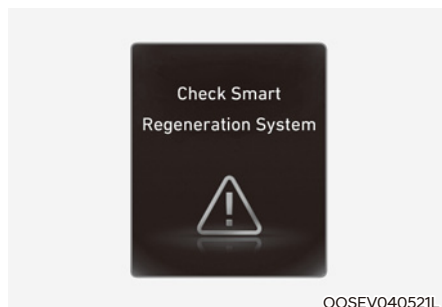
In order for the Smart Recuperation System to operate properly, always make sure the radar sensor cover is clean and free of dirt, snow, and debris. Dirt, snow, or foreign substances on the lens may adversely affect the sensing performance of the sensor. In this case, the system operation may stop temporarily and not operate normally.



### CAUTION

- Do not apply license plate frame or foreign objects such as a bumper sticker or a bumper guard near the radar sensor. Doing so may adversely affect the sensing performance of the radar.
- Always keep the radar sensor and lens cover clean and free of dirt and debris.
- Use only a soft cloth to wash the vehicle. Do not spray pressurized water directly on the sensor or sensor cover.
- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the Smart Recuperation System may not operate correctly. In this case, a warning message may not be displayed. We recommend that the vehicle be inspected by an authorized HYUNDAI dealer.
- If the front bumper becomes damaged in the area around the radar sensor, the Smart Recuperation System may not operate properly. We recommend that the vehicle be inspected by an authorized HYUNDAI dealer.
- Use only genuine parts or the equivalent specified for your vehicle to repair or replace a damaged sensor or sensor cover. Do not apply paint to the sensor cover.

## System malfunction



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### Check smart recuperation system

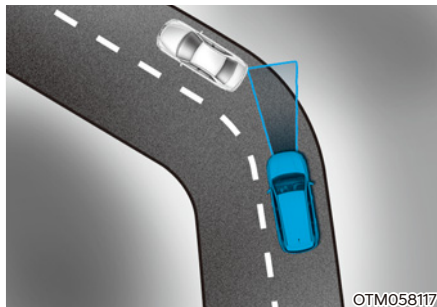
The message will appear when the system is not functioning normally. The system will be cancelled and the word 'AUTO' on the cluster will disappear and instead display regenerative braking level. Check for foreign substances on the front radar. Remove any dirt, snow, or foreign material that could interfere with the radar sensors. If the system still does not operate normally, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked.

### Limitations of the system

The Smart Recuperation System may not operate properly in certain situations when the driving condition is beyond the performance of the front radar sensor.

Driver's attention is required in such cases when the system does not react properly or operate unintentionally.

### On curves



OTM058117

When coasting on the curve, the system may not detect the vehicle in your lane and the regenerative braking level will reduce automatically, making you feel that the vehicle is accelerating.

Also, if the system suddenly recognizes the vehicle in front, the regenerative braking level will increase automatically, making you feel that the vehicle is decelerating.

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

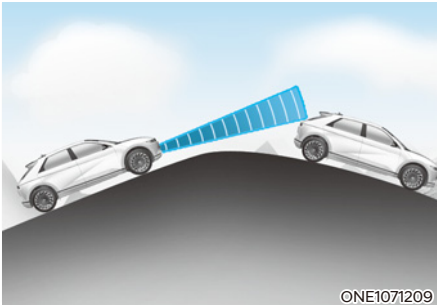


OTM058073

Your vehicle speed can be reduced due to a vehicle in the adjacent lane.

Apply the accelerator pedal and select the appropriate speed. Check to be sure that the road conditions permit safe operation of the Smart Recuperation System.

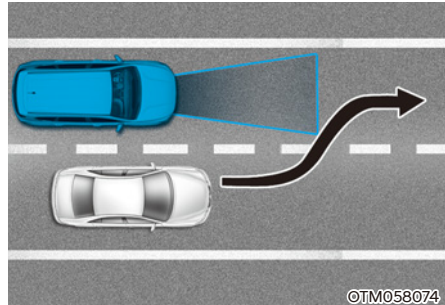
### ***On inclines***



When coasting on an uphill or downhill, the system may not detect the vehicle in your lane and the regenerative braking level will reduce automatically, making you feel that the vehicle is accelerating. Also, if the system suddenly recognizes the vehicle in front, the regenerative braking level will increase automatically, making you feel that the vehicle is decelerating.

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

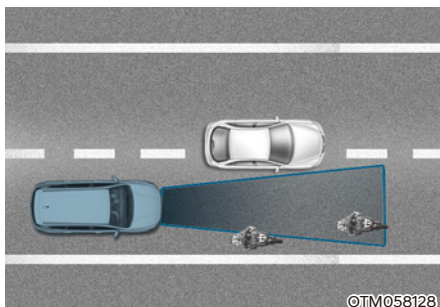
### ***Lane changing***



- A vehicle which moves into your lane from an adjacent lane cannot be recognized by the sensor until it is in the sensor's detection range.
- The radar may not detect immediately when a vehicle cuts in suddenly. Always pay attention to the traffic, road and driving conditions.



## Vehicle recognition



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

- Narrow vehicles such as motorcycles or bicycles
- Vehicles offset to one side
- Slow-moving vehicles or sudden-decelerating vehicles
- Stopped vehicles (When the vehicle ahead drives away, the system may not detect a stopped vehicle.)
- Vehicles with small rear profile such as trailers with no loads

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

- When the vehicle is pointing upwards due to overloading in the luggage compartment.
- While the steering wheel is operating.
- When driving to one side of the lane.
- When driving on narrow lanes or on curves.
- Apply the brake or accelerator pedal if necessary.



## WARNING

When using the Smart Recuperation System take the following precautions:

- If an emergency stop is necessary, you must apply the brakes.
- Keep a safe distance according to road conditions and vehicle speed. If the vehicle to vehicle distance is too close during a high-speed driving, a serious collision may result.
- Always maintain sufficient braking distance and decelerate your vehicle by applying the brakes if necessary.
- The Smart Recuperation System cannot recognize a stopped vehicle, pedestrians or an oncoming vehicle. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.
- Vehicles moving in front of you with a frequent lane changes may cause a delay in the system's reaction or may cause the system to react to a vehicle actually in an adjacent lane. Always drive cautiously to prevent unexpected and sudden situations from occurring.
- The Smart Recuperation System may not recognize complex driving situations so always pay attention to driving conditions and control your vehicle speed.

## NOTICE

The Smart Recuperation System may not operate temporarily due to:

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

## BRAKING SYSTEM

### Power-assist brakes

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

In the event of a vehicle power failure, the power assist for the brakes will not work. You can still stop your vehicle, but it will require greater force and increased pedal travel than normal. The stopping distance, however, will be longer than with power brakes.

### 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. So increase the regeneration braking level with the left paddle shift lever to decrease the speed.
- When descending down a long or steep hill, use the paddle shifter to increase the regeneration braking level in order to decrease 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 decelerate. Because wet brakes increase braking distance and cause noise troubles, select 0 step of the regenerative braking system and depress the brake pedal around 10 times, with keeping the safe distance from other vehicles, lightly in order to dry the braking system. Such procedure may decrease the driving distance by restraining the regenerative braking system, which is not a system malfunction. Inspect the braking system after car wash or driving over wet road conditions.

**NOTICE**

- Do not continue depressing the brake pedal if the "READY" indicator is OFF. The battery may be discharged.
- Noise and vibration generated during braking is normal.
- Under normal operation, electric brake pump noise and motor vibration may occur temporarily in below cases.
  - When the pedal is depressed suddenly.
  - When the pedal is repeatedly depressed in short intervals.
  - When the ABS function is activated while braking.

**Disc brakes wear indicator**

When your brake pads are worn and new pads are required, you will hear a high pitched warning sound from your front 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.

**WARNING**

Frequent braking may deform components and worn the disc brake causing vibration when braking. Observe the speed limit to prevent brake damage from excessive braking.

Brake wear, noise, vibration from excessive braking or deformation of the brakes caused by repeatedly braking in high speed, racing on tracks, etc. can be excluded from warranty coverage.

**Electronic Parking Brake (EPB)****Applying the parking brake**

ONE1061015L

**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.



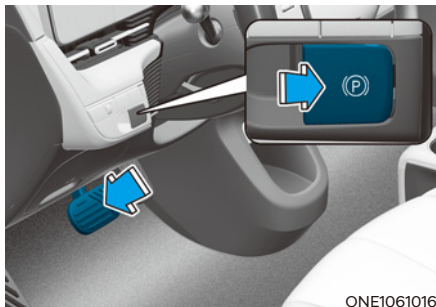
### Information

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, we recommend that you have the system checked by an authorized HYUNDAI dealer.

### Releasing the parking brake



To release EPB (Electronic Parking Brake):

1. Press the 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 vehicle running depress the brake pedal and shift out of P (Park) to R (Reverse) or D (Drive).
- Gear in N (Neutral)  
With the vehicle running depress the brake pedal and shift out of N (Neutral) to R (Reverse) or D (Drive).

- Satisfy the following conditions
- 1. Ensure seat belts are fastened and the doors, hood and tailgate are closed.
- 2. With the vehicle running, depress the brake pedal and shift out of P (Park) to R (Reverse) or D (Drive).
- 3. Depress the accelerator pedal.  
Make sure the Parking Brake warning light goes off.

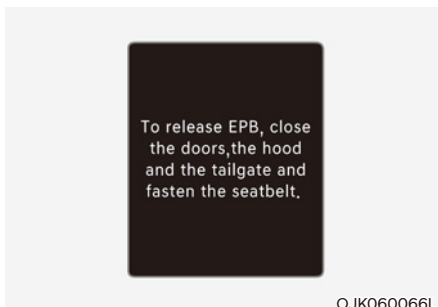
### **i** Information

- For the Middle East, EPB is released regardless of seat belt fastening.
- For your safety, you can engage EPB even though the Vehicle 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, we recommend that you 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**



#### **To release EPB, close the doors, hood and tailgate and fasten the seatbelt**

- 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 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 the EPB switch, and press the 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.



## CAUTION

In winter, the Electronic Parking Brake (EPB) related device may freeze and cannot be released. Do not use the Electronic Parking Brake (EPB) but park on a flat surface with the gear in P (Park). Use wheel chocks under the wheels if necessary.

If the Electronic Parking Brake (EPB) applies automatically when the gear is shifted to P (Park), turn off Auto Hold, and press the Electronic Parking Brake (EPB) switch to release the parking brake.

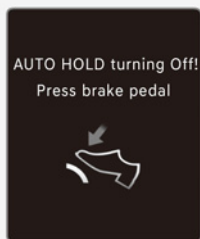
## NOTICE

- 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

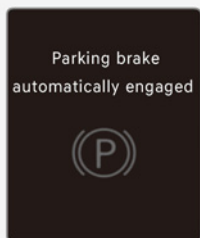
- A clicking sound may be heard while operating or releasing the EPB. These conditions are normal and indicate that EPB is functioning properly.
- When leaving your keys with a parking attendant or assistant, make sure to inform him/her how to operate EPB.



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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 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 Start/Stop button is pressed to the ON position, this indicates that the EPB may have malfunctioned.

If this occurs, we recommend that you 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, we recommend that you 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, we recommend that you have the system checked by an authorized HYUNDAI dealer.

### Parking brake warning light



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

This light will be illuminated when the parking brake is applied with the Vehicle Stop/Start button 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 motor 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, we recommend that you 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.

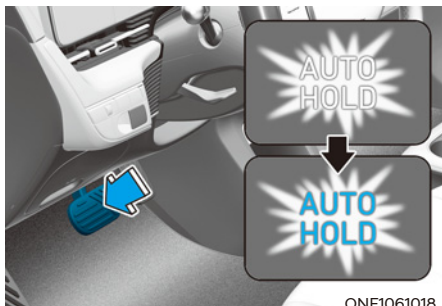
### To apply:



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1. With the driver's door and hood closed, depress the brake pedal and then 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, the Auto Hold will be released automatically and the vehicle will start to move. 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.
- Drive the vehicle in R (Reverse).
- Park the vehicle.

## Information

- The Auto Hold does not operate when:
  - The gear is in P (Park)
  - EPB is applied
- For your safety, the Auto Hold automatically switches to EPB when:
  - The driver's door is opened
  - The tail gate is opened
  - The 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.
- If the vehicle is restarted with the Auto Hold system in the standby position or operating, the Auto hold system will continue to operate in the standby position.

## **NOTICE**

If the AUTO HOLD indicator changes to yellow, Auto Hold is not working properly. We recommend that you contact an authorized HYUNDAI dealer.

## WARNING

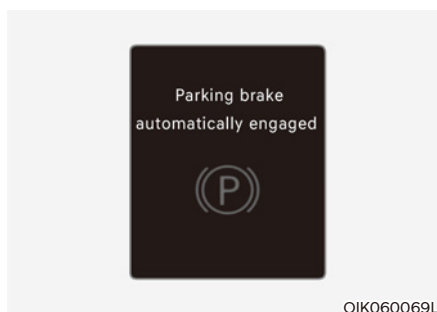
- Depress the accelerator pedal slowly when you start the vehicle.
- For your safety, cancel Auto Hold when you drive downhill, back up the vehicle or park the vehicle.

## **NOTICE**

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

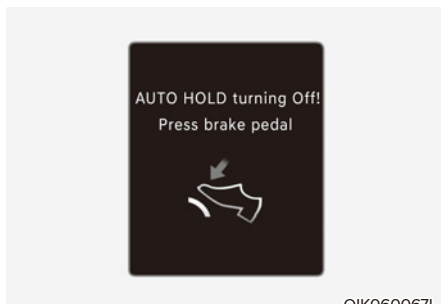
We recommend that you contact an authorized HYUNDAI dealer.

## *Warning messages*



### **Parking brake automatically engaged**

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

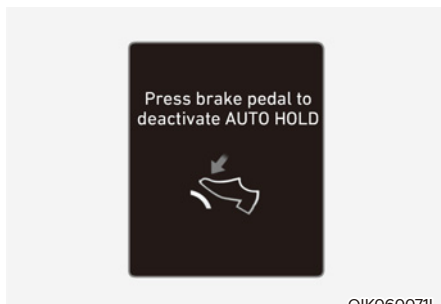


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### **AUTO HOLD turning Off! Press brake pedal**

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

When this message is displayed, Auto Hold and EPB may not operate. For your safety, depress the brake pedal.



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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.

## **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 Start/Stop button 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. We recommend that you 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, we recommend that you 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. We recommend that you contact an authorized HYUNDAI dealer as soon as possible.**

## Information

When you jump start your vehicle because of a drained battery, the ABS () warning light may turn on at the same time. This happens because of the low battery voltage. It does not mean your ABS is malfunctioning. Have the battery recharged before driving the vehicle.

## Electronic Stability Control (ESC)



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 electric vehicle control 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 Start/Stop button is in the ON position, ESC and the ESC OFF indicator lights illuminate for approximately three seconds. After both lights go off, 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 vehicle may not respond to the accelerator as it does under routine conditions.
- If Cruise Control was in use when ESC activates, Cruise Control automatically disengages. Cruise Control can be reengaged when the road conditions allow. **See “Cruise Control System” section in chapter 7 (if equipped).**

### 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 (electric vehicle control 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 (electric vehicle control management) and the brake control function of ESC (braking management) are disabled.

If the Start/Stop button is pressed to the OFF position when ESC is off, ESC remains off. Upon restarting the vehicle, ESC will automatically turn on again.

When ESC (electric vehicle control) is deactivated, the vehicle will lose the traction and stability if the vehicle is driven by abrupt steering wheel control. It is possible that the tire may make a collision with the connected parts of the tire. We recommend to do not turn off ESC while driving the vehicle for your safety.

### Indicator lights

- ESC indicator light (blinks)



- ESC OFF indicator light (comes on)



When the 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 we recommend that the vehicle be 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 reduction gear:

- 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 motor 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).

**i Information**

- Turning ESC off does not affect ABS or standard brake system operation.
- Select 0 step of the regenerative braking system and depress the brake pedal around 10 times to efficiently apply brake disc cleaning.

Brake disc cleaning may decrease the driving distance by restraining the regenerative braking system. After brake disc cleaning, the regenerative braking system may be restored.

If the regenerative braking system is not restored after the brake disc cleaning, we recommend to inspect the vehicle by an authorized HYUNDAI dealer.

## 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 EPS (Electric 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 (ESP) indicator light or EPS (EPS) warning light stays illuminated or blinks, your vehicle may have a malfunction with the VSM system. When the warning light illuminates we recommend that the 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.

### 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 (maximum of 5 seconds when the accelerator pedal is slightly depressed during HAC operation) and releases the brake after 2 seconds or when the accelerator pedal is depressed.



### WARNING

Always be ready to depress the accelerator pedal when starting off an incline. Hill-Start Assist Control activates only for approximately 2 seconds (maximum of 5 seconds when the accelerator pedal is slightly depressed during HAC operation).



### 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.

### Emergency Stop Signal (ESS)

Emergency Stop Signal alerts the driver behind by blinking the stop lights, while sharply and severely braking.

The system is activated when:

- The vehicle suddenly stops. (The deceleration power exceeds  $7 \text{ m/s}^2$ , and the driving speed exceeds  $55 \text{ km/h}$  ( $34 \text{ mph}$ ).)
- ABS is activated and the driving speed exceeds  $55 \text{ km/h}$  ( $34 \text{ mph}$ ).

The hazard warning flasher automatically turns ON after blinking the stop lights:

- When driving speed is under  $40 \text{ km/h}$  ( $25 \text{ mph}$ ),
- When ABS is deactivated, and
- When the sudden braking situation is over.

The hazard warning flasher turns OFF:

- When the vehicle drives at a low speed for a certain period of time.

The driver can manually turn OFF the hazard warning flasher by pressing the button.



### Information

**Emergency Stop Signal will not activate, when the hazard warning flashers are already on.**

### Multi-Collision Brake (MCB)

Multi-Collision Brake controls the brake automatically in the event of an accident where the air bag deploys to reduce the risk of additional accidents that may occur.

#### System operation

- From the time the air bag deploys, Multi-Collision Brake monitors the depression intensity of the brake pedal and accelerator pedal for a short period. The system operates when the following conditions are met:
  - Vehicle speed is under  $180 \text{ km/h}$  ( $112 \text{ mph}$ ) at the time of collision.
  - The brake pedal and accelerator pedal is hardly depressed.
- When the driver steps on the brake pedal over a certain level while Multi-Collision Brake is active, the braking power takes priority over automatic braking by Multi-Collision Brake system. However, if the driver takes his/her foot off the brake pedal, automatic braking by Multi-Collision Brake system will maintain automatic braking.

### System off

Multi-Collision Brake is canceled in the following situations:

- The accelerator pedal is depressed over a certain level.
- The vehicle stops.
- ESC (Electronic Stability Control) or electronic devices has malfunctioned.
- In a situation system cannot operate normally.
- Ten seconds have passed since the brake has been controlled automatically by Multi-Collision Brake system.



### WARNING

- **Multi-Collision Brake decreases vehicle speed after a collision, but it does not prevent a second collision. You may drive away from the collision spot to avoid other dangerous situations by depressing the accelerator pedal.**
- **After the vehicle is stopped by Multi-Collision Brake, the system stops controlling the brakes. Depending on the situation, the driver should depress the brake or the accelerator pedal to prevent further accidents.**

### 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 press the Start/Stop button to the 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.**

Be aware of wet brakes. 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 we recommend that you 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.

## FOUR WHEEL DRIVE (4WD) (IF EQUIPPED)

When Four Wheel Drive(4WD) is activated, driving forces are distributed appropriately to front and rear wheels. It could improve driving performance by maximizing the driving force of vehicles on severe road conditions such as steep hills, unpaved, slippery, etc.

Advantage of electronic 4WD

1. Improvement of straight stability
2. Improvement of driving performance on curve
3. Secure stability on severe condition such as wet and sandy roads.
4. Improvement of energy efficiency from driving mode automatic control.



### Information

4WD vehicles could change the engagement status of the motor according to the situation required. Auto changing the driving mode(2WD/4WD)helps improve energy efficiency and driving stability.



### WARNING

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

- 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 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 return.
- Shorten your scheduled maintenance interval if you drive in off-road conditions such as sand, mud or water (see "Maintenance Under Severe Usage Conditions" section in chapter 9).
- 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 4WD vehicle is towed by a flat bed tow truck.

## For safe 4WD 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.
- Using regenerative braking helps the steering on the downhill. However, it may be difficult to adjust the vehicle while coasting using regenerative braking, so avoid using the third level of regenerative braking as much as possible.
- Avoid speeding, rapid acceleration, sudden brake applications, and sharp turns to prevent skids.
- It is difficult to start again if the vehicle stops on an uphill road. Keep your distance from other vehicles and drive slowly.



### Information

**When using Snow Tires, mount them on all four wheels.**

**When using tire chains, install them on the rear tires.**

**However, driving speed must be below 30 km/h and minimize the driving distance. High-speed or long-term driving with tire chains installed may malfunction or damage the 4WD system.**

**For more details on Snow Tires and Tire Chains, refer to "Winter Driving" section later in this chapter.**

### 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.

### NOTICE

**When the vehicle is stuck in snow, sand or mud, place a nonslip 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.**

### 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 straight as possible.



### WARNING

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



### 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.**

#### 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 4WD vehicles is higher than conventional 2WD vehicles, making them more likely to roll over when you rapidly turn corners.
- 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*

When replacing tires, be sure to equip all four tires with the same size, type, tread patterns, brand and load-carrying capacity.



### WARNING

**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.**

## WARNING



**Never start or run the vehicle while an 4WD 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**

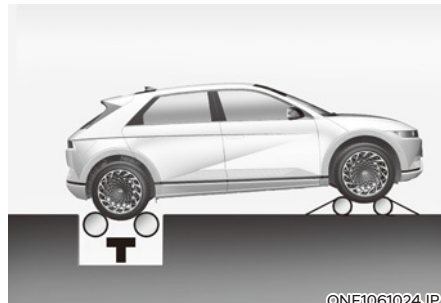
4WD vehicles must be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground. **For more details, refer to "Towing" section in chapter 8.**

### **Vehicle inspection**

- If the vehicle needs to be operated on a vehicle lift do not attempt to stop any of the four wheels from turning. This could damage the 4WD system.
- Never engage the parking brake while running the vehicle on a car lift. This may damage the 4WD system.

### **Dynamometer testing**

An 4WD vehicle must be tested on a special four wheel chassis dynamometer.



[A] : Roll tester (Speedometer),

[B] : Temporary free roller

An 4WD vehicle should not be tested on a 2WD roll tester. If a 2WD roll tester must be used, perform the following procedure:

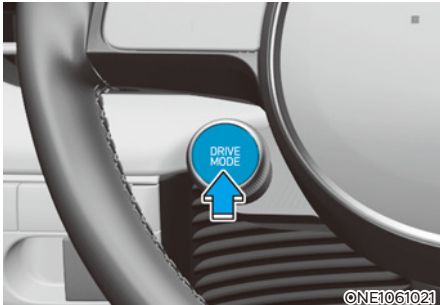
1. Check the tire pressures recommended for your vehicle.
2. Place the rear wheels on the roll tester for a speedometer test as shown in the illustration.
3. Release the parking brake.
4. Place the front wheels on the temporary free roller as shown in the illustration.

## WARNING

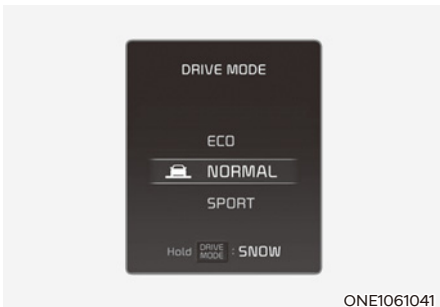
**Keep away from the front of the vehicle while the vehicle is in gear on the dynamometer. The vehicle can jump forward and cause serious injury or death.**

## DRIVE MODE INTEGRATED CONTROL SYSTEM (2WD) (IF EQUIPPED)

### Drive mode



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



The mode changes whenever the driver pushes the DRIVE MODE button.

### **NORMAL mode**

Normal mode is a driving mode used when driving on general roads, city center and highways.

### **ECO mode**

ECO mode is a driving mode improving energy efficiency by controlling motors and reduction gear.

Electric energy efficiency varies according to the driver's driving habit and road condition.

- When ECO mode is selected, the ECO indicator will illuminate on the instrument cluster and the color of the mood lamp will change.
- When ECO mode is activated:
  - The acceleration response may be slightly reduced if the accelerator pedal is depressed moderately.
  - The air conditioner performance may be limited.

The above situations are normal conditions when ECO mode is activated to help improve electric energy efficiency.

### **Limitations of ECO mode**

If the following conditions occur while ECO mode is operating, the system operation is limited even though there is no change in the ECO indicator.

- When coolant temperature is low:  
The system will be limited until motor performance becomes normal.
- When driving up a hill:  
The system will be limited to gain power when driving uphill because motor torque is restricted.



**SPORT mode**

SPORT mode is a driving mode improving driving performance by controlling motors and reduction gear.

In SPORT mode, the electric energy efficiency may decrease.

- When SPORT mode is selected, the SPORT indicator will illuminate on the instrument cluster and the color of the mood lamp will change.
- Whenever the vehicle is restarted, the drive mode will revert back to NORMAL mode. If SPORT mode is desired, re-select SPORT mode.

**SNOW mode**

SNOW mode provides safe driving on the snowy roads.

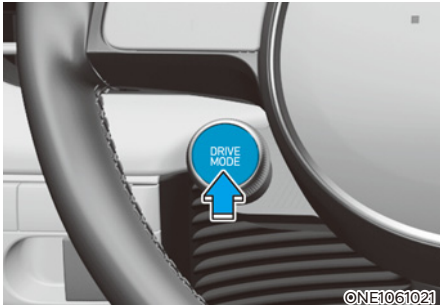
- Press and hold the drive mode button to select SNOW mode.
- When SNOW mode is selected, the SNOW indicator will illuminate on the instrument cluster and the color of the mood lamp will change.

**NOTICE**

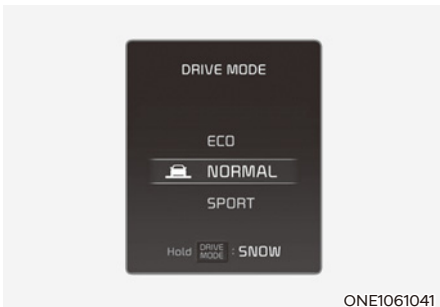
- **Depress the accelerator pedal softly on the snow and the ice.**
- **Keep the distance from the vehicle in the front.**
- **Prevent rapid acceleration, deceleration and steering control. Abrupt driving on the snow may cause the accident.**

## DRIVE MODE INTEGRATED CONTROL SYSTEM (4WD) (IF EQUIPPED)

### Drive mode



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



The mode changes whenever the driver pushes the DRIVE mode button.

### ***NORMAL mode***

Normal mode is a driving with auto changing the driving mode(2WD/4WD) on road condition.

### ***ECO mode***

ECO mode is a driving mode vehicles could change the engagement status of the motor according to the situation required. Auto changing the driving mode(2WD/4WD)helps improve energy efficiency.

Electric energy efficiency varies according to the driver's driving habit and road condition.

- When ECO mode is selected, the ECO indicator will illuminate on the instrument cluster and the color of the mood lamp will change.
- When ECO mode is activated:
  - The acceleration response may be slightly reduced if the accelerator pedal is depressed moderately.
  - The air conditioner performance may be limited.
  - The shift pattern of the reduction gear may change.

The above situations are normal conditions when ECO mode is activated to help improve electric energy efficiency.

### Limitations of ECO mode

If the following conditions occur while ECO mode is operating, the system operation is limited even though there is no change in the ECO indicator.

- When coolant temperature is low:  
The system will be limited until motor performance becomes normal.
- When driving up a hill:  
The system will be limited to gain power when driving uphill because motor torque is restricted.

### SPORT mode

SPORT mode is a driving mode improving driving performance by fixing 4WD system and controlling reduction gear.

In SPORT mode, the electric energy efficiency may decrease.

- When SPORT mode is selected, the SPORT indicator will illuminate on the instrument cluster and the color of the mood lamp will change.
- Whenever the vehicle is restarted, the drive mode will revert back to NORMAL mode. If SPORT mode is desired, re-select SPORT mode.

### SNOW mode

SNOW mode is a driving mode improving driving performance by changing the engagement status of the motor according to the situation required. Auto changing the driving mode(2WD/4WD) helps improve driving stability.

- Press and hold the drive mode button to select SNOW mode.
- When SNOW mode is selected, the SNOW indicator will illuminate on the instrument cluster and the color of the mood lamp will change.
- When SNOW mode is activated, the driving power is distributed to four wheels automatically, increasing the stability of the vehicle.

### NOTICE

- **Depress the accelerator pedal softly on the snow and the ice.**
- **Keep the distance from the vehicle in the front.**
- **Prevent rapid acceleration, deceleration and steering control. Abrupt driving on the snow may cause the accident.**

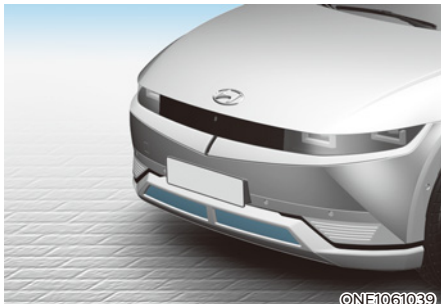
## Drive modes characteristic

The characteristic of each components varies according to which drive mode is selected.

Drive mode	SNOW	NORMAL	ECO	SPORT
Characteristics	Snow driving	Normal driving mode	High electric energy efficiency mode	Sporty driving mode
Button activation	Press more than 1 sec.	Press	Press	Press
Indicator on the cluster	SNOW	NORMAL	ECO	SPORT
Climate system control	NORMAL	NORMAL	ECO (ECO/NORAMAL) *1	NORMAL
Speed Limit	-	-	-	-
Regenerative braking level	0~1	0~3		
BRAKE MODE	NORMAL	NORMAL/SPORT *1	NORMAL	NORMAL/SPORT *1

\*1: It is possible to set the driving condition for each drive mode, at the drive mode setting in Infotainment system, For more information, refer to the separately supplied manual.

## ACTIVE AIR FLAP



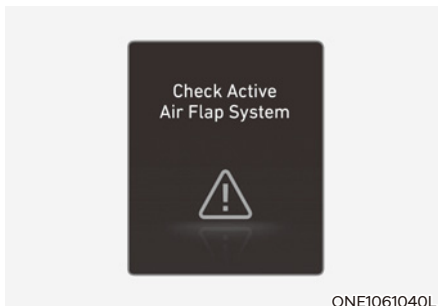
Active air flap system controls the air flap below the front bumper to cool the vehicle parts and improve energy efficiency.



### Information

Active air flap system could be activate regardless of the vehicle condition.(Parking, driving, charging, etc.)

## Malfunction



ONE1061040L

The active air flap system may not operate normally if the air flap is temporarily opened due to foreign factors or if the controller is contaminated by snow or rain, etc.

When "Check the active air flap system" is popped up on display, stop the vehicle in a safe place and check the status of the air flap.

Start the vehicle after performing the necessary work like foreign matter removal and waiting 10 minutes. If the pop-up remains up we recommend to contact an authorized HYUNDAI dealer.



### CAUTION

- Regardless of the pop-up, if the air flaps aren't in the same position, stop the vehicle and wait for 10 minutes and start the vehicle and inspect the air flap.
- The active air flap system is actuated by motors. Do not disturb actuation or apply force excessively. It may cause failure.

## 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, 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

Changing the tire speed suddenly could cause the tires to skid while driving on slippery surface. Be careful when driving 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 vehicle.

To prevent reduction gear 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 reduction gear 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 motor compartment fire or other damage. Try to avoid spinning the wheels as much as possible to prevent overheating of either the tires or the motor. **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 motor overheating, possible damage to the reduction gear, 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' headlamps.
- Keep your headlamps clean and properly aimed. Dirty or improperly aimed headlamps will make it much more difficult to see at night.
- Avoid staring directly at the headlamps of oncoming vehicles. You could be temporarily blinded, and it will take several seconds for your eyes to readjust to the darkness.

## Driving in the rain

Rain and wet roads can make driving dangerous. Here are a few things to consider when driving in the rain or on slick pavement:

- Slow down and allow extra following distance. A heavy rainfall makes it harder to see and increases the distance needed to stop your vehicle.
- Turn OFF your Cruise Control. (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 headlamps to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.
- If you believe your brakes may be wet, apply them lightly while driving until normal braking operation returns.

### **Hydroplaning**

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

**The risk of hydroplaning increases as the depth of tire tread decreases, refer to “Tire 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.**

### **Coolant and high voltage battery**

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

Be sure to check both the coolant level and the electric energy level before driving.



## 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. 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 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.

### *Summer tires (if equipped)*

- Summer tires are used to maximize the driving performance on dry roads.
- If the temperature is below 7°C or you are driving on snowy or icy roads, the summer tires lose their brake performance and traction as the tire grip weakens significantly.
- If the temperature is below 7°C or you are driving on snowy or icy roads, mount snow tires or all-season tires of the same size with your vehicle's standard tire for safe driving. Both snow and all-season tires have M+S markings.
- When using the M+S tires, use tires with the same tread produced by the same manufacturer for safe driving.
- When driving with the M+S tires with the lower maximum allowable speed than that of the vehicle's standard summer tire, be careful not to exceed the speed allowed for the M+S tires.

### ***Tire chains (Wire chains)***



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. When using tire chains, install tire chains only on the rear tires.



### **WARNING**

The use of tire chains may adversely affect vehicle handling:

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



### **Information**

- Install tire chains only in pairs and on the rear 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.

### Tire chains (Auto sock)



Since the sidewalls of radial tires are thinner, they can be damaged by mounting some types of snow chains on them. Therefore, the use of snow tires is recommended instead of snow chains.

Do not mount tire chains on vehicle equipped with aluminum wheels; snow chains may cause damage to the wheels. If snow chains must be used, use AutoSock (fabric snow chain). Damage to your vehicle caused by improper snow chain use is not covered by your vehicle manufacturer's warranty.

When using tire chains, install tire chains only on the rear tires.



### CAUTION

**Always check chain installation for proper mounting after driving approximately 0.5 to 1 km (0.3 to 0.6 miles) to ensure safe mounting. Retighten or remount the chains if they are loose.**

### 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 vehicle 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.**
- **Install tire chains that meet the specifications of each tire size to prevent damage your vehicle.**
  - 19 in. tires use wire chains less than 12 mm (0.47in.).
  - 20 in. tires use AutoSock (fabric snow chain).

## Winter precautions

### 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.

### 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 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 motor compartment

Putting objects or materials in the motor compartment may cause an motor failure. Such damage will not be covered by the manufacturer's warranty.

## TRAILER TOWING

If you are considering to tow with your vehicle, you should first your country's legal requirements. As laws vary the requirements for towing trailers, cars, or other types of vehicles or apparatus may differ. We recommend to contact an authorized HYUNDAI dealer for further details before towing.

Remember that trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability, and electric energy 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.

### Information - For Europe

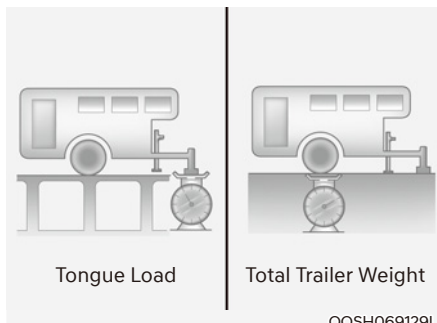
- The technically permissible maximum load on the rear axle(s) may be exceeded by not more than 15 % and the technically permissible maximum laden mass of the vehicle may be exceeded by not more than 10% or 100 kg (220.4 lbs), whichever value is lower. In this case, do not exceed 100 km/h (62.1 mph) for vehicle of category M1 or 80 km/h (49.7 mph) for vehicle of category N1.
  - When a vehicle of category M1 is towing a trailer, the additional load imposed at the trailer coupling device may cause the tire maximum load ratings to be exceeded, but not by more than 15%. In this case, do not exceed 100 km/h (62.1 mph) and increase the tire inflation pressure by at least 0.2 bar.
- \* M1 : passenger vehicle (9-seater or under)
- \* N1 : commercial vehicle (3.5 ton or under)

## If you decide to pull a trailer

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

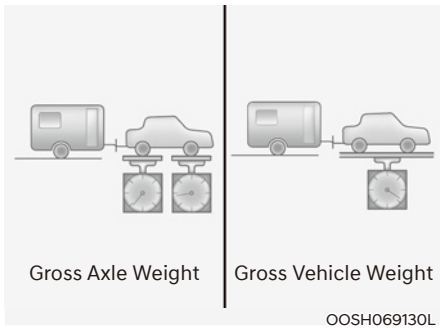
- Consider using a sway control. You can ask a trailer hitch dealer about sway control.
- Do not do any towing with your vehicle during its first 2,000 km (1,200 miles) in order to allow the vehicle to properly break in. Failure to heed this caution may result in serious motor damage.
- When towing a trailer, we recommend to consult an authorized HYUNDAI dealer for further information on additional requirements such as 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



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.

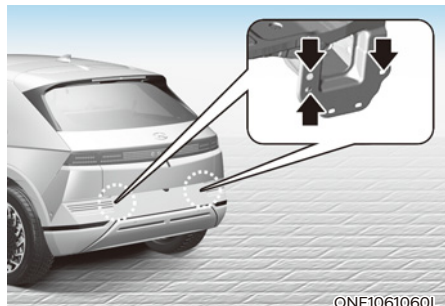


***Reference weight and distance when towing a trailer***

Item		Standard type	Extended type
Maximum trailer weight kg (lbs.)	With brake system	-	1600 (3527)
	Without brake system	750 (1653)	750 (1653)
Maximum permissible static vertical load on the coupling device kg (lbs.)		100 (220)	100 (220)
Recommended distance from rear wheel center to coupling point mm (inch)		867 (34)	867 (34)

## Trailer towing equipment

### Hitches



### **i** 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, dirt and water can get into your vehicle.
- 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 (for example, 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 Vehicle trailer hitch accessory is available at an authorized HYUNDAI dealer.

### **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.



### **Information**

**When the ambient temperature is lower than 0°C (32°F) and the remaining high voltage battery is low, the power of the vehicle with a trailer can be dropped, causing a trouble in acceleration or drop of the speed when driving hills.**

**When driving with a trailer, be sure to charge the high voltage battery more than 50% if the ambient temperature is lower than 0°C (32°F).**

### ***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. We recommend to consult an authorized HYUNDAI dealer for assistance.**

### ***Driving on hills***

Reduce speed before you start down a long or steep downgrade.

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

#### **NOTICE**

**To prevent motor overheating:**

- **If you tow a trailer with the maximum gross vehicle weight and maximum trailer weight, it can cause the motor to overheat. When driving in such conditions, allow the motor to idle until it cools down. You may proceed once the motor 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 vehicle 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 vehicle;
  - 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 reduction gear 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.**
- **When towing check reduction gear fluid more frequently.**

## VEHICLE WEIGHT

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 high voltage battery 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.

## Overloading



### WARNING

**The Gross Axle Weight Rating (GAWR) and the Gross Vehicle Weight Rating (GVWR) for your vehicle are on the Certification Label attached to the driver's (or front passenger's) door. Exceeding these ratings can cause an accident or vehicle damage. You can calculate the weight of your load by weighing the items (and people) before putting them in the vehicle. Be careful not to overload your vehicle.**