

7. Driver assistance system

Before using driver assistance system.....	7-3
Driver assistance system settings	7-4
Forward Collision Avoidance Assist (FCA) (Front view camera only).....	7-5
Forward Collision-Avoidance assist settings	7-5
Forward Collision-Avoidance Assist operation.....	7-6
Forward collision-avoidance Assist malfunction and limitations.....	7-9
Forward Collision Avoidance Assist (FCA) (Sensor fusion).....	7-16
Forward Collision-Avoidance Assist settings.....	7-17
Forward Collision-Avoidance Assist operation.....	7-19
Forward Collision-Avoidance Assist malfunction and limitations.....	7-24
Lane Keeping Assist (LKA).....	7-31
Lane Keeping Assist settings.....	7-32
Lane Keeping Assist operation.....	7-32
Lane Keeping Assist malfunction and limitations	7-34
Blind-Spot Collision-Avoidance Assist (BCA)	7-36
Blind-Spot Collision-Avoidance Assist settings.....	7-37
Blind-Spot Collision-Avoidance Assist operation.....	7-38
Blind-Spot Collision-Avoidance Assist malfunction and limitations.....	7-40
Safe Exit Warning (SEW)	7-44
Safe Exit Warning settings	7-44
Safe Exit Warning operation.....	7-45
Safe Exit Warning malfunction and limitations	7-46
Manual Speed Limit Assist (MSLA).....	7-47
Manual Speed Limit Assist operation	7-48
Intelligent Speed Limit Assist (ISLA)	7-50
Intelligent Speed Limit Assist settings	7-50
Intelligent Speed Limit Assist operation	7-51
Intelligent Speed Limit Assist malfunction and limitations	7-53
Driver Attention Warning (DAW)	7-55
Driver Attention Warning settings	7-55
Driver Attention Warning operation	7-56
Driver Attention Warning malfunction and limitations	7-57
Cruise Control (CC).....	7-60
Cruise Control operation	7-60

Smart Cruise Control (SCC).....	7-63
Smart Cruise Control settings	7-64
Smart Cruise Control operation	7-64
Smart Cruise Control malfunction and limitations	7-72
Navigation-based Smart Cruise Control (NSCC).....	7-78
Navigation-based Smart Cruise Control settings	7-78
Navigation-based Smart Cruise Control operation	7-79
Limitations of Navigation-based Smart Cruise Control	7-80
Lane Following Assist (LFA).....	7-83
Lane Following Assist operation	7-83
Lane Following Assist malfunction and limitations	7-85
Highway Driving Assist (HDA).....	7-86
Highway Driving Assist settings	7-86
Highway Driving Assist operation	7-87
Highway Driving Assist malfunction and limitations	7-89
Rear View Monitor (RVM).....	7-90
Rear View Monitor settings	7-91
Rear View Monitor operation	7-91
Rear View Monitor malfunction and limitations	7-92
Rear Cross-traffic Collision-Avoidance Assist (RCCA)	7-93
Rear Cross-traffic Collision-Avoidance Assist settings	7-93
Rear Cross-traffic Collision-Avoidance Assist operation	7-94
Rear Cross-traffic Collision-Avoidance Assist malfunction and limitations	7-97
Driver assistance system sensors	7-101
Cameras	7-101
Radars	7-102
Ultrasonic sensors	7-103
Declaration of conformity	7-104
Front radar	7-104
Rear corner radar.....	7-105

Before using driver assistance system

WARNING

Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed to the road conditions. Driver Assistance system may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

- Control your vehicle at all times. In some cases, the Driver Assistance system may provide unanticipated braking or steering.
- Never attempt to activate any Driver Assistance system by intentionally driving toward people, animals, objects, or other vehicles.
- The steering, braking, and acceleration inputs from you may override the responses from driver assistance system.
- Do not use Driver Assistance system when towing a trailer or using a hitch mounted carrier.
- Do not use Driver Assistance system if you believe the sensors or the systems may not be functioning properly.

Information

Due to the infotainment software version, the description of each function of the driver assistance system may differ from the owner's manual.

Limitations of driver assistance system

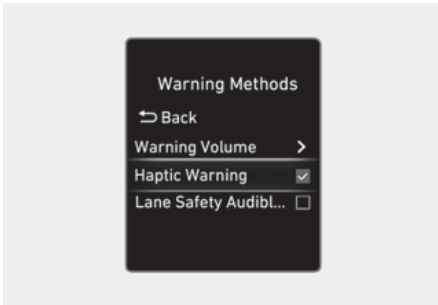
Nearby vehicles, road conditions, or other factors may delay the response from Driver Assistance system or cause these systems not to function, including:

- Lane-restricted driving situations (tollbooths, construction zones, etc.)
- Curves, hills, or other road features that may detect vehicles in adjacent lanes or not detect vehicles ahead in the roadway
- If other vehicles, pedestrians, or cyclists are not detected
- Driving in inclement weather, such as heavy rain, snow or icy conditions
- Interference from strong electromagnetic waves
- Streets with railroad tracks or other embedded metal objects
- If anything is blocking or covering a sensor
- If any camera, radar, or sensor is damaged

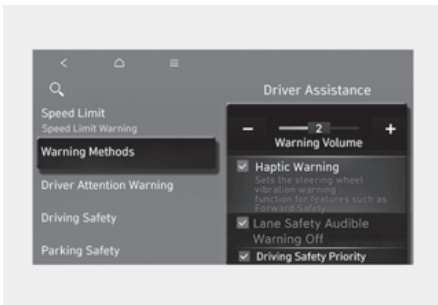
Driver assistance system settings

Warning Methods

Type A



Type B



The Warning Methods can be set with the vehicle on. Select **User Settings > Driver Assistance > Warning Methods** from the settings menu in the instrument cluster or Press **Settings** and select **Vehicle > Driver Assistance > Warning Methods** from the infotainment system to change the following settings:

- **Warning Volume:** Adjusts the volume of the warning sound.
- **Haptic Warning:** Activate the steering wheel vibration warning.
- **Lane Safety Audible Warning Off:** Turns off the Lane Safety Audible Warning, even when both warning volume and haptic warning are on.

- **Driving Safety Priority:** Lowers all other audio volumes when the Driving Safety system sounds a warning.
- **Parking Safety Priority:** Lowers all other audio volumes when the Parking Assist view is active.

CAUTION

For safety, the warning method is different depending on each function of the driver assistance system.

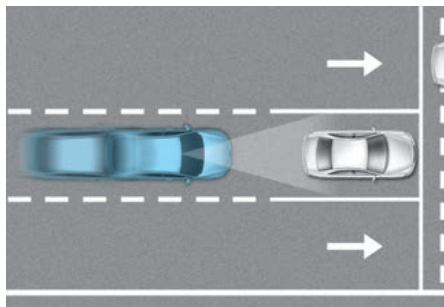
Please check how each function warns you.

Information

- If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.
- If the vehicle is restarted, Warning Methods will maintain the last setting.
- The setting menu may not exist based on vehicle specification.
- If you turn off the **Warning Volume**, for your safety, the function may warn you with a low volume, except Lane Keeping Assist, Blind-Spot Collision-Avoidance Assist and Rear Cross-Traffic Collision-Avoidance Assist.
- The **Warning Volume** and **Haptic Warning** cannot be turned off at the same time. When one of the warning is turned off the other is activated.
- The **Lane Safety Audible Warning Off** can be set when both the Warning Volume and the Haptic Warning are on.

Forward Collision Avoidance Assist (FCA) (Front view camera only)

if equipped



Forward Collision-Avoidance Assist uses the front view camera to help detect a vehicle, a pedestrian ahead on the road. The function may warn you with a warning message on the instrument cluster and an audible warning if a collision is imminent. If necessary, it may assist with braking your vehicle to help reduce collision speed and avoid a collision.

Information

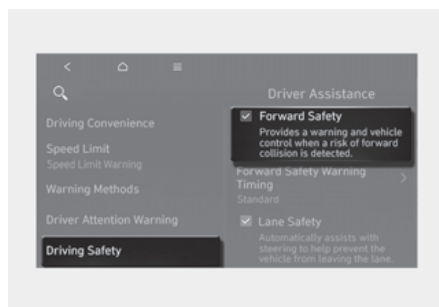
Forward Collision-Avoidance Assist (Front view camera only) uses the following sensor:

- Front view camera

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Forward Collision-Avoidance assist settings

Forward Safety



With the ignition switch ON, go to **User Settings > Driver Assistance > Driving Safety** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety** from the settings menu in the infotainment system to select the following:

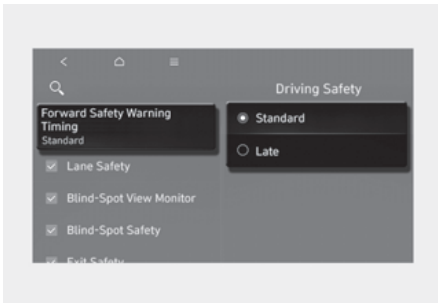
- If **Forward Safety** is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message, an audible warning depending on the collision risk levels. Braking assist will be applied depending on the collision risk levels. If Forward Safety is deselected, Forward Safety will turn off. The warning light () will illuminate on the cluster.

WARNING

Each time the engine is restarted, Forward Collision-Avoidance Assist turns on.

If **Forward Safety** is selected after the engine is restarted, the function does NOT brake your vehicle to help avoid a collision.

Forward Safety Warning Timing



With the ignition switch ON, go to **User Settings > Driver Assistance > Driving Safety > Forward Safety Warning Timing** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety > Forward Safety Warning Timing** settings menu in the infotainment system to change the initial warning activation time. Warning Timing is set to **Standard** at the factory.

WARNING

- Even though Standard is selected for Forward Safety Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may not seem late.
- Select Late for Forward Safety Warning Timing when traffic is light and your vehicle speed is slow.

Information

When the engine is restarted, the Warning Timing maintains its last setting.

Information

You can set the following Warning Methods:

- Warning Volume/Haptic Warning/Driving Safety Priority

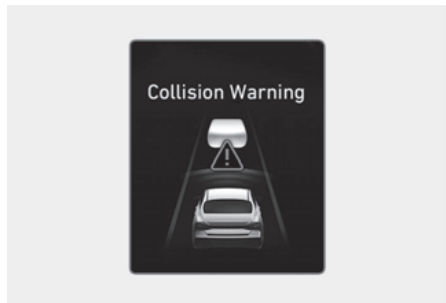
For more information, refer to the "Driver assistance system settings" section in this chapter.

Forward Collision-Avoidance Assist operation

Forward Collision-Avoidance Assist may warn and brake your vehicle depending on the collision risk level.

Basic function

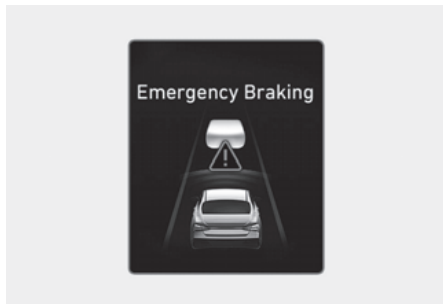
Collision Warning



If Forward Collision-Avoidance Assist judges that a collision may occur, the message may appear on the instrument cluster, an audible warning is heard and the steering wheel may vibrate when:

- A vehicle or powered two-wheeler is detected, and your vehicle speed is about 10-180 km/h (6-112 mph).
- A pedestrian or cyclist is detected, and your vehicle speed is about 10-80 km/h (6-50 mph).

Emergency Braking



If Forward Collision-Avoidance Assist judges avoiding a collision may be difficult, it applies higher brake force that may help avoid a collision with the vehicle, pedestrian or cyclist detected ahead.

The warning message may appear on the instrument cluster, an audible warning is heard and the steering wheel may vibrate when:

- A vehicle or powered two-wheeler is detected, and your vehicle speed is about 10-60 km/h (6-37 mph).
- A pedestrian or cyclist is detected, and your vehicle speed is about 10-60 km/h (6-37 mph).

Stopping vehicle and ending brake control



After your vehicle has stopped following an Emergency Braking event, the "Drive carefully" warning message may appear on the instrument cluster.

Depress the brake pedal immediately and check the surroundings.

- Braking control ends about 2 seconds after your vehicle is stopped following an Emergency Braking event.

WARNING

Forward Collision-Avoidance Assist may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

- Only change the settings after parking your vehicle at a safe location.
- Control your vehicle at all times. Do not depend on Forward Collision-Avoidance Assist to avoid a collision. Always maintain a safe distance from the vehicles ahead and reduce your vehicle speed as needed.
- Forward Collision-Avoidance Assist may stop operating, or may not operate, or operate unnecessarily depending on the road conditions and surroundings.

- When Active Assist or Warning Only is selected and ESC is turned off by pressing and holding the ESC OFF button, Forward Collision-Avoidance Assist turns off automatically. Then the Forward Collision-Avoidance Assist settings cannot be changed using the settings menu and the  warning light illuminates on the instrument cluster. If ESC is turned on again by pressing the ESC OFF button, Forward Collision-Avoidance Assist maintains its last setting.
 - Never attempt to activate Forward Collision-Avoidance Assist by intentionally driving toward people, animals, objects, or other vehicles.
 - Forward Collision-Avoidance Assist may not assist braking your vehicle if you depress the brake pedal sufficiently in response to the potential hazard detected by the function to avoid all collisions.
 - During Forward Collision-Avoidance Assist operation, your vehicle may stop suddenly. Always wear your seat belt, check your passengers have their seat belts fastened and secure loose objects that may become projectiles.
 - When other system's warning message appears or audible warning is heard, Forward Collision-Avoidance Assist may not warn you.
 - You may not hear the audible warning of Forward Collision-Avoidance Assist if the surrounding environment is too noisy.
-

WARNING

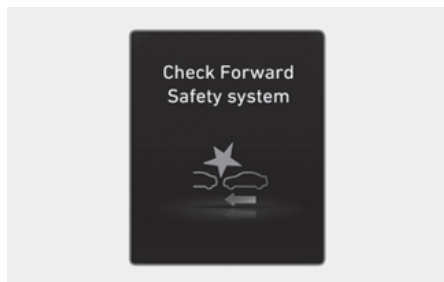
- Even if there is an issue with Forward Collision-Avoidance Assist, the vehicle's braking system operates normally.
 - During emergency braking, braking by the Forward Collision-Avoidance Assist automatically cancels if you depress the accelerator pedal or sharply steer your vehicle.
 - Depending on the characteristics of the vehicle, pedestrian detected, and the surroundings, the speed or detection ranges for Forward Collision-Avoidance Assist may be reduced. The function may not operate or be limited.
 - Forward Collision-Avoidance Assist operates only under certain conditions that determines the risk level:
 - Condition of other vehicles
 - The direction vehicles are driven
 - Vehicle speed
 - Surroundings
 - If your vehicle speed is too high or the speed difference from the other vehicle is too large, the function may be limited or not operate.
-

Information

- When a collision is imminent, braking may be assisted if you depress the brake pedal insufficiently.
 - The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.
-

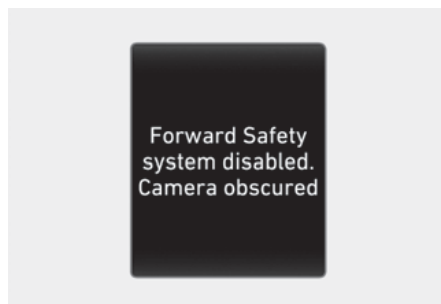
Forward collision-avoidance Assist malfunction and limitations

Forward Collision-Avoidance Assist malfunction



When Forward Collision-Avoidance Assist is not working properly, the "**Check Forward Safety system**" warning message may appear, and the  and  warning lights may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Forward Collision-Avoidance Assist disabled



When the front view camera is covered or blocked, Forward Collision-Avoidance Assist may be temporarily limited or disabled.

The "**Forward Safety system disabled. Camera obscured**" warning message may appear, and the  and  warning lights may illuminate on the instrument cluster.

The function operates normally when such foreign material is removed, and the engine is restarted.

If Forward Collision-Avoidance Assist does not operate normally after the sensor has been uncovered or unblocked, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Forward Collision-Avoidance Assist may not operate properly even if there is no warning message or warning light on the instrument cluster.
- Forward Collision-Avoidance Assist may not operate properly in open areas where no objects are detected (e.g. empty parking lot) or when the detecting sensors are blocked right after turning on the engine.

- Forward Collision-Avoidance Assist may not operate properly even after the engine has been restarted when the detecting sensors are blocked or there is a problem with the function.

Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate normally or may operate unexpectedly if:

- The detecting sensor or the surroundings are contaminated or damaged.
- The temperature around the front view camera is high or low due to surrounding environment.
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass.
- Moisture is not removed or frozen on the windshield.
- Washer fluid is continuously sprayed, or the wiper is on.
- Driving in heavy rain or snow, or thick fog.
- The field of view of the front view camera is obstructed by sun glare.
- Street light or light from an oncoming traffic is reflected on the wet road surface, such as a puddle on the road.
- An object is placed on the dashboard.
- Your vehicle is being towed.
- The surrounding is very bright.
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel.
- The brightness outside is low, and the headlights are not on or are not bright.
- Driving through steam, smoke or shadow.
- Only part of the vehicle, powered two-wheeler, pedestrian or cyclist is detected.
- The vehicle in front is a bus, heavy truck, truck with an unusually shaped cargo, trailer, etc.
- The vehicle or powered two-wheeler in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lights are not on or are not bright.
- The rear of the front vehicle is small or the vehicle does not look normal, such as when the vehicle is tilted, overturned, or the side of the vehicle is visible, etc.
- The front vehicle's ground clearance is low or high.
- A vehicle, powered two-wheeler, pedestrian or cyclist suddenly cuts in front.
- The vehicle or powered two-wheeler in front is detected late.
- The vehicle or powered two-wheeler in front is suddenly blocked by an obstacle.
- The vehicle or powered two-wheeler in front suddenly changes lane or suddenly reduces speed.
- The vehicle or powered two-wheeler in front is bent out of shape.
- The front vehicle's speed is fast or slow.
- The vehicle or powered two-wheeler in front steers in the opposite direction of your vehicle to avoid a collision.
- With a vehicle in front, your vehicle changes lane at low speed.
- The vehicle in front is covered with snow.
- You are departing or returning to the lane.

- Unstable driving.
- You are on a roundabout and the vehicle in front is not detected.
- You are continuously driving in a circle.
- The vehicle or powered two-wheeler in front has an unusual shape.
- The vehicle or powered two-wheeler in front is driving uphill or downhill.
- The pedestrian or cyclist is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright.
- The pedestrian or cyclist is wearing clothing or equipment that makes it difficult to detect as a pedestrian or cyclist.

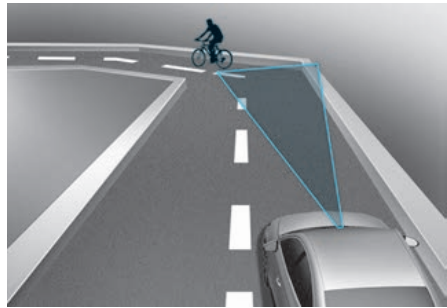
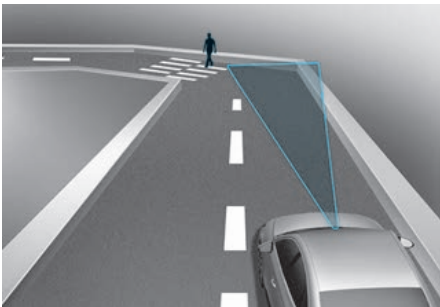
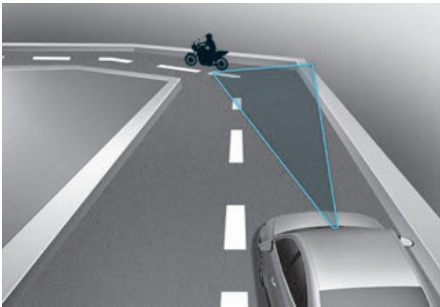
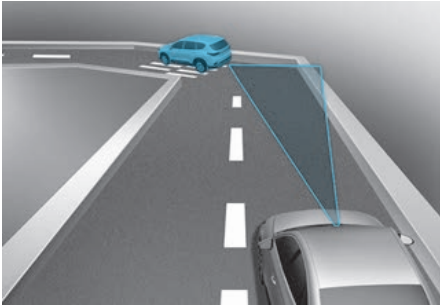


The illustration above shows the image the front view camera is capable of detecting as a vehicle, powered two-wheeler, pedestrian and cyclist.

- The pedestrian or cyclist in front is moving very quickly.
- The pedestrian or cyclist in front is short or is posing a low posture.
- The pedestrian or cyclist in front has impaired mobility.
- The pedestrian or cyclist in front is moving intersected with the driving direction.
- There is a group of pedestrians, cyclists or a large crowd in front.
- The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect.
- The pedestrian or cyclist is difficult to distinguish from the similarly shaped structure in the surroundings.
- You are driving by a pedestrian, cyclist, traffic signs, structures, etc., near the intersection.
- Driving in a parking lot.
- Driving through a tollgate, construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
- Driving on an incline road, curved road, etc.
- Driving through a roadside with trees or streetlights.
- The adverse road conditions cause excessive vehicle vibrations while driving.
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- Driving through a narrow road where trees or grass or overgrown.
- There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise.
- The vehicle is installed with a snow chain, spare tire or different size wheel.

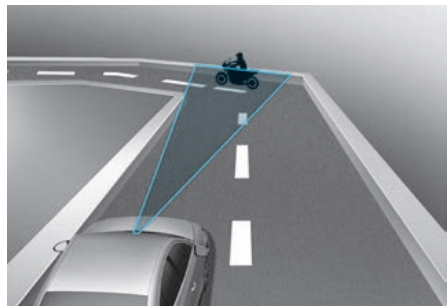
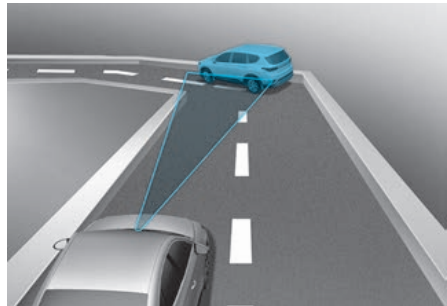
 WARNING

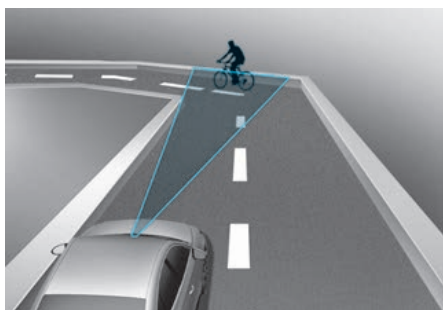
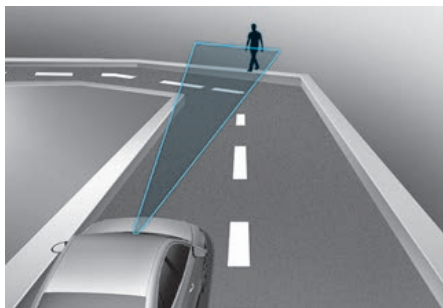
- **Driving on a curved road**



Forward Collision-Avoidance Assist may not detect other vehicles, powered two-wheeler, pedestrians or cyclists in front of you when driving on a curve and may not activate a warning or brake your vehicle when needed.

When driving on a curved road, always maintain a safe distance from others on the road. Reduce your vehicle speed or steer your vehicle as needed.

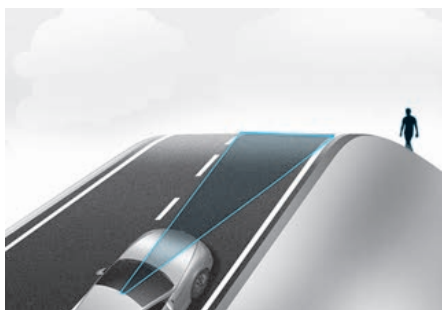
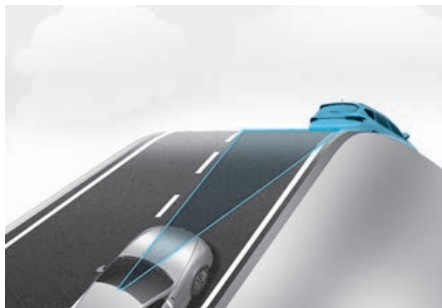




If a vehicle, powered two-wheeler, pedestrian or cyclist is detected in the next lane or outside the lane when driving on a curved road, Forward Collision-Avoidance Assist may warn you and may brake your vehicle even when not needed.

Always check road conditions, and if necessary, take appropriate actions to drive safely.

- Driving on an inclined road



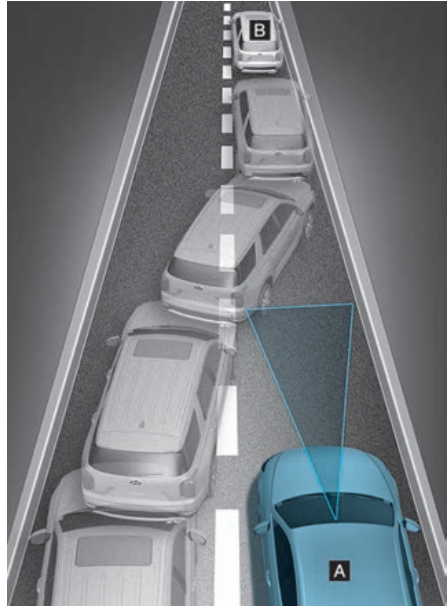


Forward Collision-Avoidance Assist may not detect other vehicles, powered two-wheeler, pedestrians or cyclists in front of you while driving uphill or downhill.

This may result in unnecessary warning or braking assist, or no warning or braking assist when needed.

Also, vehicle speed may rapidly decrease when a vehicle, powered two-wheeler, pedestrian or cyclist ahead is suddenly detected. Always maintain a safe distance from the others on the road. Adjust your vehicle speed or steer your vehicle depending on the road conditions.

• Changing lanes

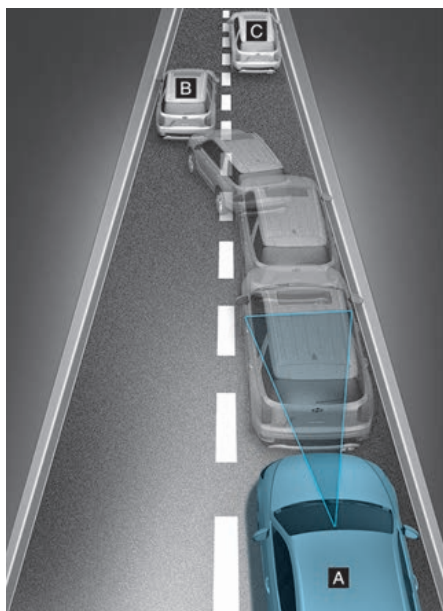


[A] Your vehicle

[B] Lane changing vehicle

When a vehicle moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Forward Collision-Avoidance Assist may not immediately detect the vehicle or powered two-wheeler when the vehicle changes lanes abruptly.

In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

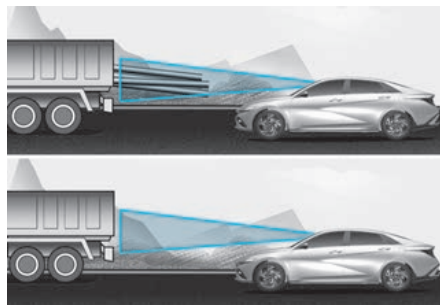


- [A] Your vehicle
[B] Lane changing vehicle
[C] Same lane vehicle

When a vehicle or powered two-wheeler in front of you merges out of the lane, Forward Collision-Avoidance Assist may not immediately detect the vehicle that is now in front of you.

In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

• Detecting a vehicle



Forward Collision-Avoidance Assist may not be able to detect all potential hazards, like if the vehicle in front of you has cargo that extends rearward past the end of the vehicle or if the vehicle in front of you has higher ground clearance. Always maintain a safe distance from the vehicles ahead. Adjust your vehicle speed or steer your vehicle depending on the road conditions.

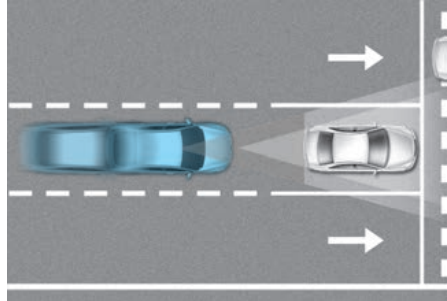
WARNING

- When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, powered two-wheelers, pedestrians are detected.
- Forward Collision-Avoidance Assist may not detect bicycles, motorcycles, or smaller wheeled objects such as luggage bags, shopping carts, or strollers.
- Forward Collision-Avoidance Assist may not operate normally if there is interference from strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for 15 seconds right after your vehicle is started or when the front view camera is initialized.

Forward Collision Avoidance Assist (FCA) (Sensor fusion)

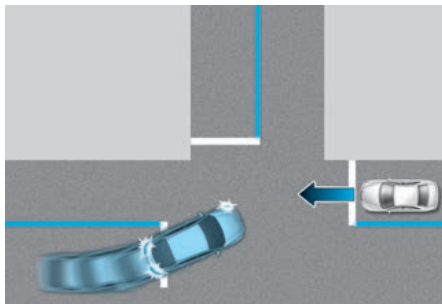
 If equipped

Basic function



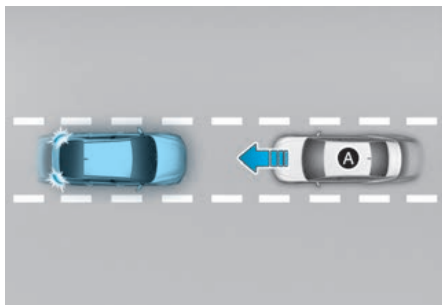
Forward Collision-Avoidance Assist detects a vehicle, a powered two-wheeler, a pedestrian, or a cyclist ahead on the road and may warn you of a possible collision with a warning message on the instrument cluster and a warning sound. Also, Forward Collision-Avoidance Assist may assist with braking your vehicle to help reduce collision speed or avoid a collision.

Junction Turning function



Junction Turning function can help avoid a collision with an oncoming vehicle in an adjacent lane when turning left at a crossroad with the turn signal on by applying emergency braking.

Direct Oncoming function



[A] Oncoming vehicle

Direct Oncoming function helps reduce the speed at the collision when a vehicle approaching from the opposite side is detected.

i Information

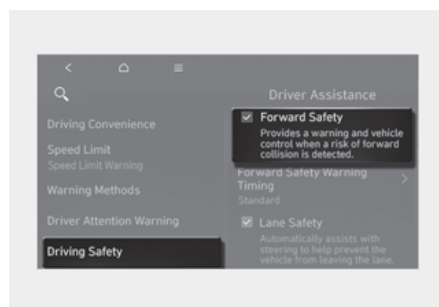
Forward Collision-Avoidance Assist (Sensor fusion) uses the following sensors:

- Front view camera
- Front radar

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Forward Collision-Avoidance Assist settings

Forward Safety



With the ignition switch ON, go to **User Settings > Driver Assistance > Driving Safety** from the Settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety** from the settings menu in the infotainment system to select the following:

- If **Forward Safety** is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message, an audible warning depending on the collision risk levels. Braking assist will be applied depending on the collision risk levels.

If **Forward Safety** is deselected, Forward Safety will turn off. The warning light (⚠️) will illuminate on the instrument cluster.

WARNING

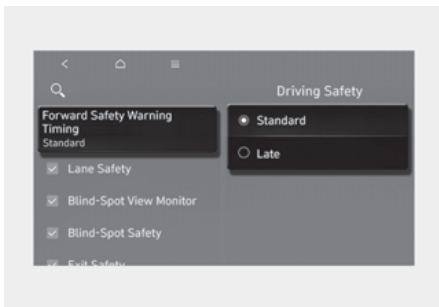
When the engine is restarted, Forward Collision-Avoidance Assist will always turn on.

However, if **Forward Safety** is deselected, the driver should always be aware of the surroundings and drive safely.

CAUTION

The setting for Forward Safety includes 'Basic function' and 'Junction Turning'.

Forward Safety Warning Timing



With the ignition switch ON, go to **User Settings > Driver Assistance > Driving Safety > Forward Safety Warning Timing** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety > Forward Safety Warning Timing** settings menu in the infotainment system to change the initial warning activation time. Warning Timing is set to **Standard** at the factory.

WARNING

- Even though Standard is selected for Forward Safety Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may not seem late.
- Select Late for Forward Safety Warning Timing when traffic is light and your vehicle speed is slow.

Information

When the engine is restarted, the Warning Timing maintains its last setting.

Information

You can set the following Warning Methods:

- Warning Volume/Haptic Warning/Driving Safety Priority

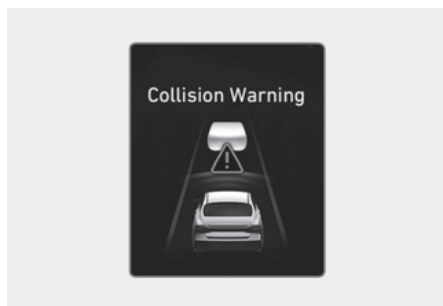
For more information, refer to the "Driver assistance system settings" section in this chapter.

Forward Collision-Avoidance Assist operation

Basic function

Forward Collision-Avoidance Assist may warn and brake your vehicle depending on the collision risk level.

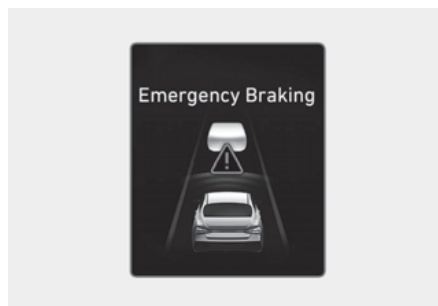
Collision Warning



If Forward Collision-Avoidance Assist judges that a collision may occur, the message may appear on the instrument cluster, an audible warning is heard and the steering wheel may vibrate when:

- A vehicle or powered two-wheeler is detected, and your vehicle speed is about 10-200 km/h (6-125 mph).
- A pedestrian or cyclist is detected, and your vehicle speed is about 10-85 km/h (6-53 mph).

Emergency Braking



If Forward Collision-Avoidance Assist judges avoiding a collision may be difficult, it applies higher brake force that may help avoid a collision with the vehicle, pedestrian, or cyclist detected ahead.

The warning message may appear on the instrument cluster, an audible warning is heard and the steering wheel may vibrate when:

- Vehicle or powered two-wheeler:

	Driving vehicle	Stopped vehicle
Weak braking power	Approximately 10-200 km/h (6-125 mph)	
Strong braking power	Approximately 10-130 km/h (6-81 mph)	Approximately 10-75 km/h (6-47 mph)

- Pedestrian or cyclist:

The function will operate when your vehicle speed is between approximately 10-65 km/h (6-40 mph).

Stopping vehicle and ending brake control



After your vehicle has stopped following an Emergency Braking event, the "**Drive carefully**" warning message may appear on the instrument cluster.

Depress the brake pedal immediately and check the surroundings.

- Braking control ends about 2 seconds after your vehicle is stopped following an Emergency Braking event.

Junction Turning function

Junction Turning function will warn and help control the vehicle depending on the collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.

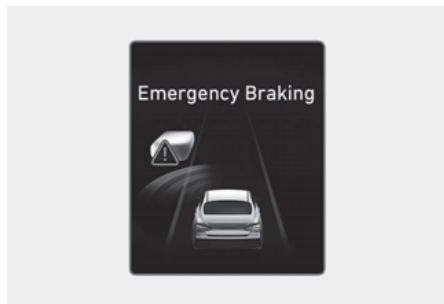
Collision Warning



If Forward Collision-Avoidance Assist judges that a collision may occur, the message may appear on the instrument cluster, an audible warning is heard and the steering wheel may vibrate when:

- Your vehicle speed is about 10-30 km/h (6-19 mph) and the oncoming vehicle speed is about 30-70 km/h (19-44 mph).

Emergency Braking

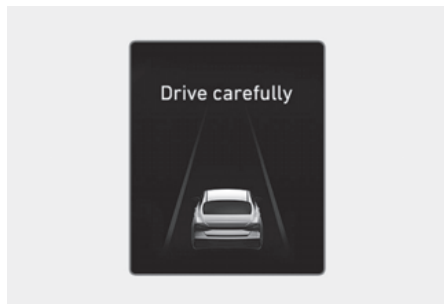


If Forward Collision-Avoidance Assist judges avoiding a collision may be difficult, it applies higher brake force that may help avoid a collision with the oncoming vehicle detected.

The warning message may appear on the instrument cluster, an audible warning is heard and the steering wheel may vibrate when:

- Your vehicle speed is about 10-30 km/h (6-19 mph) and the oncoming vehicle speed is about 30-70 km/h (19-44 mph).

Stopping vehicle and ending brake control



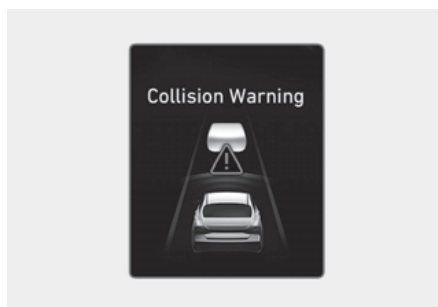
- After your vehicle has stopped following an Emergency Braking event, the "**Drive carefully**" warning message may appear on the instrument cluster. Depress the brake pedal immediately and check the surroundings.

- Braking control ends about 2 seconds after your vehicle is stopped following an Emergency Braking event.

Direct Oncoming function

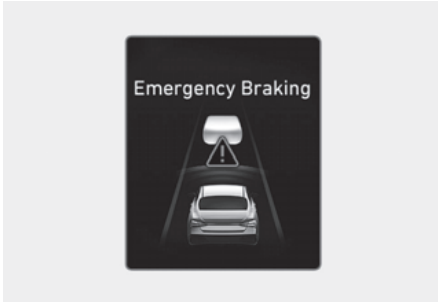
Direct Oncoming function will warn and control the vehicle depending on the collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.

Collision Warning



- To warn the driver of a collision, Forward Safety warning light (⚠) blinking, the "**Collision Warning**" warning message will appear on the instrument cluster, an audible warning will sound and the steering wheel may vibrate.
- The function will operate when your vehicle speed is between about 30-130 km/h (19-80 mph) and the detected oncoming vehicle speed is about above 10 km/h (6 mph) and the oncoming vehicle speed is about above 10 km/h (6 mph).

Emergency Braking



- To warn the driver that emergency braking will be assisted, Forward Safety warning light (🚨) blinking, the **"Emergency Braking"** warning message will appear on the instrument cluster, an audible warning will sound and the steering wheel may vibrate.
- In emergency braking situation, braking is assisted with strong braking power by the function to help prevent collision with the oncoming vehicle.
- The function will operate when your vehicle speed is between about 30-130 km/h (19-80 mph) and the detected oncoming vehicle speed is about above 10 km/h (6 mph).

Stopping vehicle and ending brake control



- When the vehicle is stopped due to emergency braking, the **"Drive carefully"** warning message will appear on the instrument cluster. For your safety, the driver should depress the brake pedal immediately and check the surroundings.
- Brake control will end after the vehicle is stopped by emergency braking for about 2 seconds.

CAUTION

If your vehicle or the oncoming vehicle is not driving straight, Direct Oncoming function warning and control may be late or may not operate.

Information

Press the hazard warning flasher to turn off the audible warning of the collision warning or emergency braking system.

WARNING

Forward Collision-Avoidance Assist may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

- Only change the settings after parking your vehicle at a safe location.
- Control your vehicle at all times. Do not depend on Forward Collision-Avoidance Assist to avoid a collision. Always maintain a safe distance from the vehicles ahead and reduce your vehicle speed as needed.
- Forward Collision-Avoidance Assist may stop operating, or may not operate, or operate unnecessarily depending on the road conditions and surroundings.
- When Active Assist or Warning Only is selected and ESC is turned off by pressing and holding the ESC OFF button, Forward Collision-Avoidance Assist turns off automatically. Then the Forward Collision-Avoidance Assist settings cannot be changed using the settings menu and the  warning light illuminates on the instrument cluster. If ESC is turned on again by pressing the ESC OFF button, Forward Collision-Avoidance Assist maintains its last setting.
- Never attempt to activate Forward Collision-Avoidance Assist by intentionally driving toward people, animals, objects, or other vehicles.
- Forward Collision-Avoidance Assist may not assist braking your vehicle if you depress the brake pedal sufficiently in response to the potential hazard detected by the function to avoid all collisions.

- During Forward Collision-Avoidance Assist operation, your vehicle may stop suddenly. Always wear your seat belt, check your passengers have their seat belts fastened and secure loose objects that may become projectiles.
- When other system's warning message appears or audible warning is heard, Forward Collision-Avoidance Assist may not warn you.
- You may not hear the audible warning of Forward Collision-Avoidance Assist if the surrounding environment is too noisy.
- Even if there is a problem with Forward Collision-Avoidance Assist, the vehicle's basic braking will function normally.
- During emergency braking, braking control by Forward Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.

CAUTION

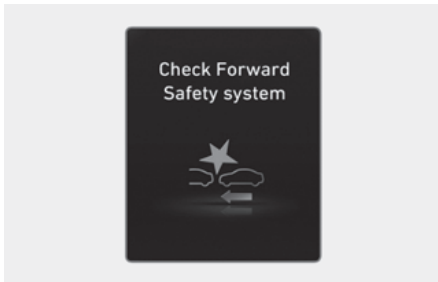
- Depending on the condition of the vehicle, powered two-wheeler, pedestrian and cyclist in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. Forward Collision-Avoidance Assist may only warn the driver, or it may not operate.
- Forward Collision-Avoidance Assist will operate under certain conditions by judging the risk level based on the condition of the oncoming vehicle, powered two-wheeler, driving direction, speed and surroundings.
- Forward Collision-Avoidance Assist may be limited or disabled if the vehicle or powered two-wheeler speed is too high or the distance to the vehicle ahead is far.

i Information

- In a situation collision is imminent, braking may be assisted by Forward Collision-Avoidance Assist when braking is insufficient by the driver.
- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.

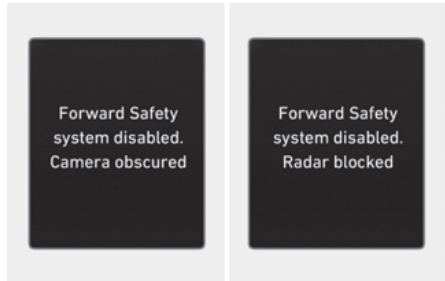
Forward Collision-Avoidance Assist malfunction and limitations

Forward Collision-Avoidance Assist malfunction



When Forward Collision-Avoidance Assist is not working properly, the "**Check Forward Safety system**" warning message may appear, and the  and  warning lights may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Forward Collision-Avoidance Assist disabled



When the front view camera or front radar is covered or blocked, Forward Collision-Avoidance Assist may be temporarily limited or disabled.

The "**Forward Safety system disabled. Camera obscured**" and "**Forward Safety system disabled. Radar blocked**"

warning messages may appear, and the  and  warning lights may illuminate on the instrument cluster.

The function operates normally when such foreign material is removed, and the engine is restarted.

If Forward Collision-Avoidance Assist does not operate normally after the sensor has been uncovered or unblocked, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Forward Collision-Avoidance Assist may not operate properly even if there is no warning message or warning light on the instrument cluster.
- Forward Collision-Avoidance Assist may not operate properly in open areas where no objects are detected (e.g. empty parking lot) or when the detecting sensors are blocked right after turning on the engine.
- Forward Collision-Avoidance Assist may not operate properly even after the engine has been restarted when the detecting sensors are blocked or there is a problem with the function.

Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate normally or may operate unexpectedly if:

- The detecting sensor or the surroundings are contaminated or damaged.
- The temperature around the front view camera is high or low due to surrounding environment.
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass.
- Moisture is not removed or frozen on the windshield.
- Washer fluid is continuously sprayed, or the wiper is on.
- Driving in heavy rain or snow, or thick fog.
- The field of view of the front view camera is obstructed by sun glare.
- Street light or light from an oncoming traffic is reflected on the wet road surface, such as a puddle on the road.
- An object is placed on the dashboard.
- Your vehicle is being towed.
- The surrounding is very bright.
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel.
- The brightness outside is low, and the headlamps are not on or are not bright.
- Driving through steam, smoke or shadow.
- Only part of the vehicle, powered two-wheeler, pedestrian or cyclist is detected.
- The vehicle in front is a bus, heavy truck, truck with an unusually shaped cargo, trailer, etc.
- The vehicle or powered two-wheeler in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lamps are not on or are not bright.
- The rear of the front vehicle is small or the vehicle does not look normal, such as when the vehicle is tilted, overturned, or the side of the vehicle is visible, etc.
- The front vehicle's ground clearance is low or high.
- A vehicle, powered two-wheeler, pedestrian or cyclist suddenly cuts in front.
- The bumper around the front radar is impacted, damaged or the front radar is out of position.
- The temperature around the front radar is high or low.
- Driving through a tunnel or iron bridge.
- Driving in vast areas where there are few vehicles or structures. (for example, desert, meadow, suburb, etc.)
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.
- A material is near that reflects very well on the front radar, such as a guardrail, nearby vehicle, etc.
- The cyclist in front is on a bicycle made of material that does not reflect on the front radar.
- The vehicle or powered two-wheeler in front is detected late.
- The vehicle or powered two-wheeler in front is suddenly blocked by an obstacle.
- The vehicle or powered two-wheeler in front suddenly changes lane or suddenly reduces speed.
- The vehicle or powered two-wheeler in front is bent out of shape.
- The front vehicle or powered two-wheeler speed is fast or slow.

- The vehicle in front steers in the opposite direction of your vehicle to avoid a collision.
- With a vehicle in front, your vehicle changes lane at low speed.
- The vehicle or powered two-wheeler in front is covered with snow.
- You are departing or returning to the lane.
- Unstable driving.
- You are on a roundabout and the vehicle in front is not detected.
- You are continuously driving in a circle.
- The vehicle or powered two-wheeler in front has an unusual shape.
- The vehicle or powered two-wheeler in front is driving uphill or downhill.
- The pedestrian or cyclist is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright.
- The pedestrian or cyclist is wearing clothing or equipment that makes it difficult to detect.

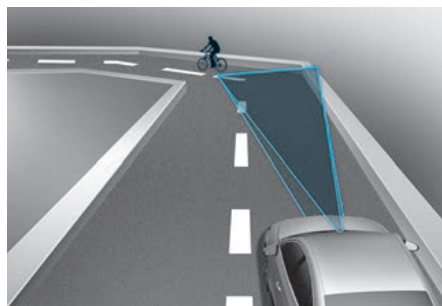
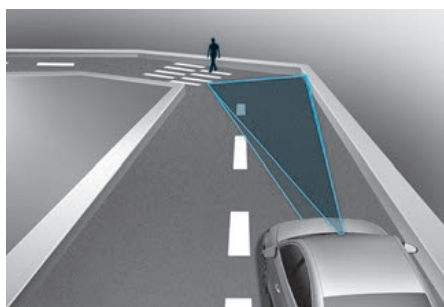
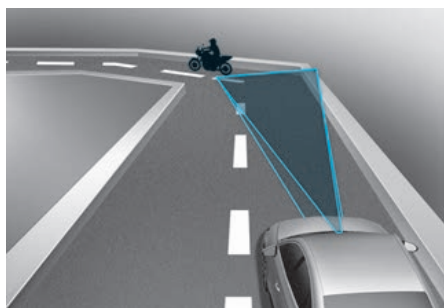
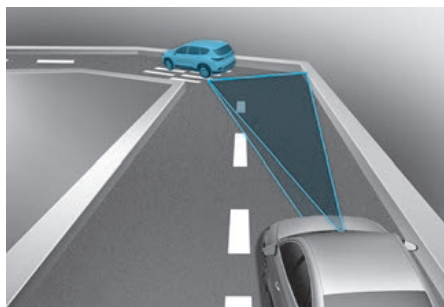


The illustration above shows the image the front view camera and front radar are capable of detecting as a vehicle, powered two-wheeler, pedestrian and cyclist.

- The pedestrian or cyclist in front has impaired mobility.
 - The pedestrian or cyclist in front is moving intersected with the driving direction.
 - There is a group of pedestrians, cyclists or a large crowd in front.
 - The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect.
 - The pedestrian or cyclist is difficult to distinguish from the similarly shaped structure in the surroundings.
 - You are driving by a pedestrian, cyclist, traffic signs, structures, etc. near the intersection.
 - Driving in a parking lot.
 - Driving through a tollgate, construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
 - Driving on an incline road, curved road, etc.
 - Driving through a roadside with trees or streetlights.
 - The adverse road conditions cause excessive vehicle vibrations while driving.
 - Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
 - Driving through a narrow road where trees or grass or overgrown.
 - There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise.
 - The vehicle is installed with a snow chain, spare tire or different size wheel.
- The pedestrian or cyclist in front is moving very quickly.
 - The pedestrian or cyclist in front is short or is posing a low posture.

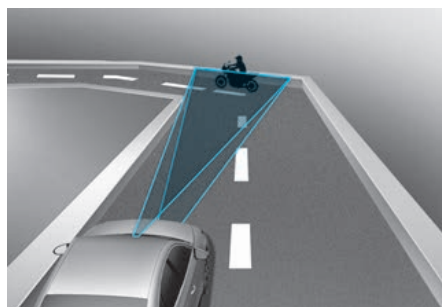
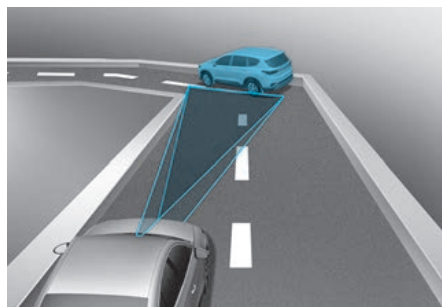
⚠ WARNING

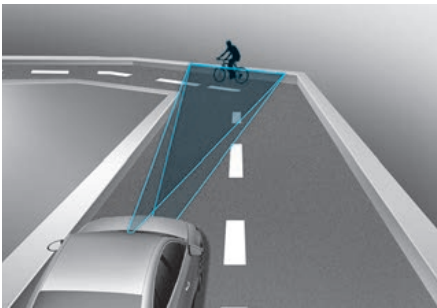
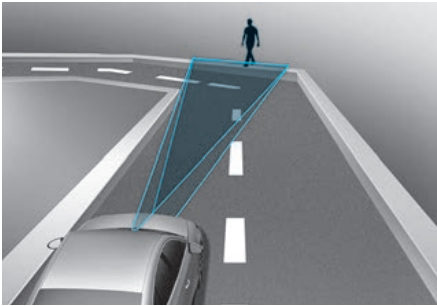
- Driving on a curved road



Forward Collision-Avoidance Assist may not detect other vehicles, powered two-wheelers, pedestrians or cyclists in front of you when driving on a curved roads adversely affecting the performance of the sensors. This may result in no warning, braking assist when necessary.

When driving on a curved road, always maintain a safe distance from others on the road. Reduce your vehicle speed or steer your vehicle as needed.

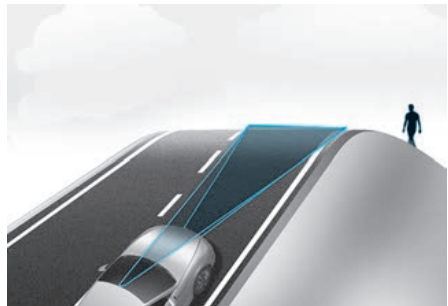
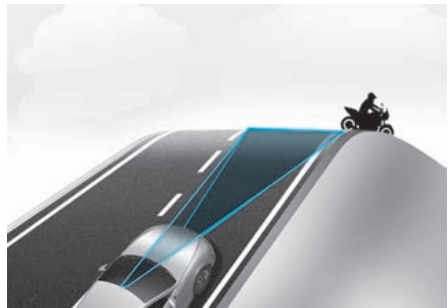
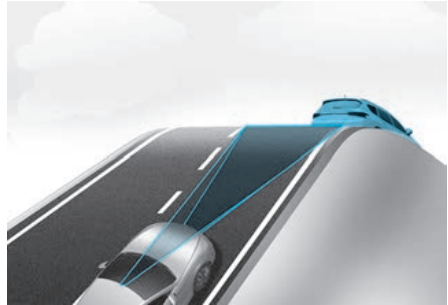


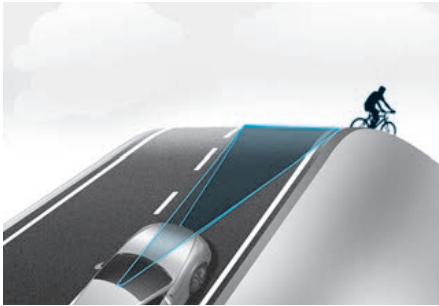


Forward Collision-Avoidance Assist may detect a vehicle, powered two-wheeler, pedestrian or cyclist in the next lane or outside the lane when driving on a curved road.

Always check road conditions, and if necessary, take appropriate actions to drive safely.

- Driving on an inclined road



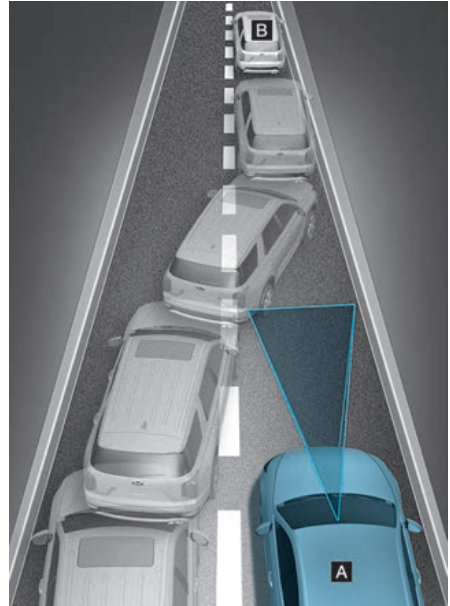


Forward Collision-Avoidance Assist may not detect other vehicles, powered two-wheelers, pedestrians or cyclists in front of you while driving uphill or downhill adversely affecting the performance of the sensors.

This may result in unnecessary warning or braking assist, or no warning or braking assist when needed.

Also, vehicle speed may rapidly decrease when a vehicle, powered two-wheeler, pedestrian or cyclist ahead is suddenly detected. Always maintain a safe distance from the others on the road. Adjust your vehicle speed or steer your vehicle depending on the road conditions.

• Changing lanes

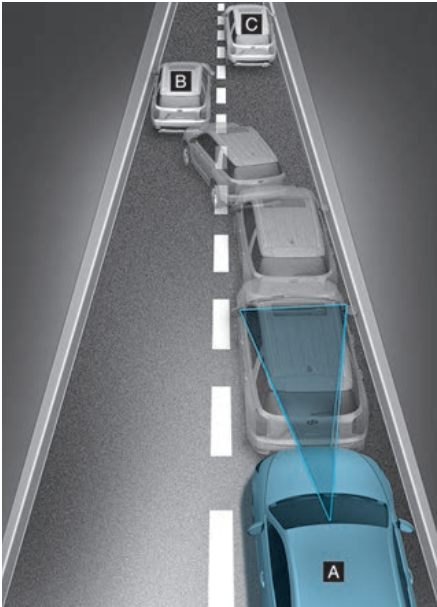


[A] Your vehicle

[B] Lane changing vehicle

When a vehicle moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is within the sensor's detection range. Forward Collision-Avoidance Assist may not immediately detect the vehicle when the vehicle changes lanes suddenly.

Always maintain a safe distance from the vehicles ahead. Adjust your vehicle speed or steer your vehicle depending on the road conditions.

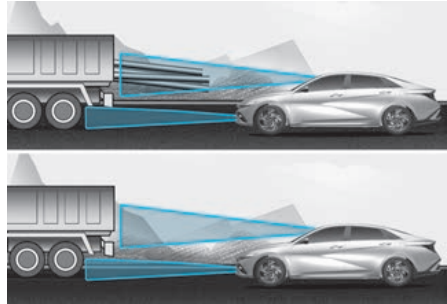


[A] Your vehicle
[B] Lane changing vehicle
[C] Same lane vehicle

When a vehicle in front of you departs the lane, Forward Collision-Avoidance Assist may not immediately detect another vehicle in your lane of travel.

Always maintain a safe distance from the vehicles ahead. Adjust your vehicle speed or steer your vehicle depending on the road conditions.

- Detecting a vehicle



Forward Collision-Avoidance Assist may not be able to detect all potential hazards, like if the vehicle in front of you has cargo that extends rearward past the end of the vehicle or if the vehicle in front of you has higher ground clearance. Always maintain a safe distance from the vehicles ahead. Adjust your vehicle speed or steer your vehicle depending on the road conditions.

**WARNING**

- When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, powered two-wheeler, pedestrians and cyclists are detected.
- Forward Collision-Avoidance Assist may not detect bicycles, motorcycles, or smaller wheeled objects such as luggage bags, shopping carts, or strollers.
- Forward Collision-Avoidance Assist may not operate normally if there is interference from strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for 15 seconds right after your vehicle is started or when the front view camera is initialized.

**WARNING**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Lane Keeping Assist (LKA)

Lane Keeping Assist uses the front view camera to help detect lane markings (or road edges) while driving over a certain speed. Lane Keeping Assist may warn you if your vehicle leaves the lane without using the turn signal and may steer the vehicle to help prevent it from departing its travel lane.

**WARNING**

Always monitor your vehicle speed and the distance to vehicles ahead on the road. Lane Keeping Assist is not a substitute for safe driving practices, but a supplemental function only.

**Information**

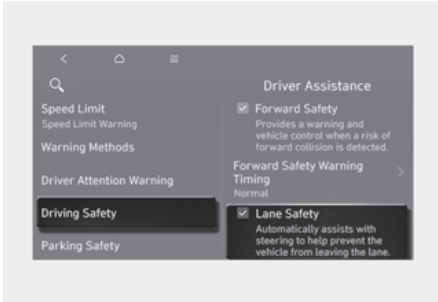
Lane Keeping Assist uses the following sensor:

- Front view camera

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Lane Keeping Assist settings

Lane Safety



With the ignition switch ON, go to **User Settings > Driver Assistance > Driving Safety > Lane Safety** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety > Lane Safety** from the settings menu in the infotainment system to select the following:

If **Lane Safety** is selected, Lane Keeping Assist will automatically assist the driver's steering when lane departure is detected to help prevent the vehicle from moving out of its lane. If **Lane Safety** is deselected, Lane keeping Assist will turn off and the indicator light will turn off the cluster.

WARNING

- Lane Keeping Assist does not control the steering wheel when the vehicle is driven in the middle of the lane.
- The driver should always be aware of the surroundings. If **Lane Safety** is deselected, Lane Keeping assist cannot assist you.

Information

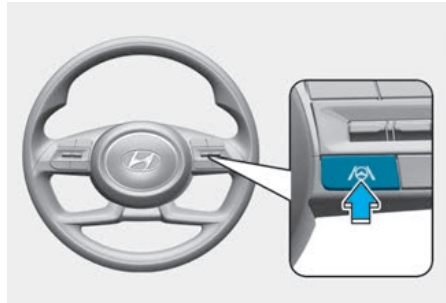
You can set the following Warning Methods:

- Warning Volume/Haptic Warning/Lane Safety Audible Warning Off/Driving Safety Priority

For more information, refer to the "Driver assistance system settings" section in this chapter.

Lane Keeping Assist operation

Turning Lane Keeping Assist On/Off



With the engine ON, press and hold the Driving Assist button located on the steering wheel to turn on and off. The gray or green  indicator light illuminates on the instrument cluster when the function is on.

Press and hold the button again to turn off the function.

Information

- When the engine is restarted, Lane Keeping Assist maintains its last setting.
- When Lane Keeping Assist is turned off by pressing the Lane Driving Assist button, the Lane Safety setting is changed to Off.

Warning and control

Left



Right



Lane Departure Warning

If the vehicle detects it is departing from the projected lane ahead, the green  indicator light and the lane line blink on the instrument cluster depending on which direction your vehicle is veering, an audible warning sounds and the steering wheel may vibrate.

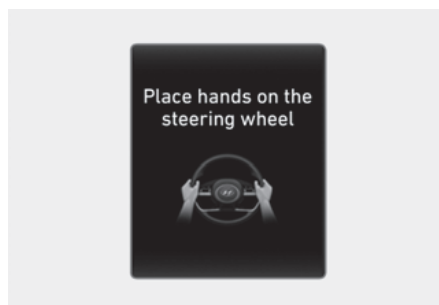
- Lane Departure Warning operates when your vehicle speed is about 60-200 km/h (40-120 mph).

Lane Keeping Assist

If your vehicle detects it is departing from the projected lane ahead, the green  indicator light blinks on the instrument cluster, and the steering wheel makes adjustments to keep your vehicle inside its travel lane.

- Lane Keeping Assist operates when your vehicle speed is about 60-200 km/h (40-120 mph).

Hands-off warning



If you take your hands off the steering wheel for several seconds, the "**Place hands on steering wheel**" warning message may appear on the instrument cluster, and an audible warning may sound in successive stages.

WARNING

Lane Keeping Assist may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

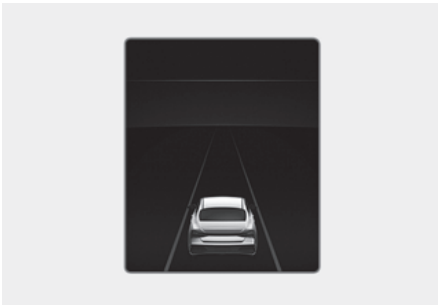
- Always steer your vehicle. Lane Keeping Assist is not an autonomous driving system and does not steer your vehicle at all times.
- Lane Keeping Assist may not steer if the steering wheel is held too tightly, or the steering wheel is turned too far left or right.
- If the steering wheel is held very loosely, the hands-off warning message may appear because the Lane Keeping Assist may not recognize that you have your hands on the steering wheel.
- The hands-off warning message may appear late or not at all depending on the road condition.

- If you attach objects to the steering wheel, the hands-off warning may not work properly.

i Information

- The status of the Lane Keeping Assist operation appears in Driving Assist mode on the instrument cluster. Refer to the "View modes" section in chapter 4.
- When lane markings (or road edges) are detected, the lane lines on the instrument cluster changes from gray to white. When Lane Keeping Assist is enabled, the green  indicator light illuminates.

Lane undetected



Lane detected

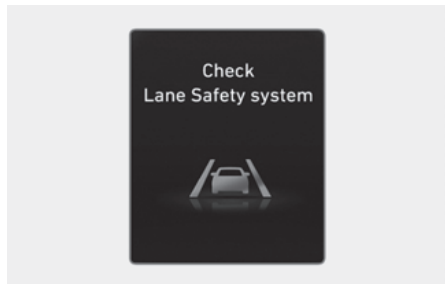


- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

- You can steer your vehicle even when steering is assisted by Lane Keeping Assist.
- It may require more or less force to turn the steering wheel when Lane Keeping Assist is providing steering assistance.

Lane Keeping Assist malfunction and limitations

Lane Keeping Assist malfunction



When Lane Keeping Assist is not working properly, the "**Check Lane Safety system**" message may appear and the yellow  indicator light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Lane Keeping Assist

Lane Keeping Assist may not operate normally or may operate unexpectedly if:

- The lane is difficult to distinguish because:
 - The lane markings (or road edge) are damaged or covered with rain, snow, dirt, oil, etc.
 - The colour of the lane marking (or road edge) is not distinguishable from the road.
 - There are markings (or road edges) on the road or near the lane that looks similar to the lane markings (or road edge).

- The lane markings are covered by the shadow of objects around the road, such as median strip, guardrails, noise barriers, and trees.
- There are more than two lane markings (or road edges) on the road.
- The lane number increases or decreases, or the lane markings (or road edges) are crossing.
- The lane markings (or road edges) are complicated or a structure substitutes for the lines, such as a construction area or tollbooth area.
- There are road markings, such as zigzag lanes, crosswalk markings and road signs.
- The lane suddenly disappears, such as at the intersection.
- The lane (or road width) is very wide or narrow.
- There is a road edge without a lane.
- There is a boundary structure on the road, such as sidewalk or curb.
- The distance to the front vehicle is extremely short or the vehicle in front is covering the lane marking (or road edge).
- If your vehicle is driven at high speeds, Lane Keeping Assist may not steer the vehicle.
- When other system's warning message appears or audible warning is heard, Lane Keeping Assist may not warn you.
- You may not hear the audible warning of Lane Keeping Assist if the surrounding environment is too noisy.
- Lane Keeping Assist may not operate for 15 seconds right after your vehicle is started or when the front view camera is initialized.
- Lane Keeping Assist does not operate when:
 - Either the turn signal or hazard warning flasher is turned on.
 - Your vehicle is not driven in the center of the lane after turning on Lane Keeping Assist or after changing lanes.
 - ESC (Electronic Stability Control) or VSM (Vehicle Stability Management) is controlling the brake force to the wheels.
 - Your vehicle is driven on sharp curves.
 - Driving below 55 km/h (35 mph) or above 210 km/h (130 mph).
 - Your vehicle makes sharp lane changes.
 - Your vehicle brakes suddenly.
- Loading in excess of the maximum load allowance or concentrated loading at one point in the cargo compartment can reduce the vehicle's driving stability, which can in turn reduce the effectiveness of Lane Keeping Assist.

i Information

For more information on limitations of the front view camera, refer to the "Forward Collision Avoidance Assist (FCA) (Sensor fusion)" section in this chapter.

⚠ WARNING

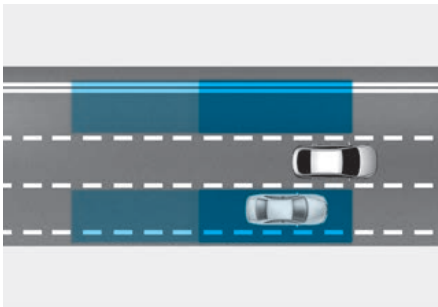
- Lane Keeping Assist may be canceled or may not work properly depending on the road conditions and the surroundings.
- When you are towing a trailer or another vehicle, turn off Lane Keeping Assist.

Blind-Spot Collision-Avoidance Assist (BCA)

 If equipped

Blind-Spot Collision-Avoidance Assist uses the front view camera and the rear corner radar to help detect approaching vehicles in the driver's blind spot areas and warn you of a possible collision with a warning message and audible warning.

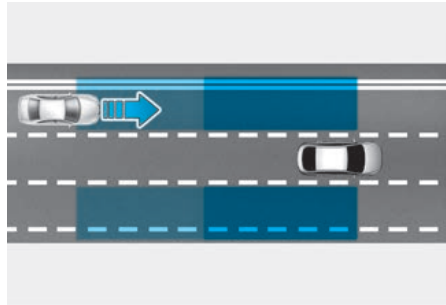
If there is a collision risk when driving forward out of a parking space, Blind-Spot Collision-Avoidance Assist may brake your vehicle to help avoid a collision.



Blind-Spot Collision-Avoidance Assist helps detect and warns you that a vehicle is in the blind spot area.

WARNING

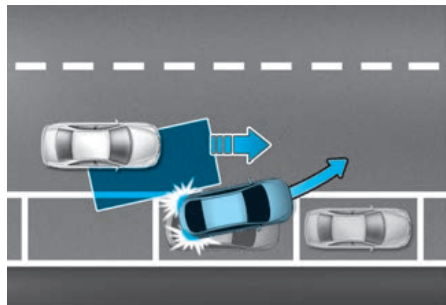
The detecting range may differ depending on the speed of your vehicle. Vehicles in the blind spot area may not be detected by Blind-Spot Collision-Avoidance Assist when you pass other vehicles at high speeds.



Blind-Spot Collision-Avoidance Assist helps detect and warns you that a vehicle is approaching at high speed from the blind spot area.

CAUTION

The warning timing may differ depending on the speed of the vehicle approaching you at high speed.



Blind-Spot Collision-Avoidance Assist may brake your vehicle if there is a detected collision risk when driving forward out of a parking space.

i Information

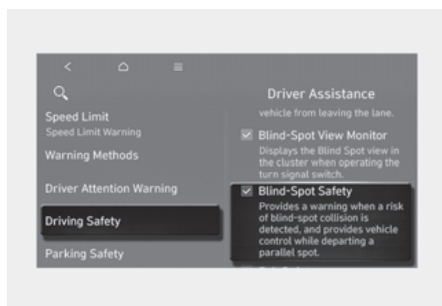
Blind-Spot Collision-Avoidance Assist uses the following sensors:

- Rear corner radars

Refer to the "Driver assistance system sensors" section in this chapter for the location.

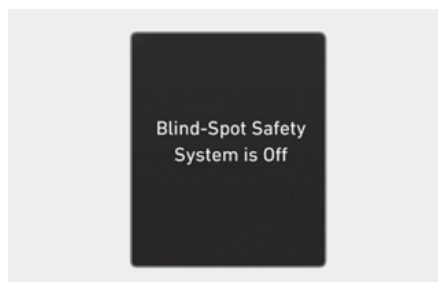
Blind-Spot Collision-Avoidance Assist settings

Blind-Spot Safety



With the ignition switch ON, go to **User settings > Driver Assistance > Driving Safety > Blind-Spot Safety** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety > Blind-Spot Safety** from the settings menu in the infotainment system to select the following:

If **Blind-Spot Safety** is selected, Blind-Spot Collision-Avoidance Assist will warn the driver with a warning message, an audible warning depending on the collision risk



When the engine is restarted with Blind-Spot Collision-Avoidance Assist off, the **"Blind-Spot Safety System is Off"** message will appear on the instrument cluster. If you select Blind-Spot safety, warning light on the side view mirror will blink for three seconds. In addition, if the vehicle is turned on, when Blind-Spot Safety is selected, the warning light on the side view mirror will blink for three seconds.

WARNING

The driver should always be aware of the surroundings and drive safely. If **Blind-Spot safety** is deselected, Blind-Spot Collision-Avoidance Assist cannot assist you.

i Information

When the engine is restarted, Blind-Spot Collision-Avoidance Assist maintains its last setting.

i Information

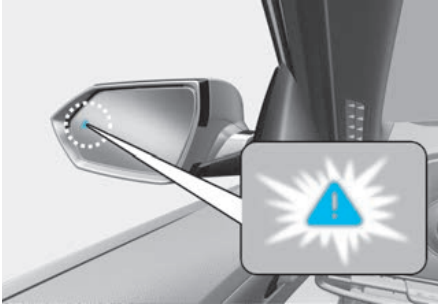
You can set the Warning Timing and following Warning Methods:

- Warning Volume/Haptic Warning/Driving Safety Priority

For more information, refer to the "Driver assistance system settings" section in this chapter.

Blind-Spot Collision-Avoidance Assist operation

Driving-Warning



Vehicle detection

When a vehicle is detected in a blind spot, the warning light on the side view mirror illuminates.

- Vehicle detection operates when your vehicle speed is above 20 km/h (12 mph) and the speed of the vehicle in the blind spot area is above 10 km/h (6 mph).

Collision warning

Collision warning may operate when the turn signal is turned on in the direction of a detected vehicle.

- To warn you of a potential collision, the warning light on the side view mirror may blink, an audible warning may sound and the steering wheel may vibrate.
- When the turn signal is turned off or you move away from the vehicle in the blind spot, the function returns to vehicle detection state.
- Collision warning may warn when your vehicle speed is above 40 km/h (25 mph) and the speed of the vehicle in the blind spot area is above 10 km/h (6 mph).

WARNING

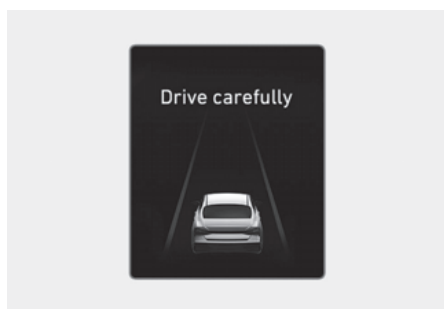
- The detection range of the rear corner radar is determined by a standard road width. On narrow roads, the function may detect other vehicles in the next lane and warn you. On wide roads, the function may not be able to detect a vehicle driving in the next lane and may not warn you.
- When the hazard warning flasher is on, the collision warning initiated by activating the turn signal may not operate.

Collision-avoidance assist (while parallel parking exit)



To warn you of a potential collision, the warning light on the side view mirror may blink, a warning message may appear on the instrument cluster, an audible warning may sound and the steering wheel may vibrate.

- Blind-Spot Collision-Avoidance Assist operates when your vehicle speed is below 3 km/h (2 mph) and the speed of the vehicle in the blind spot area is above 5 km/h (3 mph).
- Blind-Spot Collision-Avoidance Assist may assist with braking your vehicle to avoid a collision.



After your vehicle is stopped following an Emergency Braking event, the "Drive carefully" warning message may appear on the instrument cluster.

Depress the brake pedal immediately and check the surroundings.

- Braking control ends about 2 seconds after your vehicle is stopped following an Emergency Braking event.

WARNING

Blind-Spot Collision-Avoidance Assist may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

- Only change the settings after parking your vehicle at a safe Location.
- Blind-Spot Collision-Avoidance Assist may not operate if the function determines you have depressed the brake pedal sufficiently in response to the potential hazard detected by the function.
- If Blind-Spot Collision-Avoidance Assist is assisting to brake your vehicle and you excessively depress the accelerator pedal or sharply steer your vehicle, it stops assisted braking.
- During Blind-Spot Collision-Avoidance Assist operation, your vehicle may stop suddenly. Always wear your seat belt, check your passengers have their seat belts fastened and secure loose objects that may become projectiles.

- Even if there is a problem with Blind-Spot Collision-Avoidance Assist, your vehicle's braking system operates normally.
- Control your vehicle at all times. Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed depending on the road conditions.
- Never attempt to activate Blind-Spot Collision-Avoidance Assist by intentionally driving toward people, animals, objects, or other vehicles.
- When other system's warning message appears or audible warning is heard, Blind-Spot Collision-Avoidance Assist may not warn you.
- You may not hear the audible warning of Blind-Spot Collision-Avoidance Assist if the surrounding environment is too noisy.

WARNING

Braking is not assisted and only a warning is provided when:

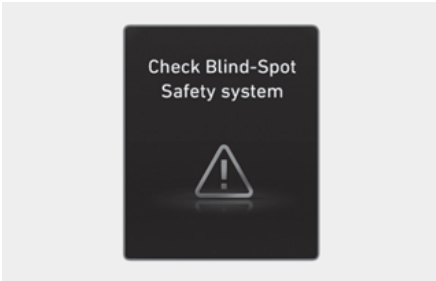
- The ESC (Electronic Stability Control) warning light is on.
- ESC (Electronic Stability Control) is controlling the brake force to the wheels.

Information

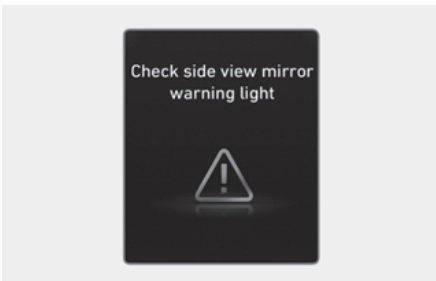
The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

Blind-Spot Collision-Avoidance Assist malfunction and limitations

Blind-Spot Collision-Avoidance Assist malfunction

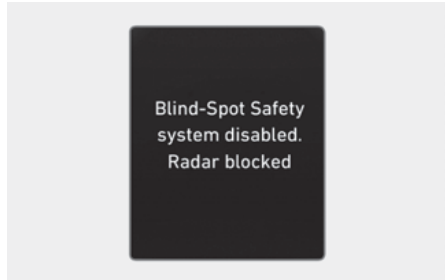


When Blind-Spot Collision-Avoidance Assist is not working properly, the **"Check Blind-Spot Safety system"** warning message will appear on the instrument cluster for several seconds, and the master (⚠) warning light will appear on the instrument cluster. Have the vehicle be inspected by an authorized HYUNDAI dealer.



When the side view mirror warning light is not working properly, the **"Check side view mirror warning light"** warning message will appear on the instrument cluster for several seconds, and the master (⚠) warning light will illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Blind-Spot Collision-Avoidance Assist disabled



If the rear corner radar is blocked or covered, or when the rear bumper around the rear corner radar or sensor is covered by any foreign material, such as snow, rain, or dirt, or when a trailer or hitch mounted carrier is installed, the detecting performance may decrease and temporarily limit or disable Blind-Spot Collision-Avoidance Assist.

The **"Blind-Spot Safety system disabled. Radar blocked"** warning message will appear on the instrument cluster.

The function operates normally when such foreign material, trailer, or carrier is removed, and the engine is restarted.

If the function does not operate normally after anything covering or blocking the sensors is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Blind-Spot Collision-Avoidance Assist may not operate properly even if there is no warning message or warning light on the instrument cluster.
- Blind-Spot Collision-Avoidance Assist may not operate properly in open areas where no objects are detected (e.g. empty parking lot) or when the detecting sensors are blocked right after turning on the engine.
- Always turn off Blind-Spot Collision-Avoidance Assist when towing a trailer or using a hitch mounted carrier.

Limitations of Blind-Spot Collision-Avoidance Assist

Blind-Spot Collision-Avoidance Assist may not operate normally or the function may operate unexpectedly if:

- There is inclement weather, such as heavy snow, heavy rain, etc.
- The rear corner radar or the area near the rear corner radar is covered by snow, water, or dirt.
- The rear corner radar or the area near the rear corner radar is blocked by a vehicle, wall, or pillar.
- The temperature near the rear corner radar is very hot or cold.
- You are driving on a highway access road or through a tollbooth.
- The road pavement (or the ground near your vehicle) contains metallic components (i.e. possibly due to subway construction).
- There is a fixed object near your vehicle, such as sound barriers, guardrails, central dividers, entry barriers, streetlights, signs, tunnels, walls, etc.
- You are driving on a narrow road where trees or grass are overgrown.

- You are driving in large, open areas where there are few vehicles or structures (e.g. desert, meadow, empty parking lot).
- You are driving on a wet road.
- The other vehicle drives very close behind your vehicle, or passes by your vehicle in close proximity.
- The speed of the other vehicle is so fast that it passes by your vehicle in a short time.
- Your vehicle passes another vehicle.
- Your vehicle changes lanes.
- Your vehicle has started at the same time as the vehicle next to you and has accelerated.
- The vehicle in the next lane moves two lanes away from you, or the vehicle moves two lanes away to the next lane.
- A trailer or hitch mounted carrier is installed and it blocks the rear corner radar.
- The area near the rear corner radar is covered with objects, such as bumper sticker, bumper guard, bike rack, etc.
- The bumper around the rear corner radar has been damaged or modified, and the radar is out of position.
- Your vehicle height is lower or higher than normal due to heavy loads, abnormal tire pressure, etc.

Blind-Spot Collision-Avoidance Assist may not operate normally or may operate unexpectedly when the following objects are detected:

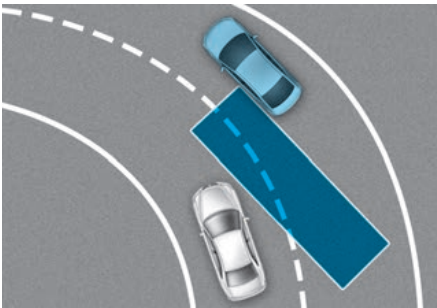
- A motorcycle or bicycle
- A vehicle such as flat trailer
- A big vehicle such as bus or truck
- A moving obstacle such as pedestrian, animal, shopping cart, or baby stroller
- A vehicle with lower height, such as sports car

Blind-Spot Collision-Avoidance Assist may not assist braking when:

- Your vehicle severely vibrates while driving over a bumpy road, uneven road, or concrete patch.
- You are driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or any tire is damaged.
- There is an issue with the braking system.
- Your vehicle makes abrupt lane changes.

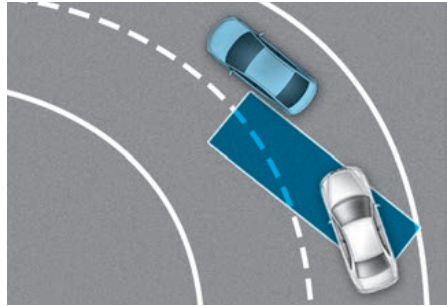
WARNING

• **Driving on a curved road**



Blind-Spot Collision-Avoidance Assist may not detect a vehicle in an adjacent lane when driving on a curved road and may not activate a warning or brake your vehicle.

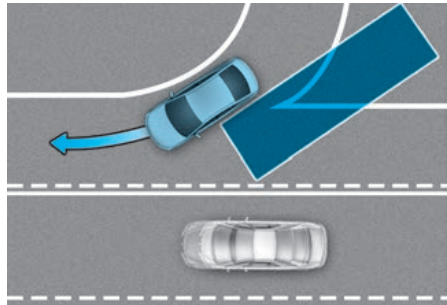
Always check road conditions, and if necessary, take appropriate actions to drive safely.



Blind-Spot Collision-Avoidance Assist may detect a vehicle in the same lane when driving on a curved road and activate a warning or brake your vehicle.

Always check road conditions, and if necessary, take appropriate actions to drive safely.

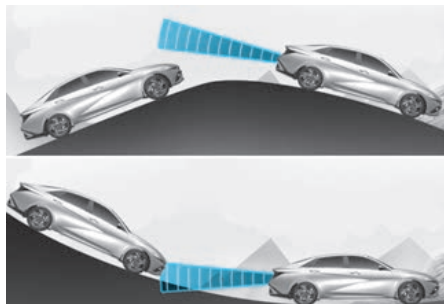
• **Driving where the road is merging/dividing**



Blind-Spot Collision-Avoidance Assist may not detect a vehicle in an adjacent lane when the road merges or divides and may not activate a warning or brake your vehicle.

Always check road conditions, and if necessary, take appropriate actions to drive safely.

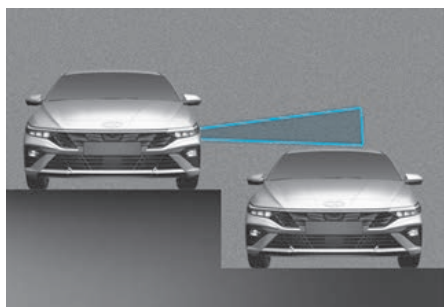
- **Driving on hills**



Blind-Spot Collision-Avoidance Assist may not detect a vehicle in an adjacent lane or may incorrectly detect the ground or another object when driving on hills and activate a warning or brake your vehicle.

Always check road conditions, and if necessary, take appropriate actions to drive safely.

- **Driving where the heights of the lanes are different**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the heights of the lanes are different. The function may not detect a vehicle on a road with a different lane height (underpass joining section, grade separated intersections, etc.) and not activate a warning or brake your vehicle.

Always check road conditions, and if necessary, take appropriate actions to drive safely.

WARNING

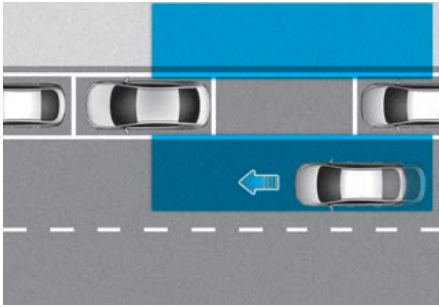
- Blind-Spot Collision-Avoidance Assist may not operate normally if there is interference from strong electromagnetic waves.
- Blind-Spot Collision-Avoidance Assist may not operate right after your vehicle is started or when the rear corner radars are initialized.

WARNING

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Safe Exit Warning (SEW)

 If equipped



Safe Exit Warning uses the rear corner radars to help detect a vehicle approaching the rear of your vehicle, after the vehicle is stopped and a passenger opens a door.

If Safe Exit Warning is activated, an audible warning sounds and a warning message may appear on the instrument cluster.

The warning timing may differ depending on the speed of the detected vehicle.

Information

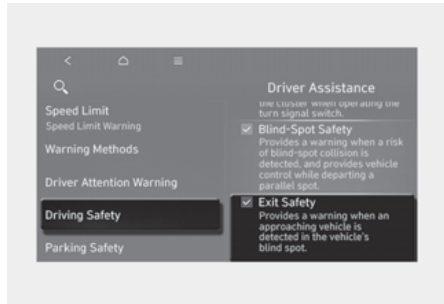
Safe Exit Warning uses the following sensor:

- Rear corner radars

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Safe Exit Warning settings

Exit Warning



With the ignition switch ON, go to **User settings > Driver Assistance > Driving Safety > Exit Safety** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Safety > Exit Safety** from the Settings menu in the infotainment system to turn this function on and off.

WARNING

The driver should always be aware of unexpected and sudden situations from occurring. If **Exit Safety** is deselected, Safe Exit Warning cannot assist you.

Information

When the engine is restarted, Safe Exit Warning maintains the last setting.

Information

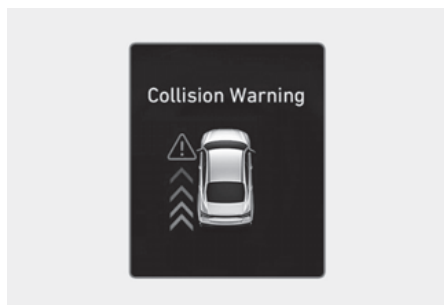
You can set the following Warning Methods:

- Warning Volume/Driving Safety Priority

For more information, refer to the "Driver assistance system settings" section in this chapter.

Safe Exit Warning operation

Collision warning when exiting your vehicle



When an approaching vehicle from the rear is detected while a door is being opened, the warning light on the side view mirror may blink, a warning message may appear on the instrument cluster, and an audible warning may sound.

- Safe Exit Warning may warn you when your vehicle speed is below 3 km/h (2 mph), and the speed of the vehicle approaching the rear of your vehicle is above 6 km/h (4 mph).

⚠ WARNING

Safe Exit Warning may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

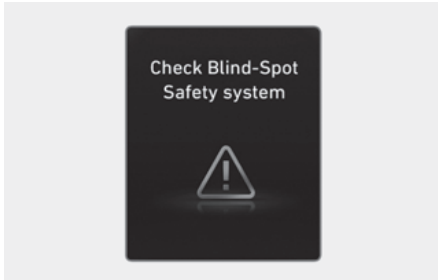
- Always check the surroundings before you or your passengers exit your vehicle.
- Only change the settings after parking your vehicle at a safe location.
- When other system's warning message appears or audible warning is heard, Safe Exit Warning may not warn you.
- You may not hear the audible warning of Safe Exit Warning if the surrounding environment is too noisy.
- Safe Exit Warning may stop operating, or may not operate, or operate unnecessarily depending on the road conditions and surroundings.

***i* Information**

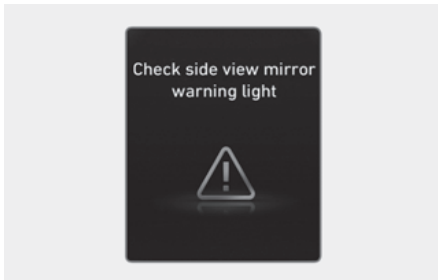
- After the engine is turned off, Safe Exit Warning may detect approaching vehicles for up to 10 minutes, but does not function after the doors are locked.
- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

Safe Exit Warning malfunction and limitations

Safe Exit Warning malfunction

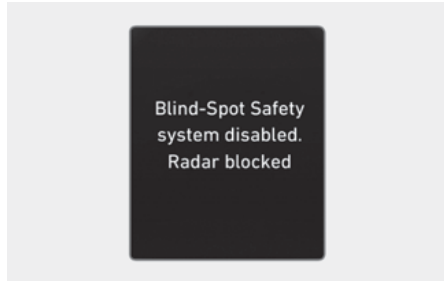


When Safe Exit Warning is not working properly, the "**Check Blind-Spot Safety system**" warning message will appear on the instrument cluster for several second, and the master (⚠) warning light will appear on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.



When the side view mirror warning light is not working properly, the "**Check side view mirror warning light**" warning message will appear on the instrument cluster for several seconds, and the master (⚠) warning light will illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Safe Exit Warning disabled



If the rear corner radar is blocked or covered, or when the rear bumper around the rear corner radar or sensor is covered by any foreign material, such as snow, rain, or dirt, or when a trailer or hitch mounted carrier is installed, the detecting performance may decrease and temporarily limit or disable Safe Exit Warning.

The "**Blind-Spot Safety system disabled. Radar blocked**" warning message may appear on the instrument cluster.

The function operates normally when such foreign material, trailer, or carrier is removed, and the engine is restarted.

If the function does not operate normally after anything covering or blocking the sensors is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Safe Exit Warning may not operate properly even if there is no warning message or warning light on the instrument cluster.
- Safe Exit Warning may not operate properly in open areas where no objects are detected (e.g. empty parking lot) or when the detecting sensors are blocked right after turning on the engine.
- Turn off Safe Exit Warning when towing a trailer or using a hitch mounted carrier.

Limitations of Safe Exit Warning

Safe Exit Warning may not operate normally, or may operate unexpectedly if:

- Trees or grass near your vehicle are overgrown.
- The road is wet.
- The approaching vehicle is very fast or slow.

i Information

For more information on the limitations on the rear corner radar, refer to the "Blind-Spot Collision-Avoidance Assist (BCA)" section in this chapter.

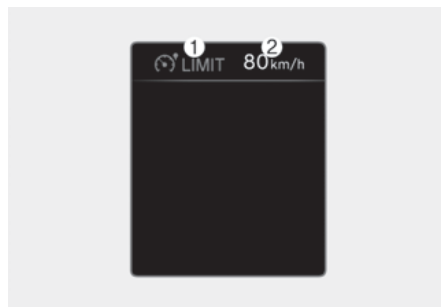
⚠ WARNING

- Safe Exit Warning may not operate if there is interference from strong electromagnetic waves.
- Safe Exit Warning may not operate for 3 seconds right after your vehicle is started or when the rear corner radars are initialized.
- Safe Exit Warning may not operate properly even after the engine has been restarted when the detecting sensors are blocked or there is a problem with the function.

⚠ WARNING

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Manual Speed Limit Assist (MSLA)



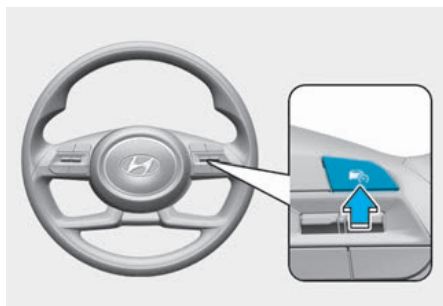
- (1) Manual Speed Limit Assist enabled indicator
- (2) Set speed

Manual Speed Limit Assist allows you to set a self-imposed maximum speed limit. If you drive over the set speed, Manual Speed Limit Assist blinks and chimes until your vehicle speed decreases below the set speed.

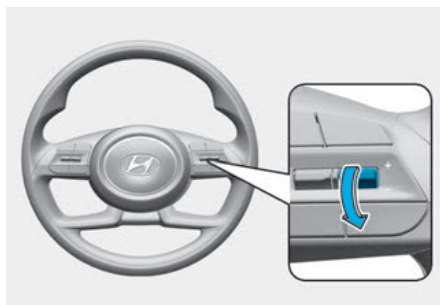
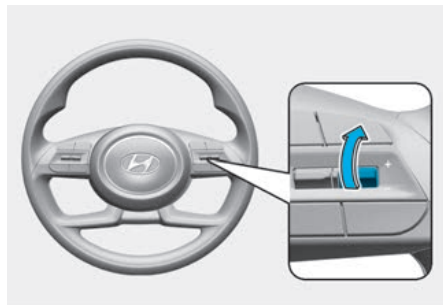
Manual Speed Limit Assist operation

Setting speed limit

1. Press and hold the Driving Assist (DA) button at the desired speed. The Manual Speed Limit Assist (M) LIMIT indicator light illuminates on the instrument cluster.



2. Push the + switch up or - switch down to change the set speed.



Push and hold to increase or decrease to the nearest multiple of ten (multiple of five in mph), and then increase or decrease by 10 km/h (5 mph).



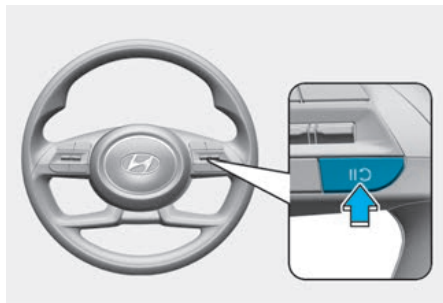
3. Check the set speed limit on the instrument cluster.

The set speed limit blinks and chime sounds until your vehicle speed decreases below the set speed limit.

i Information

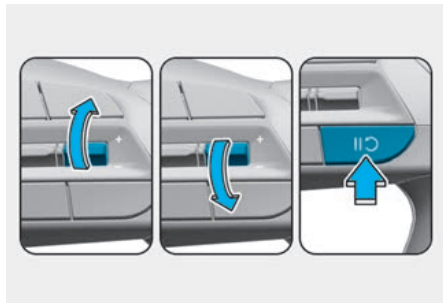
- When the accelerator pedal is not depressed beyond the pressure point, vehicle speed will maintain within the speed limit.
- The maximum setting speed varies depending on the vehicle specifications. The set speed cannot be increased beyond the maximum set speed.

Temporarily pausing Manual Speed Limit Assist



Press the **M** button to temporarily cancel the set speed limit. The set speed turns off, but the Manual Speed Limit Assist (M) indicator light stays on.

Resuming Manual Speed Limit Assist

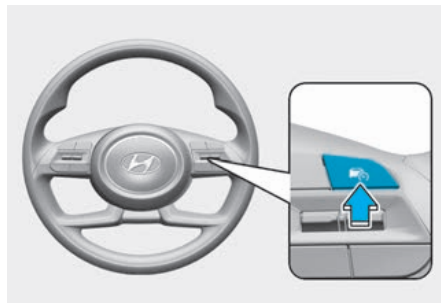


Push the +/- switch or **M** button.

If you push the + switch up or - switch down, the set speed is set to the current speed.

If you press the **M** button, the set speed resumes to the previously set speed limit.

Turning off Manual Speed Limit Assist



Press the Driving Assist (DA) button to turn off Manual Speed Limit Assist. The Manual Speed Limit Assist (M) indicator light turns off.

Always press the Driving Assist (DA) button to turn off Manual Speed Limit Assist when not in use.

⚠ WARNING

To prevent serious injury or death:

- Set your vehicle speed to the speed limit for the road and use the appropriate unit (km/h or mph) for your country.
- Keep Manual Speed Limit Assist off when not in use, to avoid inadvertently setting a speed. Check that the Manual Speed Limit Assist (M) indicator light is off.
- Always drive defensively and pay attention to the driving task.

Intelligent Speed Limit Assist (ISLA)

Intelligent Speed Limit Assist uses information of road signs detected from the front view camera and uses the navigation system data to inform you of the speed limit and help maintain within the speed limit on the road.

WARNING

- Intelligent Speed Limit Assist may not display the correct speed limit or may not properly control the driving speed because it is a supplemental function to inform you of the speed limit on the road.
- Set your vehicle speed to the speed limit for the road and use the appropriate unit (km/h or mph) for your country.
- Intelligent Speed Limit Assist may not operate properly if used in other countries.
- Intelligent Speed Limit Assist may not operate properly if the navigation system is not updated regularly. (for navigation applied vehicles)

Information

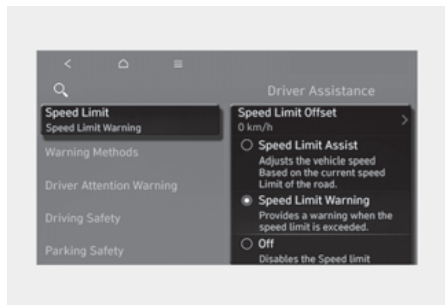
Intelligent Speed Limit Assist uses the following sensor:

- Front view camera

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Intelligent Speed Limit Assist settings

Speed Limit



With the ignition switch ON, select or deselect **User Settings > Driver Assistance > Speed Limit** from the User Settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Speed Limit** from the Settings menu in the infotainment system to set whether to use each function.

- **Select Country:** When the navigation system is not available, you can manually select the country to set the speed limit from the User Settings menu in the instrument cluster.

- **Speed Limit Assist:** Intelligent Speed Limit Assist will inform the driver of speed limit and additional road signs. In addition, Intelligent Speed Limit Assist will inform the driver to change set speed of Manual Speed Limit Assist and/or Smart Cruise Control to help the driver stay within the speed limit.
- **Speed Limit Warning:** Intelligent Speed Limit Assist will inform the driver of speed limit. In addition, Intelligent Speed Limit Assist will warn the driver when the vehicle is driven faster than the speed limit.
- **Off:** Intelligent Speed Limit Assist will turn off.

Intelligent Speed Limit Assist operation

Intelligent Speed Limit Assist may warn and control your vehicle by "Displaying speed limit", "Warning overspeed", and "Changing set speed".

i Information

Intelligent Speed Limit operation is described based on the offset adjusted to "0". For more information on setting the offset, refer to "Intelligent Speed Limit Assist settings" in this section.

Displaying speed limit



Speed limit information appears on the instrument cluster.

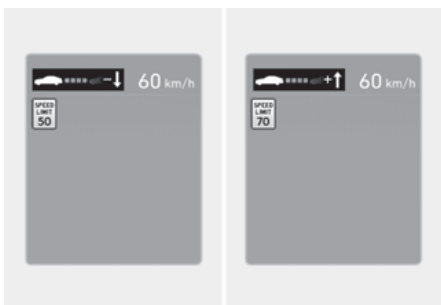
- If the speed limit information of the road cannot be recognized, "---" appears.
- Intelligent Speed Limit Assist provides additional road sign information in addition to speed limit information. Additional road sign information provided may differ depending on your country.
- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

Warning overspeed



When driving at a speed higher than the displayed speed limit, the speed limit appears in red.

Changing set speed



If the speed limit changes when using Manual Speed Limit Assist or Smart Cruise Control, an arrow in the direction of up or down appears to inform you to change the set speed by pushing the + or - switch.

Set Speed Auto Change (Navigation equipped)



Manual Speed Limit Assist or Smart Cruise Control assists the vehicle to adjust its speed according to the speed limit. When the cruising speed is set as same as the speed limit, the vehicle automatically adjusts its speed if the speed limit changes. The function operates on the road which has a speed limit of 70 km/h (44 mph) or higher. When the function is active, the cruising speed on the instrument cluster appears in green.

⚠ WARNING

- If you want to drive below the speed limit, set the Speed Limit Offset under "0" or use the - switch on the steering wheel to lower the set speed. If the Speed Limit Offset is set over "0", the set speed changes to a speed higher than the limit for the road.
- If necessary, reduce your driving speed as needed. Even after changing the set speed according to the speed limit for the road, your vehicle can still be driven over the speed limit.
- If the speed limit for the road is under 30 km/h (20 mph), the set speed changing function does not work.

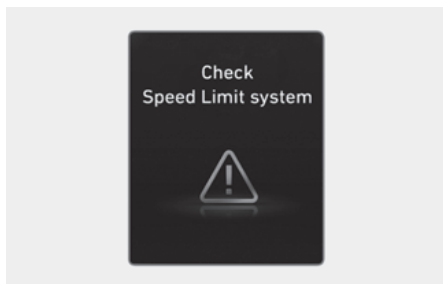
- Intelligent Speed Limit Assist operates using the speed unit set by you from the settings menu. If the speed unit is set to a unit other than the speed unit used in your country, Intelligent Speed Limit Assist may not operate properly.

i Information

- For more information on Manual Speed Limit Assist operation, refer to the "Manual Speed Limit Assist (MSLA)" section in this chapter.
- For more information on Smart Cruise Control operation, refer to the "Smart Cruise Control (SCC)" section in this chapter.

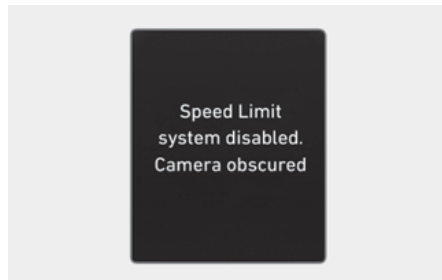
Intelligent Speed Limit Assist malfunction and limitations

Intelligent Speed Limit Assist malfunction



When Intelligent Speed Limit Assist is not working properly, the "**Check Speed Limit Assist System**" warning message may appear, and the (⚠) warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Intelligent Speed Limit Assist disabled



If the front view camera is covered or blocked, its detecting performance is reduced, and Intelligent Speed Limit Assist is temporarily limited or disabled.

The "**Speed Limit Assist system disabled. Camera obscured**" warning message may appear on the instrument cluster.

If Intelligent Speed Limit Assist does not operate normally after the sensor has been uncovered or unblocked, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

Intelligent Speed Limit Assist may not operate properly even if there is no warning message or warning light on the instrument cluster.

Limitations of Intelligent Speed Limit Assist

Intelligent Speed Limit Assist may not operate or may be limited if:

- The road sign is damaged, difficult to see due to rain, snow, fog, dirt, sand, oil, etc., or obscured by surrounding objects or shadows.
- The road signs do not conform to the standard designs in your country.
 - The text or picture on the road sign is different from the standard designs in your country.
 - The road sign is installed between the main road and exit road or between diverging roads.
 - A sign is attached to another vehicle.
- The distance between the driving lane and road sign is far.
- There are LED road signs.
- The numbers or pictures in the road sign is incorrectly recognized as the speed limit.
- Road signs on adjacent roads are incorrectly recognized as road signs you are driving on.
- Multiple signs are installed close together.
- Supplementary road signs or signboards are installed near the road sign.
- A minimum speed limit sign is incorrectly recognized as the maximum speed limit sign.
- The brightness changes suddenly, for example when entering or exiting a tunnel or passing under a bridge.
- Headlights are not used, or the brightness of the headlights are weak at night or in the tunnel.
- Road signs are difficult to recognize due to the reflection of sunlight, streetlights, or oncoming vehicles.
- The front view camera's field of view is obstructed by glare from the sun.
- You are driving on a road that is sharply curved or continuously curved.
- You are driving through speed bumps, or driving up and down, or left to right on steep inclines.
- Your vehicle is shaking heavily.
- There is an error in the navigation map data or GPS data.
- You are not driving your vehicle based on the route guidance.
- You are driving your vehicle on a newly opened road.
- The navigation system is updated while driving or restarts.

***i* Information**

For more information on the limitations of the front view camera, refer to the "Forward Collision Avoidance Assist (FCA) (Front view camera only)" section in this chapter.

Driver Attention Warning (DAW)

Inattentive Driving Warning function

Driver Attention Warning uses the front view camera to help monitor your driving pattern and uses the driving time to recommend a break.

Leading Vehicle Departure Alert function

Leading Vehicle Departure Alert function informs you when a detected vehicle in front departs from a stop.

***i* Information**

Driver Attention Warning uses the following sensor:

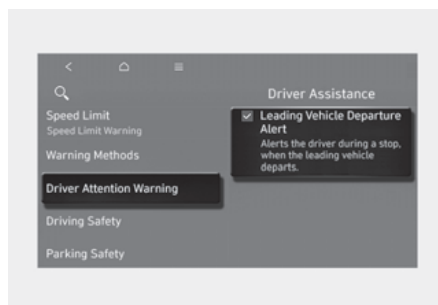
- Front view camera

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Driver Attention Warning settings

With the ignition switch ON, go to **User Settings > Driver Assistance > Driver Attention Warning** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driver Attention Warning** from the settings menu in the infotainment system to set the following:

Leading Vehicle Departure Alert



If Leading Vehicle Departure Alert is selected, the function informs you when a detected vehicle in front departs from a stop.

***i* Information**

When the engine is restarted, Driver Attention Warning maintains the last setting.

***i* Information**

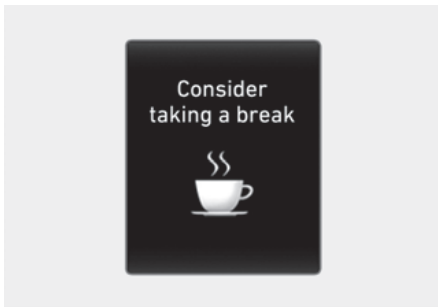
You can change the Warning Timing settings or select Driving Safety Priority for Driver Attention Warning from the Settings menu. For more information, refer to the "Driver assistance system settings" section in this chapter.

Driver Attention Warning operation

Inattentive Driving Warning function

The basic function of Driver Attention Warning is to warn the driver "**Consider taking a break**".

Taking a break



- The "**Consider taking a break**" message and Driver Attention Warning light (🚗) will appear on the cluster and an audible warning will sound to suggest that the driver take a break, when the driver's attention level is below 1.
- Driver Attention Warning will not suggest a break when the total driving time is shorter than 4 minutes or 4 minutes has not passed after the last break was suggested.

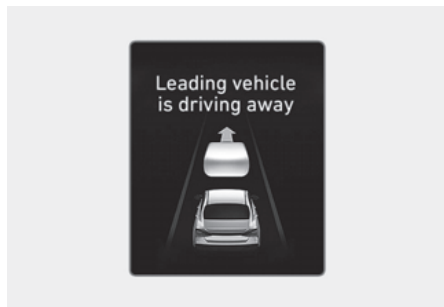
⚠️ WARNING

For your safety, only change the Settings after parking the vehicle at a safe location.

⚠️ CAUTION

- Driver Attention Warning may suggest a break depending on your driving pattern or habit, even if you do not feel fatigued.
- Driver Attention Warning is a supplemental function only and does not determine if you are paying attention to the driving task.
- If you feel fatigued or want to take a break, do so as needed at a safe location.

Leading Vehicle Departure Alert function



Departure Alert displays the "**Leading vehicle is driving away**" message on the instrument cluster and an audible warning sounds.

⚠️ WARNING

- When other system's warning message appears or audible warning is heard, Leading Vehicle Departure Alert may not alert you.
- Always check road conditions, and if necessary, take appropriate actions to drive safely. It is your responsibility to operate your vehicle in a safe manner.

CAUTION

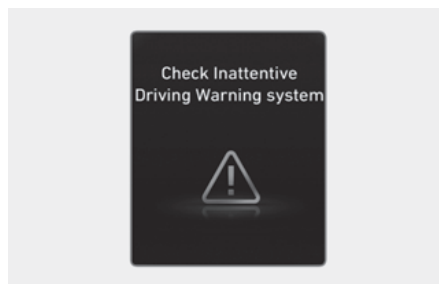
- Leading Vehicle Departure Alert is a supplemental function and may not alert you whenever the front vehicle departs from a stop.
- Always check if it is safe to proceed before driving even if the function alerts you that the front vehicle has departed.

Information

The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

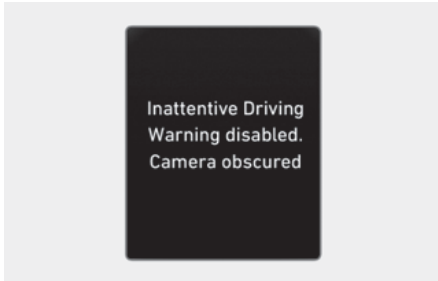
Driver Attention Warning malfunction and limitations

Driver Attention Warning malfunction



When Driver Attention Warning is not working properly, the "**Check inattentive Driving Warning system**" warning message may appear, and the () warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Driver Attention Warning disabled



When the front windshield where the front view camera is located is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Driver Attention Warning. If this occurs, the **"Inattentive Driving Warning disabled. Camera obscured"** warning message will appear on the instrument cluster. Driver Attention Warning will operate properly when snow, rain or foreign material is removed.

If Driver Attention Warning does not operate properly after it is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Driver Attention Warning may not properly operate in an area (e.g. open terrain) where any objects are not detected right after turning ON the engine.
- If the engine is turned off and restarted while the camera is blocked or malfunctioned, the condition is maintained. Therefore, Driver Attention Warning may not operate properly.

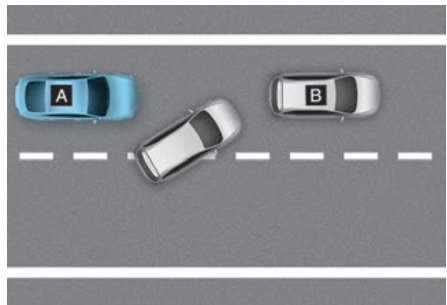
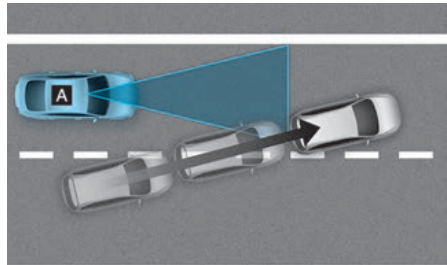
Limitations of Driver Attention Warning

Driver Attention Warning may not work properly in the following situations:

- The vehicle is driven violently
- The vehicle intentionally crosses over lanes frequently
- The vehicle is controlled by Driver Assistance system, such as Lane Keeping Assist

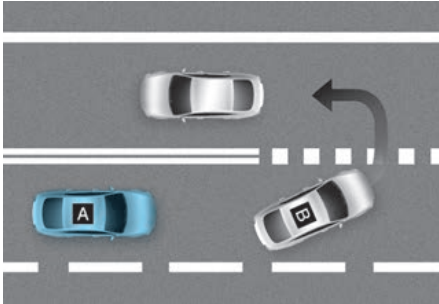
Leading Vehicle Departure Alert feature

- When the vehicle cuts in



[A] Your vehicle
[B] Front vehicle

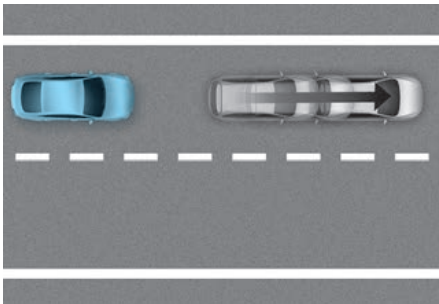
- When the vehicle ahead sharply steers



[A] Your vehicle
[B] Front vehicle

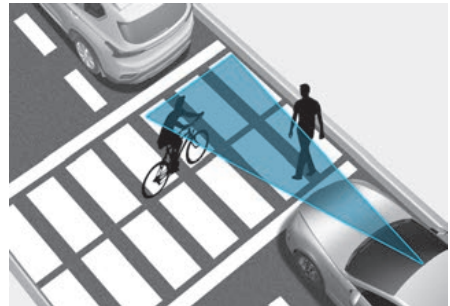
If the vehicle in front makes a sharp turn, such as to turn left or right or make a Uturn, etc., Leading Vehicle Departure Alert may not operate properly.

- When the vehicle ahead abruptly departs



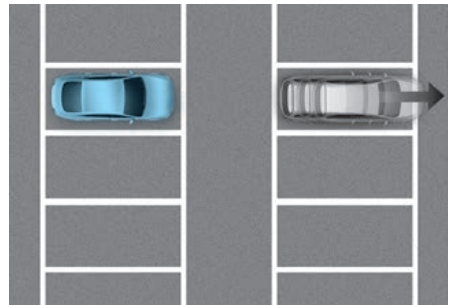
If the vehicle in front abruptly departs, Leading Vehicle Departure Alert may not operate properly.

- When a pedestrian or bicycle is between you and the vehicle ahead



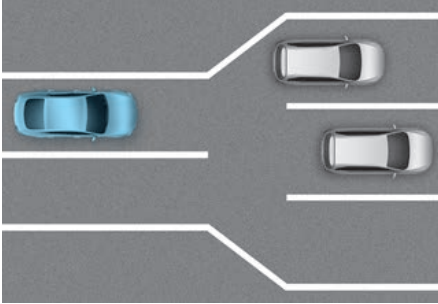
If there is a pedestrian(s) or bicycle(s) in between you and the vehicle in front, Leading Vehicle Departure Alert may not operate properly.

- When in a parking lot



If a vehicle parked in front drives away from you, Leading Vehicle Departure Alert may alert you that the parked vehicle is driving away.

- When driving at a tollgate or intersection, etc.



If you pass a tollgate or intersection with lots of vehicles or you drive where lanes are merged or divided frequently, Leading Vehicle Departure Alert may not operate properly.

i Information

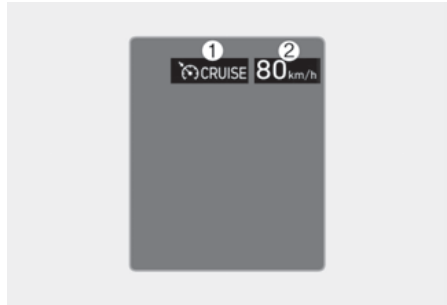
For more information on the precautions of the front view camera, refer to the "Forward Collision Avoidance Assist (FCA) (Sensor fusion)" section in this chapter.

! WARNING

Driver Attention Warning may not operate for 15 seconds right after your vehicle is started or when the front view camera is initialized.

Cruise Control (CC)

If equipped



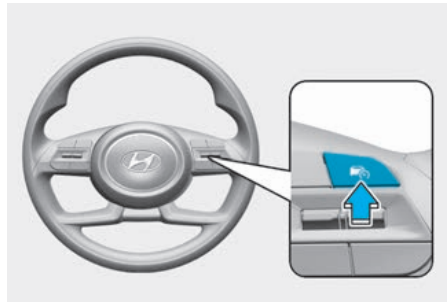
- (1) Cruise indicator light
- (2) Set speed

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

Cruise Control operation

Setting set speed

1. Accelerate to the desired speed, which must be more than 30 km/h (20 mph).

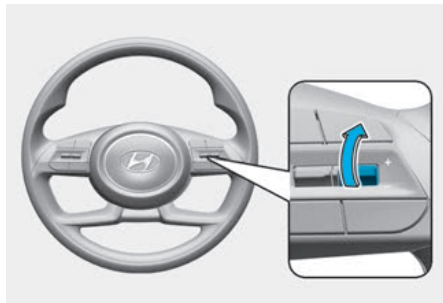


2. Press the Driving Assist () button at the desired speed. The set speed and Cruise () indicator light illuminates on the instrument cluster.
3. Release the accelerator pedal.
Vehicle speed maintains the set speed even when the accelerator pedal is not depressed.

i Information

The vehicle speed may slow down or speed up while driving uphill or downhill.

Increasing set speed



- Push the + switch up and release it immediately to increase the cruising speed by 1 km/h (1 mph).
- Push and hold the + switch up to increase to the nearest multiple of 10 km/h (or multiple of 5 mph) at first, and then increase by an additional 10 km/h (5 mph) each time.

i Information

The set speed may differ depending on the vehicle specifications. You may not increase the set speed above the maximum set speed.

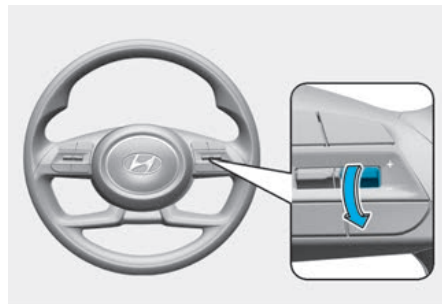
Accelerating temporarily

If you want to accelerate temporarily when Cruise Control is on, depress the accelerator pedal.

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

If you push the + switch up or - switch down at a higher speed, the cruising speed is set to the higher speed.

Decreasing set speed

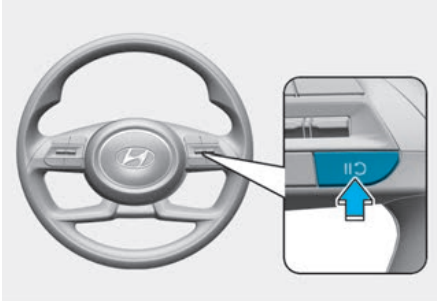


- Push the - switch down and release it immediately to decrease the cruising speed by 1 km/h (1 mph).
- Push and hold the - switch down to decrease to the nearest multiple of 10 km/h (or multiple of 5 mph) at first, and then decrease by 10 km/h (5 mph) each time.

! WARNING

If you need to slow down quickly to avoid a collision, depress the brake pedal as needed.

Temporarily pausing Cruise Control



Cruise Control cancels when:

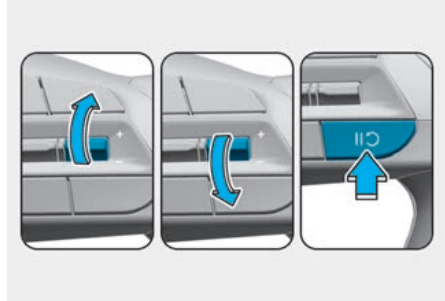
- Depressing the brake pedal
- Pressing the **||** button
- Shifting the gear to N (Neutral)
- Decreasing vehicle speed to less than 25 km/h (16 mph)
- Operating ESC (Electronic Stability Control)
- Accelerating the vehicle speed above 190 km/h (118 mph)

The set speed turns off but the Cruise (**CRUISE**) indicator light will stay on.

NOTICE

If Cruise Control cancels during a situation not listed above, have the vehicle inspected by an authorized HYUNDAI dealer.

Resuming Cruise Control

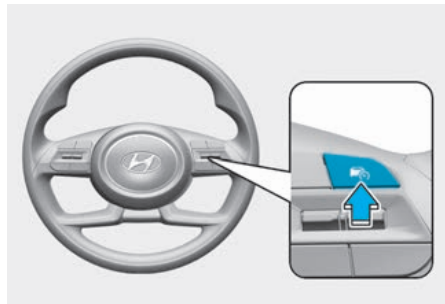


- Push the +/- switch or **||** button.
If you push the +/- switch up or down, your vehicle speed is set to the current speed on the instrument cluster.
- If you press the **||** button, your vehicle speed resumes the previously set speed.
- Your vehicle speed must be above 30 km/h (20 mph) for the function to resume.

⚠ WARNING

Your vehicle speed may rapidly increase or decrease when you press the **||** button.

Turning off Cruise Control



Press the Driving Assist (🚗) button to turn off Cruise Control. The Cruise (🚗CRUISE) indicator light goes off.

Always press the Driving Assist (🚗) button to turn off Cruise Control when not in use.

i Information

If your vehicle is equipped with Manual Speed Limit Assist, press and hold the Driving Assist (🚗) button to turn off Cruise Control and turn on Manual Speed Limit Assist.

⚠ WARNING

To prevent serious injury or death:

- Keep Cruise Control off when not in use, to avoid inadvertently setting a speed. Check that the Cruise Control (🚗CRUISE) indicator light is off.
- Always drive defensively and pay attention to the driving task.
- Set your vehicle speed to the speed limit for the road and use the appropriate unit (km/h or mph) for your country.
- Do not use Cruise Control when it may be unsafe to keep your vehicle at a constant speed including when driving:
 - in heavy traffic, or when traffic conditions make it difficult to drive at a constant speed
 - on rainy, icy, or snow-covered roads
 - on hilly or windy roads
 - with limited visibility such as fog, snow, rain, and sandstorm
- Do not shift the gear to N (Neutral) while the cruise control is activating without clutch pedal depressed.

Smart Cruise Control (SCC)

+ if equipped

Basic function

Smart Cruise Control uses the front view camera and front radar to help detect a vehicle ahead and maintain the desired speed and distance between your vehicle and the vehicle ahead.

Overtaking Acceleration Assist

While Smart Cruise Control is operating, if the function judges you are attempting to overtake a vehicle in front, Smart Cruise Control accelerates your vehicle to assist you with this maneuver.

⚠ WARNING

Always monitor your vehicle speed and the distance to vehicles ahead on the road. Smart Cruise Control is not a substitute for safe driving practices, but a supplemental function only.

i Information

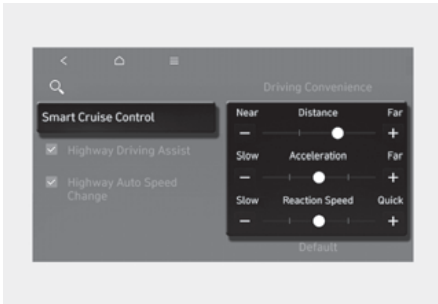
Smart Cruise Control uses the following sensors:

- Front view camera
- Front radar

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Smart Cruise Control settings

Smart Cruise Control



With the ignition switch ON, go to **User settings > Driver Assistance > Smart Cruise Control** from the settings menu on the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Convenience > Smart Cruise Control** in the infotainment system to change Distance, Acceleration, Reaction Speed manually.

i Information

You can set the following Warning Methods:

- Warning Volume/Haptic Warning/Driving Safety Priority

For more information, refer to the "Driver assistance system settings" section in this chapter.

Smart Cruise Control operation

Operating conditions

Basic function

Smart Cruise Control operates when the following conditions are met:

- The gear is in D (Drive).
- Your vehicle speed is within the operating speed range.
 - 10-180 km/h (5-112 mph): When there is no vehicle in front
 - 0-180 km/h (0-112 mph): When there is a vehicle in front
- ESC (Electronic Stability Control) or ABS is enabled.

Smart Cruise Control does not operate when:

- The driver's door is opened.
- Engine RPM is high.
- Parking brake is applied.
- ESC (Electronic Stability Control) or ABS (Anti-Lock Braking System) is controlling your vehicle.
- Forward Collision-Avoidance Assist braking control is operating (if equipped).

i Information

If stopped behind another vehicle, you have to depress the brake pedal to turn on Smart Cruise Control.

Operating conditions for Acceleration Assist

Overtaking Acceleration Assist operates when the turn signal indicator is turned on to the left while Smart Cruise Control is operating, and the following conditions are satisfied:

- Your vehicle speed is above 60 km/h (40 mph).
- A vehicle is detected in front of your vehicle.

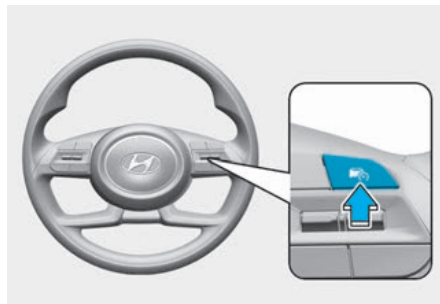
Overtaking Acceleration Assist does not operate when:

- The hazard warning flasher is on.
- Deceleration is needed to maintain the distance from the vehicle in front.

WARNING

- When the turn signal indicator is turned on to the left while there is a vehicle ahead, the vehicle may accelerate temporarily. Pay attention to the road conditions at all times.
- Regardless of the driving direction in your country, Overtaking Acceleration Assist will operate when the conditions are satisfied. When using the function in countries with different driving direction, always check the road conditions at all times.

Turning on Smart Cruise Control

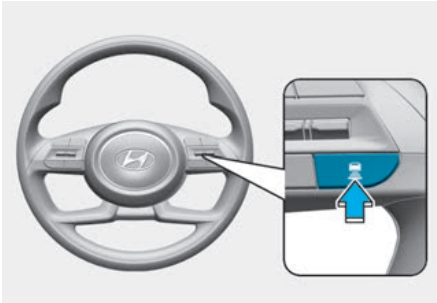


- Press the Driving Assist () button. The speed is set to the current speed on the instrument cluster.
- If there is no vehicle in front of you, the set speed is maintained.
- If there is a vehicle in front of you, your vehicle speed may be adjusted to maintain the distance from the vehicle ahead.
- If the vehicle ahead accelerates and the distance between vehicles increase, your vehicle accelerates to the set speed, and then travels at a constant speed after your vehicle reaches the set distance.

Information

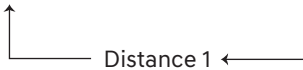
- If your vehicle speed is 0-30 km/h (0-20 mph) when you press the Driving Assist () button, the Smart Cruise Control speed is set to 30 km/h (20 mph).
- The Driving Assist () button symbol may differ depending on your vehicle option.
- If you shift from a higher gear to a lower gear using the manual shift mode or paddle shifter, the vehicle speed may not accelerate to the set speed.

Setting vehicle distance



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

Distance 4 → Distance 3 → Distance 2



If you drive at 90 km/h (56 mph), the distance is maintained as follows:

Distance 4 - about 52.5 m (172 ft.)

Distance 3 - about 40 m (130 ft.)

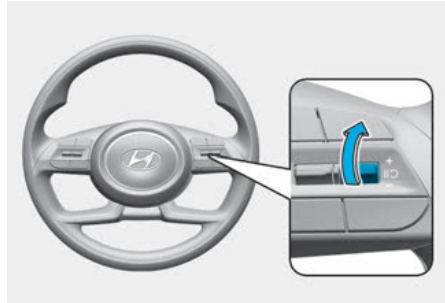
Distance 2 - about 32.5 m (106 ft.)

Distance 1 - about 25 m (82 ft.)

i Information

When the engine is restarted or Smart Cruise Control is temporarily canceled, the following distance maintains the last setting.

Increasing set speed

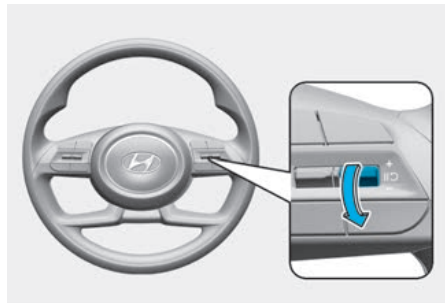


- Push the + switch up and release it immediately to increase the cruising speed by 1 km/h (1 mph).
- Push and hold the + switch up to increase to the nearest multiple of 10 km/h (or multiple of 5 mph) at first, and then increase by an additional 10 km/h (5 mph) each time.
- The vehicle speed can be set to a maximum of 180 km/h (112 mph).

⚠ WARNING

Your vehicle speed may rapidly increase when you push and hold the + switch.

Decreasing set speed



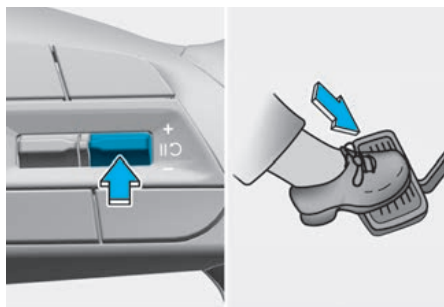
- Push the - switch down and release it immediately to decrease the cruising speed by 1 km/h (1 mph).

- Push and hold the - switch down to decrease to the nearest multiple of 10 km/h (or multiple of 5 mph) at first, and then decrease by 10 km/h (5 mph) each time.
- The vehicle speed can be set to a minimum of 30 km/h (20 mph).

WARNING

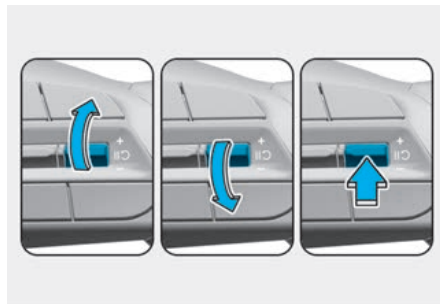
If you need to slow down quickly to avoid a collision, depress the brake pedal as needed.

Temporarily cancelling Smart Cruise Control



Press the  button or depress the brake pedal to temporarily cancel Smart Cruise Control.

Resuming Smart Cruise Control



Push the +/- switch or  button.

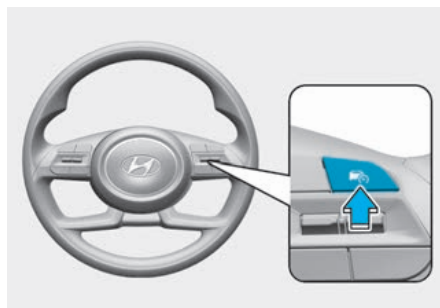
If you push the +/- switch up or down, your vehicle speed is set to the current speed on the instrument cluster.

If you press the  button, your vehicle speed resumes to the previously set speed.

WARNING

Your vehicle speed may rapidly increase or decrease when you press the  button.

Turning off Smart Cruise Control



Press the Driving Assist () button to turn off Smart Cruise Control.

i Information

If your vehicle is equipped with Manual Speed Limit Assist, press and hold the Driving Assist () button to turn off Cruise Control and turn on Manual Speed Limit Assist.

WARNING

Do not operate multiple buttons or switches simultaneously. Smart Cruise Control may not operate properly.

Display and Control

The status of the Smart Cruise Control operation appears in Driving Assist mode on the instrument cluster. Refer to the "View modes" section in chapter 4.

When operating



- (1) Whether there is a vehicle ahead and the selected distance level appears.
- (2) Set speed appears.
- (3) Whether there is a vehicle ahead and the target vehicle distance appears.

When temporarily canceled



- (1) Your vehicle (grey)
- (2) Previous set speed (grey)

i Information

- The distance from the front vehicle on the instrument cluster appears according to the actual distance between your vehicle and the vehicle ahead.
- The target distance may differ depending on the vehicle speed and the set distance level. If the vehicle speed is low, even though the vehicle distance have changed, the change of the target vehicle distance may be small.
- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

Accelerating temporarily



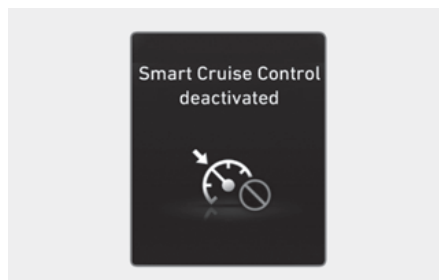
If you depress the accelerator pedal above a certain speed while Smart Cruise Control is operating, your vehicle can speed up temporarily without changing the set speed. The set speed, distance level, and target distance blink on the instrument cluster while depressing the accelerator pedal. Your vehicle speed may decrease if the accelerator pedal is not depressed far enough.

WARNING

Be careful when accelerating temporarily, because Smart Cruise Control is not controlling the speed and distance even if there is a vehicle in front of you.

Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed depending on the road conditions.

Temporarily cancelling Smart Cruise Control



Smart Cruise Control is temporarily canceled automatically when:

- Your vehicle speed is over 190 km/h (120 mph).
- Your vehicle is stopped for a certain period of time.
- Your accelerator pedal is continuously depressed for a certain period of time.
- The conditions for the Smart Cruise Control to operate are not met.

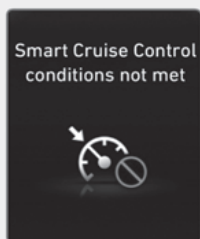
If Smart Cruise Control is temporarily canceled automatically, the "**Smart Cruise Control deactivated**" warning message may appear on the instrument cluster, and an audible warning sounds to warn you.

If Smart Cruise Control is temporarily canceled while your vehicle is at a standstill with the function activated, the Electronic Parking Brake (EPB) may be applied.

WARNING

Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed to the road conditions. When Smart Cruise Control is temporarily canceled, it is not controlling the speed and distance from the vehicle ahead.

Smart Cruise Control conditions not satisfied



If the Driving Assist (🚗) button, the +/- switch, or the II↻ button is pushed when Smart Cruise Control's operating conditions are not met, the **"Smart Cruise Control conditions not met"** message appears on the instrument cluster, and an audible warning sounds.

In traffic situation



In traffic, your vehicle stops if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving, your vehicle starts moving as well. In addition, after your vehicle has stopped and a certain amount of time has passed, the **"Use switch or pedal to accelerate"** message appears on the instrument cluster. Depress the accelerator pedal or push the +/- switch or II↻ button to start driving.

⚠ WARNING

While the message appears on the instrument cluster, if there is no vehicle in front or the vehicle is far away from you, and the +/- switch or II↻ button is pushed, Smart Cruise Control is automatically canceled and EPB is applied. If the accelerator pedal is depressed, EPB is not applied even though the function is canceled.

Warning road conditions ahead



The **"Watch for surrounding vehicles"** warning message may appear on the instrument cluster, and an audible warning sounds if the vehicle in front disappears when Smart Cruise Control is maintaining the distance from the vehicle ahead while driving below a certain speed.

⚠ WARNING

Always pay attention to vehicles or objects that may suddenly appear in front of you. Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed to the road conditions.

Collision Warning



While Smart Cruise Control is operating and the collision risk of the vehicle ahead is high, the **"Collision Warning"** warning message may appear on the instrument cluster, an audible alert sounds and the steering wheel may vibrate.

WARNING

Smart Cruise Control may not warn you of a collision if:

- The distance to the vehicle ahead is close, or the speed of the vehicle ahead is faster or similar to your vehicle.
- The speed of the vehicle ahead is very slow or the vehicle is stopped.
- The accelerator pedal is depressed right after Smart Cruise Control is turned on.

Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed to the road conditions.

WARNING

Smart Cruise Control is not a substitute for proper and safe driving.

To prevent serious injury or death:

- Always maintain a safe distance from the vehicles ahead and adjust your vehicle speed to the road conditions. Smart Cruise Control may not recognize unexpected and sudden situations or complex driving situations.
- Keep Smart Cruise Control off when not in use to avoid inadvertently setting the speed.
- Do not open the door or leave your vehicle when Smart Cruise Control is operating, even if your vehicle is stopped.
- Always check the vehicle speed and distance to the front vehicle that have been selected.
- Keep a safe distance depending on the road condition and vehicle speed. If the distance to the front vehicle is too close while driving at high speeds, it may cause a serious collision.
- When maintaining distance from the vehicle ahead, if the front vehicle is no longer detected, Smart Cruise Control may suddenly accelerate to the set speed.
- The vehicle speed may slow down or speed up while driving uphill or downhill.
- Always be aware of situations such as when a vehicle cuts in suddenly.
- When you are towing a trailer or another vehicle, turn off Smart Cruise Control.

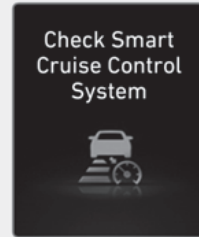
- Turn off Smart Cruise Control when your vehicle is being towed.
- Smart Cruise Control may not operate normally if there is interference from strong electromagnetic waves.
- Smart Cruise Control may not detect obstacles in front and cause a collision.
- Vehicles frequently changing lanes may cause a delay or may cause Smart Cruise Control to react to a vehicle in an adjacent lane.
- When other system's warning message appears or audible warning is heard, Smart Cruise Control may not warn you.
- You may not hear the audible warning of Smart Cruise Control if the surrounding environment is too noisy.
- The vehicle manufacturer is not responsible for any traffic violation or collisions caused by you.
- Set your vehicle speed to the speed limit for the road and use the appropriate unit (km/h or mph) for your country.
- Smart Cruise Control may not operate for 15 seconds right after your vehicle is started or when the front view camera and front radar are initialized.

i Information

You may hear sounds when Smart Cruise Control is braking your vehicle. This is normal and does not indicate a malfunction.

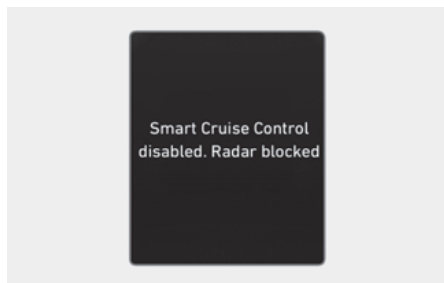
Smart Cruise Control malfunction and limitations

Smart Cruise Control malfunction



When Smart Cruise Control is not working properly, the "**Check Smart Cruise Control system**" warning message may appear, and the  warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Smart Cruise Control disabled



If the front radar is covered or blocked, its detecting performance is reduced, and Smart Cruise Control is temporarily limited or disabled.

The "**Smart Cruise Control disabled. Radar blocked**" warning message may appear on the instrument cluster.

If Smart Cruise Control does not operate normally after the sensor has been uncovered or unblocked, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Smart Cruise Control may not operate properly even if there is no warning message or warning light on the instrument cluster.
- Smart Cruise Control may not operate properly in open areas where no objects are detected (e.g. empty parking lot) or when the detecting sensors are blocked right after turning on the engine.

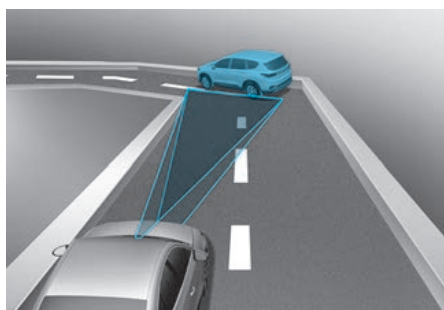
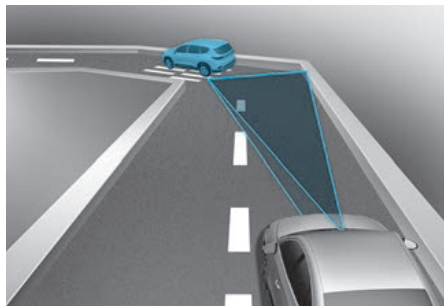
Limitations of Smart Cruise Control

Smart Cruise Control may not operate normally or may operate unexpectedly if:

- The sensor or the area near the sensor is blocked, covered, or damaged.
- The temperature near the front view camera is very hot or cold.
- The camera lens is covered or blocked by windshield tint, the windshield is damaged, or a sticky material (sticker, bug, etc.) is on the glass.
- Moisture is not removed or is frozen on the windshield.
- Washer fluid is sprayed continuously, or the wiper is on.
- You are driving in heavy rain, snow, or thick fog.
- The front view camera's field of view is obstructed by glare from the sun.
- Sunlight, streetlight, or light from an oncoming vehicle is reflected on the wet road surface such as a puddle on the road.
- An object is placed on the dashboard.
- The surrounding is very bright or very dark (nighttime, tunnel, etc.).
- The brightness changes suddenly, for example when entering or exiting a tunnel.
- The brightness outside is low, and the headlights of the front vehicle are turned off or are not bright.
- A front vehicle is partially visible.
- The vehicle in front has no tail lights or tail lights are located in an unusual location.
- In low light conditions, the tail lights of the front vehicle are turned off or not bright.
- The rear of the front vehicle is small or the vehicle does not look normal, such as when your vehicle is tilted, overturned, or the side of your vehicle is visible.

- The front vehicle's ground clearance is so low or high.
- Your vehicle is being towed.
- A vehicle suddenly cuts in front.
- The bumper around the front radar has been damaged or modified, and the radar is out of position.
- A material is near that reflects very well on the front radar, such as guardrail, nearby vehicle, etc.
- The temperature near the front radar is very hot or cold.
- The vehicle in front is made of a material that does not reflect on the front radar well.
- The vehicle in front is detected late.
- The vehicle in front is suddenly blocked by an obstacle.
- The vehicle in front suddenly changes lanes or reduces the speed.
- The angle of the vehicle in front is out of the detection range.
- Your vehicle changes lanes at a low speed with a vehicle in front.
- The vehicle in front is covered with snow.
- You are on a curved road or roundabout and the vehicle in front is not detected.
- You are continuously driving in a circle.
- Your vehicle moves unstably or vibrates excessively.
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- You are driving through steam, smoke, or shadow.
- You are driving through a tunnel or an iron bridge.
- You are driving in large, open areas where there are few vehicles or structures (e.g. desert, meadow, empty suburb).
- You are driving in a parking lot.
- You are driving through a tollbooth, construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
- You are driving through roads with railroad tracks or other embedded metal objects.
- You are driving on an inclined road or a curved road.
- You are driving on a sharply curved road.
- You are driving through a roadside with trees or streetlights.
- You are driving on a narrow road where trees or grass are overgrown.
- You are driving on a slippery surface due to snow, water puddle, ice, etc.
- You are driving in an area with strong radio waves or electrical noise interference.

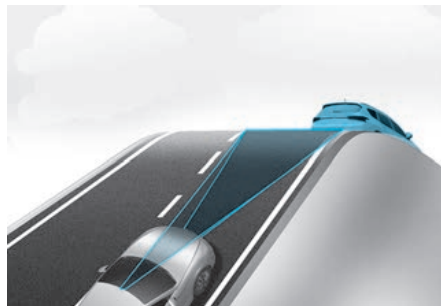
- Driving on a curved road



On a curved road, Smart Cruise Control may not detect a vehicle in the same lane, and may accelerate to the set speed. Your vehicle speed may be reduced if a vehicle is detected in an adjacent lane and your vehicle speed may rapidly decrease when a vehicle ahead is detected suddenly.

Select an appropriate set speed for a curved road and apply the brake pedal or accelerator pedal depending on the road and driving conditions.

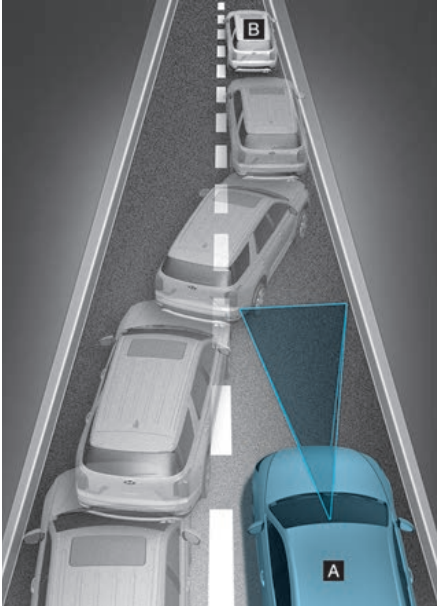
- Driving on an inclined road



During uphill or downhill driving, Smart Cruise Control may not detect a moving vehicle in your lane, and cause your vehicle to accelerate to the set speed. Also, your vehicle speed rapidly decreases when a vehicle ahead is detected suddenly.

Select an appropriate set speed on inclines and apply the brake pedal or accelerator pedal depending on the road and driving conditions.

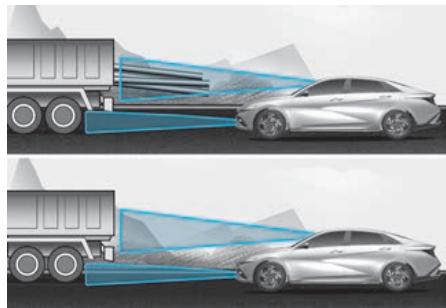
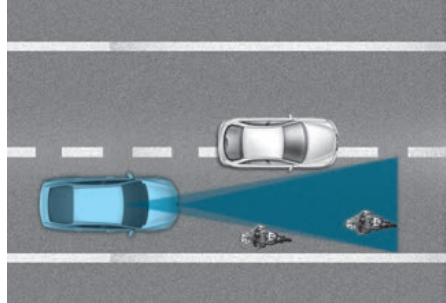
- Changing lanes



[A] Your vehicle
[B] Lane changing vehicle

When a vehicle moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Smart Cruise Control may not immediately detect the vehicle when your vehicle changes lanes abruptly. Brake as needed to reduce your driving speed.

- Situations when detecting are limited

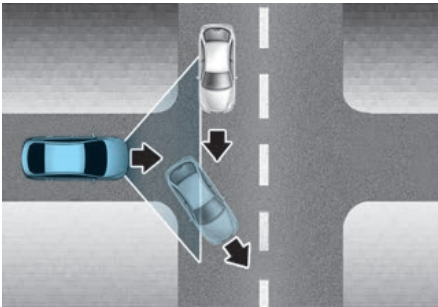


Some vehicles in your lane or in be detected by the sensor:

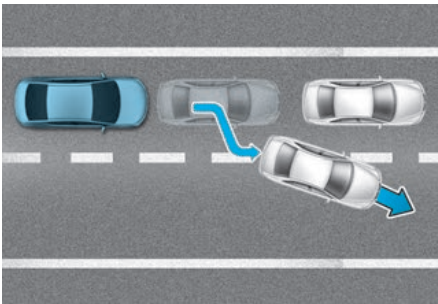
- Vehicles offset to one side
- Slow-moving vehicles or sudden-decelerating vehicles
- Vehicles with higher ground clearance or vehicles carrying loads that extend past the end of the vehicle
- Vehicles that have the front tilted due to heavy loads
- Oncoming vehicles
- Stopped vehicles
- Vehicles with small rear profile, such as trailers
- Narrow vehicles, such as motorcycles or bicycles

- Vehicles with low (e.g., sports car) or high (e.g. large truck, bus) ground clearance
- Animals and pedestrians
- Making sharp steering inputs when driving
- Driving on narrow or sharply curved roads

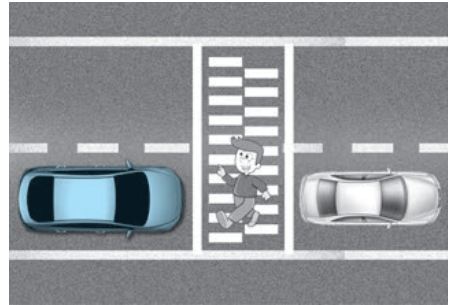
Brake as needed to reduce your driving speed.



- When a vehicle ahead turns at an intersection and is no longer detected, your vehicle may accelerate.



- When a vehicle in front of you merges out of the lane, Smart Cruise Control may not immediately detect a new vehicle that is now in front of your vehicle.



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

Navigation-based Smart Cruise Control (NSCC)

 If equipped

Navigation-based Smart Cruise Control helps maintain the speed depending on the road conditions when driving on highways by using information from the navigation system while Smart Cruise Control is operating.

Information

- Navigation-based Smart Cruise Control is available only on controlled access roads.
 - Controlled access roads are roads with limited entrances and exits that allow uninterrupted high speed traffic flow.

Available highway (Controlled access road)	
USA	Select Interstate Highway and U.S. (Federal) and State Highways
Canada	Select Provincial and Territorial Highways

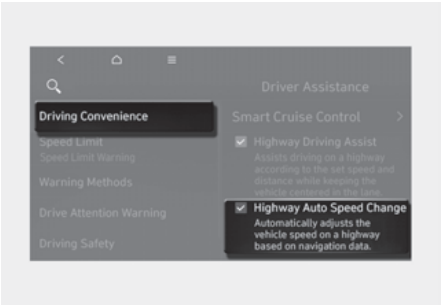
- Additional highways may be available in future navigation system updates.
- Navigation-based Smart Cruise Control does not operate on interchanges or junctions.

Highway Curve Zone Auto Slowdown

If the vehicle speed is high, Highway Curve Zone Auto Slowdown temporarily slows your vehicle in curved sections, based on the curve information in the navigation system.

Navigation-based Smart Cruise Control settings

Highway Auto Speed Change



With the ignition switch ON, go to **Settings > Vehicle > Driver Assistance > Driving Convenience > Highway Auto Speed Change** from the Settings menu to turn on Navigation-based Smart Cruise Control and deselect to turn off the function.

Information

When there is a problem with Navigation-based Smart Cruise Control, the function cannot be set from the settings menu.

Navigation-based Smart Cruise Control operation

Navigation-based Smart Cruise Control may be available when:

- Highway Auto Speed Change is selected from the settings menu.
- Smart Cruise Control is operating.
- Driving on main roads of highways (or motorways).

i Information

For more information on how to operate Smart Cruise Control, refer to the "Smart Cruise Control (SCC)" section in this chapter.

Navigation-based Smart Cruise Control display and control

The following may appear on the instrument cluster:



- **Navigation-based Smart Cruise Control standby**

If the operating conditions are satisfied, the green **NAV** indicator light illuminates.

- **Navigation-based Smart Cruise Control operating**

While the speed is being controlled, the green **NAV** indicator light blinks.

Temporarily canceled or interrupted by the driver

If Navigation-based Smart Cruise Control cannot control the vehicle, such as when Smart Cruise Control is temporarily canceled or the navigation system is searching for a route, the gray **NAV** indicator light illuminates.

When the driver depresses the accelerator pedal, the white **NAV** indicator light blinks.

WARNING



The "**Drive carefully**" warning message appears if Navigation-based Smart Cruise Control is not able to slow down your vehicle.

i Information

The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

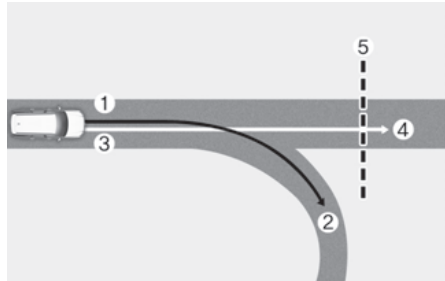
Highway Auto Curve Slowdown

- Depending on the curve ahead on the highway (or motorway), your vehicle decelerates, and after passing the curve, your vehicle accelerates to Smart Cruise Control's set speed.
- Vehicle deceleration time may differ depending on your vehicle speed and the degree of the curve on the road. The higher the driving speed, deceleration starts earlier.

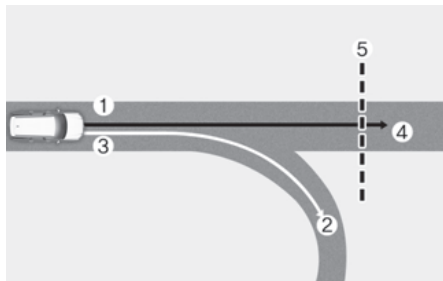
Limitations of Navigation-based Smart Cruise Control

Navigation-based Smart Cruise Control may not operate normally if:

- The navigation system is not working properly.
- Map information is not transmitted due to an issue with the infotainment system.
- Speed limit and road information in the navigation system has not been updated.
- The map information differs from the actual road conditions because of real-time GPS data or map information error.
- The navigation system is searching for a route while driving.
- GPS signals are blocked in an area such as tunnel.
- A road is divided into two or more roads and they join again.
- You go off the route set in the navigation system.
- The route to the destination is changed or canceled by resetting the navigation system.
- Your vehicle enters a service station or rest area.
- Android Auto or Car Play is operating.
- The navigation system cannot detect the current vehicle position (e.g. elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way).
- The navigation system is updated while driving or restarts.
- The speed limits of some sections have changed according to the road situations (e.g. construction zone).
- You are driving on a road that is under facility construction.
- You are driving in lane-restricted driving situations.
- There is inclement weather, such as heavy rain or heavy snow.
- You are driving on a road with sharp curves.
- Driving on roads with intersections, roundabouts, straight entrances and exits, etc.

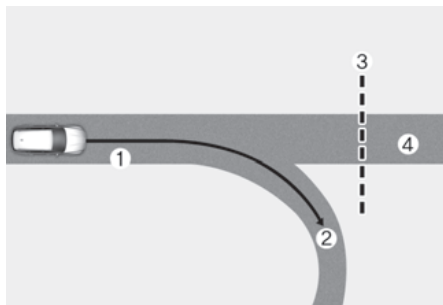


- When the vehicle's driving route is recognized as the main road by maintaining the main road instead of the navigation set route, Highway Curve Zone Auto Slowdown function will operate. Depending on the distance to the curve and the current vehicle speed, vehicle deceleration may not be sufficient or may decelerate rapidly.



- (1) Set route
- (2) Branch line
- (3) Driving route
- (4) Main road
- (5) Curved road section

- When there is a difference between the navigation route (main road) and the driving route (branch line), Highway Curve Zone Auto Slowdown function will operate based on the curve information on the main road.
- When it is judged that you are driving out of the route by entering the highway interchange or junction, Highway Curve Zone Auto Slowdown function will not operate..



- (1) Driving route
- (2) Branch line
- (3) Curved road section
- (4) Main road

- If there is no destination set on the navigation, Highway Auto Curve Slowdown operates based on the curve information for the controlled access road in the navigation system.
- Even if you depart from the main road, Highway Curve Zone Auto Slowdown function may temporarily operate due to navigation information of the highway curve section.

WARNING

Always have your eyes on the road. It is your responsibility to avoid violating traffic laws. Navigation-based Smart Cruise Control is not a substitute for safe driving practices, but a supplemental function only.

To prevent serious injury or death:

- Always check the speed limit while driving. The navigation's speed limit information may differ from the actual speed limit on the road.
- Navigation-based Smart Cruise Control is automatically canceled when you leave the highway and enter a general road, interchange, junction, or rest area.

- Navigation-based Smart Cruise Control may not operate depending on the configuration of vehicles detected ahead on the road.
 - When you are towing a trailer or another vehicle, turn off Navigation-based Smart Cruise Control.
 - After you pass through a tollbooth on a highway, Navigation-based Smart Cruise Control operates based on the outermost lane. If you enter one of the other lanes, Navigation-based Smart Cruise Control may not operate properly.
 - Your vehicle accelerates if you depress the accelerator pedal while Navigation-based Smart Cruise Control is operating. If the accelerator pedal is not depressed far enough, your vehicle may decelerate.
 - If you accelerate and release the accelerator pedal while Navigation-based Smart Cruise Control is operating, your vehicle may not decelerate sufficiently or may rapidly decelerate.
 - If the curve is too sharp or if it is a slight curve, Navigation-based Smart Cruise Control may not operate.
-

i Information

- There may be a gap in time between the navigation system's guidance and when the Navigation-based Smart Cruise Control operation starts and ends.
 - The speed information on the instrument cluster may differ from the navigation system.
 - Even if you are driving at a speed lower than the Smart Cruise Control's set speed, acceleration may be limited by the curves ahead on the road.
 - If Navigation-based Smart Cruise Control is operating while leaving the highway and entering an interchange, junction, or rest area, the function may continue to operate for a while.
 - Deceleration by Navigation-based Smart Cruise Control may not feel sufficient due to the road conditions such as uneven road surfaces or narrow lanes.
-

Lane Following Assist (LFA)

Lane Following Assist uses the front view camera to help detect lane markings and/or vehicles on the road, and to provide steering assist to center the vehicle in the lane.

i Information

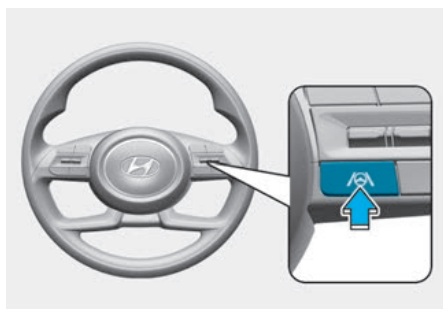
Lane Following Assist uses the following sensor:

- Front view camera

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Lane Following Assist operation

Turning Lane Following Assist On/Off



With the ignition switch ON, press the Lane Driving Assist button on the steering wheel to turn on Lane Following Assist. The white or green  indicator light illuminates on the instrument cluster. Press the button again to turn off the function.

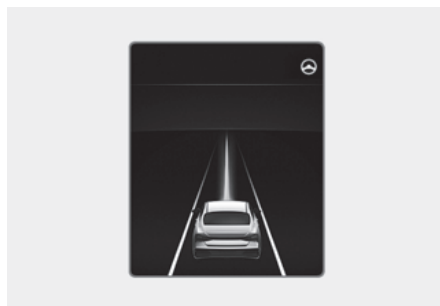
i Information

You can set the following Warning Methods:

- Warning Volume/Driving Safety Priority

For more information, refer to the "Driver assistance system settings" section in this chapter.

Lane Following Assist



If both the lane markings and/or the vehicle ahead are detected and your vehicle speed is below 200 km/h (120 mph), Lane Following Assist helps center your vehicle in the lane by assisting with steering. The green  indicator light illuminates on the instrument cluster.

CAUTION

When the steering wheel is not assisted, the white  indicator light blinks and changes to grey.

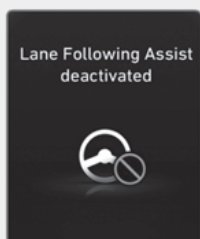
Hands-off warning



If you take your hands off the steering wheel for several seconds, the **"Place hands on the steering wheel"** warning message may appear on the instrument cluster, and an audible warning sounds in successive stages.

First stage: Warning message

Second stage: Warning message (red steering wheel) and audible warning



If you do not have your hands on the steering wheel after the hands-off warning, the **"Lane Following Assist deactivated"** warning message may appear and Lane Following Assist is automatically canceled.

WARNING

Always safely steer your vehicle and maintain the position of your vehicle in its lane.

To prevent serious injury or death:

- Always have your hands on the steering wheel while driving.
- Lane Following Assist may not steer if the steering wheel is held too tightly, or the steering wheel is turned too far left or right.
- If the steering wheel is held very loosely, the hands-off warning message may appear because the Lane Following Assist may not recognize that you have your hands on the steering wheel.
- The hands-off warning message may appear late or not at all depending on the road condition.
- If you attach objects to the steering wheel, the hands-off warning may not work properly.

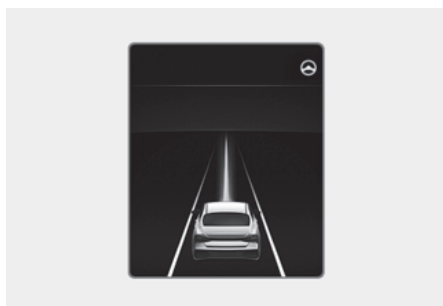
Information

- The status of the Lane Following Assist operation appears in Driving Assist mode on the instrument cluster. Refer to the "View modes" section in chapter 4.
- When lane markings are detected, the lane lines on the instrument cluster change from gray to white.

Lane undetected



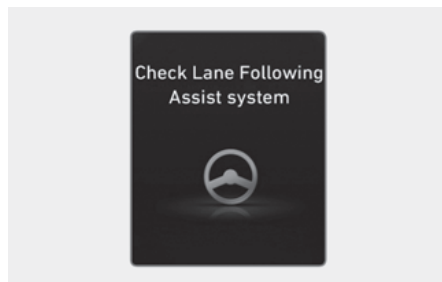
Lane detected



- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.
- If lane markings are not detected, steering wheel control by Lane Following Assist can be limited depending on the vehicle in front or driving condition.
- You can steer your vehicle even when steering is assisted by Lane Following Assist.
- It may require more or less force to turn the steering wheel when Lane Following Assist is providing steering assistance.

Lane Following Assist malfunction and limitations

Lane Following Assist malfunction



When Lane Following Assist is not working properly, the "**Check Lane Following Assist system**" message may appear, and the  warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Lane Following Assist

For more information on Lane Following Assist's limitations, refer to the "Lane Keeping Assist (LKA)" section in this chapter.

Information

For more information on "**Warnings**" when using Lane Following Assist, refer to the "Lane Keeping Assist (LKA)" section in this chapter.

WARNING

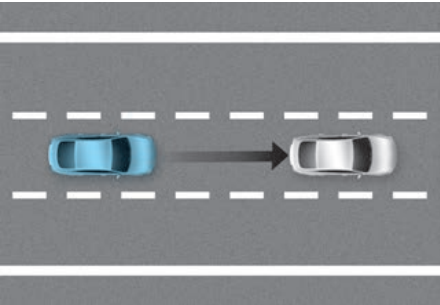
Loading in excess of the maximum load allowance or concentrated loading at one point in the cargo compartment can reduce the vehicle's driving stability, which can in turn reduce the effectiveness of Lane Following Assist.

Highway Driving Assist (HDA)

 If equipped

Highway Driving Assist uses the front view camera and front radar to:

- Help detect vehicles and lanes ahead.
- Help maintain the distance from the vehicle ahead and the set speed.
- Help center your vehicle in the lane while driving on the highway.



i Information

- Highway Driving Assist is available only on controlled access roads.
- Controlled access roads are roads with limited entrances and exits that allow uninterrupted high speed traffic flow.

Available highway (Controlled access road)

USA	Select Interstate Highway and U.S. (Federal) and State Highways
Canada	Select Provincial and Territorial Highways

- Additional highways may be available in future navigation system updates.
- Highway Driving Assist does not operate on interchanges or junctions.

i Information

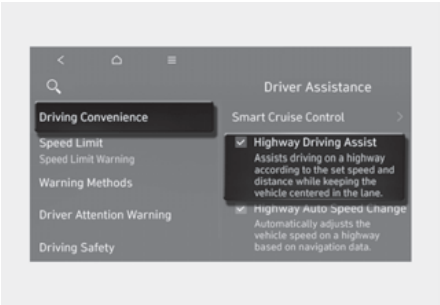
Highway Driving Assist uses the following sensors:

- Front view camera
- Front radar

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Highway Driving Assist settings

Highway Driving Assist



With the ignition switch ON, go to **User Settings > Driver Assistance > Driving Convenience** from the settings menu in the instrument cluster or **Settings > Vehicle > Driver Assistance > Driving Convenience** from the settings menu in the infotainment system to set whether to use each function.

- If **Highway Driving Assist** is selected, the function helps maintain distance from the vehicle ahead, maintain the set speed, and help center your vehicle in the lane while driving on the highway.

i Information

- When there is a problem with Highway Driving Assist, the function cannot be set from the Settings menu. Have the vehicle inspected by an authorized HYUNDAI dealer.
- When the engine is restarted, the function maintains the last setting.

WARNING

Only change the settings after parking your vehicle at a safe location.

i Information

You can set the following Warning Methods:

- Warning Volume/Driving Safety Priority
- For more information, refer to the "Driver assistance system settings" section in this chapter.

Highway Driving Assist operation

Highway Driving Assist display

The status of the Highway Driving Assist operation appears in Driving Assist mode on the instrument cluster. Refer to the "View modes" section in chapter 4.

Operating state



Standby state



1. Indicates if there is a vehicle ahead and the selected distance level appears.

Highway Driving Assist indicator (HDA)

- Green HDA: Operating state
- Grey HDA: Standby state
- White HDA: Accelerator depressed state

2. Set speed

3. Lane Following Assist indicator

4. Whether there is a vehicle ahead and the selected headway

5. Whether the lane is detected or not

i Information

- For more information on Smart Cruise Control and Lane Following Assist, refer to the "Smart Cruise Control (SCC)" and "Lane Following Assist (LFA)" sections in this chapter.
- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

Highway Driving Assist operating

Highway Driving Assist operates when:

- You have pressed the Driving Assist button after entering or driving on controlled access roads.
- Entering or driving on controlled access roads with both Lane Following Assist and Smart Cruise Control operating.

Restarting after stopping



When Highway Driving Assist is operating, your vehicle stops if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving within 30 seconds after the stop, your vehicle starts as well. If your vehicle has stopped and 30 seconds have passed, the "Use switch or pedal to accelerate" message appears on the instrument cluster. Depress the accelerator pedal or operate the +/- switch  button to accelerate.

Hands-off warning



If you take your hands off the steering wheel for several seconds, the "**Place hands on the steering wheel**" warning message may appear on the instrument cluster, and an audible warning sounds in successive stages.

First stage: Warning message

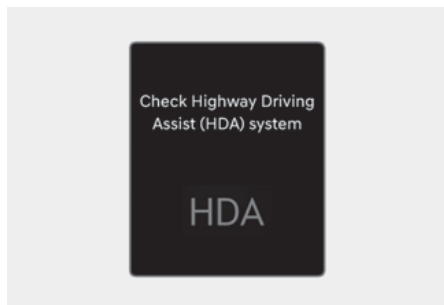
Second stage: Warning message (red steering wheel) and audible warning



If the driver still does not have their hands on the steering wheel after the hands-off warning, the "**Highway Driving Assist deactivated**" warning message may appear and Highway Driving Assist is automatically canceled.

Highway Driving Assist malfunction and limitations

Highway Driving Assist malfunction



When Highway Driving Assist is not working properly, the "**Check Highway Driving Assist (HDA) system**" warning message may appear, and the  warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

Always check road conditions, and if necessary, take appropriate actions to drive safely. Highway Driving Assist is a supplemental function only and it is not a self driving or autonomous driving system.

To prevent serious injury or death:

- Always have your hands on the steering wheel while driving.
- Always have your eyes on the road and pay attention. It is your responsibility to avoid violating traffic laws.
- Highway Driving Assist may not be able to recognize all traffic situations and may not detect possible collision hazards. Obstacles such as vehicles, motorcycles, bicycles, pedestrians, or unspecified objects or structures (e.g. guardrails and tollbooth) may not be detected.

- Highway Driving Assist turns off automatically under the following situations:
 - You are driving on roads that Highway Driving Assist does not operate, such as rest area, intersection, junction, etc.
 - The navigation does not operate properly such as when the navigation system is updating or restarting.
- Highway Driving Assist may inadvertently operate or turn off depending on the road conditions (based on the navigation system information) and surroundings.
- Lane Following Assist may be temporarily disabled when the front view camera cannot detect lanes properly or the hands-off warning is on.
- The hands-off warning message may appear early or late depending on how the steering wheel is held or road conditions.
- You may not hear the audible warning of Highway Driving Assist if the surrounding environment is too noisy.
- When your vehicle is driven at high speeds through a curve, your vehicle may depart from your driving lane if you do not maintain control.
- When you are towing a trailer or another vehicle, turn off Highway Driving Assist.
- Highway Driving Assist may not operate right after the engine is started or when the sensors or navigation system is initialized.

Limitations of Highway Driving Assist

Highway Driving Assist may not operate normally or may not operate if:

- The map information differs from the actual road conditions because the navigation system has not been updated, or there is a real-time GPS data or map information error.
- The infotainment system is overloaded by simultaneously performing functions such as route search, video playback, voice recognition, etc.
- GPS signals are blocked in an area such as tunnel.
- You depart from the navigation route or the route to the destination is changed or canceled.
- Your vehicle enters a service station or rest area.
- Android Auto or Car Play is operating.
- The navigation system cannot detect the current vehicle position (e.g. elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way).
- A trailer or hitch mounted carrier is connected to your vehicle.

i Information

For more information on the limitations of the front view camera and front radar, refer to the "Forward Collision Avoidance Assist (FCA) (Sensor fusion)" section in this chapter.

Rear View Monitor (RVM)

 If equipped

Rear View Monitor uses the wide-rear view camera to display the area behind your vehicle to assist you when parking.

i Information

If display audio is applied, the description of the Rear View Monitor may differ from the owner's manual. For more information, scan the QR code in the separately supplied simple manual.

i Information

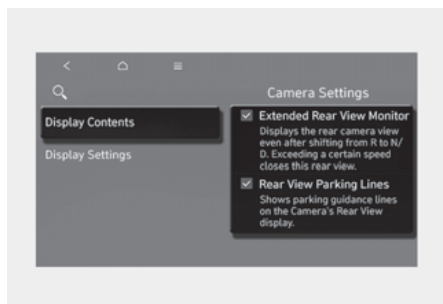
Rear View Monitor uses the following sensor:

- Wide-rear view camera

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Rear View Monitor settings

Camera settings



To change the settings of Rear View Monitor's Display Contents or Display Settings, press the setup icon (⚙️) on the screen while Rear View Monitor is operating, or go to **Settings > Vehicle > Driver Assistance > Parking Safety > Camera Settings** from the Settings menu in the infotainment system when the engine is on.

Extended Rear View Monitor

Keeps displaying the rear view when shifting from R (Reverse) to N (Neutral) or D (Drive). When exceeding a certain speed, the rear view stops displaying.

Rear View Parking Guide Lines

If **Rear View Parking Lines (Rear view reference lines)** is selected, the rear view parking guide lines and rear top view guide lines will be displayed at the left side of the infotainment system.

i Information

- The horizontal guideline of the Rear View Parking Guidance shows the distance of 0.5 m (20 in.), 1 m (40 in.) and 2.3 m (91 in.) from the vehicle.
- The horizontal guideline of the Rear Top View Parking Guidance shows the distance of 0.5 m (20 in.) and 1.5 m (60 in.) from the vehicle.

i Information

You can set the following Warning Methods:

- Parking Safety Priority

For more information, refer to the "Driver assistance system settings" section in this chapter.

Rear View Monitor operation

Parking/View button



Press the Parking/View button (1) while the gear is in P (Park) to turn on Rear View Monitor.

Rear view with parking guidance

The rear view with parking guidance appears on the screen when parking.

Turns on if:

- You shift the gear to R (Reverse).
- You press the Parking/View button (1) while the gear is in P (Park). However, parking guidance is not displayed.

Turns off if:

- You press the Parking/View button (1) again while the gear is in P (Park) with the rear view on the screen.
- You shift the gear from R (Reverse) to P (Park).

Maintaining rear view

The rear view will maintain showing on the screen to help you when parking. However, parking guidance is not displayed.

Turns on if:

You shift the gear from R (Reverse) to N (Neutral) or D (Drive).

Turns off if:

- When vehicle speed is above 10 km/h (6 mph), the rear view will turn off.
- You shift the gear to P (Park).

Rear top view



Press the  icon.

The top view appears on the screen and the distance from the vehicle appears in the back of your vehicle.

i Information

- The rear view cannot be turned off when the gear is in R (Reverse).
- When the Rear View Monitor is turned on, the last displayed view mode appears on the screen. If the gear is in R (Reverse), the rear view appears on the screen.

Rear View Monitor malfunction and limitations

Rear View Monitor malfunction

When Rear View Monitor is not working properly, or the screen flickers, or the camera image does not display normally, have the vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Rear View Monitor

When your vehicle is stopped for a long time in winter or when your vehicle is parked in an indoor parking lot, the exhaust fumes may temporarily blur the image.

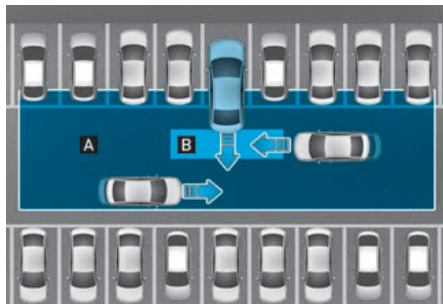
! WARNING

- Always turn your head to check blind spots. The rear view camera does not cover the entire area behind your vehicle.
- The distance to the object shown on the screen may differ from the actual distance. This is because the image shown on Rear View Monitor is displayed by calibrating the image from the wide-rear view camera. When the vehicle is tilted by cargo loading, rear parking guidelines may not be correct. Make sure to directly check the vehicle's surroundings for safety.
- Always keep the rear view camera lens clean. If the lens is blocked or covered, the Rear View Monitor may not operate normally. Do not clean with strong chemicals containing high alkaline or volatile organic solvents (e.g. gasoline, acetone).

Rear Cross-traffic Collision-Avoidance Assist (RCCA)

 if equipped

Rear Cross-Traffic Collision-Avoidance Assist uses the rear corner radars to help detect vehicles approaching from the left or right while your vehicle is reversing, and to warn you that a collision is imminent with a warning message and an audible warning. Braking may also be assisted to avoid a collision.



- [A] Rear Cross-Traffic Collision Warning operating range
[B] Rear Cross-Traffic Collision-Avoidance Assist operating range

The time of warning may vary depending on the speed of the approaching vehicle.

Information

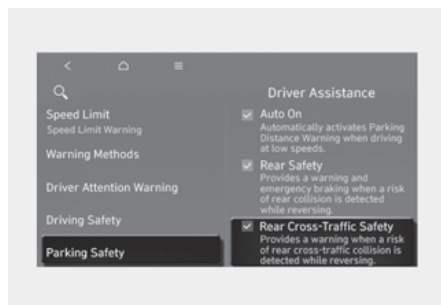
Rear Cross-Traffic Collision-Avoidance Assist uses the following sensor:

- Rear corner radars

Refer to the "Driver assistance system sensors" section in this chapter for the location.

Rear Cross-traffic Collision-Avoidance Assist settings

Rear Cross-Traffic Safety



With the ignition switch ON, go to **User settings > Driver Assistance > Parking Safety > Rear Cross-Traffic Safety** from the settings menu in the instrument cluster or **Settings > Vehicle > Parking Safety > Rear Cross-Traffic Safety** from the settings menu in the infotainment system to turn on Rear Cross-Traffic Collision-Avoidance Assist and deselect to turn Rear Cross-Traffic Collision-Avoidance Assist on and off.

WARNING

When the engine is restarted, the Rear Cross-Traffic Collision-Avoidance Assist turns on. If **Rear Cross-Traffic Safety** is deselected after the engine is restarted, Rear Cross-Traffic Collision-Avoidance Assist does not function until the next time your vehicle is started.

i Information

You can set the Warning Timing and following Warning Methods:

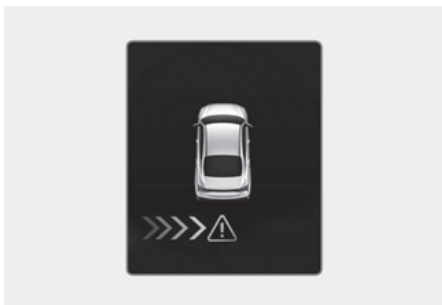
- Warning Volume/Haptic Warning

For more information, refer to the "Driver assistance system settings" section in this chapter.

Rear Cross-traffic Collision-Avoidance Assist operation

Rear Cross-Traffic Collision-Avoidance Assist may warn and control your vehicle depending on the collision risk level.

Collision Warning



To warn you of an approaching vehicle from the rear left or right of your vehicle, the warning light on the side view mirror may blink, a warning message may appear on the instrument cluster, an audible warning may sound and the steering wheel may vibrate.

When Rear View Monitor is operating, a warning may appear on the infotainment system screen.

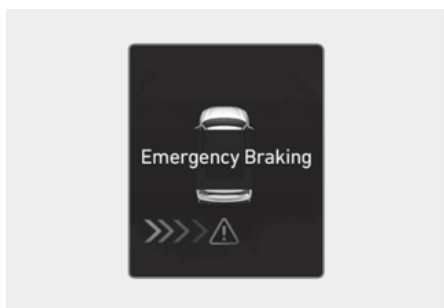
Collision warning may operate if:

- The gear is shifted to R (Reverse).
- Vehicle speed is below 8 km/h (5 mph).
- The approaching vehicle is within approximately 25 m (82 ft.) from the left and right side of your vehicle.
- The speed of the vehicle approaching from the left or right is above 5 km/h (3 mph).

i Information

- If the operating conditions are met, a warning is provided whenever your vehicle approaches from the left or right even though your vehicle speed is 0 km/h (0 mph).
- The images and colours in the instrument cluster may differ depending on the cluster type or theme selected from the settings menu.

Emergency Braking



To warn you of an approaching vehicle from the rear left or right of your vehicle, the warning light on the side view mirror may blink, a warning message may appear on the instrument cluster, an audible warning may sound and the steering wheel may vibrate.

When Rear View Monitor is operating, a warning may appear on the infotainment system screen.

If a collision is imminent, emergency braking is assisted to help prevent collision with approaching vehicles from the left and right side of your vehicle.

Emergency braking may operate if:

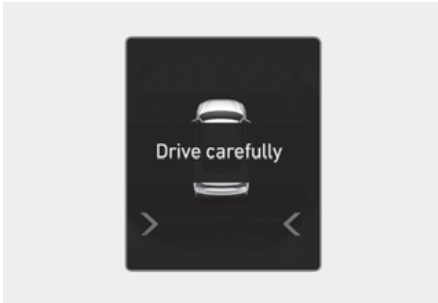
- The gear is shifted to R (Reverse).
- Vehicle speed is below 8 km/h (5 mph).
- The approaching vehicle is within approximately 1.5 m (5 ft.) from the left and right side of your vehicle.
- The speed of the vehicle approaching from the left and right is above 5 km/h (3 mph).

WARNING

Braking control ends when:

- The approaching vehicle is out of the detection range.
- The approaching vehicle passes behind your vehicle.
- The approaching vehicle does not continue to drive toward your vehicle.
- The approaching vehicle speed slows down.
- The driver depresses the brake pedal with sufficient power.

Stopping vehicle and ending brake control



- After your vehicle is stopped following an Emergency Braking event, the "Drive carefully" warning message may appear on the instrument cluster.
- Depress the brake pedal immediately and check the surroundings.
- Braking control ends about 2 seconds after your vehicle is stopped.
- During Emergency Braking, braking control by Rear Cross-Traffic Collision-Avoidance Assist may be automatically canceled when you depress the brake pedal with sufficient force.

WARNING

Rear Cross-Traffic Collision-Avoidance Assist may not operate in all situations and cannot avoid all collisions.

To prevent serious injury or death:

- Only change the settings after parking the vehicle at a safe location.
- Always look over your shoulder for possible hazards and make sure it is safe to back up.
- When other system's warning message appears or audible warning is heard, Rear Cross-Traffic Collision-Avoidance Assist may not warn you.
- You may not hear the audible warning of Rear Cross-Traffic Collision-Avoidance Assist if the surrounding environment is too noisy.
- During Rear Cross-Traffic Collision-Avoidance Assist operation, your vehicle may stop suddenly. Always wear your seat belt, check your occupants have their seat belts fastened and secure loose objects that may become projectiles.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate if you apply the brake pedal with sufficient force in response to the potential hazard detected by the system.
- Even if there is an issue with Rear Cross-Traffic Collision-Avoidance Assist, the vehicle's braking system operates normally.
- When Rear Cross-Traffic Collision-Avoidance Assist is operating, braking assist is automatically canceled when you depress the accelerator pedal with sufficient force.
- Rear Cross-Traffic Collision-Avoidance Assist may warn you late or may not warn you depending on the road and driving conditions.
- Control your vehicle at all times. It is your responsibility to operate your vehicle in a safe manner. Do not solely rely on the Rear Cross-Traffic Collision-Avoidance Assist to avoid a collision. Rather, maintain a safe braking distance, and if needed, reduce your vehicle speed or depress the brake pedal to reduce the driving speed or to stop your vehicle.
- Never attempt to activate Rear Cross-Traffic Collision-Avoidance Assist by intentionally driving toward people, animals, objects, or other vehicles.

WARNING

Braking is not assisted and only a warning is provided when:

- The ESC (Electronic Stability Control) warning light is on.
- ESC (Electronic Stability Control) is engaged in a different function.

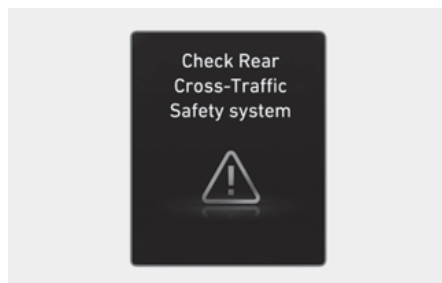
Information

If the braking is assisted by Rear Cross-Traffic Collision-Avoidance Assist, the driver must immediately depress the brake pedal and check vehicle surroundings.

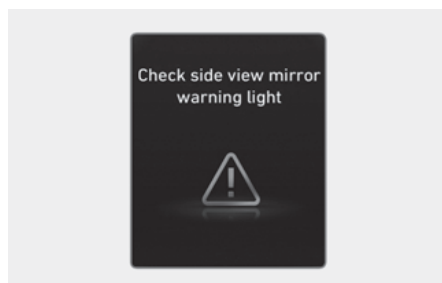
- Brake control will end when the driver depresses the brake pedal with sufficient power.
- After shifting the gear to R (Reverse), braking control will operate once for left and right vehicle approach.

Rear Cross-traffic Collision-Avoidance Assist malfunction and limitations

Rear Cross-Traffic Collision-Avoidance Assist malfunction

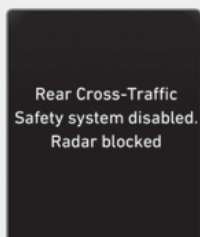


When the Rear Cross-Traffic Collision-Avoidance Assist is not working properly, the "**Check Rear Cross-Traffic Safety system**" warning message may appear, and the  warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.



When the side view mirror warning light is not working properly, the "**Check side view mirror warning light**" warning message may appear, and the  warning light may illuminate on the instrument cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Rear Cross-Traffic Collision-Avoidance Assist disabled



If the rear corner radar is blocked or covered, or when the rear bumper around the rear corner radar or sensor is covered by any foreign material, such as snow, rain, or dirt, or when a trailer or hitch mounted carrier is installed, the detecting performance may reduce and temporarily limit or disable Rear Cross-Traffic Collision-Avoidance Assist.

The "**Rear Cross-Traffic Safety system disabled. Radar blocked**" warning message may appear on the instrument cluster.

The function operates normally when such foreign material, trailer, or carrier is removed, and the engine is restarted.

If the function does not operate normally after anything covering or blocking the sensors is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Rear Cross-Traffic Collision-Avoidance Assist may not operate properly even if there is no warning message or warning light on the instrument cluster.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate properly in open areas where no objects are detected (e.g. empty parking lot) or when the detecting sensors are blocked right after turning on the engine.
- Always turn off Rear Cross-Traffic Collision-Avoidance Assist when towing a trailer or using a hitch mounted carrier.

Limitations of Rear Cross-Traffic Collision-Avoidance Assist

Rear Cross-Traffic Collision-Avoidance Assist may not operate normally, or may operate unexpectedly if:

- Departing from where trees or grass are overgrown.
- Departing from where roads are wet.
- Speed of the approaching vehicle is fast or slow.

Braking may not be assisted if:

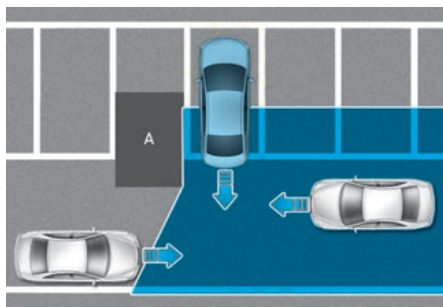
- Your vehicle severely vibrates while driving over a bumpy road, uneven road, or concrete patch.
- You are driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or any tire is damaged.
- The braking system is adjusted differently from the factory default settings.

Information

For more information on the limitations of the rear corner radar, refer to the "Blind-Spot Collision-Avoidance Assist (BCA)" section in this chapter.

⚠ WARNING

- Driving near a vehicle or structure

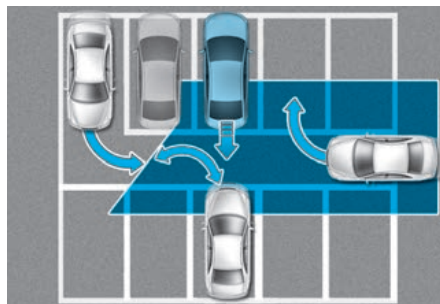


[A] Structure

Rear Cross-Traffic Collision-Avoidance Assist may be limited when driving near another vehicle or a structure, and it may not detect the vehicle approaching from the left or right. The function may not activate a warning or brake your vehicle

Always check your surroundings while backing up.

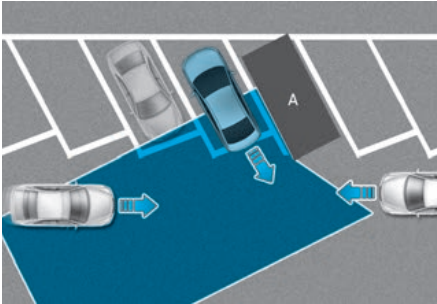
- When your vehicle is in a complex parking environment



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles that are parking or pulling out near your vehicle (e.g. leaving beside your vehicle, parking or pulling out behind your vehicle, approaching your vehicle making a turn). If this occurs, the function may activate a warning and brake your vehicle even when not needed.

Always check your surroundings while backing up.

- **When your vehicle is parked diagonally**

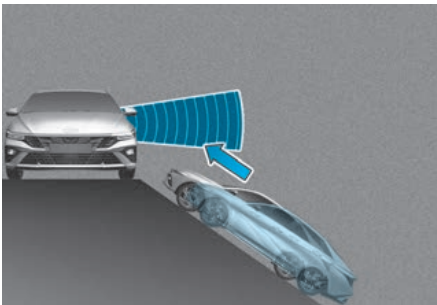


[A] Vehicle

Rear Cross-Traffic Collision-Avoidance Assist may be limited when backing up diagonally, and may not detect any vehicle approaching from the left or right. If this occurs, the function may not activate a warning or brake your vehicle.

Always check your surroundings while backing up.

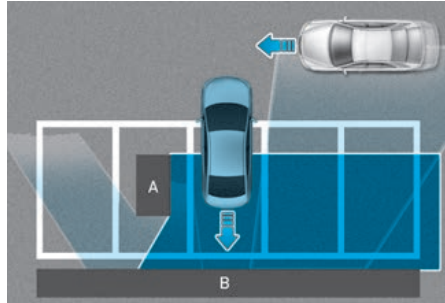
- **When your vehicle is on or near a slope**



Rear Cross-Traffic Collision-Avoidance Assist may be limited when your vehicle is on an uphill or downhill slope, and may not detect any vehicle approaching from the left or right. If this occurs, the function may activate a warning and brake your vehicle even when not needed.

Always check your surroundings while backing up.

- **Pulling into the parking space where there is a structure**



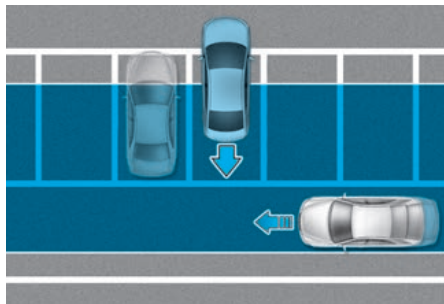
[A] Structure

[B] Wall

Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by in front of you when parking in reverse into a parking space with a wall or structure in the rear or side area. If this occurs, the function may activate a warning or brake your vehicle.

Always check your surroundings while backing up.

- When your vehicle is parked rearward



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by behind you when parking in reverse into a parking space. If this occurs, the function may activate a warning and brake your vehicle even when not needed.

Always check your surroundings while backing up.

WARNING

- Rear Cross-Traffic Collision-Avoidance Assist may not operate normally if there is interference from strong electromagnetic waves.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate for 3 seconds right after your vehicle is started or when the rear corner radars are initialized.

Driver assistance system sensors

The Driver Assistance system on your vehicle uses cameras and sensors to detect potential hazards in the vicinity of your vehicle.

Cameras

Front view camera



The front view camera is mounted near the top of the windshield inside your vehicle.

Wide-rear view camera

 if equipped



The wide-rear view camera is mounted above the license plate holder outside your vehicle.

 WARNING

To prevent serious injury or death:

- Never disassemble the camera sensors or camera sensor assemblies.
- Only have the detecting sensor replaced or repaired by an authorized HYUNDAI dealer.
- Never install any accessories, stickers, or tint the front windshield.
- Always keep the camera dry.
- Never place any reflective objects (e.g. white paper, mirror) on the dashboard.
- Do not use any cleanser containing acid or alkaline detergents when cleaning the camera lenses. Use only a mild soap or neutral detergent, and rinse thoroughly with water.

Radars

 If equipped

Front radar



The front radar is mounted behind the front grill.

Rear corner radar



The rear corner radars are mounted near the rear corners of your vehicle above the bumper.

WARNING

To prevent serious injury or death:

- Never disassemble the radar or radar assembly, and never apply any impact on it.
- If there is impact on or near the radar, the sensors may be damaged or not be properly aligned near the radar, even though a warning message does not appear on the instrument cluster, Driver Assistance system may not operate properly. Have the vehicle inspected by an authorized HYUNDAI dealer.
- If the radars have been replaced or repaired, have the vehicle inspected by an authorized HYUNDAI dealer.
- Use only genuine HYUNDAI parts to repair the bumper where the radar is located.
- Do not install a license plate frame or other objects such as bumper sticker, film, bumper guard, or bumper wrap near the radar.
- Driver Assistance system may not work properly if the bumper has been replaced, or the surroundings of the radar has been damaged or painted.
- If a trailer or hitch mounted carrier is attached, it may adversely affect the performance of the rear corner radar or Driver Assistance system may not operate.

Ultrasonic sensors

 if equipped

Front ultrasonic sensors



These ultrasonic sensors are mounted to the front bumper outside your vehicle.

Rear ultrasonic sensors



These ultrasonic sensors are mounted to the rear bumper outside your vehicle.



WARNING

To prevent serious injury or death:

- Always keep the ultrasonic sensors clean.
- Do not spray the ultrasonic sensors or the surrounding area directly with high pressure water.
- Do not apply objects such as bumper sticker or bumper guard, near the ultrasonic sensors or never apply paint to the bumper or other locations.
- Never disassemble or strike the ultrasonic sensors components.
- Do not modify the vehicle bumper height or ultrasonic sensor installations. Any non-factory installed equipment or accessories may also interfere with the sensor performance.
- If the ultrasonic sensors have been forcibly moved out of proper alignment or are damaged, have the vehicle inspected by an authorized HYUNDAI dealer.

Declaration of conformity

The radio frequency components (Rear Corner Radar) complies:

Front radar

 if equipped

- For USA



FCC ID

: 2ACDX-LRR-20

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION TO USERS

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- For Canada

Model: LRR-20
IC: 11988A-LRR20

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR

d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Rear corner radar

 if equipped

- For USA



The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

- For Canada

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
 - (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.