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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.

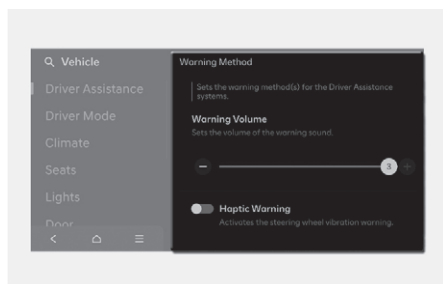
Limitations of Driver Assistance System

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



The Warning Methods can be set with the engine on. Select **Setup > Vehicle > Driver Assistance > Warning Method** 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

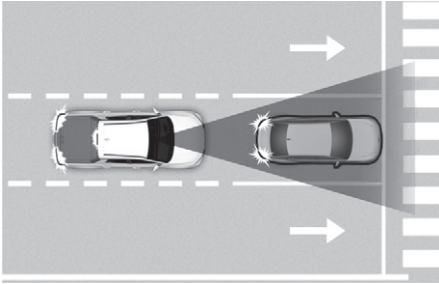
For safety, the warning method is different depending on each function of the driver assistance system.

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)



Forward Collision-Avoidance Assist is designed to help detect and monitor the vehicle ahead or help detect a powered two-wheeler, pedestrian or cyclist in the roadway and warn the driver that a collision is imminent with a warning message and warning and apply emergency braking.

i Information

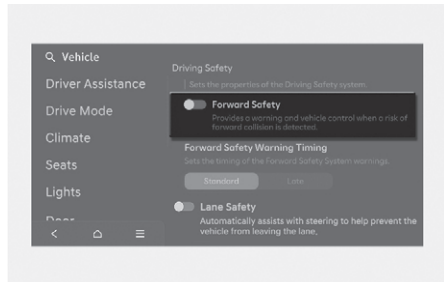
Forward Collision-Avoidance Assist uses the following sensors:

- Front view camera

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

Forward Collision-Avoidance Assist settings

Forward Safety



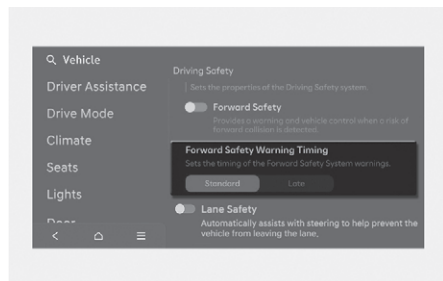
With the engine on, select **Setup > Vehicle > Driver Assistance > Driving Safety** from the settings menu in the infotainment system to set whether to use each function.

- 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

When the vehicle 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.

Forward Safety Warning Timing



With the vehicle on, select **Setup > Vehicle > Driver Assistance > Driving Safety > Forward Safety Warning Timing** settings menu in the infotainment system to change the initial warning activation time for Forward Collision-Avoidance Assist. The warning time can be set to either **Standard** or **Late**.

- Use **Standard** in normal driving conditions. If the Warning Timing seems sensitive, change it to **Late**.
 - If **Late** is selected, Forward Collision-Avoidance Assist, warns the driver more slowly.

CAUTION

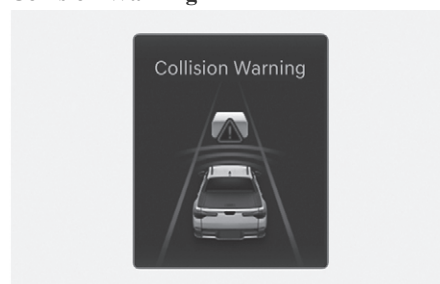
- Even though **Standard** is selected for Warning Timing, if the front vehicle suddenly stops, the warning may seem late.
- Select **Late** for Warning Timing when traffic is light and when driving speed is slow.

Forward Collision-Avoidance Assist operation

Basic function

The basic function for Forward Collision-Avoidance Assist is to 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



- To warn the driver of a collision, the '**Collision Warning**' warning message will appear on the cluster, an audible warning will sound and the steering wheel will vibrate.
- If a vehicle or powered two-wheeler is detected in front, the function will operate when your vehicle speed is between about 10-180 km/h (6-111 mph).
- If a pedestrian or cyclist is detected in front, the function will operate when your vehicle speed is between about 10-80 km/h (6-49 mph).

Emergency Braking



To warn the driver that emergency braking will be assisted, the '**Emergency Braking**' warning message will appear on the cluster, an audible warning will sound and the steering wheel will vibrate. Emergency braking will operate under the following conditions.

- Vehicle or powered two-wheeler:

	Driving vehicle	Stopped vehicle
Weak braking power	About 10-60 km/h (6-37 mph)	
Strong braking power	About 10-60 km/h (6-37 mph)	

- Pedestrian or cyclist:

The function will operate when your vehicle speed is between about 10-60 km/h (6-37 mph).

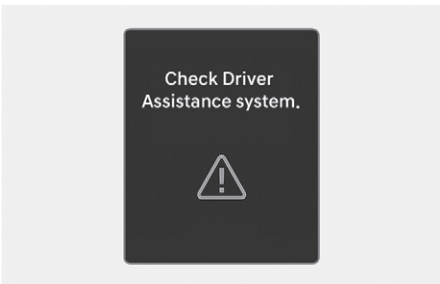
Stopping vehicle and ending brake control



- When the vehicle is stopped due to emergency braking, the '**Drive carefully**' warning message will appear on the 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.

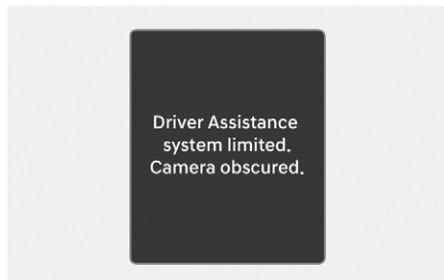
Forward Collision-Avoidance Assist malfunction and limitations

Forward Collision-Avoidance Assist malfunction



When Forward Collision-Avoidance Assist is not working properly, the "**Check Driver Assistance system.**" warning message will appear, and the (⚠) or (🚫) warning lights will illuminate on the cluster display. Have the vehicle inspected by an authorized HYUNDAI dealer.

Forward Collision-Avoidance Assist disabled



When the front windshield where the front view camera is located or the sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Forward Collision-Avoidance Assist.

If this occurs the **"Driver Assistance system limited. Camera obscured."** warning message, and the (⚠) and (🚫) warning lights will illuminate on the cluster display.

Forward Collision-Avoidance Assist will operate properly when such snow, rain or foreign material is removed.

If Forward Collision-Avoidance Assist does not operate properly after obstruction (snow, rain, or foreign material) is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

⚠ WARNING

- Even though the warning message or warning light does not appear on the cluster display, Forward Collision-Avoidance Assist may not properly operate.
- Forward Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any objects are not detected 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, Forward Collision-Avoidance Assist may not operate properly.

i Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- 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, 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 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 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

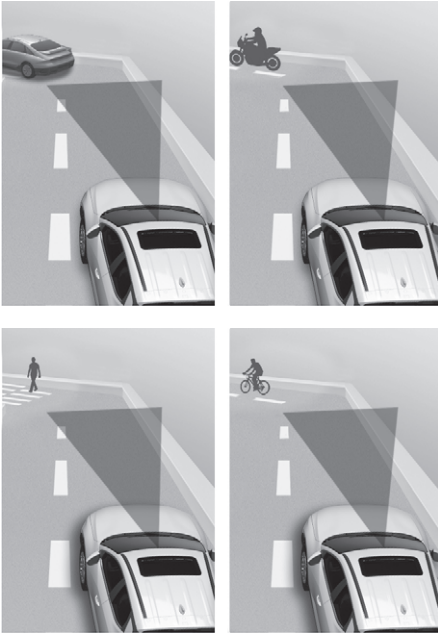


The illustration above shows the image the front view camera and front radar are capable of detecting as a vehicle, powered two-wheeler, pedestrian and cyclist.

- 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 are 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.

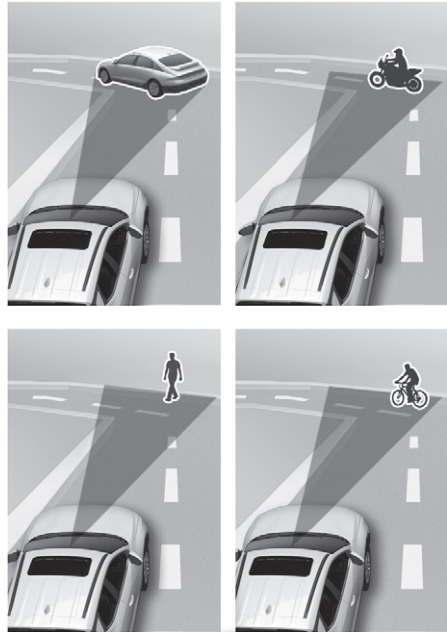
 WARNING

• **Driving on a curved road**



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

When driving on a curved road, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



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

If this occurs, Forward Collision-Avoidance Assist may unnecessarily warn the driver and control the brake. Always check the traffic conditions around the vehicle.

- 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, braking assist or no warning, braking assist when necessary.

Also, vehicle speed may rapidly decrease when a vehicle, powered two-wheeler, pedestrian or cyclist ahead is suddenly detected.

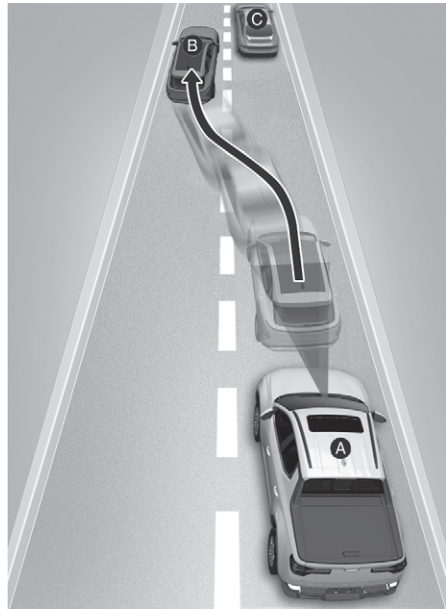
Always have your eyes on the road while driving uphill or downhill and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

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

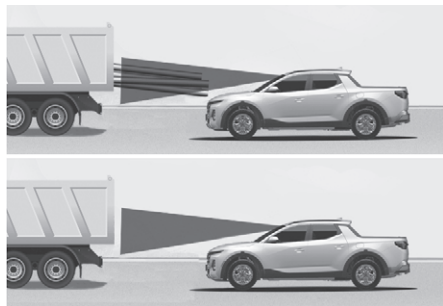


[A] Your vehicle
[B] Lane changing vehicle
[C] Same lane vehicle

When a vehicle 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 the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

• Detecting vehicle



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

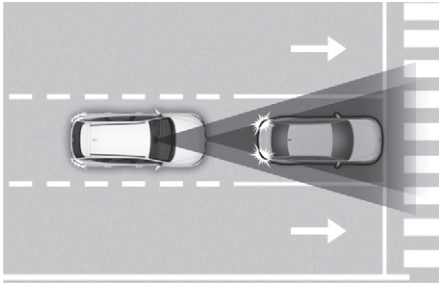
WARNING

- When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist for safety reasons.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, powered two-wheelers, pedestrians and cyclists are detected.
- Forward Collision-Avoidance Assist does not operate on bicycles, motorcycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers.
- Forward Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.

Forward Collision-Avoidance Assist (FCA) (Sensor Fusion)

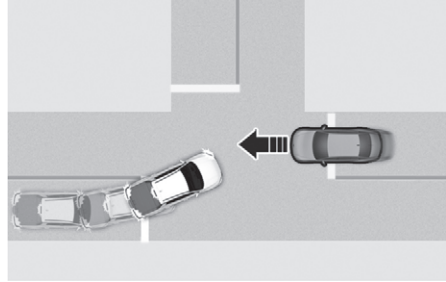
 if equipped

Basic function



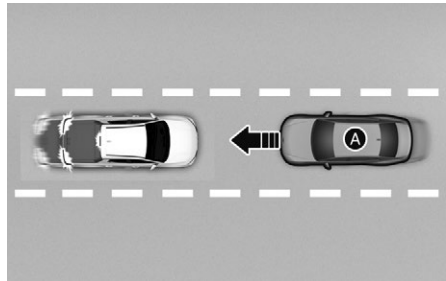
Forward Collision-Avoidance Assist uses the front view camera and front radar to help detect a vehicle, a powered two-wheeler, a pedestrian, or a cyclist ahead on the road. The function may warn you with a warning message on the instrument cluster and an audible warning if a collision is imminent. If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

Junction Turning function



Junction Turning function can help avoid a collision with an oncoming vehicle or powered two-wheeler 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 or powered two-wheeler approaching from the opposite side is detected.

Information

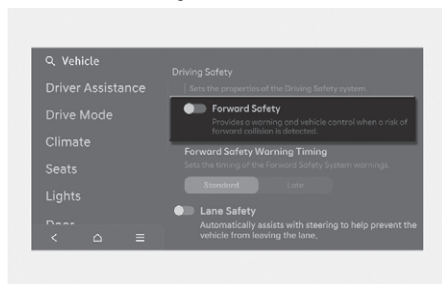
Forward Collision-Avoidance Assist uses the following sensors:

- Front view camera
- Front radar

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

Forward Collision-Avoidance assist settings

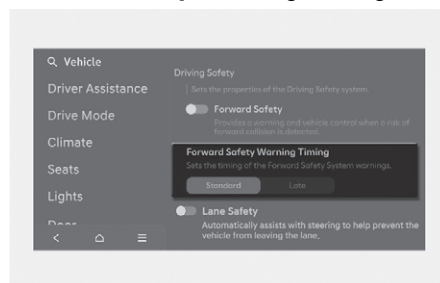
Forward Safety



With the engine on, select **Setup > Vehicle > Driver Assistance > Driving Safety** in the infotainment system to set whether to use each function.

- 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.

Forward Safety Warning Timing



With the Engine Start/Stop button ON, select **Setup > Vehicle > Driver Assistance > Driving Safety > Forward Safety Warning Timing** from the Settings menu to change the initial warning activation time. Warning Timing is set to **Standard** at the factory.

WARNING

- Even though **Standard** is selected for Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may not seem late.
- Select **Late** for 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

The basic function for Forward Collision-Avoidance Assist is to 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



- To warn the driver of a collision, Forward Safety warning light (🚨) blinking, the **"Collision Warning"** warning message will appear on the cluster, an audible warning will sound, and the steering wheel will vibrate.
- If a vehicle or powered two-wheeler is detected in front, the function will operate when your vehicle speed is between about 10-180 km/h (6-111 mph).
- If a pedestrian or cyclist is detected in front, the function will operate when your vehicle speed is between about 10-85 km/h (6-53 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 cluster, an audible warning will sound, and the steering wheel will vibrate.

Emergency Braking will operate under the following conditions:

- Vehicle or powered two-wheeler:

	Driving Vehicle	Stopped Vehicle
Weak braking power	About 10-180 km/h (6-111 mph)	
Strong braking power	About 10-85 km/h (6-53 mph)	About 10-75 km/h (6-47 mph)

- Pedestrian or cyclist:

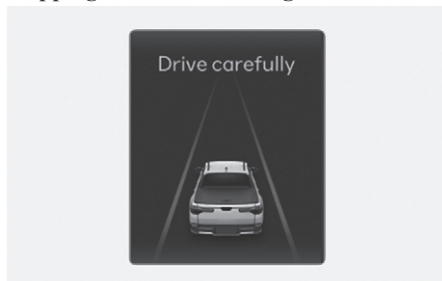
The function will operate when your vehicle speed is between about 10-65 km/h (6-40 mph).

⚠ CAUTION

The function operation range may decrease due to the front traffic condition or the surroundings of the vehicle.

When driving at night, the powered two-wheeler recognition performance is degraded, so Forward Collision-Avoidance Assist may be temporarily limited or may not work.

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.

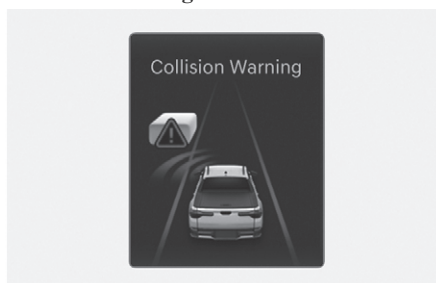
i Information

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

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



- To warn the driver of a collision, Forward Safety warning light (⚠️) blinking, the "**Collision Warning**" warning message will appear on the cluster, an audible warning will sound, and the steering wheel will vibrate.
- The function will operate when your vehicle speed is between about 10-30 km/h (6-19 mph) and the oncoming vehicle or powered two-wheeler speed is between about 30-70 km/h (19-44 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 cluster, an audible warning will sound, and the steering wheel will 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 10-30 km/h (6-19 mph) and the oncoming vehicle or powered two-wheeler speed is between about 30-70 km/h (19-44 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 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.

i Information

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

Direct Oncoming function

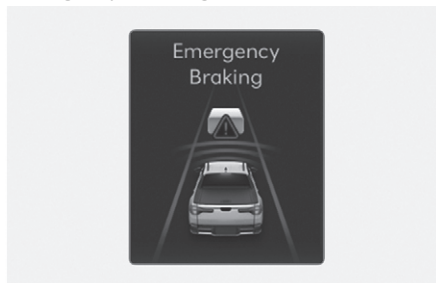
Direct Oncoming function will warn and control the vehicle depending on the collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.

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 will vibrate.
- The function will operate when:
 - Your vehicle speed is between about 30-130 km/h (19-80 mph)
(If equipped, about 10-130 km/h (6-80 mph))
 - Oncoming vehicle or powered two-wheeler 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 will 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 or powered two-wheeler 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 or powered two-wheeler is not driving straight, Direct Oncoming function warning and control may be late or may not operate.

When driving at night, the powered two-wheeler recognition performance is degraded, so Forward Collision-Avoidance Assist may be temporarily limited or may not work.

Information

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

WARNING

- For your safety, only change the Settings after parking the vehicle at a safe location.
- Forward Collision-Avoidance Assist does not operate in all situations and cannot avoid all collisions.
- The driver has the responsibility to control the vehicle. Do not solely depend on Forward Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never deliberately operate Forward Collision-Avoidance Assist on people, objects, etc. It may cause serious injury or death.
- Forward Collision-Avoidance Assist may not operate if the driver depresses the brake pedal to avoid collision.
- During Forward Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- If any other system's warning message appears or audible warning is generated, Forward Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surrounding is noisy.
- Forward Collision-Avoidance Assist may turn off or may not operate properly or may operate unnecessarily depending on the road conditions and the surroundings.

- Even if there is a problem with Forward Collision-Avoidance Assist, the vehicle's basic braking performance will operate properly.
- 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

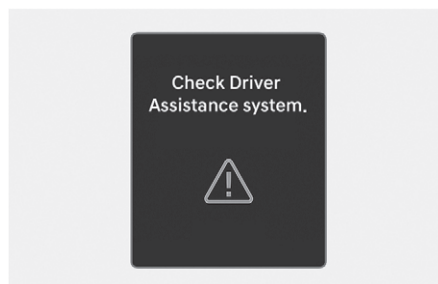
- Depending on the condition of the vehicle, powered two-wheeler, pedestrian, or cyclist in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. Forward Collision-Avoidance Assist may only warn the driver, or it may not operate.
- Forward Collision-Avoidance Assist will operate under certain conditions by judging the risk level based on the condition of the oncoming vehicle, driving direction, speed and surroundings.
- Only Forward Collision-Avoidance Assist warning and collision mitigation are possible depending on the detectable distance.

Information

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

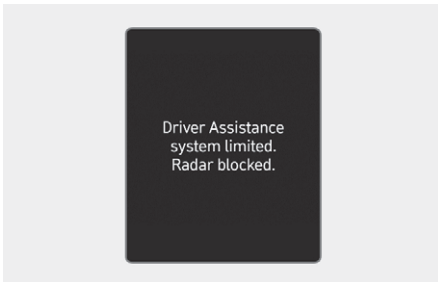
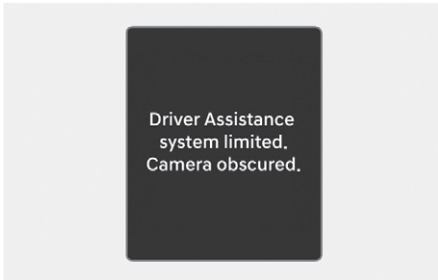
Forward Collision-Avoidance Assist Malfunction and Limitations

Forward Collision-Avoidance Assist malfunction



When Forward Collision-Avoidance Assist is not working properly, the "**Check Driver Assistance system.**" warning message will appear, and the (⚠) or (⚠) warning lights will illuminate on the instrument cluster. Have your vehicle inspected by an authorized HYUNDAI dealer.

Forward Collision-Avoidance Assist disabled



When the front windshield where the front view camera is located, front radar cover, bumper (if equipped) or sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Forward Collision-Avoidance Assist.

If this occurs the "**Driver Assistance system limited. Camera obscured.**" or the "**Driver Assistance system limited. Radar blocked.**" warning message, and the (⚠) or (차) warning lights will illuminate on the instrument cluster.

Forward Collision-Avoidance Assist will operate properly when snow, rain or foreign material is removed.

If Forward Collision-Avoidance Assist does not operate properly after obstruction (snow, rain, or foreign material) is removed (including trailer, carrier, etc., from the rear bumper), have your vehicle inspected by an authorized HYUNDAI dealer.

⚠ WARNING

- Even though the warning message or warning light does not appear on the instrument cluster, Forward Collision-Avoidance Assist may not properly operate.
- Forward Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any objects are not detected after turning ON the vehicle.

i Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- 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 or powered two-wheeler 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 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 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 or powered two-wheeler in front is not detected
- You are continuously driving in a circle
- The vehicle in front has an unusual shape
- The vehicle 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

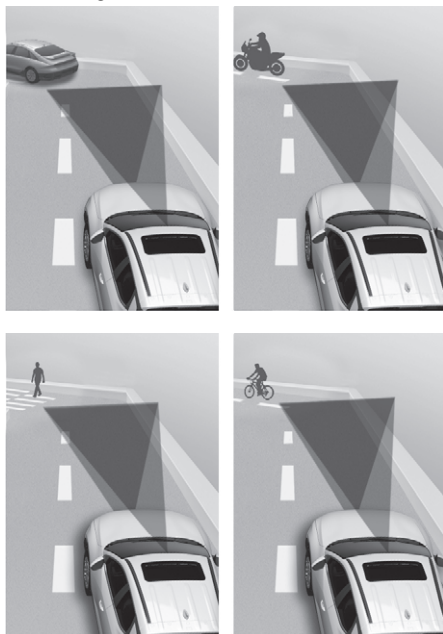


The illustration above shows the image the front view camera and front radar are capable of detecting as a vehicle, pedestrian and cyclist.

- 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 tollbooth, 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 are 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.

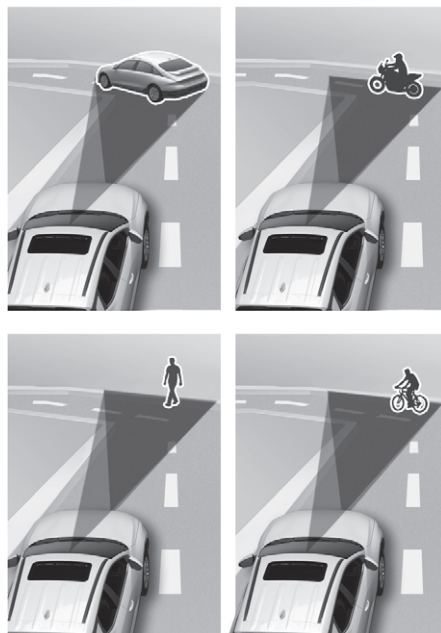
⚠ WARNING

• Driving on a curved road



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

When driving on a curve, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



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.

If this occurs, Forward Collision-Avoidance Assist may unnecessarily warn the driver and control the brake. Always check the traffic conditions around the vehicle.

- **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, braking assist or no warning, braking assist when necessary.

Also, vehicle speed may rapidly decrease when a vehicle, powered two-wheeler, pedestrian or cyclist ahead is suddenly detected.

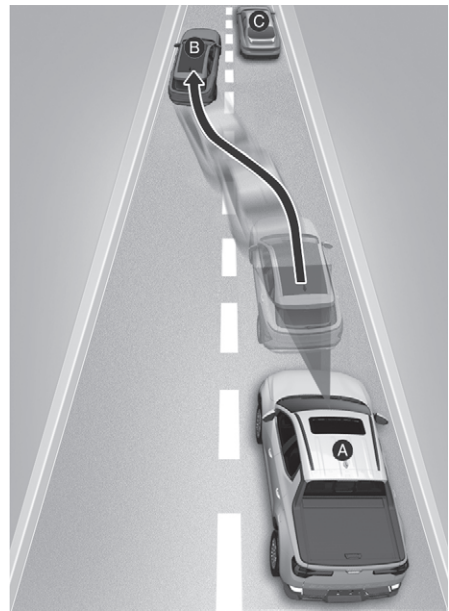
Always have your eyes on the road while driving uphill or downhill and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

• Changing lanes



[A] Your vehicle
[B] Lane changing vehicle

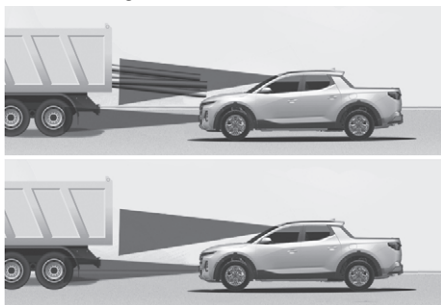
When a vehicle or powered two-wheeler moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Forward Collision-Avoidance Assist may not immediately detect the vehicle or powered two-wheeler when the vehicle or powered two-wheeler changes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



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

WARNING

- When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist for safety reasons.
- Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, powered two-wheelers, pedestrians and cyclists are detected.
- Forward Collision-Avoidance Assist does not operate on bicycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers.
- Forward Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Forward Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.

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

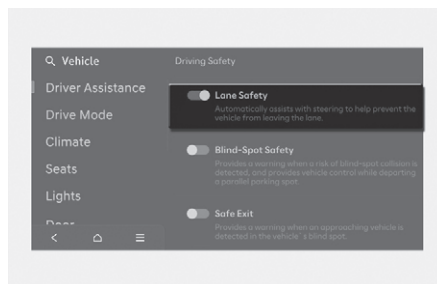
Lane Keeping Assist uses the following sensor:

- 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 engine on, select **Setup > Vehicle > Driver Assistance > Driving Safety > Lane Safety** in the infotainment system to set whether to use each function.

If **Lane Safety** is selected, Lane Keeping Assist automatically assists 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 turns off.

WARNING

- When the vehicle is restarted, Lane Keeping Assist will always turn on.
- 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.

i Information

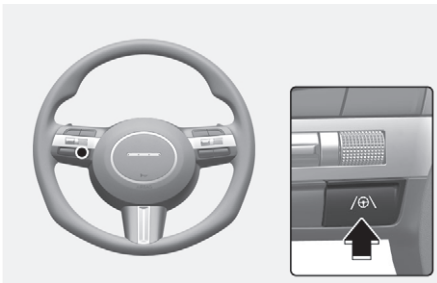
You can set the following Warning Methods:

- 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



- You can turn on and off Lane Keeping Assist (/⊕\) by pressing and holding the Lane Driving Assist (/⊗\) button while the vehicle is 'ON'.

When Lane Keeping Assist is operating, the gray or green (/⊕\) indicator light illuminates on the instrument cluster.

i Information

- When Lane Driving Assist is ready to operate, the (/⊗\) indicator turns gray on the cluster.
- When Lane Driving Assist is operating, the (/⊗\) indicator turns green on the cluster.

Warning and control

Lane Keeping Assist will warn and control the vehicle with Lane Departure Warning and Lane Keeping Assist.

Left



Right



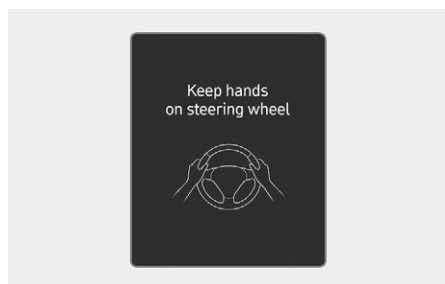
Lane Departure Warning

- To warn the driver that the vehicle is departing from the projected lane in front, the green (/⊗\) indicator light blinks on the instrument cluster, the lane line blinks on the instrument cluster depending on which direction the vehicle is veering, an audible warning sounds, and the steering wheel vibrates.
- Lane Departure Warning operates under the below conditions.
 - Your vehicle speed: Vehicle speed of 60 to 200 km/h (40 to 120 mph)

Lane Keeping Assist

- To warn the driver that the vehicle is departing from the projected lane in front, the green (LKA) indicator light blinks on the cluster, and the steering wheel makes adjustments to keep vehicle inside the lane.
- Lane Keeping Assist operates under the following conditions.
 - Your vehicle speed: Vehicle speed of 60 to 200 km/h (40 to 120 mph)

Hands-off warning



If the driver takes their hands off the steering wheel for several seconds, the **'Keep hands on steering wheel'** warning message appears on the instrument cluster, and an audible warning sounds in stages.

WARNING

- The steering wheel may not be assisted if the steering wheel is held very tight or the steering wheel is steered over a certain degree.
- Lane Keeping Assist does not operate at all times. It is the responsibility of the driver to safely steer the vehicle and to maintain the vehicle in its lane.
- The hands-off warning message may appear late depending on road conditions. Always have your hands on the steering wheel while driving.
- If the steering wheel is held very lightly, the hands-off warning message may appear because Lane Keeping Assist may not recognize that the driver has their hands on the steering wheel.
- If you attach objects to the steering wheel, the hands-off warning may not work properly.

i Information

- 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 undetected



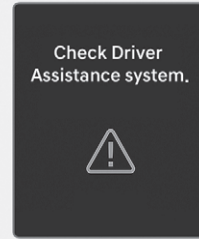
Lane detected



- When lane markings (or road edges) are detected, the lane lines on the instrument cluster changes from grey to white.
- The images and colors in the instrument cluster may differ depending on the instrument cluster type or theme selected from the instrument cluster.
- For more information on instrument cluster settings, refer to the "Cluster display control" section in chapter 4.

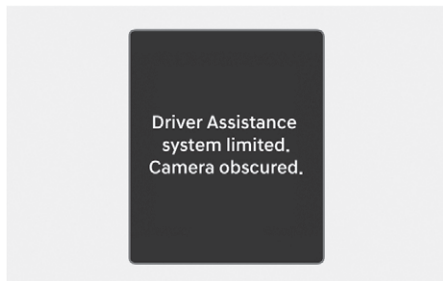
Lane Keeping Assist Malfunction and Limitations

Lane Keeping Assist malfunction



When Lane Keeping Assist is not working properly, the '**Check Driver Assistance system.**' warning message appears and the master (⚠) warning light and yellow Lane Safety (🚗) indicator light illuminates on the instrument cluster. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

Lane Keeping Assist disabled



When the front windshield where the front view camera is located, or sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Lane Keeping Assist.

If this occurs, the **"Driver Assistance system limited. Camera obscured."** warning message and master (⚠) warning light and Lane Safety (🚗) warning light appears on the instrument cluster.

Lane Keeping Assist operates properly when snow, rain or foreign material is removed.

If Lane Keeping Assist does not operate properly after it is removed, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Even though the warning message or warning light does not appear on the instrument cluster, Lane Keeping Assist may not properly operate.

Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Lane Keeping Assist

Lane Keeping Assist may not operate properly or may operate unexpectedly under the following circumstances:

- The lane is contaminated or difficult to detect because:
 - The lane markings (or road edge) are covered with rain, snow, dirt, oil, etc.
 - The color of the lane marking (or road edge) is not distinguishable from the road
 - There are markings (or road edges) on the road near the lane or the markings (or road edges) on the road look similar to the lane markings (or road edge)
 - The lane marking (or road edge) is indistinct or damaged
 - The shadow is on the lane marking (or road edge) by a median strip, trees, guardrail, noise barriers, etc.
- The lane number increases or decreases, or the lane markings (or road edges) are crossing
- There are more than two lane markings (or road edges) on the road
- The lane markings (or road edges) are complicated or a structure substitutes for the lines, such as a construction 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 in the roadway, such as a tollbooth, sidewalk, curb, etc.
- The distance to the front vehicle is extremely short or the vehicle in front is covering the lane marking (or road edge)



WARNING

Take the following precautions when using Lane Keeping Assist:

- The driver has the responsibility to safely drive and control the vehicle. Do not solely rely on Lane Keeping Assist.
- The operation of Lane Keeping Assist can be cancelled or not work properly depending on road conditions and surroundings. Always be cautious while driving.
- Refer to the "Limitations of Lane Keeping Assist" if the lane is not detected properly.
- When you are towing a trailer or another vehicle, turn off Lane Keeping Assist for safety reasons.
- If the vehicle is driven at high speed, the steering wheel will not be controlled. The driver must always follow the speed limit when using Lane Keeping Assist.
- If any other system's warning message appears or audible warning is generated, Lane Keeping Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Lane Keeping Assist if the surrounding is noisy.
- If you attach objects to the steering wheel, steering may not be assisted properly.
- Lane Keeping Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.
- Lane Keeping Assist will not operate when:
 - The turn signal or hazard warning flasher is turned on.
 - The vehicle is not driven in the center of the lane when Lane Keeping Assist is turned on or right after changing a lane.
 - ESC (Electronic Stability Control) or VSM (Vehicle Stability Management) is activated.
 - The vehicle is driven on a sharp curve.
 - Vehicle speed is under or over Lane Keeping Assist operating speed.
 - The vehicle makes sudden lane changes.
 - The 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

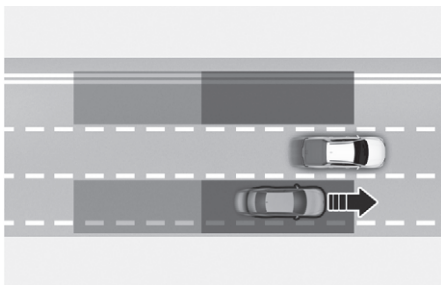
For more information on the limitations of the front view camera, refer to the "Forward Collision-Avoidance Assist (FCA) (Sensor Fusion)" section in this chapter.

Blind-Spot Collision-Avoidance Assist (BCA)

 if equipped

Blind-Spot Collision-Avoidance Assist helps detect approaching vehicles in the driver's blind spot areas and warn you of a possible collision with a warning light and a warning sound.

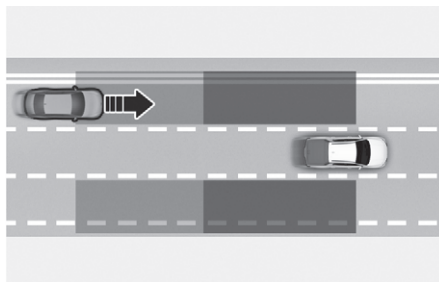
If there is a collision risk when exiting a parallel space, Blind-Spot Collision-Avoidance Assist may assist with braking your vehicle to help avoid a collision.



Blind-Spot Collision-Avoidance Assist helps detect and informs the driver that a vehicle is in the blind spot.

CAUTION

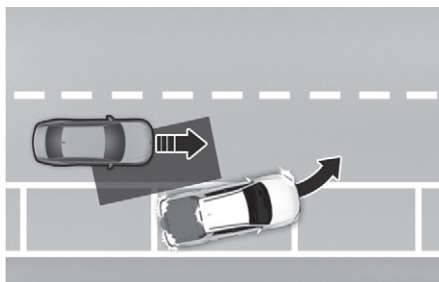
The detecting range may vary depending on the speed of your vehicle. Even if there is a vehicle in the blind spot area, Blind-Spot Collision-Avoidance Assist may not warn you when you pass by at high speeds.



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

CAUTION

Warning timing may vary depending on the speed of the vehicle approaching at high speed.



When you are driving forward out of a parking space, if Blind-Spot Collision-Avoidance Assist judges that there is a collision risk with an approaching vehicle in the blind spot, it can help avoid collision by applying the brake.

i Information

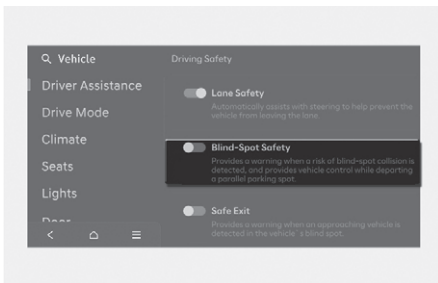
Blind-Spot Collision-Avoidance Assist uses the following sensor:

- Rear corner radars

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

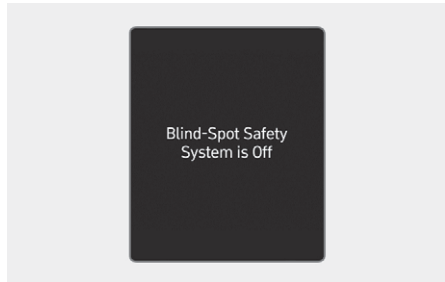
Blind-Spot Collision-Avoidance Assist settings

Blind-Spot Safety



With the engine on, select **Setup > Vehicle > Driver Assistance > Driving Safety > Blind-Spot Safety** in the infotainment system to set whether to use each function.

- If **Blind-Spot Safety** is selected, Blind-Spot Collision Avoidance Assist warns the driver with a warning message, an audible warning depending on the collision risk levels. Braking assist is applied for parking exit depending on the collision risk levels.



When the vehicle 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 blinks 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

If the vehicle is restarted, Blind-Spot Collision-Avoidance Assist maintains the last setting.

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.

Blind-Spot Collision-Avoidance Assist Operation

Collision Warning (while driving)



When the vehicle is detected in the rear left and right lanes, to warn the driver a vehicle is detected, the warning light on the side view mirror illuminates. Vehicle detection operates under following conditions.

- Your vehicle speed: above 20 km/h (12 mph)
- Vehicle in the blind spot area: above 10 km/h (6 mph)

Collision Warning operates when the turn signal is turned on in the direction of the detected vehicle.

- To warn the driver of a collision, the warning light on the side view mirror blinks. At the same time, an audible warning sounds.
- When the turn signal is turned off, the collision warning is canceled and Blind-Spot Collision Avoidance Assist returns to vehicle detection state.

Collision Warning operates under following conditions.

- Your vehicle speed: above 40 km/h (25 mph)
- Vehicle in the blind spot area: above 10 km/h (6 mph)

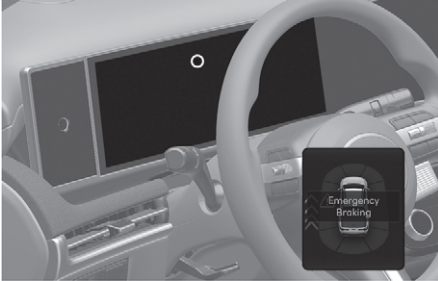
⚠ WARNING

- The detecting range of the rear corner radar is determined by a standard road width, therefore, on a narrow road, Blind-Spot Collision-Avoidance Assist may detect other vehicles two lanes over and warn you. In contrast, on a wide road, Blind-Spot Collision-Avoidance Assist 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 by the turn signal will not operate.

***i* Information**

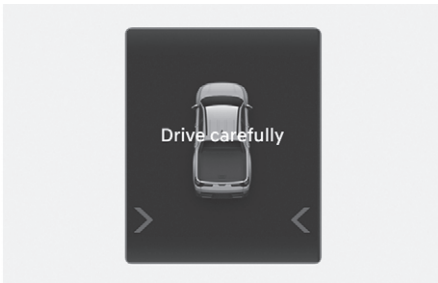
The images and colors in the instrument cluster may differ depending on the instrument cluster type or theme selected from the settings menu.

Collision-Avoidance Assist (while exiting parallel spot)



- To warn the driver of a collision, the warning light on the side view mirror will blink and a warning message will appear on the instrument cluster. At the same time, an audible warning will sound, warning light will blink and the steering wheel will vibrate.
- Emergency Braking will be assisted to help prevent collision with the vehicle in the blind spot area.
- Blind-Spot Collision-Avoidance Assist will operate 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).
- 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 approximately 2 seconds of emergency brake control.
- During braking control by the Blind-Spot Collision-Avoidance Assist, braking control will end when the driver operates the brake pedal with sufficient force.

WARNING

Take the following precautions when using Blind-Spot Collision-Avoidance Assist:

- For your safety, only change the Settings after parking the vehicle at a safe location.
- If any other system's warning message appears or audible warning is generated, Blind-Spot Collision-Avoidance Assist's warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Blind-Spot Collision-Avoidance Assist if the surrounding is noisy.
- Blind-Spot Collision-Avoidance Assist may not operate if the driver applies the brake pedal to avoid a collision.
- When Blind-Spot Collision-Avoidance Assist is operating, braking control by the function will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.
- During Blind-Spot Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.

- Even if there is a problem with Blind-Spot Collision-Avoidance Assist, the vehicle's basic braking will function normally.
- Blind-Spot Collision-Avoidance Assist does not operate in all situations and cannot avoid all collisions.
- Blind-Spot Collision-Avoidance Assist may warn the driver late or may not warn the driver depending on the road and driving conditions.
- Driver should maintain control of the vehicle at all times. Do not depend on Blind-Spot Collision-Avoidance Assist. Maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never operate Blind-Spot Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.

WARNING

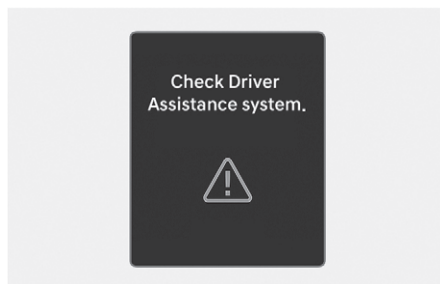
The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

There will only be a warning when:

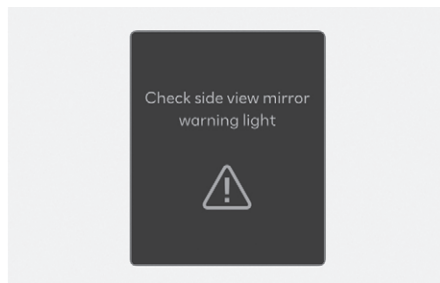
- The ESC (Electronic Stability Control) warning light is on
- ESC (Electronic Stability Control) is engaged in a different function

Blind-Spot Collision-Avoidance Assist Malfunction and Limitations

Blind-Spot Collision-Avoidance Assist malfunction

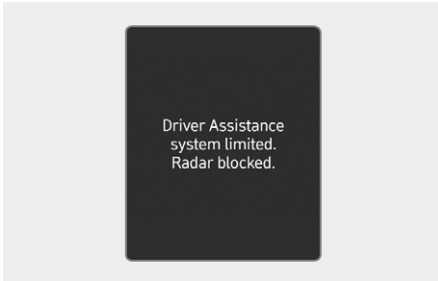


When Blind-Spot Collision-Avoidance Assist is not working properly, the **"Check Driver Assistance system."** warning message will appear on the instrument cluster for several seconds, and the master (△) warning light will appear on the instrument cluster. If this occurs, have your vehicle inspected 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. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

Blind-Spot Collision-Avoidance Assist disabled



When the rear bumper around the rear corner radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Blind-Spot Collision-Avoidance Assist.

If this occurs, the **"Driver Assistance system limited. Radar blocked."** warning message will appear on the instrument cluster.

Blind-Spot Collision-Avoidance Assist will operate properly when such foreign material or trailer, etc., is removed, and then the vehicle is restarted.

If Blind-Spot Collision-Avoidance Assist does not operate properly after it is removed, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Even though the warning message does not appear on the instrument cluster, Blind-Spot Collision-Avoidance Assist may not properly operate.
- Blind-Spot Collision-Avoidance Assist may not properly operate in an area (for example, open terrain) where any objects are not detected right after the vehicle is turned on, or when the detecting sensor is blocked with foreign material right after the vehicle is turned on.

CAUTION

Turn off Blind-Spot Collision-Avoidance Assist to install or remove a trailer, carrier, or another attachment. Turn on Blind-Spot Collision-Avoidance Assist when finished.

Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Blind-Spot Collision-Avoidance Assist

Blind-Spot Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- There is inclement weather, such as heavy snow, heavy rain, etc.
- The rear corner radar is covered with snow, rain, dirt, etc.
- The temperature around the rear corner radar is high or low
- Driving on a highway ramp
- The road pavement (or the peripheral ground) abnormally contains metallic components (for example, possibly due to subway construction)
- There is a fixed object near the vehicle, such as sound barriers, guardrails, central dividers, entry barriers, street lamps, signs, tunnels, walls, etc. (including double structures)
- Driving in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- Driving through a narrow road where trees or grass are overgrown
- Driving on a wet road surface, such as a puddle on the road
- The other vehicle drives very close behind your vehicle, or the other vehicle passes by your vehicle in close proximity
- The speed of the other vehicle is very fast that it passes by your vehicle in a short time
- Your vehicle passes by the other vehicle
- Your vehicle changes lane
- 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 when the vehicle two lanes away moves to the next lane from you

- A trailer, carrier or other attachment is installed around the rear corner radar
- The bumper around the rear corner radar is covered with objects, such as a bumper sticker, bumper guard, bike rack, etc.
- The bumper around the rear corner radar is impacted, damaged or the radar is out of position
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.

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

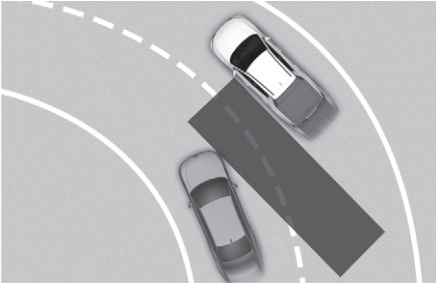
- A motorcycle or bicycle is detected
- A vehicle such as a flat trailer is detected
- A big vehicle such as a bus or truck is detected
- A moving obstacle such as a pedestrian, animal, shopping cart or a baby stroller is detected
- A vehicle with low height such as a sports car is detected

Braking control may not work, driver's attention is required in the following circumstances:

- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The braking system has been modified
- The vehicle makes abrupt lane changes

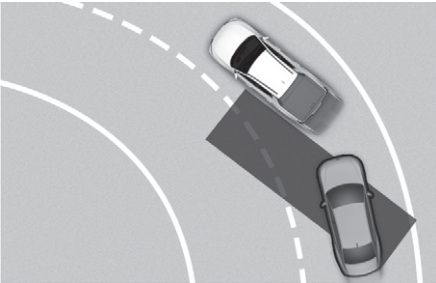
 WARNING

- **Driving on a curved road**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. The function may not detect the vehicle in the next lane.

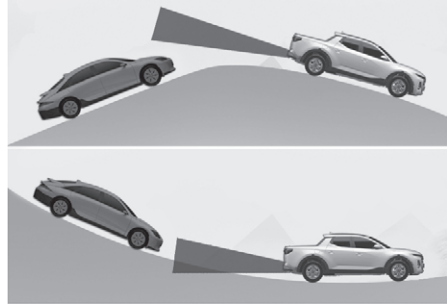
Always pay attention to road and driving conditions while driving.



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. The function may recognize a vehicle in the same lane.

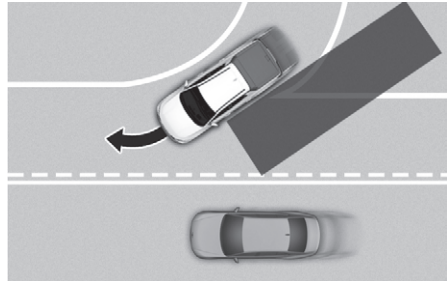
Always pay attention to road and driving conditions while driving.

- **Driving on an inclined road**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a slope. The function may not detect the vehicle in the next lane or may incorrectly detect the ground or structure. Always pay attention to road and driving conditions while driving.

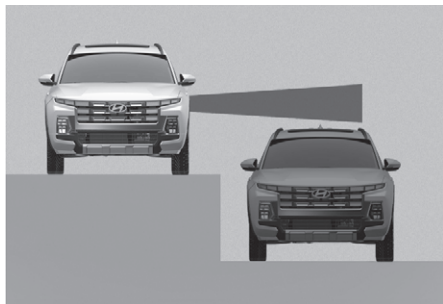
- **Driving where the road is merging/dividing**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the road merges or divides. The function may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions while driving.

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



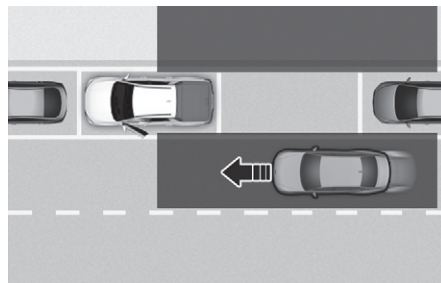
Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the heights of the lanes are different. The function may not detect the vehicle on a road with different lane heights (underpass joining section, grade separated intersections, etc.).

Always pay attention to road and driving conditions while driving.

WARNING

- When you are towing a trailer or another vehicle, make sure that you turn off Blind-Spot Collision-Avoidance Assist.
- Blind-Spot Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Blind-Spot Collision-Avoidance Assist may not operate for 3 seconds after the vehicle is started, or the front view camera or rear corner radars are initialized.

Safe Exit Warning (SEW)



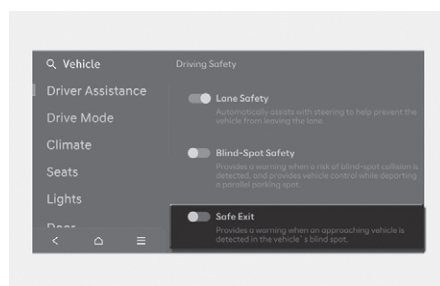
While your vehicle is stopped, and if Safe Exit Warning detects a vehicle approaching the rear corner of your vehicle and a passenger opens a door, Safe Exit Warning may warn you with a warning message and a warning sound to help avoid a collision.

CAUTION

Warning timing may vary depending on the speed of the approaching vehicle.

Safe Exit Warning settings

Safe Exit Warning



With the engine on, select **Setup > Vehicle > Driver Assistance > Driving Safety > Safe Exit** from the Settings menu to turn on Safe Exit Warning and deselect to turn off the function.

WARNING

The driver should always be aware of his or her surroundings. If "**Safe Exit**" is deselected, Safe Exit Warning cannot assist you.

Information

If the engine is restarted, Safe Exit Warning will maintain the last setting.

Safe Exit Warning operation

Safe Exit Warning

Collision warning when exiting vehicle



- When an approaching vehicle from the rear is detected at the moment a door is opened, the "**Collision Warning**" warning message will appear on the instrument cluster, and an audible warning will sound.
- Safe Exit Warning will warn the driver when your vehicle speed is below 3 km/h (2 mph), and the speed of the approaching vehicle from the rear is above 6 km/h (4 mph).

WARNING

Take the following precautions when using Safe Exit Warning:

- For your safety, only change the Settings after parking the vehicle at a safe location.
- If any other system's warning message appears or audible warning is generated, Safe Exit Warning's warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Safe Exit Warning if the surrounding is noisy.
- Safe Exit Warning does not operate in all situations or cannot prevent all collisions.
- Safe Exit Warning may warn the driver late or may not warn the driver depending on the road and driving conditions. Always check vehicle surroundings.
- The driver and passengers are responsible for accidents that occurs while exiting the vehicle. Always check the surroundings before you exit the vehicle.
- Never deliberately operate Safe Exit Warning. Doing so may lead to serious injury or death.

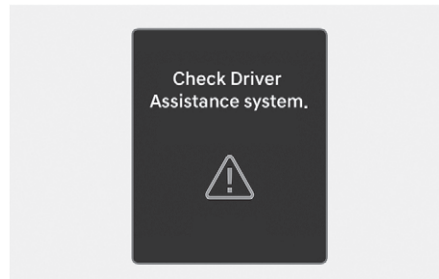
- Safe Exit Warning does not operate if there is a problem with Blind-Spot Collision-Avoidance Assist. The warning message of Blind-Spot Collision-Avoidance Assist will appear when:
 - Blind-Spot Collision-Avoidance Assist sensor or the sensor surrounding is polluted or covered
 - Blind-Spot Collision-Avoidance Assist fails to warn passengers or falsely warn passengers

i Information

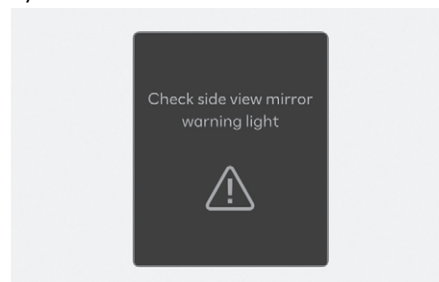
- After the vehicle is turned off, Safe Exit Warning operates for about 3 minutes, but turns off immediately if the doors are locked.
- The images and colors in the instrument cluster may differ depending on the instrument cluster type or theme selected from the instrument cluster.

Safe Exit Warning malfunction and limitations

Safe Exit Warning malfunction

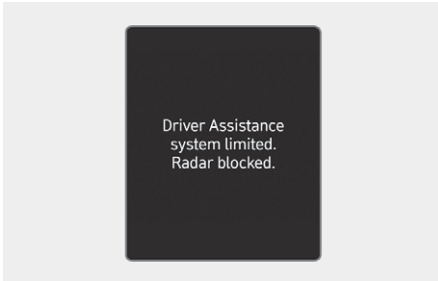


When Safe Exit Warning is not working properly, the "**Check Driver Assistance system.**" warning message will appear on the instrument cluster for several seconds, and the master warning light (△) will appear on the instrument cluster. If this occurs, have your vehicle inspected by an authorized HYUNDAI 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 appear on the instrument cluster. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

Safe Exit Warning disabled



When the rear bumper around the rear corner radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Safe Exit Warning.

If this occurs, the **"Driver Assistance system limited. Radar blocked."** warning message will appear on the instrument cluster.

Safe Exit Warning will operate properly when such foreign material or trailer, etc., is removed, and then the vehicle is restarted.

If Safe Exit Warning does not operate properly after it is removed, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Even though the warning message does not appear on the instrument cluster, Safe Exit Warning may not properly operate.
- Safe Exit Warning may not properly operate in an area (for example, open terrain) where any objects are not detected right after the vehicle is turned on, or when the detecting sensor is blocked with foreign material right after the vehicle is turned on.

CAUTION

Turn off Safe Exit Warning to install or remove a trailer, carrier, or another attachment. Turn on Safe Exit Warning when finished.

Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Safe Exit Warning

Safe Exit Warning may not operate properly, or it may operate unexpectedly under the following circumstances:

- Getting out of the vehicle where trees or grass are overgrown
- Getting out of the vehicle where the road is wet
- The approaching vehicle is very fast or very slow

WARNING

- Safe Exit Warning may not operate properly if interfered by strong electromagnetic waves.
- Safe Exit Warning may not operate for about 3 seconds after the vehicle is started, or the rear corner radars are initialized.
- If the vehicle is turned off and restarted while the radar is blocked or malfunctioned, the condition is maintained. Therefore, Safe Exit Warning may not operate properly.

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.

Manual Speed Limit Assist (MSLA)



- (1) Speed Limit indicator
- (2) Set speed

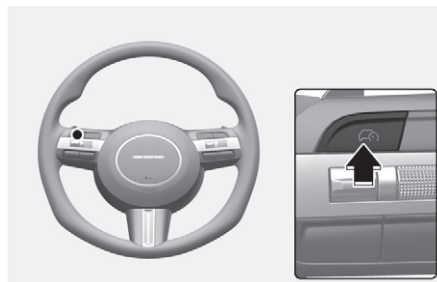
You can set the speed limit when you do not want to drive over a specific speed.

If you drive over the preset speed limit, Manual Speed Limit Assist will operate (set speed limit will blink and chime will sound) until the vehicle speed returns within the speed limit.

Manual Speed Limit Assist Operation

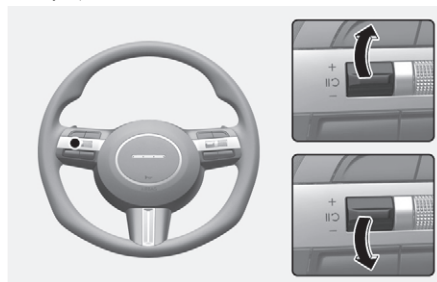
Setting speed limit

1. Press and hold the Driving Assist (DA) button at the desired speed. The Speed Limit (LIMIT) indicator will appear on the cluster.



2. Push the **+** switch up or **-** switch down, and release it at the desired speed.

Push the **+** switch up or **-** switch down and hold it. The speed will increase or decrease to the nearest multiple of five (multiple of ten in km/h) at first, and then increase or decrease by 10 km/h (5 mph).



3. The set speed limit will be displayed on the cluster.

If you would like to drive over the preset speed limit, depress the accelerator pedal beyond the pressure point to activate the kickdown function.

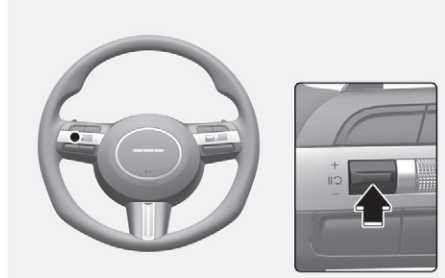
The set speed limit will blink and chime will sound until you return the vehicle speed within the speed limit.



i Information

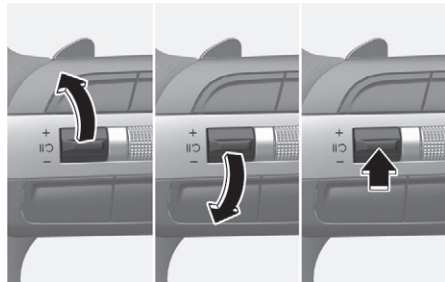
- When the accelerator pedal is not depressed beyond the pressure point, vehicle speed will maintain within the speed limit.
- The maximum setting speed varies depending on the vehicle specifications. The set speed cannot be increased beyond the maximum set speed.

Temporarily pausing Manual Speed Limit Assist



Press the  switch to temporarily pause the set speed limit. The set speed limit will turn off but the Speed Limit () indicator will stay on.

Resuming Manual Speed Limit Assist

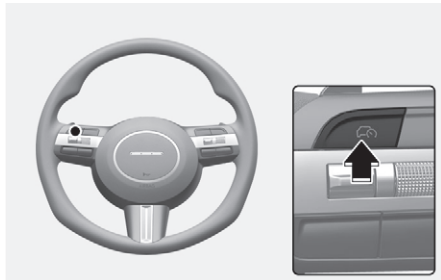


To resume Manual Speed Limit Assist after the function was paused, operate the **+**, **-**,  switch.

If you push the **+** switch up or **-** switch down, vehicle speed will be set to the current speed on the instrument cluster.

If you press the  switch, vehicle speed will resume to the preset speed.

Turning off Manual Speed Limit Assist



Press the Driving Assist (🚗) button to turn Manual Speed Limit Assist off. The Speed Limit (🚗LIMIT) indicator will go off. Always press the Driving Assist (🚗) button to turn Manual Speed Limit Assist off when not in use.

⚠ WARNING

Take the following precautions when using Manual Speed Limit Assist:

- Always set the vehicle speed to the speed limit in your state.
- Keep Manual Speed Limit Assist off when the function is not in use, to avoid inadvertently setting a speed. Check that the Speed Limit (🚗LIMIT) indicator is off.
- Manual Speed Limit Assist does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and be aware of unexpected and sudden situations. Pay attention to the road conditions at all times.

Intelligent Speed Limit Assist (ISLA)

if equipped

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 (mph or km/h) 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)

i Information

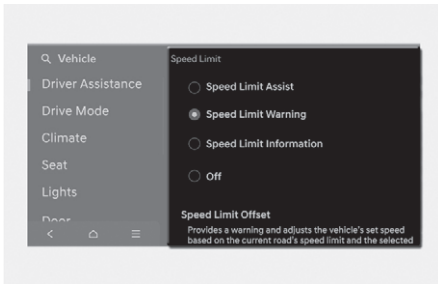
Intelligent Speed Limit Assist uses the following sensor:

- 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 engine on, select or deselect **Setup > Vehicle > Driver Assistance > Speed Limit** from 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.
- **Speed Limit Offset:** Speed Limit Offset can be adjusted.
Speed Limit Warning and Speed Limit Assist will warn the driver and adjust the driving speed when vehicle speed exceeds the speed at which the set Offset is added to speed limit.
- **Speed Limit Assist:** Intelligent Speed Limit Assist will inform the driver of speed limit and additional road signs, and warn the driver if the vehicle speed is faster than the speed limit. 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.
- **Speed Limit Information:** Intelligent Speed Limit Assist will inform the driver the current speed limit of the road.
- **Off:** Intelligent Speed Limit Assist will turn off.

WARNING

- For your safety, only change the Settings after parking the vehicle at a safe location.
- Intelligent Speed Limit Assist does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and be aware of unexpected and sudden situations. Pay attention to the road conditions at all times.

Information

- Speed Limit Assist function operates based on the Offset setting added to the speed limit. If you want to change the set speed according to the speed limit, adjust the offset to '0'.
- The setting of 'Speed Offset' is not reflected in Navigation-based Smart Cruise Control (NSCC).

Intelligent Speed Limit Assist Operation

Warning and control

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

i Information

- Intelligent Speed Limit Assist warning and control are described based on the Offset adjust to "0". For details on Offset setting, refer to the "Intelligent Speed Limit Assist Settings".

Displaying speed limit



Speed limit information is displayed on the instrument cluster.

i Information

- If speed limit information of the road cannot be recognized, '---' sign will be displayed. Please refer to "Limitations of Intelligent Speed Limit Assist" if the road signs are difficult to recognize.
- Intelligent Speed Limit Assist provides additional road sign information in addition to speed limit. The additional road sign information provided may vary according to your state.

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

Warning overspeed



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

Changing set speed



If the speed limit of the road changes during the operation of Manual Speed Limit Assist or Smart Cruise Control, an arrow in the direction of up or down is displayed to inform the driver that the set speed needs to be changed. At this time, the driver can change the set speed according to the speed limit by using the + or - switch on the steering wheel.

Set Speed Auto Change (if equipped with navigation)



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 (45 mph) or higher. When the function is active, the cruising speed on the instrument cluster appears in green.

WARNING

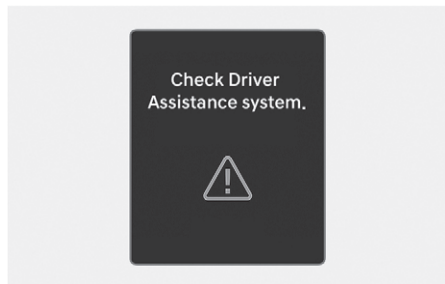
- If you want to drive below the speed limit, adjust the Offset under **O** or use the – switch on the steering wheel to lower the set speed.
- Even after changing the set speed according to the speed limit of the road, the vehicle can still be driven over the speed limit. If necessary, depress the brake pedal to reduce your driving speed.
- If the speed limit of the road is under 30 km/h (20 mph), the set speed change function will not work.
- Intelligent Speed Limit Assist operates using the speed units in the instrument cluster set by the driver. If the speed unit is not set to the speed unit used in your state, Intelligent Speed Limit Assist may not operate properly.

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.

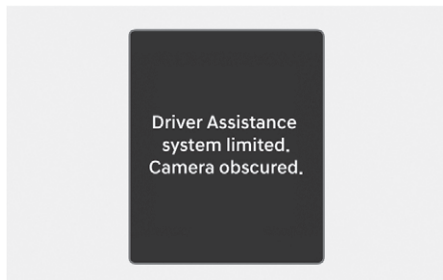
Intelligent Speed Limit Assist Malfunction and Limitations

Intelligent Speed Limit Assist malfunction



When Intelligent Speed Limit Assist is not working properly, the "**Check Driver Assistance system.**" warning message will appear on the instrument cluster for several seconds, and the master () warning light and () warning light will illuminate on the instrument cluster. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

Intelligent Speed Limit Assist 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 Intelligent Speed Limit Assist. If this occurs, the **"Driver Assistance system limited. Camera obscured."** warning message and (☐) warning light will appear on the instrument cluster.

Intelligent Speed Limit Assist will operate properly when snow, rain or foreign material is removed.

If Intelligent Speed Limit Assist does not operate properly after it is removed, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Even though the warning message or warning light does not appear on the instrument cluster, Intelligent Speed Limit Assist may not properly operate.

Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Intelligent Speed Limit Assist

Intelligent Speed Limit Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

- The road sign is contaminated or indistinguishable
- The road sign is difficult to see due to bad weather, such as rain, snow, fog, etc.
- The road sign is not clear or damaged
- The road sign is partially obscured by surrounding objects or shadow
- The road signs do not conform to the standard
- The text or illustration on the road sign is different from the standard
- The road sign is installed between the main line and the exit road or between diverging roads
- There is no conditional road signs on the road sign located on the exit road
- A sign is attached to another vehicle
- The distance between the vehicle and the road signs is too far
- The vehicle encounters illuminant road signs
- Intelligent Speed Limit Assist incorrectly recognizes numbers or illustrations in the street signs or other signs as the speed limit
- A road sign near the road you are driving is detected

- The other traffic sign or signboards are alongside the road sign
- Multiple signs are installed close together
- The minimum speed limit sign is misrecognized
- The minimum speed limit sign is on the road
- 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, street lights, or oncoming vehicles
- The navigation information or GPS information contain errors.
- The driver does not follow the guide of the navigation.
- The driver is driving on a new road that is not in the navigation system yet.
- The field of view of the front view camera is obstructed by sun glare
- Driving on a road that is sharply curved or continuously curved
- Driving through speed bumps, or driving up and down or left to right on steep inclines
- The vehicle is shaking heavily
- Driving on a newly opened road
- The navigation software is being updated while driving
- The navigation is restarted while driving

WARNING

- Intelligent Speed Limit Assist is a supplemental function that helps the driver comply with the speed limit on the road, and may not display the correct speed limit or control the driving speed properly.
 - Always set the vehicle speed to the speed limit in your area.
 - Intelligent Speed Limit Assist may not operate for 15 seconds after the vehicle is started, or the front camera is initialized.
-

Information

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

Driver Attention Warning (DAW)

Inattentive driving warning

Driver Attention Warning monitors your driving pattern while driving. When the driver's attention level is below a certain level, Driver Attention Warning recommends a break to help with safe driving.

Leading vehicle departure alert function

Leading Vehicle Departure Alert function will inform the driver when a detected vehicle in front departs.

i Information

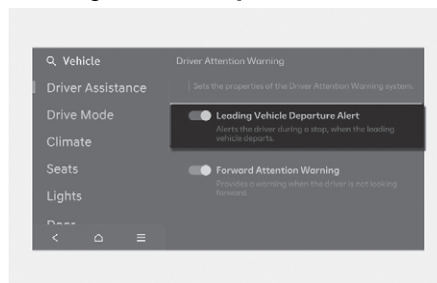
Driver Attention Warning uses the following sensor:

- Front view camera

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

Driver Attention Warning Settings

Leading Vehicle Departure Alert



With the engine on, select or deselect **Setup > Vehicle > Driver Assistance > Driver Attention Warning** and then enable **Leading Vehicle Departure alert** in the infotainment system to set whether to use each function.

- If '**Leading Vehicle Departure Alert**' is selected, the function will inform the driver 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 set the following Warning Methods:

- Driving Safety Priority

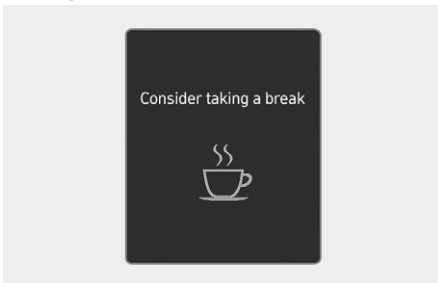
For more information, refer to the "Driver assistance system settings" section in this chapter.

Inattentive Driving Warning Operation

Inattentive Driving Warning

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 will appear and the inattentive driving (☹️) warning light will blink on the cluster with a warning sound to suggest that the driver take a break, when the driver's attention level is below a certain level.
- 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, change the Settings after parking the vehicle at a safe location.

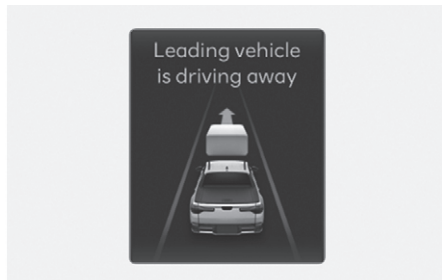
CAUTION

- Driver Attention Warning may suggest a break depending on the driver's driving pattern or habits, even if the driver doesn't feel fatigue.
- Driver Attention Warning is a supplemental function and may not be able to determine whether the driver is inattentive.
- A driver who feels fatigued should take a break at a safe location, even though there is no break suggestion by Driver Attention Warning.

Information

For more information on instrument cluster settings, refer to the "Cluster display" section in chapter 4.

Leading Vehicle Departure Alert function



When a detected vehicle in front departs from a stop, Leading Vehicle Departure Alert will inform the driver by displaying the "**Leading vehicle is driving away**" message on the instrument cluster and an audible warning will sound.

WARNING

- If any other system's warning message is displayed or audible warning is generated, Leading Vehicle Departure Alert's warning message may not be displayed and audible warning may not be generated.
- The driver has the responsibility to safely drive and control the vehicle.

CAUTION

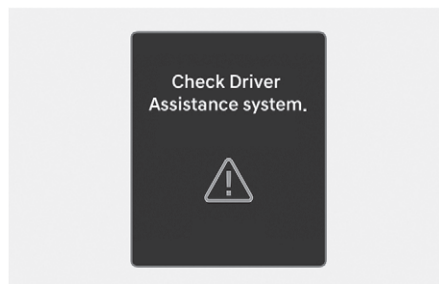
- Leading Vehicle Departure Alert is a supplemental function and may not alert the driver whenever the front vehicle departs from a stop.
- Always check the front of the vehicle and road conditions before departure.

Information

The images and colors in the instrument cluster may differ depending on the cluster type or theme selected in the infotainment system.

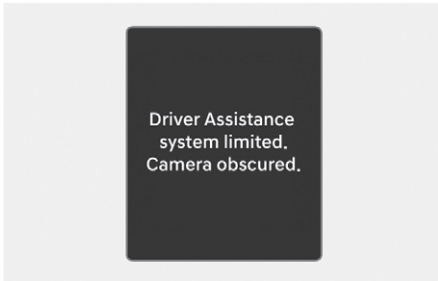
Driver Attention Warning Malfunction and Limitations

Driver Attention Warning malfunction



When Driver Attention Warning is not working properly, the "**Check Driver Assistance system**" warning message will appear on the cluster for several seconds, and the master () warning light and the inattentive driving () warning light will appear on the instrument cluster. If this occurs, have your 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 **"Driver Assistance system limited. Camera obscured."** warning message, the master (⚠️) warning light, and the inattentive driving (🚧) warning light 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 your vehicle inspected by an authorized HYUNDAI dealer.

⚠️ WARNING

- Driver Attention Warning may not properly operate in an area (for example, open terrain) where any objects are not detected right after turning ON the vehicle.

i Information

You can check it in the service message of the utility information view of the cluster display window.

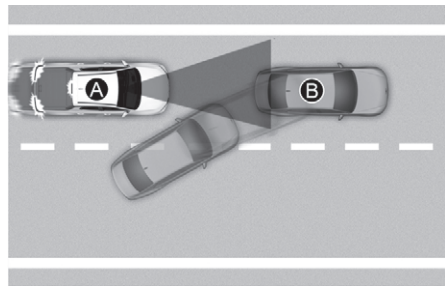
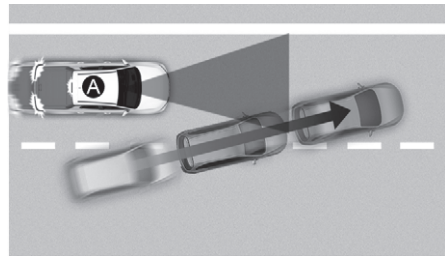
Limitations of Driver Attention Warning

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
- Lanes are blurred or erased

Leading Vehicle Departure Alert function

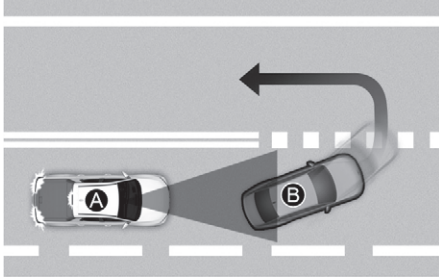
- **When the vehicle cuts in**



[A] Your vehicle
[B] Front vehicle

If a vehicle cuts in front of your vehicle, Leading Departure Alert may not operate properly.

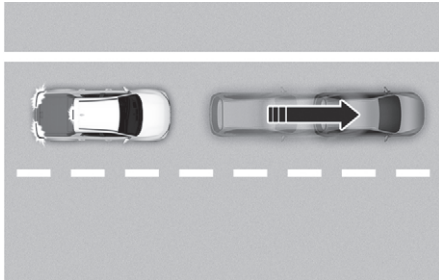
- **When the vehicle ahead sharply steers**



[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 U- turn, etc., Leading Vehicle Departure Alert may not operate properly.

- **When the vehicle ahead abruptly departs**



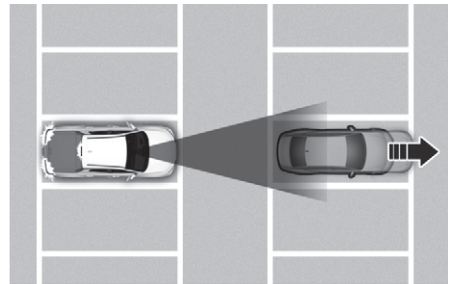
If the vehicle in front abruptly departs, Leading Vehicle Departure Alert may not operate properly.

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



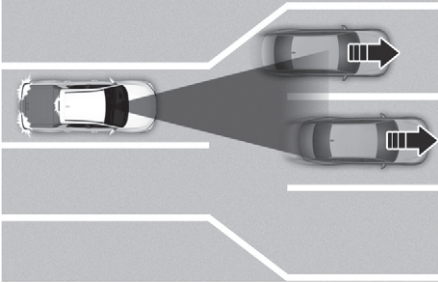
If there is a pedestrian(s) or bicycle(s) in between you and the vehicle in front, Leading Vehicle Departure Alert may not operate properly.

- **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 tollbooth or intersection, etc.



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

WARNING

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

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.

Forward Attention Warning (FAW)

 If equipped

Forward Attention Warning uses the in-cabin camera to help prevent the driver from being distracted while driving with an audible warning and warning light.

i Information

Forward Attention Warning uses the following sensor:

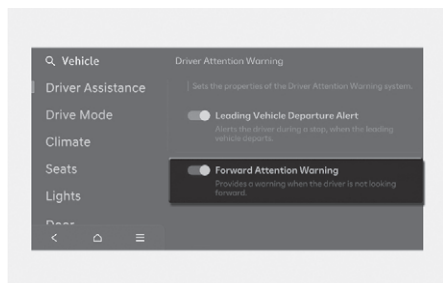
- In-cabin camera

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

Forward Attention Warning settings

Forward Attention Warning

With the engine on, select or deselect **Setup > Vehicle > Driver Assistance > Driver Attention Warning > Forward Attention Warning** in the infotainment system to set whether to use the function.



If '**Forward Attention Warning**' is enabled, the function warns the driver when the driver's gaze is not focused on the road.

i Information

- When the vehicle is restarted, Forward Attention Warning maintains the last setting.
- Even if Forward Attention Warning is turned off, the in-cabin camera still operates to detect the driver's forward attention under the condition Emergency Stop can operate (i.e., if Smart Cruise Control and Lane Following Assist are turned on).

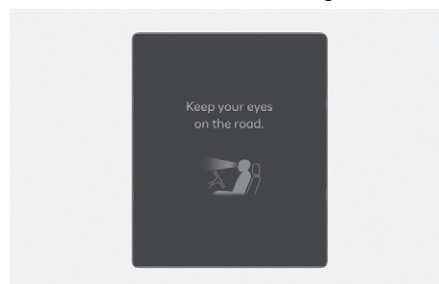
Forward Attention Warning operation

Operating conditions

Forward Attention Warning will operate when the following conditions are satisfied:

- Vehicle speed is above 1 km/h (1 mph)
- The gear is in D (Drive) or N (Neutral)

Forward Attention Warning



Forward Attention Warning determines whether the driver is focused on the road depending on information, such as the amount of time the driver is looking elsewhere, the amount of time the eyes are closed, how frequently the driver yawns, etc. If Forward Attention Warning judges the driver is not focused, the '**Keep your eyes on the road.**' warning message will appear on the cluster, and an audible warning will sound.

WARNING

If any other system's warning message is displayed or audible warning is generated, Forward Attention Warning's warning message may not be displayed and audible warning may not be generated.

CAUTION

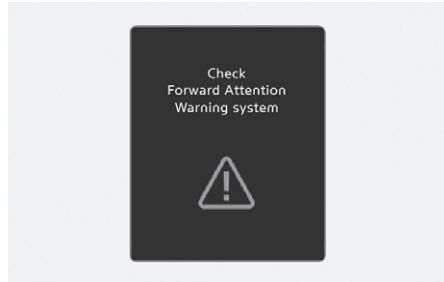
- Forward Attention Warning may warn the driver even though the driver is focused on the road because of driving style and driving pattern.
- Forward Attention Warning is a supplemental function and may not determine whether the driver is distracted while driving.
- The driver is responsible for safe driving and must focus on the road.

Information

- The In-cabin camera does not transmit recorded videos outside of the vehicle or store the video.
- The Warning method for Forward Attention Warning can not be changed.

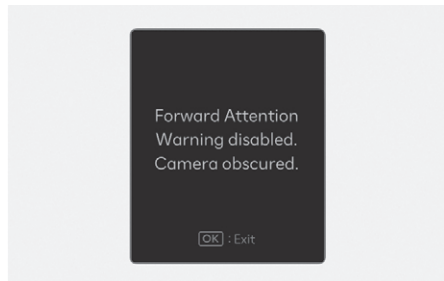
Forward Attention Warning malfunction and limitations

Forward Attention Warning malfunction



When Forward Attention Warning is not working properly, the "**Check Forward Attention Warning system**" warning message will appear on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Forward Attention Warning disabled



When there is an object right in front of the in-cabin camera or between the driver and the camera for a certain period of time, Forward Attention Warning does not operate properly, and the "**Forward Attention Warning disabled. Camera obscured.**" warning message appears on the instrument cluster, and an audible warning sounds.

If the object is removed or the camera is able to detect the driver's face, the function will operate normally. If Forward Attention Warning does not operate properly after the object is removed, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

Do not look toward the camera within 20 cm (8 in.) for longer than a minute.

CAUTION

- Do not impact the surface of the camera or around the camera. If the in-cabin camera is damaged, Forward Attention Warning may not work properly.
- Do not place anything on the camera or in front of the camera while driving. The in-cabin camera may not operate properly.
- When cleaning the camera, wipe with a soft and clean cloth to prevent damages on the surface of the camera lens. In addition, you should not use sharp tools near the camera, or use chemicals to clean the camera.
- Always keep the camera and around the area of the in-cabin camera clean and dry.
- Do not apply foreign objects, such as a sticker, around the infrared LED located near the camera.

Information

- Two red lights may appear on the camera in the following conditions when:
 - The outside brightness is dim or driving at night
 - The vehicle drives inside a building, such as a basement parking lot, garage or tunnel
 - The camera case is partially broken

Limitations of Forward Attention Warning

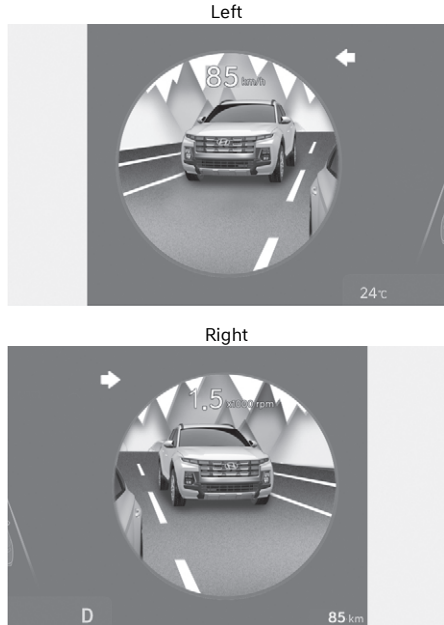
Forward Attention Warning may not operate properly, or it may operate unexpectedly under the following circumstances:

- The driver is wearing sunglasses, special glasses, infrared cutoff glasses, refracting glasses or thick glasses
- The driver has heavy eye makeup (eyeliner, mascara, color makeup, false eyelash) or eye piercing
- The driver's view is blocked by his/her hair, hat, etc.
- The driver is winking or wearing an eye patch on one eye
- The driver's face is covered partially by a mask, muffler, etc.

- The driver's view is blocked by incoming light from outside of the vehicle
- Light from outside, sunlight or infrared LED light of the camera is reflected by glasses or sunglasses
- The driver turns or lowers his/her head so that the face or an eye is hidden from the camera
- The driver shakes his/her head up and down, or adverse road conditions cause excessive vehicle vibrations while driving
- The driver is improperly positioned in the driver's seat so that the driver's face is not detected
- The driver is too tall or short
- The camera is blocked by the driver's grip on the steering wheel
- More than two people are looking at the instrument cluster simultaneously from the driver's seat
- The driver's eyes are narrowed due to laughing or sun glare
- Misrecognize a picture or mannequin that has a similar size of the driver's face
- There are other devices using infrared light in the vehicle

Blind-spot View Monitor (BVM)

 if equipped



Blind-Spot View Monitor uses the wide-side view cameras to display the rear blind spot areas of your vehicle on the instrument cluster when the turn signal is turned on to help with safe lane changes.

Information

Blind-Spot View Monitor uses the following sensors:

- Wide-side view cameras (camera located at bottom of the mirror) (if equipped)

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

Blind-Spot View Monitor Settings

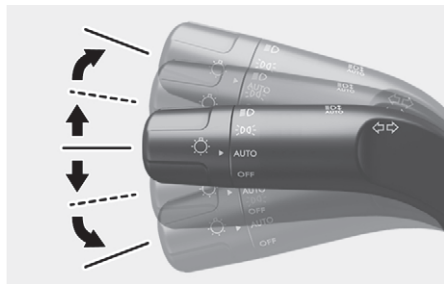
Setting features

Blind-Spot View

With the engine on, select **Setup > Vehicle > Driver Assistance > Driving Safety** and then enable **Blind-Spot View Monitor** in the infotainment system to turn on the Blind-Spot View Monitor feature.

Blind-Spot View Monitor Operation

Operating switch



Turn signal switch

Blind-Spot View Monitor will turn on and off when the turn signal is turned on and off.

Blind-Spot View Monitor

Operating conditions

When the left or right side turn signal turns on, the image in that direction is displayed on the instrument cluster.

Off conditions

- When the turn signal turns off, the image on the instrument cluster will turn off.
- When the hazard warning flasher is on, Blind-Spot View Monitor will turn off, regardless of the turn signal status.
- When other important warning is displayed on the instrument cluster, Blind-Spot View Monitor may turn off.

Blind-Spot View Monitor Malfunction

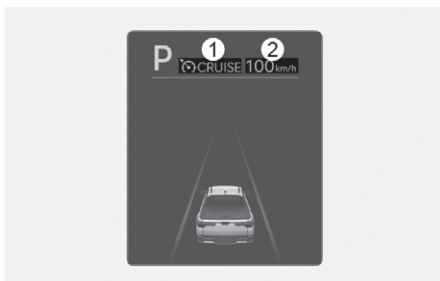
When Blind-Spot View Monitor is not working properly, or the cluster display flickers, or the camera image does not display properly, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- The image shown on the instrument cluster may differ from the actual distance of the object. Make sure to directly check the vehicle's surroundings for safety.
- Always keep the camera lens clean. If the lens is covered with foreign material, it may adversely affect camera performance and Blind-Spot View Monitor may not operate properly.

Cruise Control (CC)

 If equipped



(1) Cruise indicator

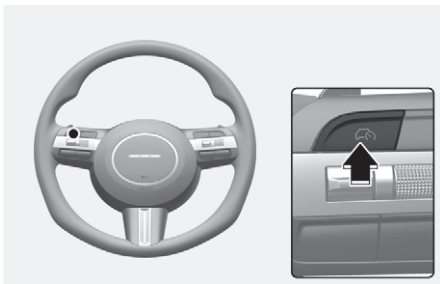
(2) Set speed

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

Cruise Control operation

Setting 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 (CRUISE) indicator will illuminate on the cluster.

3. Release the accelerator pedal.

Vehicle speed will maintain the set speed even when the accelerator pedal is not depressed.

Information

- The vehicle may slightly slow down or speed up while driving uphill or downhill.
- The Driving Assist button symbol may differ depending on your vehicle option.

Increasing set speed



- Push the + switch up and release it immediately. The set speed will increase by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the + switch up and hold it while monitoring the set speed on the cluster. The set speed will increase to the nearest multiple of 10 (multiple of 5 in mph) at first, and then increase by 10 km/h (5 mph) each time the switch is operated in this manner.

Release the switch when the desired speed is shown and the vehicle will accelerate to that speed.

Information

The maximum setting speed varies depending on the vehicle specifications. The set speed cannot be increased beyond the maximum set speed.

Decreasing set speed



- Push the - switch down and release it immediately. The set speed will decrease by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the - switch down and hold it while monitoring the set speed on the cluster. The set speed will decrease to the nearest multiple of 10 (multiple of 5 in mph) at first, and then decrease by 10 km/h (5 mph) each time the switch is operated in this manner.

Release the switch at the speed you want to maintain.

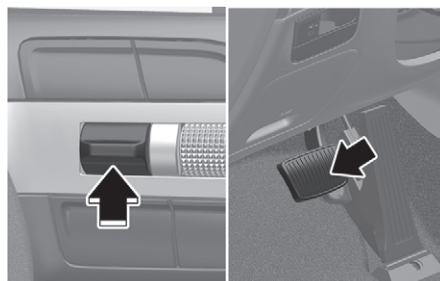
Accelerating temporarily

If you want to speed up 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 increased speed, the set speed will be set to the current increased speed.

Temporarily pausing Cruise Control



Cruise Control will be paused when:

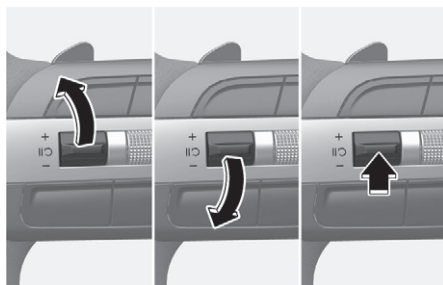
- Depressing the brake pedal.
- Pressing the II O switch.
- Shifting the gear to N (Neutral).
- Decreasing vehicle speed to less than about 30 km/h (20 mph).
- ESC (Electronic Stability Control) is operating.
- Downshifting to 2nd gear when in Manual Shift mode.

The set speed will turn off but the Cruise (CRUISE) indicator will stay on.

NOTICE

If Cruise Control pauses during a situation that is not mentioned, have your vehicle inspected by an authorized HYUNDAI dealer.

Resuming Cruise Control



Operate the +, - or  switch.

If you push the + switch up or - switch down, vehicle speed will be set to the current speed on the cluster.

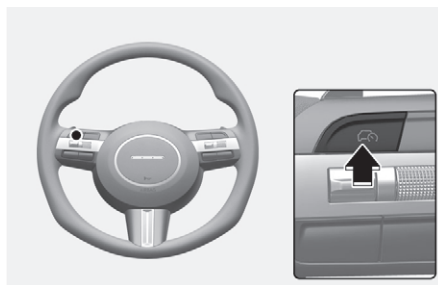
If you press the  switch, vehicle speed will resume to the preset speed.

The vehicle speed must be above 30 km/h (20 mph) for Cruise Control to resume.

WARNING

Check the driving condition before using the  switch. Driving speed may sharply increase or decrease when you press the  switch.

Turning off Cruise Control



Press the Driving Assist button to turn Cruise Control off. The Cruise () indicator will go off.

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

WARNING

Take the following precautions when using Cruise Control:

- Always set the vehicle speed under the speed limit in your country.
- Keep Cruise Control off when the system is not in use, to avoid inadvertently setting a speed. Check that the Cruise () indicator is off.
- Cruise Control does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and should always be aware of unexpected and sudden situations from occurring.
- Always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.

- Do not use Cruise Control when it may be unsafe to keep the vehicle at a constant speed:
 - When driving in heavy traffic, or when traffic conditions make it difficult to drive at a constant speed
 - When driving on rainy, icy, or snow-covered roads
 - When driving on hilly or windy roads
 - When driving in windy areas
 - When driving with limited view (possibly due to bad weather, such as fog, snow, rain and sandstorm)
- Do not use Cruise Control when towing a trailer.

i Information

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

Smart Cruise Control (SCC)

 if equipped

Smart Cruise Control helps maintain a set distance and speed from the vehicle ahead.

Overtaking Acceleration Assist

When Smart Cruise Control judges you are attempting to overtake a vehicle in front, Smart Cruise Control help with accelerating.

CAUTION

Smart Cruise Control works differently, depending on the availability of the Emergency Stop feature. Make sure to read information on the "Emergency Stop (ES)" feature.

i Information

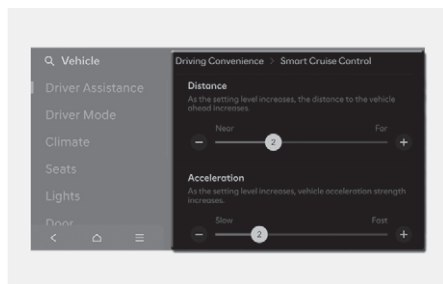
Smart Cruise Control uses the following sensors:

- 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 engine on, select **Setup > Vehicle > Driver Assistance > Driving Convenience > Smart Cruise Control** from the Settings menu in the infotainment system, you can change the vehicle distance, the acceleration, and the reaction speed manually.

Smart Cruise Control Operation

Operating conditions

Basic function

Smart Cruise Control operates when the following conditions are satisfied.

- The gear is in D (Drive)
- Your vehicle speed is within the operating speed range
 - 10-180 km/h (5-110 mph): when there is no vehicle in front
 - 0-180 km/h (0-110 mph): when there is a vehicle in front
- ESC (Electronic Stability Control) or ABS (Anti-Lock Braking System) is on

Smart Cruise Control does not operate in the following conditions.

- Engine RPM is high

- The driver's door is opened
- EPB (Electronic Parking Brake) is applied
- ESC (Electronic Stability Control) or ABS (Anti-Lock Braking System) is controlling the vehicle
- Forward Collision-Avoidance Assist brake control is operating
- Hands-off warning for Lane Keeping Assist and Highway Driving Assist is on

i Information

When stopped behind another vehicle, the driver can turn on Smart Cruise Control while the brake pedal is depressed.

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

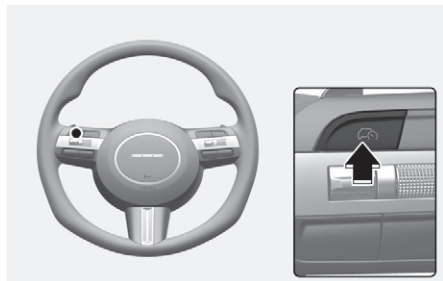
Overtaking Acceleration Assist does not operate in the following conditions.

- The hazard warning flasher is on
- Vehicle speed is reduced to maintain distance with 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.

Turning on Smart Cruise Control

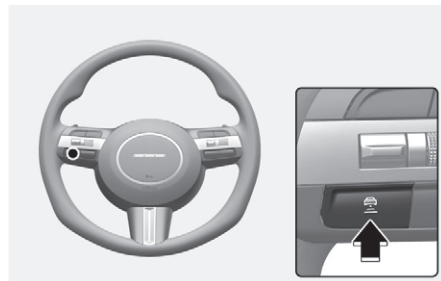


- Press the Driving Assist button to turn on Smart Cruise Control. The speed will be set to the current speed on the instrument cluster.
- If there is no vehicle in front of you, the set speed will be maintained, but if there is a vehicle in front of you, the speed may decrease to maintain the distance to the vehicle ahead. If the vehicle ahead accelerates, your vehicle will travel at a steady cruising speed after accelerating to the set speed.

i Information

If your vehicle speed is between 0-30 km/h (0-20 mph) when you press the Driving Assist button, Smart Cruise Control speed will be set to 30 km/h (20 mph).

Setting vehicle distance



Press the button repeatedly to cycle through the headway settings from **Distance 4 > Distance 3 > Distance 2 > Distance 1 > Distance 4**.

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

- Distance 4: about 172 ft. (52.5 m)
- Distance 3: about 130 ft. (40 m)
- Distance 2: about 106 ft. (30 m)
- Distance 1: about 82 ft. (25 m)

i Information

The distance is set to the last set distance when the vehicle is restarted, or when Smart Cruise Control was temporarily canceled.

Increasing set speed



- Push the + switch up and release it immediately. The set speed will increase by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the + switch up and hold it while monitoring the set speed on the instrument cluster. The set speed will increase by 10 km/h (5 mph) each time the switch is operated in this manner. Release the switch when the desired speed is shown, and the vehicle will accelerate to that speed. You can increase the set speed to 180 km/h (110 mph).

⚠ WARNING

Check the driving condition before using the + switch. Driving speed may sharply increase when you push up and hold the + switch.

i Information

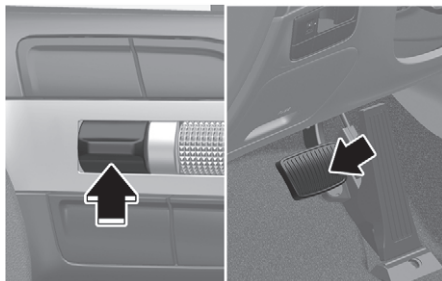
The driving speed may not reach the set speed depending on the vehicle characteristics and driving conditions.

Decreasing set speed



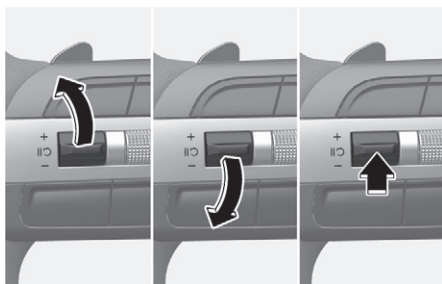
- Push the - switch down and release it immediately. The set speed will decrease by 1 km/h (1 mph) each time the switch is operated in this manner.
- Push the - switch down and hold it while monitoring the set speed on the cluster. The set speed will decrease by 10 km/h (5 mph) each time the switch is operated in this manner. Release the switch at the speed you want to maintain. You can decrease the set speed to 30 km/h (20 mph).

Temporarily canceling Smart Cruise Control



Press the II⏏ switch or depress the brake pedal to temporarily cancel Smart Cruise Control.

Resuming Smart Cruise Control



To resume Smart Cruise Control after the function was canceled, operate the +, - or II⏏ switch.

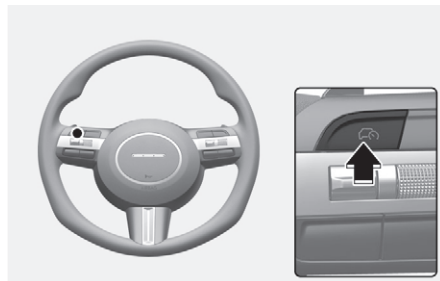
If you push the + switch up or - switch down, vehicle speed will be set to the current speed on the instrument cluster.

If you press the II⏏ switch, vehicle speed will resume to the preset speed.

WARNING

Check the driving condition before using the II⏏ switch. Driving speed may sharply increase or decrease when you press the II⏏ switch.

Turning off Smart Cruise Control



To turn Smart Cruise Control off, press the Driving Assist (DA) button.

WARNING

Do not use the switches and buttons at the same time. Smart Cruise Control may not operate properly.

Information

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

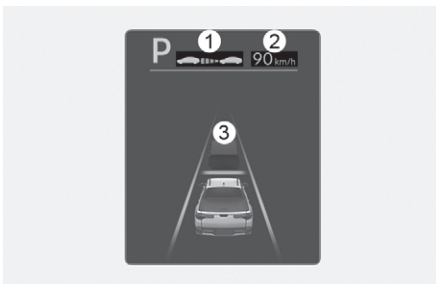
Display and Control

Basic function

You can see the status of the Smart Cruise Control operation in the Driving Assist view on the instrument cluster. For more information, refer to the "View modes" section in chapter 4.

Smart Cruise Control will be displayed as below depending on the status of the function.

Operating



Temporarily cancelled



- When operating
 - (1) Whether there is a vehicle ahead and the selected distance level
 - (2) Set speed
 - (3) Whether there is a vehicle ahead and the target vehicle distance
- When temporarily cancelled
 - (1) Your vehicle (gray)
 - (2) Previous set speed (gray)

i Information

- The distance of the front vehicle on the instrument cluster is displayed based on the actual distance between your vehicle and the vehicle ahead.
- The target distance may vary according to 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 colors in the instrument cluster may differ depending on the instrument cluster type or theme selected in the infotainment system.

Accelerating temporarily



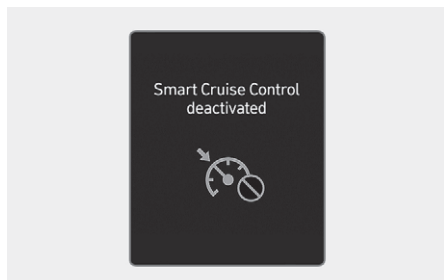
If you want to speed up temporarily without altering the set speed while Smart Cruise Control is operating, depress the accelerator pedal. While the accelerator pedal is depressed, the set speed, distance level and target distance will blink on the instrument cluster.

However, if the accelerator pedal is depressed insufficiently, the vehicle may decelerate.

! WARNING

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

Temporarily canceling Smart Cruise Control



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

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

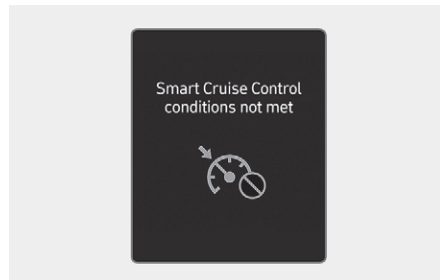
WARNING

When Smart Cruise Control is temporarily canceled, distance with the front vehicle will not be maintained. Always have your eyes on the road while driving, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Information

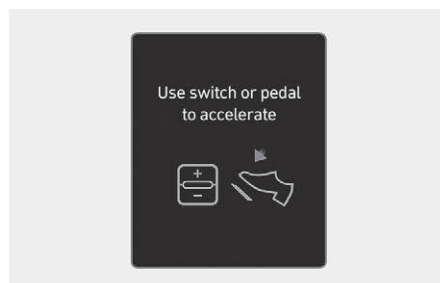
If Smart Cruise Control is temporarily canceled while the vehicle is at a standstill with the function activated, EPB (Electronic Parking Brake) maybe applied.

Smart Cruise Control conditions not satisfied



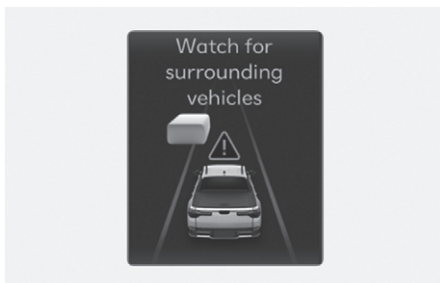
If the Driving Assist button, + switch, - switch or  switch is operated when Smart Cruise Control operating conditions are not satisfied, the "**Smart Cruise Ctrl. conditions not met**" will appear on the instrument cluster, and an audible warning will sound.

In traffic situation



In traffic, your vehicle will stop if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving, your vehicle will start as well. In addition, after the vehicle has stopped and a certain time have passed, the "**Use switch or pedal to accelerate**" message will appear on the instrument cluster. Depress the accelerator pedal or operate the + switch, - switch or  switch to start driving.

Warning road conditions ahead



In the following situation, the **"Watch for surrounding vehicles"** warning message will appear on the instrument cluster, and an audible warning will sound and steering wheel will vibrate to warn the driver of road conditions ahead.

- The vehicle in front disappears when Smart Cruise Control is maintaining the distance with 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, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Collision Warning

If Forward Collision-Avoidance Assist is activated when Smart Cruise Control is in operation, there may be a high risk of collision with the vehicle ahead.

If this happens, immediately check the driving status and the road conditions ahead.

Press the brake pedal to manually adjust the speed, if necessary.

For information on this function, check the details, warning, caution and notice in "Forward Collision-Avoidance Assist (FCA) (Front view camera only)".

WARNING

Take the following precautions when using Smart Cruise Control:

- Smart Cruise Control does not substitute for proper and safe driving. It is the responsibility of the driver to always check the speed and distance to the vehicle ahead.
- Smart Cruise Control may not recognize unexpected and sudden situations or complex driving situations, so always pay attention to driving conditions and control your vehicle speed.
- Keep Smart Cruise Control off when the function is not in use to avoid inadvertently setting a speed.
- Do not open the door or leave the vehicle when Smart Cruise Control is operating, even if the vehicle is stopped.
- Always be aware of the selected speed and headway distance.

- Keep a safe distance according to road conditions and vehicle speed. If the headway distance is too close during high-speed driving, a serious collision may result.
- When maintaining distance with the vehicle ahead, if the front vehicle disappears, Smart Cruise Control may suddenly accelerate to the set speed. Always be aware of unexpected and sudden situations from occurring.
- Vehicle speed may decrease on an upward slope and increase on a downward slope.
- 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 for safety reasons.
- Turn off Smart Cruise Control when your vehicle is being towed.
- Smart Cruise Control may not operate properly if interfered by strong electromagnetic waves.
- Smart Cruise Control may not detect an obstacle in front and lead to a collision. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.
- Vehicles moving in front of you with a frequent lane change may cause a delay in Smart Cruise Control reaction or may cause Smart Cruise Control to react to a vehicle actually in an adjacent lane. Always drive cautiously to prevent unexpected and sudden situations from occurring.
- Always be aware of the surroundings and drive safely, even though a warning message does not appear or an audible warning does not sound.
- If any other system's warning message is displayed or warning sound is generated, Smart Cruise Control warning message may not be displayed and warning sound may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surrounding is noisy.
- The vehicle manufacturer is not responsible for any traffic violation or crashes caused by the driver.
- Always set the vehicle speed under the speed limit in your area.

CAUTION

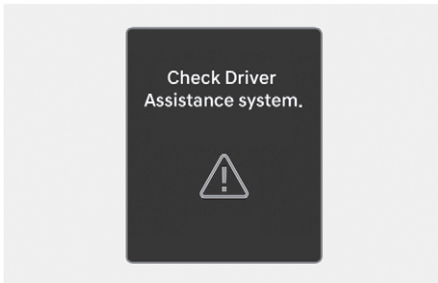
- The vehicle must be driven sufficiently to reflect the actual driving style of the driver, such as inter-vehicle distance, acceleration and reaction speed.
- If you are driving in special conditions, such as snow, rain, fog or steep slopes, the vehicle may not be driven according to the driver's driving style.

Information

- Smart Cruise Control may not operate for few seconds after the vehicle is started or the front view camera or front radar is initialized.
- You may hear a sound when the brake is controlled by Smart Cruise Control.

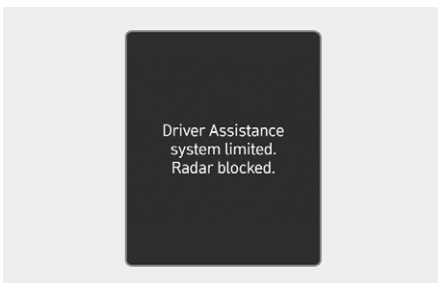
Smart Cruise Control Malfunction and Limitations

Smart Cruise Control malfunction



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

Smart Cruise Control disabled



When the front radar cover or sensor is covered with snow, rain, or foreign material, it can reduce the detecting performance and temporarily limit or disable Smart Cruise Control.

If this occurs the "**Driver Assistance system limited. Radar blocked.**" warning message will appear for a certain period of time on the instrument cluster.

Smart Cruise Control will operate properly when snow, rain or foreign material is removed.

WARNING

Even though the warning message does not appear on the instrument cluster, Smart Cruise Control may not properly operate.

CAUTION

Smart Cruise Control may not properly operate in an area (for example, open terrain), where there is nothing to detect after turning ON the vehicle.

Information

You can check it in the service message of the utility information view of the cluster display window.

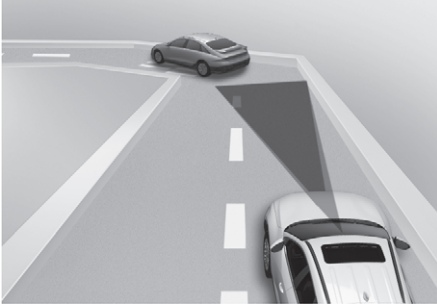
Limitations of Smart Cruise Control

Smart Cruise Control may not operate properly, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- Washer fluid is continuously sprayed, or the wiper is on
- 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
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming vehicle is reflected on the wet road surface, such as a puddle on the road

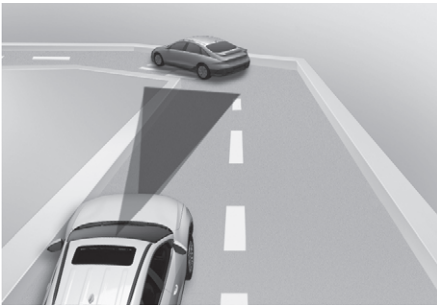
- The temperature around the front view camera is high or low
- An object is placed on the dashboard
- The surrounding is very bright
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlights are not on or are not bright
- Driving in heavy rain or snow, or thick fog
- Driving through steam, smoke or shadow
- Only part of the vehicle is detected
- The vehicle 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 does not look normal (for example, tilted, overturned, etc.)
- The front vehicle's ground clearance is low or high
- A vehicle suddenly cuts in front
- Your vehicle is being towed
- Driving through a tunnel or iron bridge
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.
- An object reflecting off the front radar such as a guardrail, nearby vehicle, etc.
- 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 in vast areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- The vehicle in front is made of material that does not reflect on the front radar
- Driving near a highway interchange or tollbooth
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- Driving on a curved road
- The vehicle in front is detected late
- The vehicle in front is suddenly blocked by an obstacle
- The vehicle in front suddenly changes lane or suddenly reduces speed
- The vehicle in front is bent out of shape
- The front vehicle's speed is fast or slow
- With a vehicle in front, your vehicle changes lane at low speed
- The vehicle in front is covered with snow
- Unstable driving
- You are on a roundabout and the vehicle in front is not detected
- You are continuously driving in a circle
- Driving in a parking lot
- Driving through a 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 are overgrown
- There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise

- **Driving on a curved road**



On curves, Smart Cruise Control may not detect a vehicle in the same lane, and may accelerate to the set speed. Also, vehicle speed may rapidly decrease when the vehicle ahead is detected suddenly.

Select the appropriate set speed on curves and apply the brake pedal or accelerator pedal according to the road and driving conditions ahead.



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

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

- **Driving on an inclined road**



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

Select the appropriate set speed on inclines and apply the brake pedal or accelerator pedal according to the road and driving conditions ahead.

• Changing lanes

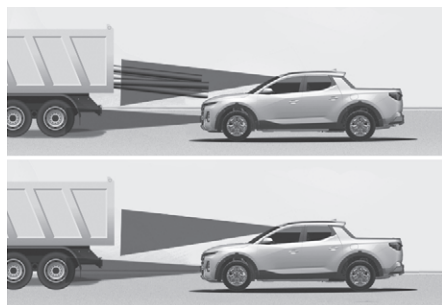
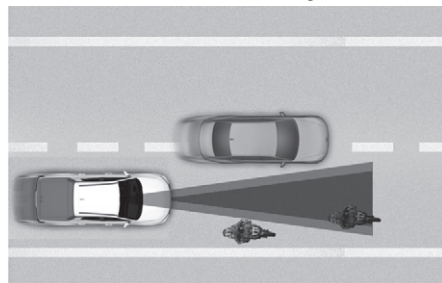


[A] Your vehicle

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

• Situations when detecting are limited

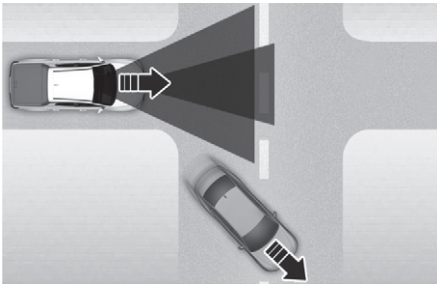


In the following cases, some vehicles, pedestrians or animals in your lane cannot be detected by the sensor:

- Vehicles offset to one side
- Slow-moving vehicles or sudden decelerating vehicles
- Vehicles with higher ground clearance or vehicles carrying loads that stick out of the back of the vehicle
- Vehicles that has the front lifted due to heavy loads
- Vehicles within about 6 ft. (2 m) from your vehicle
- Oncoming vehicles
- Stopped vehicles
- Vehicles with small rear profile, such as trailers

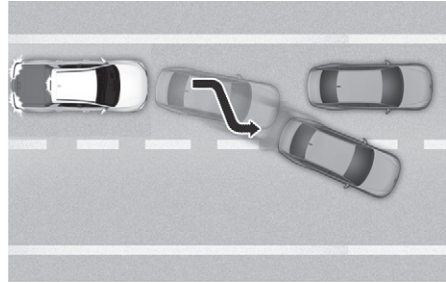
- Narrow vehicles, such as motorcycles or bicycles
- Special vehicles
- Animals and pedestrians
- Adjust your vehicle speed by depressing the brake pedal according to the road and driving conditions ahead.
- In the following cases, the vehicle in front cannot be detected by the sensor:
 - You are steering your vehicle
 - Driving on narrow or sharply curved roads
- When a vehicle ahead disappears at an intersection, your vehicle may accelerate.

Always pay attention to road and driving conditions while driving.

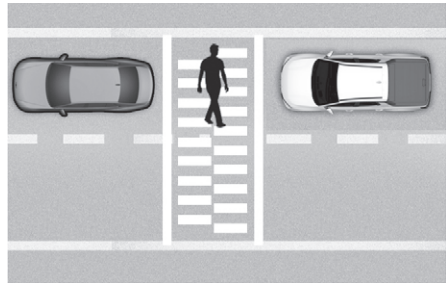


- When a vehicle in front of you merges out of the lane, Smart Cruise Control may not immediately detect the new vehicle that is now in front of you.

Always pay attention to road and driving conditions while driving.



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



Emergency Stop (ES)

 if equipped

If Emergency Stop judges the driver is unresponsive, the function stops your vehicle within the driving lane by centering the vehicle in the lane and assisting in braking.

i Information

Emergency Stop uses the following sensors:

- Front view camera
- Front radar
- In-cabin camera (if equipped)

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

Emergency Stop operation

Operating conditions

Emergency Stop operates if all the following conditions are met:

- Smart Cruise Control is on.
- Lane Following Assist is on.
- The function judges you are unresponsive.

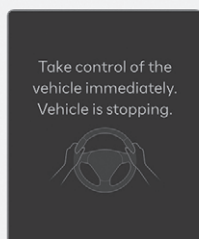
The function judges you are unresponsive if:

- You do not have your hands on the steering wheel after the hands-off warning is continuously displayed.
- Your eyes are not focused on the road after inattentive driving warning is continuously displayed (if equipped).

i Information

- Operations of Navigation-based Smart Cruise Control and Smart Cruise Control for Highway Driving Assist are included.
- If there is a camera in the cabin and the driver is looking ahead, the maximum time delay after which the vehicle can automatically start moving following the vehicle in front is 30 seconds.
- For more information on Smart Cruise Control, Navigation-based Smart Cruise Control, Lane Following Assist, or High Driving Assist, refer to the corresponding section as follows: "Smart Cruise Control (SCC)", "Navigation-based Smart Cruise Control (NSCC)", "Lane Following Assist (LFA)", or "Highway Driving Assist (HDA)".

Emergency stopping



To warn you that Emergency Stop is operating the '**Take control of the vehicle immediately. Vehicle is stopping.**' warning message appears on the instrument cluster, an audible warning sounds, and the steering wheel vibrates. Emergency Stop provides steering and braking assist to stop the vehicle within the driving lane.

i Information

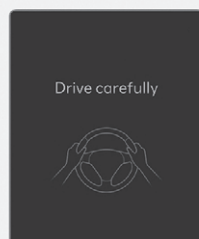
When Emergency Stop is operating, the vehicle distance setting of Smart Cruise Control is changed to Distance 4. The vehicle distance setting is set to the last distance setting after Emergency Stop is deactivated.

After stopping

After your vehicle has stopped, the following is performed:

- Doors are unlocked.
- SOS call is made. (if served)
- EPB (Electronic Parking Brake) is applied.

Deactivating Emergency Stop



If the function judges you have responded, Emergency Stop is deactivated when one of the following condition is met:

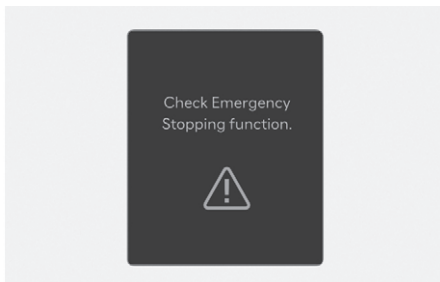
- You are focused on the road and the steering wheel is controlled.
- You strongly and continuously depress the accelerator pedal.
- You strongly depress the brake pedal.
- You press the Lane Driving Assist button (/⊕\).
- You press the Driving Assist button (↶).
- You press the hazard warning flasher button after your vehicle has stopped.
- The front door is opened.

⚠ CAUTION

If the vehicle has been stopped using the Emergency Stop feature and then the feature is turned off, it is not possible to turn on Smart Cruise Control or Highway Driving Assist. To use these features, the vehicle should be restarted.

Emergency Stop malfunction and limitations

Emergency Stop malfunction



When Emergency Stop is not working properly, the "**Check Emergency Stopping function.**" warning message appears, and the master (△) warning light illuminates on the instrument cluster. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Emergency Stop

For specific operation limitations for the Emergency Stop feature, refer to the following section: "Smart Cruise Control (SCC)", "Lane Keeping Assist (LKA)" or "Lane Following Assist (LFA)".

Navigation-based Smart Cruise Control (NSCC)

if equipped

Navigation-based Smart Cruise Control can help drive at a certain speed according to the road conditions when driving on highways by using road 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)

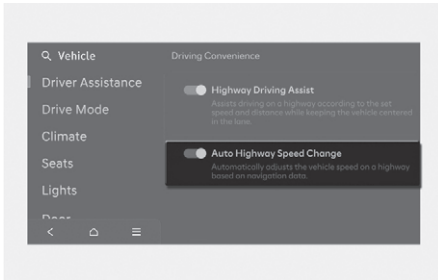
USA	Select Interstate Highway and U.S. (Federal) and State Highways
Canada	Select Provincial and Territorial Highways

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

Highway Auto Curve Slowdown

If vehicle speed is high, Highway Auto Curve Slowdown function will temporarily decelerate your vehicle or limit acceleration to help you drive safely on a curve based on the curve information from the navigation.

Navigation-based Smart Cruise Control Settings



With the engine on, select **Setup > Vehicle > Driver Assistance > Driving Convenience > Auto Highway Speed Change** from the infotainment system to turn on Navigation based Smart Cruise Control and deselect to turn off the function.

i Information

When there is a problem with Navigation-based Smart Cruise Control, the function cannot be set in the infotainment system.

Navigation-based Smart Cruise Control Operation

Operating conditions

Navigation-based Smart Cruise Control is ready to operate if all of the following conditions are satisfied:

- Select "**Auto Highway Speed Change**" from the infotainment system.
- Smart Cruise Control is operating
- Driving on main roads of highways

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

When Navigation-based Smart Cruise Control operates, it will be displayed on the instrument cluster as follows:



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



"Drive carefully" warning message will appear in the following circumstances:

- Navigation-based Smart Cruise Control is not able to slow down your vehicle to a safe speed

Information

The images and colors in the instrument cluster may differ depending on the instrument cluster type or theme selected from the infotainment system.

Highway Curve Zone Auto Slowdown

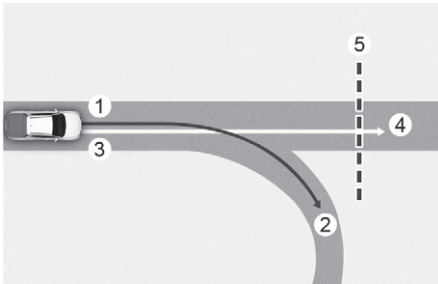
- Depending on the curve ahead on the highway, the vehicle will decelerate, and after passing the curve, the vehicle will accelerate to Smart Cruise Control set speed.
- Vehicle deceleration time may differ depending on the vehicle speed and the degree of the curve on the road. The higher the driving speed, deceleration will start faster.

Limitations of Navigation-based Smart Cruise Control

Navigation-based Smart Cruise Control may not operate properly under the following circumstances:

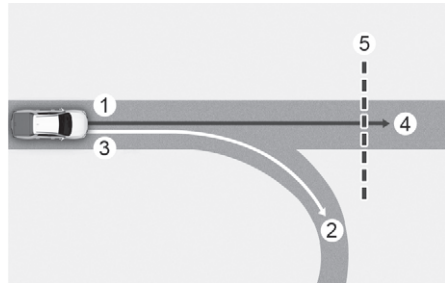
- The navigation is not working properly
- Map information is not transmitted due to infotainment system's abnormal operation
- Speed limit and road information in the navigation is not updated
- The map information and the actual road is different because of real-time GPS data or map information error
- The navigation searches for a route while driving
- GPS signals are blocked in areas such as a tunnel
- A road that divides into two or more roads and joins again
- The driver goes off course from the route set in the navigation

- The route to the destination is changed or cancelled by resetting the navigation
- The vehicle enters a service station or rest area
- Android Auto or Car Play is operating
- The navigation cannot detect the current vehicle position (for example, elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way)
- The navigation is being updated while driving
- The navigation is being restarted while driving
- The speed limit of some sections changes according to the road situations
- Driving on a road under construction
- Driving in lane-restricted driving situations
- There is bad weather, such as heavy rain, heavy snow, etc.
- Driving on a road that is sharply curved



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

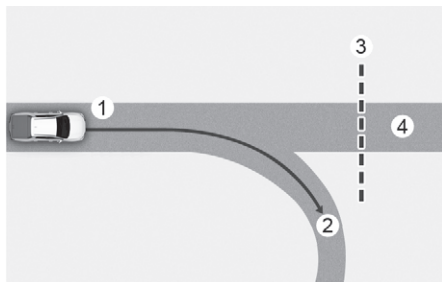
- When there is a difference between the navigation set route (branch line) and the driving route (main road), Highway Curve Zone Auto Slowdown function may not operate until the driving route is recognized as the main road.
- When the vehicle's driving route is recognized as the main road by maintaining 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 Curve Zone Auto Slowdown function will operate based on the curve information on the main road.
- 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

- Navigation-based Smart Cruise Control is not a substitute for safe driving practices, but a convenience function. Always have your eyes on the road, and it is the responsibility of the driver to avoid violating traffic laws.
- The navigation's speed limit information may differ from the actual speed limit information on the road. It is the driver's responsibility to check the speed limit on the actual driving road or lane.

- Navigation-based Smart Cruise Control will automatically be canceled when you leave the highway main road. Always pay attention to road and driving conditions while driving.
- Navigation-based Smart Cruise Control may not operate due to the existence of leading vehicles and the driving conditions of the vehicle. Always pay attention to road and driving conditions while driving.
- When you are towing a trailer or another vehicle, turn off Navigation-based Smart Cruise Control for safety reasons.
- After you pass through a tollbooth on a highway, Navigation-based Smart Cruise Control will operate based on the first lane. If you enter one of the other lanes, Navigation-based Smart Cruise Control might not operate properly.
- The vehicle will accelerate if the driver depresses the accelerator pedal while Navigation-based Smart Cruise Control is operating, and the function will not decelerate the vehicle. However, if the accelerator pedal is depressed insufficiently, the vehicle may decelerate.
- If the driver accelerates and releases the accelerator pedal while Navigation-based Smart Cruise Control is operating, the vehicle may not decelerate sufficiently or may rapidly decelerate to a safe speed.
- If the curve is too large or too small, Navigation-based Smart Cruise Control may not operate.

i Information

- A time gap could occur between the navigation's guidance and when Navigation-based Smart Cruise Control operation starts and ends.
 - The speed information on the instrument cluster and navigation may differ.
 - Even if you are driving at a speed lower than Smart Cruise Control set speed, acceleration may be limited by the curve sections ahead.
 - If Navigation-based Smart Cruise Control is operating while leaving the main road to enter an interchange, junction, rest area, etc., the function may operate for a certain period of time.
 - Deceleration by Navigation-based Smart Cruise Control may feel it is not sufficient due to road conditions such as uneven road surfaces, narrow lanes, etc.
-

Lane Following Assist (LFA)

Lane Following Assist helps detect lane markings and/or a vehicle ahead on the road, and helps center your 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 Settings

i Information

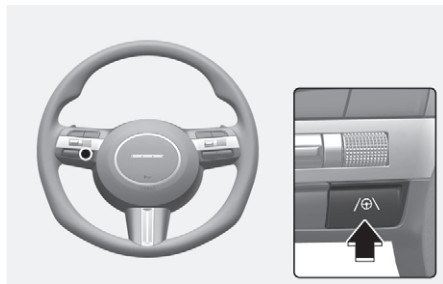
You can set the following Warning Methods:

- Warning Volume/Driving Safety Priority

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

Lane Following Assist Operation

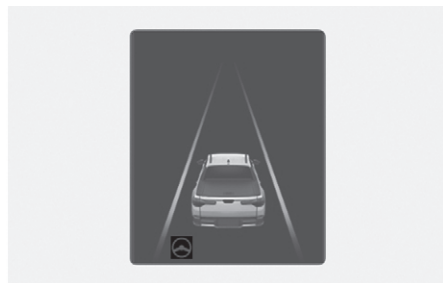
Turning Lane Following Assist On/Off



With the engine on, shortly press the Lane Driving Assist button located on the steering wheel to turn on Lane Following Assist. The gray or green (⊕) indicator light will illuminate on the instrument cluster.

Press the button again to turn off the function.

Lane Following Assist

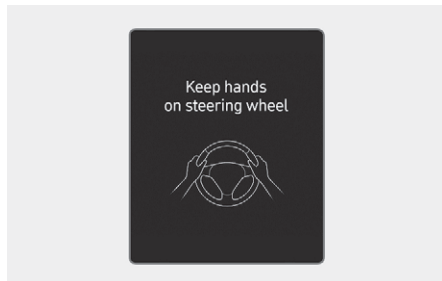


If the vehicle ahead and/or both lane markings are detected and your vehicle speed is below 180 km/h (110 mph), the green (⊕) indicator light appears on the cluster, and Lane Following Assist helps center the vehicle in the lane by assisting the steering wheel.

CAUTION

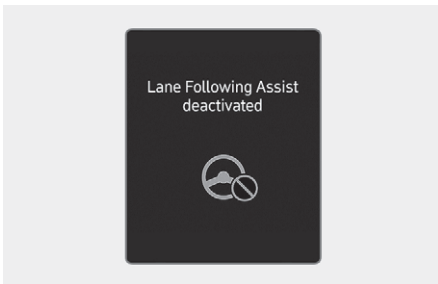
When the steering wheel is not assisted, the white (⊕) indicator light blinks and changes to gray.

Hands-off warning



If the driver takes their hands off the steering wheel for several seconds, the "**Keep hands on steering wheel**" warning message will appear and an audible warning will sound in stages.

- First stage: Warning message
- Second stage: Warning message (red steering wheel) with a warning sound



If the driver still does not have their hands on the steering wheel after the hands-off warning, the "**Lane Following Assist deactivated**" warning message will appear and Lane Following Assist will be automatically canceled.

WARNING

- The steering wheel may not be assisted if the steering wheel is held very tight or the steering wheel is steered over a certain degree.
- Lane Following Assist does not operate at all times. It is the responsibility of the driver to safely steer the vehicle and to maintain the vehicle in its lane.
- The hands-off warning message may appear late depending on road conditions. Always have your hands on the steering wheel while driving.
- If the steering wheel is held very lightly the hands-off warning message may appear because Lane Following Assist may not recognize that the driver has their hands on the steering wheel.
- If you attach objects to the steering wheel, the hands-off warning may not work properly.

Information

- For more information on instrument cluster settings, refer to the "Cluster display control" section in chapter 4.
- When both lane markings are detected, the lane lines on the instrument cluster will change from gray to white.

Lane undetected



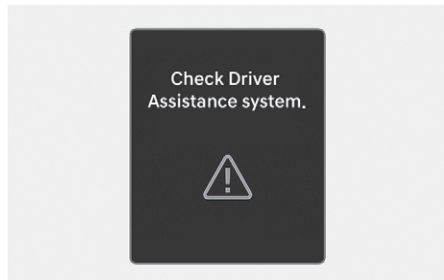
Lane detected



- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected in the infotainment system.
- If lane markings are not detected, steering wheel control by Lane Following Assist can be limited depending on whether a vehicle is in front or the driving conditions of the vehicle.
- Even though the steering is assisted by Lane Following Assist, the driver may control the steering wheel.
- The steering wheel may feel heavier or lighter when the steering wheel is assisted by Lane Following Assist than when it is not.

Lane Following Assist Malfunction and Limitations

Lane Following Assist malfunction



When Lane Following Assist is not working properly, the "**Check Driver Assistance system.**" warning message will appear on the instrument cluster for several seconds, and the master (⚠) warning light appears on the instrument cluster. If this occur, have your vehicle inspected by an authorized HYUNDAI dealer.

i Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Lane Following Assist

i Information

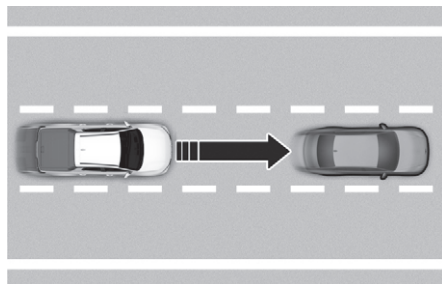
- Loading in excess of the maximum load allowance or concentrated loading at one point in the cargo compartment can reduce the vehicle's driving stability, which can in turn reduce the effectiveness of Lane Following Assist.
- For more information on Lane Following Assist limitations, refer to the "Lane Keeping Assist (LKA)" section in this chapter.

Highway Driving Assist (HDA)

 if equipped

Highway Driving Assist

Highway Driving Assist helps maintain a set distance and speed from the vehicle ahead while driving on a highway main section and helps center the vehicle in the lane.



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.

CAUTION

Highway Driving Assist works differently, depending on the availability of the Emergency Stop feature. Make sure to read information on the "Emergency Stop (ES)" feature.

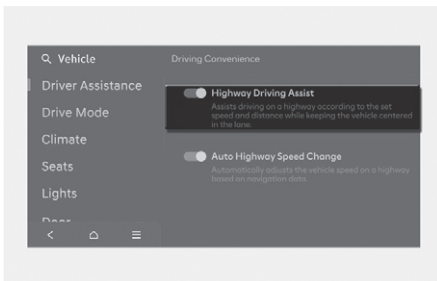
Information

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



With the engine on, select or deselect **Setup > Vehicle > Driver Assistance > Driving Convenience > Highway Driving Assist** from the infotainment system to set whether to use each function.

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

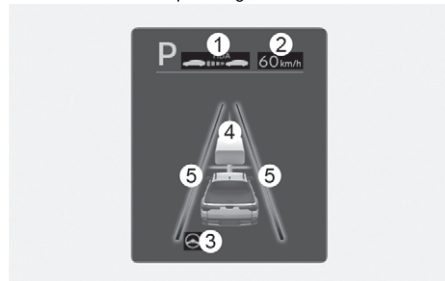
Basic function

Displaying operating status

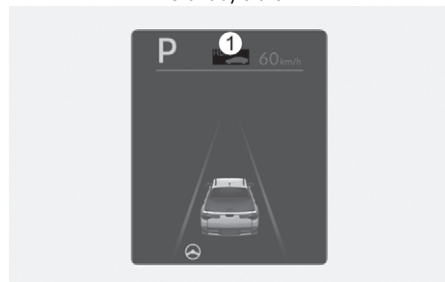
You can see the status of the Highway Driving Assist operation in the Driving Assist view on the instrument cluster. For more information, refer to the "View modes" section in chapter 4.

Highway Driving Assist will be displayed as below depending on the status of the function.

Operating state



Standby state



1. Highway Driving Assist indicator, whether there is a vehicle ahead and the selected distance level are displayed.
 - Highway Driving Assist indicator (HDA)
 - Green HDA: Operating state
 - Gray HDA: Standby state
 - White HDA blink: Accelerator depressed state
 - Not displayed : Off
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

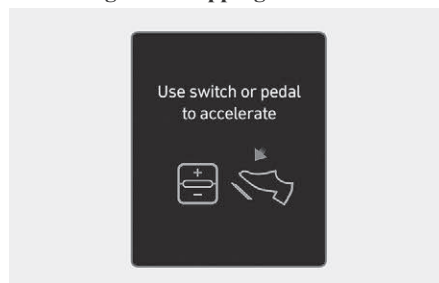
- For more information on the display refer to the "Smart Cruise Control (SCC)" and "Lane Following Assist (LFA)" sections in this chapter.
- The images and colors in the instrument cluster may differ depending on the instrument cluster type or theme selected from infotainment system.

Highway Driving Assist operation

Highway Driving Assist operates when:

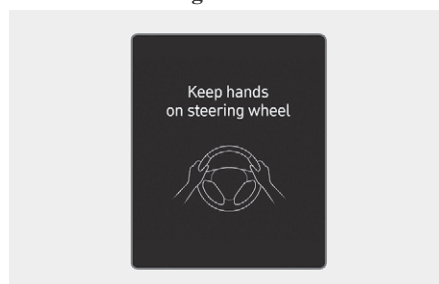
- Driving on the main road of highways, and turning on Highway Driving Assist by pressing the Driving Assist button
- Entering the main road of highways while Lane Following assist and Smart Cruise Control are operating

Restarting after stopping



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

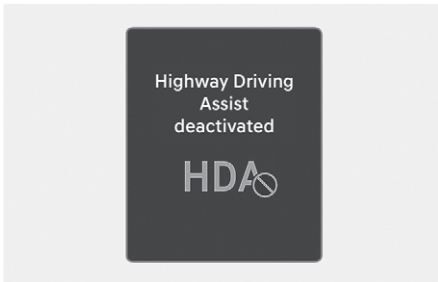
Hands-off warning



If the driver takes their hands off the steering wheel for several seconds, the **"Keep hands on steering wheel"** warning message will appear and an audible warning will sound in stages.

First stage: Warning message

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



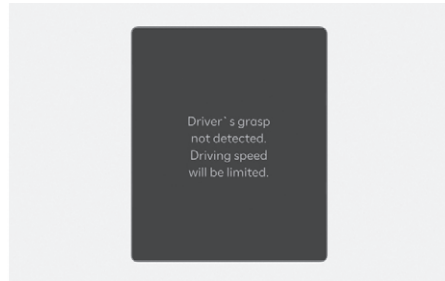
If the driver still does not have their hands on the steering wheel after the hands-off warning, "**Highway Driving Assist deactivated**" warning message will appear and Highway Driving Assist will be automatically canceled.

 CAUTION

When 'Emergency Stop (ES)' is equipped, the emergency stop function will activate if you do not continue to hold the steering wheel.

For more information, refer to the "Emergency Stop (ES)" section in this chapter.

Driving speed limit

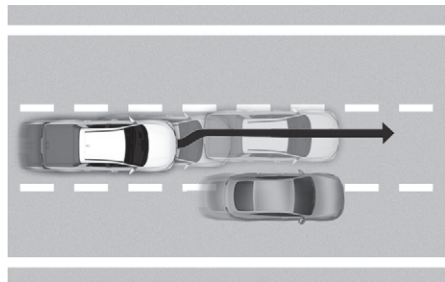


When Highway Driving Assist is canceled by the hands-off warning, The driving speed will be limited.

While Driving Speed Limit function is operating, the "**Driver's grasp not detected. Driving speed will be limited.**" warning message will appear on the instrument cluster, and an audible warning will sound continuously.

Driving to one side within lane

 **if equipped**



When vehicle speed is above 60 km/h (40 mph), if a vehicle around you is driving at a close distance, your vehicle will control steering in the opposite direction of the vehicle to assist in safe driving.

If there are detected vehicles on both sides of the lane that are driving close to you, your vehicle does not control steering in either direction.

Highway Driving Assist standby

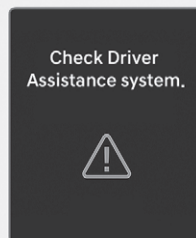
When the Smart Cruise Control is temporarily canceled while Highway Driving Assist is operating, Highway Driving Assist will be in the standby state. At this time, Lane Following Assist will operate properly.

i Information

- Driving Speed Limit helps you drive below 60 km/h (40 mph). At this time, the vehicle decelerates due to the vehicle ahead. After the vehicle has decelerated, it cannot automatically accelerate.
- Driving Speed Limit will cancel in the following circumstances:
 - When the driver grabs the steering wheel again
 - When the driver turns on Lane Following Assist by pressing the Lane Driving Assist button (/⊕\)
 - When +, -, II↻ switch or Ⓜ button is operated, or the accelerator pedal or the brake pedal is depressed

Highway Driving Assist Malfunction and Limitations

Highway Driving Assist malfunction



When Highway Driving Assist is not working properly, the "**Check Driver Assistance system.**" warning message and yellow Lane Keeping Assist (⚠️) warning light appears on the instrument cluster. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- The driver is responsible for controlling the vehicle and safe driving.
- Always have your hands on the steering wheel while driving.
- Highway Driving Assist is a supplemental function that assists the driver in driving the vehicle and is not a complete autonomous driving system. Always check road conditions, and if necessary, take appropriate actions to drive safely.
- Always have your eyes on the road, and it is the responsibility of the driver to avoid violating traffic laws. The vehicle manufacturer is not responsible for any traffic violation or crashes caused by the driver.

- Highway Driving Assist may not be able to recognize all traffic situations. Highway Driving Assist may not detect possible collisions due to limitations of the function. Always be aware of the limitations of the function. Obstacles such as vehicles, motorcycles, bicycles, pedestrians, or unspecified objects or structures such as guardrails, tollbooth, etc., that may collide with the vehicle may not be detected.
- Highway Driving Assist will turn off automatically under the following situations:
 - Driving on roads that Highway Driving Assist does not operate, such as a rest area, intersection, junction, etc.
 - The navigation does not operate properly such as when the navigation is being updated or restarted
- Highway Driving Assist may inadvertently operate or turn off depending on road conditions (navigation information) and surroundings.
- Lane Following Assist function may be temporarily disabled when the front view camera cannot detect lanes properly or the hands-off warning is on.
- You may not hear the warning sound of Highway Driving Assist if the surrounding is noisy.
- If the vehicle is driven at high speed above a certain speed at a curve, your vehicle may drive to one side or may depart from the driving lane.
- When you are towing a trailer or another vehicle, turn off Highway Driving Assist for safety reasons.

- The hands-off warning message may appear early or late depending on how the steering wheel is held or road conditions. Always have your hands on the steering wheel while driving.
 - For your safety, please read the owner's manual before using the Highway Driving Assist.
 - Highway Driving Assist will not operate when the vehicle is started, or when the detecting sensors or navigation is being initialized.
-

Information

You can check it in the service message of the utility information view of the cluster display window.

Limitation of Highway Driving Assist

Highway Driving Assist function may not operate properly, or may not operate under the following circumstances:

- The map information and the actual road is different because the navigation is not updated
- The map information and the actual road is different because of 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 areas such as a tunnel
- The driver goes off course or the route to the destination is changed or canceled by resetting the navigation
- The vehicle enters a service station or rest area
- Android Auto or Car Play is operating

- The navigation cannot detect the current vehicle position (for example, elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way)
- White single dotted lane line or road edge cannot be detected
- The road is temporarily controlled due to construction, etc.
- There is no structure, such as a medium strip, guardrails, etc., on the road
- There is a changeable lane in the direction of lane change
- If a trailer, carrier, etc., is installed

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 displays the area behind your vehicle to help with safe parking.

i Information

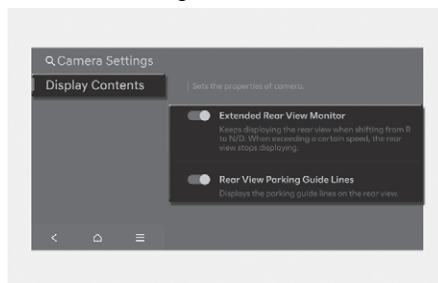
Rear View Monitor uses the following sensor:

- Wide-rear view camera

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

Rear View Monitor settings

Camera settings



- You can change Rear View Monitor "**Display Contents**" by touching the setup icon (⚙️) on the screen while Rear View Monitor is operating, or by selecting **Setup > Display > Camera Settings > Display Contents** in the infotainment system while the vehicle is on.
- In the "**Display Contents**", you can change settings for **Extended Rear View Monitor** and **Rear View Parking Guide Lines**.

Extend rear camera use

When the '**Extended Rear View Monitor**' is selected, parking Guide Lines will be displayed in the rear view.

Rear view reference lines

If **Rear View Parking Guide Lines** is selected, the rear view parking guide lines and rear top view guide lines will be displayed at the rear view area of the infotainment system screen.

i Information

- The horizontal guide lines 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 marking of the Rear Top View Parking Guidance shows the tailgate opening distance and 1.5 m (60 in.) from the vehicle.

i Information

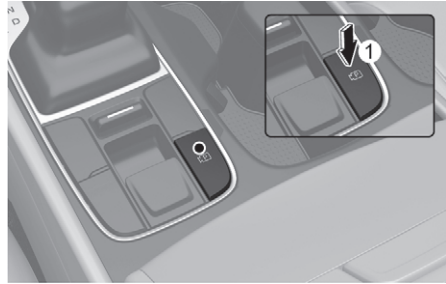
You can set the following Warning Methods:

- Parking Safety Priority

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

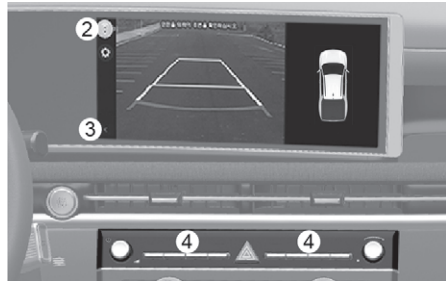
Rear View Monitor Operation

Parking/View button



Press the Parking/View button (1) while the gear is in P (Park), D (Drive) or N (Neutral) to turn on the Rear View Monitor.

Rear view



Operating conditions

- The gear is shifted to R (Reverse).
- The Parking/View button (1) is pressed while the gear is in P (Park), N (Neutral) or D (Drive), and vehicle speed is 10 km/h (6 mph) or less.

Touch the Change View button (2) to select rear view or rear top view.

Off conditions

- The gear is shifted to P (Park).
- The Parking/View button (1) or the Infotainment system screen button (4) is Pressed.

- The gear is in N (Neutral) or D (Drive) and the vehicle speed is above 10 km/h (6 mph).
- The previous button  (3) is selected on the rear view menu.

Information

When the gear is in R (Reverse), the rear view does not turn off.

Extended Rear View Monitor

The rear view will maintain showing on the screen to help you when parking.

Operating conditions

The gear is in P (Park), N (Neutral) or D (Drive), and vehicle speed is 10 km/h (6 mph) or less.

Off conditions

- When vehicle speed is above 10 km/h (6 mph), the rear view will turn off.
- Shift the gear to P (Park), the rear view will turn off.
- Press the Parking/View button (1), the rear view will turn off.

Information

- The rear view does not turn off regardless of the mode when the gear is in R (Reverse).
- The rear view is always displayed when the gear is in R (Reverse).
- The rear parking guide lines are displayed in rear view and rear top view mode. (When selecting **Setup > Vehicle > Driver Assistance > Parking Safety > Camera Settings > Display Contents > Rear View Parking Guide Lines** in the infotainment system)

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 properly, have your vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Rear View Monitor

WARNING

- The wide-rear view camera does not cover the complete area behind the vehicle. The driver should always check the rear area directly through the inside rearview mirror and outer side view mirror before parking or backing up.
- 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 wide-rear view camera lens clean. If the lens is covered with foreign material, it may adversely affect camera performance and Rear View Monitor may not operate properly. However, do not use chemical solvents such as strong detergents containing high alkaline or volatile organic solvents (gasoline, acetone, etc.). This may damage the camera lens.

Surround View Monitor (SVM)

 If equipped

Surround View Monitor uses the wide view cameras and displays images around your vehicle through the infotainment system to help with safe parking.

i Information

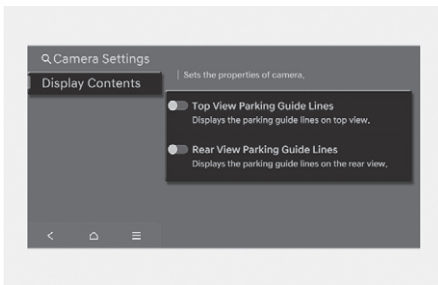
Surround View Monitor uses the following sensors:

- Wide-front view camera
- Wide-side view cameras
- Wide-rear view camera

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

Surround View Monitor settings

Camera settings



- You can change Surround View Monitor "Display Contents" by touching the setup icon (⚙️) on the screen while Surround View Monitor is operating, or by selecting **Setup > Vehicle > Driver Assistance > Parking Safety > Camera Settings** in the infotainment system while the vehicle is on.

- In the "Display Contents", you can change settings for **Parking Distance Warning, Top View Parking Guide Lines** and **Rear View Parking Guide Lines**.

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.

Top View Parking Guidance

When the **Top View Parking Guide Lines** is selected, parking guidance appears on the top view area of the Surround View Monitor screen when the front top view and rear top view is displayed.

- The image will be displayed only when Parking Distance Warning is warning the driver.

i Information

The horizontal marking of the Rear Top View Parking Guidance shows the tailgate opening distance of 2 m (79 in.) from the vehicle.

Rear View Parking Guidance

When the **Rear View Parking Guide Lines** is selected, parking guidance is displayed in the rear view.

i Information

The horizontal guide lines show the distance of 0.5 m (1.6 ft.), 1 m (3.3 ft.) and 2.3 m (7.6 ft.).

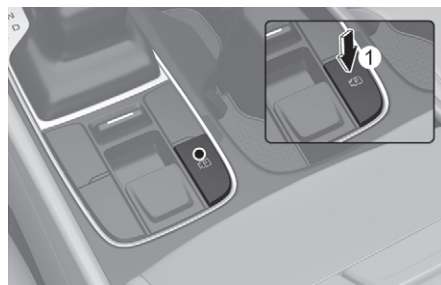
Surround View Monitor Auto On

With the engine on, select **Setup > Vehicle > Driver Assistance > Parking Safety > Surround View Monitor Auto. On** in the infotainment system to use the function.

If **Surround View Monitor Auto. On** is selected, the front parking assist view screen appears when the Parking Distance Warning warns you while driving in D (Drive).

Surround View Monitor Operation

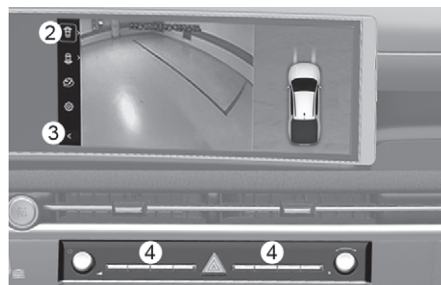
Parking/View button



Press the Parking/View button (1) to turn on Surround View Monitor.

Press the button again to turn off the function.

Front view



The front view appears on the screen when the gear is in N (Neutral) or D (Drive) to assist in parking.

You may select top view, front view, and side view using the change view button (2).

Operating conditions

- The gear is shifted to N (Neutral) or D (Drive) from R (Reverse) and the vehicle speed is 10 km/h (6 mph) or less.
- The Parking/View button (1) is pressed, while the gear is in P (Park), N (Neutral) or D (Drive), and vehicle speed is 10 km/h (6 mph) or less.

- **Surround View Monitor Auto.** On function is operated.

When **Driver Assistance > Parking Safety > Surround View Monitor Auto.** On is selected in the infotainment system, the front view while parking appears.

- The rear view is selected by pressing the change view button (2) after pressing.

i Information

When the front view is activated, the latest used view mode is displayed.

Off conditions

- The gear is shifted from N (Neutral) or D (Drive) to P (Park) or R (Reverse).
- The Parking/View button (1) or the Infotainment system button (4) is pressed.
- Vehicle speed is above 10 km/h (6 mph).
- The previous button  (3) is selected.

i Information

Surround View Monitor will turn off when vehicle speed is above 10 km/h (6 mph). However, Surround View Monitor will not turn on again although vehicle speed drops below 10 km/h (6 mph).

Rear view

The rear view appears on the screen to assist in parking.

You may select top view, rear view, and side view using the change view button (2).

Operating conditions

- The gear is shifted to R (Reverse).
- The rear view is selected by pressing the change view button (2) after pressing the Parking/View button (1), while the gear is in P (Park), N (Neutral) or D (Drive), and vehicle speed is 10 km/h (6 mph) or less.

Off conditions

- The gear is shifted from R (Reverse) to P (Park).
- The Parking/View button (1) is pressed, while the gear is in P (Park).

i Information

When the gear is in R (Reverse), the rear view does not turn off even if the infotainment system button (4) is pressed.

3D view

The 3D view shows the image around the vehicle from various angles.

You can change angles by tapping the screen. Press the 3D View button again to return to the initial angle.

Operating conditions

When the 3D view is selected by pressing the change view button (2):

- The gear is in P (Park), N (Neutral) or D (Drive) when vehicle speed is below 10 km/h (6 mph).
- The Surround View Monitor is turned on when the gear is in R (Reverse).

Off conditions

When the gear is in P (Park), N (Neutral) or D (Drive):

- The gear is shifted to P (Park) from N (Neutral) or D (Drive).
- The Parking/View button (1) or the Infotainment system button (4) is pressed.
- Vehicle speed is above 10 km/h (6 mph).

When the gear is in R (Reverse):

- The gear is shifted to P (Park).

Information

3D view does not display guide lines.

Surround View Monitor Malfunction and Limitations

Surround View Monitor malfunction

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

Limitations of Surround View Monitor

- When the vehicle is stopped for a long time in winter or when the vehicle is parked in an indoor parking lot, the exhaust fumes may temporarily blur the image.
- The screen may be displayed abnormally, and an icon will appear at the top view area of the screen under the following circumstances:
 - The tailgate is opened
 - The driver or front passenger door is opened
 - The side view mirror is folded

WARNING

- Always look around your vehicle to make sure there are no objects or obstacles before moving the vehicle. What you see on the screen may differ from the actual vehicle's location.
- The distance to the object shown on the screen may differ from the actual distance. This is because the image shown on Surround View Monitor is displayed by calibrating the image from the 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.

- Surround View Monitor is designed to be used on a flat surface. Therefore, if used on roads with different heights such as curbs and speed bumps, the image in the screen may not look correct.
- Always keep the camera lens clean. If the lens is covered with foreign material, it may adversely affect camera performance and Surround View Monitor may not operate properly. However, do not use chemical solvents such as strong detergents containing high alkaline or volatile organic solvents (gasoline, acetone, etc.). This may damage the camera lens.

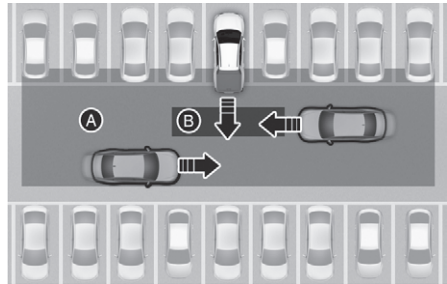
i Information

Surround View Monitor uses the cameras installed on the vehicle to show images around the vehicle through the infotainment system. The image shown on the screen may look unnatural depending on the surroundings.

Rear Cross-traffic Collision-Avoidance assist (RCCA)

 If equipped

Rear Cross-Traffic Collision-Avoidance Assist helps detect vehicles approaching from the rear left or right while your vehicle is reversing and warns you of a possible collision with a warning message and a warning sound. Also, Rear Cross-Traffic Collision-Avoidance Assist may assist with braking your vehicle to help avoid a collision.



[A] Rear Cross-Traffic Collision Warning operating range

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

CAUTION

Warning timing may vary depending on the speed of the approaching vehicle.

i Information

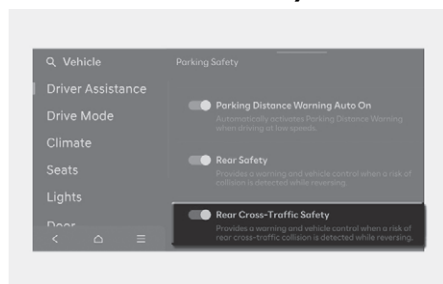
Rear Cross-Traffic Collision-Avoidance Assist uses the following sensor:

- 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 engine on, select **Setup > Vehicle > Driver Assistance > Parking Safety > Rear-Cross Traffic Safety** in the infotainment system to turn on Rear Cross-Traffic Collision-Avoidance Assist and deselect to turn off the function.

WARNING

When the vehicle is restarted, Rear Cross-Traffic Collision-Avoidance Assist always turn on. However, if Rear-Cross Traffic Safety is deselected after the vehicle is restarted, the driver should always be aware of the surroundings and drive safely.

Information

You can set the Warning Timing and following Warning Methods:

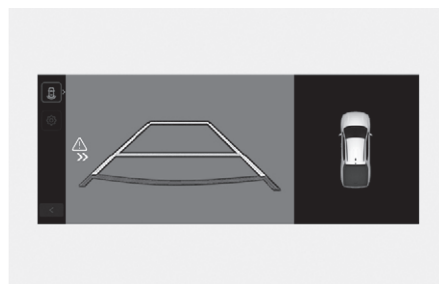
- Warning Volume/Haptic Warning

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

Collision Warning



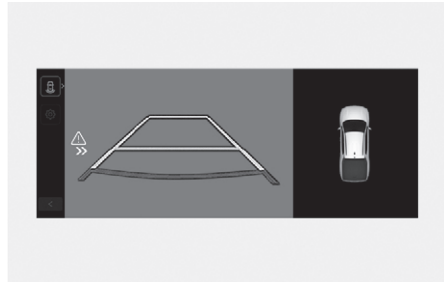
- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the side view mirror will blink and a warning will appear on the instrument cluster. At the same time, an audible warning will sound. If Rear View Monitor is operating, a warning will also appear on the infotainment system.

- Rear Cross-Traffic Collision-Avoidance Assist will operate when all the following conditions are satisfied:
- The gear is shifted to R (Reverse)
- Vehicle speed is below 8 km/h (5 mph)
- The approaching vehicle is within about 82 ft. (25 m) 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)

i Information

- If the operating conditions are satisfied, there will be a warning whenever the vehicle approaches from the left or right side even though your vehicle speed is 0 km/h (0 mph).
- The images and colors in the instrument cluster may differ depending on the instrument cluster type or theme selected from the instrument cluster.

Emergency Braking



- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the side view mirror blinks and a warning message appears on the instrument cluster. At the same time, an audible warning sounds. A warning also appears on the infotainment system.
- Emergency Braking will be assisted to help prevent a collision with approaching vehicles from the left and right.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when all the following conditions are satisfied:
 - The gear is shifted to R (Reverse)
 - Vehicle speed is below 8 km/h (5 mph)

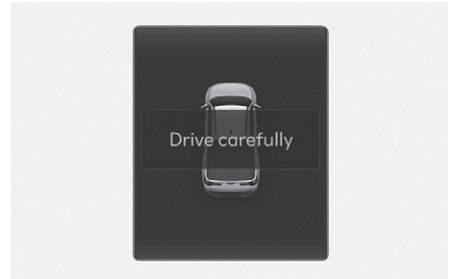
- The approaching vehicle is within approximately 5 ft. (1.5 m) from the left and right side of your vehicle
- The speed of the vehicle approaching from the left and right is above 5 km/h (3 mph)
- Emergency Braking is assisted to help prevent collision with approaching vehicles from the left and right.

WARNING

Brake control will end when:

- The approaching vehicle is out of the detecting range
- The approaching vehicle passes behind your vehicle
- The approaching vehicle does not 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



- 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 approximately 2 seconds of emergency brake control.
- During emergency braking, braking control by Rear Cross-Traffic Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the brake pedal.

WARNING

Take the following precautions when using Rear Cross-Traffic Collision-Avoidance Assist:

- For your safety, only change the Settings after parking the vehicle at a safe location.
- If any other system's warning message is displayed or audible warning is generated, Rear Cross-Traffic Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.

- You may not hear the warning sound of Rear Cross-Traffic Collision-Avoidance Assist if the surrounding is noisy.
 - Rear Cross-Traffic Collision-Avoidance Assist may not operate if the driver applies the brake pedal to avoid collision.
 - During Rear Cross-Traffic Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
 - Even if there is a problem with Rear Cross-Traffic Collision-Avoidance Assist, the vehicle's basic braking will function normally.
 - When Rear Cross-Traffic Collision-Avoidance Assist is operating, braking control by the function will automatically cancel when the driver excessively depresses the accelerator pedal.
 - Rear Cross-Traffic Collision-Avoidance Assist does not operate in all situations or cannot avoid all collisions.
 - Rear Cross-Traffic Collision-Avoidance Assist may warn the driver late or may not warn the driver depending on the road and driving conditions.
 - The driver has the responsibility to control the vehicle. Do not solely depend on Rear Cross-Traffic Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
 - Never deliberately operate Rear Cross-Traffic Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.
-

CAUTION

The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

There will only be a warning when:

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

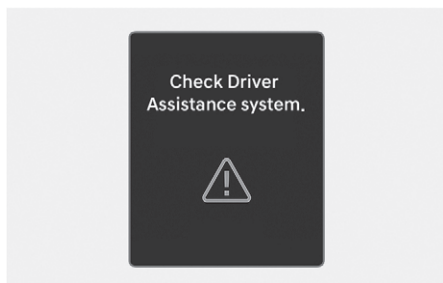
Information

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

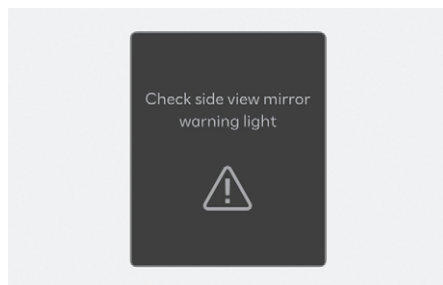
- Brake control will end when the driver depresses the brake pedal with sufficient power.
 - After shifting the gear to R (Reverse), braking control will operate once for left and right vehicle approach.
-

Rear Cross-Traffic Collision-Avoidance Assist Malfunction and Limitations

Rear Cross-Traffic Collision-Avoidance Assist malfunction

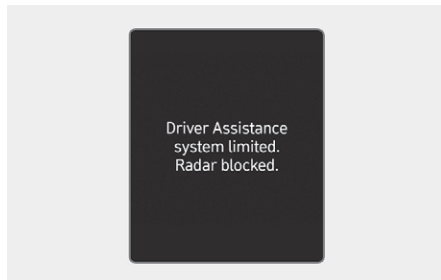


When Rear Cross-Traffic Collision-Avoidance Assist is not working properly, the "**Check Driver Assistance system.**" warning message appears on the instrument cluster for several seconds, and the master (△) warning light illuminates on the instrument cluster. If this occur, have vehicle inspected by an authorized HYUNDAI dealer.



When the side view mirror warning light is not working properly, the "**Check side view mirror warning light**" warning message appears on the instrument cluster for several seconds, and the master (△) warning light illuminates on the instrument cluster. If this occur, have your vehicle inspected by an authorized HYUNDAI dealer.

Rear Cross-Traffic Collision-Avoidance Assist disabled



When the rear bumper around the rear-side radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Rear Cross-Traffic Collision-Avoidance Assist.

If this occurs, the "**Driver Assistance system limited. Radar blocked.**" warning message appears on the instrument cluster.

Rear Cross-Traffic Collision-Avoidance Assist will operate properly when such foreign material or trailer, etc., is removed.

If Rear Cross-Traffic Collision-Avoidance Assist does not operate properly after it is removed, have your vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- Even though the warning message does not appear on the instrument cluster, Rear Cross-Traffic Collision-Avoidance Assist may not operate properly.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate properly in an area (for example, open terrain), where any objects are not detected after turning ON the vehicle.

CAUTION

Turn off Rear Cross-Traffic Collision-Avoidance Assist to install or remove a trailer, carrier, or another attachment. Turn on Rear Cross-Traffic Collision-Avoidance Assist when finished.

Information

You can check it in the service message of the utility information view of the cluster display window.

Limitations of Rear Cross-Traffic Collision-Avoidance Assist

Rear Cross-Traffic Collision-Avoidance Assist may not operate properly, or it may operate unexpectedly under the following circumstances:

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

Braking control may not work, driver's attention is required in the following circumstances:

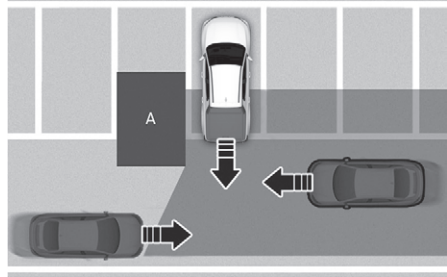
- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The braking system has been modified
- Remote Smart Parking Assist is operating (if equipped)

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**

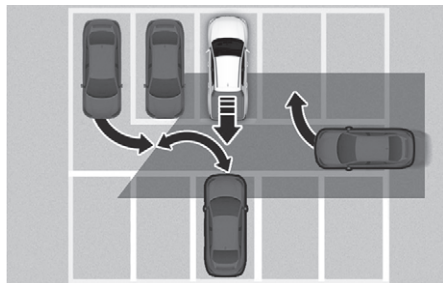


[A] Structure

Rear Cross-Traffic Collision-Avoidance Assist may be limited when driving near a vehicle or structure, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brakes when necessary.

Always check your surroundings while backing up.

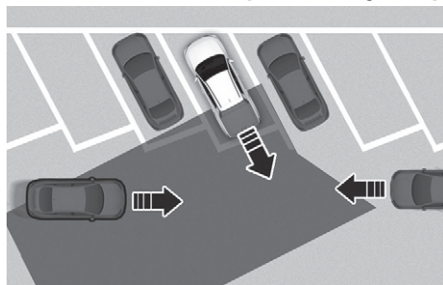
- **When the vehicle is in a complex parking environment**



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles which are parking or pulling out near your vehicle (for example, a vehicle leaving beside your vehicle, a vehicle parking or pulling out in the rear area, a vehicle approaching your vehicle making a turn, etc.). If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

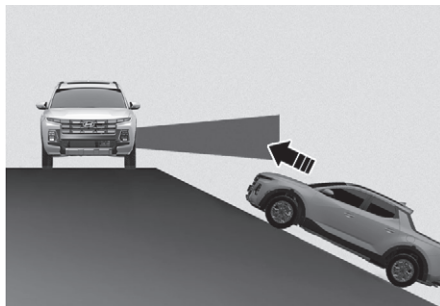
- **When the vehicle is parked diagonally**



Rear Cross-Traffic Collision-Avoidance Assist may be limited when backing up diagonally, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brake when necessary.

Always check your surroundings while backing up.

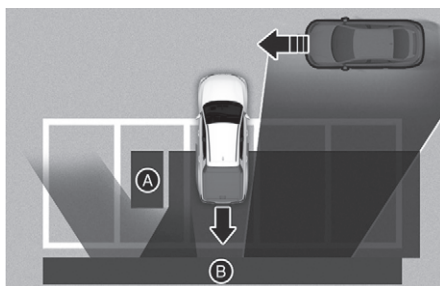
- **When the vehicle is on or near a slope**



Rear Cross-Traffic Collision-Avoidance Assist may be limited when the vehicle is on a uphill or downhill slope, or near it, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brake when necessary.

Always check your surroundings while backing up.

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

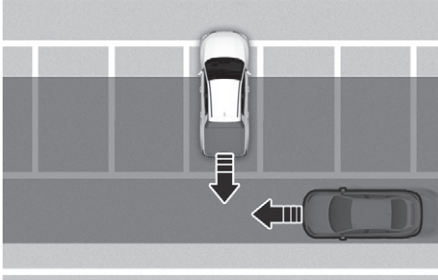


[A] Structure
[B] Wall

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 unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

- When the 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 unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

WARNING

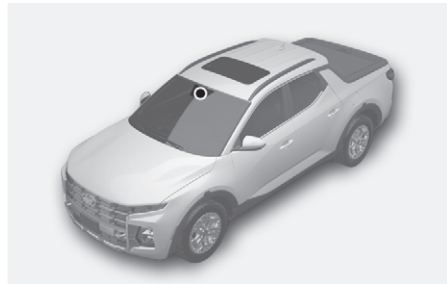
- When you are towing a trailer or another vehicle, turn off Rear Cross-Traffic Collision-Avoidance Assist for safety reasons.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate properly if interfered by strong electromagnetic waves.
- Rear Cross-Traffic Collision-Avoidance Assist may not operate for 3 seconds after the vehicle is started, or the rear corner radars are initialized.

Driver assistance system sensors

The Driver Assistance system on your vehicle uses cameras and sensors to help 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-front view camera

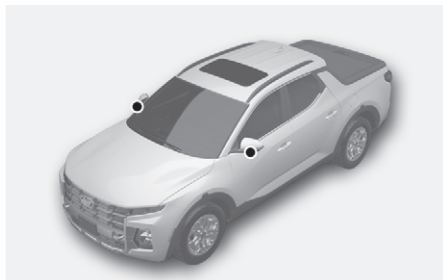
 if equipped



The wide-front view camera is mounted on the front grill outside your vehicle.

Wide-side view camera

 if equipped



The wide-side view cameras are mounted to the bottom of the side view mirrors outside your vehicle.

Wide-rear view camera



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

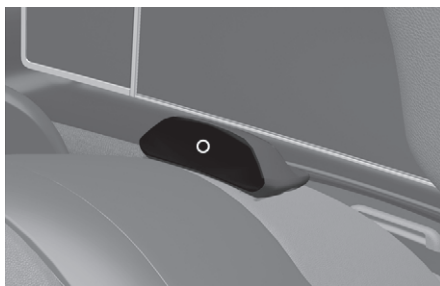
WARNING

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.

In-cabin camera

 if equipped



The in-cabin camera is mounted to the steering wheel.

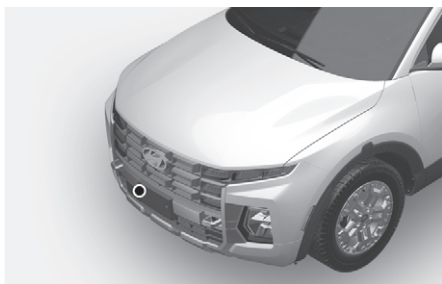
CAUTION

Always keep the in-cabin camera in good condition to maintain optimal performance of Forward Attention Warning.

Radars

Front radar

 If equipped



The front radar is mounted behind the front grill.

Rear corner radar

 If equipped



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.

Declaration of conformity

Front radar

 if equipped

The radio frequency components complies :

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.

Rear corner radar

 if equipped

The radio frequency components complies:

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:
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 (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

