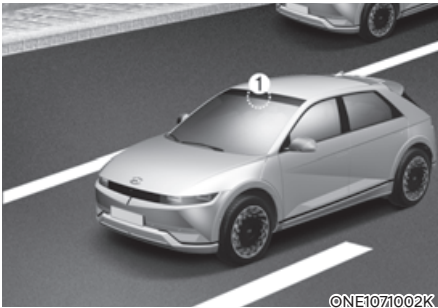


## LANE KEEPING ASSIST (LKA)

Lane Keeping Assist is designed to help detect lane markings (or road edges) while driving over a certain speed. Lane Keeping Assist will warn the driver if the vehicle leaves the lane without using the turn signal, or will automatically assist the driver's steering to help prevent the vehicle from departing the lane.

### Detecting sensor



[1] : Front view camera

The front view camera is used as a detecting sensor to detect lane markings (or road edges).

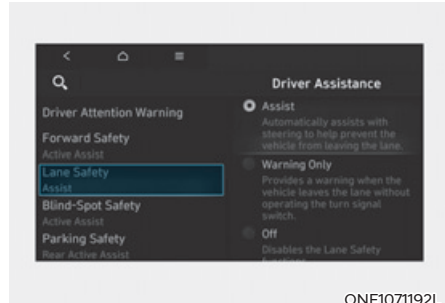
Refer to the picture above for the detailed location of the detecting sensor.

### CAUTION

For more details on the precautions of the front view camera, refer to “Forward Collision-Avoidance Assist (FCA)” section in this chapter.

## Lane Keeping Assist Settings


### Setting features



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### Lane Safety

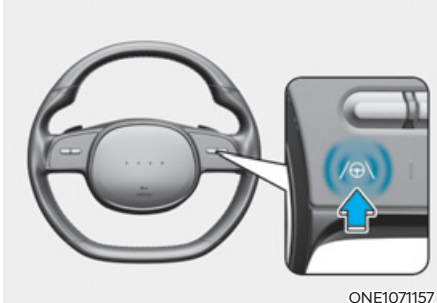
With the vehicle on, select or deselect 'Driver Assistance → Lane Safety' from the Settings menu to set whether to use each function.

- If 'Assist' is selected, Lane Keeping Assist will automatically assist the driver's steering when lane departure is detected to help prevent the vehicle from moving out of its lane.
- If 'Warning Only' is selected, Lane Keeping Assist will warn the driver with an audible warning when lane departure is detected. The driver must steer the vehicle.
- If 'Off' is selected, Lane Keeping Assist will turn off. The  indicator light will turn off on the cluster.


### WARNING

- If 'Warning Only' is selected, steering is not assisted.
- 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 and steer the vehicle if 'Off' is selected.

## Turning Lane Keeping Assist On/Off



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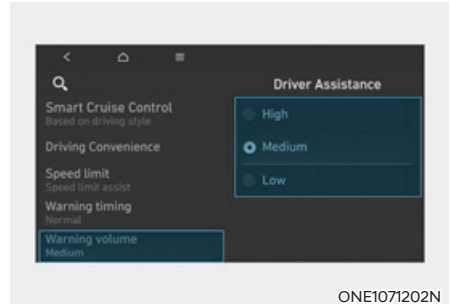
With the vehicle on, press and hold the Lane Driving Assist button located on the steering wheel to turn on Lane Keeping Assist. The grey  indicator light will illuminate on the cluster.

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

If the vehicle is restarted, Lane Keeping Assist will maintain the last setting.

### Information

- When the Lane Driving Assist button is pressed shortly, Lane Following Assist will turn on and off.
- When Lane Keeping Assist is turned off with the Lane Driving Assist button, the Lane Safety setting also changes to 'Off'.



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### Warning Volume

With the vehicle on, select 'Driver Assistance → Warning Volume' from the Settings menu to change the Warning Volume to 'High', 'Medium' or 'Low' for Lane Keeping Assist.

If you change the warning volume, the Warning Volume of other Driver Assistance systems may change.

## Lane Keeping Assist Operation

### Warning and control

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

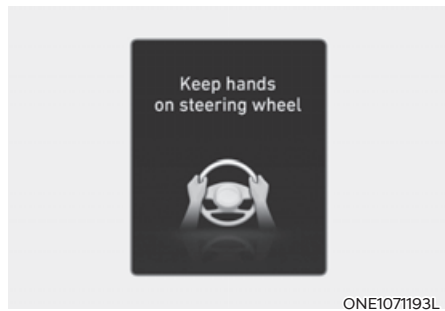


### Lane Departure Warning

- To warn the driver that the vehicle is departing from the projected lane in front, the green indicator light will blink on the cluster, the lane line will blink on the cluster depending on which direction the vehicle is veering, and an audible warning will sound.
- Lane Keeping Assist will operate when your vehicle speed is between approximately 40 - 120 mph (60 - 200 km/h).

### Lane Keeping Assist

- To warn the driver that the vehicle is departing from the projected lane in front, the green indicator light will blink on the cluster, and the steering wheel will make adjustments to keep vehicle inside the lane.
- Lane Keeping Assist will operate when your vehicle speed is between approximately 40 - 120 mph (60 - 200 km/h).




### Hands-off warning

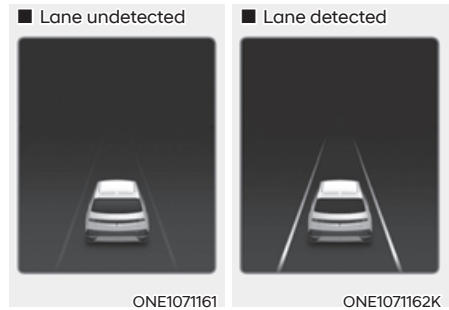
If the driver takes their hands off the steering wheel for several seconds, the 'Place hands on the steering wheel' warning message will appear on the cluster, and an audible warning will sound in stages.

## 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.

## Information

- For more details on setting the functions in the infotainment system, refer to “Vehicle Settings” section in chapter 4.
- When lane markings (or road edges) are detected, the lane lines on the cluster will change from grey to white and the green  indicator light will illuminate.
- When the lane markings (or road edges) are detected and Highway Lane Change Assist is on, the lane lines on the cluster may change to green.



- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.
- Even though the steering is assisted by Lane Keeping Assist, the driver may control the steering wheel.
- The steering wheel may feel heavier or lighter when the steering wheel is assisted by Lane Keeping Assist than when it is not.


## Information

The images or colors may be displayed differently depending on the specifications of the instrument panel or theme.

## Lane Keeping Assist Malfunction and Limitations

### Lane Keeping Assist malfunction



When Lane Keeping Assist is not working properly, the 'Check Lane Safety system' warning message will appear and the yellow  indicator light will illuminate on the cluster. If this occurs, have the vehicle be inspected by an authorized HYUNDAI dealer.

### 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 number of lanes change or the lanes merge
- 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 tollgate, 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)

### Information

**For more details on the limitations of the front view camera, refer to “Forward Collision-Avoidance Assist (FCA)” section in this chapter.**

**WARNING**

Take the following precautions when using Lane Keeping Assist:

- The driver should hold the responsibility to safely drive and control the vehicle. Do not solely rely on Lane Keeping Assist and drive dangerously.
  - The operation of Lane Keeping Assist can be canceled or not work properly depending on road conditions and surroundings. Always be cautious while driving.
  - Refer to “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 is displayed 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 below 35 mph (55 km/h) or above 130 mph (210 km/h).
    - The vehicle makes sharp lane changes.
    - The vehicle brakes suddenly.