# Lane Keeping Assist System (LKAS)

Provides steering input to help keep the vehicle in the middle of a detected lane and provides tactile and visual alerts if the vehicle is detected drifting out of its lane.

#### ■ Steering input assist

The system applies torque to the steering to keep the vehicle between the left and right lane lines. The applied torque becomes stronger as the vehicle gets closer to either of the lane lines.

 Front Wide View Camera Monitors the lane lines
Tactile and visual alerts
Rapid vibrations on the steering wheel and a warning display alert you that the vehicle is drifting out of a detected lane.

When you operate the turn signals to change lanes, the system is suspended, and resumes after the signals are off.

If you make a lane change without operating the turn signals, the LKAS alerts activate, and torque is applied to the steering.

#### Lane Keeping Assist System (LKAS)

#### **Important Safety Reminders**

The LKAS is for your convenience only. It is not an autonomous driving system and always requires driver attention and control. The system does not work if you take your hands off the steering wheel or fail to steer the vehicle.

The LKAS is convenient when it is used on expressways or freeways.

Do not place objects on the instrument panel. Objects may reflect on the windshield and prevent correct detection of the traffic lanes.

The LKAS only alerts you when lane drift is detected without a turn signal in use. The LKAS may not detect all lane markings or lane departures; accuracy will vary based on weather, speed, and lane marker condition.

It is always your responsibility to safely operate the vehicle and avoid collisions.

The LKAS may not work properly or may work improperly under the certain conditions:

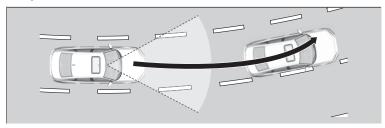
LKAS Conditions and Limitations P. 524

You can read about handling information for the camera equipped with this system.

Front Wide View Camera P. 551

# Lane Keep Support Function

Provides assistance to keep the vehicle in the center of the lane. When the vehicle nears a white or yellow line, steering force of the electric power steering will become stronger.



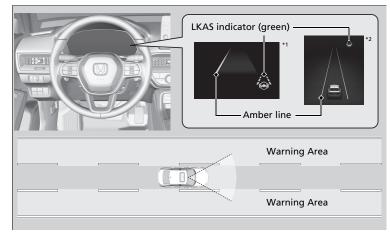
#### ≥Lane Keeping Assist System (LKAS)

When it fails to detect lanes, the system will temporarily be canceled. When a lane is detected, the system will recover automatically.

The LKAS may not function as designed while driving in frequent stop and go traffic, or on roads with sharp curves.

# Lane Departure Warning Function

When the vehicle enters the warning area, the LKAS alerts you with slight steering wheel vibration as well as a warning display.



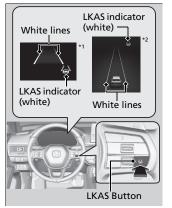
\*1: Models with A-type meter \*2: Models with B-type meter

# When the System can be Used

The system can be used when the following conditions are met.

- The lane in which you are driving has detectable lane markers on both sides, and your vehicle is in the center of the lane.
- The vehicle is traveling between about 45 and 90 mph (72 and 145 km/h).
- You are driving on a straight or slightly curved road.
- The turn signals are off.
- The brake pedal is not depressed.

#### How to activate the system



- 1. Press the LKAS button.
  - LKAS indicator (white) appears on the gauge.

The system is standby.

► If traffic lane lines are detected, white lines appear on the gauge.

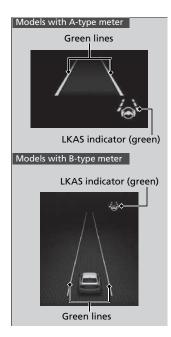
#### When the System can be Used

If the vehicle drifts toward either left or right lane line due to the system applying torque, turn off the LKAS and have your vehicle checked by a dealer.

Be sure to keep the following below to activate the system properly;

- Always keep the windshield around the camera clean.
- When cleaning the windshield, be careful not to apply windshield cleanser to the camera lens.
- Do not touch the camera lens.
- Do not attach a sticker to the area around the camera.

If LKAS button is pressed when the system can be used, LKAS is on without standby.



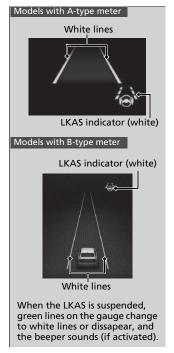
- **2.** Keep your vehicle near the center of the lane while driving.
  - The LKAS indicator changes from white to green, and white lines change to green once the system starts operating after detecting the left and right lane markings.

# To Cancel



Press the LKAS button.

The LKAS is turned off every time you stop the engine, even if you turned it on the last time you drove the vehicle.



# The system operation is suspended if you:

- Decrease the vehicle speed to about 40 mph (64 km/h) or less.
  - Increasing the vehicle speed to about 45 mph (72 km/h) or more resumes the LKAS.
- Depress the brake pedal.
  - The LKAS resumes and starts detecting the lane lines again once you release the brake pedal.
- Your vehicle is driving to the right or the left of the lane.

#### ≫To Cancel

You can change the setting for the LKAS. LKAS suspended beep on and off can be selected.

- Settings P. 126
- Customized Features P. 363

#### The LKAS may be automatically suspended when:

- The system fails to detect lane lines.
- The steering wheel is turned quickly.
- You fail to steer the vehicle.
- Driving through a sharp curve.
- Driving at a speed in excess of approximately 90 mph (145 km/h).
- The brake pedal is depressed.

Once these conditions no longer exist, the LKAS automatically resumes.

#### The LKAS may be automatically canceled when:

In the following cases, traffic lane lines may dissapear on the gauge, the beeper may sound, and the LKAS may automatically be canceled:

- The camera temperature gets extremely high.
- The camera behind the rearview mirror, or the area around the camera, including the windshield, gets dirty.
- The ABS or VSA<sup>®</sup> system engages.
- A beeper sounds if the LKAS is automatically canceled.

# LKAS Conditions and Limitations

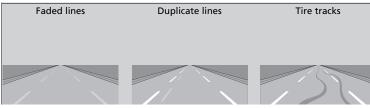
The system may not detect lane markings and therefore may not keep the vehicle in the middle of the lane under certain conditions, including the following:

#### Environmental conditions

- There is little contrast between lane lines and the roadway surface.
- Driving in bad weather (rain, fog, snow, etc.).
- Driving on a snowy or wet roadway.
- Driving into low sunlight (e.g., at dawn or dusk).
- Shadows of adjacent objects (trees, buildings, guard rails, vehicles, etc.) are parallel to white (or yellow) lines.
- Sudden changes between light and dark, such as the entrance or exit of a tunnel or the shadows of trees, buildings, etc.
- Driving at night or in a dark place such as a tunnel (due to low-light conditions, lane lines or the road surface may not be illuminated).
- When the lane lines or road surface are not visible, such as when the distance to the vehicle in front of you is extremely short or when at an intersection.
- Strong light is reflected onto the roadway.

#### Roadway conditions

- Driving on a road with temporary lane markings.
- Faint, multiple, or varied lane markings are visible on the roadway due to road repairs or old lane markings.



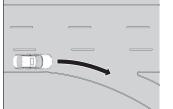
- The roadway has merging, split, or crossing lines, such as at an intersection or crosswalk.
- The lane markings are extremely narrow, wide, or changing.



- Part of the lane markings are hidden by an object, such as a vehicle.
- The road is hilly or the vehicle is approaching the crest of a hill.
- Your vehicle is strongly shaken on uneven road surfaces.

- When objects on the road (curb, guard rail, pylons, etc.) are recognized as white (or yellow) lines.
- Driving on rough or unpaved roads, or over bumpy surfaces.
- Driving on roads with double lane lines.
- Driving on snowy or slippery roads.
- The pavement is only partially visible due to snow or puddles on the road.
- There is a film of water or puddles on the road surface.
- White (or yellow) lines are not recognized correctly due to road conditions such as curves, twists, or hills.
- Driving on unpaved or rutted roads.
- Passing through an exit or an intersection.

Lane void of lines at exit or intersection



#### Vehicle conditions

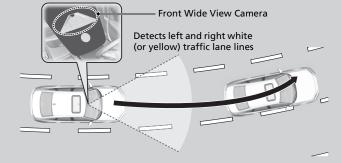
- When lighting is weak due to dirt covering the headlight lenses, or there is poor visibility in a dark place due to the headlights being improperly adjusted.
- The front of the camera is covered by dirt, fog, rain, mud, wet snow, seals, accessories, stickers, or film on the windshield.
- Driving at night or in a dark place (e.g., a tunnel) with the headlights off.
- There is residue on the windshield from the windshield wipers.
- An abnormal tire or wheel condition (incorrect sizes, varied sizes or construction, improperly inflated, compact spare tire, etc.).
- The vehicle is tilted due to a heavy load in the trunk or rear seats.
- The suspension has been modified.
- Tire chains are installed.

# **Traffic Jam Assist**

The traffic jam assist system uses a camera mounted to the upper portion of the windshield to detect and monitor left and right white (or yellow) traffic lane lines. Based on inputs from the camera, the system can apply steering torque to keep your vehicle in the center of the detected lane.

#### How Traffic Jam Assist works

When you are in heavy traffic and LKAS is active, the traffic jam assist system, upon detecting the traffic lane lines, will apply steering torque to help keep your vehicle in the center of the lane.



When you use the turn signal to indicate a lane change, Traffic Jam Assist is temporarily deactivated. It is reactivated once the vehicle is traveling in the center of the lane and the system has detected the traffic lane lines.

When the driver takes full control of the steering, the steering assist function is temporarily canceled.

The torque applied to the steering may not be noticeable when the driver has full control of the steering, or when the surface of the road is rough or uneven.

#### ➢Traffic Jam Assist

#### Important Safety Reminders

Traffic Jam Assist is for your convenience only. It is not an autonomous driving system and always requires driver attention and control. The system does not work if you take your hands off the steering wheel or fail to steer the vehicle.

Traffic Jam Assist is convenient when it is used on expressways or freeways.

You can read about handling information for the camera equipped with this system.

#### Front Wide View Camera P. 551

The Traffic Jam Assist only alerts you when lane drift is detected without a turn signal in use. The Traffic Jam Assist may not detect all lane markings or lane departures; accuracy will vary based on weather, speed, and lane marker condition.

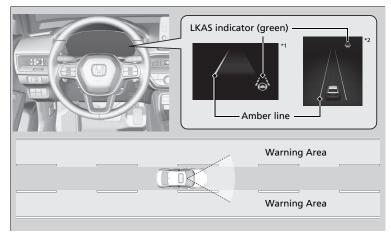
It is always your responsibility to safely operate the vehicle and avoid collisions.

Traffic Jam Assist may not work properly under certain conditions:

Traffic Jam Assist: Conditions and Limitations P. 533

# Lane Departure Warning Function

When the vehicle enters the warning area, Traffic Jam Assist alerts you with slight steering wheel vibration or an audible alert as well as a warning display.



# Traffic Jam Assist Activation

Traffic Jam Assist is activated when all of the following conditions exist:

- LKAS is activated.
- The lane in which you are driving has detectable lane markers on both sides, and your vehicle is in the center of the lane.
- The vehicle is traveling between about 0 and 45mph (0 and 72km/h).
- You are driving on a straight or slightly curved road.
- The driver is gripping the steering wheel.
- The shift position is in **D**.

Do not use Traffic Jam Assist in any of the following situations:

- You are traveling on a road with sharp curves.
- The system may not allow your vehicle to respond in a manner best suited for the road conditions.
- You are entering a toll booth, interchange, service area, or parking area.
- You are driving in adverse weather (rain, fog, snow, etc.).
- The surface of the road is slippery; for example, it is icy or covered with snow.
  - ▶ The tires may slip, causing you to lose control of the vehicle.

#### ➢Traffic Jam Assist Activation

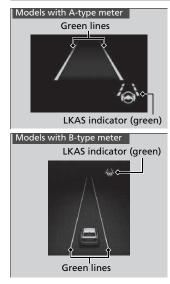
Refer to the following page for proper handling of the Lane Keeping Assist System (LKAS):

## Lane Keeping Assist System (LKAS) P. 516

Refer to the following page for steering buttons and displays:

Operation Switches for the Adaptive Cruise Control (ACC) with Low Speed Follow/Lane Keeping Assist System (LKAS)/Traffic Jam Assist P. 474

# How Traffic Jam Assist Works



Keep your vehicle near the center of the lane while driving.

The LKAS indicator changes from white to green, and white lines change to green once the system starts operating after detecting the left and right lane markings.

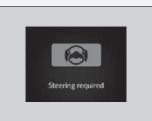
#### How Traffic Jam Assist Works

If your vehicle veers too far to the right or the left of the white (or yellow) traffic lane lines while Traffic Jam Assist is active, deactivate Traffic Jam Assist and have your vehicle inspected by an authorized Honda dealer.

In some cases the system cannot properly detect the traffic lane lines and, as a result, will not provide steering assistance.

Traffic Jam Assist: Conditions and Limitations P. 533

If the driver takes their hands off the steering wheel or does not adequately maintain control of steering, the warning below will appear.



If the driver does not grip the steering wheel after the warning above has repeatedly appeared, a warning buzzer will sound and Traffic Jam Assist will be canceled.

# Canceling Traffic Jam Assist

Press the LKAS button to cancel Traffic Jam Assist.

#### Traffic Jam Assist may be automatically suspended when:

The system is automatically temporarily canceled under the following circumstances.

- The system fails to detect lane lines.
- The steering wheel is turned sharply.
- You fail to steer the vehicle.
- You are driving through a sharp curve.
- The brake pedal is depressed.

Once these conditions no longer exist, Traffic Jam Assist automatically resumes.

#### Traffic Jam Assist may be automatically canceled when:

The traffic lane lines will disappear from the screen, the beeper may sound, and Traffic Jam Assist will be canceled under the following circumstances:

- The temperature of the camera is too high.
- The camera behind the rearview mirror, or the area around the camera, including the windshield, is dirty.

Traffic Jam Assist may be automatically suspended when:

You are traveling over 45mph (72km/h). When the speed of the vehicle reaches 45mph (72km/h), Traffic Jam Assist is deactivated and LKAS is activated instead. Once the speed of the vehicle drops to under 42mph (68km/h), Traffic Jam Assist is reactivated.

## Traffic Jam Assist: Conditions and Limitations

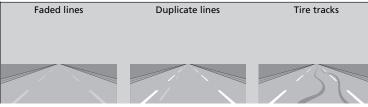
The system may not detect lane markings and therefore may not keep the vehicle in the middle of the lane under certain conditions, including the following:

#### Environmental conditions

- There is little contrast between lane lines and the roadway surface.
- Driving in bad weather (rain, fog, snow, etc.).
- Driving on a snowy or wet roadway.
- Driving into low sunlight (e.g., at dawn or dusk).
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- Driving at night or in a dark place such as a tunnel (due to low-light conditions, lane lines or the road surface may not be illuminated).
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- Strong light is reflected onto the roadway.

#### Roadway conditions

- Driving on a road with temporary lane markings.
- Faint, multiple, or varied lane markings are visible on the roadway due to road repairs or old lane markings.



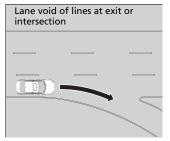
- The roadway has merging, split, or crossing lines, such as at an intersection or crosswalk.
- The lane markings are extremely narrow, wide, or changing.

#### Very wide or narrow traffic lane



- Part of the lane markings are hidden by an object, such as a vehicle.
- The road is hilly or the vehicle is approaching the crest of a hill.
- Your vehicle is strongly shaken on uneven road surfaces.

- When objects on the road (curb, guard rail, pylons, etc.) are recognized as white (or yellow) lines.
- Driving on rough or unpaved roads, or over bumpy surfaces.
- Driving on roads with double lane lines.
- Driving on snowy or slippery roads.
- The pavement is only partially visible due to snow or puddles on the road.
- There is a film of water or puddles on the road surface.
- White (or yellow) lines are not recognized correctly due to road conditions such as curves, twists, or hills.
- Driving on unpaved or rutted roads.
- Passing through an exit or an intersection.



## Vehicle conditions

- When lighting is weak due to dirt covering the headlight lenses, or there is poor visibility in a dark place due to the headlights being improperly adjusted.
- The front of the camera is covered by dirt, fog, rain, mud, wet snow, seals, accessories, stickers, or film on the windshield.
- Driving at night or in a dark place (e.g., a tunnel) with the headlights off.
- There is residue on the windshield from the windshield wipers.
- An abnormal tire or wheel condition (incorrect sizes, varied sizes or construction, improperly inflated, compact spare tire, etc.).
- The vehicle is tilted due to a heavy load in the trunk or rear seats.
- The suspension has been modified.
- Tire chains are installed.