

Pre-Collision Assist

WHAT IS PRE-COLLISION ASSIST

Pre-collision assist detects and warns of approaching hazards in the roadway. If your vehicle is rapidly approaching another stationary vehicle, a vehicle traveling in the same direction as yours, or a pedestrian within your driving path, the system provides multiple levels of assistance to help avoid a collision.

HOW DOES PRE-COLLISION ASSIST WORK

The system warns the driver of potential hazards by providing three levels of assistance.



If your vehicle is rapidly approaching potential hazards the system provides the following levels of functionality:

1. Alert.
2. Brake Support.
3. Automatic Emergency Braking.



Alert: When active, a flashing visual warning appears and an audible warning tone sounds.

Brake Support: The system is designed to help reduce the impact speed by preparing the brakes for rapid braking. The system does not automatically apply the brakes. If you press the brake pedal, the system could apply additional braking up to maximum braking force, even if you lightly press the brake pedal.

Automatic Emergency Braking: Automatic emergency braking may activate if the system determines that a collision is imminent.

Note: If you perceive pre-collision assist alerts as being too frequent or disturbing, then you can reduce the alert sensitivity, although the manufacturer recommends using the highest sensitivity setting where possible. Setting lower sensitivity would lead to fewer and later system warnings.

Each system has various levels of detection capabilities. See **Pre-Collision Assist Limitations** (page 258).

PRE-COLLISION ASSIST PRECAUTIONS



WARNING: You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: The system does not detect vehicles moving in a different direction or animals. Apply the brakes when necessary. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: The system does not operate during hard acceleration or steering. Failure to take care may lead to a crash or personal injury.



WARNING: The system may fail or operate with reduced function during cold and severe weather conditions. Snow, ice, rain, spray and fog can adversely affect the system. Keep the front camera and radar free of snow and ice. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

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WARNING: Take additional care if your vehicle is heavily loaded or you are towing a trailer. These conditions could result in reduced performance of this system. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: The system cannot help prevent all crashes. Do not rely on this system to replace driver judgment and the need to maintain a safe distance and speed.



WARNING: In situations where the vehicle camera has limited detection capability, this may reduce system performance. These situations include but are not limited to direct or low sunlight, vehicles at night without tail lights, unconventional vehicle types, pedestrians with complex backgrounds, running pedestrians, partly obscured pedestrians, or pedestrians that the system cannot distinguish from a group. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

PRE-COLLISION ASSIST LIMITATIONS

Pre-collision assist depends on the detection ability of its camera and sensors. Any obstructions or damage to these areas can limit detection or prevent the system from functioning. See **Locating the Pre-Collision Assist Sensors** (page 259).

The system is active at speeds above 3 mph (5 km/h)

Note: *Pre-collision assist disables when you manually disable AdvanceTrac™.*

Pedestrian Detection Limitations

Pedestrian detection is active at speeds up to 50 mph (80 km/h).

Pedestrian detection functions optimally when detected hazards are clearly identifiable. System performance may reduce in situations where pedestrians are running, partly obscured, have a complex background, or cannot be distinguished from a group.

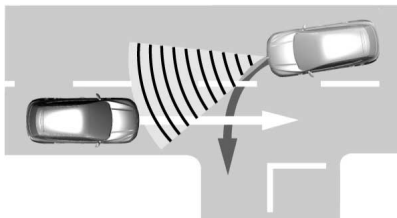
Cyclist Detection Limitations

Cyclist detection is active at speeds up to 50 mph (80 km/h).

Cyclist detection functions optimally when detected hazards are clearly identifiable. System performance may reduce in situations where cyclists are fast-moving, partly obscured, have a complex background, or cannot be distinguished from a group.

Intersection Assist

If your vehicle comes with a radar sensor included in adaptive cruise control, the pre-collision assist system may operate in a scenario where you are turning across an oncoming vehicle's path. Detection of vehicles driving in an oncoming direction is active if your vehicle is driving at speeds up to 19 mph (30 km/h).



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SWITCHING PRE-COLLISION ASSIST ON AND OFF

You cannot switch the system off.

Adjusting the Pre-Collision Assist Settings

You can adjust the following settings by using the touchscreen controls in the pre-collision assist menu:

- Change alert and distance alert sensitivity to one of three possible settings.
- Switch distance indication and alert on or off.
- If required, switch automatic emergency braking on or off.
- If required, switch evasive steering assist on or off.

Note: Automatic emergency braking and evasive steering automatically turns on every time you switch the ignition on.

Note: If you switch automatic emergency braking off, evasive steering assist switches off.

LOCATING THE PRE-COLLISION ASSIST SENSORS



- 1 Camera.
- 2 Radar sensor.

If a message regarding a blocked sensor or camera appears in the information display, something is obstructing the radar signals or camera images. The radar sensor is behind the fascia cover in the center of the lower grille. With a blocked sensor or camera, the system may not function, or performance may reduce. See **Pre-Collision Assist – Information Messages** (page 263).

DISTANCE INDICATION

WHAT IS DISTANCE INDICATION

Distance indication displays the gap between your vehicle and the vehicle ahead of you.

Note: The graphic does not display if you switch on cruise control or adaptive cruise control.

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Vehicle Speed	System Sensitivity	Distance Indicator Color	Distance Gap	Time Gap
62 mph (100 km/h).	Normal.	Gray.	Greater than 82 ft (25 m).	Greater than 0.9 seconds.
		Yellow.	56–82 ft (17–25 m).	0.6–0.9 seconds.
		Red.	Less than 56 ft (17 m).	Less than 0.6 seconds.

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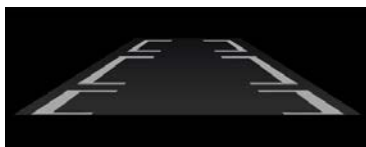
SWITCHING DISTANCE INDICATION ON AND OFF

To switch the system on or off:

1. Access the vehicle drawer.
2. Press **SETTINGS**.
3. Press **Driver Assistance**.
4. Press **Pre-Collision Assist**.
5. Switch **Distance Indication** on or off.

DISTANCE INDICATION INDICATOR

The indicator displays the time gap between your vehicle and vehicles traveling in the same direction ahead of you.



DISTANCE ALERT

WHAT IS DISTANCE ALERT

The system alerts you with a warning lamp if the distance to the vehicle ahead is small.

Note: The warning lamp does not illuminate if cruise control or adaptive cruise control is active.

ADJUSTING THE SENSITIVITY OF DISTANCE ALERT

To adjust the sensitivity of the system:

1. Access the vehicle drawer.
2. Press **SETTINGS**.
3. Press **Driver Assistance**.
4. Press **Pre-Collision Assist**.
5. Press **Alert Sensitivity**.
6. Select a setting.

AUTOMATIC EMERGENCY BRAKING

WHAT IS AUTOMATIC EMERGENCY BRAKING

Automatic emergency braking may activate if the system determines that a collision is imminent. The system may help reduce impact damage to avoid the crash completely.

Automatic emergency braking is only available up to certain speeds. See **Pre-Collision Assist Limitations** (page 258).

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SWITCHING AUTOMATIC EMERGENCY BRAKING ON AND OFF

To switch the system on or off:

1. Access the vehicle drawer.
2. Press **SETTINGS**.
3. Press **Driver Assistance**.
4. Press **Pre-Collision Assist**.
5. Press **Automatic Emergency Braking**.
6. Switch the feature on or off.

EVASIVE STEERING ASSIST

WHAT IS EVASIVE STEERING ASSIST

If your vehicle is rapidly approaching a road user, evasive steering assist helps you steer around the road user.

After you turn the steering wheel in an attempt to avoid a crash with the road user, the system applies additional steering torque to help you steer around the road user. After you pass the road user, the system applies steering torque when you turn the steering wheel to steer back into the lane. The system deactivates after you fully pass the road user.

Note: Road users are defined as pedestrians in your vehicle's path or another stationary vehicle in the same lane or a vehicle traveling in the same lane in the same direction as you. See **Pre-Collision Assist Precautions** (page 257).

EVASIVE STEERING ASSIST LIMITATIONS

Evasive steering assist only activates when all the following occur:

- Automatic emergency braking and evasive steering assist are on.
- The system detects a road user ahead and starts to apply the brakes.
- You significantly turn the steering wheel to steer around a road user.

Note: Evasive steering assist does not automatically steer around a road user. If you do not turn the steering wheel, evasive steering assist does not activate.

Note: Evasive steering assist does not activate if the distance to the road user ahead is too small and the system cannot avoid a crash.

Note: Evasive steering does not activate with cyclists.

SWITCHING EVASIVE STEERING ASSIST ON AND OFF

To switch the system on or off:

1. Access the vehicle drawer.
2. Press **SETTINGS**.
3. Press **Driver Assistance**.
4. Press **Pre-Collision Assist**.
5. Switch **Evasive Steering** on or off.

Note: If you switch automatic emergency braking off, evasive steering assist turns off.

Note: Automatic emergency braking and evasive steering assist turn on every time you switch the power on.

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PRE-COLLISION ASSIST – TROUBLESHOOTING

PRE-COLLISION ASSIST – WARNING LAMPS



A telltale illuminates in the cluster to indicate if the system is disabled or unavailable.

PRE-COLLISION ASSIST – INFORMATION MESSAGES

Message	Action
Pre-Collision Assist Not Available Sensor Blocked	You have a blocked sensor due to bad weather, ice, mud or water in front of the radar sensor. You can typically clean the sensor to resolve.
Pre-Collision Assist Not Available	A fault with the system has occurred. Have your vehicle checked as soon as possible.

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PRE-COLLISION ASSIST – FREQUENTLY ASKED QUESTIONS

Camera Troubleshooting

The windshield in front of the camera is dirty or obstructed.

Clean the outside of the windshield in front of the camera.

The windshield in front of the camera is clean, but the message remains in the instrument cluster display.

Wait a short time. It could take several minutes for the camera to detect that there is no obstruction.

Radar Troubleshooting (If Equipped)

The surface of the radar in the grille is dirty or obstructed.

Clean the grille surface in front of the radar or remove the object causing the obstruction.

The surface of the radar in the grille is clean, but the message remains in the instrument cluster display.

Wait a short time. It could take several minutes for the radar to detect that there is no obstruction.

Heavy rain, spray or fog is interfering with the radar signals.

The pre-collision assist system is temporarily disabled. Pre-collision assist reactivates a short time after the weather conditions improve.

Swirling water or snow or ice on the surface of the road could interfere with the radar signals.

The pre-collision assist system is temporarily disabled. Pre-collision assist reactivates a short time after the weather conditions improve.

Radar is out of alignment due to a front end impact.

Have your vehicle serviced to have the radar checked for proper coverage and operation.