

System Errors

If you receive an OnGuard system error notification, your display will show an icon with exclamation point. While your vehicle will still be operable, certain OnGuard functions such as standard cruise control and CMS will not be available. It is recommended that you find a safe place to park and turn off the ignition for one to three minutes. This will reboot your systems and may correct the error. If the condition persists, you should contact your fleet manager to review the issue. Any error information should be recorded for troubleshooting purposes.



System error notification

Safe Vehicle Operation

The OnGuard CMS continuously conducts predefined calculations designed to alert you to potentially dangerous driving situations and provides a set following interval while utilizing ACC in most environments and driving situations that you face on a daily basis. However, multiple factors can affect set following intervals and create additional driving considerations. When operating a vehicle with the OnGuard Collision Mitigation System, it is very important to adhere to the following:

- **OnGuard should only be considered as an aid and is not intended to replace driver control over the vehicle at any time.**
- **Like cruise control in general, ACC should not be used when weather, road surface or conditions require longer following intervals and your full control over the speed of the vehicle. Such conditions include, without limitation, snow, sleet, rain, fog, icing, etc.**
- **When operating your vehicle, always use safe driving techniques. The driver is always the most important element in safe vehicle operation.**
- **OnGuard is only intended to assist reaction and response time. OnGuard is not a substitute for proper driver braking and should be considered only as a driver assistance system. In the event the ACC system requires activation of the foundation brakes, the system is designed to provide braking at a level to alert you to a potentially unsafe following interval and aid in possibly mitigating a collision. For your safety, the ACC system does not apply maximum braking. The driver must intervene when necessary and assume control of vehicle braking.**

System Limitations

The OnGuard CMS only brakes for moving objects located directly in front of your vehicle and does not operate when your speed is less than 15 mph. Accordingly, OnGuard:

- **Will not react and alert you to objects crossing in front of you or oncoming traffic.**
- **Should not be relied on to track lead vehicles when traveling through a severe curve in the road. Because of this, ACC is not recommended for use on winding (curving) roads.**
- **Will alert but not actively brake on stationary objects.**
- **Should not be relied upon to track smaller objects (e.g. motorcycles, mopeds, bicycles, pedestrians, etc.)**
- **Should not be relied on to alert drivers to vehicles in an adjacent lane.**

MERITOR WABCO

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OnGuard™

Collision Mitigation System

For more information on Meritor WABCO's OnGuard Collision Mitigation System, call our OnTrac Customer Service team at 866-OnTrac1 (866-688-7221) or visit meritorwabco.com

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OnGuard™ Driver Tips

Collision Mitigation System



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Collision Mitigation System

Driver Tips

This User's Guide applies to vehicles equipped with the OnGuard™ Collision Mitigation System (CMS). OnGuard is a radar-based active safety system that offers Adaptive Cruise Control, Forward Collision Warning and Collision Mitigation.

OnGuard detects objects ahead and measures the vehicle's position and speed in relation to others on the road to warn the driver of a possible rear-end collision by providing audible, visual and haptic warnings. When appropriate, the system will apply the brakes to help mitigate a rear-end collision. OnGuard monitors the road and provides warnings and active braking even when cruise control is not set. The system also warns on stationary objects, such as cars, to alert the driver of potential obstructions in their lane.

OnGuard is not intended to replace driver control of the vehicle at any time. You, as the driver, remain in control of your vehicle and ultimately determine the actions that are necessary for safe operation.

Adaptive Cruise Control

Adaptive Cruise Control (ACC) adjusts the speed of your vehicle while in cruise control and attempts to maintain a set following interval of 3.6 seconds when there is a vehicle ahead driving at a lower speed than your vehicle.

ACC works in conjunction with conventional cruise control to maintain the set cruise speed when the lane ahead is clear and will automatically adjust the vehicle's speed to maintain the set following interval when a vehicle ahead is detected. OnGuard achieves the set following interval by controlling engine torque, engine and foundation brakes without driver intervention. When

there is no moving vehicle detected ahead, the set cruise speed is achieved.

Collision Mitigation System

OnGuard's CMS assists the driver in recognizing and responding to potentially dangerous driving scenarios that could lead to a rear end collision. The system responds by sending warnings, automatically reducing engine torque and applying foundation brakes.

OnGuard's CMS will provide both visual and audible alerts through an in-cab dash display when the vehicle's following interval could result in a rear-end collision. If a potential rear-end collision is developing and the driver does not take action to decelerate the vehicle, OnGuard's active braking feature issues a haptic warning (short brake pulse) and automatically de-throttles the engine. If a potential rear-end collision still exists, and the driver has not taken the appropriate action, OnGuard's CMS will apply the foundation brakes to provide up to 50% of available braking power. When OnGuard activates your vehicle's brakes, your brake lights will come on.

The active braking application is intended to assist the driver to avoid or reduce the severity of a collision. The driver must take the appropriate corrective action in response to the collision warning. OnGuard warnings will not be issued below a vehicle speed of 15 mph.

In-Cab Dash Display

Icon Colors:

White: Adaptive Cruise Control is available but not set

Green: Adaptive Cruise Control is set or Distance Alert

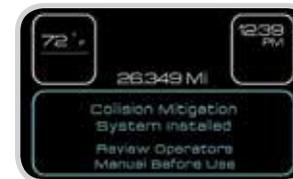
Yellow: Collision Warning – First step in CMS

Red: Haptic Collision Warning, Emergency Braking or Stationary object warning

Operating Modes

Adaptive Cruise Control Not Set

Your vehicle operates as usual when the ACC speed is not set. The system will still emit audible and visual warnings when it detects a possible rear-end collision. CMS is active above 15 mph and will apply brakes if deemed necessary.



Cruise Control not set
No lead vehicle detected



Cruise Control not set
Lead Vehicle detected

Adaptive Cruise Control Set

When the ACC speed is set, the set cruise speed appears on the display. When a slower vehicle is detected in front of you, ACC will attempt to reduce your speed to the speed of the lead vehicle. This speed adjustment may momentarily drop lower than the lead vehicle in order to maintain a 3.6 seconds following interval between you and the vehicle ahead when appropriate. While ACC is on, the display will emit visual and audible collision warnings, and the system will control throttle and apply engine and service brakes if needed while attempting to maintain a set following interval.



Cruise Control set
No lead vehicle detected



Cruise Control set
Lead Vehicle detected

Following-Distance Alert:

Adaptive Cruise Control Not Set

The Following-Distance Alert will provide an audible alert and the in-cab dash display screen will turn yellow if you are following another vehicle too closely at a 1.5 seconds following interval (tailgating). This alert will end when the following distance is increased to a safe level.



Cruise Control not set
Following distance alert

Following-Distance Alert:

Adaptive Cruise Control Set

When you are in cruise control mode, the Following-Distance Alert will provide an audible alert and the in-cab dash display screen will turn yellow if the driver uses the accelerator pedal to override the ACC and approaches a vehicle too closely. The Following-Distance Alert will not provide warnings when your vehicle speed is below 15 mph.



Cruise Control set.
Following distance alert

Collision Warning & Mitigation

When an unforeseen event occurs, such as another vehicle enters your lane traveling slower than you are, or the gap between you and a moving vehicle in front of you becomes too close, OnGuard will provide an audible alert and the display will turn red with a collision warning symbol.

If the system determines that a rear-end collision is imminent, it will automatically apply the brakes to reduce the vehicle's speed. You may also feel a haptic (short brake pulse) to warn you of collision danger.

The driver must also take the appropriate corrective action to avoid dangerous driving situations.

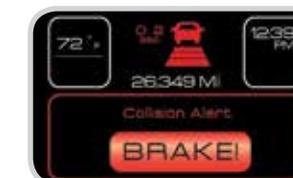
If OnGuard detects a stationary object in your vehicle's lane (such as a disabled car) it will provide an audible alert and the display will turn red showing a stationary object symbol. **OnGuard will not apply the brakes or reduce the vehicle's speed when it detects a stationary object.** CMS will not be active when your vehicle's speed is below 15 mph.



Object Collision Warning



Stationary Object Warning



Haptic Collision Warning