

OnGuard™
Collision Safety Systems



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Getting you home safely. That's why we've developed OnGuard.™

OnGuard is the first Collision Safety System with Adaptive Cruise Control (ACC) and Active Braking that assists the driver in maintaining a safe following distance. Plus, it is a Collision Mitigation System (CMS) that detects a potential rear-end collision developing ahead and responds by braking as needed to assist the driver in avoiding a collision.

With OnGuard, drivers can prevent or greatly reduce the impact of a rear-end collision.

OnGuard uses forward-looking radar sensor technology featuring advanced algorithms to monitor the distance, speed and deceleration of a vehicle ahead. When OnGuard detects that a potential collision is developing, it sends audible and visual warnings through an in-cab dash display so the driver is alerted to take the appropriate corrective action.

OnGuard is always on.

OnGuard is the only Collision Safety System that's always on – even when you're not in cruise control.



Active Braking makes the difference.

If a potential rear-end collision is developing without the driver taking action to decelerate the vehicle, OnGuard's Collision Mitigation System automatically de-throttles the engine and applies the engine and foundation brakes to provide up to .35Gs of braking power.



Active Braking can energize brakes prior to driver demand – when unsafe distances are detected – reducing the time to achieve proper braking pressure. This reaction time reduction can help the driver to either prevent a collision or greatly reduce its impact. Ninety percent of rear-end accidents caused by delay in driver recognition can be prevented – if the driver is able to recognize the situation one second earlier.*

In Adaptive Cruise Control mode, OnGuard automatically attempts to maintain a safe distance behind the vehicle ahead, accelerating or decelerating as needed.

*Source: National Highway Traffic Safety Administration (NHTSA)

Three levels of OnGuard defense:

Collision Warning System (CWS)

- Audible and visual warnings provide detection of developing rear-end collisions

Adaptive Cruise Control (ACC) with Active Braking

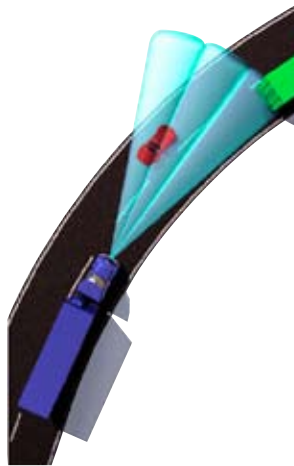
- Provides adaptive cruise for both decel and resume
- Maintains 3.6-second following distance
- Provides sequential activation of engine:
 - Torque reduction
 - Retarder control
 - Foundation braking
- Maximum deceleration is 0.25Gs (equivalent to 1/3 full brake power)

Collision Mitigation System (CMS)

- "Always On" emergency activation
- Calculates to determine impending collision
- Initial haptic warning
- 0.35Gs deceleration (equivalent to 1/2 full brake power)
- Functions at speeds less than 15 mph
- Automatically disengages if driver takes appropriate action

OnGuard is so smart, it sees around curves.

OnGuard radar sensor technology uses an internal gyro to detect a curve approaching and adjusts the radar beam as necessary to see objects around the bend. With Meritor WABCO's smart algorithms, engineers have been able to nearly eliminate false alerts and unnecessary speed changes. With OnGuard, drivers get warned when they need to.



More protection from the complete system.

OnGuard is part of the Meritor WABCO family of Collision Safety System products.

The system is fully integrated with Meritor WABCO anti-lock braking and Stability Control Systems Electronic Control Unit (ECU). It works in conjunction with the company's SmartTrac™ Stability Control Systems, which include Electronic Stability Control (ESC), Roll Stability Control (RSC) and Automatic Traction Control (ATC). The result is a comprehensive protection package for your driver. Your commercial vehicle. Your fleet. And the public.

Pyramid of Safety



With OnGuard, the driver is always in control.

The driver can override the Collision Safety System at any time by simply taking the appropriate braking action.

No matter how effective any system may be, no system can prevent loss of control, rollover or collision in all driving conditions. It remains the responsibility of the driver to ensure that the physical limits of the vehicle are not exceeded and to follow safe driving procedures.

MERITOR WABCO

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