

OnGuardACTIVE™

The All Season System



COLLISION MITIGATION SYSTEM

NOW WITH HIGHER DECELERATION AND IMPROVED OBJECT DETECTION



Improved object detection: means better object filtering by the radar internal algorithms. Higher deceleration: allows for full stop at higher speeds on stopped, stationary and moving objects.

WABCO

Mobilizing Vehicle Intelligence

ALWAYS ONGUARD TO SEE WHAT OTHERS CAN'T

OVER **20%** OF ALL LARGE TRUCK ACCIDENTS ARE REAR-END COLLISIONS

CO-PILOT ON THE ROAD

WABCO's OnGuardACTIVE™ Collision Mitigation System (CMS) is designed to assist truck drivers in recognizing and responding to dangerous driving scenarios that could lead to a rear-end collision with a moving or stationary vehicle ahead. This radar-only active safety system provides Forward Collision Warning (FCW), Active Braking and Adaptive Cruise Control (ACC). When a collision is imminent, OnGuardACTIVE alerts the driver with a dedicated warning sequence. If the driver still does not take corrective action, OnGuardACTIVE automatically reduces engine torque and applies the foundation brakes to help prevent or mitigate the impending rear-end collision. OnGuardACTIVE's newer higher-deceleration capabilities allow for complete stops at higher speeds on stopped, stationary and moving objects†.

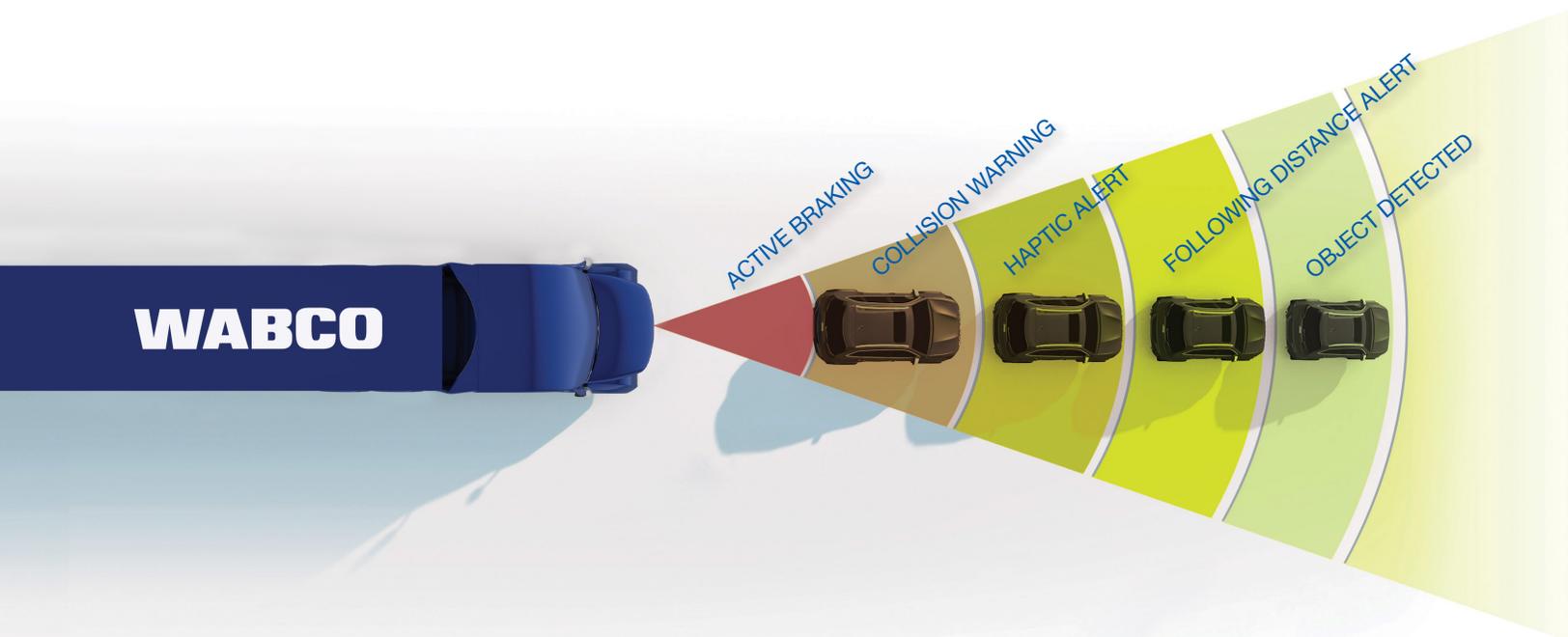
IMPACTS SAFETY

More than 20% of all large truck accidents are rear-end collisions.* Up to 20% of those accidents happen on stationary targets**, another up to 20% happen in low visibility conditions***. OnGuardACTIVE addresses them all! The system provides Active Braking on both moving as well as stationary vehicles, and its 77Ghz radar ensures reliable performance even in low visibility conditions.

OnGuardACTIVE's Forward Collision Warning features audible beeps, visual alerts and an industry-exclusive haptic warning, which is a quick brake pulse to accelerate the driver's response to imminent collisions. Furthermore, the system's ACC is available to assist the driver to maintain a safe following distance. In addition, OnGuardACTIVE's event notifications and active interventions can be integrated into many telematics and monitoring systems, enabling fleet owners to gain additional perspective into driving performance. In this way, OnGuardACTIVE is a powerful tool that can help reduce rear-end collisions by up to 87%**** to enhance a fleet's overall safety record, decrease accident rates and improve CSA compliance.

UP TO **20%** OF ALL REAR-END COLLISIONS TAKING PLACE IN LOW VISIBILITY CONDITIONS

UP TO **20%** OF ALL REAR-END COLLISIONS HAPPEN ON STATIONARY OBJECTS



* The Large Truck Crash Causation Study, FMCSA 2007

** Performance Characterization and Safety Effectiveness Estimates of Forward Collision Avoidance and Mitigation Systems for Medium/Heavy Commercial Vehicles, UMTRI 2012

*** Field Study of Heavy-Vehicle Crash Avoidance Systems, NHTSA 2016

**** As reported by fleets at WABCO's Fleet Advisory Council, 2014

† Compared to previous OnGuardACTIVE software version 2.3

PROVEN RETURN ON INVESTMENT

OnGuardACTIVE is a worthy investment to support accident prevention, vehicle uptime and on-time delivery. Fleets using OnGuardACTIVE report a reduction in rear-end collision costs by up to 89%.**** In addition, OnGuardACTIVE's ACC allows for fuel savings of up to 1%. The system's benefits are underlined by a payback of 9 to 18 months, depending on the application.*****

INNOVATIVE TECHNOLOGY – RELIABLE PERFORMANCE

OnGuardACTIVE uses a long range, high precision forward-looking radar, detecting objects in the vehicle's path at distances up to 650 feet away.

ADDRESSES DRIVER SHORTAGE

Advanced Driver Assistance Systems enable fleets to attract and retain a new generation of drivers, who are looking for a technology-enhanced driving experience. OnGuardACTIVE offers a multitude of safety and convenience benefits. The system helps prevent one of the most common causes of truck accidents while supporting a safe working environment and helping keep driver records clean.

OnGuardACTIVE's ACC looks at the traffic ahead and automatically adapts the vehicle's speed accordingly to help maintain a safe following distance. In this way, ACC releases truck drivers from constant deceleration and acceleration operations to make driving those long hours a safer and less stressful experience. In addition, OnGuardACTIVE's improved object detection further supports driver acceptance.



The dual beam radar uses far-range and near-range detection to expand the total area of radar coverage. This provides fast and accurate detection of vehicles far ahead while covering a wider angle to check adjacent freeway lanes, to allow drivers time to make an evasive maneuver if necessary.

OnGuardACTIVE's 77 GHz radar provides fast data processing for accurate object recognition while maintaining its performance even in low visibility conditions. A further improved algorithm allows for better accuracy in its response to stationary objects.



OnGuardACTIVE radar

HASSLE-FREE MAINTENANCE

A fascia protects the radar from damage and extensive snow and ice buildup, making the radar more robust. By applying engine brake and reducing engine torque to decelerate the vehicle, ACC decreases wear and tear on the foundation

brakes. The continuous automatic radar alignment further reduces maintenance efforts. In addition, WABCO supports fleets through its skilled technical service team to ensure seamless operations.



Protecting fascia

DEDICATED DRIVER TRAINING

To ensure a successful fleet roll-out of OnGuardACTIVE, WABCO supports fleets with tailored driver trainings, helping them better understand the system's capabilities as well as its physical limits. WABCO's experienced trainers are available to run driver trainings on-site as well as offer a broad range of driver training tools.



OnGuardACTIVE display

AVAILABLE ON MANY TRUCK BRANDS

OnGuardACTIVE is available as an option on a wide variety of truck brands and vehicle platforms in the market. The system's broad range of availability leverages multiple synergies in installation, maintenance and training.

**** As reported by fleets at WABCO's Fleet Advisory Council, 2014

***** Analysis of Benefits and Costs of Forward Collision Warning Systems, FMCSA 2009

SEE SMARTER.

DAY OR NIGHT, RAIN OR SHINE.

Introducing the all-new

>> **OnGuardACTIVE™**

Collision Mitigation System



DESIGNED TO MEET YOUR NEEDS

OnGuardACTIVE represents another stepping stone in WABCO's commitment to enhance vehicle safety and driver effectiveness and is an integral part of WABCO's rich suite of modular Advanced Driver Assistance Systems. As one of the most experienced partners to the commercial vehicle industry, it is our philosophy to leave the choice in the hands of our customers. That is why today OnGuardACTIVE is available as an individual solution within WABCO's extensive ADAS suite and can therefore be individually installed without requiring fleets to purchase further ADAS systems when these are not deemed necessary today. And with that, we are truly empowering tomorrow's fleets.

**For further product details contact your WABCO representative or
WABCO North America at 855-228-3203.**

WABCO (NYSE: WBC) is the leading global supplier of braking control systems and other advanced technologies that improve the safety, efficiency and connectivity of commercial vehicles. Originating from the Westinghouse Air Brake Company founded nearly 150 years ago, WABCO is powerfully "Mobilizing Vehicle Intelligence" to support the increasingly autonomous, connected and electric future of the commercial vehicle industry. WABCO continues to pioneer innovations to address key technology milestones in autonomous mobility and apply its extensive expertise to integrate the complex control and fail-safe systems required to efficiently and safely govern vehicle dynamics at every stage of a vehicle's journey – on the highway, in the city and at the depot. Today, leading truck, bus and trailer brands worldwide rely on WABCO's differentiating technologies. Powered by its vision for accident-free driving and greener transportation solutions, WABCO is also at the forefront of advanced fleet management systems and digital services that contribute to commercial fleet efficiency. In 2018, WABCO reported sales of over \$3.8 billion and has more than 16,000 employees in 40 countries. For more information, visit:

www.wabco-na.com

OnGuardACTIVE is a driver assist tool and is not intended to substitute proper and careful driving.

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