

RETROFIT SOLUTIONS

FOR VEHICLE UPGRADES



PROTECT YOUR INVESTMENT BY **MAKING YOUR VEHICLE SAFER**

Protect your investment by making your vehicle safer with WABCO Retrofit Solution upgrade kits. Our Advanced Driver Assistance Systems, trailer safety systems and MICO® brake locks can be installed with relative ease and have helped millions of customers enhance the safety of their vehicles.

WABCO

ADVANCED DRIVER ASSISTANCE SYSTEMS

ONGUARDACTIVE®

WABCO OnGuardACTIVE is a radar-based active safety system that offers Collision Mitigation, Adaptive Cruise Control (ACC) and Forward Collision Warning*. The system uses a 77GHz long range, high precision forward-looking radar to detect moving, stopped or stationary objects ahead, and warns the driver of a possible collision by providing audible, visual and haptic warnings. When needed, the system will also actively apply the brakes to help avoid or mitigate a collision.

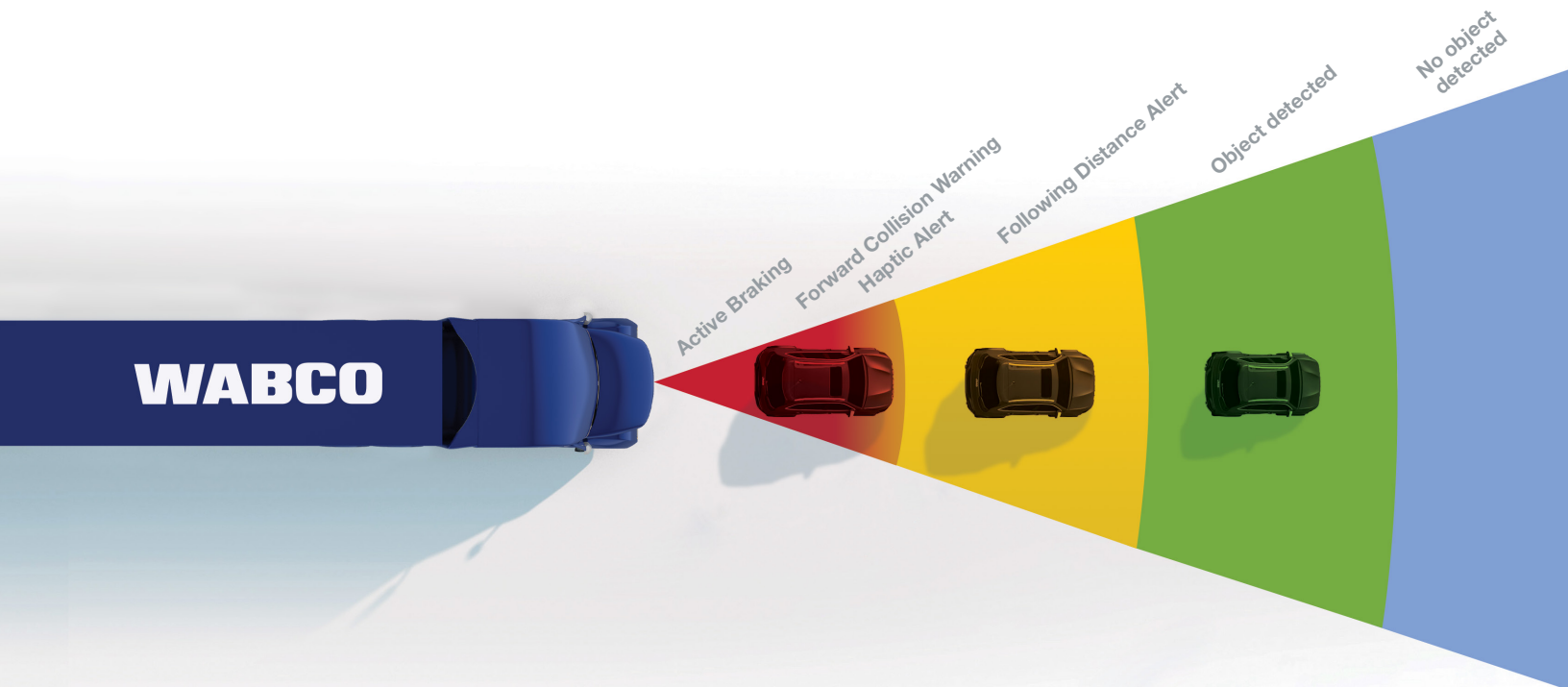


FEATURES AND BENEFITS

- Reduces severity of rear-end collisions by up to 87%**
- Works in all visibility conditions
- “Always on” at speeds above 15 mph, even when cruise control is not set
- Kit includes radar, display, bracket, harness and required hardware

*The vehicle must be equipped with WABCO Anti-Lock Braking System (ABS) and Electronic Stability Control (ESC) for the retrofit to properly function. A required software update is available for download from the “Literature” section on the WABCO North America website (www.wabco-na.com).

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



WARNING OnGuard® is designed to create high vehicle deceleration (without driver intervention) in certain situations. To reduce the risk of injuries caused during OnGuard®-activated vehicle deceleration, all vehicle occupants should be correctly seated and properly belted or restrained during vehicle operation. All loose items should be secured so that they will not fly forward and cause injury during a deceleration event. The use of OnGuard® in vehicles not equipped with seat belts may expose non-belted passengers to injuries due to system initiated sudden vehicle deceleration, despite vehicle compliance with applicable safety standards.

TRAILER SAFETY SYSTEMS

ROLL STABILITY SUPPORT (RSS) 2M

WABCO RSS 2M trailer safety system is an advanced four-sensor, two-modular roll mitigation system that provides independent side-by-side control for optimum rollover protection. The system is ideal for tankers, hazardous materials, tri-axle trailers and carriers that want maximum stability control and tire protection.

FEATURES AND BENEFITS

- Combines the benefits of anti-lock brake performance and trailer stability control in a single unit
- Applies brakes as needed to maintain stability control
- Provides support for both spring and air suspension
- Can be retrofitted on trailers that are already equipped with WABCO ABS, a competitive ABS brand or non-ABS trailers
- Kit includes ECU/Valve assembly, 3 ft. power cable, 6 ft. sensor extension cables and in-line filter



DUMP BOX POSITION SENSOR

WABCO Dump Box Position Sensor, part of the SafeStart family of products, helps prevent accidents and violations by sounding an alarm when the vehicle exceeds a preset programmed speed with the dump body extended*. By alerting the driver in these situations, the product helps prevent vehicle damage and reduce downtime.

FEATURES AND BENEFITS

- Robust design features non-contact magnetic sensors, ensuring reliability and durability (alternative kits often have mechanical plunger switches, which are prone to failure under typical operating conditions)
- Fast and easy “plug and play” installation with WABCO Enhanced Easy-Stop™ Trailer ABS or Roll Stability Support (RSS); installation typically takes less than 30 minutes to complete
- Alarm is mounted to the trailer, eliminating the need to drill into the truck cab or dash
- Ability to set operating parameters using WABCO’s TOOLBOX PLUS™ software so alarm only sounds above a certain speed**
- Kit includes magnetic sensors with cable, alarm buzzer with cable, and octopus cable (for Enhanced Easy-Stop™ application only)



*It is recommended to mount the alarm buzzer as close to the cab as possible for greatest hearing capabilities.

**The default alert speed is preset to 22 mph/35 kmh. Alert parameters can be customized using WABCO TOOLBOX PLUS™ diagnostic software.

TRAILER SAFETY SYSTEMS

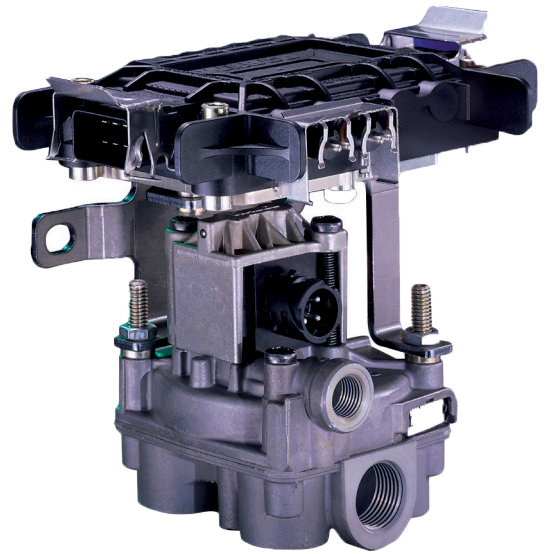
ENHANCED EASY-STOP™ TRAILER ABS

WABCO Enhanced Easy-Stop trailer ABS is best in class in the industry and widely chosen by most OEMs. Our robust technology and design ensure the proper braking force is delivered for trailer stability across various trailer load and road conditions.

There are several retrofit kits available to update our previous Easy-Stop™ to the Enhanced Easy-Stop™ platform, which incorporates current technology to address regulatory PLC requirements.

FEATURES AND BENEFITS

- Greater vehicle stability and lower tire wear, decreasing downtime and maintenance costs
- Features same sensors, sensor extension cables, clips and diagnostics as the Easy-Stop platform
- Includes adapters required to plug into the existing Easy-Stop power cable and the new Enhanced Easy-Stop ECU and valve
- Ability to easily service and program using WABCO TOOLBOX PLUS™ diagnostic software
- Delivers real-time data communication between tractor and trailer systems equipped with Power Line Carrier (PLC) communications and InfoLink*
- Kit includes ECU/Valve assembly, 3 ft. power cable, 6 ft. sensor extension cables and in-line filter



*The InfoLink ECU has an additional layer of internal technology that is required for the advanced features of WABCO Intelligent Trailer systems.

MICO® BRAKE LOCKS

MICO BRAKE LOCKS

MICO brake locks are supplemental safety devices that provide additional brake holding when used in conjunction with a vehicle's properly functioning mechanical parking brake**. There are several retrofits available for single, dual, split or anti-lock brake systems. The brake locks are ideal for construction, mining, agriculture, material handling, multi-stop delivery and recreational vehicles. They can fit most medium and light duty trucks equipped with a hydraulic braking system.



FEATURES AND BENEFITS

- 691 Brake Lock System: Remote controlled, automatic monitoring for four-wheel lockup
- Dual Cable Lock: Cable-operated, providing up to a four-wheel lockup
- Lever Lock: Manual, hand-operated control to lock pressure in a single brake line
- Twist Lock: For tough environment applications; controlled by a rotary action handle to lock pressure in a single brake line
- Cable Lock: For limited space applications; remotely mounted and operated by a cable and knob to lock pressure in a single brake line
- Kit includes part, fittings and cable (if required for operation)



**MICO brake locks use the vehicle's service brakes as an operational supplement to the vehicle's properly functioning mechanical parking brakes and are not intended for prolonged use.

PART NUMBERS

Retrofit Kit	Part Number	Application
OnGuardACTIVE® Collision Mitigation System	400 871 340 2	DTNA P3 Cascadia, with Detroit Diesel engine, manual transmission and 250kBaud communication (model years 2013-2015)
	400 871 341 2	DTNA P3 Cascadia, with Cummins engine, manual transmission and 250kBaud communication (model years 2013-2015)
	400 611 065 0	DTNA P3 Cascadia, with Detroit Diesel engine, manual transmission and 500kBaud communication (model years 2016-2020)
	400 611 066 0	DTNA P3 Cascadia, with Detroit Diesel engine, DT12 automated manual transmission and 500kBaud (model years 2016-2020)
	400 611 067 0	DTNA P3 Cascadia, with Detroit Diesel engine, Eaton automated manual transmission and 500kBaud (model years 2016-2020)
	400 611 068 0	DTNA P3 Cascadia, with Cummins engine, manual transmission and 500kBaud communication (model years 2016-2020)
	400 611 069 0	DTNA P3 Cascadia, with Cummins engine, automated manual transmission and 500kBaud (model years 2016-2020)
* Note: All kits require 2013 or newer emissions		
Roll Stability Support (RSS) 2M		
Spring Ride 4S/2M Retrofits	400 612 033 0	2S/1M unit, WABCO ABS-Equipped Trailer
	400 612 034 0	2S/1M unit, Non-ABS or Other Non-WABCO ABS-Equipped Trailer
	400 612 024 0	4S/2M unit, WABCO ABS-Equipped Trailer
	400 612 034 0	4S/2M unit, Non-ABS or Other Non-WABCO ABS-Equipped Trailer
Air Ride 4S/2M Retrofits	400 612 029 0	2S/1M unit, WABCO ABS-Equipped Trailer
	400 612 023 0	2S/1M unit, Non-ABS or Other Non-WABCO ABS-Equipped Trailer
	400 612 005 0	4S/2M unit, WABCO ABS-Equipped Trailer
	400 612 023 0	4S/2M unit, Non-ABS or Other Non-WABCO ABS-Equipped Trailer
Air Ride 2S/2M Retrofits	400 612 032 0	2S/1M unit, Non-ABS or Other Non-WABCO ABS-Equipped Trailer
Spring Ride 2S/2M Retrofits	400 612 044 0	2S/1M unit, WABCO ABS-Equipped Trailer
	400 612 046 0	2S/1M unit, Non-ABS or Other Non-WABCO ABS-Equipped Trailer
Enhanced Easy-Stop™ Trailer ABS		
Enhanced Easy- Stop™ Trailer ABS	400 612 000 0	2S/1M for Trailers, Easy-Stop ECU/Valve 472 500 021 0
	400 612 001 0	Power Adapter Retrofit Kit
	400 612 001 0	Power/Diagnostic Adapter Retrofit Kit
	400 612 012 0	2S/1M for Dollies, Easy-Stop ECU/Valve 472 500 011 0
	400 612 013 0	Power Adapter Retrofit Kit
	400 612 013 0	Power/Diagnostic Adapter Retrofit Kit
	400 612 010 0	2S/1M, 2M/2M, 4S/2M; Easy-Stop ECU/Valve 472 500 012 0*
	400 612 011 0	Power Adapter Retrofit Kit
	400 612 011 0	Power/Diagnostic Adapter Retrofit Kit
	400 612 003 0	4S/3M, Easy-Stop ECU/Valve 472 500 013 0
	400 612 003 0	Power Adapter Retrofit Kit
	400 612 002 0	Power/Diagnostic Adapter Retrofit Kit

*If a 472 500 012 0 ECU/Valve was used in 2S/1M applications, order a 400 612 000 0 or 400 612 001 0 kit.

Retrofit Kit	Part Number	Application
Dump Box Position Sensor		
Dump Box Position Sensor	400 850 971 2	For use with Enhanced Easy-Stop Trailer ABS
	400 850 970 2	For use with Roll Stability Support (RSS)
MICO® Brake Locks		
691 Brake Lock System	02-691-101	Single Brake Lock System, Vehicles >19K GVM
	02-691-109	Single Brake Lock System, Vehicles <19K GVM
	02-691-201	Dual Brake Lock System, Vehicles >19K GVM
	02-691-209	Dual Brake Lock System, Vehicles <19K GVM
	02-691-303	3-Channel ABS System, Vehicles >19K GVM
	02-691-305	3-Channel ABS System, Vehicles <19K GVM
	02-691-403	4-Channel ABS System, Vehicles >19K GVM (optional on others)
Dual Cable Lock	02-640-169	For use with brake fluid applications
	02-640-202	For use with hydraulic oil applications
Lever Lock	02-640-125	For use with brake fluid applications
	02-640-126	For use with hydraulic oil applications
Twist Lock	03-640-075	For use with brake fluid applications
	03-640-076	For use with hydraulic oil applications
Cable Lock	02-640-023	For use with brake fluid applications
	02-640-122	For use with hydraulic oil applications



WABCO RETROFIT SOLUTIONS

Protect your investment by making your vehicle safer with WABCO's Retrofit Solution upgrade kits. Our Advanced Driver Assistance systems, trailer safety systems and MICO® brake locks can be installed with ease and have helped millions of customers enhance the safety of their vehicles.

**For further product details, contact your distributor or the
WABCO Customer Care Center at 855-228-3203**

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 162,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and \$3.4 billion (WABCO).

For more information, visit: www.wabco-na.com