

**ECAS**

Electronically Controlled  
Air Suspension for Trailers



**WABCO**

## ECAS offers major benefits for trailer operators



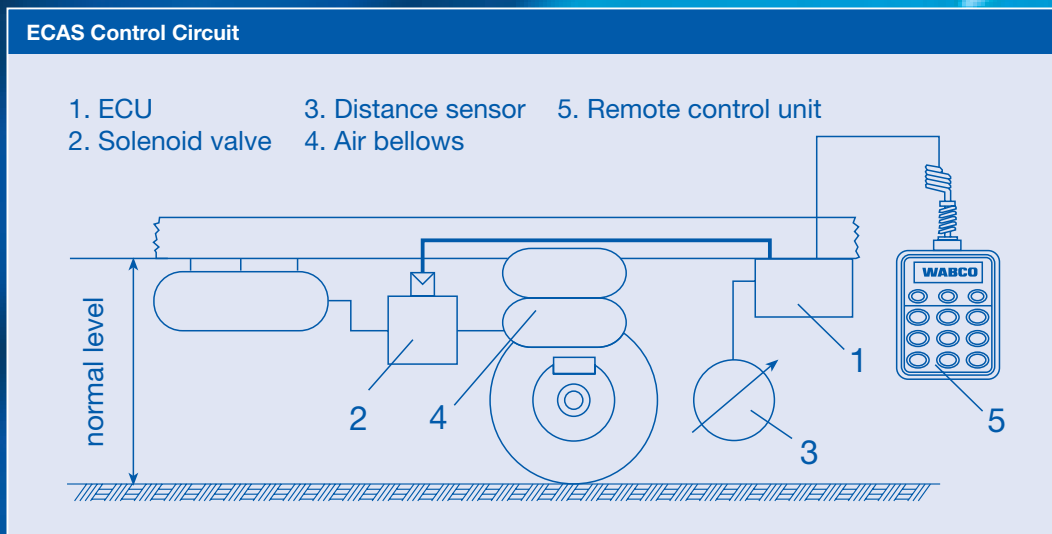
Since 1986 WABCO's Electronically Controlled Air Suspension (ECAS) has been fitted by most well-known commercial vehicle manufacturers and sales have today exceeded two million units. Since 1996, WABCO has also offered ECAS for trailers.

The modular, straightforward air suspension system offers advantages to both the vehicle owner and the vehicle manufacturer. The benefits of ECAS compared to leafspring suspension systems – such as improved comfort, load protection and a constant level – have been further enhanced by a number of useful system extensions.

ECAS offers vehicle operators an air suspension system and lifting axle control which meets a broad range of requirements.

ECAS essentially consists of a pre-wired ECU, a level sensor, a solenoid valve and a remote control unit/box. If combined with WABCO's ABS system VCS or the electronically controlled braking system Trailer EBS, easy installation and time-saving as well as a quick and safe diagnosis are possible. A comprehensive service network is provided by WABCO Service Centers and vehicle manufacturers using WABCO components.

# A convincing modular concept

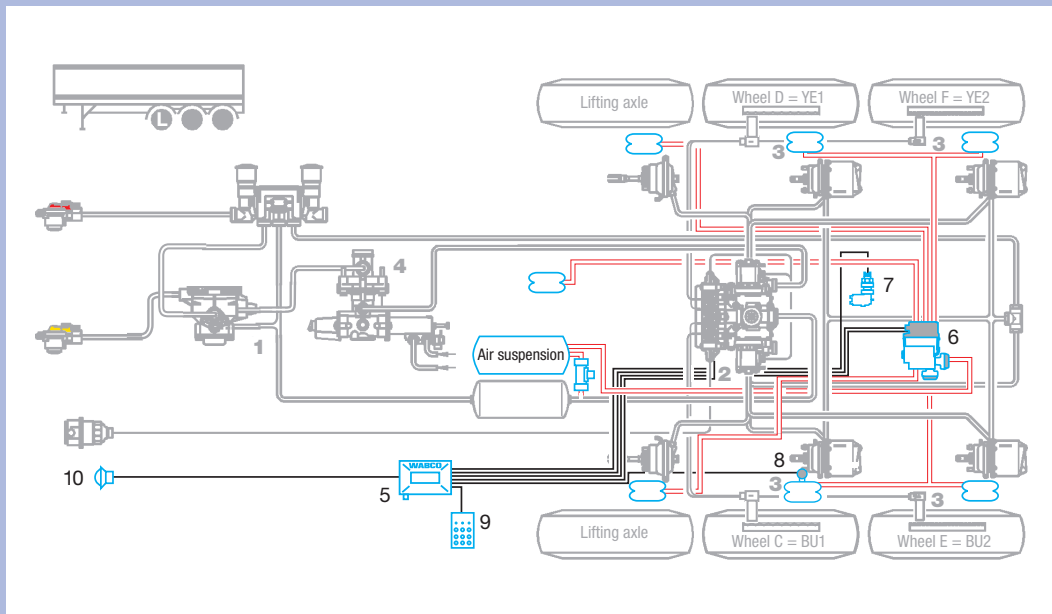


Trailer ECAS offers major benefits for both operators and manufacturers of commercial vehicles:

- Automatic re-adjustment of pre-set levels
- Short lifting and lowering times due to the large nominal width of valves
- Quicker change-over of superstructures and semitrailers
- Constant chassis level at any load condition
- Two or three selectable driving levels for different tractor-trailer combinations
- One unloading level for special applications
- Actuation by remote control of essential functions including traction assist, different driving levels and stand-by operation

# ECAS for semitrailers

## ECAS Installation: WABCO VCS system

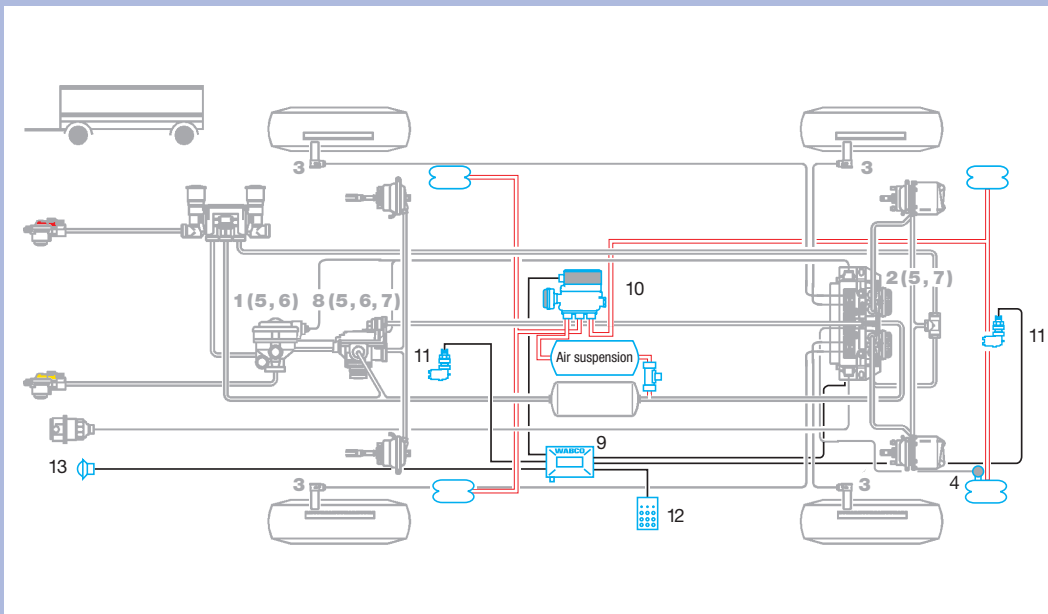


- 1 Relay emergency
- 2 Vario Compact ABS
- 3 ABS sensor
- 4 Load-sensing valve
- 5 ECAS ECU
- 6 ECAS solenoid valve
- 7 ECAS distance sensor
- 8 ECAS pressure sensor
- 9 ECAS remote control unit
- 10 ECAS warning lamp

- Integrated traction assist for lifting and trailing axle operation
- Driving level raised on lifted axles to improve tire free-wheeling
- Speed-dependent trailer control
- Two memory levels selected via the remote control unit
- Fully automatic lifting axles control
- Forced lowering of lifting axles
- Enhanced operator safety
- Continuously monitored system
- Easy to service
- High resale value

# ECAS for drawbar trailers

## ECAS Installation: WABCO EBS system



- 1 EBS relay emergency valve
- 2 EBS trailer modulator
- 3 ABS sensor
- 4 EBS-ECAS axle load sensor
- 5 EBS pressure sensor
- 6 EBS pressure switch
- 7 Redundancy valve
- 8 EBS relay valve
- 9 ECAS ECU
- 10 ECAS solenoid valve
- 11 ECAS distance sensor
- 12 ECAS remote control unit
- 13 ECAS warning lamp

### Additional benefits:

- Modular design means fewer components to install
- Simple initialization via PC diagnosis
- Automatic driving level control at the beginning of a journey
- Improved vehicle protection
- Automatic height limitation
- Axle overload protection
- Traction assist in compliance with latest European legal requirements
- Tire deformation automatically compensated
- Fewer fittings and air lines
- Reduced installation times



WABCO, the vehicle control systems business of American Standard Companies, is the world's leading producer of electronic braking, stability, suspension and transmission control systems for heavy duty commercial vehicles. WABCO products are also increasingly used in luxury cars and sport utility vehicles (SUVs). Customers include the world's leading commercial truck, trailer, bus and passenger car manufacturers. Founded in the US 135 years

ago as Westinghouse Air Brake Company, WABCO was acquired by American Standard in 1968. Headquartered in Brussels, Belgium, the business today employs nearly 6500 people in 29 office and production facilities worldwide. In 2003, WABCO contributed US\$ 1.358 billion to American Standard's total sales of US\$ 8.568 billion.

**Website: [www.wabco-auto.com](http://www.wabco-auto.com)**

