

Hallex



Hallex **EB+^{GEN}2**

Electronic Braking Systems

***Advanced Trailer
Braking Solutions***



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Main features

Innovation is one of Haldex's strongest points and as one of the worlds leading manufactures of Trailer Electronic Braking Systems this innovation, coupled with our vast knowledge and experience of trailer braking, has shown that our current EB+ system has many advantages over its competitors.

Our next generation EB+ product has continued to build on this experience and, with the valued input of some of Europe's leading trailer manufacturers, have captured that ingenuity and created a new and more dynamic and flexible system, with additional "in built" features to suit the needs of all trailer builders, fleets and end users.

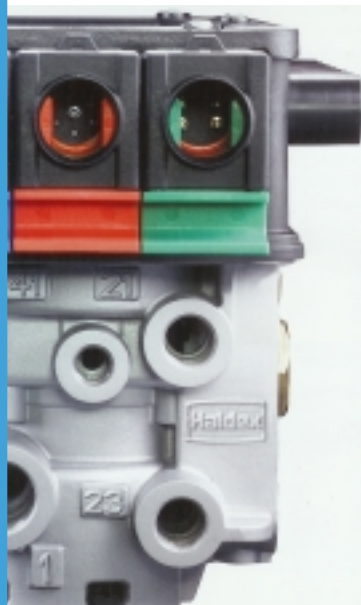


EB+ Generation 2

Haldex EB+ Generation 2 is the new Electronic Braking System for trailers.

Key benefits

- ▶ Bulk head mounting providing interchangeability with other systems
- ▶ Reduced bracketing requirements
- ▶ Integrated Quick release valve providing a rapid installation and reducing the need for separate pipe fittings and connections
- ▶ The spring brake air once exhausted is silenced through the EB+ Silencing mechanism
- ▶ Provides up to 2 service brake test points
- ▶ Provide up to 3 reservoir connections
- ▶ Reduced installation time thanks to an integrated Spring brake distribution manifold
- ▶ Designed to provide an easy to perform vehicle installation
- ▶ Includes three additional digital inputs (24V or 5V)
- ▶ Improved installation time and reliability
- ▶ Provides a sealed for life encapsulated ECU
- ▶ Provides a robust assembly



FLEET+

Fleet+ has replaced Fleet Log; this feature will enable operators to view the information directly in a graphical format without using an external spreadsheet program.

There is also access to more detailed historical information. Knowing (for example) how much braking the trailer has done, how much load it has carried or when the Roll Stability function has activated can be very useful if the only report is "poor braking" or "linings worn out quickly".

Driver Behaviour

With Fleet+ you can use a standard personal computer to read EB+ Fleet log data.

The PC Interface pod is the standard PC and a number of diagnostic interfaces.

The vehicle data is stored inside the EB+ ECU. It will remain intact even after electrical power is removed from the EB+ system.

Fleet+ utilises the DIAG+ Interface kit which comprise of the PC Interface pod, together with its connecting cables.

The interface is provided with a multi-function LED to confirm the correct function of the units as follows:
Red: To indicate that 24V power is connected to the EB+ ECU
Green: to indicate data is being transmitted.



The antenna fits hidden under the curtain



Instant connection into EB+ unit

TTM

This cost effective Telematic solution for Trailer management, provides remote diagnostic possibilities, together with EB+. A universal model also available for retrofit on any trailer.

- ▶ Simple to install
- ▶ Uses well established technology (GPS/GSM/Internet)
- ▶ Web application - no special software needed
- ▶ Connected to EB+, the system alerts for technical status e.g. pad wear
- ▶ Web service alerts for slow movers and has positioning and statistics
- ▶ User friendly and automatically updating system
- ▶ Up to 120 days of operation without external power
- ▶ Daily odometer reading from each trailer (when connected to EB+)
- ▶ Designed with participation from leading leading fleet operators and with 100% focus on Trailer management



STABILITY

The lateral accelerometer can be mounted externally or you may opt for the integrated version on the EB+ ECU.



1 Trailer carrying load fitted with stability



2 Factors such as load placement and shifting of weight will move the vertical down force at the wheels of the trailer



3 EB+ applies the trailer brakes to slow and stabilise the trailer

Driver Behaviour

Through EB+ TTM can display any misuse of your trailer, hard braking or stability events will be recorded by EB+ and displayed by TTM.

The philosophy of TTM is divergence. If everything is OK, there is no need to be active in the TTM system. As soon as a problem occurs, e.g. overload, slow mover or technical issues - TTM will call for your attention.

EB+ together with TTM will improve your control and increase fleet efficiency as well as reducing down time and maintenance cost.

Specifications

ABS Configuration:	2S/2M, 4S/2M Annex XIV to EC Directive 98/12 Category A
Operating Voltage:	Permanent 24 Volts DC nominal (conforming to ISO7638) 19-32 voltage range.
Current Consumption:	3.2 Amp maximum
ECU:	Flame retardant, fully encapsulated. Plastic enclosure. External connections via up to thirteen moulded plugs.
EMC/RFI Approval:	Directive 72/245/EEC as last amended
ABS Valves:	Haldex Modulator Integrated with electronic load sensing control, delivery and suspension M16 ports. Reservoir M22 ports.
Operating Medium:	Air.
Operating Pressure:	0-8.5 bar (9.5 bar maximum).
Operating Temperature:	-40°C to +70°C
Brake Chambers:	6xT30 Max.
Exciter:	60 to 120 Teeth
Diagnostics:	Haldex Info Centre. PC End-of-line Test via CAN interface.
24 Volt Output - Aux 1,2,3:	1.0 Amp maximum each output
5 Volt Output - Aux 4,5:	0.025 Amp
24 Volt Output - Diag:	1.0 Amp maximum
Permissible Tyre Sizes:	Product default 306 rev/km (385/65R22.5) Range of -22% to +17.5%
Vehicle Brake System:	Air
Vehicle Suspension System:	Air