

Market Information

Repair of ABS or Trailer EBS with EBS-D + RSS



Since the end of 2002 Trailer EBS is available in D-Generation with function improvements and new functions.

As examples for new functions we can mention the traction help for semi-trailers with lifting axle and the Roll Stability Support – function (RSS-function), which will prevent the rolling of a (semi) trailer in certain situations.

Especially the RSS-functions offer advantages, which use means an increase in safety. Till now the driver does not notice the risk of the semi trailer's rolling while moving in curves (e.g. at exit of motorways), consequently a reaction of the driver is impossible. The driver only notices the risk of rolling of the truck and then it will be too late for any corrective action. RSS recognises when a vehicle is at risk of rolling by the monitoring sensors and counteracts the rolling by automatic initiated braking.

This new system is to be considered at repair ABS or EBS systems.

Specially then, when at repair a control unit has to be changed, it is worthwhile to **retrofit with EBS D + RSS at once** .

The effort and expense for the exchange of the ABS system are as follows:

- Preparing a new brake calculation (WABCO Service).
- Exchange of the conventional and ABS components against EBS components (7-pin electric supply cable required; comply with the mounting instructions for RSS).
- Parameter setting of the (semi) trailer conform to the brake calculation (preparing a system label as replacement of the load sensing valve data plate).
- End of line test of the vehicle.
- Acceptance by local authority.

A retrofit instruction has been prepared for the retrofitting, which can be requested at your WABCO Service.

Modulator exchange from WABCO TEBS C-Generation to TEBS D-Generation

From the middle of 2003 the current distributed Trailer EBS C-Generation is replaced by Trailer EBS D-Generation. In case of service this means, that a modulator of the TEBS D-Generation

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has to be used when the exchange of the trailer modulator is required. The TÜV compliance certificate of RW-TÜV is available for the exchange.

In detail for the modulator exchange following has to be regarded:

- Make a back up of the parameters of the modulator to be exchanged (if possible) and exchange in the vehicle by the new modulator.

At the cable installation following has to be regarded:

- Connect cable of the EBS trailer emergency valve to the modulator connection „IN/OUT2“.
- Connect cable of the axle load sensor to the modulator connection „IN/OUT1“.
- Put in the back up of the parameters in the newly mounted modulator or set parameters of the system with use of the parameters on the system label.
- Check the parameters, if necessary set parameters of the intended new functions as RSS.

Important when setting the parameters:

- Choose „plug IN/OUT1 (Multifunction port 1)“ – „external axle load sensor“ (then no traction help possible!).
- Choose „plug IN/OUT2“ – „option for external braking pressure sensor“ – „additional external braking pressure sensor connected“.

End of line test of the vehicle. Print system label and put it on the vehicle.

You will find more details of the Trailer EBS in the publication „Trailer EBS D“ (order number 815 000 420 3, English).

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Functions / service for Trailer EBS / trailer modulator 480 102 ... 0

WABCO no. 480 102 000 0		... 001 0		... 002 0		... 004 0	... 005 0	... 010 0	... 014 0	... 015 0
Trailer EBS- Generation	EBS-C2 up to week 48/01	EBS-C3 from week 49/01	EBS-C2 up to week 48/01	EBS-C3 from week 49/01	EBS-C2 up to week 48/01	EBS-C3 from week 49/01	EBS-C3 from week 49/01	EBS-C3 from week 49/01	EBS-D from week 44/02	EBS-D from week 44/02	EBS-D from week 44/02
ABS configuration	4S/3M	4S/3M	4S/3M	4S/3M	4S/3M	4S/3M	4S/3M	4S/3M	4S/2M	4S/3M	4S/3M
Battery charge			X	X			X			X	
TCE					X	X		X			X
RSS							X	X		X	X
Input line wear indicator	X	X	X	X			X		X	X	
Switching output 1	X	X	X	X			X		X	X	
Switching output 2	X	X	X	X			X		X	X	
ILS	X	X	X	X			X		X	X	
Ext. pressure sensors 441 040 ...	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0	...007 0 ...013 0 ...015 0			
Trailer emergency valve 971 002 ...	...802 0 (...301 0 optional)	...301 0	...802 0 (...301 0 optional)	...301 0	...802 0 (...301 0 optional)	...301 0	...301 0	...301 0	...301 0 (...PREV from III/03)	...301 0 (...PREV from III/03)	...301 0 (...PREV from III/03)
Replaceable with modulator 480 102 ...	... 014 0 (...010 0 only for 4S/2M)	... 014 0 (...010 0 only for 4S/2M)	... 014 0	... 014 0	... 015 0	... 015 0	... 014 0	... 015 0			