WABCO

Technical Bulletin

Tractor ABS ECU System Parameter Update for E4.4 Software Version ECUs E441 and E442 with Surplus Auxiliary Capability

Hazard Alert Messages

Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

A WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.

How to Obtain Additional Maintenance, Service and Product Information

For more information about E Version Tractor ABS ECUs, refer to Maintenance Manual MM-0112, Anti-Lock Braking System (ABS) and Electronic Stability Controls (ESC) For E Version ECUs 12-Volt and 24-Volt Systems. If you have any questions about the material covered in this publication, or for more information about the WABCO product line, please contact WABCO North America Customer Care at 855-228-3203 or visit our website: www.wabco-na.com

System Description and Operation

The ECU is the control center of the ABS. WABCO ABS ECUs with E4.4 software version or newer have the ability to support many advanced features such as Roll Stability Control, Electronic Stability Control and Hill Start Aid. The ABS ECU receives information from the sensors, processes data and sends signals to modulator valves and active braking valves to achieve different tasks based on how the ECU is configured.

Purpose of the ABS ECU Parameter Update

NOTE: This update does not apply to vehicles with Hill Start Aid enabled.

Not all vehicles manufactured with WABCO ABS ECUs with E4.4 software version or newer have every feature in the ECU enabled. Certain vehicles may inadvertently turn on the ABS lamp and set a DTC (SID 19 FMI 8) for a feature for which the vehicle is not configured. This update will prevent this issue from occurring. This procedure will only apply to E4.4 software version ECUs: E441 and E442 installed on vehicles built after October 2012. The software version can be found in the ECU information field of TOOLBOXTM Software. Figure 1.

actor ECU Display	Component Tests	ESC Men	u Utility	1		
= 🖸 🛱	m 🛎 🕻		P			
ECU Information			Wheel	Sensor		
ECU Type	Cab (12V)				RPM	MPH
Configuration	4S/4M		Left From	t	< 7	0
PartNumber	4008651670		Right Fro	ont	¢7	0
Manufacture Date	50/2012	_	Left 2nd		¢7	0
Serial Number	063121	_	Right 2n	đ	¢7	0
Software Rev.	E442	_	Left 3rd			
Features	RSC, XBR		Right 3rd	i .		
Faults	Stored		d Compon Valve	ents Reterder F	Selav 🔽	Data Link
Control Status		Switche	15		Voltages	
ABS Brake	N/A	ABS	0	rif .	Battery Supp	Ny 0.00
ABS Retarder	08	ATC	1	I/A	Ignition Supp	by 11.35
ATC Brake	N/A	Lamps			Vehicle Bath	ery 3276.75
ATC Engine	INVA	ABS	ATC	Trailer	Road Spe	ed
ti o Engino	Inter	On	On	N/A	0	(mph)
			ATCI	Disabled	4/20/2015	9:40 AM

Figure 1

Update Procedures

This update requires you to install the Tractor ABS ECU TOOLWrench software version 1.64.0. Once it is installed, run the software update TOOLWrench.exe to complete the update.

Install the Software

NOTE: An internet connection is required to obtain the Tractor ABS ECU TOOLWrench software version 1.64.0.

1. On a web browser, navigate to ftp://ftp.mwtoolbox.com.

NOTE: The password is case sensitive.

- 2. When prompted, enter the following User ID and password.
 - Username: TOOLWRENCH1640
 - Password: meritorwabco
- 3. Navigate to the link: TOOLWrench Version 1.64.0.zip.
- 4. When prompted to open or save the file, select Save.
- 5. When prompted to Save As, save the file to a known location.
- 6. After the file is downloaded, select Open.
- 7. Unzip the TOOLWrench Version 1.64.0.zip. The folder will contain two files:
 - TOOLWrench Version 1.64.0.exe
 - PCDiag32.dll

Run the Update

- 1. Turn the vehicle ignition OFF.
- 2. Connect the computer to the vehicle's SAE J1708 Off-Board Diagnostic Connector using a diagnostic interface.
- 3. Turn ON the vehicle ignition switch.
- 4. When running this software, verify you are using the correct device and protocol. If you are not sure, use the selection screen for Diagnostic Interfaces by selecting the Adapter Selection menu in the top toolbar of the TOOLWrench application. Figure 2.

	WABCO 1	OOLWrench	
_	Versi	on: 1.64.0	
	This version of TOOLWren detection on non-HSA ECI	nch will disable Aux 1 and Aux 2 fault Us.	
	It will work for E4.4 ECUs a Aid.	nd greater that do not have Hill Start	
	ECU Information		_
	ECU Type	Cab (12V)	
	Configuration	6S/4M	
	Part Number	4008646030	
	Serial Number	000314	
	Software Rev.	E442	
			_
	Start ECU Configuration	Qose	

- 5. From the "Vendor" pull-down list, select the device name for your specific diagnostic interface (e.g. NEXIQ or NOREGON).
- 6. From the "Protocol" pull-down list, select: J1708.
- 7. From the "Adapter" pull-down list, select the appropriate adapter for your device. Refer to the examples in Figure 3 and Figure 4.

Vendor:	
NEXIQ Technologies USB-Link	•
Protocol:	
J1708	•
Adapter:	
USB-Link	•
	1

Figure 3



Figure 4

- 8. Run the program file **TOOLWrench Version 1.64.0.exe**.
- 9. Click on the Start ECU Configuration button. Figure 5.

Adapte	er Selection Bus Monitor	Save EEPROM	
	WABCO 1	FOOLWre	nch
	Versi	on: 1.64.0	
	This version of TOOLWren	ch will disable Aux 1 a	ind Aux 2 fault
	It will work for E4.4 ECL is an	vo. ud graater that do not k	avo Hill Start
	Aid.	la greater that do not i	lave i illi Start
l l]
	ECU Information	0.1.400.0	
	Configuration	Cab (12V)	_
	Part Number	4008646030	_
	Serial Number	000314	_
	Software Rev.	E442	-
		1	
	Start ECU Configuration		Close
	201200 Johngardaon		2,000

The message in the status field should indicate "Updating Parameters". Figure 6.

Adapter Selection Bus Monite	or Save EEPROM	
WARCO		nch
WABCO	TOOLWIE	псп
Vers	ion: 1.64.0	
This version of TOOLWre	ench will disable Aux 1 a	nd Aux 2 fault
level of formation		
Aid.	and greater that do not h	ave Hill Start
L		
ECU Information		
ECU Type	Cab (12V)	
Configuration	6S/4M	
Part Number	4008646030	
Serial Number	000314	_
Software Rev.	E442	
Lindating Parameters		
oputing Parameters		
Start EOU Configuration		Class
	<u> </u>	

Figure 6

- 10. If an incorrect ECU has been attempted to be configured, one of the following messages will appear.
 - A. If the ECU does not have E4.4 software E441 or E442, it cannot be used with this TOOLWrench. Figure 7.

Incorrect ECU	
The ECU must be E441 or E442.	
OK Cancel	
40118	887a
uro 7	

If the ECU has Hill Start Aid Enabled, it cannot be used Β. with this TOOLWrench. Figure 8.

ncorrect ECU	8
The ECU has Hill Start Aid enabled and v	vill not work with this TOOLWrench.
	ОК
	4011888

- 11. Once the Parameter update is complete, the following notification will appear. Figure 9.

	Parameters Updated
	Paremeters have been updated.
	ОК
Figure 9	4011889a

12. Cycle vehicle ignition OFF for a few minutes to complete ECU update.

- 13. Save the Fault Report from WABCO TOOLBOX[™] Software. Use the claim number as the file name (xxxxxxx.txt).
- 14. **IMPORTANT:** Once the Fault Report is saved, a message will appear informing the location and filename.

Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base warranty period. If a stored or active fault is not found, this procedure is considered preventative and warranty does not apply.

Within the OEM warranty coverage period, the claim should be submitted to the OEM with the Fault Report attached and at the same time, sent directly to warranty@meritor.com including "Meritor WABCO" and the OEM claim number in the subject line. Otherwise, contact WABCO North America Customer Care at 855-228-3203.

Document	Procedure	Standard Repair Time
TP-1587	E4.4 Auxiliary Parameter Update	0.2



WABCO Vehicle Control Systems 1220 Pacific Drive Auburn Hills, MI 48326 USA 855-228-3203 wabco-na.com Information contained in this publication was in effect at the time the publication was approved for printing and is subject to change without notice or liability. WABCO reserves the right to revise the information presented or to discontinue the production of parts described at any time.

Copyright 2018 WABCO, Inc. All Rights Reserved TP-1587 Revised 08-18 (16579)