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Transmission ECU Compatibility VAH, VHD, VN, VT

FSB 432-014, Transmission ECU Compatibility

(October 2014)

The current transmission ECU (TECU) hardware for the I-Shift transmission used in the US07, US2010 emissions, OBD2013 and newer vehicles in North America is the same part number (21484418). The software that is programmed into them is what makes them different.

The following instructions were written for converting a US07 and US2010 emissions TECU to an OBD2013 TECU using premium tech tool (PTT) version 2. The TECU can be converted backwards from OBD2013 to US07 and US2010 using PTT version 1 or PTT version 2 and the appropriate procedure.

Note: This process can only be performed on the latest TECU hardware part number 21484418.

Required Tools

Premium Tech Tool version 2.03.41 or higher

Diagnostic Connector 88890304

Communication Interface 88890300

Note: Using other interfaces may affect programming speed.

Special tools 9990041, 9990061/62 and 9998699

Note: Check Premium Tech Tool version by clicking on Help tab and then click on "About Tech Tool".

Service personnel: Please circulate, read and initial

Service Manager	Warranty Adminis- trator	Workshop Foreman	Service To	echnicians			

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Procedure

Connect PTT to the vehicle, identify the unit and verify that PTT can communicate with the transmission.

• If the transmission is identified, proceed to Step 5.

- The wrong so Due to the misr	ata Mismatch ta and central system ftware is installed on match, some operatio in the table to view de	the product. ns may not be avail	able.			
			Readout	Time: 10/	17/2013 2:5	6
Control Unit		Product Data	Central Data	Hardware	Software	
Transmission ECU (1	ECU)	e	e	e	•	
Aftertreatment Contro	ol Module (ACM)	e	0	S	0	
Engine Control Modu	le (EMS)	0	0	S	0	
Radio (MID 206)		S	0	e	0	
ECC-ECU (MID 146)		e	0	S	e	
Airbag ECU (MID 23	2)	0	e	e	e	
Details (Transmission Hardware Software 👄				t		
Product Data						
Central Data MSW	22182445					
CSW	22123494					
					Close	_

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TECU programmed with the correct software to allow communication or completely blank without software

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• If the transmission is not identified, proceed to Step 1.

Control Unit Data Mismatch The product data and central sy - There are control units registe Due to the mismatch, some ope Select an item in the table to vie	red in central systems to rations may not be avail	hat are missing lable.	in the produ	ict.
		Readout	Time: 10/	17/2013 2:4
Control Unit	Product Data	Central Data	Hardware	Software
Information display (MID 140)	S	S	0	9
Volvo Link (MID 142)	e	0	0	0
ECC-ECU (MID 146)	S	0	0	0
Gear Selector ECU (MID 223)			S	e
Transmission ECU (TECU)	-	e		
Details (Engine Control Module (EMS	3)			
 Hardware Software 				

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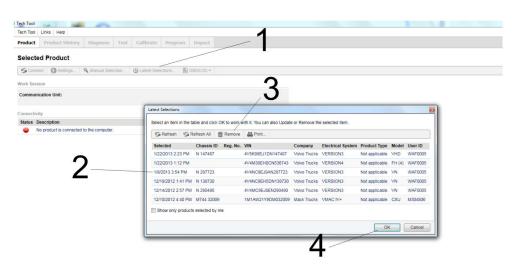
TECU programmed with incorrect software, no communication

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1 Turn ignition OFF, select Finish Work on the product screen and delete the chassis number from PTT.

Impact			
OBD/LVD ▼			Finish Work
	Product	Status	
	Status	Description	Validated
54888	•	DTCs with status Active. Click Diagnose to view DTCs.	10/17/2013 2:56 PM
		Control unit data mismatch. Details >>	10/17/2013 2:56 PM
		Control units without chassis ID. Details >>	10/17/2013 2:56 PM
	(1)	Current battery level: 12.5 V.	10/17/2013 2:56 PM
	4		•

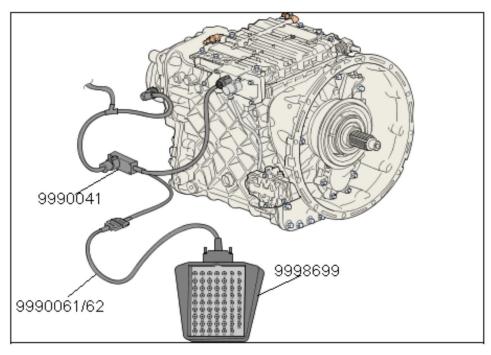
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1	Pick Latest Selections
2	Select the chassis
3	Click Remove
4	Click OK

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2 Use special tools 9990041 and 9990061/62 to connect breakout box 9998699 to the TECU.

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- 3 Use a jumper wire to connect Pin 18 (supply +) to Pin 6 (Boot Mode) on breakout box.
- 4 Turn ignition ON and connect PTT. Allow PTT to identify chassis. PTT should indicate that the TECU is now online and does not contain a chassis ID.
- 5 Select 1700-08-03-39 Program Electronic Control Unit in Program menu. Select TECU and Update Electronic Control Unit with latest software.
- 6 Remove jumper wire from breakout box when programming starts.
- 7 After programming is complete, turn ignition OFF for 30 seconds.
- 8 Turn the ignition ON and re-identify/refresh the chassis. The TECU should be in the Control Unit Information screen and correctly programmed.
- 9 Calibrate transmission gearbox and road test vehicle to calibrate inclination sensor.
- 10 Clear diagnostic trouble codes (DTC).

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Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	UCHP Reimbursement	eWarranty Reimbursement
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W	W
Labor Code		
Primary Labor Code	4320-22-09-01— 0.4 hrs.	43225-2-00 — 0.4 hrs.
Causal Part	3092515	3092515

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