



## **Volvo Chassis - Equipped With An Automated Manual Transmission Model D or F ( AMT-D, AMT-F, I-Shift ) Missing X1 Value In VDA And Default Settings Guidelines, Parameter P1AOB; Fault Code P1052-54, Error 40, Or Error 18 Encountered During Clutch Or T**



> Internal Content

**If transmission or clutch calibration fails immediately after the operation is started following a clutch replacement or programming operation:**

1. Disconnect the TECU from the chassis wiring harness.
2. Connect directly to the transmission with PTT using the appropriate adapter.
3. Perform operation [4000-07-04-01 Transmission Calibration \(Transmission Removed\)](#), located under the Calibrate tab.
4. After successful calibration, reconnect the chassis harness to the TECU.
5. Run Operation [4320-07-03-01 Transmission, Clutch Engagement Point Calibration](#). Select Option B.

**If the calibration is successful:** The existing invalid X1 value has been over-written and the remainder of the repairs (if any) can be completed.

**If the calibration fails again with the same error code for R1AAE routine:** An eService case is required for additional assistance.

• **The eService case MUST include:**

- **This Solution Number**

- A description of the original customer complaint.

- A **thorough** description of all work performed up to the point of the case's creation.

Live UI A DTC Readout if codes are present, active OR inactive.

- Any screenshots or photos that are relevant to this situation.



Tags

[k34249333](#)

[error 43](#)

[p1052-54](#)

[volvo](#)

[p105254](#)

### Related links and attachments

No links or attachments available



### Feedback

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4000-07-04-01 Transmission (Transmission removed)

Simulation

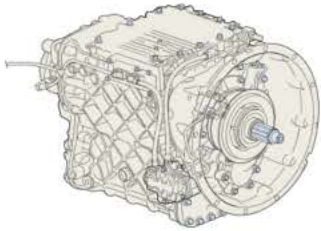
Information >> Conditions >> Execution >> Result

Purpose

Calibrate the split, the gear shift and the range cylinder positions

Description

- Calibration must be carried out when:
- When one or more of the following control units has been reprogrammed: TECU
  - Clutch cylinder has been replaced





4000-07-04-01 Transmission (Transmission removed)

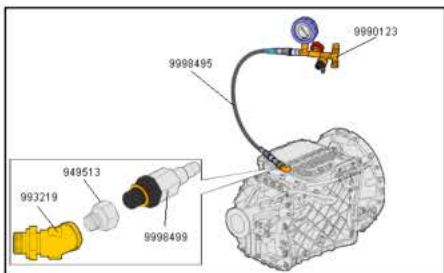
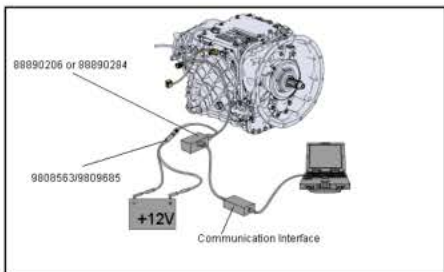
Simulation

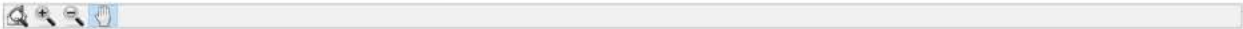
Information >> Conditions >> Execution >> Result

Action



- Connect special tools according to illustration
- Apply compressed air to supply the transmission with a minimum of 700kPa (100 psi) to a maximum of 1000kPa (145 psi)

If performing a transmission removed operation and Tech Tool is connected to the product's main diagnostic connector, you must first click Finish Work under the Product tab, then start a new session once you are connected to the transmission using the special tools displayed in the illustration





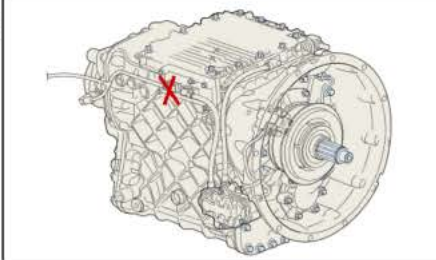


1 

	> 10 V	10.5 V	
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2 

	> 94 psi	99 psi	
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3 

4000-07-04-01 Transmission (Transmission removed)

 Simulation

Information >> Conditions >> Execution >> Result

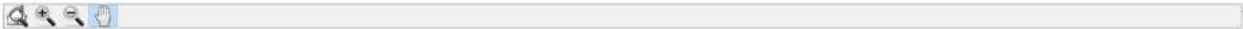
Automatically checked conditions

- 1 Transmission Supply voltage above 10 V
- 2 Air pressure above 94 psi

Manual conditions

- 3 Transmission Control Module (TCM) disconnected from vehicle communication connector

Confirmed



Detailed information

4000-07-04-01 Transmission (Transmission removed)

Simulation

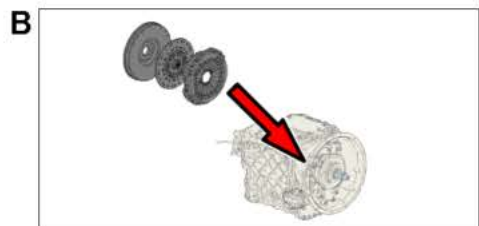
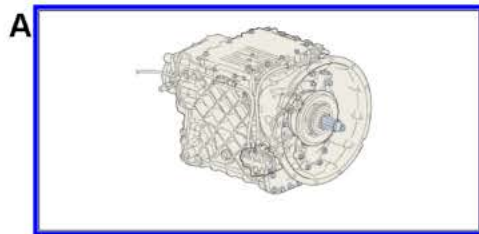
Information >> Conditions >> Execution >> **Result**

**Result**

Calibration successful

**Note:** The control unit will be restarted when Continue is clicked

Continue >



Illustrations are used for reference only, may differ slightly from the actual vehicle  
The essential information in the illustrations is, however, always correct.

## 4320-07-03-01 Transmission, clutch, engagement point

 Simulation

Information >> Conditions >> Execution >> Result

### Purpose

Calibrate the clutch, the transmission and the engagement point

Calibration must be carried out when:

- Gear control unit, top cover has been replaced
- Clutch cylinder has been replaced
- Clutch plate has been replaced
- The transmission has been rebuilt or replaced

 **Note:** Calibration can only be performed when the transmission is installed in the product and the propeller shaft is connected

 **Note:** Don't perform a calibration if only the TECU is being programmed

### Selections

Select the illustration corresponding to the method or test to be performed

A

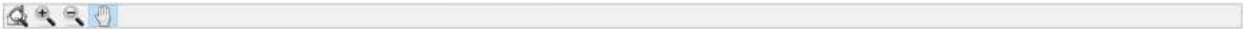
Run a complete calibration sequence, and keep the existing X1 value. Use this option if the disc has not been replaced, for example after replacing the clutch cylinder

B

Run a clutch calibration sequence and set a new X1 value. Use this option after replacing the clutch plate

 **Note:** When replacing the disc and the transmission or the TECU, run calibration sequence A first, then run calibration sequence B

Continue > Cancel











4320-07-03-01 Transmission, clutch, engagement point

Simulation

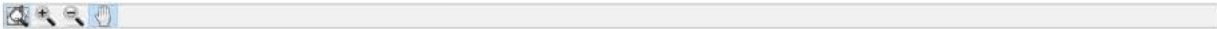
Information >> Conditions >> Execution >> Result

Automatically checked conditions

- 1 Engine not running
- 2 Parking brake applied
- 3 Air pressure above 94 psi

1	 = 0 rpm	0 rpm	
2	 		
3	 > 94 psi	99 psi	





### 4320-07-03-01 Transmission, clutch, engagement point

Simulation

Information >> Conditions >> Execution >> Result

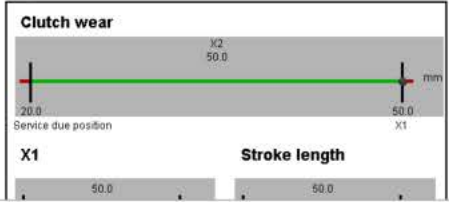
#### Result

Calibration successful

Note: The X2 value might vary slightly between each test execution due to different conditions, such as oil temperature. On a relatively new clutch, these variations might cause an indication of a small negative wear (X2 > X1). This is normal and not a fault indication



#### Detailed information



Continue >