

How to Convert the Transmission Electronic Control Unit from Your Core Unit to Your New Remanufactured Volvo I-Shift or Mack M-Drive



1

Disconnect Harness that's connected to the clutch valve.



2

Remove the 14 larger bolts from the TCEU with a 15MM wrench.



3

Then remove the 6 smaller bolts with a 13MM wrench.



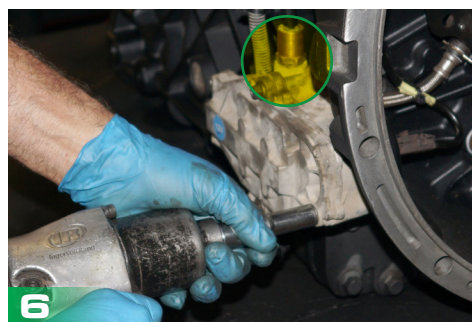
4

Lift the TECU Control cover from the housing. Be careful not to slide the top cover forward as this may damage the ribbon inside.



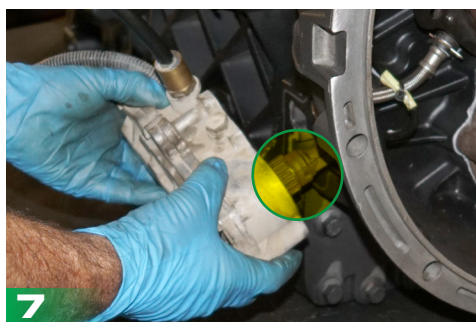
5

Disconnect the ribbon cable before removing it from the control housing.



6

Remove the air line and valve mounting fasteners.



7

Disconnect the clutch position wiring harness connector. If there is a strap securing the wire harness connector, cut it and remove the valve assembly.



8

10. Remove the clip securing the air hose to the clutch cylinder and disconnect it from the clutch cylinder.



9A

Remove the clutch cylinder mounting bolts and then the clutch cylinder.
- Remove clutch cylinder bolts.

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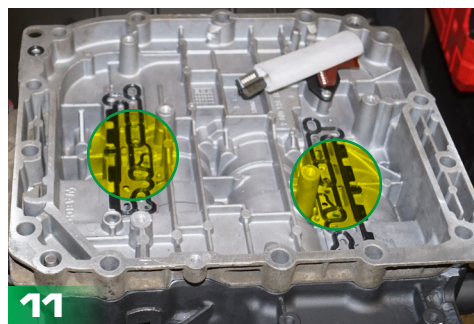
9B

Remove the clutch cylinder mounting bolts and then the clutch cylinder. - **Remove clutch cylinder.**



10

Be sure no dirt or debris enters the control housing.



11

Install two profile seals in the guide pins.



12

Install the O-ring and gasket.



13

Inspect your replacement TCEU unit to make sure it is not cracked dirty or damaged before installing it onto the control housing. Then connect the ribbon unit to the TCEU and carefully lower the TCEU unit onto the control housing. Ensure the the TCEU unit does not slide forward during installation.



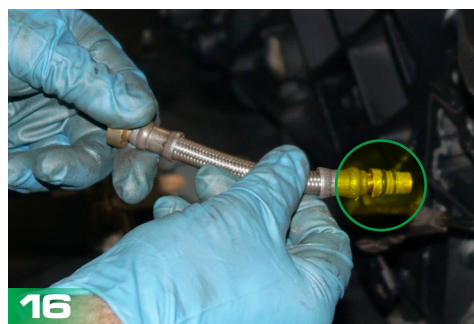
14

Install the 14 larger 15MM bolts and tighten to 20-30 ft. lbs.



15

Install the the 6 smaller 13 MM tighten to bolts to 7 ft. lbs.



16

Replace the O-ring on the air hose.

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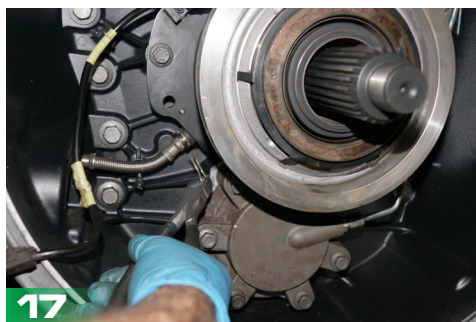
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17

Install the clutch cylinder, then the air hose. Make sure to install the wire behind the air hose line and zip tie to the transmission



18

Install the clutch valve mounting fasteners.



19

Connect the clutch valve air supply line to the upper control housing fitting.

20 Fill your transmission with the approved lubricant and inspect for leaks. **Note: Make sure to only use 75W80 Synthetic Oil.**



21 After installation you must perform a clutch calibration and gear relearn!

You must do this with a premium Volvo Tech Tool. This step will reset the adaptive in your new TCEU. Failure to do this step will likely result in poor shifting and excessive wear to the gear box.



Call Your ULT Powertrain Specialist for Any Questions You May Have

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