

1995 MLP/TR SENSOR AND CONNECTOR/SLEEVE ASSEMBLY SWAP INSTRUCTIONS

All 1989-1994 E4OD equipped vehicles (Rear Wheel Drive Trucks: Bronco, F-Series, E-Van, Club Wagon) requiring service work for replacement of the MLP/TR Sensor, will receive the 1995 TRS Module and Connector/Sleeve Assembly.

NOTE: Check for DTC's and follow the service procedure for sensor and connector replacement.

SERVICE PROCEDURE:

Sensor Replacement

(Refer to Figure 1 for sensor connector layout.)

1. Unplug dual-tab TRS harness connector from MLP/TR sensor by squeezing tabs and pulling on the vehicle harness.

CAUTION: DO NOT PRY THE CONNECTOR!

2. Remove the shift cable and manual lever nut/lever assemblies using Service Manual procedures.

3. Remove the two (2) MLP/TR sensor mounting screws and remove dual-tab MLP/TR sensor from the transmission by sliding off of transmission manual lever.

4. Install the single-tab TRS (F5TP-7F293-AA) using the two (2) new mounting screws (do not tighten). Place transmission shift lever in the "neutral" position; align using the E4OD MLP sensor alignment tool (T92P-70010-AH). Tighten down mounting screws; torque to 8.5 N-m (75 lb-in).

5. Replace manual lever/nut (use new nut supplied; torque to 54 N-m, 40 lb-ft) and shift cable assemblies.

6. Verify proper shift linkage adjustment.

7. If connector replacement is required, continue. If not, go to Step 17.

Vehicle Harness Connector Replacement

NOTE: On some applications, it may be necessary to disconnect solenoid body connector. This will provide extra wiring harness accessibility to simplify the TRS connector replacement. First, remove the two (2) solenoid connector heat shield screws, and remove heat shield. Then, carefully depress the release button and pull up on the harness to release the connector. Do not pry connector.

8. Inspect the OLD vehicle harness grommet to determine the correct grommet (6 or 8 holes) to be used on the new connector. Remove the back cover of the NEW assembly, remove the grommet. If required, select 6-pin grommet, then continue.

9. Using a small dental pick, or equivalent, remove the "red" pin separator from the old dual-tab MLP/TR sensor connector (refer to Figure 2).

10. Using a small, thin flat-bladed screwdriver, or equivalent, gently insert down into the connector body and release the “locking finger” for the connector pin. At the same time, grasp the associated wire and gently pull the wire/pin assembly through the back of the connector (refer to Figure 3).

11. If wires or terminals exhibit signs of damage, such as: corrosion, water intrusion, pinched wires, frayed wires, and/or bent terminals, they should be replaced. If you must splice into the harness, refer to the “Splicing Instructions” on Sheets 5 thru 7.

CAUTION: TO AVOID SLICING THE GROMMET, THIS STEP MUST BE FOLLOWED EXACTLY. DO NOT ATTEMPT TO INSERT PIN/WIRE INTO THE CONNECTOR ASSEMBLY WITHOUT FIRST REMOVING THE BACK COVER AND GROMMET. THIS WILL CUT THE GROMMET, ALLOWING WATER AND CONTAMINATES TO ENTER CONNECTOR.

12. With grommet and back cover removed from the connector, insert the pin/wire assembly through the back cover, through the selected grommet, then into the connector sleeve. Make sure that each assembly is properly seated into the new connector (a “snap” should be felt and heard), (refer to Figure 4).

NOTE: The pin/wire assembly can only be inserted into the connector one way.

13. Repeat Steps 9 and 10 for the remaining wire/pin assemblies. Be careful to ensure that the assemblies are inserted into their correct locations.

14. Insert grommet by sliding up the wires into connector housing. Install the back cover by sliding up the wires onto the connector and snap into place.

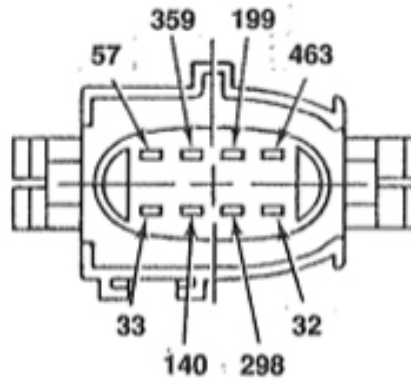
15. Install new “red” pin separator into the connector (if not already installed upon delivery), using a pair of needle-nose pliers.

16. Install new connector/sleeve assembly onto the new MLP/TR sensor.

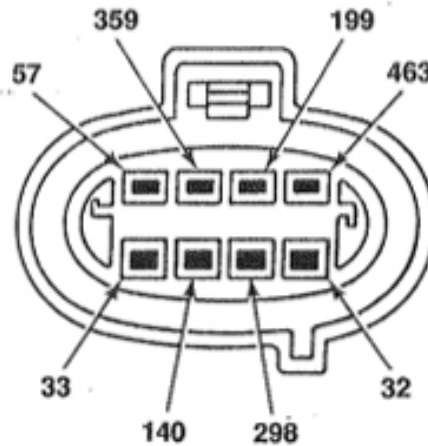
17. If previously removed, reinstall solenoid connector, heat shield and the two (2) shield screws.

18. Clear all DTC's, road test, and re-run the On-Board Diagnostics to verify repair.

1989 - 1994 E4OD MLP/TR SENSOR VEHICLE HARNESS CONNECTOR LAYOUT



1995 E4OD MLP/TR SENSOR VEHICLE HARNESS CONNECTOR LAYOUT



CIRCUIT	CIRCUIT DESCRIPTION
32 and 33	Ignition Switch to Starting Motor Relay
298	Fused Accessory Feed
140	Back-Lamp Switch to Back-Up Lamp
359	PCM Signal Return
199	MLP/TR Signal to the PCM
463	Electric Transfer Case Module
57	PCM Body Ground Circuit

FIGURE 1

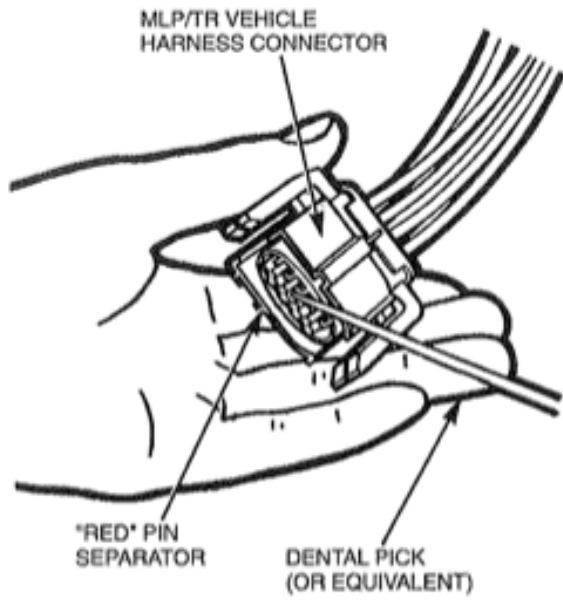


FIGURE 2

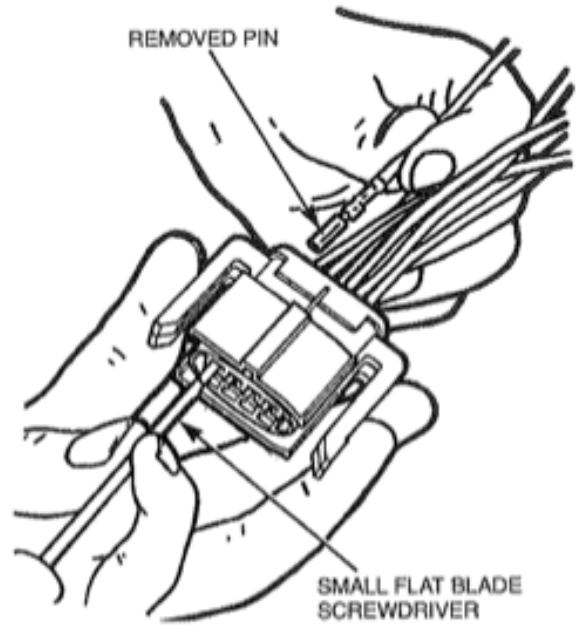


FIGURE 3

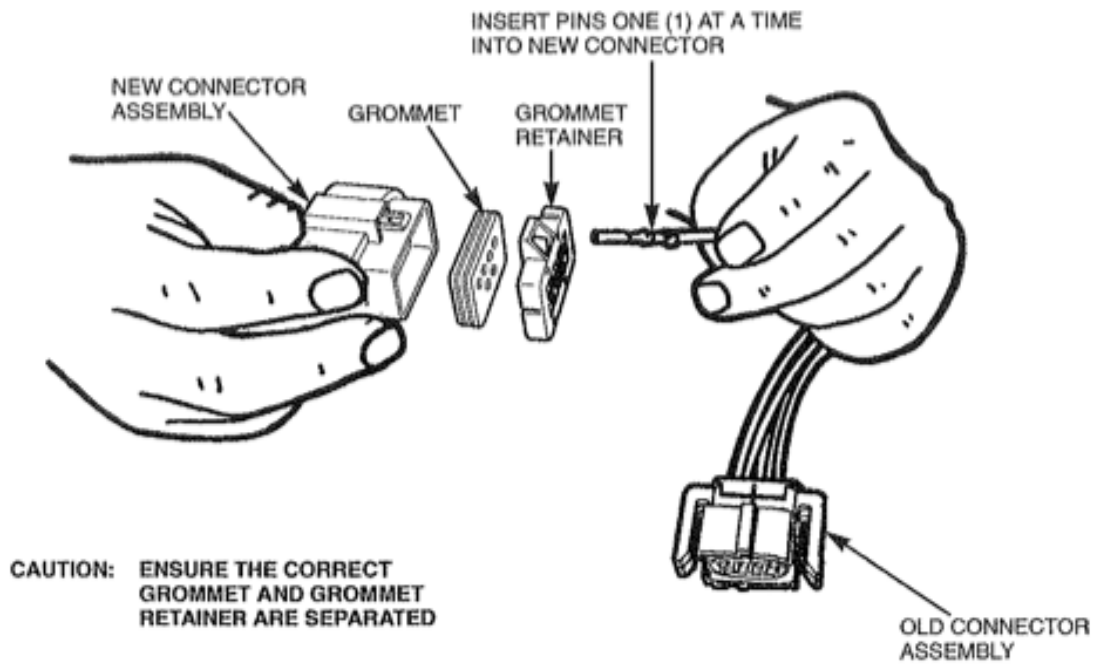


FIGURE 4