

NEUTRAL SAFETY SWITCH REPAIR INSTRUCTIONS

READ THROUGH ALL INSTRUCTIONS BEFORE STARTING REMOVAL.

Removal:

1. Apply parking brake. Check for and note vehicle DTC's.
2. Raise vehicle as needed.
3. Remove negative battery cable.
4. Shift transmission into neutral.
5. Unplug the vehicle transmission harness connector from sensor. Do not pry off.
6. Remove shift cable and manual lever nut/lever assemblies as necessary.
7. Remove sensor mounting screws and slide sensor off of manual lever.

Note: If the body wiring harness connector appears as "A" shown in Figure 1 below, replace sensor and wiring harness connector.

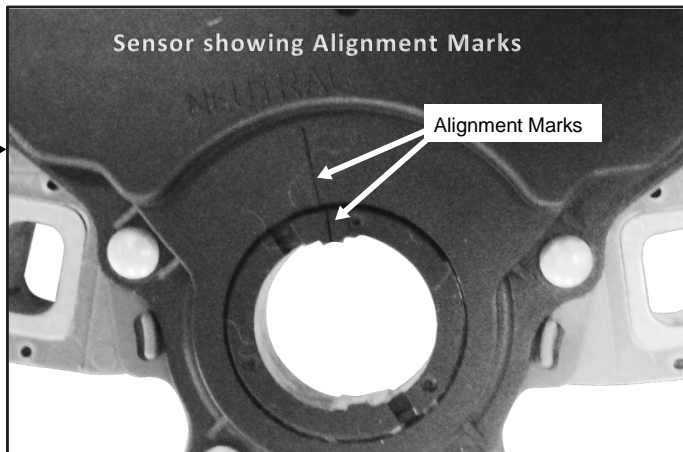
Note: If the body wiring harness connector appears as "B" shown in Figure 1 below, replace sensor and the connector only if necessary.

Kit Contents	
Description	Quantity
Sensor	1
Connector Assembly	1
"Red" Pin Separator	1
6 Pin Grommet	1
7 Pin Grommet	1
Instruction Sheet	1

Installation:

Note: The sensor shown has Neutral position alignment marks that must remain aligned during installation.

1. Ensure that transmission is in neutral. Visually inspect sensor so that the alignment marks are correctly aligned.
2. Install new sensor, but do not tighten mounting screws.
3. Verify that the alignment marks on sensor are properly aligned. Tighten mounting screws to 75 lb-in.
4. Re-install manual lever/nut and any shift cables removed. Tighten nut to 31 lb-ft.
5. Verify that shift linkage is properly adjusted.
6. If sensor connector replacement is required, continue. If not, go to step 15.



Vehicle Harness Connector Replacement:

Note: On some applications, it will be necessary to disconnect solenoid body connector.

This will provide extra slack to ease sensor connector replacement.

You will first need to remove the solenoid connector heat shield and screws before removing connector.

7. Remove connector end cap/grommet retainer by using a small flat-bladed screwdriver or equivalent to release the end cap from the retaining tabs on the connector.
8. Move the end cap and connector grommet by sliding them down the harness to allow easy access to the back of the connector.
9. Using a pair of needle-nose pliers, grab the "red" terminal/pin separator from the sensor connector and pull it straight out.
10. Using a small screwdriver or equivalent, gently insert into the connector body and release the terminal "locking finger", remove the associated wire by gently pulling the terminal/wire assembly through the back of the connector, grommet and end cap.
11. Select the correct new grommet. Insert the terminal/wire assembly through the new grommet retainer, grommet and into the correct location in the new connector (see diagram "B"). Note that the terminal/wire assembly can only be inserted one way. A "click" should be felt and heard when the assembly is properly seated.
12. Repeat steps 10 and 11 for all remaining terminal/wire assemblies. Ensure that the terminal/wire assemblies are inserted into their correct locations by referring to table above.
13. Install new "red" pin spacer plate by snapping it into the new connector. Then, connect the new connector/sleeve assembly onto the new sensor.
14. If the solenoid connector was unplugged, reconnect it, then reinstall heat shield and screws (2).
15. Re-attach negative battery cable.
16. Clear all DTC's, test and re-run On-Board Diagnostics to verify repair.

PINS	Description
1	Electric Transfer Case Module
2	PCM Signal Return
3	MLP/TR Signal to the PCM
4	PCM Body Ground Circuit
5/8	Ignition Switch to Starting Motor Relay
6	Back-Lamp Switch to Backup Lamp
7	Fused Accessory Feed

