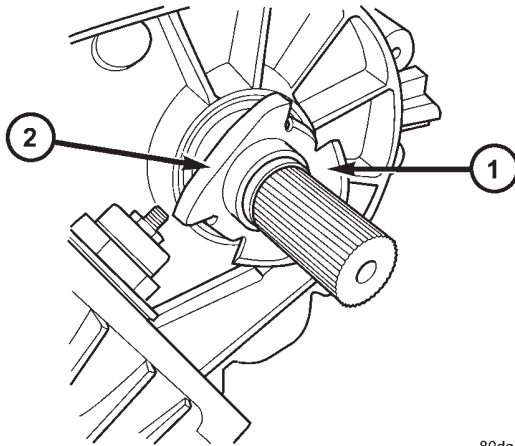


FRONT OUTPUT SHAFT SEAL (Continued)

(4) Remove the front output shaft seal slinger by bending (Fig. 85) the slinger ears away from the transfer case.

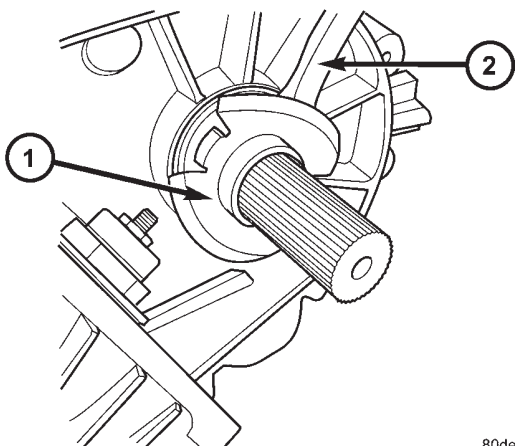
(5) Using a suitable pry tool (Fig. 86), remove the slinger from the output shaft using care not to damage the shaft.



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Fig. 85 Bend Slinger Ears

- 1 - SLINGER
2 - BEND UPWARD



80de4611

Fig. 86 Remove Slinger From Shaft

- 1 - SLINGER
2 - PRY TOOL

(6) Using a screw and a slide hammer, remove the front output shaft seal.

INSTALLATION

(1) Install the new front output shaft seal with Installer MB991168A

(2) Install the front output shaft seal slinger with Installer 8840. Install the slinger onto the shaft until the tool contacts the rear of the output shaft.

(3) Install a new seal boot clamp onto the seal boot.

(4) Install the seal boot and clamp onto the slinger hub and tighten the clamp with Crimp Tool C-4975-A.

(5) Install front propeller shaft (Refer to 3 - DIFFERENTIAL & DRIVELINE/PROPELLER SHAFT/PROPELLER SHAFT - INSTALLATION).

POSITION SENSOR**DESCRIPTION**

The transfer case position sensor is an electronic device whose output can be interpreted to indicate the transfer case's current operating mode. The sensor consists of a five position, resistive multiplexed circuit which returns a specific resistance value to the Powertrain Control Module (PCM) for each transfer case operating mode. The sensor is located on the top of the transfer case, just left of the transfer case centerline and rides against the sector plate roostercomb. The PCM supplies 5VDC (+/- 0.5V) to the sensor and monitors the return voltage to determine the sector plate, and therefore the transfer case, position.

POSITION SENSOR (Continued)

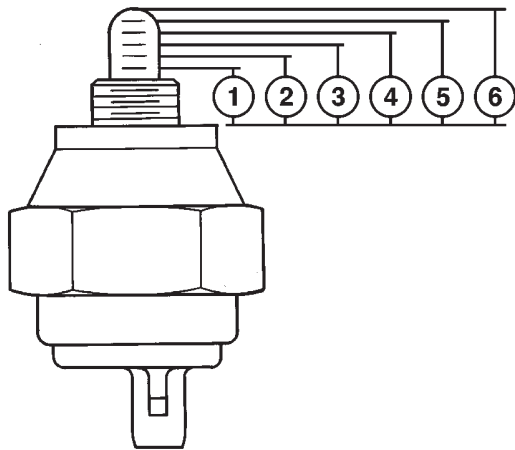
OPERATION

During normal vehicle operation, the Powertrain Control Module (PCM) monitors the transfer case position sensor return voltage to determine the oper-

ating mode of the transfer case. Refer to the Operating Mode Versus Resistance table for the correct resistance for each position (Fig. 87).

OPERATING MODE VERSUS RESISTANCE

SENSOR POSITION	OPERATING MODE	SENSOR RESISTANCE (ohms)
1	2H	1124-1243
2	4H	650-719
3	NEUTRAL	389-431
4	4L	199-221
5	NOT USED	57-64



80cd3d70

Fig. 87 Position Sensor Linear Movement

- 1 - POSITION 1 - 10mm ±0.5mm
- 2 - POSITION 2 - 12mm ±0.5mm
- 3 - POSITION 3 - 14mm ±0.5mm
- 4 - POSITION 4 - 16mm ±0.5mm
- 5 - POSITION 5 - 18mm ±0.5mm
- 6 - POSITION 6 - 20mm±0.5mm - FULL EXTENSION

REMOVAL

- (1) Raise and support the vehicle.
- (2) Disengage the transfer case position sensor connector from the position sensor.
- (3) Remove the position sensor from the transfer case.

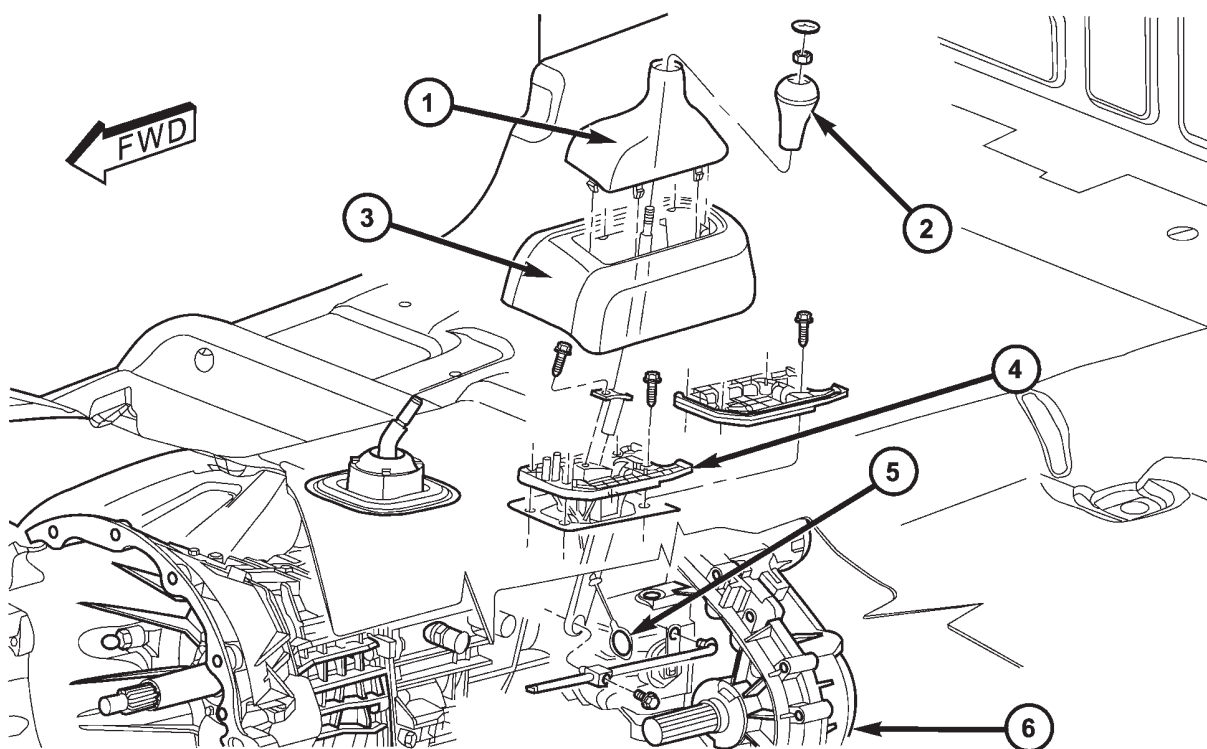
INSTALLATION

- (1) Inspect the o-ring seal on the transfer case position sensor. Replace the o-ring if necessary.
- (2) Install the transfer case position sensor into the transfer case. Torque the sensor to 20-34 N-m (15-25 ft.lbs.).
- (3) Engage the transfer case position sensor connector to the position sensor.
- (4) Lower vehicle.
- (5) Verify proper sensor operation.

SHIFT LEVER

REMOVAL

- (1) Shift transfer case into 2H.
- (2) Raise and support the vehicle.
- (3) Loosen adjusting trunnion lock bolt and slide shift rod out of trunnion. If rod lacks enough travel to come out of trunnion, push trunnion out of shift lever.
- (4) Lower vehicle.
- (5) Remove transfer case shifter knob cap.
- (6) Remove nut holding shifter knob to shift lever.
- (7) Remove shifter knob.
- (8) Remove the shift boot from the shifter console.
- (9) Remove the bolts securing the shifter mechanism to the floor pan (Fig. 88).
- (10) Separate shift lever mechanism from the vehicle.



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Fig. 88 Transfer Case Shifter

- 1 - SHIFTER BOOT
- 2 - SHIFTER KNOB
- 3 - SHIFTER CONSOLE

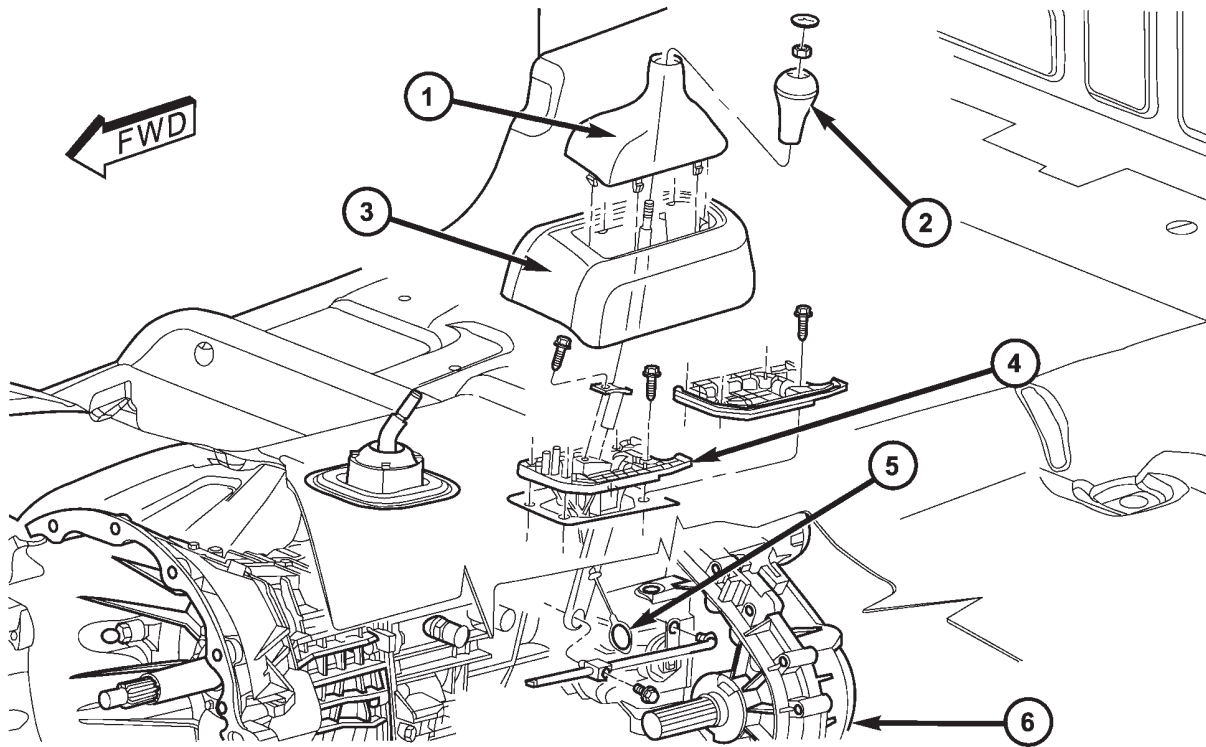
- 4 - SHIFTER MECHANISM
- 5 - ALIGNMENT PIN
- 6 - TRANSFER CASE

SHIFT LEVER (Continued)

INSTALLATION

- (1) If the shifter mechanism does not have a adjustment locating pin installed, align the adjustment channel on the shifter assembly to the locating hole in the lower shift lever and install an appropriately sized pin to retain the position (Fig. 89).
- (2) Position shift lever in vehicle.
- (3) Install the bolts to hold the shifter mechanism to the floor pan.
- (4) Raise vehicle.
- (5) Verify that the transfer case is still in the 2H position. The 2H detent position on the transfer case shift arm is the second position from full forward.

- (6) Install trunnion to shift lever, if necessary.
- (7) Install shift rod to trunnion, if necessary.
- (8) Tighten the shift rod lock bolt to 10 N·m (90 in.lbs.).
- (9) Remove the shifter adjustment locating pin from the adjustment channel and the locating hole.
- (10) Lower vehicle.
- (11) Install the transfer case shifter console.
- (12) Install the shifter boot and the shifter knob onto the shifter lever.
- (13) Install nut to hold shifter knob to shift lever.
- (14) Install shifter knob cap.
- (15) Verify transfer case operation.



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Fig. 89 Transfer Case Shifter

- 1 - SHIFTER BOOT
- 2 - SHIFTER KNOB
- 3 - SHIFTER CONSOLE

- 4 - SHIFTER MECHANISM
- 5 - ALIGNMENT PIN
- 6 - TRANSFER CASE

SHIFT LEVER (Continued)**ADJUSTMENTS****ADJUSTMENT - SHIFT LEVER**

- (1) Move shift lever into 2H position.
- (2) Raise vehicle.
- (3) Loosen shift rod lock bolt at trunnion.
- (4) Check shift rod fit in trunnion. Be sure rod does not bind in trunnion. Lubricate the shift rod and trunnion if necessary.
- (5) Verify that transfer case shift lever is in 2H detent position. The 2H detent position on the transfer case shift arm is the second position from full forward.

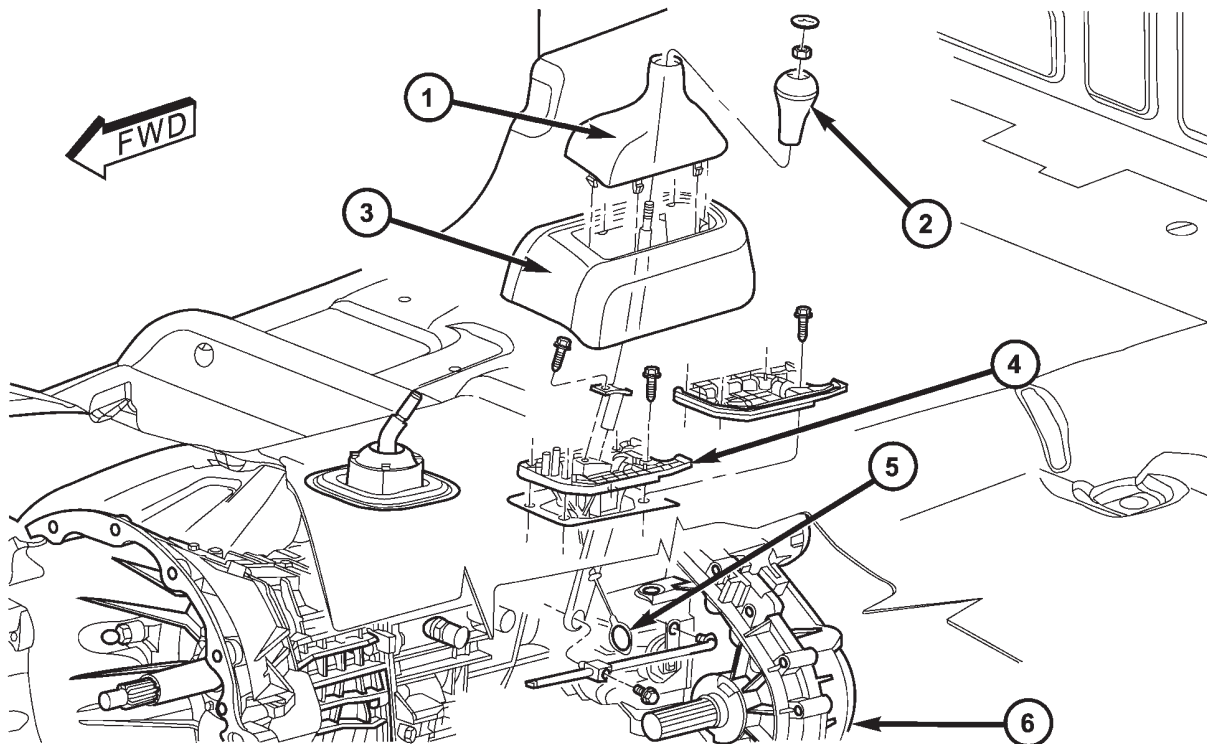
(6) Align the adjustment locating hole on the lower shifter lever with the adjustment channel on the shifter bracket assembly (Fig. 90).

(7) Insert an appropriately sized pin through into the adjustment channel and through the locating hole to hold the shifter in the correct position.

(8) Tighten shift rod lock bolt to 10 N·m (90 in. lbs.) torque.

(9) Remove the locating pin from the adjustment channel and locating hole.

(10) Check shift linkage operation. Be sure transfer case shifts into and operates properly in all ranges.



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Fig. 90 Transfer Case Shifter

1 - SHIFTER BOOT
 2 - SHIFTER KNOB
 3 - SHIFTER CONSOLE

4 - SHIFTER MECHANISM
 5 - ALIGNMENT PIN
 6 - TRANSFER CASE