

2011 Jeep Grand Cherokee

2011 ACCESSORIES AND EQUIPMENT Drivetrain Control Module (DTCM) - Electrical Diagnostics - Grand Cherokee

PROCEDURE.

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time.

C1415-92- TRANSFER CASE MOTOR "CURRENT" - PERFORMANCE OR INCORRECT OPERATION

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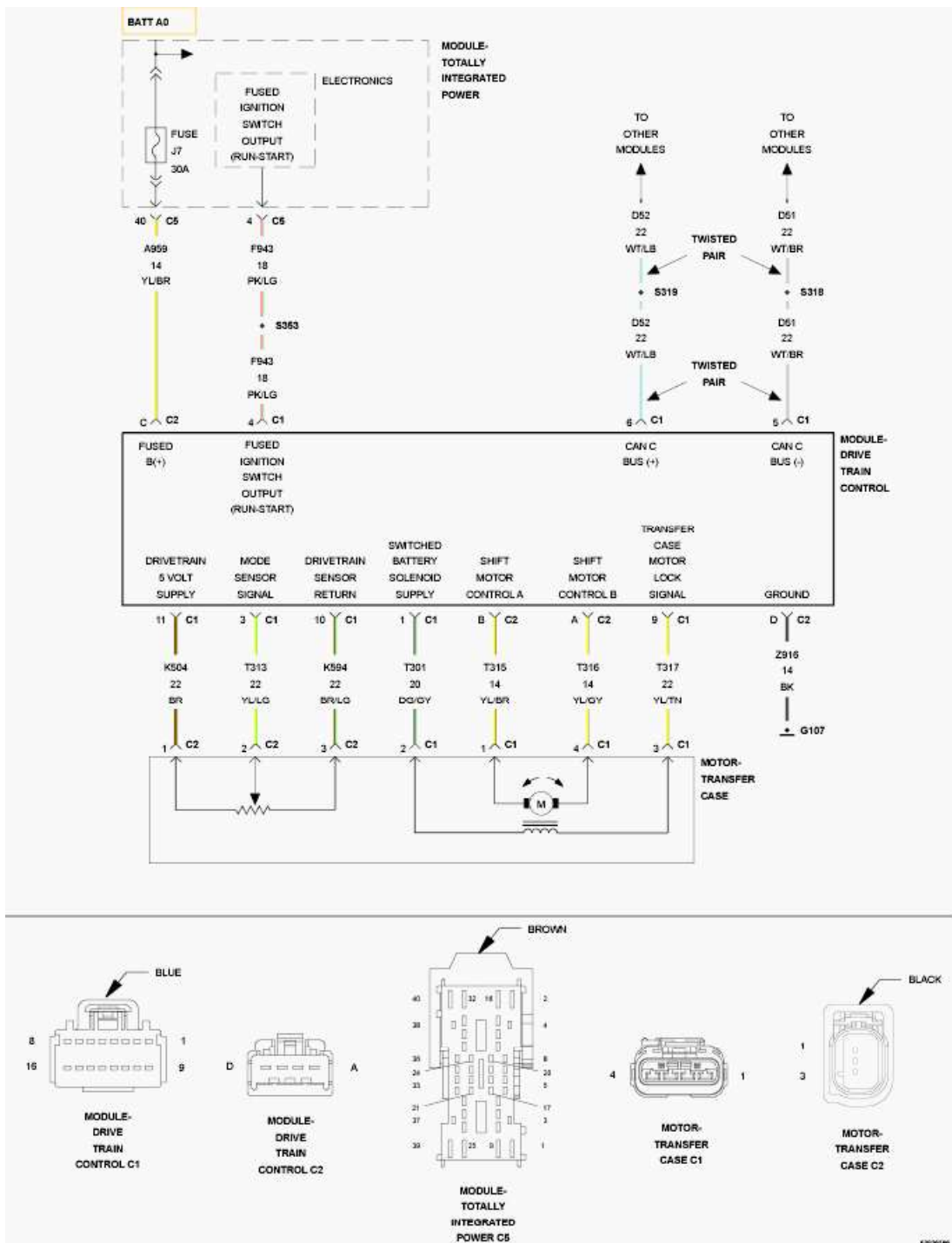


Fig. 46: Transfer Case Range Position Sensor Wiring Diagram
Courtesy of CHRYSLER LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED:

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With the ignition on and no system undervoltage or overvoltage condition present.

SET CONDITION:

1. Current reading greater than 1A for 200 msec with no motor activation.
2. Current reading never greater than 1A during a completed range or neutral shift.

POSSIBLE CAUSES

Possible Causes
(T315) SHIFT MOTOR CONTROL A CIRCUIT OPEN OR HIGH RESISTANCE
(T316) SHIFT MOTOR CONTROL B CIRCUIT OPEN OR HIGH RESISTANCE
DRIVE TRAIN CONTROL MODULE (DTCM)

DIAGNOSTIC TEST

1. DTC IS ACTIVE

NOTE: If both DTCs C1415-92 and C140A-92 are present, check the DTCM fuse and the B(+) supply to the Integrated Power Module (IPM).

1. Ignition on, engine not running.
2. With the scan tool, record and erase DTCs.
3. Test drive the vehicle.
4. Ignition on, engine not running.
5. With the scan tool, read DTCs.

Is the status Active for this DTC?

Yes

- Go To 2.

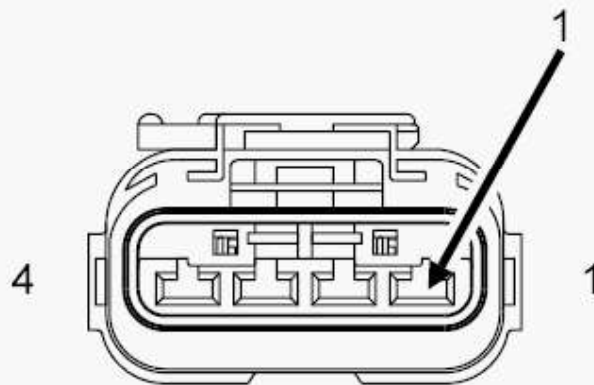
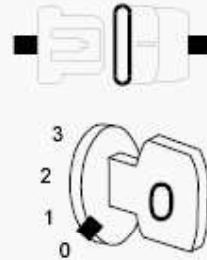
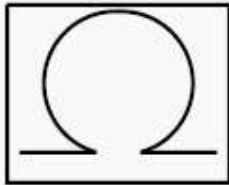
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- Go To 4.

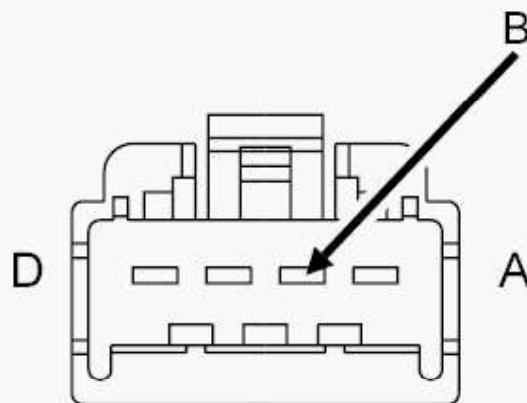
2. (T315) SHIFT MOTOR CONTROL A CIRCUIT OPEN OR HIGH RESISTANCE

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MOTOR-
TRANSFER
CASE C1



MODULE-
DRIVE
TRAIN
CONTROL C2

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Fig. 47: Checking Step Motor Control A Circuit Open

Courtesy of CHRYSLER LLC

1. Turn the ignition off to the lock position.
2. Disconnect the Transfer Case Motor C1 harness connector.
3. Disconnect the DTCM C2 harness connector.
4. Measure the resistance of the (T315) Shift Motor Control A circuit from the Transfer Case Motor harness C1 connector to the DTCM C2 harness connector.

Is the resistance above 5.0 Ohms?

Yes

- Repair the (T315) Shift Motor Control A circuit for an open or high resistance.
- Perform the TRANSFER CASE VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

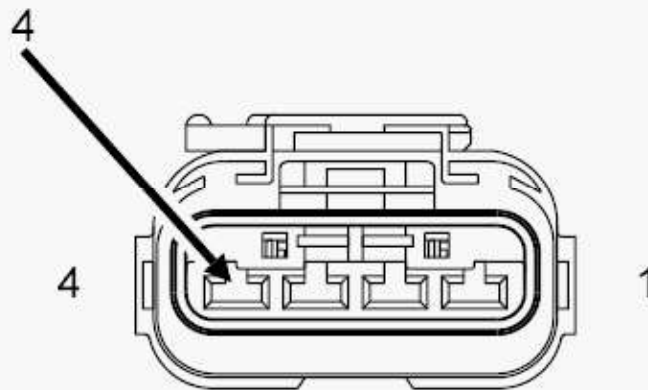
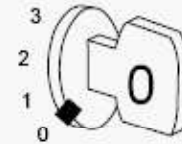
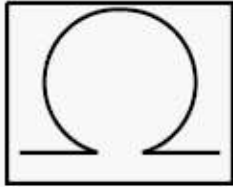
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- Go To 3.

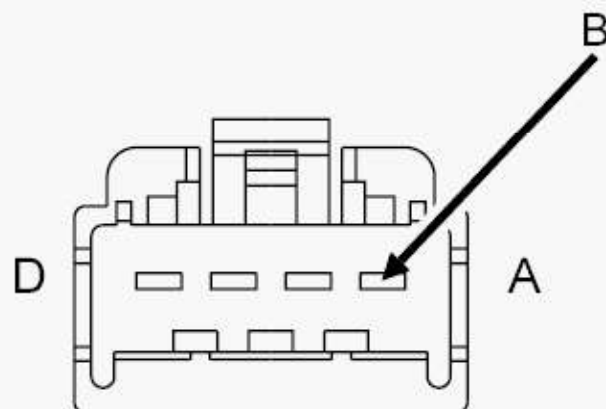
3. (T316) SHIFT MOTOR CONTROL B CIRCUIT OPEN OR HIGH RESISTANCE

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MOTOR-
TRANSFER
CASE C1



MODULE-
DRIVE
TRAIN
CONTROL C2

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Fig. 48: Checking Step Motor Control B Circuit Open

Courtesy of CHRYSLER LLC

1. Measure the resistance of the (T316) Shift Motor Control B circuit from the Transfer Case Motor C1 harness connector to the DTCM C2 harness connector.

Is the resistance above 5.0 Ohms?

Yes

- Repair the (T316) Shift Motor Control B circuit for an open or high resistance.
- Perform the TRANSFER CASE VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

No

- Replace the Drive Train Control Module (DTCM) in accordance with the Service Information. Refer to **MODULE, DRIVETRAIN CONTROL , REMOVAL** .
- Perform the DTCM VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

4. INTERMITTENT WIRING AND CONNECTORS

1. Using the wiring diagram/schematic as a guide, inspect the wiring harness and connectors.
2. Wiggle test the wiring harness and connectors while monitoring the scan tool data relative to this circuit.
3. Look for the data to change or for the DTC to reset during the wiggle test.
4. While monitoring the scan tool data relative to this circuit, move the selector switch to each position several times.
5. Look for the data to change other than as expected or for the DTC to reset.

Were any problems found?

Yes

- Repair as necessary.
- Perform the TRANSFER CASE VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time.

C1438-00-TRANSFER CASE DIFFERENTIAL CLUTCH WORN