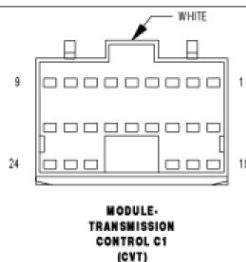
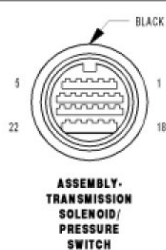
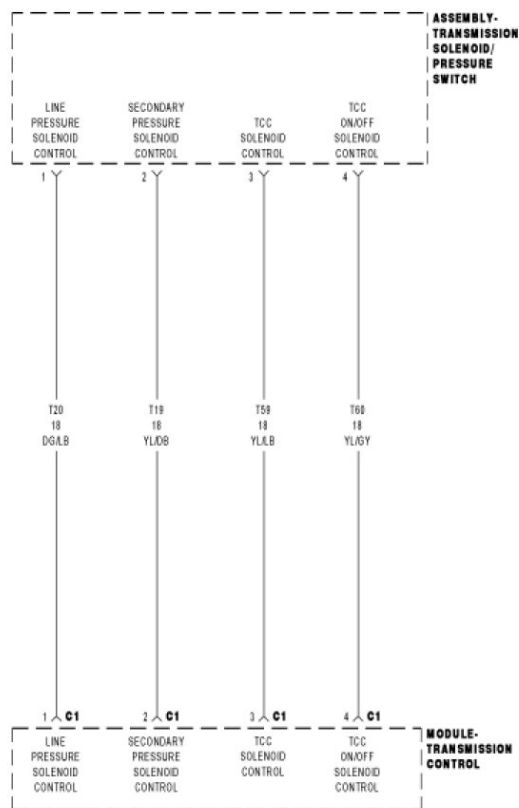


2007 Dodge Caliber SRT-4 L4-2.4L Turbo VIN F

Vehicle > ALL Diagnostic Trouble Codes (DTC) > Testing and Inspection > P Code Charts > P2770
 P2770-TORQUE CONVERTER CLUTCH CIRCUIT HIGH



817224a3

For a complete wiring diagram **Refer to Diagrams/Electrical**. See: Vehicle > Electrical

Theory of Operation

The Transmission Control Module monitors two signals from the TCC Solenoid during normal operation. One is the feedback electric current of the TCC Solenoid and the other is the voltage between ground and the TCM termination for the TCC Solenoid.

- When Monitored:

Ignition on, engine running with the transmission in a valid forward gear.

Vehicle speed greater than **10 Km/h (6 mph)**.

Accelerator Pedal Position (APP) greater than **12.5%**.

Engine rpm greater than **450 rpm** with TCC lock-up enabled.

TCC Lock up command is ON (True).

No DTCs active from the following:

Step motor, Line Pressure Solenoid, Secondary Solenoid, Input and Output Speed Sensor, Primary or Secondary Pressure Sensor, or CAN BUS.

- Set Condition:

If the target current is greater than **0.75 amps** and the monitored current is less than **0.4 amps** for the period of **5 seconds**. It takes two consecutive problem identification trips for the DTC to mature and illuminate the MIL.

Possible Causes
(T59) TCC SOLENOID CONTROL CIRCUIT SHORT TO VOLTAGE
(T59) TCC SOLENOID CONTROL CIRCUIT OPEN
TORQUE CONVERTOR CLUTCH SOLENOID
TRANSMISSION CONTROL MODULE

Always perform the CVT Pre-Diagnostic Troubleshooting procedure before proceeding.

Diagnostic Test

1. CHECK TO SEE IF THE DTC IS ACTIVE

With the scan tool, read Transmission DTCs.

Is the status Active for this DTC or is the STARTS SINCE SET counter 2 or less?

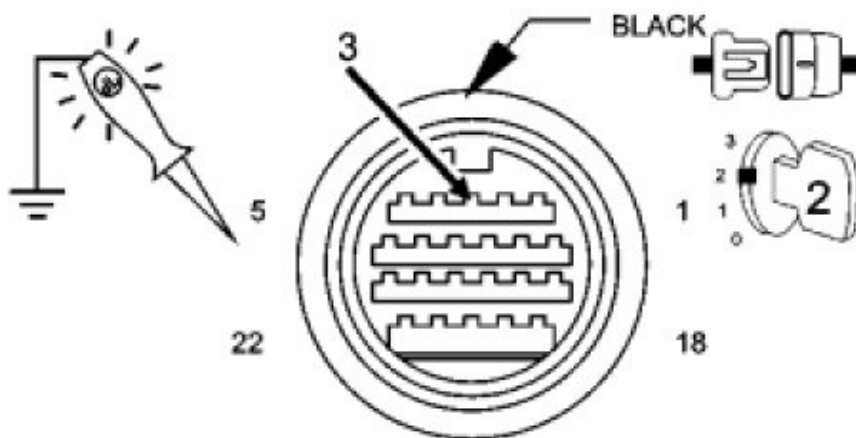
Yes

- Go To 2

No

- Go To 6

2. CHECK THE (T59) TCC SOLENOID CONTROL CIRCUIT



**ASSEMBLY-
TRANSMISSION
SOLENOID/
PRESSURE
SWITCH**

817daf42

Turn the ignition off to the lock position.

Disconnect the Transmission Solenoid/Pressure Switch Assembly harness connector.

Ignition on, engine not running.

With the scan tool, actuate the TCC Solenoid.

Using a 12-volt test light connected to ground, check the (T59) TCC Solenoid Control circuit.

NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.

Does the test light illuminate brightly?

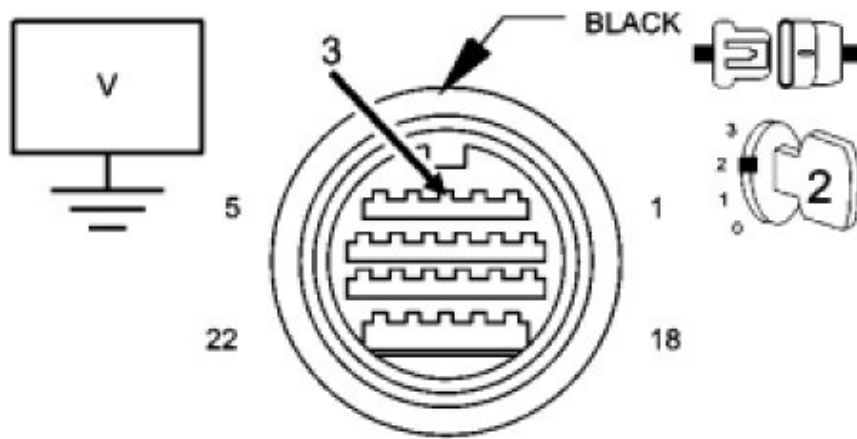
Yes

- Go To 3

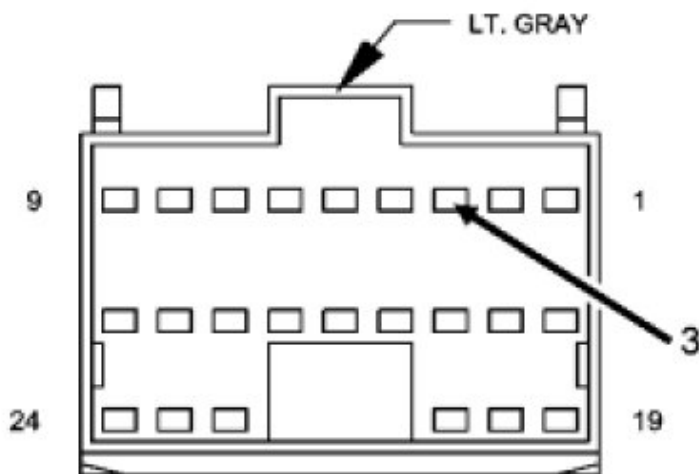
No

- Go To 5

3. CHECK THE (T59) TCC SOLENOID CONTROL CIRCUIT FOR A SHORT TO VOLTAGE



**ASSEMBLY-
TRANSMISSION
SOLENOID/
PRESSURE
SWITCH**



**MODULE-
TRANSMISSION
CONTROL C2
(CVT)**

81855b79

With the scan tool, stop the TCC Solenoid actuator.

Turn the ignition off to the lock position.

Disconnect the TCM C1 harness connector.

Ignition on, engine not running.

Measure the voltage of the (T59) TCC Solenoid Control circuit.

Is the voltage above 0.5 volts?

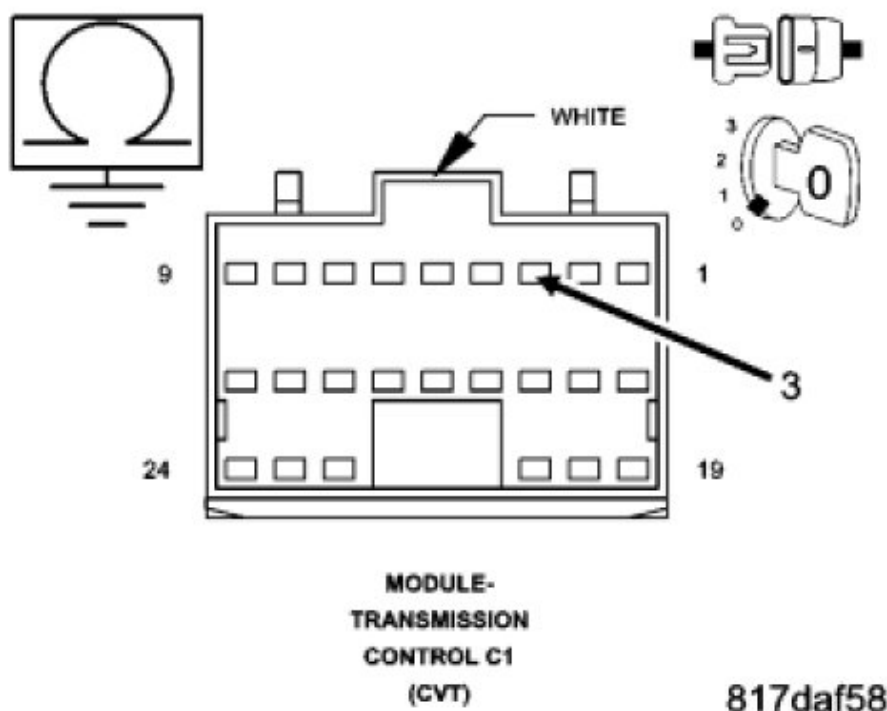
Yes

- Repair the (T59) TCC Solenoid Control circuit for a short to voltage.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Go To 4

4. CHECK THE TCC SOLENOID



Turn the ignition off to the lock position.

Reconnect the Transmission Solenoid/Pressure Switch Assembly harness connector.

Measure the resistance between ground and the (T59) TCC Solenoid Control circuit in the TCM C1 harness connector.

Is the resistance between 3.0 and 9.0 ohms?

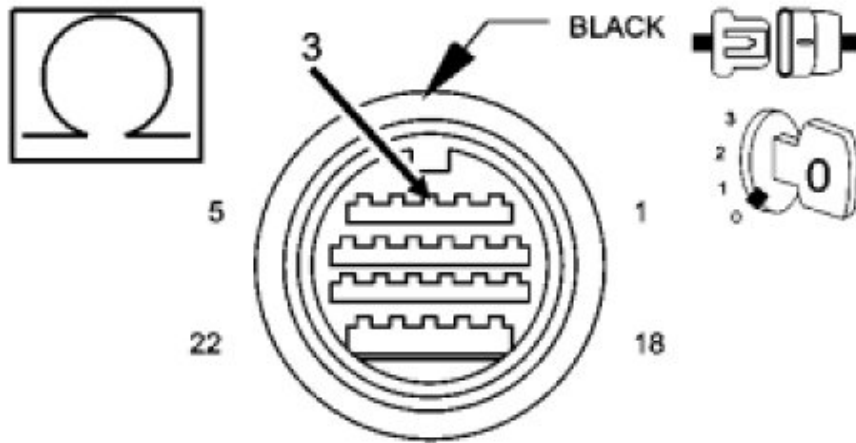
Yes

- Using the schematics as a guide, check the Transmission Control Module (TCM) terminals for corrosion, damage, or terminal push out. Pay particular attention to all power and ground circuits. Check for any Service Bulletins for possible causes that may apply. If no problems are found, replace the TCM.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

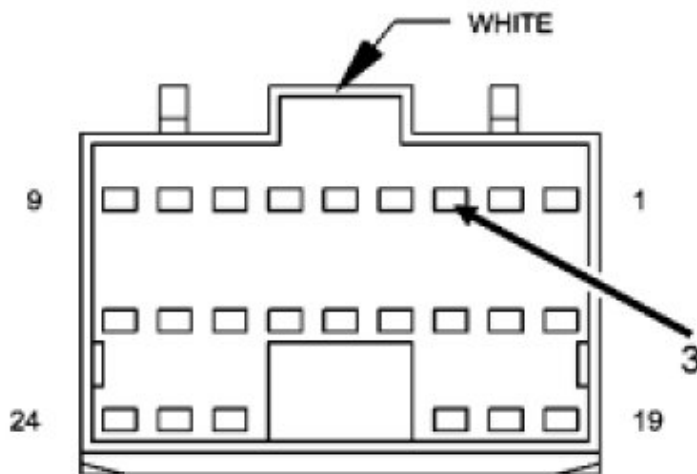
No

- Replace the TCC Solenoid (Valve Body).
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

5. CHECK THE (T59) TCC SOLENOID CONTROL CIRCUIT FOR AN OPEN



**ASSEMBLY-
TRANSMISSION
SOLENOID/
PRESSURE
SWITCH**



**MODULE-
TRANSMISSION
CONTROL C1
(CVT)**

817daf4a

With the scan tool, stop the TCC Solenoid actuator.

Turn the ignition off to the lock position.

Disconnect the TCM C1 harness connector.

Ignition on, engine not running.

Measure the resistance of the (T59) TCC Solenoid Control circuit between the TCM C1 harness connector and the Transmission Solenoid/Pressure Switch harness connector.

Is the resistance above 5.0 ohms?

Yes

- Repair the (T59) TCC Solenoid Control circuit for an open.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Using the schematics as a guide, check the Transmission Control Module (TCM) terminals for corrosion, damage, or terminal push out. Pay particular attention to all power and ground circuits. Check for any Service Bulletins for possible causes that may apply. If no problems are found, replace the TCM.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

6. INTERMITTENT WIRING AND CONNECTORS

The conditions necessary to set this DTC are not present at this time.

Using the schematics as a guide, inspect the wiring and connectors specific to this circuit.

Wiggle the wires while checking for shorted and open circuits.

Were there any problems found?

Yes

- Repair as necessary.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Test Complete.