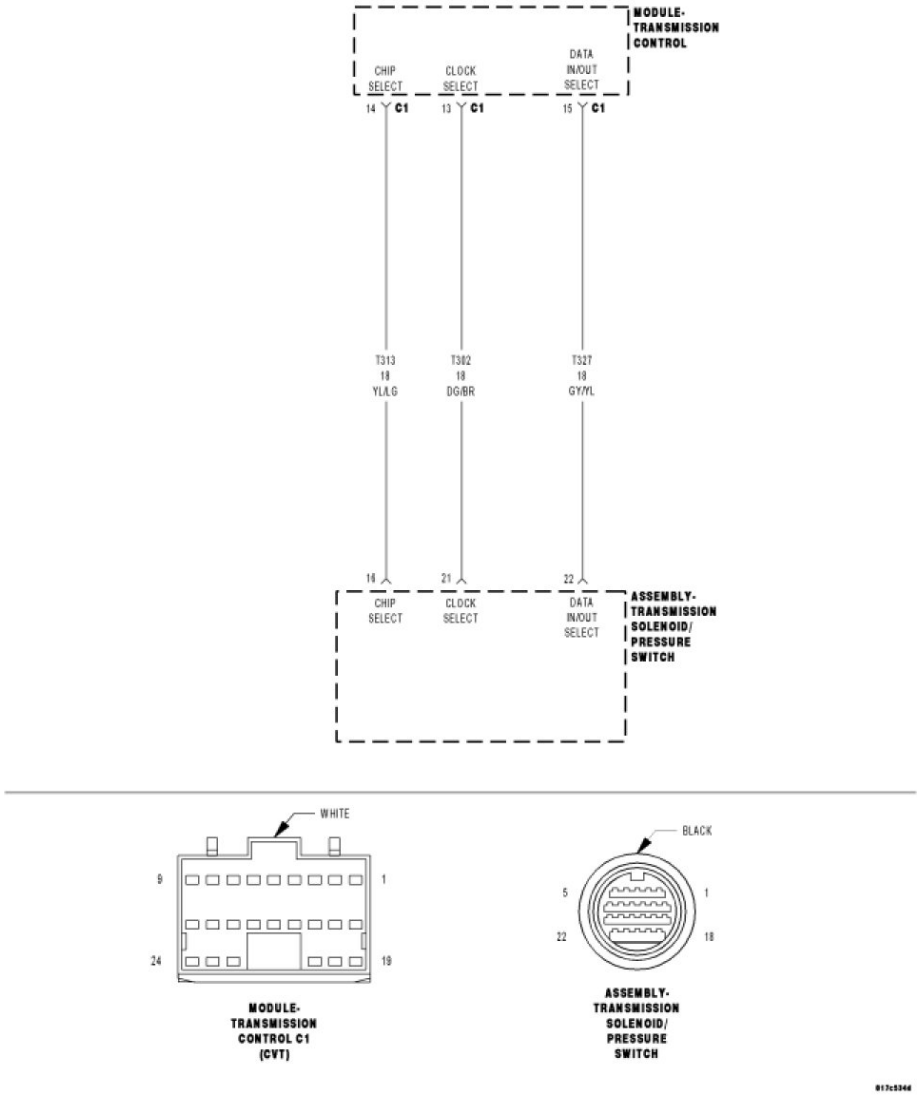
2007 Dodge Caliber SRT-4 L4-2.4L Turbo VIN F

Vehicle > ALL Diagnostic Trouble Codes (DTC) > Testing and Inspection > U Code Charts > U1146

U1146-LOST COMMUNICATION WITH EXTERNAL MEMORY



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

Theory of Operation

The first time the vehicle is started, the Transmission Control Module (TCM) receives hydraulic calibration data from an external EEPROM (located in the transmission) and stores this information in the EEPROM of the TCM. If the TCM can not read the external EEPROM in the transmission this DTC will set. It takes two consecutive failures to turn on the MIL.

- **When Monitored:**

  Ignition on in the run position with a system voltage between **9.0 and 16.0 volts.**

  Shift lever in Park or Reverse position.

- **Set Condition:**

  Communication between the TCM and the EEPROM in the transmission is not active for the period of **5 seconds.**

Possible Causes
(T327) DATA IN/OUT SELECT CIRCUIT SHORT TO VOLTAGE
(T313) CHIP SELECT CIRCUIT SHORT TO VOLTAGE
(T302) CLOCK SELECT CIRCUIT SHORT TO VOLTAGE
(T327) DATA IN/OUT SELECT CIRCUIT OPEN
(T313) CHIP SELECT CIRCUIT OPEN
(T302) CLOCK SELECT CIRCUIT OPEN
(T302) CLOCK SELECT CIRCUIT SHORT TO GROUND
(T313) CHIP SELECT CIRCUIT SHORT TO GROUND
(T327) DATA IN/OUT SELECT CIRCUIT SHORT TO GROUND
INTERNAL TRANSMISSION
TRANSMISSION CONTROL MODULE

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

Diagnostic Test

1. CHECK IF THE DTC IS ACTIVE

With the scan tool, read Transmission DTCs.

Is the status Active for this DTC?

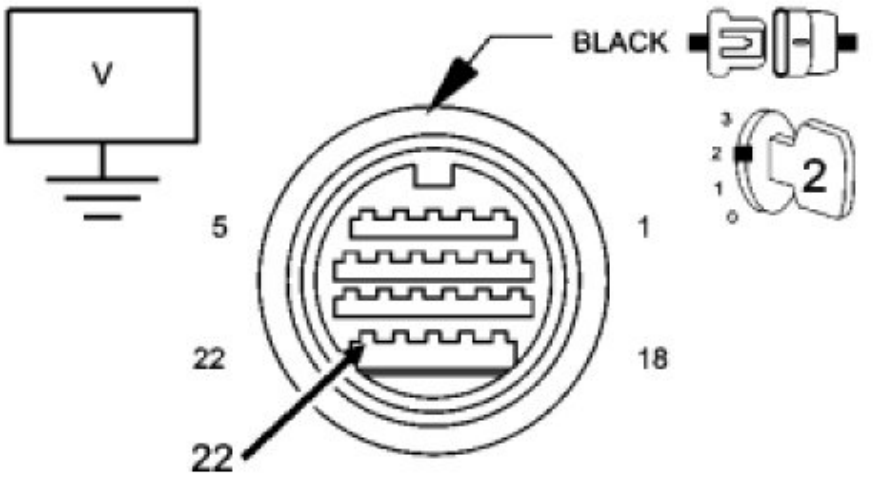
Yes

- Go To 2

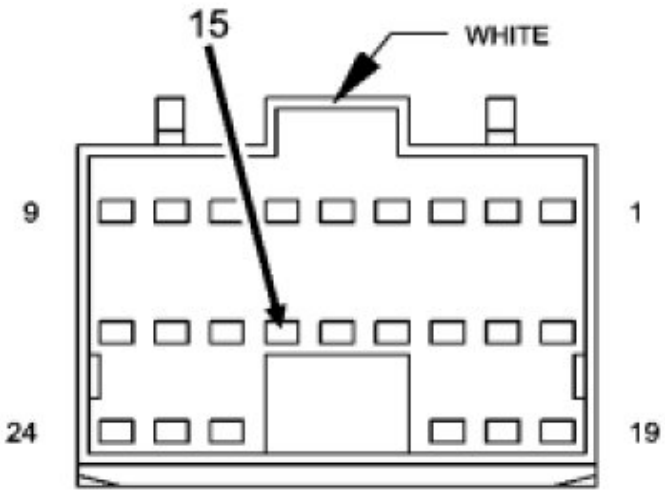
No

- Go To 12

2. CHECK THE (T327) DATA IN/OUT SELECT CIRCUIT FOR A SHORT TO VOLTAGE



**ASSEMBLY-
TRANSMISSION
SOLENOID/
PRESSURE
SWITCH**



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

818337f7

Turn the ignition off to the lock position.

Disconnect the TCM C1 harness connector.

Disconnect the Transmission Solenoid/Pressure Switch Assembly harness connector.

Ignition on, engine not running.

Measure the voltage of the (T327) Data IN/OUT Select circuit.

Is the voltage above .02 volts?

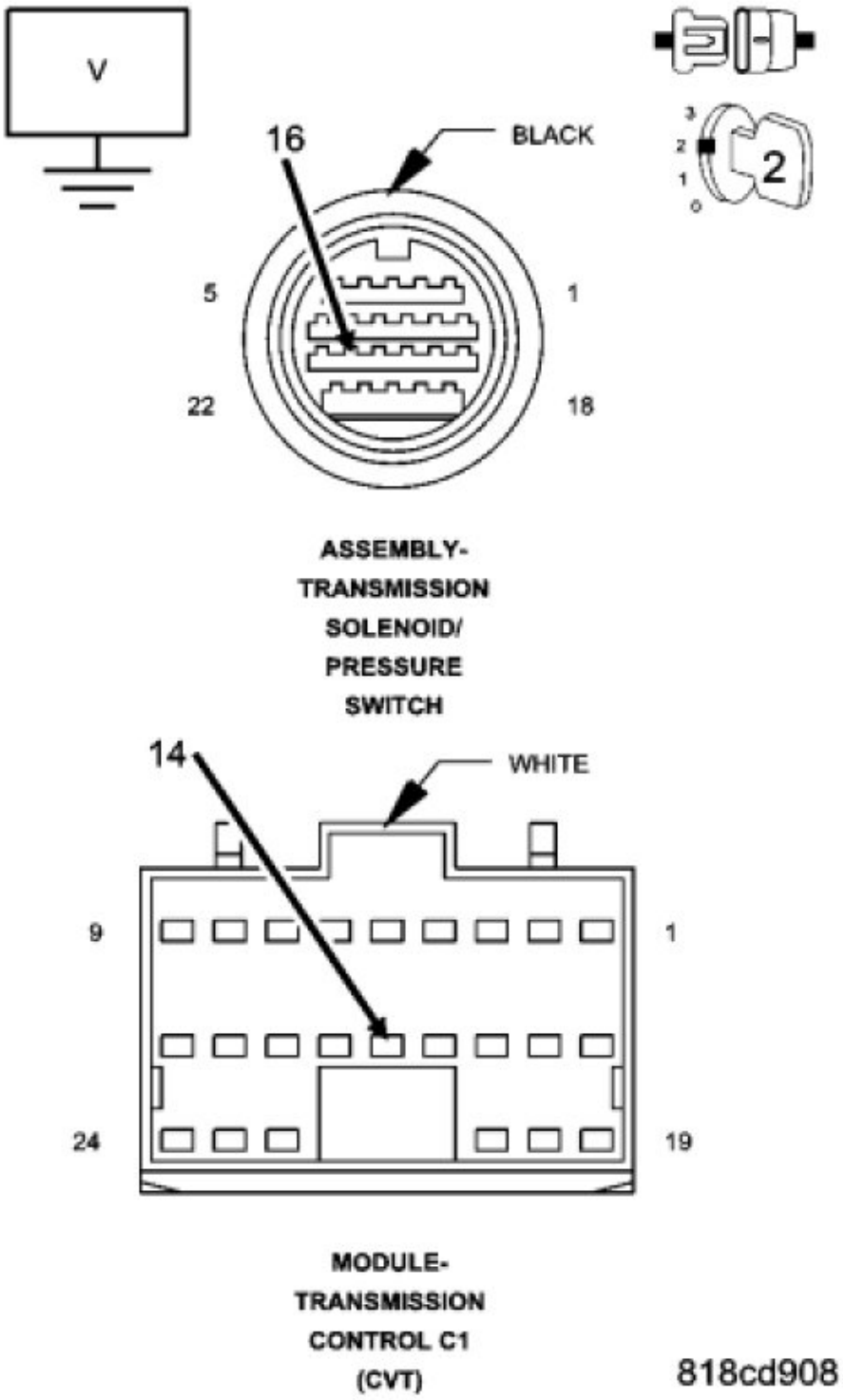
Yes

- Repair the (T327) Data IN/OUT Select circuit for a short to voltage.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Go To 3

3. CHECK THE (T313) CHIP SELECT CIRCUIT FOR A SHORT TO VOLTAGE



Measure the voltage of the (T313) Chip Select circuit.

Is the voltage above 0.1 volts?

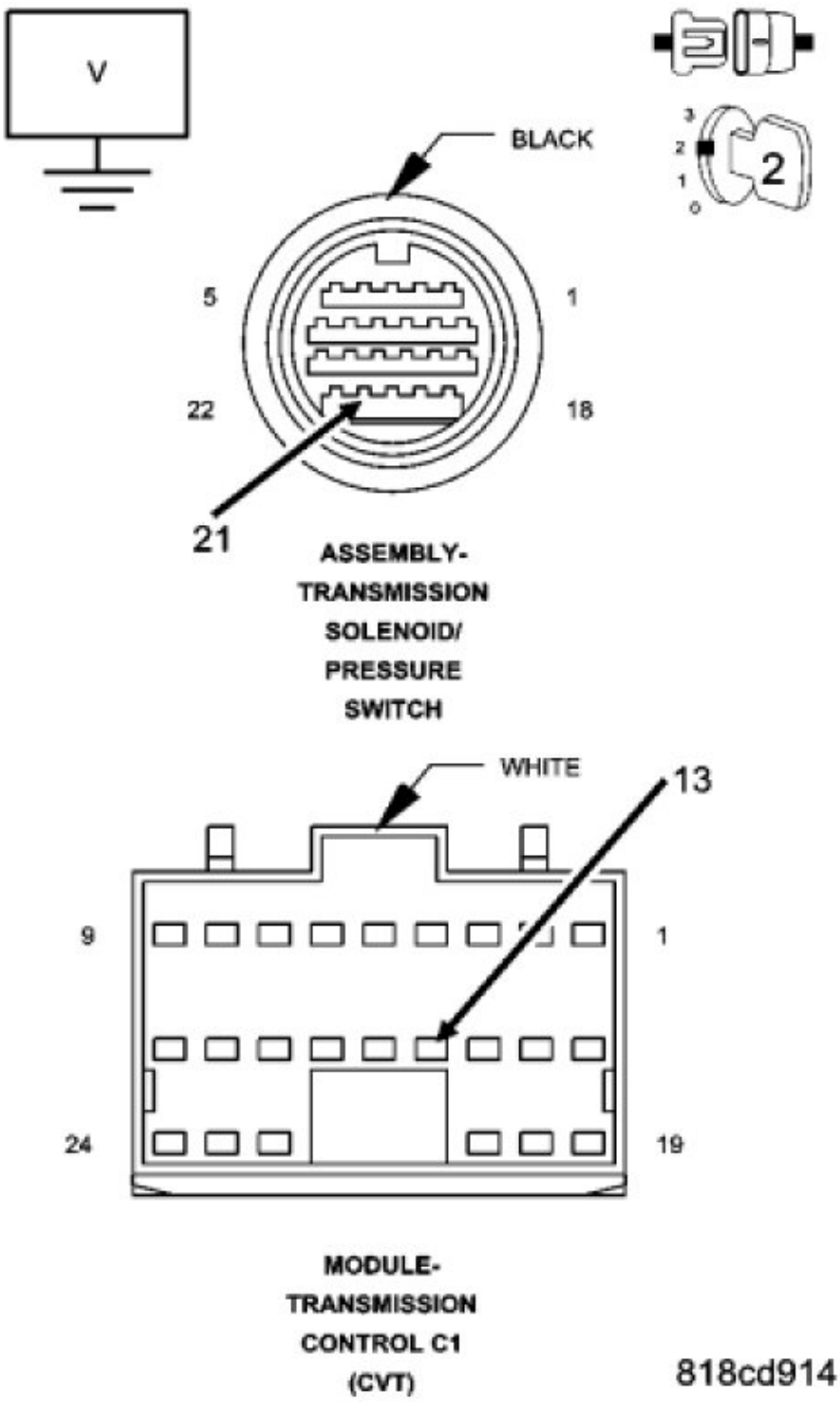
Yes

- Repair the (T313) Chip Select 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 (T302) CLOCK SELECT CIRCUIT FOR A SHORT TO VOLTAGE



Measure the voltage of the (T302) Clock Select circuit.

Is the voltage above 0.2 volts?

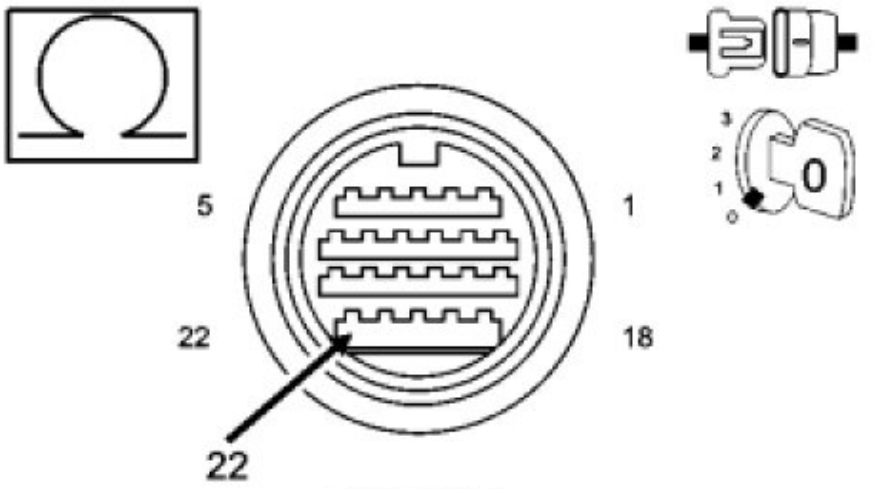
Yes

- Repair the (T302) Clock Select circuit for a short to voltage.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

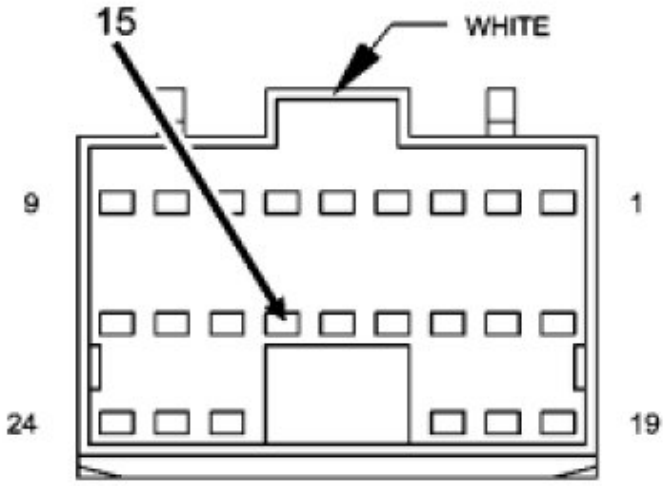
No

- Go To 5

5. CHECK THE (T327) DATA IN/OUT SELECT CIRCUIT FOR AN OPEN



ASSEMBLY-
TRANSMISSION
SOLENOID/
PRESSURE
SWITCH



MODULE-
TRANSMISSION
CONTROL C1
(CVT)

817c5345

Turn the ignition off to the lock position.

Measure the resistance of the (T327) Data In/Out Select circuit between the TCM C1 harness connector and the Transmission Solenoid/Pressure Switch Assembly harness connector.

Is the resistance above 5.0 ohms?

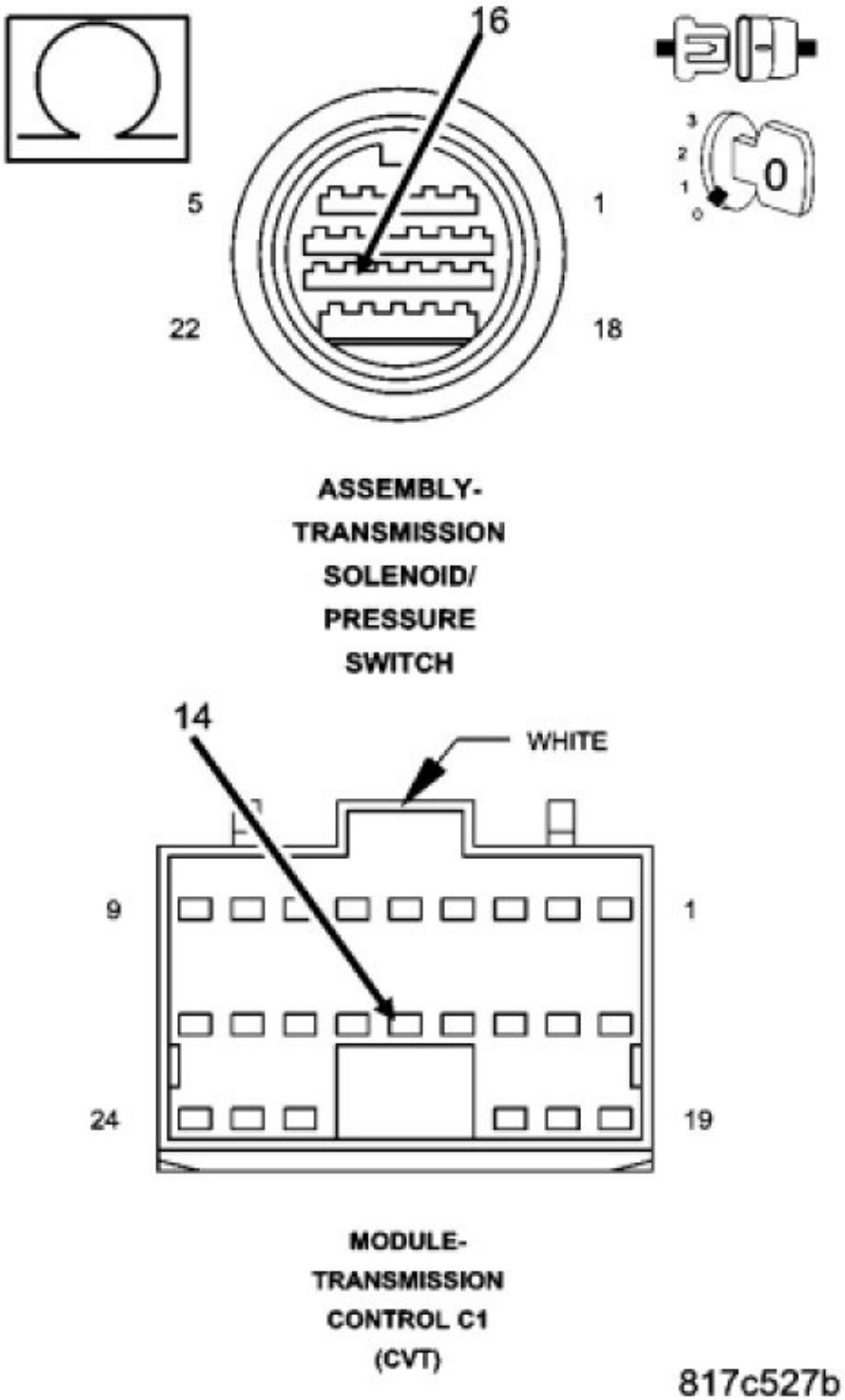
Yes

- Repair the (T327) Data IN/OUT Select circuit for an open.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Go To 6

6. CHECK THE (T313) CHIP SELECT CIRCUIT FOR AN OPEN



Measure the resistance of the (T313) Chip Select circuit between the TCM C1 harness connector and the Transmission Solenoid/Pressure Switch Assembly harness connector.

Is the resistance above 5.0 ohms?

Yes

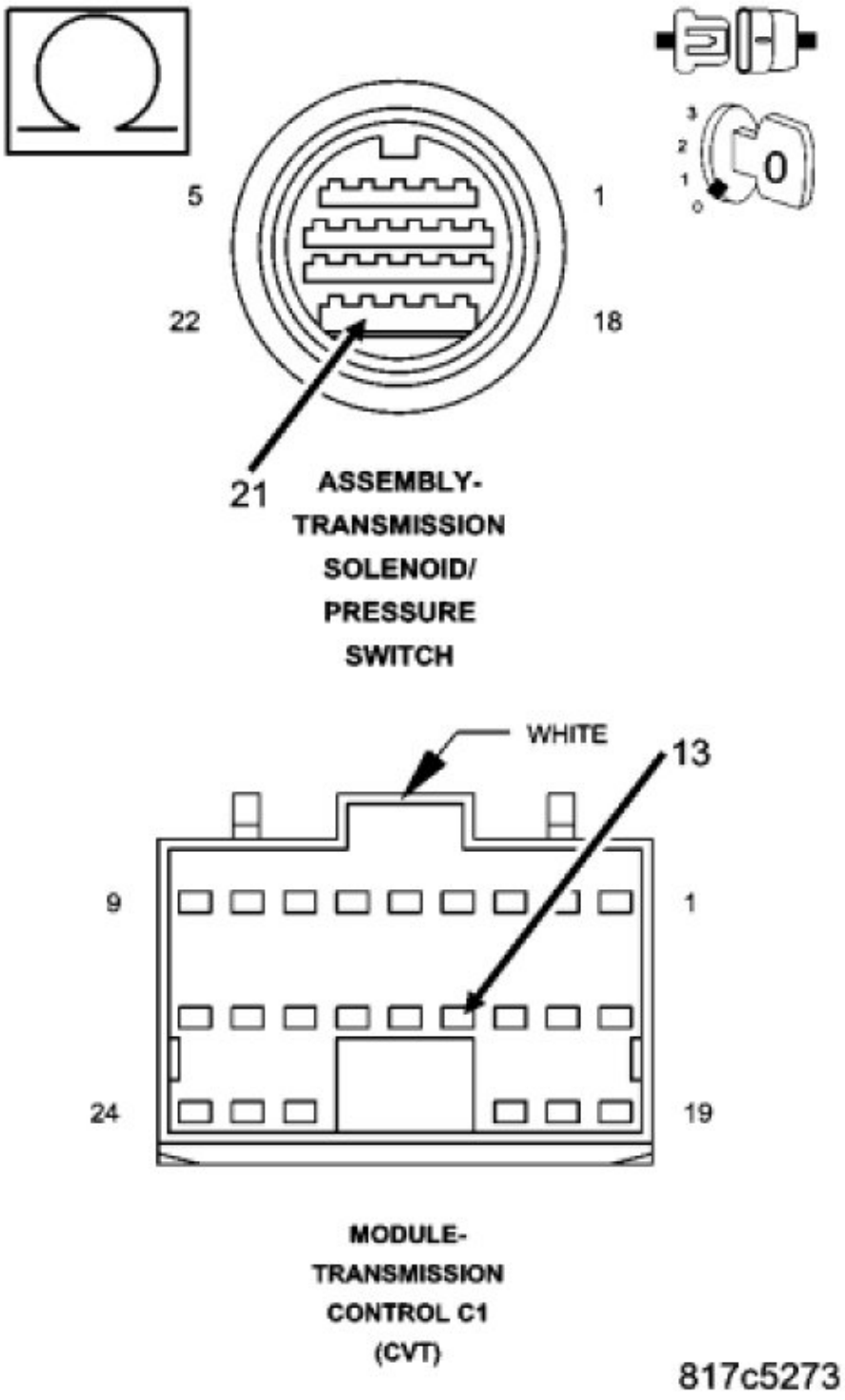
- Repair the (T313) Chip Select circuit for an open.

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

No

- Go To 7

7. CHECK THE (T302) CLOCK SELECT CIRCUIT FOR AN OPEN



Measure the resistance of the (T302) Clock Select circuit between the TCM C1 harness connector and the Transmission Solenoid/Pressure Switch Assembly harness connector.

Is the resistance above 5.0 ohms?

Yes

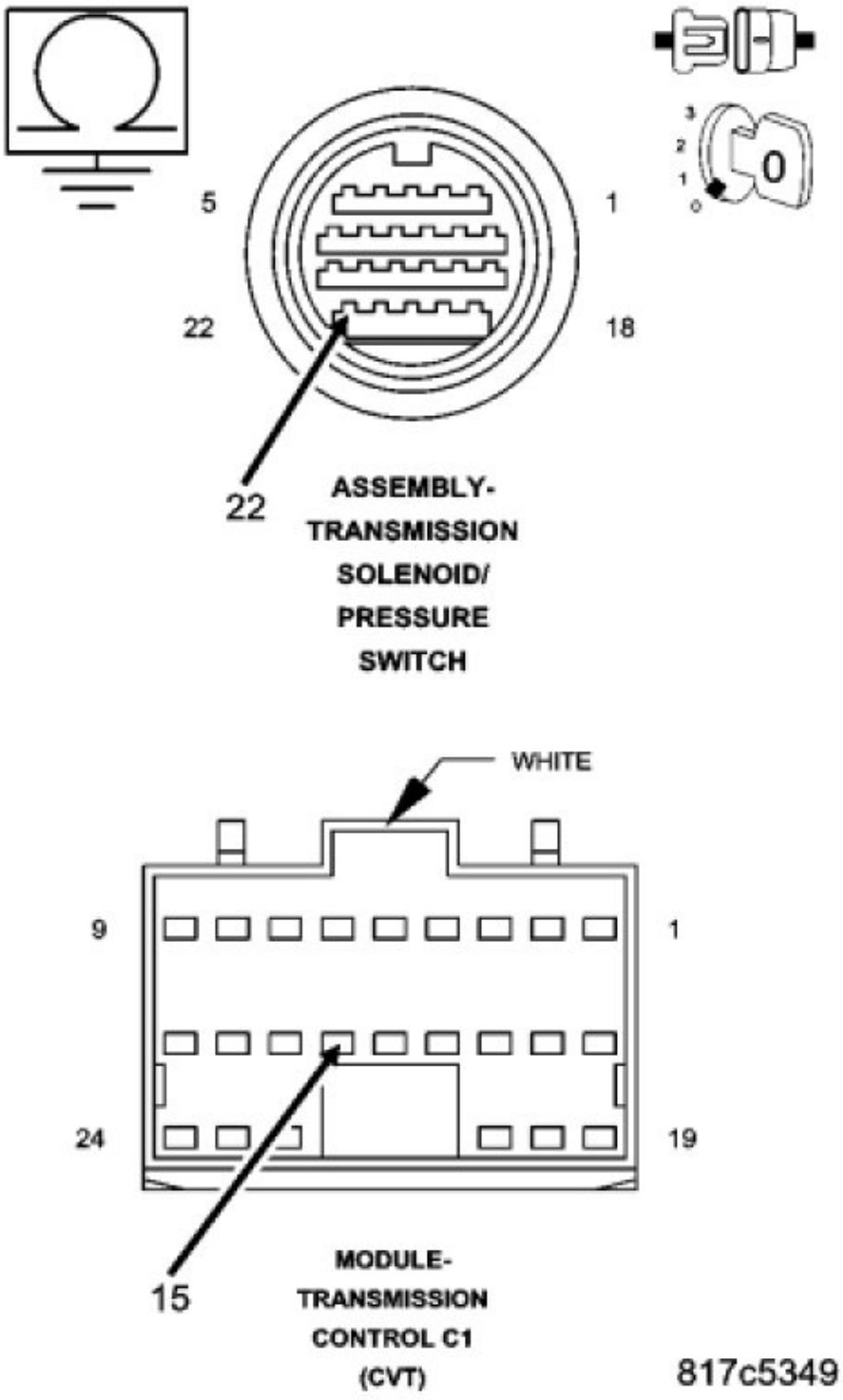
- Repair the (T302) Clock Select circuit for an open.

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

No

- Go To 8

8. CHECK THE (T327) DATA IN/OUT SELECT CIRCUIT FOR A SHORT TO GROUND



Measure the resistance between ground and the (T327) Data IN/OUT Select circuit.

Is the resistance below 5.0 ohms?

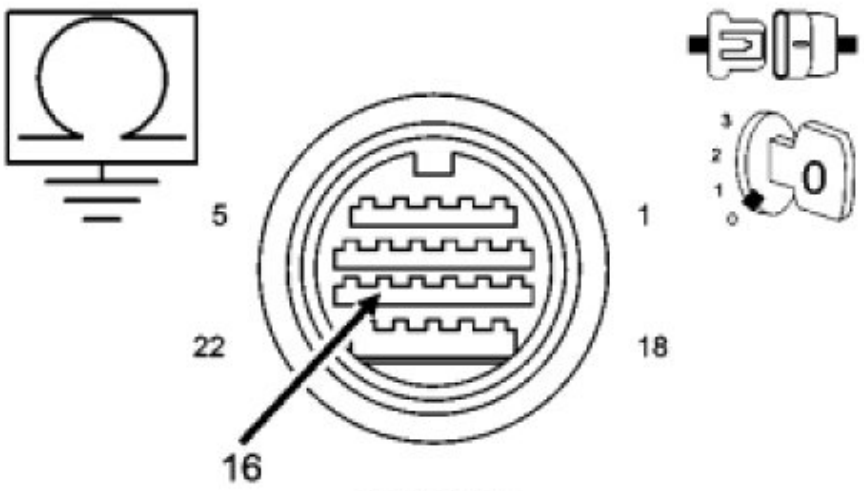
Yes

- Repair the (T327) Data IN/OUT Select circuit for a short to ground.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

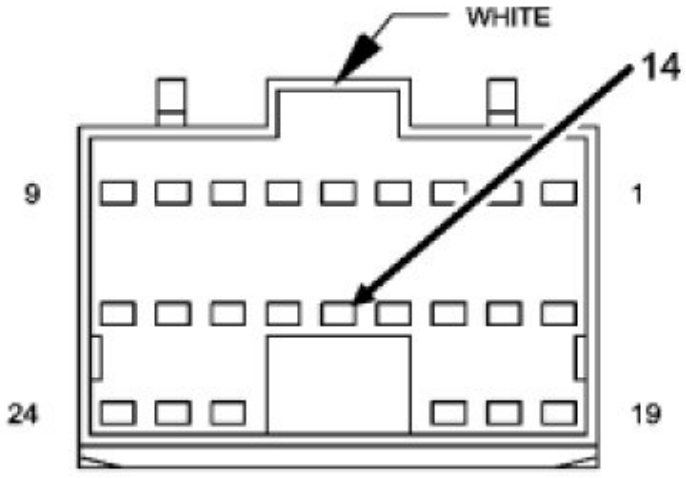
No

- Go To 9

9. CHECK THE (T313) CHIP SELECT CIRCUIT FOR A SHORT TO GROUND



**ASSEMBLY-
TRANSMISSION
SOLENOID/
PRESSURE
SWITCH**



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

817c531d

Measure the resistance between ground and the (T313) Chip Select circuit.

Is the resistance below 5.0 ohms?

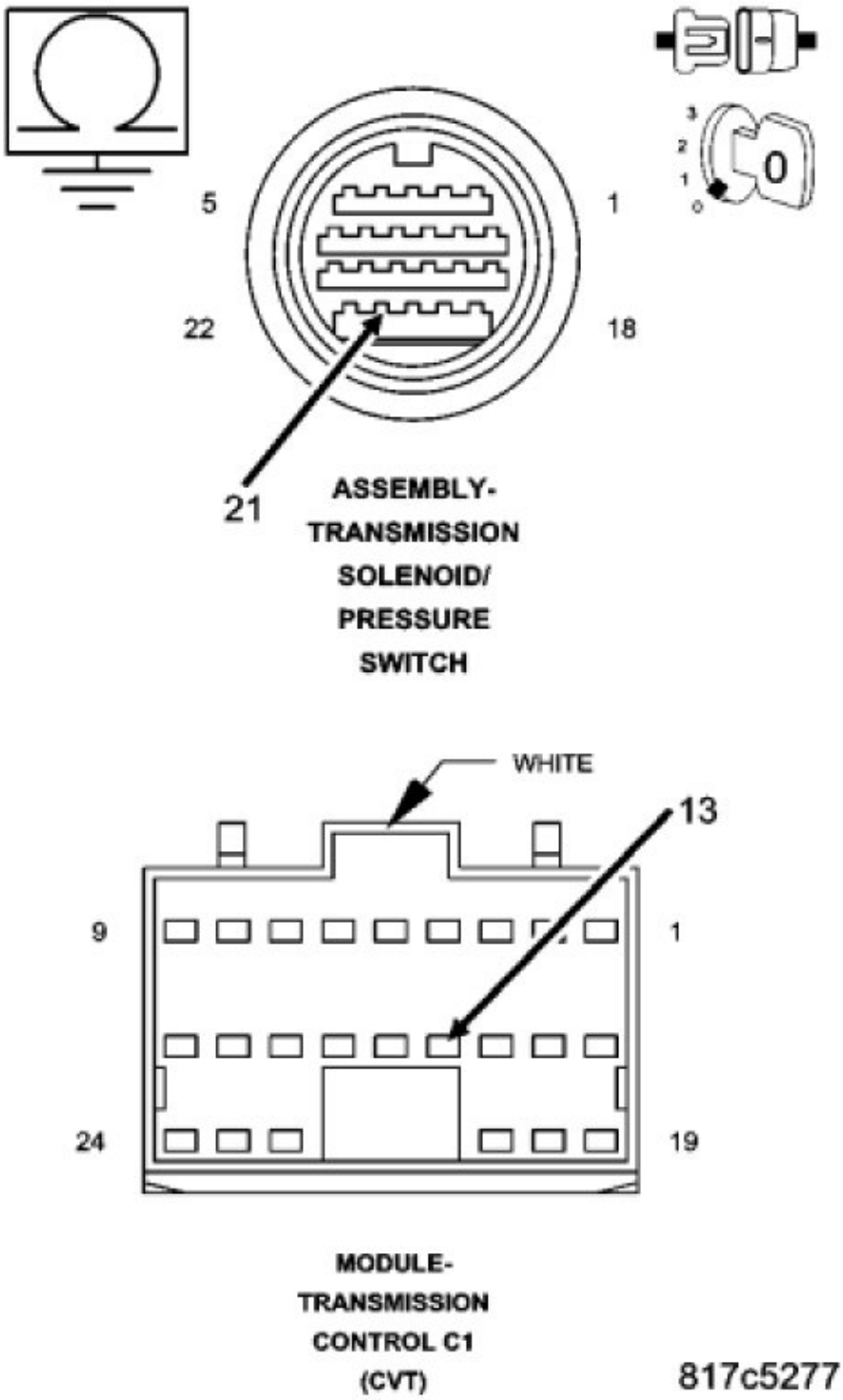
Yes

- Repair the (T313) Chip Select circuit for a short to ground.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Go To 10

10. CHECK THE (T302) CLOCK SELECT CIRCUIT FOR A SHORT TO GROUND



Measure the resistance between ground and the (T302) Clock Select circuit.

Is the resistance below 5.0 ohms?

Yes

- Repair the (T302) Clock Select circuit for a short to ground.
- Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

No

- Go To 11

11. CHECK THE TCM

Replace or repair the CV Transmission (valve body). Perform CVT VERIFICATION TEST. See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests

Did the DTC reset during the verification test?

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

- Test Complete.

12. 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.