

P0760-OD SOLENOID CIRCUIT

Circuit Schematic

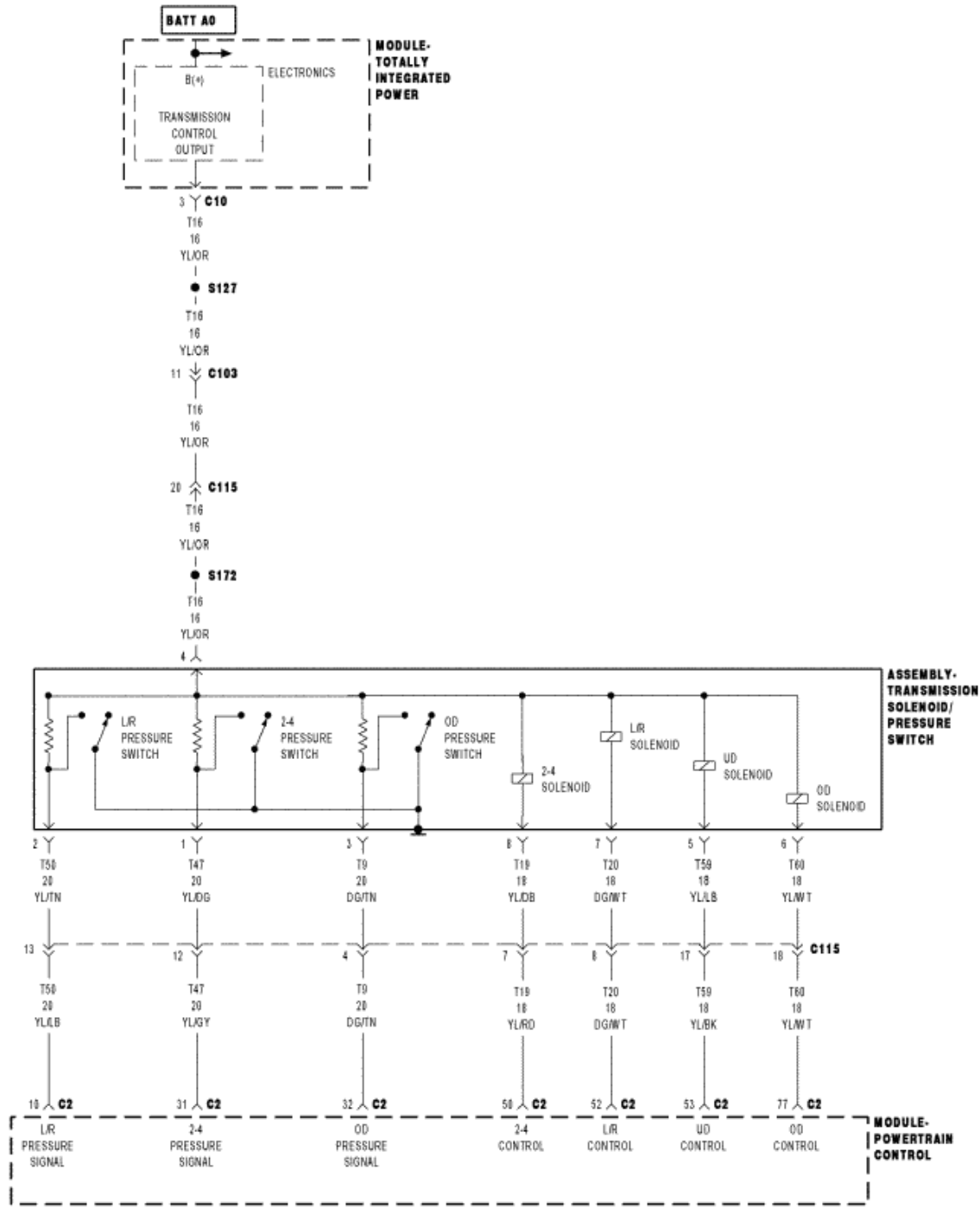


Fig. 30: 2/4 Solenoid Circuit Schematic
 Courtesy of CHRYSLER LLC

Additional Wiring

For complete wiring diagrams, refer to:

SYSTEM WIRING DIAGRAMS for Avenger.

SYSTEM WIRING DIAGRAMS for Sebring 2D Convertible.

SYSTEM WIRING DIAGRAMS for Sebring 4D Sedan.

Four solenoids are used to control the friction elements (clutches). The continuity of the solenoid circuits is periodically tested. Each solenoid is turned on or off depending on its current state. An inductive spike should be detected by the PCM during this test. If no spike is detected, the circuit is tested again to verify the failure. In addition to the periodic testing, the solenoid circuits are tested if a gear ratio or pressure switch error occurs. In this case, one failure will result in the appropriate DTC being set. The MIL will illuminate and the transmission goes into neutral, if the DTC is set above 35 Km/h (22 mph), Limp-in mode when vehicle speed is below 35 Km/h (22 mph).

Monitor Conditions

When Monitored:

Initially at ignition on, then every 10 seconds thereafter. The solenoids will also be tested immediately after a gear ratio error or pressure switch error is detected.

Set Conditions

- **Set Condition:**

Three consecutive solenoid continuity test failures, or one failure if test is run in response to a gear ratio or pressure switch error.

Possible Cause

Possible Causes:

RELATED DTCS PRESENT
(T60) OD CONTROL CIRCUIT OPEN
(T60) OD CONTROL CIRCUIT SHORT TO GROUND
(T60) OD CONTROL CIRCUIT SHORT TO VOLTAGE
TRANSMISSION SOLENOID/PRESSURE SWITCH ASSEMBLY
POWERTRAIN CONTROL MODULE

Always perform the **40/41TE PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE** before proceeding.

Diagnostic Test

1. **CHECK FOR RELATED DTCS**

With the scan tool, read DTCs.

Are there any Transmission Control Relay or TCM Power Input DTCs present also?

Yes

Refer to the Transmission category and perform the appropriate diagnostic procedure(s).

No

Go To 2.

2. **CHECK IF THE DTC IS CURRENT**

With the scan tool, read DTCs.

Is the status Active or is the STARTS SINCE SET counter set at 0 for this DTC?

Yes

Go To 3.

No

Go To 7.

3. **CHECK THE PCM AND WIRING USING THE TRANSMISSION SIMULATOR**

Turn the ignition off to the lock position.

Remove the Ignition Switch Feed fuse from the TIPM.

CAUTION: Removal of the Ignition Switch Feed fuse from the TIPM will prevent the vehicle from being started in gear.

WARNING: The Ignition Switch Feed fuse must be removed from the TIPM. Failure to do so can result in personal injury or death.

Install the Transmission Simulator, Miller tool #8333 and the Electronic Transmission Adapter kit.

Ignition on, engine not running.

With the scan tool, actuate the OD Solenoid.

Monitor the OD Solenoid LED on the Transmission Simulator.

Did the OD Solenoid LED on the Transmission Simulator blink on and off during actuation?

Yes

Replace the Transmission Solenoid/Pressure Switch Assembly per the Service Information.
Perform **40/41TE TRANSMISSION VERIFICATION TEST**.

No

Go To 4.

4. CHECK THE (T60) OD CONTROL CIRCUIT FOR AN OPEN

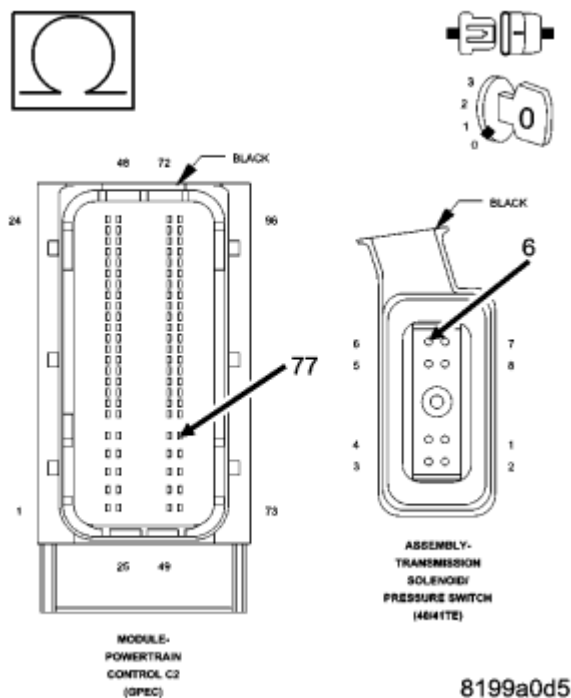


Fig. 31: Checking The (T60) OD Control Circuit For An Open
Courtesy of CHRYSLER LLC

Turn the ignition off to the lock position.

Disconnect the PCM C2 harness connector.

Disconnect the Transmission Simulator, Miller tool #8333 and the Electronic Transmission Adapter kit.

Measure the resistance of the (T60) OD Control circuit between the PCM C2 harness connector and the Solenoid/Pressure Switch Assembly harness connector.

Is the resistance above 5.0 ohms?

Yes

Repair the (T60) OD Control circuit for an open.

Perform **40/41TE TRANSMISSION VERIFICATION TEST.**

No

Go To 5.

5. CHECK THE (T60) OD CONTROL CIRCUIT FOR A SHORT TO GROUND

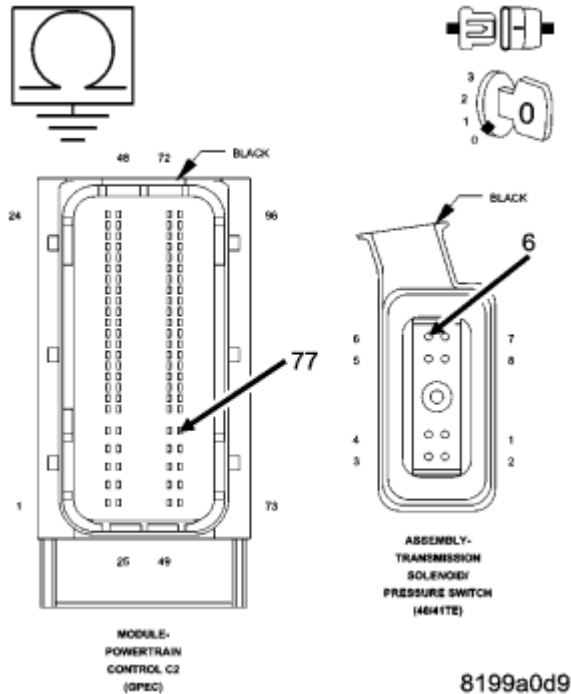


Fig. 32: Checking The (T60) OD Control Circuit For A Short To Ground
 Courtesy of CHRYSLER LLC

Measure the resistance between ground and the (T60) OD Control circuit.

Is the resistance below 5.0 ohms?

Yes

Repair the (T60) OD Control circuit for a short to ground.

Perform **40/41TE TRANSMISSION VERIFICATION TEST.**

No

Go To 6.

6. CHECK THE (T60) OD CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

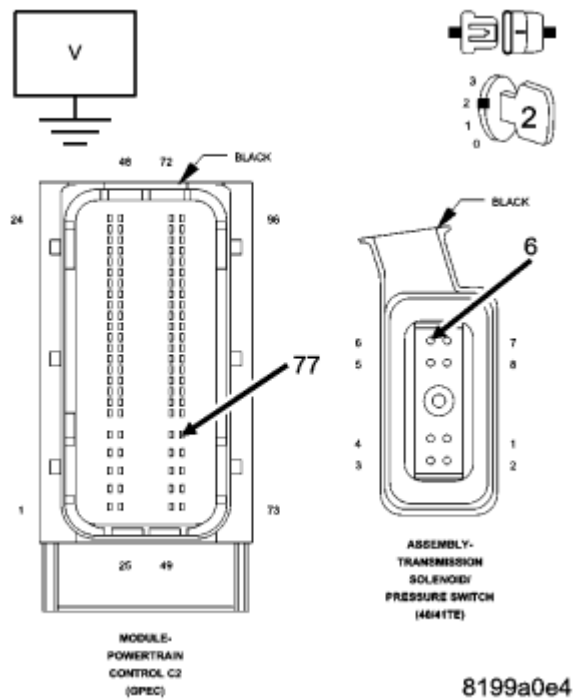


Fig. 33: Checking The (T60) OD Control Circuit For A Short To Voltage
 Courtesy of CHRYSLER LLC

Ignition on, engine not running.

With the scan tool under TIPM, actuate the Transmission.

Measure the voltage of the (T60) OD Control circuit.

Is the voltage above 0.5 volts?

Yes

Repair the (T60) OD Control circuit for a short to voltage.

Perform **40/41TE TRANSMISSION VERIFICATION TEST.**

No

Using the schematics as a guide, check the Powertrain Control Module (PCM) terminals for corrosion, damage, or terminal push out. Pay particular attention to all power and ground circuits. Check for Service Information Tune-ups or Service Bulletins for any possible causes that may apply. If no problems are found, replace the PCM per the Service Information. With the scan tool, perform QUICK LEARN.

Perform **40/41TE TRANSMISSION VERIFICATION TEST.**

7. INTERMITTENT WIRING AND CONNECTORS

The conditions necessary to set the 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.

With the scan tool, check the DTC EVENT DATA to help identify the conditions in which the DTC was set.

Were there any problems found?

Yes

Repair as necessary.

Perform **40/41TE TRANSMISSION VERIFICATION TEST**.

No

Test Complete.