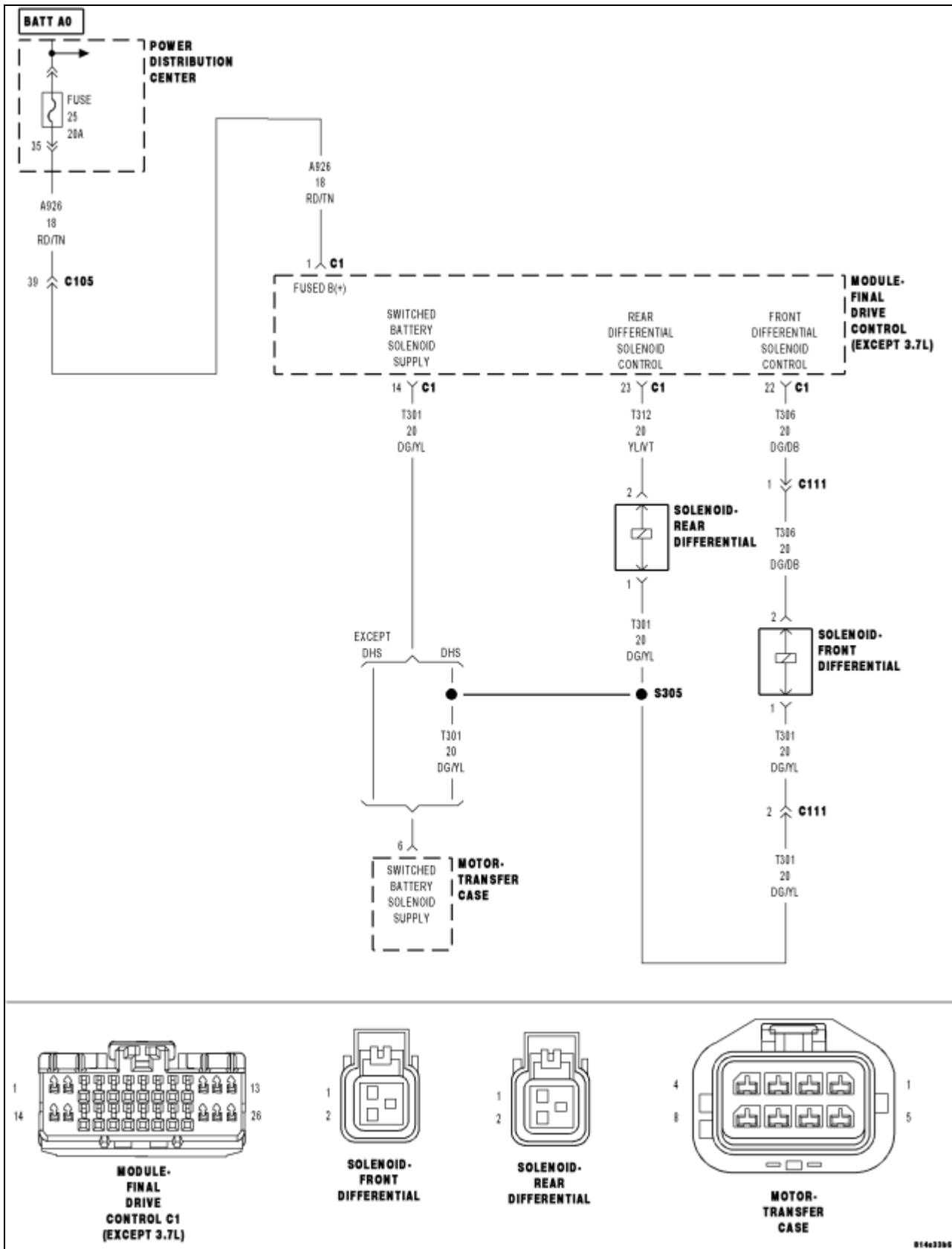


C141E-REAR DIFFERENTIAL CONTROL CIRCUIT HIGH



For a complete wiring diagram Refer to Section 8W.

- **When Monitored:**

The Solenoid is active, no solenoid supply circuit DTCs are present and battery voltage is normal.

- **Set Condition:**

The FDCM detects the Rear Differential Solenoid Control is high.

Possible Causes
REAR DIFFERENTIAL SOLENOID
(T312) REAR DIFFERENTIAL SOLENOID CONTROL CIRCUIT SHORTED TO BATTERY VOLTAGE
(T312) REAR DIFFERENTIAL SOLENOID CONTROL CIRCUIT SHORTED TO (T301) SWITCHED BATTERY SOLENOID SUPPLY CIRCUIT
FINAL DRIVE CONTROL MODULE (FDCM)

Diagnostic Test

1. ACTIVE DTC

Ignition on, engine not running.
With the scan tool, read DTCs.

Is the DTC active at this time?

Yes

- Go To [2](#)

No

- Go To [6](#)

2. REAR DIFFERENTIAL SOLENOID OPERATION

Turn the ignition off.

Disconnect the Rear Differential Solenoid harness connector.

Ignition on, engine not running.

Using a 12-volt test light, jump across from the (T312) Rear Differential Solenoid Control circuit and the (T301) Switched Battery Solenoid Supply circuit in the Rear Differential Solenoid harness connector.

With the scan tool, clear DTCs in the FDCM.

With a scan tool, actuate the Rear Differential Solenoid.

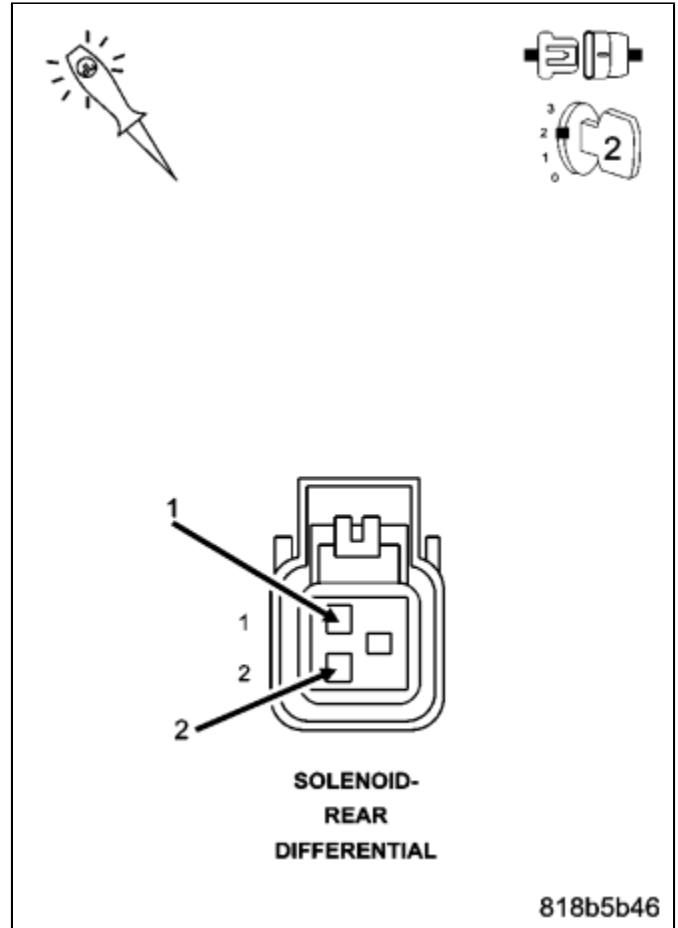
Does the test light flash on and off?

Yes

- Inspect the Rear Differential Solenoid Jumper harness connector, repair/replace as necessary. If OK, replace the Rear Differential Solenoid.
- Perform FDCM VERIFICATION TEST.

No

- Go To [3](#)



3. (T312) REAR DIFFERENTIAL SOLENOID CONTROL CIRCUIT SHORTED TO BATTERY VOLTAGE

Turn the ignition off.

Disconnect the FDCM harness connector.

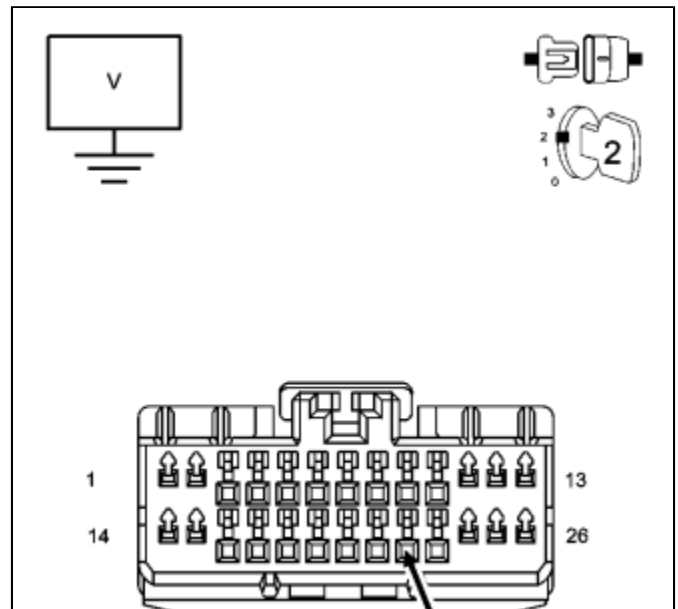
Turn the ignition on.

Measure the voltage on the (T312) Rear Differential Solenoid Control circuit at the FDCM harness connector.

Does the voltmeter indicate voltage present?

Yes

- Repair the short to voltage in the (T312) Rear Differential Solenoid Control circuit.
- Perform FDCM VERIFICATION TEST.



No

- Go To [4](#)

4. (T312) REAR DIFFERENTIAL SOLENOID CONTROL CIRCUIT SHORTED TO (T301) SWITCHED BATTERY SOLENOID SUPPLY CIRCUIT

Measure the resistance between the (T312) Rear Differential Solenoid Control circuit and the (T301) Switched Battery Solenoid Supply circuit in the FDCM harness connector.

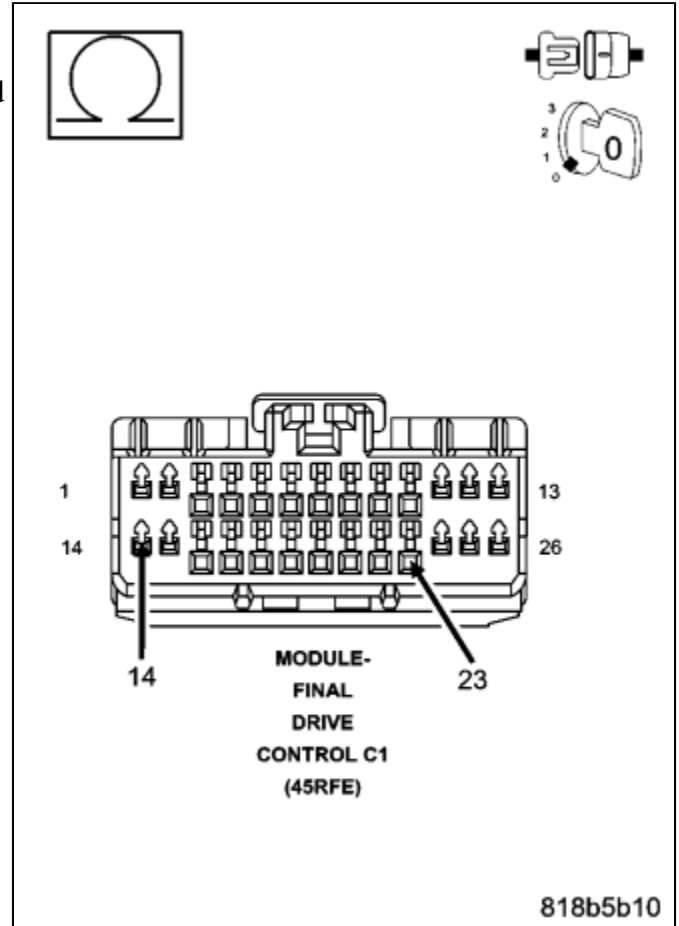
Is the resistance below 100 ohms?

Yes

- Repair the short between the (T312) Rear Differential Solenoid Control circuit and the (T301) Switched Battery Solenoid Supply circuit.
- Perform FDCM VERIFICATION TEST

No

- Go To [5](#)



5. FDCM

NOTE: Before continuing, check the FDCM harness connector terminals for corrosion, damage, or terminal push out. Repair as necessary.

Using the schematics as a guide, inspect the wire harness and connectors. Pay particular attention to all Power and Ground circuits.

Were there any problems found?

Yes

- Repair as necessary.
- Perform FDCM VERIFICATION TEST

No

- Replace and program the Final Drive Control Module in accordance with Service Information.
- Perform FDCM VERIFICATION TEST.

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 test the wiring harness and connectors while checking for shorted and open circuits.

Using the scan tool, monitor the data related to this circuit while performing the wiggle test. Look for the data to change or for the DTC to reset.

Were there any problems found?

Yes

- Repair as necessary.
- Perform FDCM VERIFICATION TEST.

No

- Test Complete.