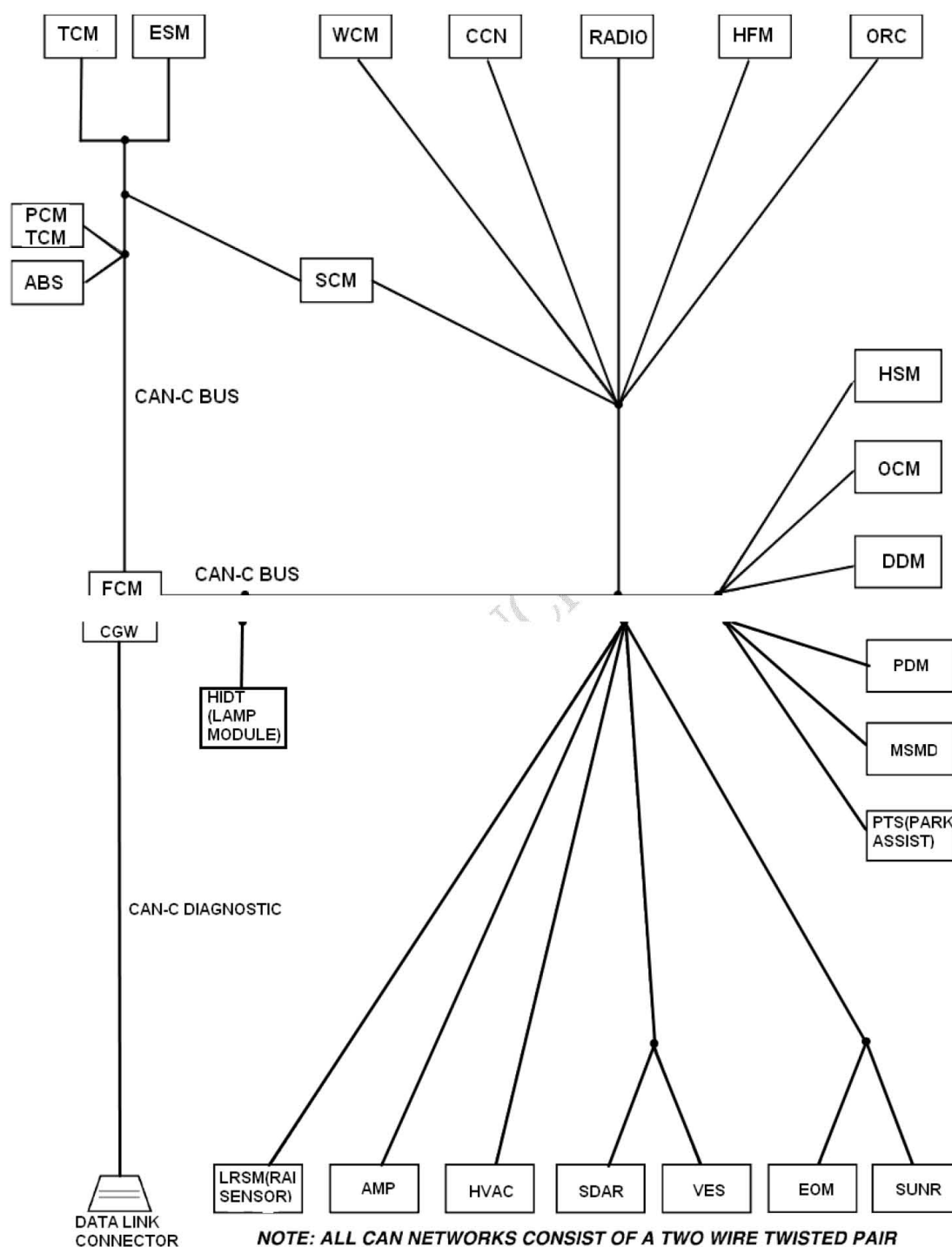


# U1107 ECU IN SINGLE-WIRE MODE



- 1). When Monitored:  
With the ignition on.
- 2). Set Condition:  
The FCM detects an open, a short high, a short low or a short together in either of the CAN B Bus circuits.

Possible Causes
1. D55) CAN B BUS (+) CIRCUIT SHORTED TO GROUND
2. (D54) CAN B BUS (-) CIRCUIT SHORTED TO GROUND
3. (D55) CAN B BUS (+) CIRCUIT SHORTED TO VOLTAGE
4. (D54) CAN B BUS (-) CIRCUIT SHORTED TO VOLTAGE
5. (D55) CAN B BUS (+) CIRCUIT SHORTED TO (D54) CAN B BUS (-) CIRCUIT
6. (D55) CAN B BUS (+) CIRCUIT OPEN
7. (D54) CAN B BUS (-) CIRCUIT OPEN
8. ANY CAN B BUS MODULE

## Diagnostic Test

### 1). TEST FOR INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, record and erase FCM DTC's.

Cycle the ignition from on to off 3 times.

Turn the ignition on.

With the scan tool, read active FCM DTC's.

Does the scan tool display this DTC as active?

**Yes** >> Go To 2

**No** >> The conditions that caused this code to set are not present at this time.

Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.

### 2). ANY CAN B BUS MODULE— INTERNAL FAULT

Turn the ignition off.

With the scan tool, monitor the active FCM DTCs.

While monitoring the scan tool, disconnect each CAN B Bus module one at a time.

**NOTE:** When performing the above step, turn the ignition off (wait one minute) before disconnecting any module. When the module is disconnected turn the ignition on.

**NOTE:** This is to determine if the fault is internal within a module.

Check for this DTC to become active after disconnecting each CAN B Bus module the vehicle is equipped with.

**NOTE:** If the DTC becomes stored when a particular CAN B Bus module is disconnected, that module is causing the DTC to set.

With all the CAN B Bus modules disconnected did the FCM still set this DTC as active?

**Yes** >> Go To 3

**No** >> Replace the module that when disconnected the DTC became stored.  
Perform BODY VERIFICATION TEST – VER 1.

3). (D55) CAN B BUS (+) CIRCUIT FOR A SHORT TO VOLTAGE

Turn the ignition off.

Disconnect the Front Control Module C1 harness connector.

**NOTE:** Ensure each CAN B Bus module is disconnected at this time.

Turn the ignition on.

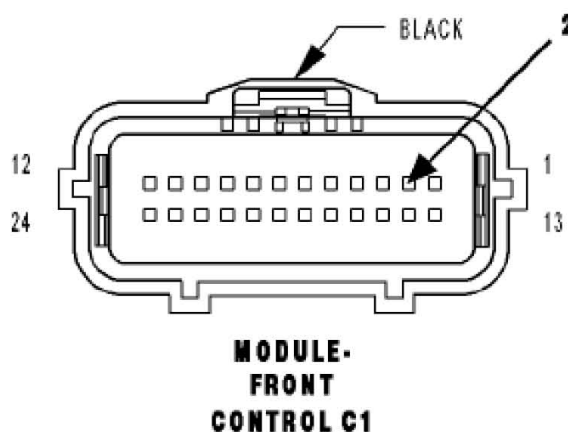
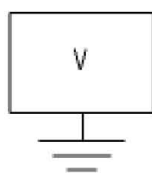
Measure the voltage between the (D55) CAN B Bus (+) circuit and ground.

Is the voltage above 10.0 volts?

**Yes** >> Repair the (D55) CAN B Bus (+) circuit for a short to voltage.

Perform BODY VERIFICATION TEST – VER 1.

**No** >> Go To 4



**MODULE-  
FRONT  
CONTROL C1**

**4). (D54) CAN B BUS (-) CIRCUIT FOR A SHORT TO VOLTAGE**

**NOTE:** Ensure each CAN B Bus module is disconnected at this time.

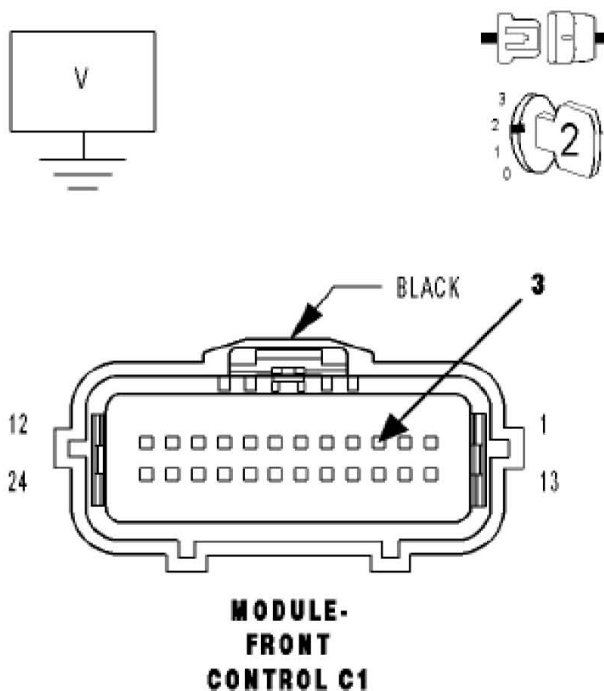
Measure the voltage between the (D54) CAN B Bus (-) circuit and ground.

Is the voltage above 10.0 volts?

**Yes >>** Repair the (D54) CAN B Bus (-) circuit for a short to voltage.

Perform BODY VERIFICATION TEST – VER 1.

**No >>** Go To 5

**5). (D55) CAN B BUS (+) CIRCUIT FOR A SHORT TO GROUND**

Turn the ignition off.

**NOTE:** Ensure each CAN B Bus module is disconnected at this time.

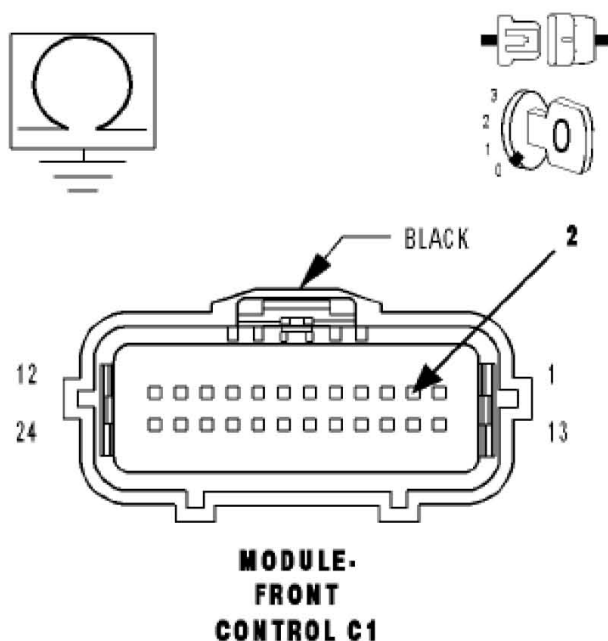
Measure the resistance between ground and the (D55) CAN B Bus (+) circuit.

Is the resistance above 1000.0 ohms?

**Yes >>** Go To 6

**No >>** Repair the (D55) CAN B Bus (+) circuit for a short to ground.

Perform BODY VERIFICATION TEST – VER 1.



6). (D54) CAN B BUS (-) CIRCUIT FOR A SHORT TO GROUND

**NOTE:** Ensure each CAN B Bus module is disconnected at this time.

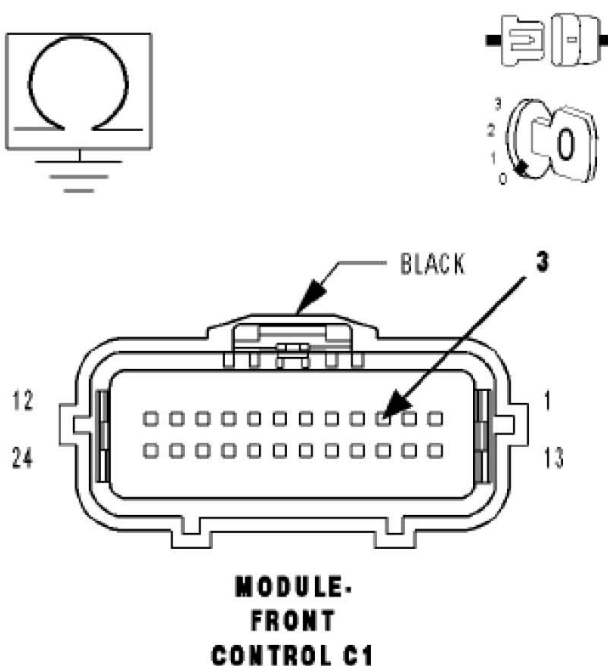
Measure the resistance between ground and the (D54) CAN B Bus (-) circuit.

Is the resistance above 1000.0 ohms?

**Yes** >> Go To 7

**No** >> Repair the (D54) CAN B Bus (-) circuit for a short to ground.

Perform BODY VERIFICATION TEST – VER 1.



7). (D55) CAN B BUS (+) CIRCUIT SHORTED TO THE (D54) CAN B BUS (-) CIRCUIT

Measure the resistance between the (D55) CAN B Bus (+) circuit and (D54) CAN B Bus (-) circuit.

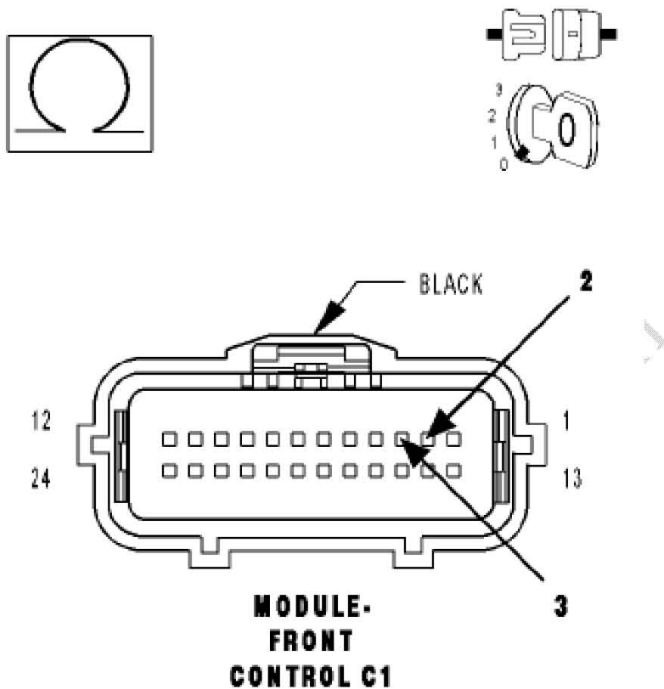
**NOTE:** Ensure each CAN B Bus module is disconnected at this time.

Is any resistance present?

**Yes >>** Repair the (D55) CAN B Bus (+) circuit for a short to the (D54) CAN B Bus (-) circuit.

Perform BODY VERIFICATION TEST – VER 1.

**No >>** Go To 8



8). (D55) CAN B BUS (+) CIRCUIT OPEN

Measure the resistance of the (D55) CAN B Bus (+) circuit between the FCM connector and the Cluster connector.

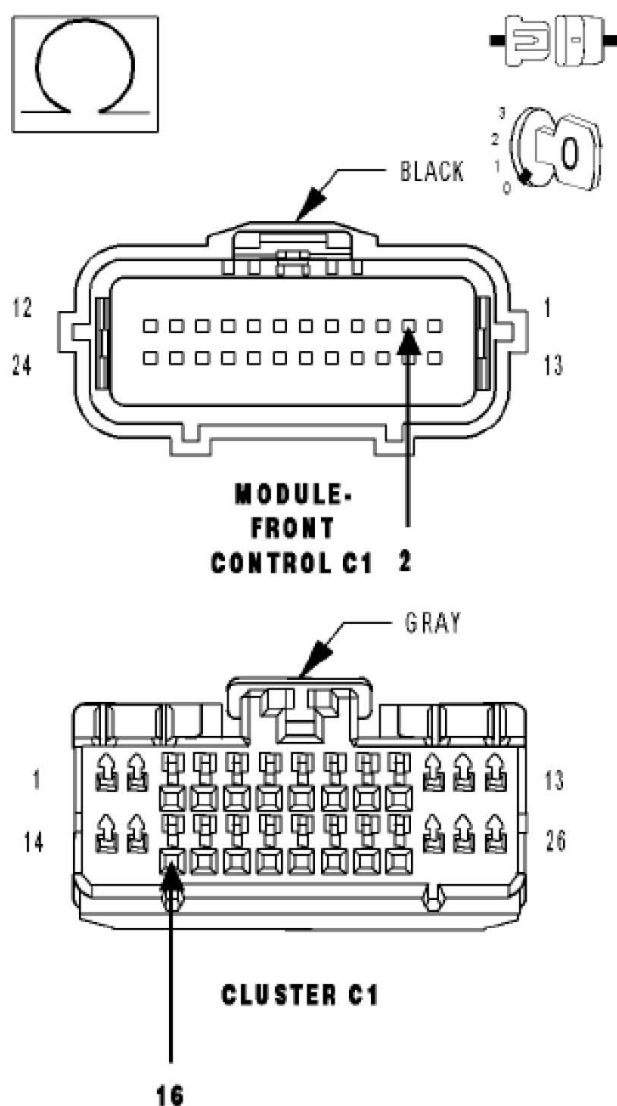
Is the resistance above 10.0 ohms?

**Yes >>** Repair the (D55) CAN B Bus (+) circuit for an open or high resistance.

Perform BODY VERIFICATION TEST – VER 1.

**No >>** Go To 9





9). (D54) CAN B BUS (-) CIRCUIT OPEN

Measure the resistance of the (D54) CAN B Bus (-) circuit between the FCM connector and the Cluster connector.

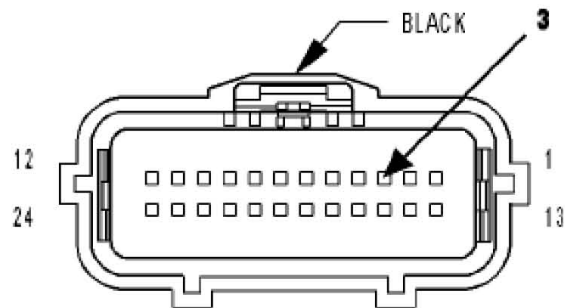
Is the resistance above 10.0 ohms?

**Yes** >> Repair the (D54) CAN B Bus (-) circuit for an open or high resistance.

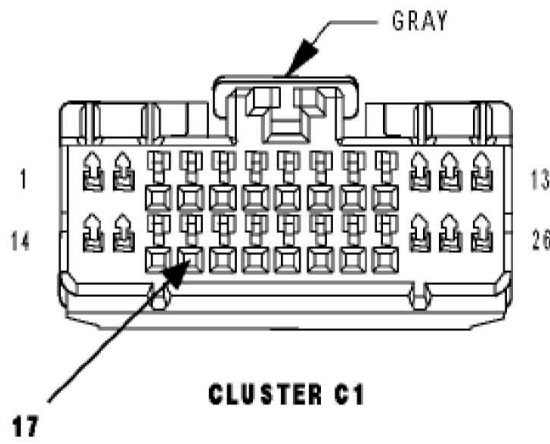
Perform BODY VERIFICATION TEST – VER 1.

**No** >> Replace and program the Front Control Module in accordance with the service information.

Perform BODY VERIFICATION TEST – VER 1.



**MODULE-  
FRONT  
CONTROL C1**



**CLUSTER C1**