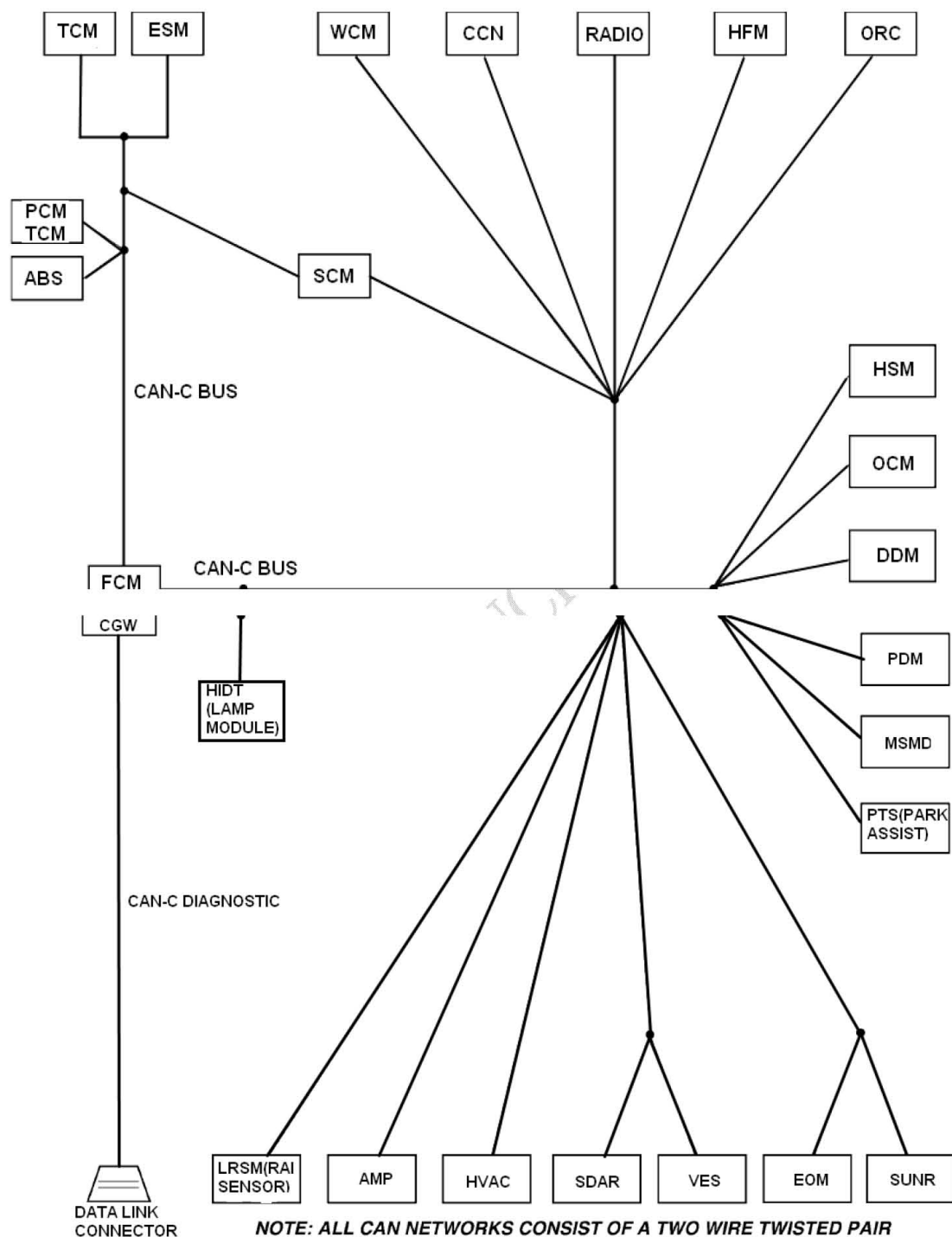


U0019 CAN B BUS



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 U0001–CAN C BUS 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.

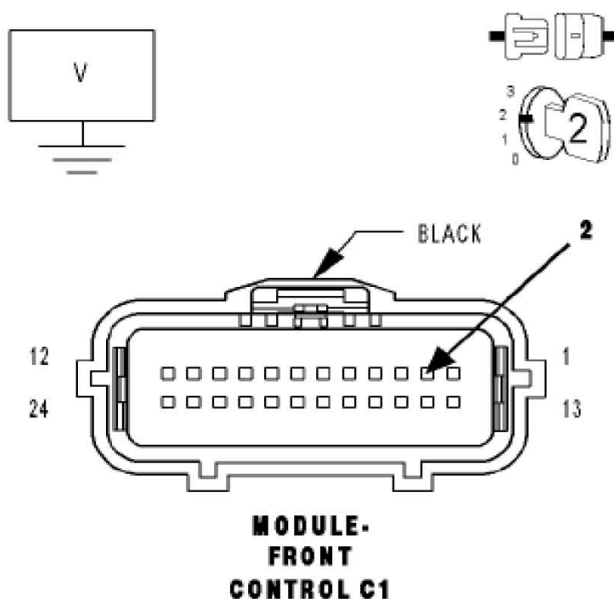
Turn the ignition on.

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



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

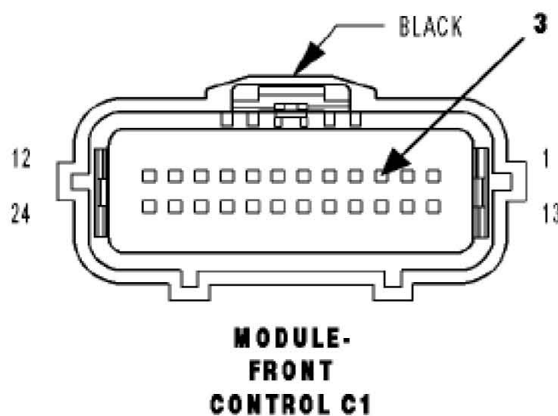
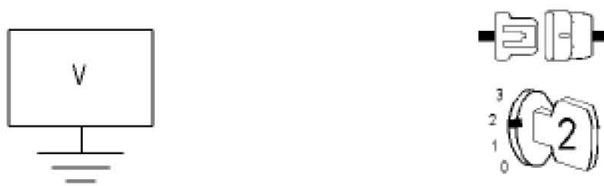
NOTE: Ensure each CAN B Bus module is disconnected at this time.

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.

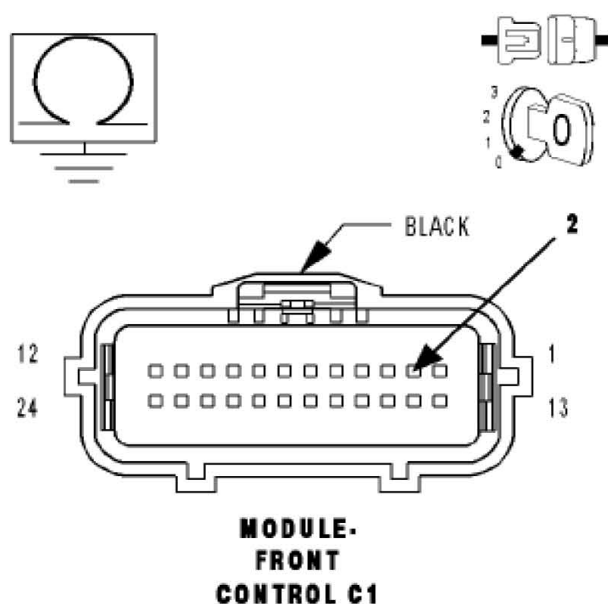
NOTE: Ensure each CAN B Bus module is disconnected at this time.

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.

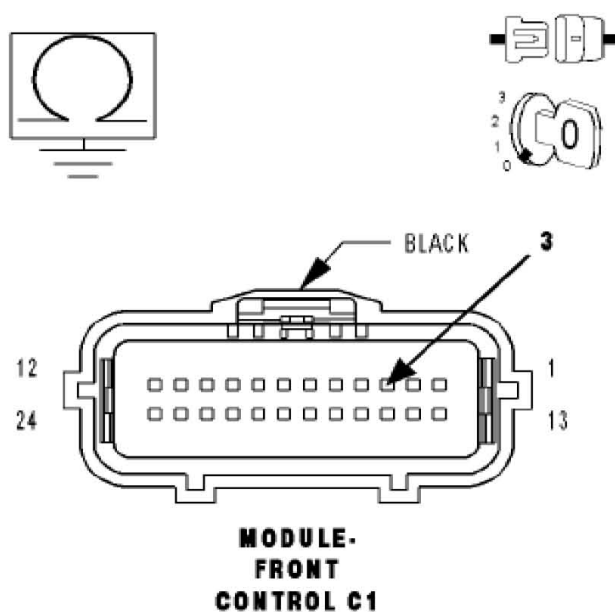
Measure the resistance between ground and the (D54) CAN B Bus (-) circuit.

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.

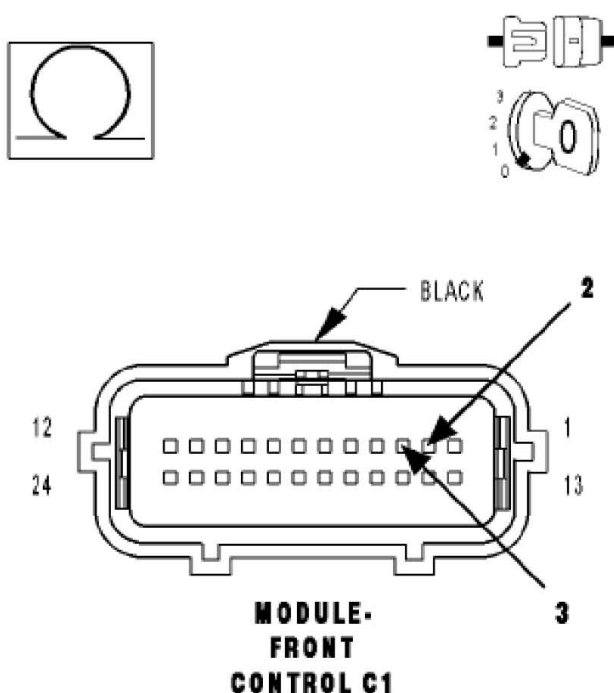
NOTE: Ensure each CAN B Bus module is disconnected at this time.

Is any resistance present?

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

Perform BODY VERIFICATION TEST – VER 1.

No >> Go To 8



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

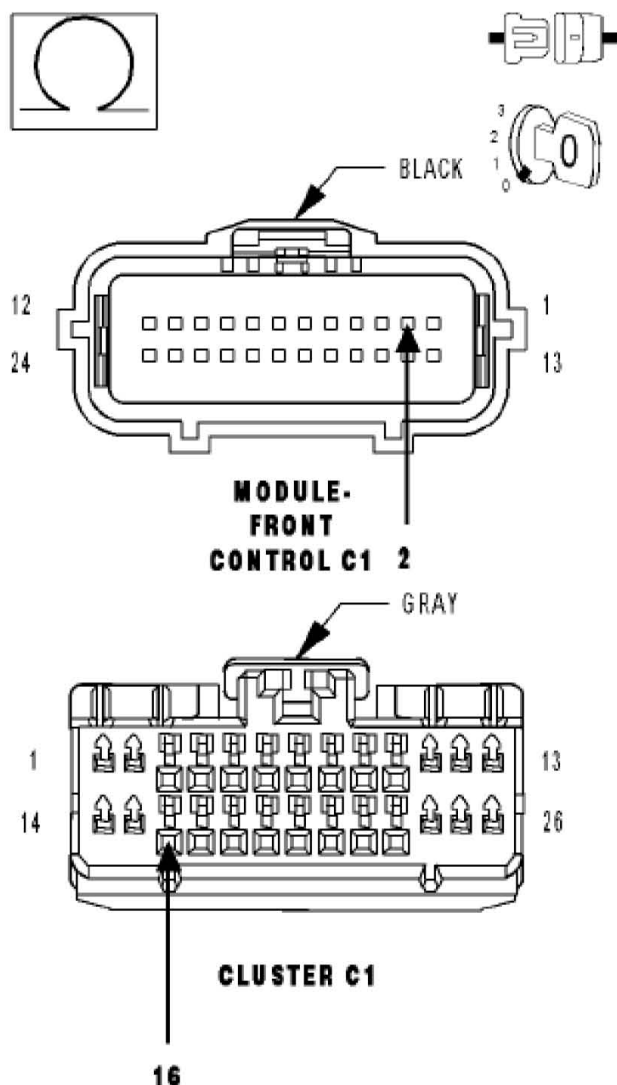
Measure the resistance of the (D55) CAN B Bus (+) circuit between the FCM connector and the Cluster connector.

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.

