

2009 ACCESSORIES AND EQUIPMENT

Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey

U0197-LOST COMMUNICATION WITH HANDS FREE PHONE MODULE (HFM)

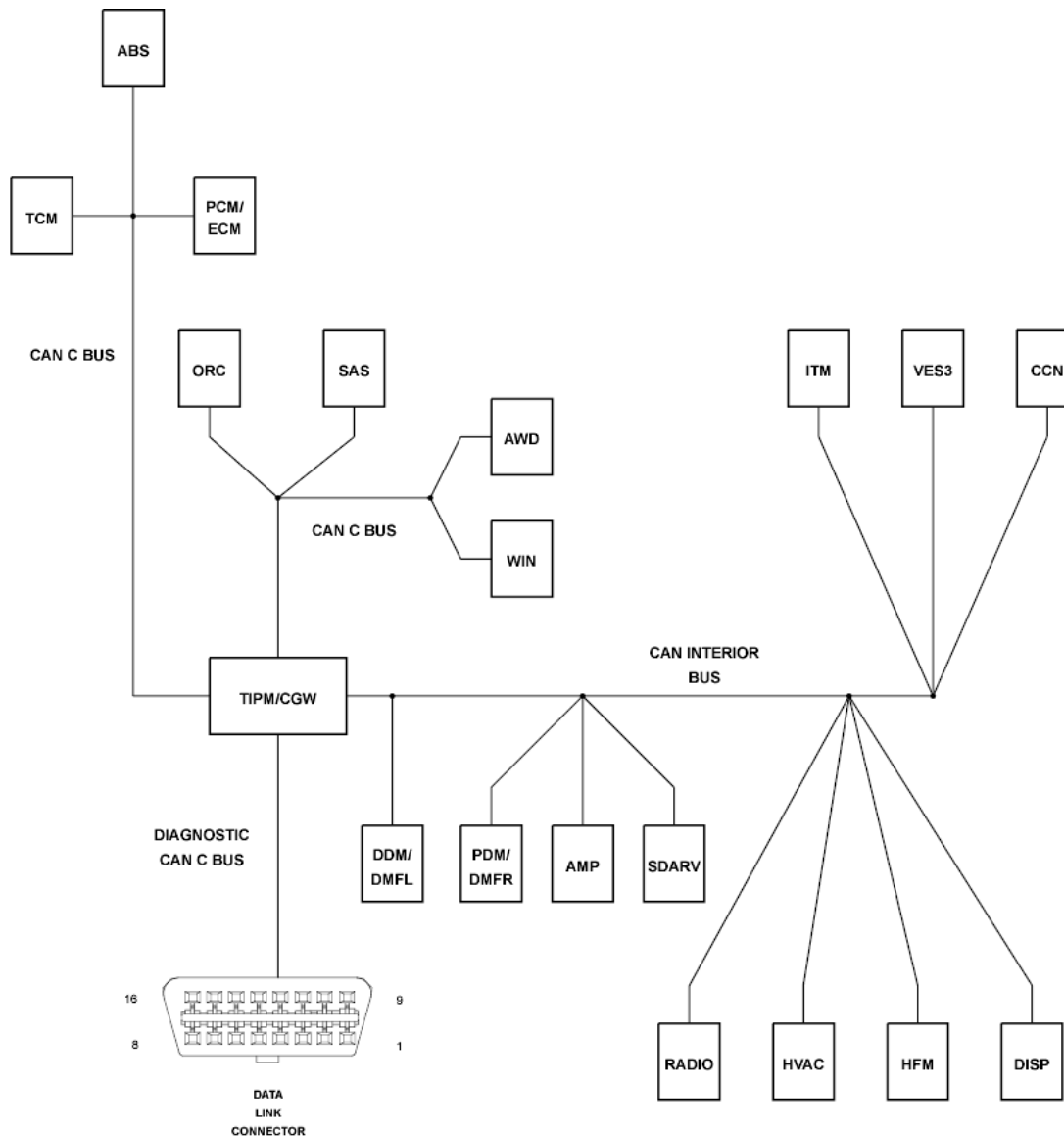


Fig. 1: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to SYSTEM WIRING DIAGRAMS .

- **When Monitored:**

With the ignition on, **CAN BUS COMMUNICATION INTERMITTENT TEST**

Battery voltage between 10 and 16 volts.

IOD fuse installed.

TIPM is configured correctly.

• **Set Condition:**

Bus messages not received from the Hands Free Phone Module (HFM) for approximately 2 to 5 seconds.

Possible Causes

(D265) CAN INTERIOR BUS(+) (125k) CIRCUIT SHORTED TO VOLTAGE
(D264) CAN INTERIOR BUS(-) (125k) CIRCUIT SHORTED TO GROUND
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
HFM POWER AND GROUND
HANDS FREE PHONE MODULE
MODULE THAT SET THE DTC

DIAGNOSTIC TEST

1. VERIFY DTC IS ACTIVE

NOTE: Ensure the IOD fuse is installed and battery voltage is between 10 and 16 volts before proceeding.

1. With the scan tool, read active DTCS.

Is this DTC active?

Yes

- Go to Step 2.

No

- Perform the STORED LOST COMMUNICATION DTCS diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing**.

2. CHECK FOR ANY OF THE FOLLOWING ACTIVE DTCS

1. With the scan tool, read active DTCS from all modules.

NOTE: Check for TIPM configuration, CAN Interior Bus hardware electrical,

VIN Missing/Mismatch, battery or ignition related DTCs.

Does the scan tool display any active DTCs to the conditions listed above?

Yes

- Diagnose and repair the DTC. Refer to the appropriate Diagnostic Information.

No

- Go to Step 3.

3. VERIFY THAT THE HFM IS ACTIVE ON THE BUS

1. Turn the ignition on.
2. With the scan tool, select Network Diagnostics.
3. Verify that the HFM is active on the bus.

Is the HFM active on the bus?

Yes

- Go to Step 4.

No

- Perform the NO RESPONSE FROM HFM diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

4. CHECK FOR ADDITIONAL COMMUNICATION RELATED DTCS

1. With the scan tool, select Network Diagnostics.

Is there more than one module with active DTCs "Logged Against" the HFM?

Yes

- Replace/update the Hands Free Phone Module in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 5.

5. CLEAR DTC IN MODULE SETTING FAULT

1. With the scan tool, select the module setting the DTC against the HFM.
2. Clear active DTCs.

Is this DTC still active?

Yes

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 6.

6. CYCLE IGNITION

1. Cycle the ignition from RUN to OFF three times ending with the key in the RUN position.

Does this DTC become active?

Yes

- Go to Step 7.

No

- The condition is not present at this time. Using **Fig. 1** as a guide, inspect the wiring for chafed, pierced, pinched, and partially broken wires and the wiring harness connectors for broken, bent, pushed out, and corroded terminals.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

7. CHECK FOR ADDITIONAL LOST COMMUNICATION FAULTS

1. With the scan tool, select Network Diagnostics.

Does the TIPM and other CAN Interior BUS (125K) modules show Lost Communication with the remaining CAN Interior BUS (125K) modules?

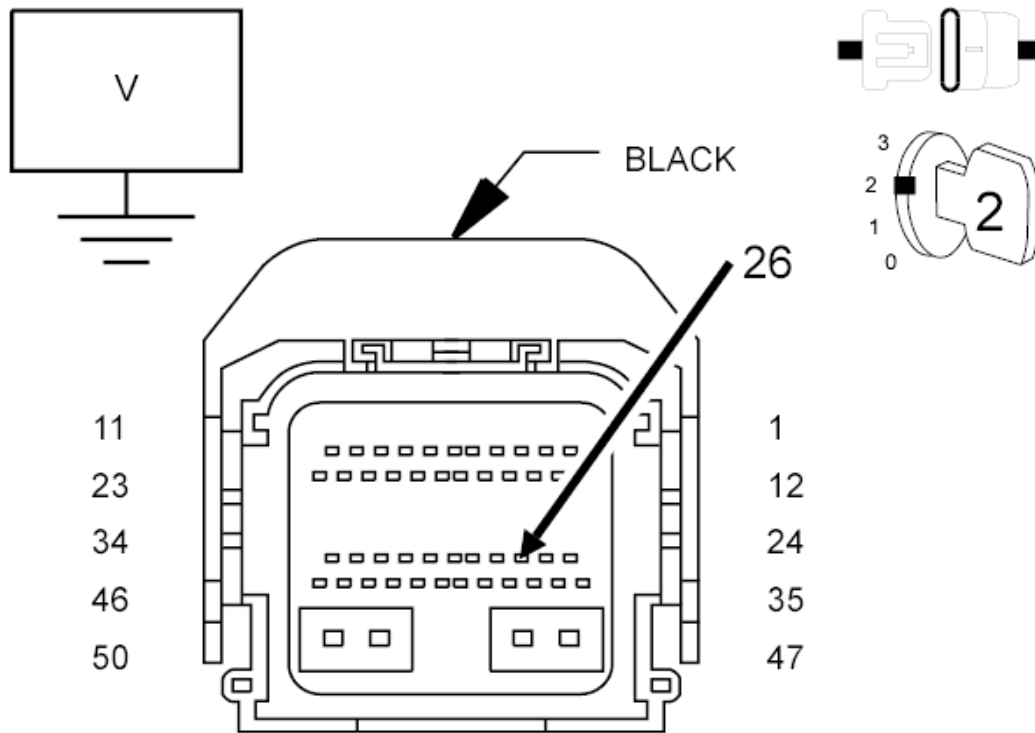
Yes

- Go to Step 8.

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

8. (D265) CAN INTERIOR BUS(+) (125K) CIRCUIT SHORTED TO VOLTAGE



MODULE-
TOTALLY
INTEGRATED
POWER C7

106449

Fig. 2: Measuring Voltage Between CAN Interior Bus(+) Circuit & Ground

Courtesy of CHRYSLER LLC

1. Measure the voltage between the (D265) CAN Interior Bus(+) (125K) circuit and ground.

Is the voltage above 5 volts?

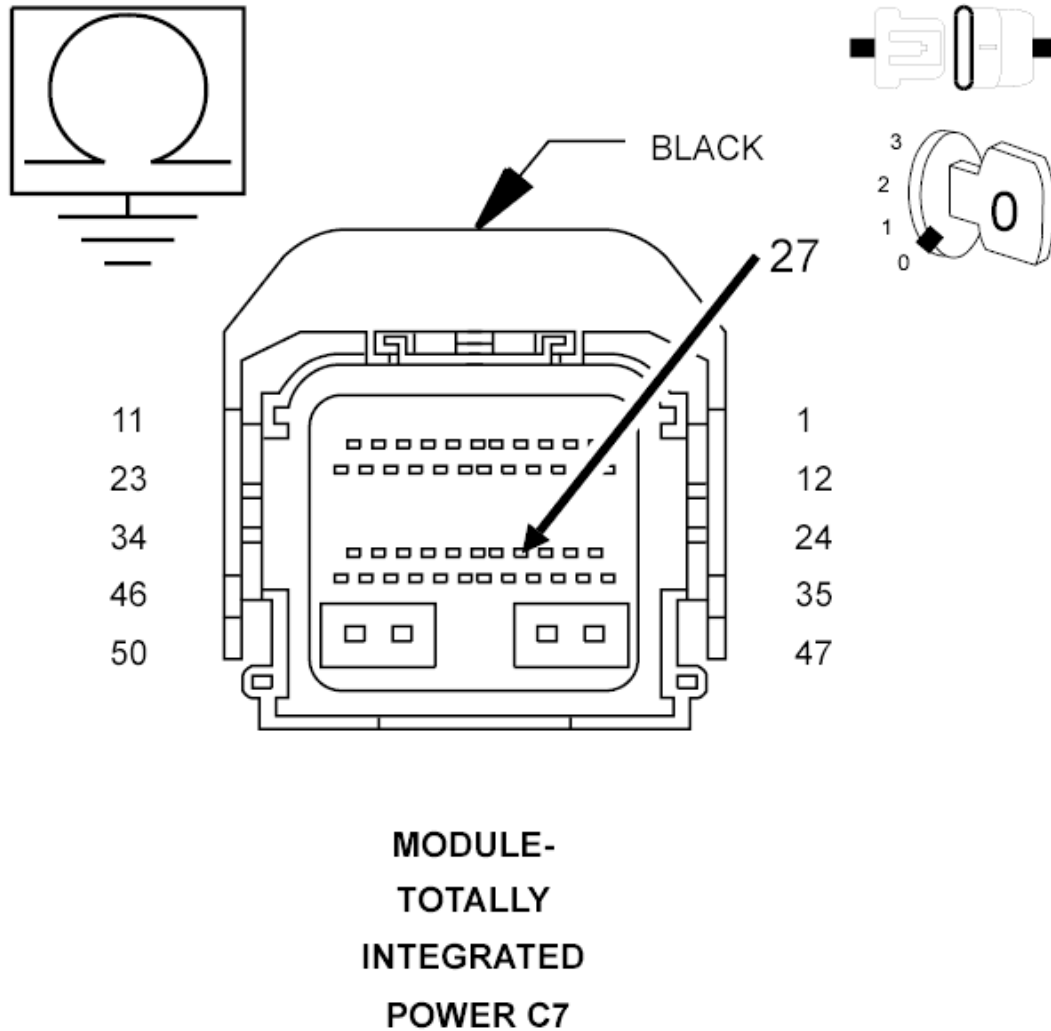
Yes

- Repair the (D265) CAN Interior Bus(+) (125K) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to Step 9.

9. (D264) CAN INTERIOR BUS(-) (125K) CIRCUIT SHORTED TO GROUND



106443

Fig. 3: Measuring Resistance Between Ground & CAN Interior Bus(-) Circuit
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance between ground and the (D264) CAN Interior Bus(-) (125K) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (D264) CAN Interior Bus(-) (125K) circuit for a short to ground.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

U0203-LOST COMMUNICATION WITH LEFT FRONT DOOR MODULE (DMFL) (DRIVER DOOR MODULE)

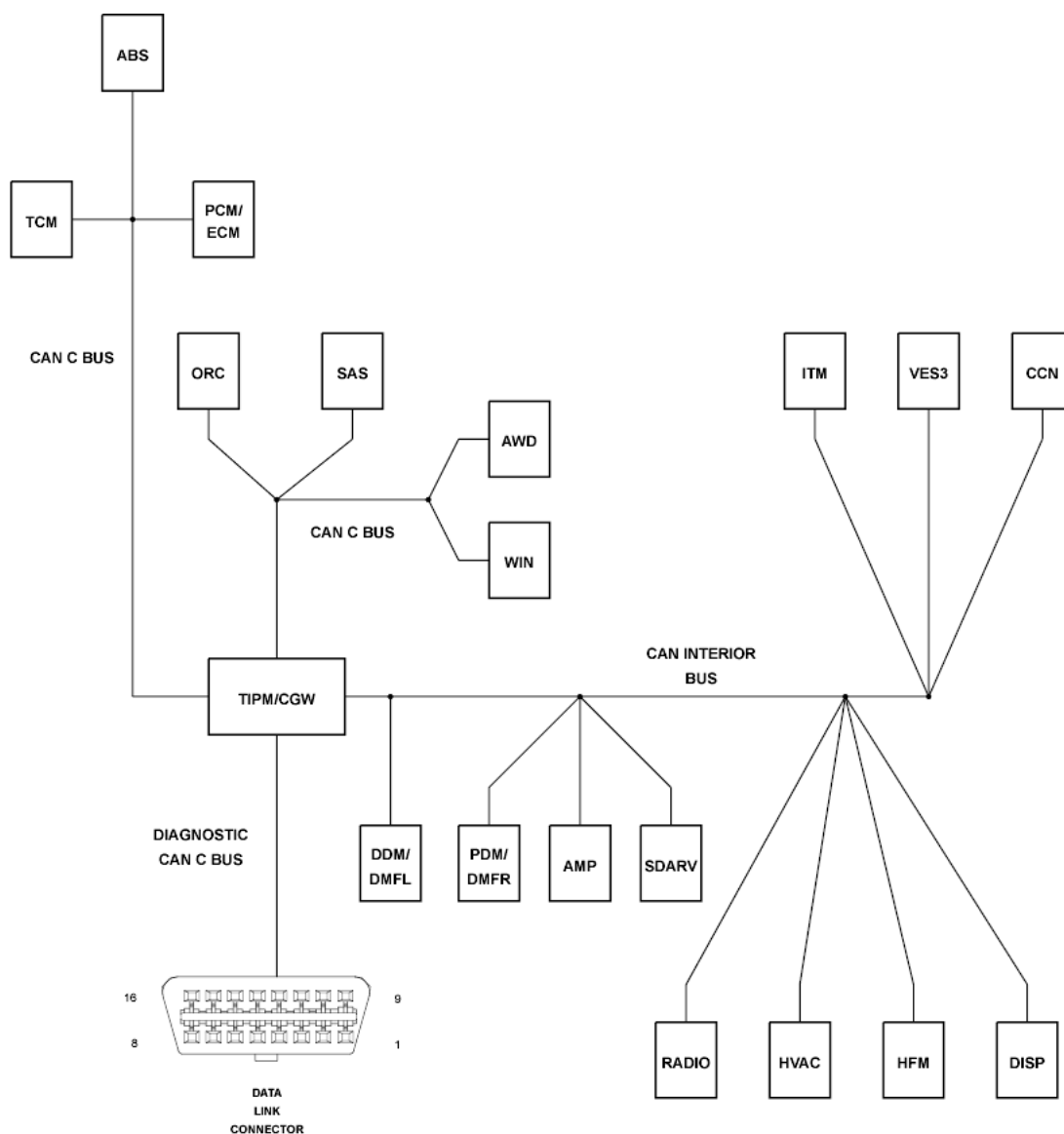


Fig. 4: CAN Interior Bus Circuit Schematic

Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

Battery voltage between 10 and 16 volts.

IOD fuse installed.

TIPM is configured correctly.

- **Set Condition:**

Bus messages not received from the Left Front Door Module (DMFL) (Driver Door Module) for approximately 2 to 5 seconds.

Possible Causes
(D265) CAN INTERIOR BUS(+) (125k) CIRCUIT SHORTED TO VOLTAGE
(D264) CAN INTERIOR BUS(-) (125k) CIRCUIT SHORTED TO GROUND
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
DMFL POWER AND GROUND
LEFT FRONT DOOR MODULE
MODULE THAT SET THE DTC

DIAGNOSTIC TEST**1. VERIFY DTC IS ACTIVE**

NOTE: Ensure the IOD fuse is installed and battery voltage is between 10 and 16 volts before proceeding.

1. With the scan tool, read active DTCs.

Is this DTC active?

Yes

- Go to Step 2.

No

- Perform the STORED LOST COMMUNICATION DTCS diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

2. CHECK FOR ANY OF THE FOLLOWING ACTIVE DTCS

1. With the scan tool, read active DTCS from all modules.

NOTE: Check for TIPM configuration, CAN Interior Bus hardware electrical, VIN Missing/Mismatch, battery or ignition related DTCS.

Does the scan tool display any active DTCS to the conditions listed above?

Yes

- Diagnose and repair the DTC. Refer to the appropriate Diagnostic Information.

No

- Go to Step 3.

3. VERIFY THAT THE DMFL IS ACTIVE ON THE BUS

1. Turn the ignition on.
2. With the scan tool, select Network Diagnostics.
3. Verify that the DMFL is active on the bus.

Is the DMFL active on the bus?

Yes

- Go to Step 4.

No

- Perform the NO RESPONSE FROM DDM (DRIVER DOOR MODULE) diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

4. CHECK FOR ADDITIONAL COMMUNICATION RELATED DTCS

1. With the scan tool, select Network Diagnostics.

Is there more than one module with active DTCS "Logged Against" the DMFL?

Yes

- Replace/update the Left Front Door Module (Driver Door Module) in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 5.

5. CLEAR DTC IN MODULE SETTING FAULT

1. With the scan tool, select the module setting the DTC against the DMFL.
2. Clear active DTCs.

Is this DTC still active?

Yes

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 6.

6. CYCLE IGNITION

1. Cycle the ignition from RUN to OFF three times ending with the key in the RUN position.

Does this DTC become active?

Yes

- Go to Step 7.

No

- The condition is not present at this time. Using **Fig. 4** as a guide, inspect the wiring for chafed, pierced, pinched, and partially broken wires and the wiring harness connectors for broken, bent, pushed out, and corroded terminals.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

7. CHECK FOR ADDITIONAL LOST COMMUNICATION FAULTS

1. With the scan tool, select Network Diagnostics.

Does the TIPM and other CAN Interior BUS (125K) modules show Lost Communication with the remaining CAN Interior BUS (125K) modules?

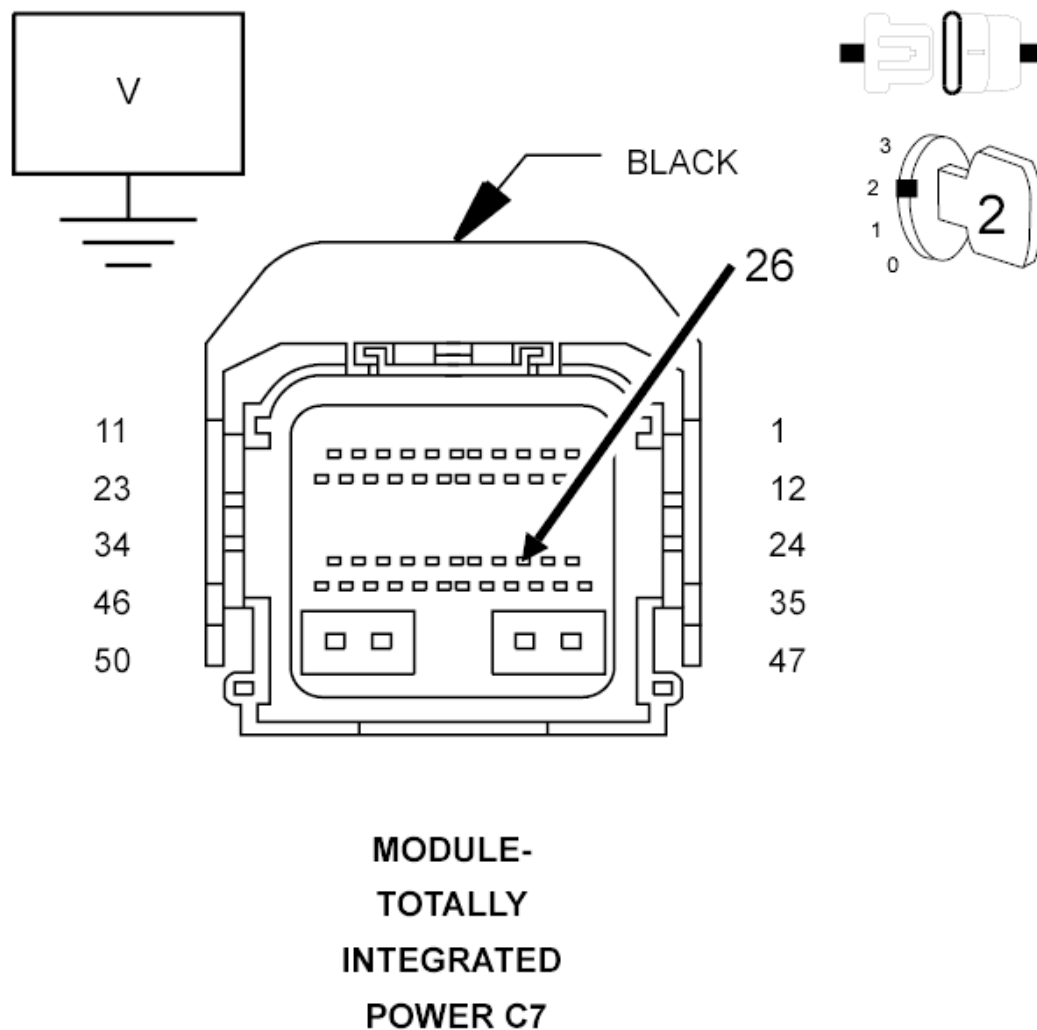
Yes

- Go to Step 8.

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

8. (D265) CAN INTERIOR BUS(+) (125K) CIRCUIT SHORTED TO VOLTAGE



106449

Fig. 5: Measuring Voltage Between CAN Interior Bus(+) Circuit & Ground
 Courtesy of CHRYSLER LLC

1. Measure the voltage between the (D265) CAN Interior Bus(+) (125K) circuit and ground.

Is the voltage above 5 volts?

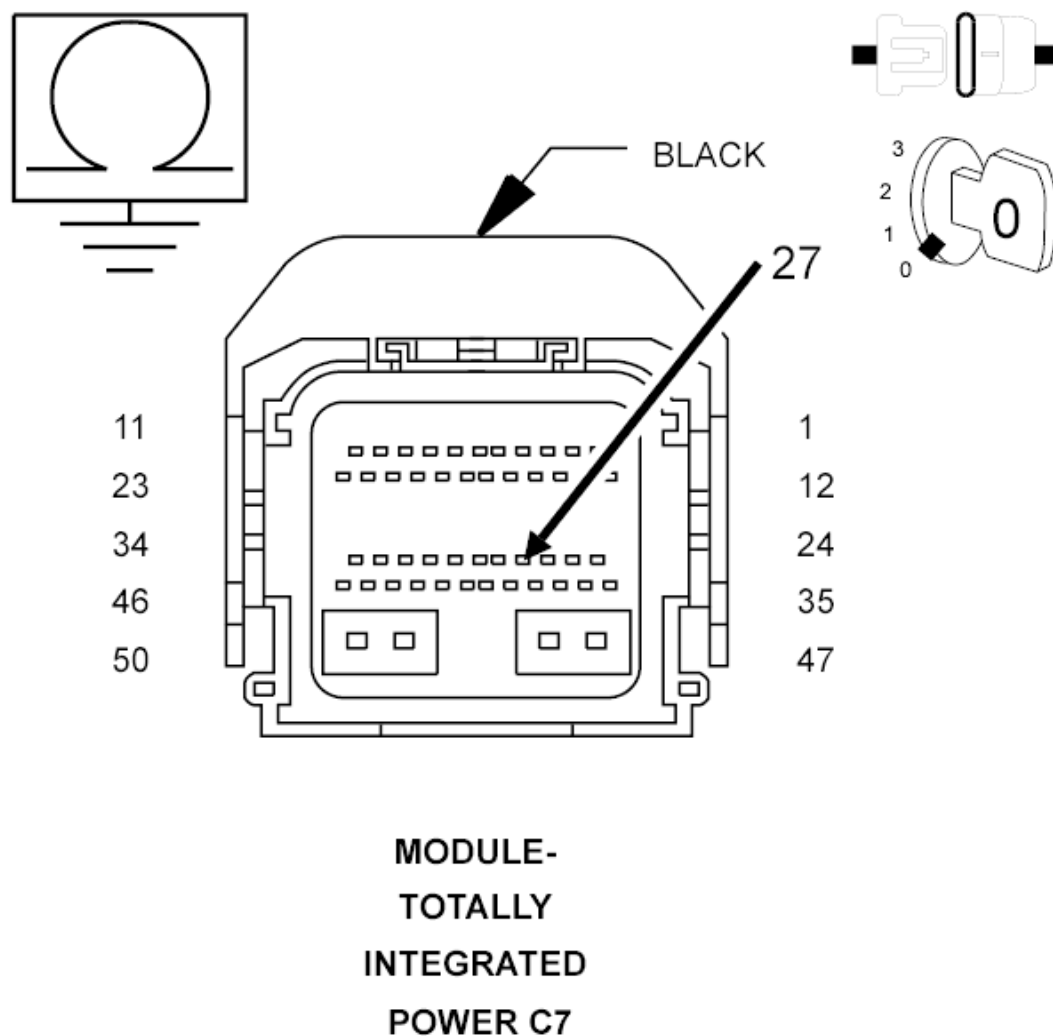
Yes

- Repair the (D265) CAN Interior Bus(+) (125K) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to Step 9.

9. (D264) CAN INTERIOR BUS(-) (125K) CIRCUIT SHORTED TO GROUND



106443

Fig. 6: Measuring Resistance Between Ground & CAN Interior Bus(-) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance between ground and the (D264) CAN Interior Bus(-) (125K) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (D264) CAN Interior Bus(-) (125K) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

U0203-LOST COMMUNICATION WITH RIGHT FRONT DOOR MODULE (DMFR) (PASSENGER DOOR MODULE)

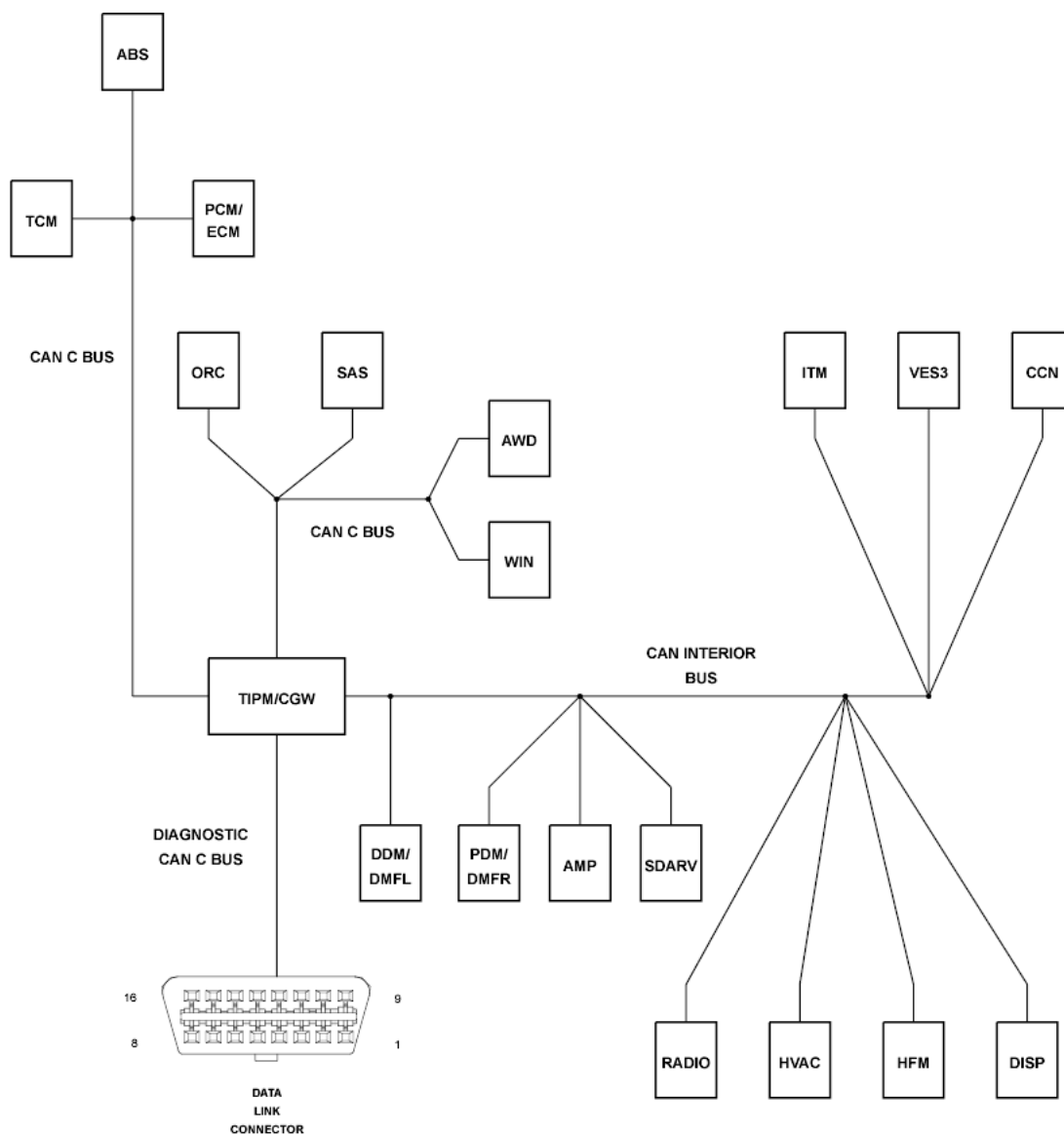


Fig. 7: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

With the ignition on.

Battery voltage between 10 and 16 volts.

IOD fuse installed.

TIPM is configured correctly.

• **Set Condition:**

Bus messages not received from the Door Module Front Right (DMFR) (Passenger Door Module) for approximately 2 to 5 seconds.

Possible Causes

(D265) CAN INTERIOR BUS(+) (125k) CIRCUIT SHORTED TO VOLTAGE
 (D264) CAN INTERIOR BUS(-) (125k) CIRCUIT SHORTED TO GROUND
 DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
 TIPM NOT CONFIGURED CORRECTLY
 DMFR POWER AND GROUND
 RIGHT FRONT DOOR MODULE (PASSENGER DOOR MODULE)
 MODULE THAT SET THE DTC

DIAGNOSTIC TEST

1. VERIFY DTC IS ACTIVE

NOTE: Ensure the IOD fuse is installed and battery voltage is between 10 and 16 volts before proceeding.

1. With the scan tool, read active DTCs.

Is this DTC active?

Yes

- Go to Step 2.

No

- Perform the STORED LOST COMMUNICATION DTCS diagnostic procedure. Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing .

2. CHECK FOR ANY OF THE FOLLOWING ACTIVE DTCS

1. With the scan tool, read active DTCs from all modules.

NOTE: Check for TIPM configuration, CAN Interior Bus hardware electrical, VIN Missing/Mismatch, battery or ignition related DTCs.

Does the scan tool display any active DTCs to the conditions listed above?

Yes

- Diagnose and repair the DTC. Refer to appropriate Diagnostic Information.

No

- Go to Step 3.

3. VERIFY THAT THE DMFR IS ACTIVE ON THE BUS

1. Turn the ignition on.
2. With the scan tool, select Network Diagnostics.
3. Verify that the DMFR is active on the bus.

Is the DMFR active on the bus?

Yes

- Go to Step 4.

No

- Perform the NO RESPONSE FROM PDM (PASSENGER DOOR MODULE) diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

4. CHECK FOR ADDITIONAL COMMUNICATION RELATED DTCS

1. With the scan tool, select Network Diagnostics.

Is there more than one module with active DTCs "Logged Against" the DMFR?

Yes

- Replace/update the Right Front Door Module in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 5.

5. CLEAR DTC IN MODULE SETTING FAULT

1. With the scan tool, select the module setting the DTC against the DMFR.
2. Clear active DTCs.

Is this DTC still active?

Yes

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 6.

6. CYCLE IGNITION

1. Cycle the ignition from RUN to OFF three times ending with the key in the RUN position.

Does this DTC become active?

Yes

- Go to Step 7.

No

- The condition is not present at this time. Using **Fig. 7** as a guide, inspect the wiring for chafed, pierced, pinched, and partially broken wires and the wiring harness connectors for broken, bent, pushed out, and corroded terminals.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

7. CHECK FOR ADDITIONAL LOST COMMUNICATION FAULTS

1. With the scan tool, select Network Diagnostics.

Does the TIPM and other CAN Interior BUS (125K) modules show Lost Communication with the remaining CAN Interior BUS (125K) modules?

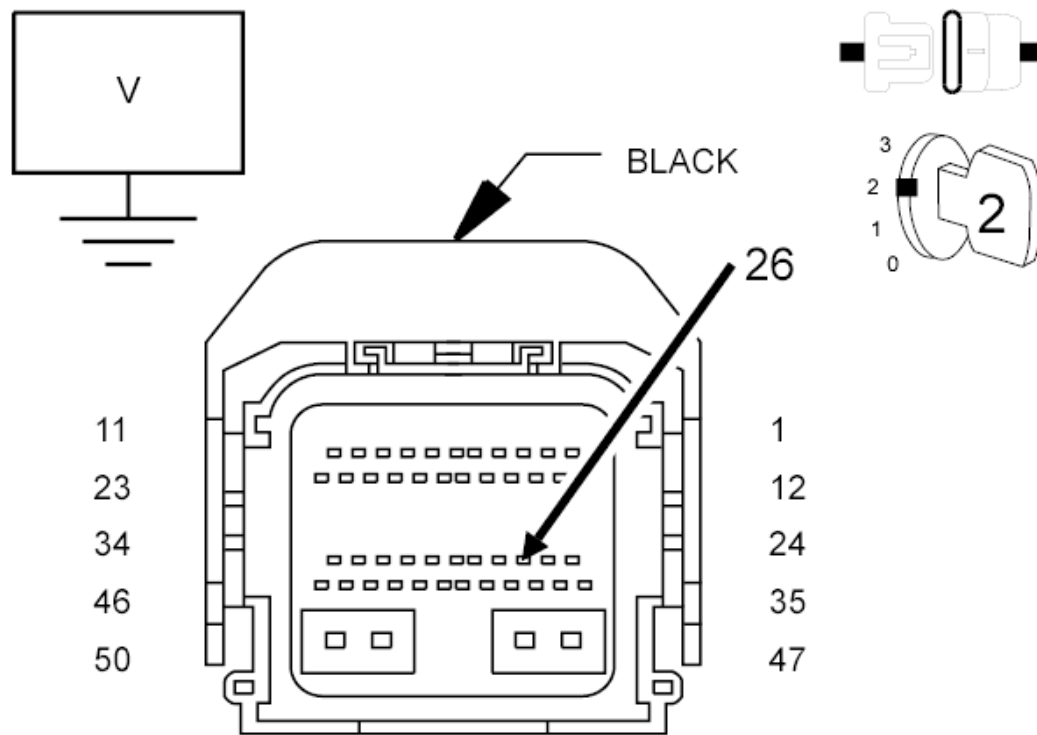
Yes

- Go to Step 8.

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

8. (D265) CAN INTERIOR BUS(+) (125K) CIRCUIT SHORTED TO VOLTAGE



MODULE-
TOTALLY
INTEGRATED
POWER C7

106449

Fig. 8: Measuring Voltage Between CAN Interior Bus(+) Circuit & Ground

Courtesy of CHRYSLER LLC

1. Measure the voltage between the (D265) CAN Interior Bus(+) (125K) circuit and ground.

Is the voltage above 5 volts?

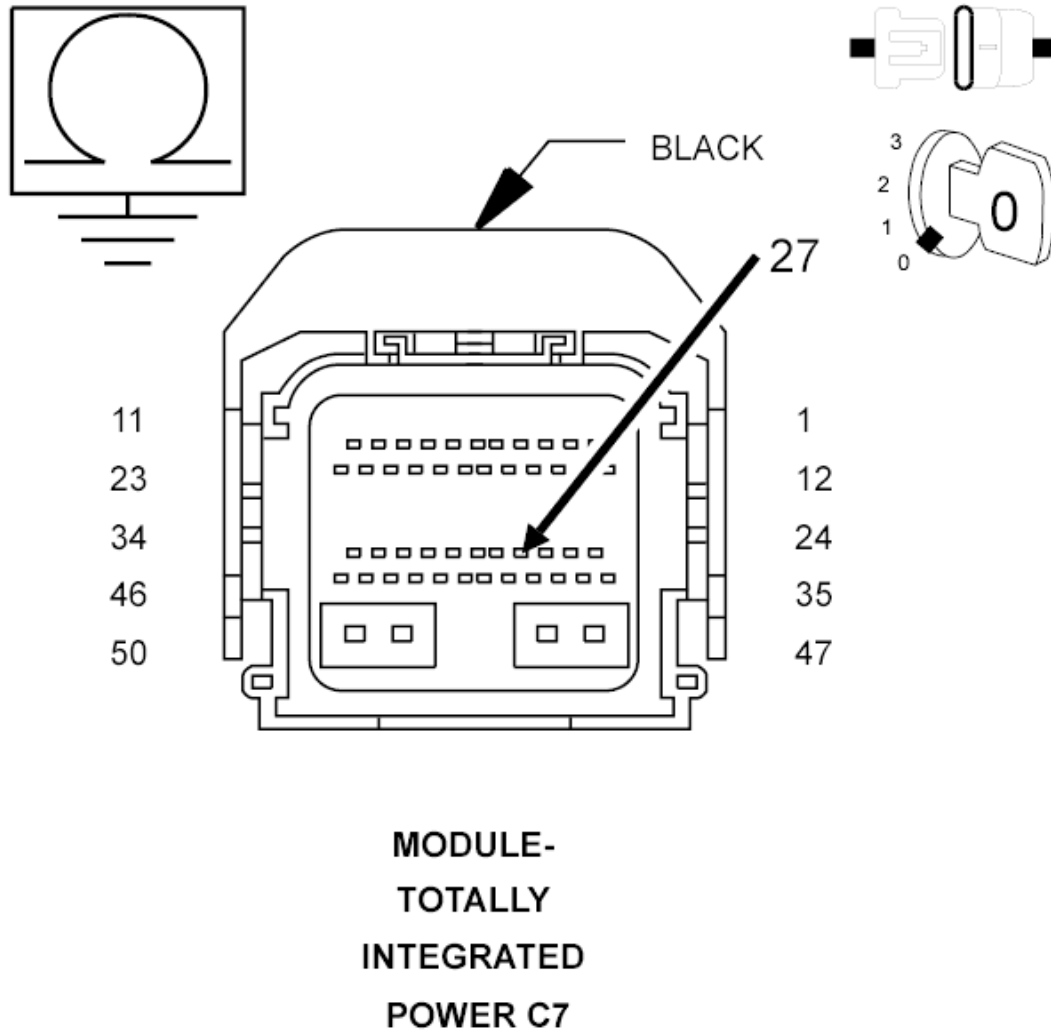
Yes

- Repair the (D265) CAN Interior Bus(+) (125K) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to Step 9.

9. (D264) CAN INTERIOR BUS(-) (125K) CIRCUIT SHORTED TO GROUND



106443

Fig. 9: Measuring Resistance Between Ground & CAN Interior Bus(-) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance between ground and the (D264) CAN Interior Bus(-) (125K) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (D264) CAN Interior Bus(-) (125K) circuit for a short to ground.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

U0249-LOST COMMUNICATION WITH VEHICLE ENTERTAINMENT CONTROL MODULE - LAST ROW (VES3)

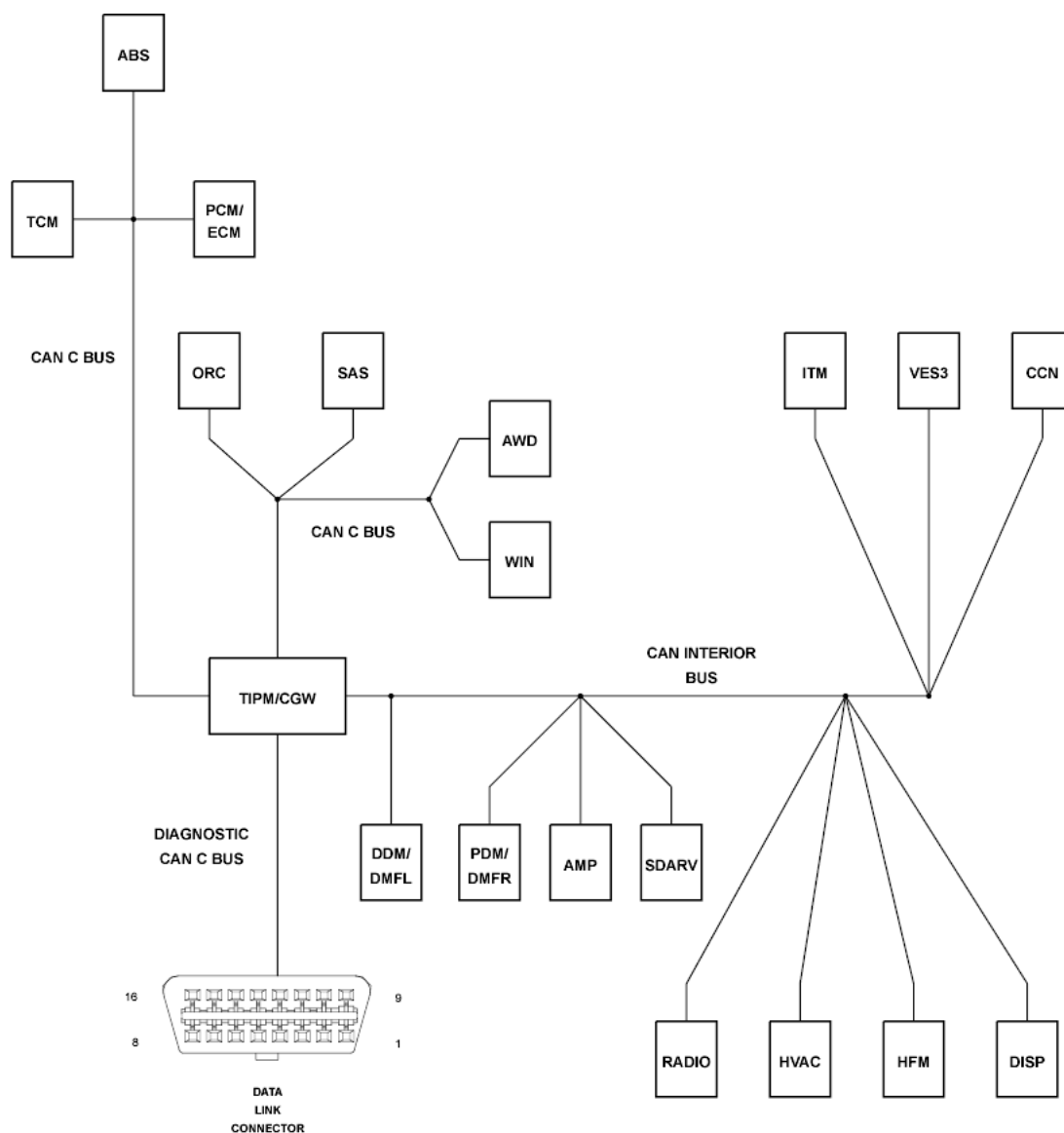


Fig. 10: CAN Interior Bus Circuit Schematic

Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

Battery voltage between 10 and 16 volts.

IOD fuse installed.

TIPM is configured correctly.

- **Set Condition:**

Bus messages not received from the Vehicle Entertainment Control Module - Last Row (VES3) for approximately 2 to 5 seconds.

Possible Causes
(D265) CAN INTERIOR BUS(+) (125k) CIRCUIT SHORTED TO VOLTAGE
(D264) CAN INTERIOR BUS(-) (125k) CIRCUIT SHORTED TO GROUND
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
VES3 POWER AND GROUND
VEHICLE ENTERTAINMENT CONTROL MODULE - LAST ROW
MODULE THAT SET THE DTC

DIAGNOSTIC TEST**1. VERIFY DTC IS ACTIVE**

NOTE: **Ensure the IOD fuse is installed and battery voltage is between 10 and 16 volts before proceeding.**

1. With the scan tool, read active DTCs.

Is this DTC active?

Yes

- Go to Step 2.

No

- Perform the STORED LOST COMMUNICATION DTCS diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

2. CHECK FOR ANY OF THE FOLLOWING ACTIVE DTCS

1. With the scan tool, read active DTCS from all modules.

NOTE: Check for TIPM configuration, CAN Interior Bus hardware electrical, VIN Missing/Mismatch, battery or ignition related DTCS.

Does the scan tool display any active DTCS to the conditions listed above?

Yes

- Diagnose and repair the DTC. Refer to the appropriate Diagnostic Information.

No

- Go to Step 3.

3. VERIFY THAT THE VES3 IS ACTIVE ON THE BUS

1. Turn the ignition on.
2. With the scan tool, select Network Diagnostics.
3. Verify that the VES3 is active on the bus.

Is the VES3 active on the bus?

Yes

- Go to Step 4.

No

- Perform the NO RESPONSE FROM VES3 (VIDEO SCREEN MODULE) diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

4. CHECK FOR ADDITIONAL COMMUNICATION RELATED DTCS

1. With the scan tool, select Network Diagnostics.

Is there more than one module with active DTCS "Logged Against" the VES3?

Yes

- Replace/update the Vehicle Entertainment Control Module - Last Row (VES3) in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 5.

5. CLEAR DTC IN MODULE SETTING FAULT

1. With the scan tool, select the module setting the DTC against the VES3.
2. Clear active DTCs.

Is this DTC still active?

Yes

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 6.

6. CYCLE IGNITION

1. Cycle the ignition from RUN to OFF three times ending with the key in the RUN position.

Does this DTC become active?

Yes

- Go to Step 7.

No

- The condition is not present at this time. Using **Fig. 10** as a guide, inspect the wiring for chafed, pierced, pinched, and partially broken wires and the wiring harness connectors for broken, bent, pushed out, and corroded terminals.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

7. CHECK FOR ADDITIONAL LOST COMMUNICATION FAULTS

1. With the scan tool, select Network Diagnostics.

Does the TIPM and other CAN Interior BUS (125K) modules show Lost Communication with the remaining CAN Interior BUS (125K) modules?

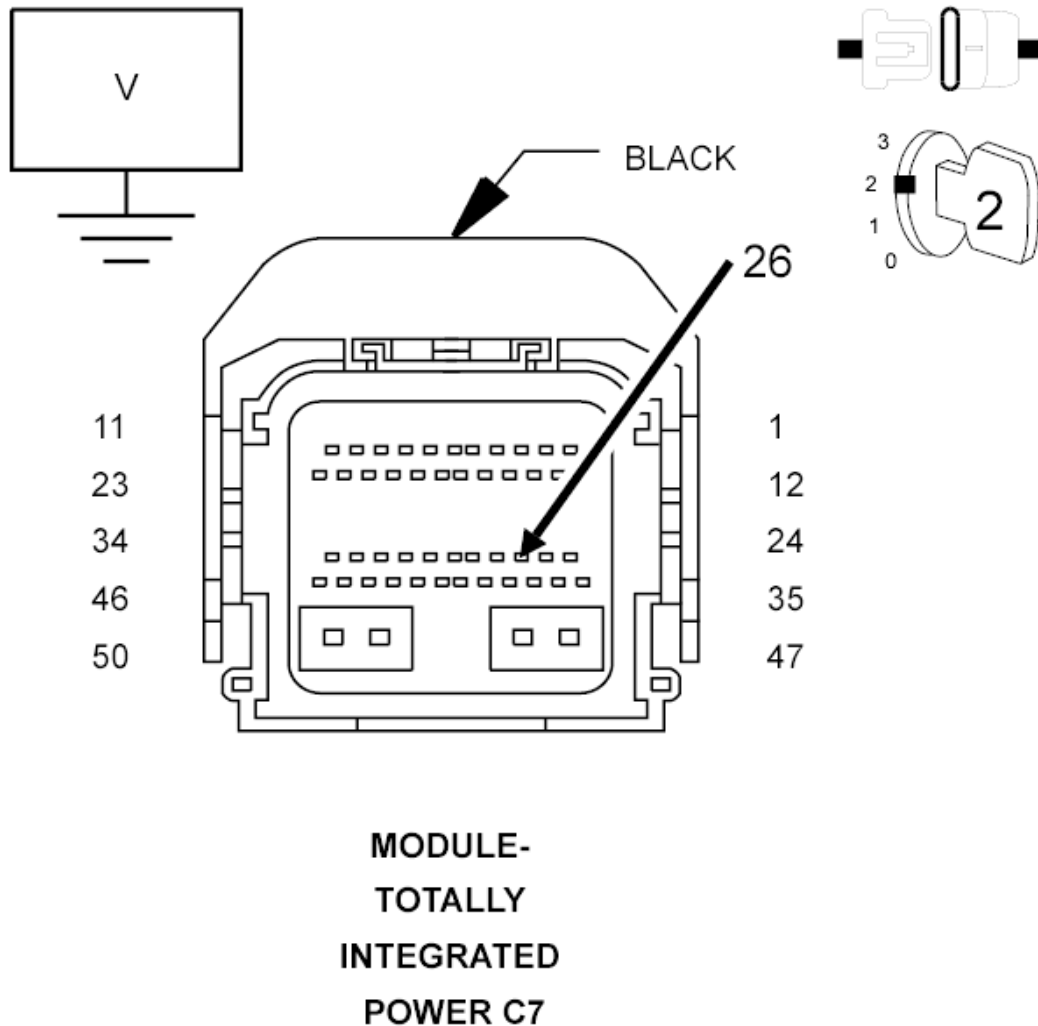
Yes

- Go to Step 8.

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

8. (D265) CAN INTERIOR BUS(+) (125K) CIRCUIT SHORTED TO VOLTAGE



106449

Fig. 11: Measuring Voltage Between CAN Interior Bus(+) Circuit & Ground
 Courtesy of CHRYSLER LLC

1. Measure the voltage between the (D265) CAN Interior Bus(+) (125K) circuit and ground.

Is the voltage above 5 volts?

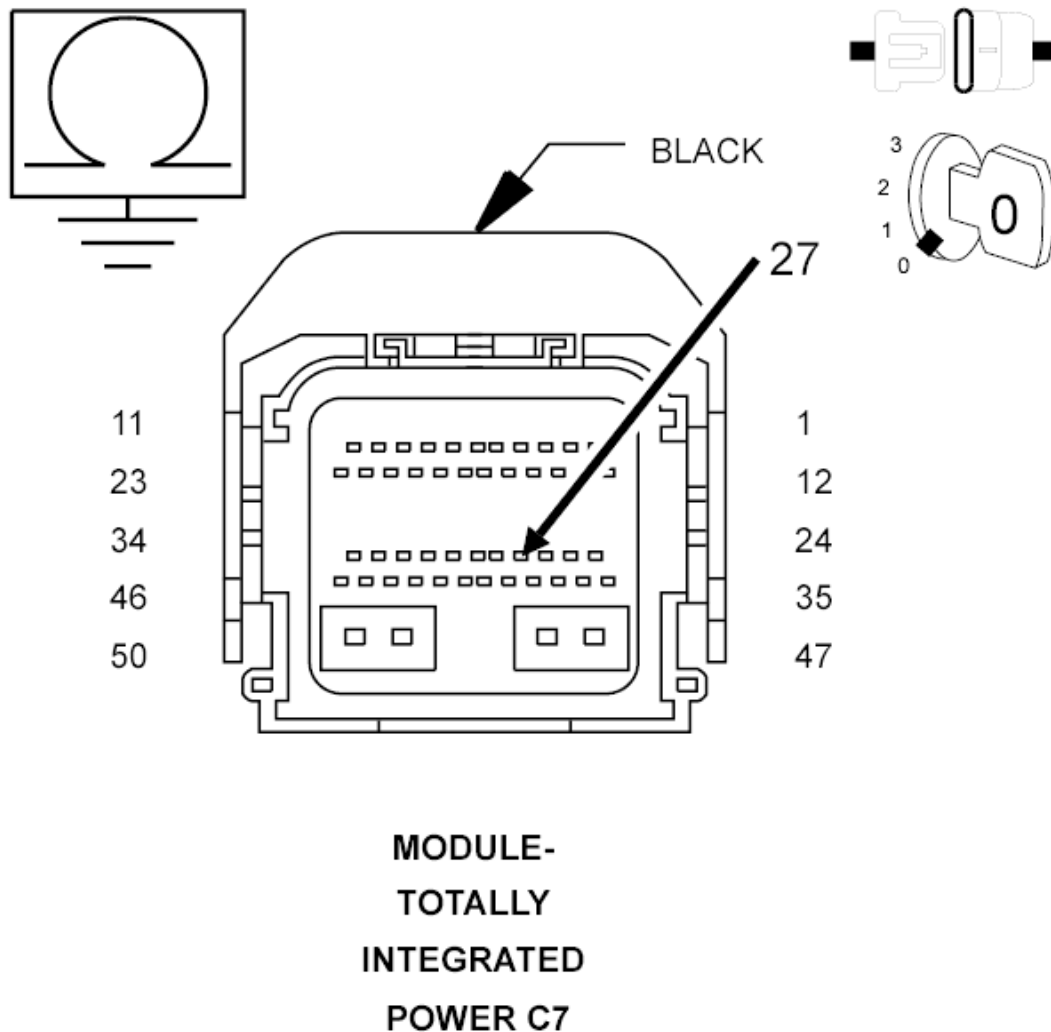
Yes

- Repair the (D265) CAN Interior Bus(+) (125K) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 9.

9. (D264) CAN INTERIOR BUS(-) (125K) CIRCUIT SHORTED TO GROUND



106443

Fig. 12: Measuring Resistance Between Ground & CAN Interior Bus(-) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance between ground and the (D264) CAN Interior Bus(-) (125K) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (D264) CAN Interior Bus(-) (125K) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

U0255-LOST COMMUNICATION WITH DISPLAY

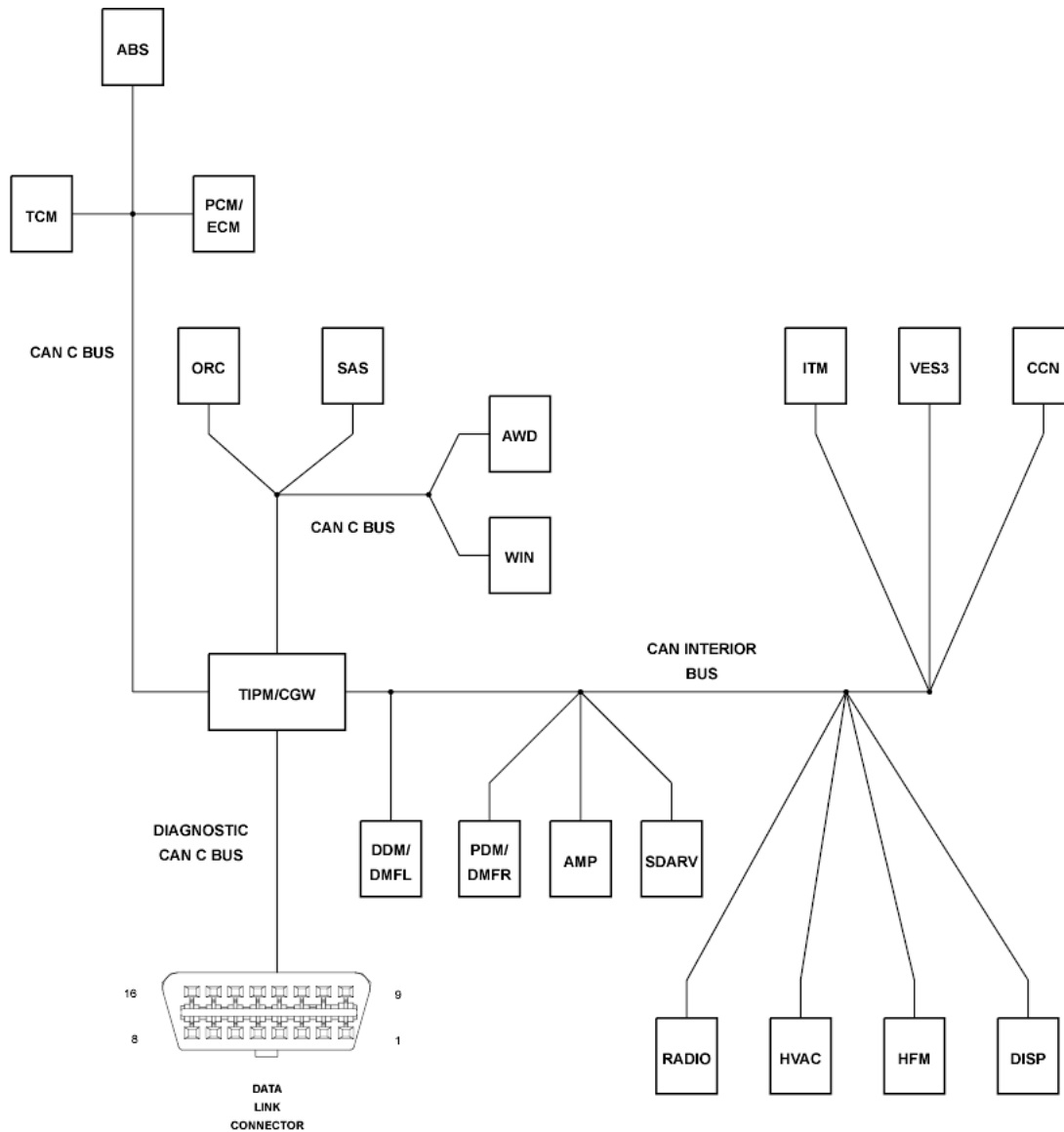


Fig. 13: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

With the ignition on.

Battery voltage between 10 and 16 Volts.

Ignition Off Draw (IOD) fuse installed.

Totally Integrated Power Module (TIPM) is configured correctly.

• **Set Condition:**

Bus messages not received from the Hands Free Phone Module (HFM) for approximately two to five seconds.

Possible Causes

(D265) CAN INTERIOR BUS(+) (125k) CIRCUIT SHORTED TO VOLTAGE
 (D264) CAN INTERIOR BUS(-) (125k) CIRCUIT SHORTED TO GROUND
 DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
 TIPM NOT CONFIGURED CORRECTLY
 DISP POWER AND GROUND
 RADIO DISPLAY MODULE
 MODULE THAT SET THE DTC

DIAGNOSTIC TEST

1. VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE

NOTE: Make sure the IOD fuse is installed and battery voltage is between 10 and 16 Volts before proceeding.

NOTE: Loss of communication from the radio may also be caused by a radio reset, which may be the result of updating software with a disc. Following the flash, the radio automatically resets and may cause a stored loss of communication fault. For this reason, clear faults after flash updates.

1. Using the scan tool, read active DTCs.

Is this DTC active?

Yes

- Go to Step 2.

No

- Perform the STORED LOST COMMUNICATION DTCS diagnostic procedure. Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing.

2. CHECK FOR ANY OF THE FOLLOWING ACTIVE DTCS

1. Using the scan tool, read active DTCs from all modules.

NOTE: Check for TIPM configuration, CAN Interior Bus hardware electrical, VIN Missing/Mismatch, battery or ignition related DTCs.

Does the scan tool display any active DTCs to the conditions listed above?

Yes

- Refer to the appropriate Diagnostic Information, and perform the appropriate diagnostic procedure.

No

- Go to Step 3.

3. VERIFY THAT THE HFM IS ACTIVE ON THE BUS

1. Turn the ignition on.
2. Using the scan tool, select Network Diagnostics.
3. Verify that the Radio Display Module is active on the bus.

Is the DISP active on the bus?

Yes

- Go to Step 4.

No

- Perform the NO RESPONSE FROM DISP - FRONT DISPLAY (RADIO MODULE) diagnostic procedure. Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** .

4. CHECK FOR ADDITIONAL COMMUNICATION RELATED DTCS

1. Using the scan tool, select Network Diagnostics.

Is there more than one module with active DTCs "Logged Against" the Radio Display Module?

Yes

- Replace/update the Radio Display Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 5.

5. CLEAR DTC IN MODULE SETTING FAULT

1. Using the scan tool, select the module setting the DTC against the DISP.
2. Clear active DTCs.

Is this DTC still active?

Yes

- Replace/update the module that set this DTC in accordance with the Service Information.
- Perform the appropriate verification test for the module being replaced. If there is no verification test for the associated module, perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 6.

6. CYCLE IGNITION

1. Cycle the ignition from RUN to OFF three times ending with the key in the RUN position.

Does this DTC become active?

Yes

- Go to Step 7.

No

- The condition is not present at this time. Using **Fig. 13** as a guide, inspect the wiring for chafed, pierced, pinched and partially broken wires and the wiring harness connectors for broken, bent, pushed out and corroded terminals.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

7. CHECK FOR ADDITIONAL LOST COMMUNICATION FAULTS

1. Using the scan tool, select Network Diagnostics.

Does the TIPM and other CAN Interior BUS (125K) modules show Lost Communication with the remaining CAN Interior BUS (125K) modules?

Yes

- Go to Step 8.

No

- Replace/update the module that set this DTC in accordance with the Service Information.
- Perform the appropriate verification test for the module being replaced. If there is no verification test for the associated module, perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard**

Procedure .**8. (D265) CAN INTERIOR BUS(+) (125K) CIRCUIT SHORTED TO VOLTAGE**

1. Measure the voltage between the (D265) CAN Interior Bus(+) (125K) circuit and ground.

Is the voltage above 5 volts?

Yes

- Repair the (D265) CAN Interior Bus(+) (125K) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .**

No

- Go to Step 9.

9. (D264) CAN INTERIOR BUS(-) (125K) CIRCUIT SHORTED TO GROUND

1. Turn the ignition off.
2. Measure the resistance between ground and the (D264) CAN Interior Bus(-) (125K) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (D264) CAN Interior Bus(-) (125K) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .**

No

- Replace/update the module that set this DTC in accordance with the Service Information.
- Perform the appropriate verification test for the module being replaced. If there is no verification test for the associated module, perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .**

U1147-ADDITIONAL CAN INTERIOR BUS ECU DETECTED

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS .**

- **When Monitored:**

Continuously.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) detects an additional CAN Interior Bus module and requires reprogramming.

Possible Causes
ADDITIONAL MODULE ADDED/REMOVED FROM THE CAN INTERIOR BUS NETWORK

DIAGNOSTIC TEST**1. REPROGRAM THE TOTALLY INTEGRATED POWER MODULE (TIPM)**

1. Turn the ignition on.
2. With the scan tool, select network view and select the CAN Interior Bus. This will list the CAN Interior Bus modules on the vehicle. Read and record the listed modules.
3. With the scan tool, select TIPM, miscellaneous functions then add/remove ECUs.
4. With the scan tool, add or remove the module that was not configured in the TIPM.
5. With the scan tool, erase DTC's.
6. Cycle the ignition from on to off 3 times and read the active TIPM DTC's.

Does the scan tool display this DTC as active?

Yes

- Retest system and attempt to reprogram the TIPM.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair is complete.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

U1148-ADDITIONAL CAN C BUS ECU DETECTED

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) detects an additional CAN C Bus module and requires reprogramming.

Possible Causes

ADDITIONAL MODULE ADDED/REMOVED FROM THE CAN C BUS NETWORK

DIAGNOSTIC TEST**1. REPROGRAM THE TOTALLY INTEGRATED POWER MODULE (TIPM)**

1. Turn the ignition on.
2. With the scan tool, select network view and select the CAN C Bus network. This will list the CAN C Bus modules on the vehicle. Read and record the listed modules.
3. With the scan tool, select TIPM, miscellaneous functions then add/remove ECUs.
4. With the scan tool, add or remove the module that was not configured in the TIPM.
5. With the scan tool, erase DTC's.
6. Cycle the ignition from on to off 3 times and read the active TIPM DTC's.

Does the scan tool display this DTC as active?

Yes

- Retest system and attempt to reprogram the TIPM.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair is complete.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .