

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Video Entertainment System (VES3) - Electrical Diagnostics - Journey

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DIAGNOSTIC CODE INDEX

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DTC	Description
<u>B142B</u>	VES UNIT HIGH TEMPERATURE
<u>B14CE</u>	VES BRIGHTNESS UP INPUT BUTTON STUCK
<u>B14CF</u>	VES BRIGHTNESS DOWN INPUT BUTTON STUCK
<u>B210A</u>	SYSTEM VOLTAGE LOW
<u>B210B</u>	SYSTEM VOLTAGE HIGH
<u>B210D</u>	BATTERY VOLTAGE LOW
<u>B210E</u>	BATTERY VOLTAGE HIGH
<u>B21A1</u>	ECU RESET/RECOVERY OCCURRED
<u>B222B</u>	VEHICLE ENTERTAINMENT SYSTEM INTERNAL
<u>B222C</u>	VEHICLE CONFIGURATION NOT PROGRAMMED
<u>U0010</u>	CAN INTERIOR BUS
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<u>U0141</u>	LOST COMMUNICATION WITH IPM (FCM/TIPM)
<u>U0155</u>	LOST COMMUNICATION WITH CLUSTER/CCN
<u>U0184</u>	LOST COMMUNICATION WITH RADIO

DIAGNOSIS AND TESTING

B142B-VES UNIT HIGH TEMPERATURE

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

- **When Monitored:**

With the ignition on. VES active.

- **Set Condition:**

The Video Screen Module temperature is above 90°C (194°F).

Possible Causes
VIDEO SCREEN MODULE HIGH TEMPERATURE

Diagnostic Test

1. VIDEO SCREEN MODULE HIGH TEMPERATURE

1. Turn the ignition on.
2. With the scan tool, clear all VES DTCs.
3. Turn the VES on.
4. With the scan tool, read the DTC information.

Does the scan tool read: B142B-VES UNIT HIGH TEMPERATURE?

Yes

- Turn the Video Screen Module off and allow the unit to cool.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test Complete.

B14CE-VES BRIGHTNESS UP INPUT BUTTON STUCK

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

• When Monitored:

With the ignition on. VES active.

• Set Condition:

The Video Screen Module detects a closed switch for 60 seconds.

Possible Causes
VIDEO SCREEN MODULE

Diagnostic Test

1. VERIFY OPERATION OF THE BUTTON

1. With the scan tool, erase DTCs.
2. Press and release the button three times.
3. Wait 30 seconds.
4. With the scan tool, read DTCs.

Is DTC B14CE-VES BRIGHTNESS UP INPUT BUTTON STUCK active?

Yes

- Replace the Video Screen Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B14CF-VES BRIGHTNESS DOWN INPUT BUTTON STUCK

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

- **When Monitored:**

With the ignition on. VES active.

- **Set Condition:**

The Video Screen Module detects a closed switch for 60 seconds.

Possible Causes
VIDEO SCREEN MODULE

Diagnostic Test

1. VERIFY OPERATION OF THE BUTTON

1. With the scan tool, erase DTCs.
2. Press and release the button three times.
3. Wait 30 seconds.
4. With the scan tool, read DTCs.

Is DTC: active?

Yes

- Replace the Video Screen Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete.

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

B210A-SYSTEM VOLTAGE LOW

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

This is a CAN message that the battery voltage was below 10 volts for over 20 seconds.

Possible Causes
LOW SYSTEM VOLTAGE BATTERY OR CHARGING SYSTEM

Diagnostic Test

1. CHECK ENGINE DTCs

1. With the scan tool, read Engine DTCs.

Are there any ENGINE Charging or Battery DTCs present?

Yes

- Perform the appropriate diagnostic procedure. Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** .

No

- This code is for information only. At some time there was a low battery system voltage. Check the battery and charging system in accordance with the Service Information.

B210B-SYSTEM VOLTAGE HIGH

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

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This is a CAN message that the battery voltage was above 16 volts for over 20 seconds.

Possible Causes

HIGH SYSTEM VOLTAGE
BATTERY OR CHARGING SYSTEM

Diagnostic Test

1. CHECK ENGINE DTCs

1. With the scan tool, read Engine DTCs.

Are there any ENGINE Charging or Battery DTCs present?

Yes

- Perform the appropriate diagnostic procedure. Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** .

No

- This code is for information only. At some time there was a low battery system voltage. Check the battery and charging system in accordance with the Service Information.

B210D-BATTERY VOLTAGE LOW

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

Battery voltage less than 10 volts for more than 20 seconds.

Possible Causes

RESISTANCE IN THE (A1) BATTERY POSITIVE CIRCUIT
RESISTANCE IN THE GENERATOR CASE GROUND
(K125) GENERATOR FIELD CONTROL CIRCUIT OPEN
(K125) GENERATOR FIELD CONTROL CIRCUIT SHORTED TO GROUND
(Z20) GROUND CIRCUIT OPEN
BATTERY
GENERATOR
POWERTRAIN CONTROL MODULE (PCM)

Diagnostic Test**1. CHECK FOR ANY POWERTRAIN CONTROL MODULES DTCS**

NOTE: Make sure the Battery is in good condition. Using the Midtronics Battery Tester, test the Battery before continuing.

NOTE: Inspect the vehicle for after market accessories that may exceed the Generator System output.

NOTE: Make sure the generator drive belt is in good operating condition.

NOTE: Inspect the fuses in the IPM. If an open fuse is found, use the wire diagram/schematic as a guide, inspect the wiring and connectors for damage.

1. Turn the ignition on.
2. With the scan tool, read active PCM DTCS.

Does the scan tool display any active battery or charging DTCS?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** and perform the appropriate charging system diagnostic procedure.

No

- Check the above conditions that can cause a low voltage condition. Repair as necessary.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

B210E-BATTERY VOLTAGE HIGH

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

Battery voltage greater than 16 volts for more than 20 seconds.

Possible Causes

(K125) GENERATOR FIELD CONTROL CIRCUIT SHORTED TO BATTERY VOLTAGE
BATTERY
GENERATOR
POWERTRAIN CONTROL MODULE (PCM)

Diagnostic Test

1. CHECK FOR ANY POWERTRAIN CONTROL MODULE DTCS

NOTE: Make sure the Battery is in good condition. Using the Midtronics Battery Tester, test the Battery before continuing.

NOTE: Inspect the vehicle for after market accessories that may exceed the Generator System output.

NOTE: Make sure the generator drive belt is in good operating condition.

NOTE: Inspect the fuses in the IPM. If an open fuse is found, use the wire diagram/schematic as a guide, inspect the wiring and connectors for damage.

1. Turn the ignition on.
2. With the scan tool, read active PCM DTCS.

Does the scan tool display any active battery or charging system DTCS?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** and perform the appropriate charging system diagnostic procedure.

No

- Check the above conditions that can cause a high voltage condition. Repair as necessary.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B21A1-ECU RESET/RECOVERY OCCURRED

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

- **When Monitored:**

Ignition on.

• **Set Condition:**

Video Screen Module experiences a reset event.

Possible Causes
LOW BATTERY VOLTAGE

Diagnostic Test

1. LOW BATTERY VOLTAGE

1. Turn the ignition on.
2. With the scan tool, clear all VES DTCs.
3. Turn the ignition off, then on again.
4. With the scan tool read VES DTCs.

Does the scan tool display: B21A1-ECU RESET/RECOVERY OCCURRED?

Yes

- Check for intermittent condition by inspecting the wiring harness and cables for chafed, pierced, pinched, and partially broken wires.
- Repair as necessary.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test Complete.

B222B-VEHICLE ENTERTAINMENT SYSTEM INTERNAL

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

The Video Screen Module detects an internal failure.

Possible Causes
VIDEO SCREEN MODULE

Diagnostic Test**1. VIDEO SCREEN MODULE**

If DTC: B222B-VEHICLE ENTERTAINMENT SYSTEM INTERNAL is active, view repair.

Repair

- Replace the Video Screen Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B222C-VEHICLE CONFIGURATION NOT PROGRAMMED

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

Vehicle configuration information not programmed into the Instrument Cluster.

Possible Causes
NO COMMUNICATION WITH TOTALLY INTEGRATED CONTROL MODULE
ACTIVE TIPM DTCs
INSTRUMENT CLUSTER
TOTALLY INTEGRATED CONTROL MODULE (TIPM)

Diagnostic Test**1. TEST FOR AN INTERMITTENT CONDITION**

1. Turn the ignition on.
2. With the scan tool, record and erase any Instrument Cluster DTCs.
3. Turn the ignition off, wait ten seconds then turn the ignition on.
4. With the scan tool, read DTCs.

Does the scan tool display: B222C-VEHICLE CONFIGURATION NOT PROGRAMMED?

Yes

- Go To 2

No

- The condition that caused this code to set is not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors for an intermittent condition. Operate the system several times and recheck for active DTCs.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. VERIFY COMMUNICATION WITH TOTALLY INTEGRATED CONTROL MODULE (TIPM)

1. With the scan tool in ECU VIEW, read active modules on the bus.

Does the scan tool show the Totally Integrated Control Module active on the bus?

Yes

- Go to step 3

No

- Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** and perform the No Response from TIPM diagnostic procedure.

3. CHECK TOTALLY INTEGRATED CONTROL MODULE FOR ACTIVE DTCS

1. With the scan tool, erase TIPM DTCs.
2. Turn the ignition off. Wait approximately ten seconds.
3. Turn the ignition on.
4. With the scan tool, read TIPM DTCs.

Are any active DTCs present?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing** and perform the appropriate diagnostic procedure.

No

- Go to step 4

4. CHECK CLUSTER VEHICLE INFORMATION WITH SCAN TOOL

1. With the scan tool in Cluster ECU Identification, read the Original and Current VINs, and the Body Style of the vehicle.

Does the information displayed match the vehicle?

Yes

- Replace the Instrument Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE,**

Totally Integrated Power (TIPM) - Standard Procedure .

No

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

U0010-CAN INTERIOR BUS

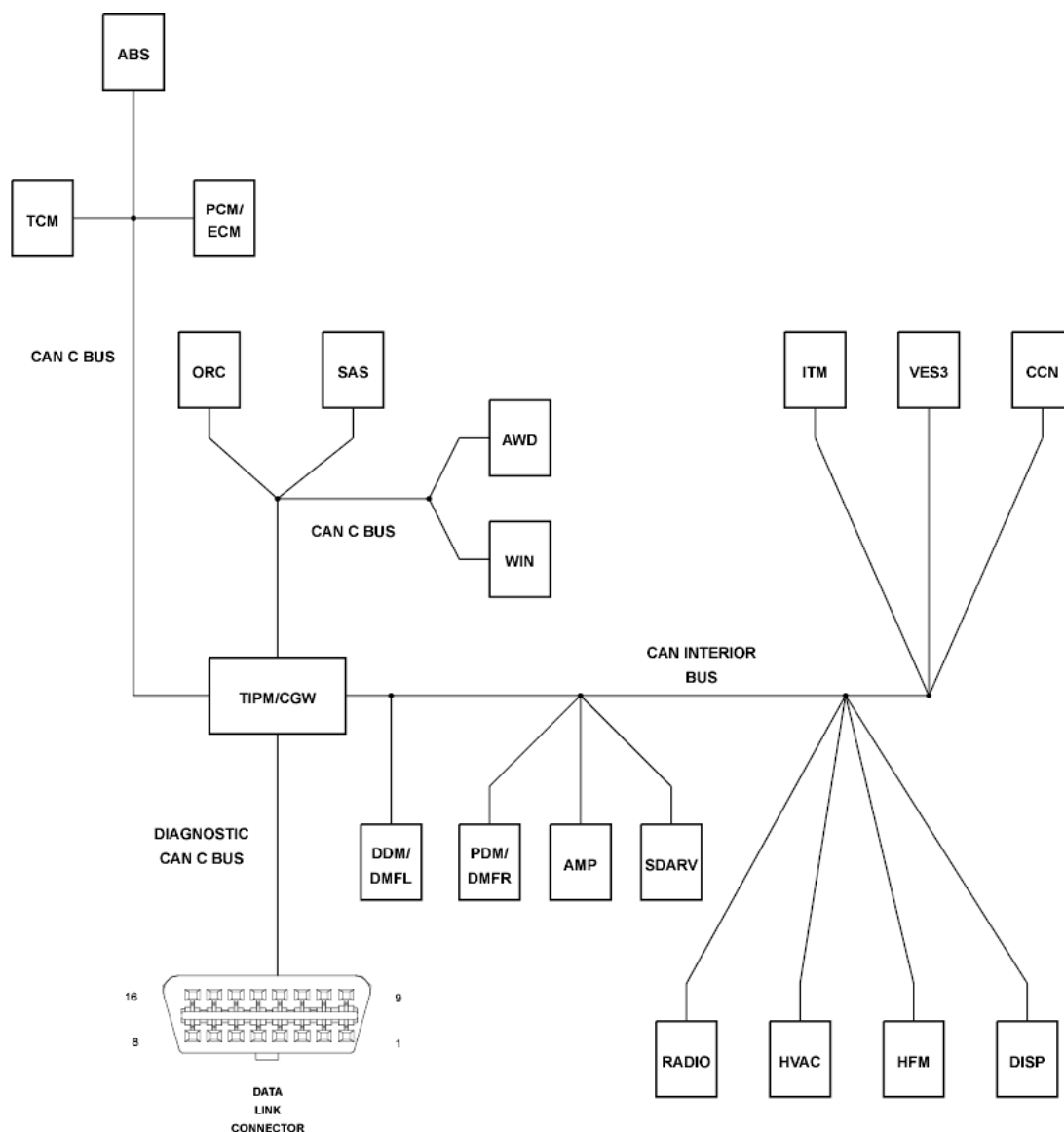


Fig. 1: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

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- **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

IOD fuse installed.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) detects a short to ground on the CAN Interior Bus (125K) (+) circuit or a short to voltage on the CAN Interior Bus (125K) (-) circuit.

Possible Causes
(D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO GROUND
(D264) CAN INTERIOR BUS (125K) (-) CIRCUIT SHORTED TO VOLTAGE
ANY CAN INTERIOR BUS MODULE
TOTALLY INTEGRATED POWER MODULE

Diagnostic Test

1. VERIFY DTC IS ACTIVE

NOTE: Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

NOTE: This module will not be able to communicate when this fault is active and therefore will only display this DTC as stored. To diagnose this DTC, use a scan tool and check for DTCs in the TIPM. If DTCs are active. Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the appropriate diagnostic procedure. If no DTCs are active, but there are stored Lost Communication DTCs. Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing and perform the appropriate No Response diagnostic procedure. If no DTCs are set, perform the BODY VERIFICATION TEST. Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .

1. Turn the ignition on.
2. With the scan tool, read active Satellite Video Receiver DTCs.

Is this DTC active?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing** and perform the diagnostic procedure for this DTC.

No

- Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** and perform the Stored Lost Communication DTCs diagnostic procedure.

U0011-CAN INTERIOR BUS OFF PERFORMANCE

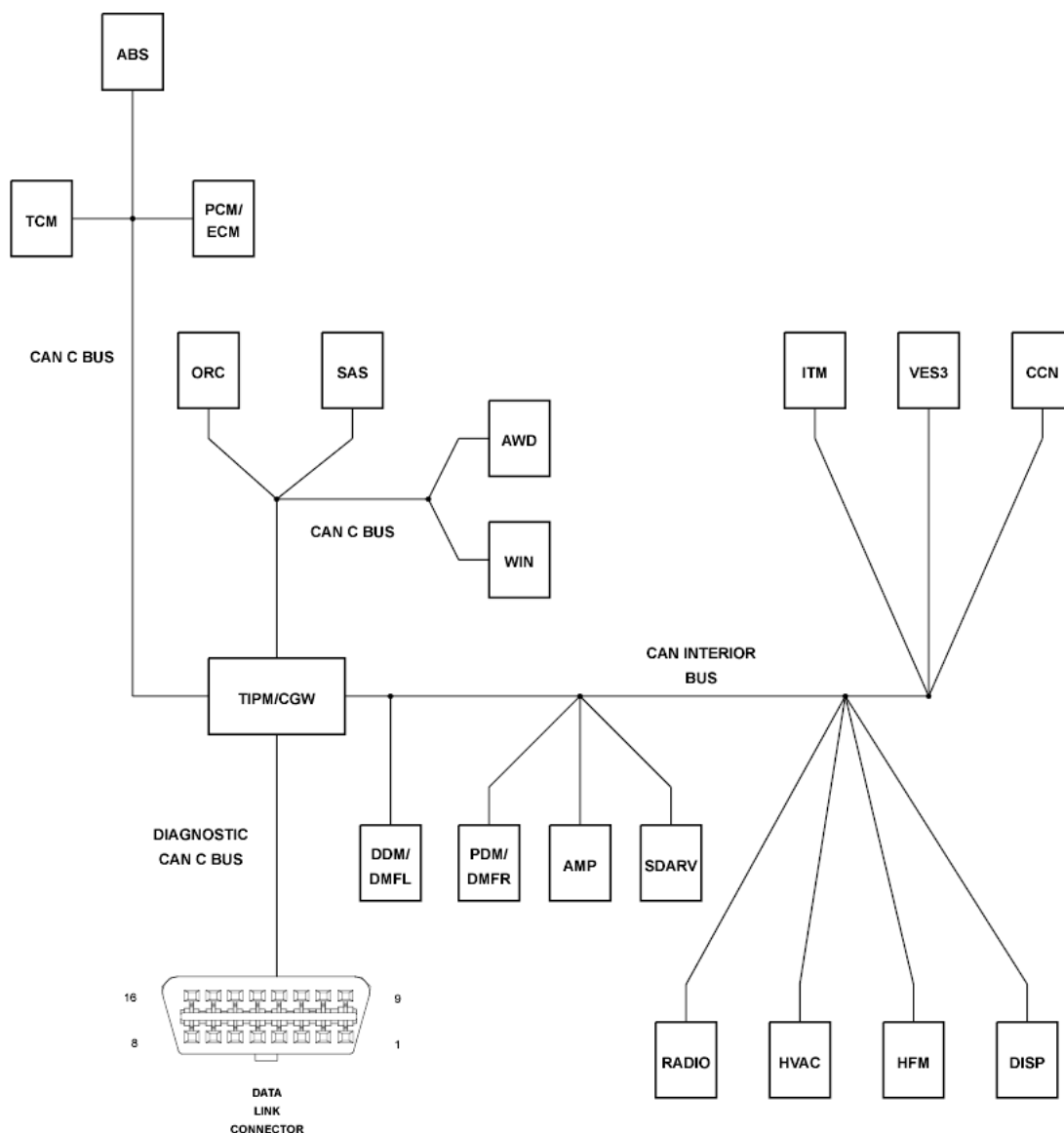


Fig. 2: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 Volts.

Ignition Off Draw (IOD) fuse installed.

• **Set Condition:**

The Radio Display Module (DISP) detects the CAN Interior Bus circuits shorted to ground, shorted together or shorted to voltage.

Possible Causes
(D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO GROUND
(D264) CAN INTERIOR BUS (125K) (-) CIRCUIT SHORTED TO GROUND
(D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO (D264) CAN INTERIOR BUS (125K) (-) CIRCUIT
(D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO VOLTAGE
(D264) CAN INTERIOR BUS (125K) (-) CIRCUIT SHORTED TO VOLTAGE
ANY CAN INTERIOR BUS MODULE
TOTALLY INTEGRATED POWER MODULE (TIPM)

Diagnostic Test

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

NOTE: Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

1. Turn the ignition on.
2. Using the scan tool, read active Radio Display Module (DISP) DTCs.

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0011-CAN INTERIOR BUS OFF PERFORMANCE diagnostic procedure.

No

- Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing and perform the Stored Lost Communication DTCs diagnostic test procedure.

U0141-LOST COMMUNICATION WITH IPM (FCM/TIPM)

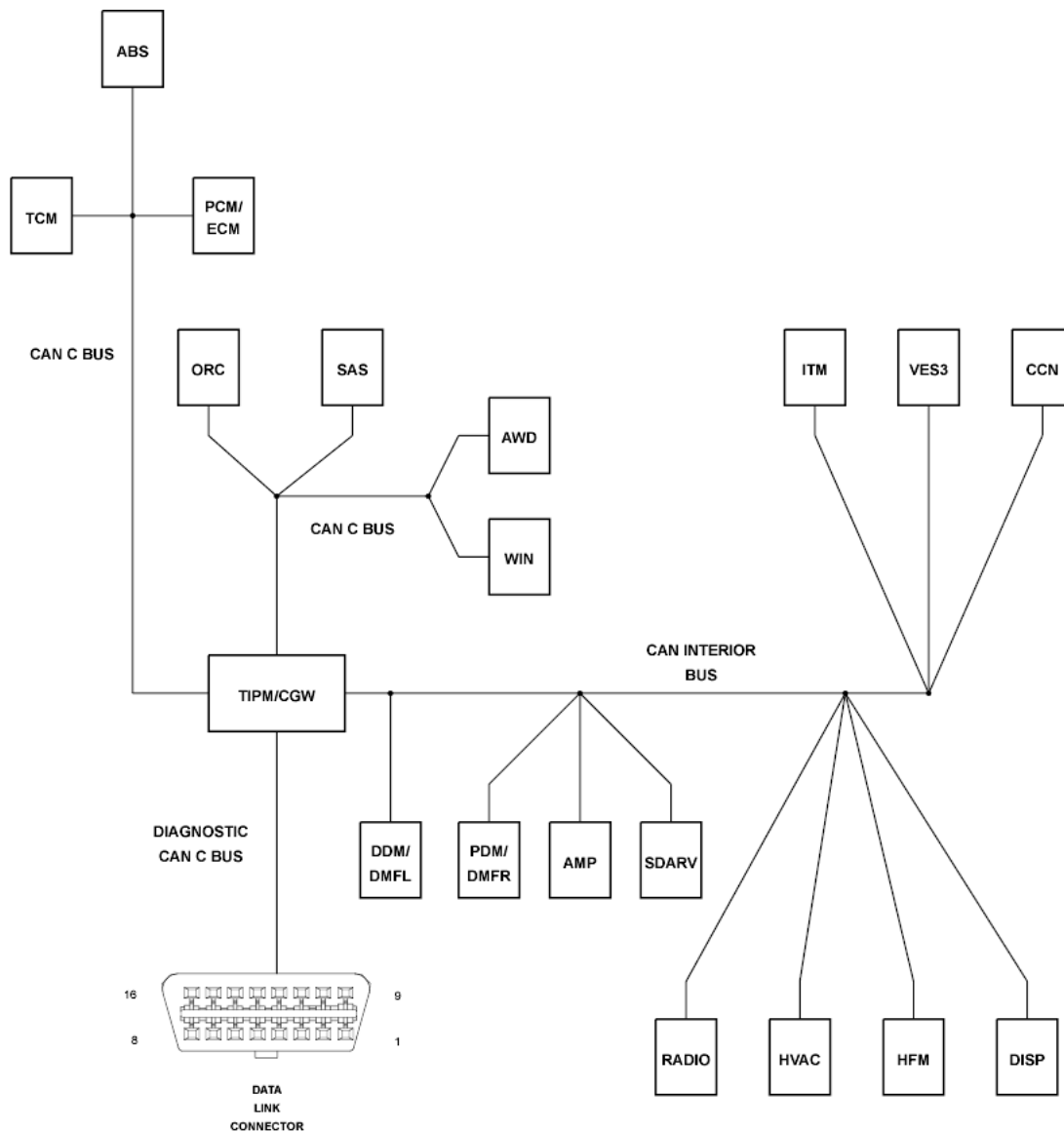


Fig. 3: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 Volts.

Ignition Off Draw (IOD) fuse installed.

- **Set Condition:**

Bus messages not received from the Totally Integrated Power Module (TIPM) 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
TIPM POWER AND GROUND
TOTALLY INTEGRATED POWER MODULE (TIPM)
RADIO DISPLAY MODULE (DISP)

Diagnostic Test

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

NOTE: Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

1. Turn the ignition on.
2. Using the scan tool, read active Radio Display Module (DISP) DTCs.

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0141-LOST COMMUNICATION WITH IPM (FCM/TIPM) diagnostic procedure.

No

- Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing and perform the Stored Lost Communication DTCs diagnostic procedure.

U0155-LOST COMMUNICATION WITH CLUSTER/CCN

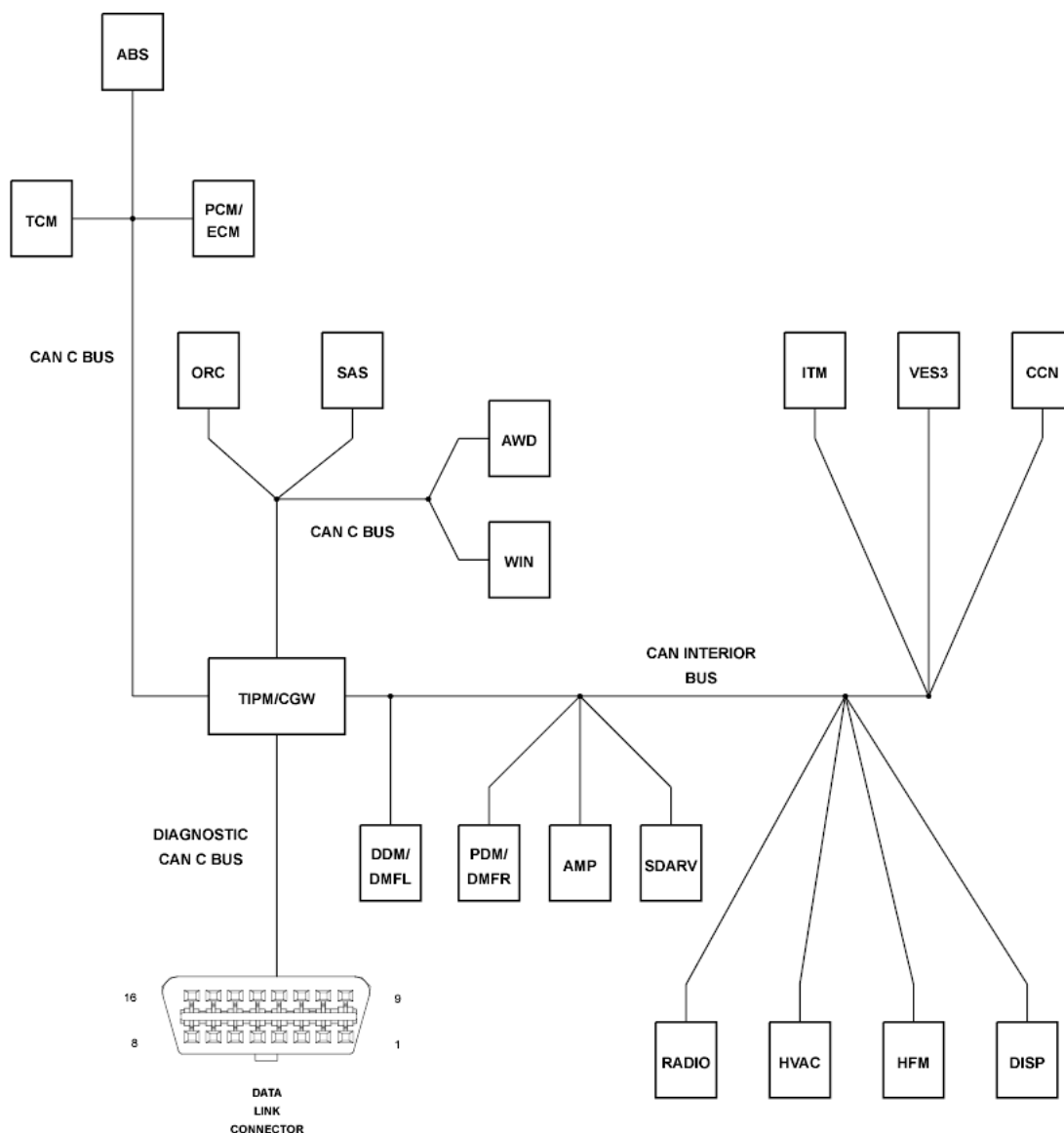


Fig. 4: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Continuously when the ignition is on.

The battery voltage is between 10 and 16 Volts.

Ignition Off Draw (IOD) fuse installed.

- **Set Condition:**

Bus messages not received from the Cluster 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 CLUSTER POWER AND GROUND CLUSTER (CCN) RADIO DISPLAY MODULE (DISP)

Diagnostic Test

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

NOTE: Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

1. Turn the ignition on.
2. Using the scan tool, read active Radio Display Module (DISP) DTCs.

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0155-LOST COMMUNICATION WITH CLUSTER/CCN diagnostic procedure.

No

- Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing and perform the Stored Lost Communication DTCs diagnostic test procedure.

U0184-LOST COMMUNICATION WITH RADIO

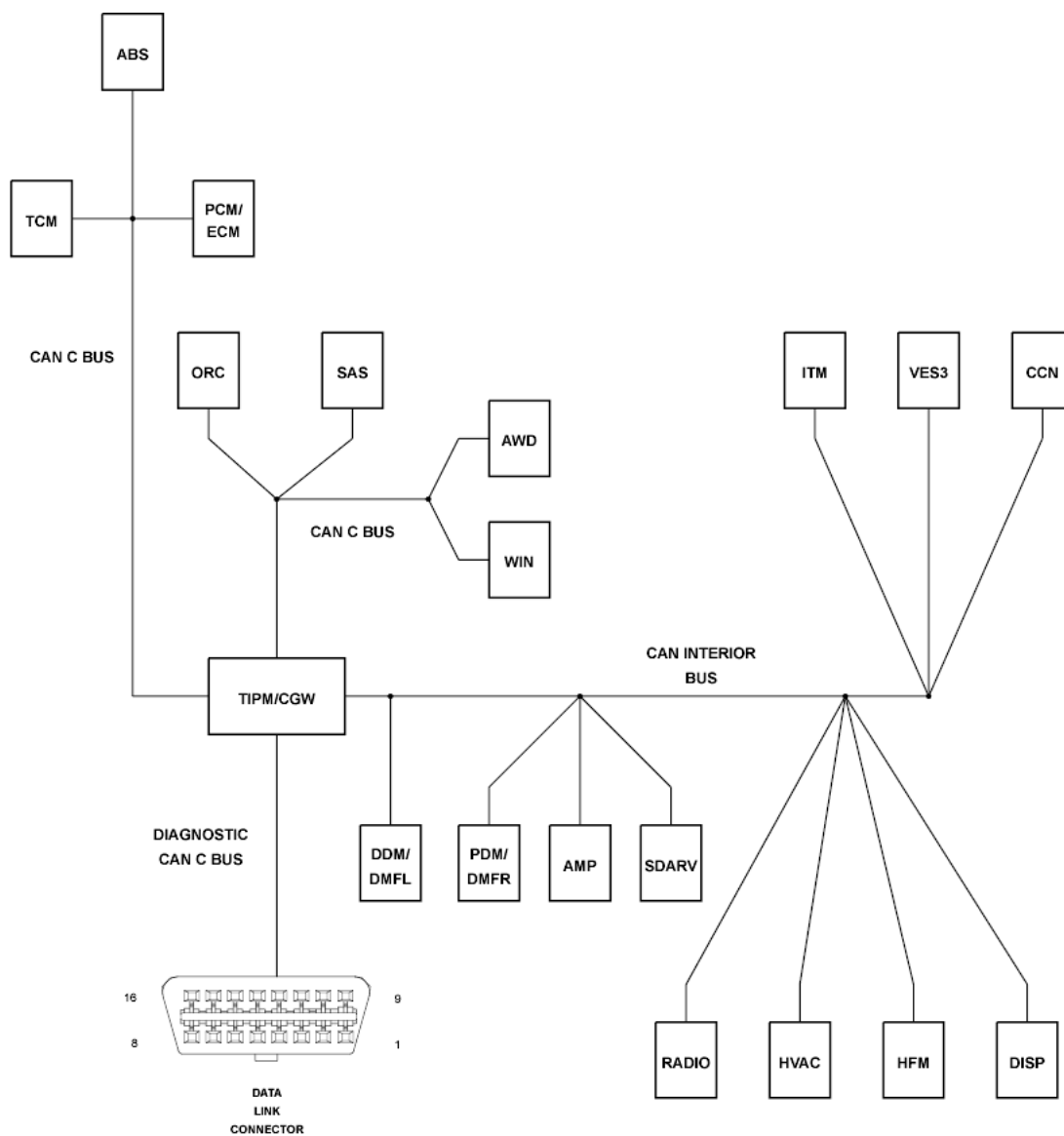


Fig. 5: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Continuously when the ignition is on.

The battery voltage between 10 and 16 Volts.

Ignition Off Draw (IOD) fuse installed.

- **Set Condition:**

Bus messages not received from the Radio 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 RADIO POWER AND GROUND RADIO RADIO DISPLAY MODULE (DISP)

Diagnostic Test

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

NOTE: Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

1. Turn the ignition on.
2. Using the scan tool, read the active Radio Display Module (DISP) DTCs.

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0184-LOST COMMUNICATION WITH RADIO diagnostic procedure.

No

- Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing and perform the Stored Lost Communication DTCs diagnostic procedure.