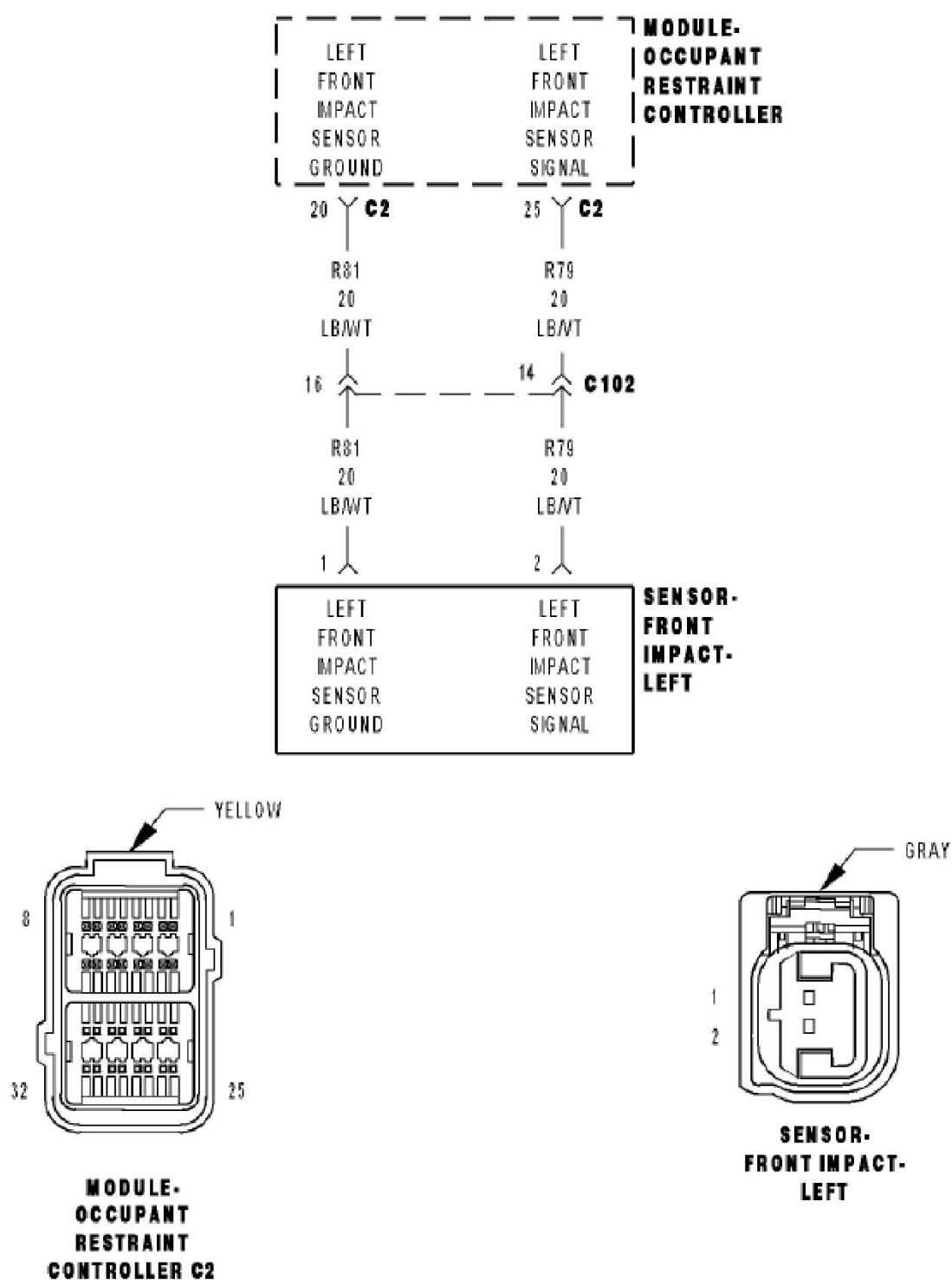


B1B70 UP-FRONT LEFT SATELLITE ACCELERATION SENSOR INTERNAL



1). When Monitored:

The Occupant Restraint Controller (ORC) continuously communicates with the Front Left Impact Sensor over the sensor signal circuit. The sensor communication and on board diagnostics are powered by the ORC signal.

2). Set Condition:

This code will set, if the ORC and the Front Left Impact Sensor do not establish and maintain valid data communications.

Possible Causes
1. (R79) SIGNAL CIRCUIT SHORTED TO BATTERY
2. (R79) SIGNAL CIRCUIT SHORTED TO GROUND
3. (R79, R81) FRONT LEFT IMPACT SENSOR CIRCUITS SHORTED TOGETHER
4. (R81) FRONT LEFT IMPACT SENSOR GROUND CIRCUIT OPEN
5. (R79) FRONT LEFT IMPACT SENSOR SIGNAL CIRCUIT OPEN
6. ORC, FRONT LEFT IMPACT SENSOR

Diagnostic Test

1). VERIFY THAT DTC B1B70-UP-FRONT LEFT SATELLITE ACCELERATION SENSOR INTERNAL IS ACTIVE

NOTE: Ensure the battery is fully charged.

NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.

Turn the ignition on.

With the scan tool, read ORC DTCs.

Does the scan tool display active: B1B70-UP-FRONT LEFT SATELLITE ACCELERATION SENSOR INTERNAL?

Yes >> Go To 2

No >> Go To 9

2). CHECK THE (R79, R81) FRONT LEFT IMPACT SENSOR SIGNAL AND GROUND CIRCUITS FOR A SHORT TO BATTERY

WARNING: To avoid personal injury or death, turn the ignition off, disconnect the battery and wait two minutes before proceeding.

Disconnect the Front Left Impact Sensor connector.

Disconnect the ORC connector.

WARNING: To avoid personal injury or death, turn the ignition on, then reconnect the battery.

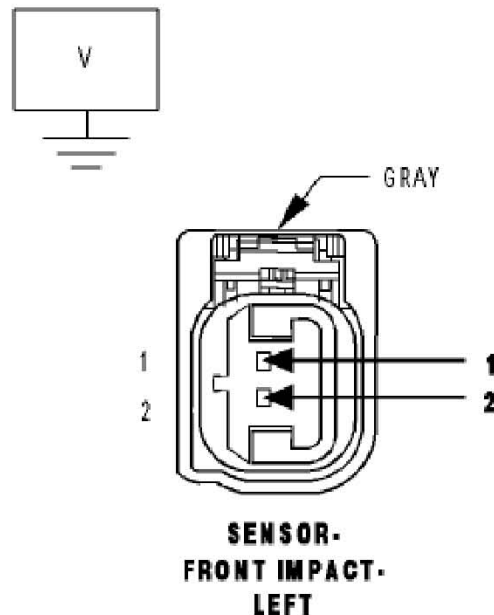
Measure the voltage of the (R79) Front Left Impact Sensor Signal circuit and (R81) Sensor Ground circuit at the Front Left Impact Sensor connector and ground.

Is there any voltage present?

Yes >> Repair the (R79, R81) Front Left Impact Sensor circuits for a short to battery.

Perform the ORC VERIFICATION TEST - VER 1.

No >> Go To 3



3). CHECK THE (R79) FRONT LEFT IMPACT SENSOR SIGNAL CIRCUIT FOR A SHORT TO GROUND

WARNING: To avoid personal injury or death, turn the ignition off, disconnect the battery and wait two minutes before proceeding.

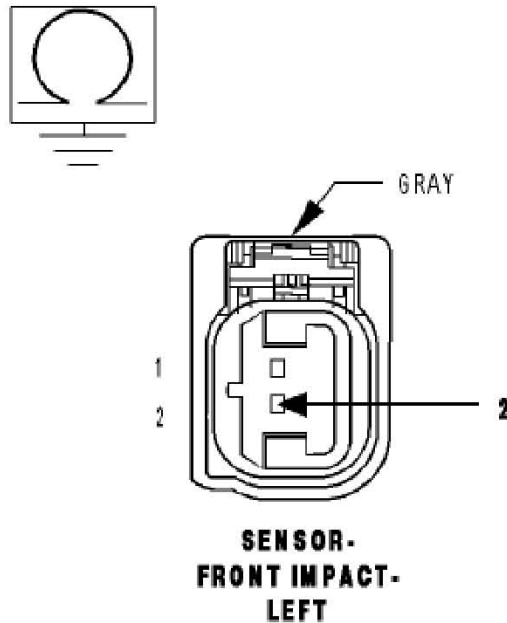
Measure the resistance of the (R79) Front Left Impact Sensor Signal circuit between the Front Left Impact Sensor connector and ground.

Is the resistance below 100K ohms?

Yes >> Repair the (R79) Front Left Impact Sensor Signal circuit for a short to ground.

Perform the ORC VERIFICATION TEST - VER 1.

No >> Go To 4



4). CHECK THE (R79, R81) FRONT LEFT IMPACT SENSOR CIRCUITS FOR A SHORT TOGETHER

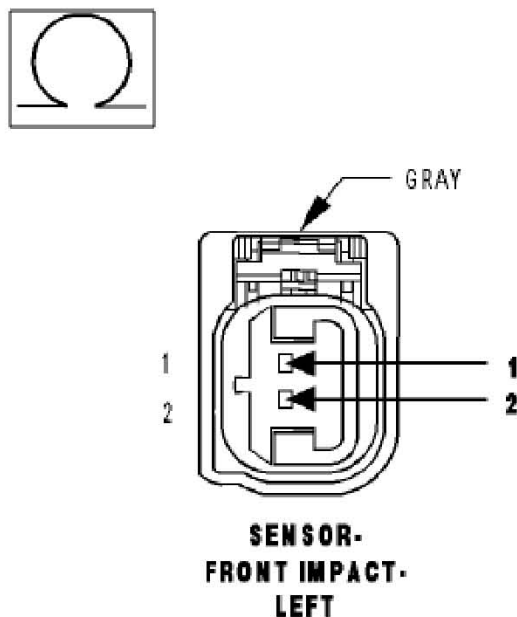
Measure the resistance between the (R79) Front Left Impact Sensor Signal and (R81) Sensor Ground circuits at the Front Left Impact Sensor connector.

Is the resistance below 100K ohms?

Yes >> Repair the (R79, R81) Front Left Impact Sensor circuits shorted together.

Perform the ORC VERIFICATION TEST - VER 1.

No >> Go To 5



5). CHECK THE (R81) FRONT LEFT IMPACT SENSOR GROUND CIRCUIT FOR AN OPEN OR HIGH RESISTANCE

Connect the 8443 Load Tool ORC Adaptor to the Occupant Restraint Control Module connector.

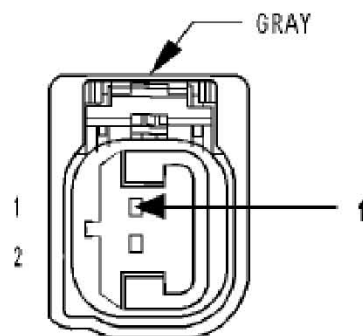
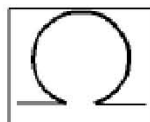
Measure the resistance of the (R81) Front Left Impact Sensor Ground circuit between the Front Left Impact Sensor connector and the 8443 Load Tool ORC Adaptor.

Is the resistance below 1 ohm?

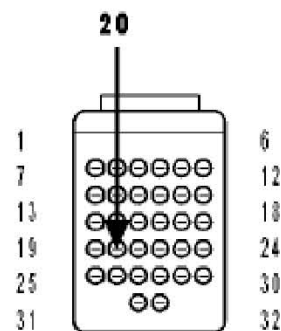
Yes >> Go To 6

No >> Repair the (R81) Front Left Impact Sensor 1 Ground circuit for an open or high resistance.

Perform the ORC VERIFICATION TEST - VER 1.



**SENSOR-
FRONT IMPACT-
LEFT**



**ORC ADAPTER
8443-24**

6). CHECK THE (R79) FRONT LEFT IMPACT SENSOR CIRCUIT FOR AN OPEN OR HIGH RESISTANCE

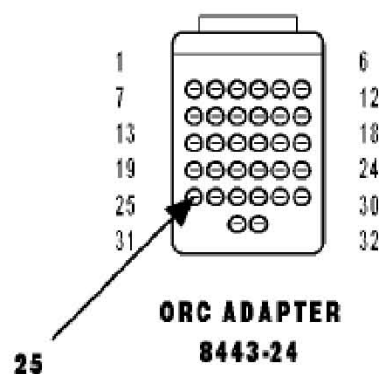
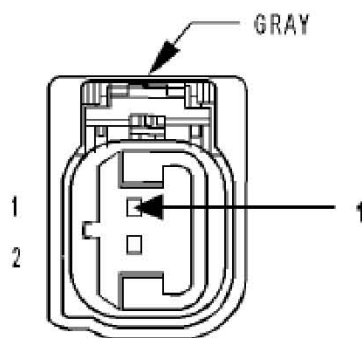
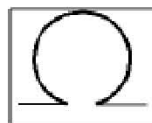
Measure the resistance of the (R79) Front Left Impact Sensor Ground circuit between the Front Left Impact Sensor connector and the 8443 Load Tool ORC Adaptor.

Is the resistance below 1 ohm?

Yes >> Go To 7

No >> Repair the (R79) Front Left Impact Sensor Signal circuit for an open or high resistance.

Perform the ORC VERIFICATION TEST - VER 1.



7). CHECK OPERATION OF THE FRONT LEFT IMPACT SENSOR

Replace the Front Left Impact Sensor.

Reconnect the vehicle body harness to the impact sensor.

Remove any special tools or jumper wires and reconnect all previously disconnected components - except the Battery.

WARNING: To avoid personal injury or death, turn the ignition on, then reconnect the battery.

Connect the scan tool to the Data Link Connector - use the most current software available.

Use the scan tool and erase the stored codes in all airbag system modules.

Turn the Ignition Off, and wait 15 seconds before turning the Ignition On.

Wait one minute, and read active codes and if there are none present read the stored codes.

Did the active Front Left Impact Sensor DTC return?

Yes >> Go To 8

No >> Repair is complete.

Perform the ORC VERIFICATION TEST - VER 1.

8). REPLACE THE OCCUPANT RESTRAINT CONTROLLER

WARNING: To avoid personal injury or death, turn the ignition off, disconnect the battery and wait two minutes before proceeding.

WARNING: If the airbag control module is dropped at any time, it must be replaced. Failure to take the proper precautions could result in accidental airbag deployment and personal injury or death.

If there are no possible causes remaining, view repair.

Repair

Replace the Occupant Restraint Controller in accordance with Service Information.

Perform the ORC VERIFICATION TEST - VER 1.

9). TEST FOR AN INTERMITTENT CONDITION

With the scan tool, record and erase all DTC's from all Airbag modules.

If any ACTIVE codes are present they must be resolved before diagnosing any stored codes.

WARNING: To avoid personal injury or death, turn the ignition off, disconnect the battery and wait two minutes before proceeding.

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

Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals.

The following additional checks may assist you in identifying a possible intermittent problem.

Reconnect any disconnected components and harness connector.

WARNING: To avoid personal injury or death, turn the ignition on, then reconnect the battery.

With the scan tool monitor active codes as you work through the following steps.

WARNING: To avoid personal injury or death, maintain a safe distance from all airbags while performing the following steps.

Wiggle the wiring harness and connectors of the related airbag circuit or component.

If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop.

If only stored codes return continue the test until the problem area has been isolated.

In the previous steps you have attempted to recreate the conditions responsible for setting active DTC in question.

Are any ACTIVE DTCs present?

Yes >> Select the appropriate symptom from Symptom List.

No >> No problem found at this time. Erase all codes before returning vehicle to customer.