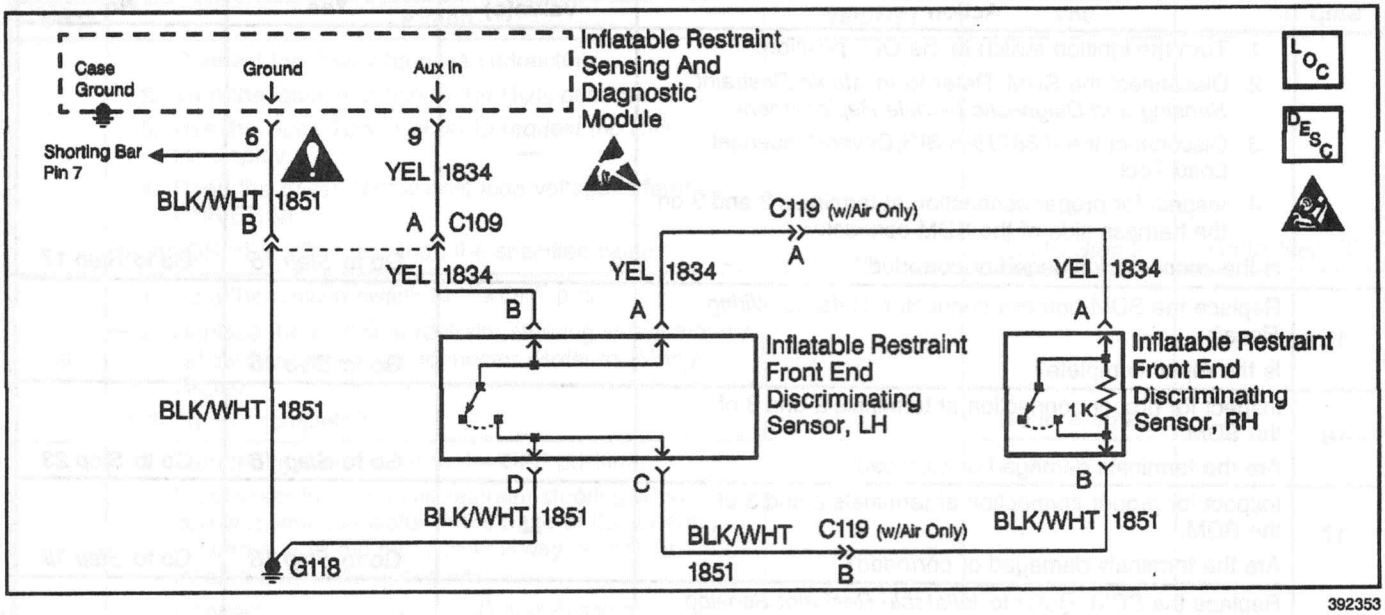
DTC B1035 Discr. Sensor Closed or Short to GND



Circuit Description

When you first turn the ignition switch to the RUN position, the inflatable restraint sensing and diagnostic module (SDM) performs tests in order to diagnose critical malfunctions within the SDM. Upon passing these tests the following circuits are measured in order to ensure that they are within their respective normal voltage ranges:

- IGNITION 1
- 23 VLR
- Deployment loop voltages

The SDM proceeds to CONTINUOUS MONITORING. The SDM contains a resistor network connected to 5 volts, ground, and to the SDM front-end sensor signal terminal 9. The SDM monitors two front end discriminating sensors that are wired in parallel. The 1.0 K Ω resistor in the right inflatable restraint front end discriminating sensor parallel to the normally open switches in both sensors and provides a parallel path to ground. This causes a specified percentage of voltage to appear at the SDM front-end sensor signal input. The SDM monitors this voltage to detect shorts to ground or a closed discriminating sensor.

Conditions for Setting the DTC

- The SDM is configured for an inflatable restraint front end discriminating sensor
- The voltage at front-end sensor signal terminal 9 is less than 0.5 volts for 500 milliseconds.

The CONTINUOUS MONITORING test inspects for this DTC. This test occurs when IGNITION 1 is within the normal operating voltage range.

Action Taken When the DTC Sets

- The SDM sets a diagnostic trouble code.
- The SDM turns the AIR BAG warning lamp to the ON position.

Conditions for Clearing the DTC

- Current DTC—The voltage at front-end sensor signal terminal 9 is more than 2.4 volts for 500 milliseconds.
- History DTC
  - You issue a scan tool CLEAR CODES command.
  - After 250 malfunction free ignition cycles have occurred.

Diagnostic Aids

A short to ground in the inflatable restraint front end discriminating sensor circuit can cause an intermittent condition. Inspect CKT 1834 carefully for cutting or chafing.

When measurements are requested in this table, use the *J 39200* DMM with the correct terminal adapter from the *J 35616-A* Connector Test Adapter Kit. When an inspection for proper connection is requested, refer to *Testing for Electrical Intermittents* in Wiring Systems. When a wire, connector or terminal repair is requested, use the *J 38125-B* Terminal Repair Kit and refer to *Wiring Repairs* in Wiring Systems.

Test Description

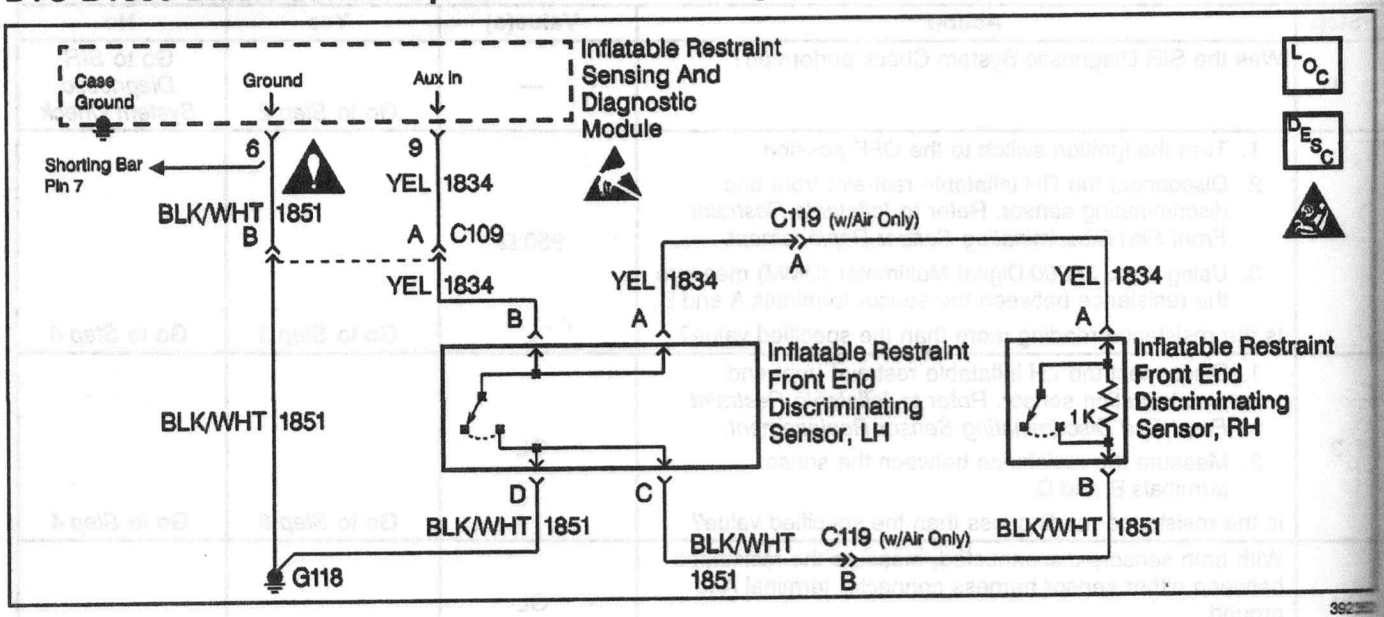
The numbers below refer to the step numbers on the diagnostic table:

2. This test inspects for a malfunctioning discriminating sensor.
7. This test inspects for a short to ground in CKT 1834.
8. This test isolates the short to ground in CKT 1834 to one side of C109.

DTC B1035 Discr. Sensor Closed or Short to GND

Step	Action	Value(s)	Yes	No
1	Was the SIR Diagnostic System Check performed?	—	Go to *Step 2*	Go to *SIR Diagnostic System Check*
2	1. Turn the ignition switch to the OFF position. 2. Disconnect the RH inflatable restraint front end discriminating sensor. Refer to *Inflatable Restraint Front End Discriminating Sensor Replacement.* 3. Using the *J 39200* Digital Multimeter (DMM) measure the resistance between the sensor terminals A and B. Is the resistance reading more than the specified value?	950 Ω	Go to *Step 3*	Go to *Step 6*
3	1. Disconnect the LH inflatable restraint front end discriminating sensor. Refer to *Inflatable Restraint Front End Discriminating Sensor Replacement.* 2. Measure the resistance between the sensor terminals B and D. Is the resistance reading less than the specified value?	OL	Go to *Step 6*	Go to *Step 4*
4	With both sensors disconnected, measure the resistance between either sensor harness connector terminal A to ground. Is the resistance reading less than the specified value?	OL	Go to *Step 5*	Go to *Step 7*
5	Repair a short to ground condition in CKT 1834 between the two front end discriminating sensor harness connectors. Is the repair complete?	—	Go to *Step 11*	—
6	Replace the malfunctioning inflatable restraint front end discriminating sensor. Refer to *Inflatable Restraint Front End Discriminating Sensor Replacement.* Is the repair complete?	—	Go to *Step 11*	—
7	1. Disconnect the inflatable restraint sensing and diagnostic module (SDM). Refer to *Inflatable Restraint Sensing and Diagnostic Module Replacement.* 2. Measure the resistance from the LH sensor harness connector terminal B to ground. Is the resistance reading less than the specified value?	OL	Go to *Step 8*	Go to *SDM Integrity Check*
8	1. Disconnect C109. Refer to SIR Component Location. Refer to *SIR Components.* 2. Measure the resistance from the sensor harness connector terminal B to ground. Is the resistance reading less than the specified value?	OL	Go to *Step 9*	Go to *Step 10*
9	Repair a short to ground condition in CKT 1834 between C109 and the sensor harness connector. Is the repair complete?	—	Go to *Step 11*	—
10	Repair a short to ground condition in CKT 1834 between C109 and the SDM harness connector. Is the repair complete?	—	Go to *Step 11*	—
11	1. Reconnect all the SIR system components. 2. Ensure all the components are properly mounted. Have all the SIR components been reconnected and properly mounted?	—	Go to *Step 12*	—
12	Clear all the SIR DTCs. Have all the SIR DTCs been cleared?	—	Go to *SIR Diagnostic System Check*	—

DTC B1036 Discr. Sensor Open or Short to Voltage



Circuit Description

When you first turn the ignition switch to the RUN position, the inflatable restraint sensing and diagnostic module (SDM) performs tests in order to diagnose critical malfunctions within the SDM. Upon passing these tests the following circuits are measured in order to ensure they are within their respective normal voltage ranges:

- IGNITION 1
- 23 VLR
- Deployment loop voltages

Then, the SDM proceeds to CONTINUOUS MONITORING. The SDM contains a resistor network connected to 5 volts, ground, and to the SDM front-end sensor signal terminal 9. The SDM monitors two front end discriminating sensors that are wired in parallel. The 1.0 K resistor in the right inflatable restraint front end discriminating sensor parallel to the normally open switches in both sensors and provides a parallel path to ground. This causes a specified percentage of voltage to appear at the SDM front-end sensor signal input. The SDM monitors this voltage to detect shorts to power or an open discriminating sensor.

Conditions for Setting the DTC

- The SDM is configured for an inflatable restraint front end discriminating sensor
- The voltage at front-end sensor signal terminal 9 is more than 5.0 volts for 500 milliseconds.

The CONTINUOUS MONITORING test inspects for this DTC. This test occurs when IGNITION 1 is within the normal operating voltage range.

Action Taken When the DTC Sets

- The SDM sets a diagnostic trouble code.
- The SDM turns the AIR BAG warning lamp to the ON position.

Conditions for Clearing the DTC

- Current DTC–The voltage at front-end sensor signal terminal 9 is less than 3.2 volts for 500 milliseconds.
- History DTC
  - You issue a scan tool CLEAR CODES command.
  - After 250 malfunction free ignition cycles have occurred.

Diagnostic Aids

A broken or chafed wire in the inflatable restraint front end discriminating sensor circuit can cause an intermittent condition. Inspect CKT 1834 and CKT 1851 carefully for cutting or chafing.

When measurements are requested in this table, use the *J 39200* DMM with the correct terminal adapter from the *J 35616-A* Connector Test Adapter Kit. When an inspection for proper connection is requested, refer to *Testing for Electrical Intermittents* in Wiring Systems. When a wire, connector or terminal repair is requested, use the *J 38125-B* Terminal Repair Kit and refer to *Wiring Repairs* in Wiring Systems.

Test Description

The numbers below refer to the step numbers on the diagnostic table:

2. This test inspects for proper contact or corrosion of the yellow 2-way connector.
7. This test inspects for a malfunctioning discriminating sensor.
8. This test inspects for an open in CKT 1851.
18. This test inspects for proper contact or corrosion of the inflatable restraint sensing and diagnostic module (SDM) connector.
23. This test inspects for an open in CKT 1834.
33. This test isolates the open in CKT 1834 to one side of C109
36. This test inspects for a short to voltage in CKT 1834.

DTC B1036 Discr. Sensor Open or Short to Voltage

Step	Action	Value(s)	Yes	No
1	Was the SIR Diagnostic System Check performed?	—	Go to *Step 2*	Go to *SIR Diagnostic System Check*
2	1. Turn the ignition switch to the OFF position. 2. Disconnect the RH inflatable restraint front end discriminating sensor. Refer to *Inflatable Restraint Front End Discriminating Sensor Replacement* 3. Inspect for proper connection at the sensor harness connector terminals A and B. Are the terminals damaged or corroded?	—	Go to *Step 3*	Go to *Step 5*
3	Replace the sensor harness connector. Refer to *Wiring Repair.* Is the repair complete?	—	Go to *Step 4*	—
4	Inspect for proper connection at the RH sensor terminals A and B. Are the terminals damaged or corroded?	—	Go to *Step 6*	Go to *Step 36*
5	Inspect for proper connection at the RH sensor terminals A and B. Are the terminals damaged or corroded?	—	Go to *Step 6*	Go to *Step 7*
6	Replace the RH inflatable restraint front end discriminating sensor. Refer to *Inflatable Restraint Front End Discriminating Sensor Replacement.* Is the repair complete?	—	Go to *Step 36*	—
7	Using the *J 39200* Digital Multimeter (DMM) measure the resistance between the RH sensor terminals A and B. Is the resistance reading more than the specified value?	1050 Ω	Go to *Step 6*	Go to *Step 8*
8	Measure the resistance from the RH sensor harness connector terminal B to ground. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 18*	Go to *Step 9*
9	1. Disconnect the LH sensor. 2. Inspect for proper connection at the LH sensor harness connector terminals C and D. Are the terminals damaged or corroded?	—	Go to *Step 10*	Go to *Step 12*
10	Replace the LH sensor. Refer to *Wiring Repair.* Is the repair complete?	—	Go to *Step 11*	—
11	Inspect for proper connection at the LH sensor terminals C and D. Are the terminals damaged or corroded?	—	Go to *Step 16*	Go to *Step 38*
12	Inspect for proper connection at the LH sensor terminals C and D. Are the terminals damaged or corroded?	—	Go to *Step 16*	Go to *Step 13*
13	Measure the resistance between the RH sensor harness connector terminal B and the LH sensor harness connector terminal C. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 15*	Go to *Step 14*

DTC B1036 Discr. Sensor Open or Short to Voltage (cont'd)

Step	Action	Value(s)	Yes	No
14	Repair an open condition in CKT 1851 between the two sensors. Is the repair complete?	—	Go to *Step 38*	—
15	Measure the resistance between the LH sensor harness connector terminal D to ground. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 16*	Go to *Step 17*
16	Replace the LH inflatable restraint front end discriminating sensor. Refer to *Inflatable Restraint Front End Discriminating Sensor Replacement.* Is the repair complete?	—	Go to *Step 38*	—
17	Repair an open condition in CKT 1851 between the LH inflatable restraint front end discriminator sensor harness connector to ground. Is the repair complete?	—	Go to *Step 38*	—
18	1. Disconnect the inflatable restraint sensing and diagnostic module (SDM). Refer to *Inflatable Restraint Sensing and Diagnostic Module Replacement.* 2. Inspect for proper connection at terminal 9 on the harness side of the SDM connector. Is the connector damaged or corroded?	—	Go to *Step 19*	Go to *Step 21*
19	Replace the SDM harness connector. Refer to *Wiring Repair.* Is the repair complete?	—	Go to *Step 20*	—
20	Inspect for proper connection at terminal 9 of the SDM. Is the terminal damaged or corroded?	—	Go to *Step 22*	Go to *Step 38*
21	Inspect for proper connection at terminal 9 of the SDM. Is the terminal damaged or corroded?	—	Go to *Step 22*	Go to *Step 23*
22	Replace the inflatable restraint sensing and diagnostic module (SDM). Refer to *Inflatable Restraint Sensing and Diagnostic Module Replacement.* Is the repair complete?	—	Go to *Step 38*	—
23	1. Disconnect the inflatable restraint steering wheel yellow 2-way connector at the base of the steering column and the IP module yellow 2-way connector located behind the glove box. 2. Reconnect the LH Discriminating Sensor. 3. Measure the resistance between the RH sensor harness connector terminal A and the SDM harness connector terminal 9. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 36*	Go to *Step 24*
24	1. Disconnect the LH sensor. 2. Inspect for proper connection at the LH sensor harness connector terminals A and B. Are the terminals damaged or corroded?	—	Go to *Step 25*	Go to *Step 27*
25	Replace the LH sensor harness connector. Refer to *Wiring Repair.* Is the repair complete?	—	Go to *Step 26*	—
26	Inspect for proper connection at the LH sensor terminals A and B. Are the terminals damaged or corroded?	—	Go to *Step 16*	Go to *Step 38*
27	Inspect for proper connection at the LH sensor terminals A and B. Are the terminals damaged or corroded?	—	Go to *Step 16*	Go to *Step 28*

DTC B1036 Discr. Sensor Open or Short to Voltage (cont'd)

Step	Action	Value(s)	Yes	No
28	Measure the resistance between the SDM harness connector terminal 9 and the LH sensor harness connector terminal B. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 29*	Go to *Step 31*
29	Measure the resistance between the LH sensor harness connector terminal A and the RH sensor harness connector terminal A. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 16*	Go to *Step 30*
30	Repair an open condition in CKT 1834 between the two sensors. Is the repair complete?	—	Go to *Step 38*	—
31	1. Disconnect C109. Refer to *SIR Components.* 2. Inspect for proper connection at C109 terminal A. Is the terminal damaged or corroded?	—	Go to *Step 32*	Go to *Step 33*
32	Replace C109. Refer to *Connector Repairs* in Wiring System. Is the repair complete?	—	Go to *Step 38*	—
33	Measure the resistance between the LH sensor harness connector terminal B and the C109 terminal A. Is the resistance reading within the specified values?	0–5 Ω	Go to *Step 34*	Go to *Step 35*
34	Repair an open condition in CKT 1834 between C109 and the SDM harness connector. Is the repair complete?	—	Go to *Step 38*	—
35	Repair an open condition in CKT 1834 between C109 and the sensor harness connector. Is the repair complete?	—	Go to *Step 38*	—
36	1. Turn the ignition switch to the RUN position. 2. Measure the voltage on the sensor harness connector from terminal A to ground. Is the measured voltage less than the specified value?	1.0 V	Go to *SDM Integrity Check*	Go to *Step 37*
37	1. Turn the ignition switch to the OFF position. 2. Repair a short to B+ condition in CKT 1834. Is the repair complete?	—	Go to *Step 38*	—
38	1. Reconnect all of the SIR system components. 2. Ensure that all of the components are properly mounted. Have all of the SIR components been reconnected and properly mounted?	—	Go to *Step 39*	—
39	Clear all the SIR DTCs. Have all the SIR DTCs been cleared?	—	Go to *SIR Diagnostic System Check*	—