

DTC B0079 or B0080

Diagnostic Instructions

- Perform the [Diagnostic System Check - Vehicle](#) prior to using this diagnostic procedure.
- Review [Strategy Based Diagnosis](#) for an overview of the diagnostic approach.
- [Diagnostic Procedure Instructions](#) provides an overview of each diagnostic category

DTC Descriptors

DTC B0079 01 Driver Seat Position Sensor Circuit Short to Battery

DTC B0079 02 Driver Seat Position Sensor Circuit Short to Ground

DTC B0079 04 Driver Seat Position Sensor Circuit Open

DTC B0079 05 Driver Seat Position Sensor Circuit High Voltage or Open

DTC B0079 06 Driver Seat Position Sensor Circuit Low Voltage or Open

DTC B0079 08 Driver Seat Position Sensor Circuit Signal Invalid

DTC B0079 0C Driver Seat Position Sensor Circuit Low Current

DTC B0080 01 Passenger Seat Position Sensor Circuit Short to Battery

DTC B0080 02 Passenger Seat Position Sensor Circuit Short to Ground

DTC B0080 04 Passenger Seat Position Sensor Circuit Open

DTC B0080 05 Passenger Seat Position Sensor Circuit High Voltage or Open

DTC B0080 06 Passenger Seat Position Sensor Circuit Low Voltage or Open

DTC B0080 08 Passenger Seat Position Sensor Circuit Signal Invalid

DTC B0080 0C Passenger Seat Position Sensor Circuit Low Current

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Driver Seat Position Sensor Signal Circuit	B0079 02, B0079 06	B0079 04, B0079 05, B0079 06, B0079 0C	B0079 01, B0079 05	B0079 08
Driver Seat Position Sensor Low Reference	B0079 02, B0079 06	B0079 04, B0079 05, B0079 06, B0079 0C	B0079 01, B0079 05	B0079 08

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Passenger Seat Position Sensor Signal Circuit	B0080 02, B0080 06	B0080 04, B0080 05, B0080 06, B0080 0C	B0080 01, B0080 05	B0080 08
Passenger Seat Position Sensor Low Reference	B0080 02, B0080 06	B0080 04, B0080 05, B0080 06, B0080 0C	B0080 01, B0080 05	B0080 08

Circuit/System Description

The seat position sensor is used to determine the proximity of a front driver or passenger seat position with respect to the frontal air bag. There are two states of seat position, forward and rearward. The seat position sensor interfaces with the Inflatable Restraint Sensing and Diagnostic Module (SDM) and allows the Inflatable Restraint Sensing and Diagnostic Module to disable stage 2 of the frontal air bag for a front seat that is forward of the forward/rearward point in seat track. The seat position sensor provides 2 current ranges, one range for the forward seat position and one for rearward seat position. When the Inflatable Restraint Sensing and Diagnostic Module receives input from a seat position sensor that the seat is rearward, and the Inflatable Restraint Sensing and Diagnostic Module will not disable stage 2 deployment. When the seat is forward, the Inflatable Restraint Sensing and Diagnostic Module will disable stage 2 deployment. The Inflatable Restraint Sensing and Diagnostic Module monitors the seat position sensor circuit and if a fault is detected, the Inflatable Restraint Sensing and Diagnostic Module will set code B0079 or B0080 and disable stage 2 frontal deployment.

Conditions for Running the DTC

Ignition voltage is between 9–16 V.

Conditions for Setting the DTC

B0079 01, B0080 01

The Inflatable Restraint Sensing and Diagnostic Module detects the seat position sensor signal circuit is shorted to voltage for 2 seconds.

B0079 02, B0080 02

The Inflatable Restraint Sensing and Diagnostic Module detects the seat position sensor signal circuit is shorted to ground for 2 seconds.

B0079 04, B0080 04

The Inflatable Restraint Sensing and Diagnostic Module detects the seat position sensor signal circuit is open for 2 seconds.

B0079 05, B0080 05

The Inflatable Restraint Sensing and Diagnostic Module detects the seat position sensor signal circuit is open or has a high voltage condition for 2 seconds.

B0079 06, B0080 06

The Inflatable Restraint Sensing and Diagnostic Module detects the seat position sensor signal circuit is shorted to ground or an open for 2 seconds.

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B0079 08, B0080 08

The Inflatable Restraint Sensing and Diagnostic Module detects an invalid signal on the seat position sensor signal circuit.

B0079 0C, B0080 0C

The Inflatable Restraint Sensing and Diagnostic Module detects a low current condition in the seat position sensor signal circuit for 2 seconds.

Action Taken When the DTC Sets

- The Inflatable Restraint Sensing and Diagnostic Module defaults the seat position sensor to seat forward threshold.
- The Inflatable Restraint Sensing and Diagnostic Module requests the instrument cluster to illuminate the AIR BAG indicator.

Conditions for Clearing the DTC

- The condition for setting the DTC no longer present.
- A history DTC will clear once 100 fault-free ignition cycles have occurred.

Reference Information**Schematic Reference**

[SIR Schematics](#)

Connector End View Reference

[Component Connector End Views](#)

Description and Operation

[Supplemental Inflatable Restraint System Description and Operation](#)

Electrical Information Reference

- [Circuit Testing](#)
- [Testing for Intermittent Conditions and Poor Connections](#)
- [Wiring Repairs](#)
- [Connector Repairs](#)

Scan Tool Reference

[Control Module References](#) for scan tool information

Circuit/System Verification

1. Verify that DTC B0079 08 or B0080 08 is not set.
⇒ **If the DTC is set with the symptom byte 08**
Replace the appropriate seat position sensor
⇓ **If the DTC is not set with the symptom byte 08**
2. Verify that DTC B0079 or B0080 is not set.
⇒ **If the DTC is set**
Refer to Circuit/System Testing
⇓ **If the DTC is not set**

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3. Ignition ON, observe the appropriate scan tool seat position sensor parameter. Verify the parameter is either forward or rearward.
⇒ **If the parameter is neither forward or rearward**
Refer to Circuit/System Testing
⇓ **If the parameter is either forward or rearward**
4. With the seat un-occupied, observe the scan tool while moving the seat to the full forward and then full rearward positions. Verify the seat position sensor parameter varies between Forward and Rearward.
⇒ **If the parameter does not vary**
Refer to Circuit/System Testing
⇓ **If the parameter varies between Forward and Rearward**
5. All OK.

Circuit/System Testing

Note: When removing connectors, inspect for damage or corrosion. Damage or corrosion in the following requires repair or replacement of the affected component/connector:

- Seat position sensor
- Inflatable Restraint Sensing and Diagnostic Module
- Seat position sensor wiring harness connector
- Inflatable Restraint Sensing and Diagnostic Module wiring harness connector

1. Ignition OFF, disconnect the harness connector at the appropriate seat position sensor.
2. Test for less than 10 Ω between the low reference circuit terminal 1 and ground.
⇒ **If 10 Ω or greater**
 - 2.1. Disconnect the X2 harness connector at the Inflatable Restraint Sensing and Diagnostic Module.
 - 2.2. Test for less than 2 Ω in the low reference circuit end to end.
⇒ If 2 Ω or greater, repair the open/high resistance in the circuit.
⇒ If less than 2 Ω , replace the Inflatable Restraint Sensing and Diagnostic Module.

⇓ **If less than 10 Ω**

3. Ignition ON, test for 4–9 V between the signal circuit terminal 2 and ground.
⇒ **If less than 4 V**
 - 3.1. Ignition OFF. Disconnect the X2 harness connector at the Inflatable Restraint Sensing and Diagnostic Module.
 - 3.2. Test for infinite resistance between the control circuit and ground.
⇒ If less than infinite resistance, repair the short to ground on the circuit.
 - 3.3. Test for less than 2 Ω in each control circuit end to end.
⇒ If 2 Ω or greater, repair the open/high resistance in the circuit.
⇒ If less than 2 Ω , replace the Inflatable Restraint Sensing and Diagnostic Module.
- ⇒ **If greater than 9 V**
 - 3.1. Ignition OFF, disconnect the X2 harness connector at the Inflatable Restraint Sensing and Diagnostic Module. Ignition ON.
 - 3.2. Test for less than 1 V between the control circuit and ground.
⇒ If 1 V or greater, repair the short to voltage on the circuit.

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⇓ **If within the specified range**

4. Replace the Seat Position Sensor.

Repair Instructions

Perform the [Diagnostic Repair Verification](#) after completing the repair.

- [Inflatable Restraint Seat Position Sensor Replacement](#)
- [SIR/SRS Wiring Repairs](#)
- [Control Module References](#) for Inflatable Restraint Sensing and Diagnostic Module replacement, programming, and setup