

## DTC B1001 Option Configuration Error

### Circuit Description

When you first turn ON the ignition, the inflatable restraint sensing and diagnostic module (SDM) compares the restraints ID that is stored in the SDM to the restraints ID that is stored in the IPC. The restraints ID that is being compared contains the last four digits of the SDM part number. Next, the SDM compares the VIN that is stored in the SDM to the VIN that is stored in the IPC. For more detailed information concerning the Class 2 data lines, refer to Data Link Communications Circuit Description in Data Link Communications.

### Conditions for Running the DTC

Ignition 1 voltage is within the normal operating voltage range.

### Conditions for Setting the DTC

The restraints ID that is stored in the SDM does not match the restraints ID that is stored in the IPC or the VIN information that is stored in the SDM does not match the VIN information that is stored in the IPC. This test is only run once during power up initialization.

### Action Taken When the DTC Sets

- The SDM commands ON the AIR BAG warning lamp via Class 2 serial data.
- The SDM disables all deployments.

### Conditions for Clearing the DTC

The restraints ID that is stored in the SDM matches the restraints ID that is stored in the IPC and the VIN information that is stored in the SDM matches the VIN information that is stored in the IPC.

### Diagnostic Aids

DTC B1001 is an indication that the restraints ID's stored in both the IPC and SDM do not match or that the VIN's stored in both the IPC and SDM do not match. If either the IPC and/or PCM were replaced, the replacement modules need to be reprogrammed for proper operation.

### Test Description

The number(s) below refer to the step number(s) on the diagnostic table.

2. This step checks to see if the correct VIN is programmed in the powertrain control module (PCM).
4. This step checks to see if the instrument panel cluster (IPC) has been replaced.
5. This step explains the proper steps to perform after a IPC has been replaced in order for the IPC to operate properly.
6. This step checks to see if the correct VIN is programmed in the IPC.
7. This step explains how to properly program the VIN into the IPC.

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Step	Action	Value(s)	Yes	No
1	Was the SIR Diagnostic System Check performed?	—	Go to Step 2	Go to A Diagnostic System Check - SIR
2	1. Install a scan tool. 2. With a scan tool, verify that the PCM is programmed with the correct VIN by comparing the VIN that is stored in the PCM to the VIN plate of the vehicle. Is the PCM programmed with the correct VIN?	—	Go to Step 4	Go to Step 3
3	Use a scan tool and/or the techline machine to program the correct VIN into the PCM. Did you complete the programming procedure?	—	Go to Step 9	—
4	Was the IPC replaced?	—	Go to Step 5	Go to Step 6
5	1. Use the F2 function key and follow the instructions on the scan tool under the IPC SPECIAL FUNCTIONS to reprogram the IPC. This allows the IPC to learn the Restraints ID from the SDM and also to learn other important data that is required. 2. Use the F6 function key and follow the instructions on the scan tool under the IPC SPECIAL FUNCTIONS to program the correct VIN into the IPC. 3. Use the techline machine to perform the theft re-learn procedures for the replacement IPC. Did you complete the programming procedure?	—	Go to Step 9	—
6	With a scan tool, verify that the IPC is programmed with the correct VIN by comparing the VIN that is stored in the IPC to the VIN that is stored in the PCM. Is the IPC programmed with the correct VIN?	—	Go to Step 8	Go to Step 7

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Step	Action	Value(s)	Yes	No
7	Use the F6 function key and follow the instructions on the scan tool under the IPC SPECIAL FUNCTIONS to program the correct VIN into the IPC. Did you complete the programming procedure?		Go to Step 9	
8	1. Turn OFF the ignition. 2. Replace the inflatable restraint sensing and diagnostic module (SDM). Refer to <i>Inflatable Restraint Sensing and Diagnostic Module Replacement</i> . Did you complete the replacement?		Go to Step 9	
9	1. Reconnect all SIR components. 2. Verify that all components and connectors are properly mounted. 3. Turn ON the ignition, with the engine OFF. 4. Use the scan tool in order to clear the DTCs. Did you complete the action?	—	Go to A Diagnostic System Check - SIR	—

Symptoms

Important:

- Perform *A Diagnostic System Check - SIR* before using the Symptom Tables in order to verify that all the following are true:
  - There are no DTCs set.
  - The inflatable restraint sensing and diagnostic module (SDM) can communicate via the serial data link.
- Review the system operation in order to familiarize yourself with the system functions. Refer to *SIR System Operation*.

Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the SIR system. Refer to *Checking Aftermarket Accessories* in Wiring Systems.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

Intermittent

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to *Testing for Intermittent and Poor Connections* in Wiring Systems.

Symptom List

Refer to AIR BAG Warning Lamp Circuit Malfunction in order to diagnose the symptom.

Step	Action	Value(s)	Yes	No
1	Refer to AIR BAG Warning Lamp Circuit Malfunction in order to diagnose the symptom.			
2	With a scan tool, verify that the PCM is programmed with the correct VIN by comparing the VIN that is stored in the PCM to the VIN plate of the vehicle. Is the PCM programmed with the correct VIN?		Go to Step 3	
3	Use a scan tool and/or the technician machine to program the correct VIN into the PCM. Did you complete the programming procedure?		Go to Step 4	
4	Was the IPC restored?		Go to Step 5	
5	1. Use the F6 function key and follow the instructions on the scan tool under the IPC SPECIAL FUNCTIONS to program the IPC. This allows the IPC to learn the Restraints ID from the SDM and also to learn other important data that is stored. 2. Use the F6 function key and follow the instructions on the scan tool under the IPC SPECIAL FUNCTIONS to program the correct VIN into the IPC. 3. Use the F6 function key and follow the instructions on the scan tool under the IPC SPECIAL FUNCTIONS to program the correct VIN into the IPC. Did you complete the programming procedure?		Go to Step 6	
6	With a scan tool, verify that the PCM is programmed with the correct VIN by comparing the VIN that is stored in the PCM to the VIN that is stored in the PCM. Is the PCM programmed with the correct VIN?		Go to Step 7	