

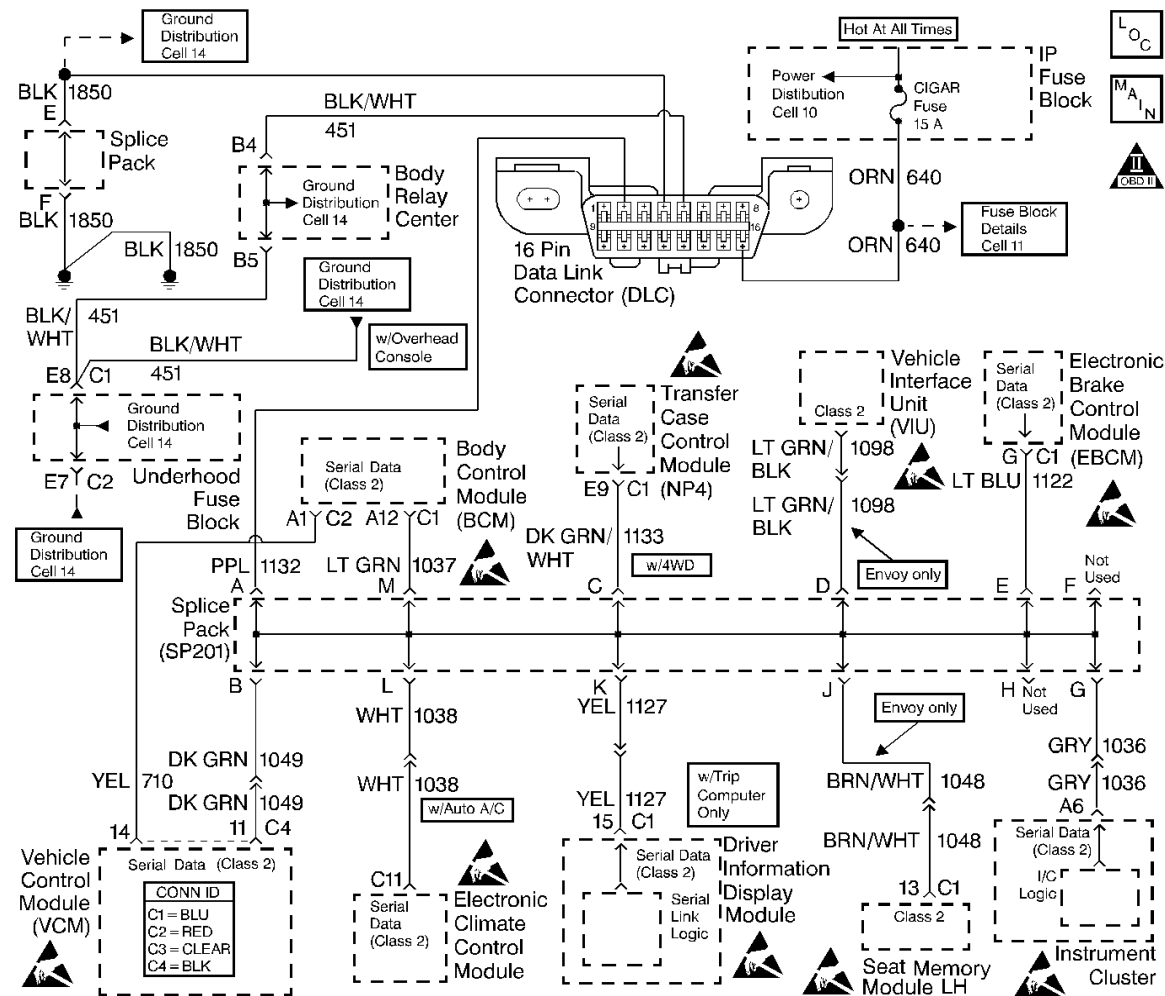
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Document ID# 553878
2000 Chevrolet/Geo Blazer - 4WD

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Data Link Connector Diagnosis



Circuit Description

The Class 2 Serial Data circuit to the DLC allows bi-directional communication between the VCM and the scan tool. This is accomplished through pin 2 of the DLC. If the communication between the scan tool and the VCM cannot be established, use the procedure in the DLC Diagnosis table in order to diagnose the condition.

Diagnostic Aids

Check for the following items:

- For the VCM to establish communication with the scan tool, the system voltage must be between 9-16 volts. If the system voltage is not within this range, refer to [Charging System Test](#) in Engine Electrical.
- Select the correct application (model year, truckline, VIN code) on the scan tool.

An intermittent may be caused by any of the following conditions:

- A poor connection
- Rubbed through wire insulation
- A broken wire inside the insulation

Thoroughly inspect any circuitry that is suspected of causing the intermittent complaint. Refer to [Testing for Intermittent and Poor Connections](#) in Wiring Systems.

If a repair is necessary, refer to [Wiring Repairs](#) or [Connector Repairs](#) in Wiring Systems.

Test Description

The numbers below refer to the numbers on the diagnostic table.

- This step determines if the scan tool is operating correctly.
- This step monitors the actively communicating modules with the scan tools Diagnostic Circuit Check function. An active module is a module that is successfully communicating on the Class 2 Serial Data line with the scan tool. An inactive module is a module which had previously established communication with the scan tool, but currently is not communicating. If a module is not listed at all, then the module never successfully established communications with the scan tool. Refer to Data Link Connector (DLC) Schematics in Data Link Communications.
- This step isolates the VCM by disconnecting all the other components on the Class 2 Serial Data Circuit. If VCM Class 2 Serial Data exists after disconnecting all other components on the Class 2 Serial Data Circuit, refer to Data Link Connector (DLC) Schematics in Data Link Communications.
- This step determines if voltage is not available at the DLC due to an open battery positive fuse. If the fuse is open, determine if the open was due to a short in the battery positive circuit before replacing the fuse.

Step	Action	Values	Yes	No
1	Did you perform the Powertrain On-Board Diagnostic (OBD) System Check?	--	Go to Step 2	Go to Powertrain On Board Diagnostic (OBD) System Check
<u>2</u>	Install the scan tool on a known good vehicle. Does the scan tool display the VCM data?	--	Go to Step 4	Go to Step 3
3	Repair the scan tool or cables. Are the repairs complete?	--	Go to Powertrain On Board Diagnostic (OBD) System Check	--
4	1. Return to the original vehicle. 2. Install the scan tool. 3. Attempt to power the scan tool up.	--	Go to Step 5	Go to Step 9

	Does the scan tool power up?			
5	Select the correct vehicle application on the scan tool. Is the vehicle information correct?	--	Go to Step 6	Go to Powertrain On Board Diagnostic (OBD) System Check
6	1. Turn ON the ignition. 2. Monitor the Class 2 messages with the scan tool. Are any of the modules on the Serial Data circuit communicating?	--	Go to Step 13	Go to Step 7
7	1. Turn OFF the ignition. 2. Disconnect the components sharing the Serial Data circuit leaving the VCM connected. 3. Turn ON the ignition, with the engine OFF. Does the scan tool display VCM data?	--	Go to Data Link Connector (DLC) Schematics in Data Link Communications	Go to Step 8
8	1. Turn OFF the ignition. 2. Disconnect the VCM C4 connector. 3. Probe the Class 2 Serial Data circuit (DLC pin 2) with a test lamp connected to B+. Is the test lamp ON?	--	Go to Step 20	Go to Step 13
9	Probe the battery positive voltage circuit (DLC pin 16) with a test lamp connected to a ground. Is the test lamp ON?	--	Go to Step 10	Go to Step 12
10	Probe the ground circuit (DLC pin 4) with a test lamp connected to B+. Is the test lamp ON?	--	Go to Step 11	Go to Step 16
11	Probe the ground circuit (DLC pin 5) with a test lamp connected to B+. Is the test lamp ON?	--	Go to Step 18	Go to Step 16
12	Inspect the fuse in the fuse block. Is the fuse OPEN?	--	Go to Step 14	Go to Step 15
13	Check for an open, a short to voltage, or a faulty connection in the Class 2 Serial Data circuit. Did you find a problem?	--	Go to Step 17	Go to Step 19
14	1. Check for a short to ground in the battery positive circuit and repair if necessary. Refer to Wiring Repairs in Wiring	--	Go to Step 23	--

	<p>Systems.</p> <p>2. Replace the open fuse.</p> <p>Is the action complete?</p>			
15	<p>Repair the open in the battery positive circuit. Refer to Wiring Repairs in Wiring Systems.</p> <p>Is the action complete?</p>	--	Go to Step 23	--
16	<p>Repair the open in the DLC ground circuit. Refer to Wiring Repairs in Wiring Systems.</p> <p>Is the action complete?</p>	--	Go to Step 23	--
17	<p>Repair the open, the short to voltage, or the faulty connection in the Class 2 Serial Data circuit. Refer to Wiring Repairs or Connector Repairs in Wiring Systems.</p> <p>Is the action complete?</p>	--	Go to Step 23	--
18	<p>Check for poor connections or improper mating at the DLC connector.</p> <p>Did you find a problem?</p>	--	Go to Step 21	Go to Diagnostic Aids
19	<p>Check for a poor connection of the Class 2 Serial Data circuit at the VCM and DLC connectors.</p> <p>Did you find a problem?</p>	--	Go to Step 21	Go to Step 22
20	<p>Repair the short to ground in the Class 2 Serial Data circuit. Refer to Wiring Repairs in Wiring Systems.</p> <p>Is the action complete?</p>	--	Go to Step 23	--
21	<p>Repair the circuit as necessary. Refer to Wiring Repairs or Connector Repairs in Wiring Systems.</p> <p>Is the action complete?</p>	--	Go to Step 23	--
22	<p>Important</p> <p>The replacement VCM must be programmed.</p> <p>Replace the VCM.</p> <p>Refer to VCM Replacement/Programming</p> <p>Is the action complete?</p>	--	Go to Step 23	--
23	<p>Does the scan tool display any additional undiagnosed DTCs?</p>	--	Go to applicable DTC	System OK

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