

## DTC P0102

Step	Action	Values	Yes	No
<b>Schematic Reference: Engine Controls Schematics</b>				
1	Did you perform the Diagnostic System Check—Computers and Control Systems?	—	Go to Step 2	Go to <i>Diagnostic System Check - Computers and Control Systems</i>
2	1. Start the engine. 2. Observe the mass air flow (MAF) sensor frequency with a scan tool. Is the MAF sensor frequency less than the specified value?	1200 Hz	Go to Step 4	Go to Step 3
3	1. Observe the Freeze Frame/Failure Records data for this DTC. 2. Turn OFF the Ignition for 30 seconds. 3. Start the engine. 4. Operate the vehicle within the Conditions for Running the DTC as specified in the supporting text or as close to the Freeze Frame/Failure Records data that you observed. Does the DTC fail this ignition?	—	Go to Step 4	Go to Diagnostic Aids
4	1. Observe the MAF sensor frequency with a scan tool. 2. Move the harness and the connector of the MAF sensor. Does the movement of the harness or the connector affect the MAF sensor frequency?	—	Go to Step 25	Go to Step 5
5	1. Turn OFF the ignition. 2. Inspect for the following conditions: <ul style="list-style-type: none"> <li>• A restricted air intake duct</li> <li>• A collapsed air intake duct</li> <li>• A dirty air filter element</li> <li>• A deteriorating air filter element</li> <li>• Any objects blocking the air inlet screen of the MAF sensor</li> <li>• Any debris on the sensing elements of the MAF sensor</li> <li>• Any vacuum leak downstream of the MAF sensor</li> <li>• A MAF sensor that is installed backwards</li> <li>• A restricted exhaust system</li> </ul> Did you find and correct the condition?	—	Go to Step 30	Go to Step 6
6	Inspect the fuse in the ignition 1 voltage circuit of the MAF sensor. Is the fuse open?	—	Go to Step 12	Go to Step 7
7	1. Disconnect the harness connector of the MAF sensor. 2. Turn ON the ignition, with the engine OFF. 3. Connect a test lamp between the Ignition 1 voltage circuit of the MAF sensor and a good ground. Refer to Diagnostic Aids for Circuit Testing and Wiring Repair procedures. Does the test lamp illuminate?	—	Go to Step 8	Go to Step 18
8	Measure the resistance from the ground circuit of the MAF sensor to battery ground. Is the resistance less than the specified value?	5Ω	Go to Step 9	Go to Step 19
9	Measure the voltage from the signal circuit of the MAF sensor to a good ground. Is the voltage near the specified value?	5 V	Go to Step 10	Go to Step 11

Steps 1-9