Throttle Valve Control Module J338, Checking

Note:

- Use only gold-plated terminals when servicing terminals in harness connector of Throttle Valve Control Module J338.

Special tools, testers and auxiliary items required

- Multimeter.
- Wiring diagram.

Test requirements

- The Motronic Engine Control Module (ECM) J220 fuses OK.
- Battery voltage at least 12.5 volts.
- All electrical consumers such as, lights and rear window defroster, switched off.
- Vehicles with automatic transmission, shift selector lever into position "P" or "N".
- A/C switched off.
- Ground (GND) connections between engine/transmission/chassis OK.
- Throttle valve must not be damaged or dirty.
- Coolant Temperature at least 80 degree C.

Test procedure

- Perform a Preliminary Check to verify the customers complaint. Refer to Preliminary Check.

Start diagnosis

Function


The Throttle Valve Control Module J338 is made up of the following components:
Throttle Position (TP) Actuator V60

Throttle Position (TP) Sensor G69

Throttle Position (TP) Sensor G88

The Throttle Valve Control Module J338 cannot be serviced separately and must be serviced as a unit.

**Function test**

- Connect the scan tool.

- Switch ignition on.

- Using the scan tool, check the throttle valve position (absolute) at idle stop:

<table>
<thead>
<tr>
<th>Diagnostic text</th>
<th>Specified value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throttle valve position (absolute)</td>
<td></td>
</tr>
<tr>
<td>Idle stop</td>
<td>3.0 to 25.0%</td>
</tr>
</tbody>
</table>

- Slowly depress the accelerator pedal to the Wide Open Throttle (WOT) stop while observing the percentage display. The percentage display must increase uniformly.

- Using the scan tool, check the throttle valve position (absolute) at Wide Open Throttle (WOT) stop:

<table>
<thead>
<tr>
<th>Diagnostic text</th>
<th>Specified value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throttle valve position (absolute)</td>
<td></td>
</tr>
<tr>
<td>Wide Open Throttle (WOT) stop</td>
<td>84.0 to 97.0%</td>
</tr>
</tbody>
</table>

- End diagnosis and switch ignition off.

If the specified values are not obtained:

- Remove the Throttle Valve Control Module J338 far enough so that the electrical connector terminals are reached.
- Disconnect the Throttle Valve Control Module J338 electrical harness connector - arrow.

Checking resistance

- Using a multimeter, check the Throttle Position (TP) Actuator V60 at the Throttle Valve Control Module J338 terminals 1 to 2 for resistance.

Specified value: 1.0 to 5.0 Ω (at 20 degree C)

If the specification was not obtained:

- Replace the Throttle Valve Control Module J338.

If the specification was obtained:

- Check the voltage supply of the Throttle Valve Control Module J338 to the Motronic Engine Control Module (ECM) J220.


Checking voltage supply and wiring
Switch the ignition on.

Using a Multimeter, check the Throttle Position (TP) Actuator V60 at the Throttle Valve Control Module J338 electrical harness connector terminals 4 to 8 for voltage.

Specified value: at least 4.5 V

Switch the ignition off.

If the specification was not obtained:

**Checking wiring**

If the manufacturers test box is being used. Perform the following step.

- Install the Adapter F/VAG1598 (68 Pin) VAG1598/22.

If the manufacturers test box is not being used. Perform the following step.

- Remove the Motronic Engine Control Module (ECM) J220. Refer to [Motronic Engine Control Module J220, Replacing](#).

Using a Multimeter, check the Throttle Position (TP) Actuator V60 at Throttle Valve Control Module J338 electrical harness connector terminals to the Motronic Engine Control Module (ECM) J220 electrical harness connector T80 terminals for an open circuit according to the wiring diagram.

<table>
<thead>
<tr>
<th>Throttle Valve Control Module J338 electrical harness connector terminals</th>
<th>Motronic Engine Control Module (ECM) J220 electrical connector T80 terminals or test box socket</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>74</td>
</tr>
<tr>
<td>2</td>
<td>67</td>
</tr>
<tr>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>5</td>
<td>62</td>
</tr>
<tr>
<td>6</td>
<td>69</td>
</tr>
</tbody>
</table>
If the specification was not obtained:

- Check the wiring for a short circuit to each other, Battery (+), or Ground (GND).
- If necessary, repair the faulty wiring connection.
- Check the electrical harness connector for damage, corrosion, loose or broken terminals.

If no malfunction is detected in the wiring and if the voltage supply was not OK:

- Replace the Throttle Valve Control Module J338. Refer to Motronic Engine Control Module J220, Replacing.
- Erase the DTC memory. Refer to Diagnostic Mode 04 - Erase DTC Memory
- Perform a road test to verify repair.

If the DTC does not return:

Repair complete, Generate readiness code. Refer to Readiness Code.

- End diagnosis.

If the DTC does return and no malfunction is detected in the wiring and the voltage supply was OK:

- Assembly is performed in the reverse of the removal.

Final Procedures

After the repair work, the following work steps must be performed in the following sequence:

1. Check the DTC memory. Refer to.
2. If necessary, erase the DTC memory. Refer to.
3. If the DTC memory was erased, generate readiness code. Refer to.

End of diagnosis.