

## **DTC C0550**

### **Circuit Description**

When the ignition switch is turned ON, the rear wheel steering control module monitors communications between its internal microprocessors and performs self-diagnostic tests. If an internal malfunction is detected, the rear wheel steering control module will store a DTC C0550 in its memory.

### **DTC Descriptor**

This diagnostic procedure supports the following DTC:

DTC C0550 Electronic Control Unit (ECU) Performance

### **Conditions for Running the DTC**

Turn the ignition switch to the ON position, with engine ON.

### **Conditions for Setting the DTC**

- The rear wheel steering control module detected an internal malfunction.
- The malfunction must be detected when the ignition switch is first turned ON.

### **Action Taken When the DTC Sets**

- The Service 4 Wheel Steer indicator in instrument panel cluster (IPC) will be displayed.
- The code is displayed on scan the tool as DTC C0550.
- The output command to the motor is zeroed. The motor drive circuits are disabled using commands from the rear wheel steering control module to open the power relay.
- The rear wheels will be returned to the default centered position.

### **Conditions for Clearing the DTC**

- Conditions for the DTC are not currently present.
- The module receives a clear code command from the scan tool.
- The DTC clears after 100 malfunction free ignition cycles.

### **Diagnostic Aids**

- Any additional codes displayed with DTC C0550 should be diagnosed and repaired first.
- The rear wheel steering control module tests for multiple internal malfunctions and will store a DTC C0550 if one or more internal malfunctions are detected. Therefore, depending on which malfunction was detected, and what internal circuitry was affected, this DTC may cause various symptoms.
- Any condition resulting in the sensor supply voltage being pulled high or low could result in an erroneous DTC C0550.
- A fault in the battery positive voltage circuit from the 125 amp MEGA fuse can result in an erroneous DTC C0550.

## DTC C0550

Step	Action	Values	Yes	No
<b>Schematic Reference: <u>Rear Wheel Steering Schematics</u></b> <b>Connector End View Reference: <u>Rear Wheel Steering Connector End Views</u></b>				
1	Did you perform the Diagnostic System Check - Vehicle?	-	Go to <b>Step 2</b>	Go to <b><u>Diagnostic System Check - Vehicle</u></b> in Vehicle DTC Information
2	<ol style="list-style-type: none"> <li>1. Install a scan tool.</li> <li>2. Turn the ignition ON, with the engine OFF.</li> <li>3. With the scan tool, monitor the DTC information of the Rear Wheel Steering Control module.</li> </ol> <p>Are there any additional codes displayed along with the DTC C0550?</p>	-	Go to <b><u>Diagnostic Trouble Code (DTC) List - Vehicle</u></b> in Vehicle DTC Information	- Go to <b>Step 3</b>
3	With the scan tool, monitor the DTC information of the Rear Wheel Steering Control module. Does the information indicate that the DTC C0550 is current?	-	Go to <b>Step 4</b>	Go to Diagnostic Aids
4	With the scan tool, observe the sensor supply voltage in the rear wheel steering data. Is the voltage above the specified value?	5.0 V	Go to <b>Step 7</b>	Go to <b>Step 5</b>
5	With the scan tool, observe the sensor supply voltage in the rear wheel steering data. Is the voltage below the specified value?	0.25 V	Go to <b>Step 8</b>	Go to <b>Step 6</b>
6	Test for an open or short to ground in the battery voltage supply circuit of the 125 amp MEGA fuse. Refer to <b><u>Circuit Testing</u></b> and <b><u>Wiring Repairs</u></b> in Wiring Systems. Did you find and correct the condition?	-	Go to <b>Step 11</b>	Go to <b>Step 9</b>
7	Test the 5-volt reference circuit for a short to battery voltage. Refer to <b><u>Circuit Testing</u></b> and <b><u>Wiring Repairs</u></b> in Wiring Systems. Did you find and correct the condition?	-	Go to <b>Step 11</b>	Go to <b>Step 9</b>
8	Test the 5-volt reference circuit for a short to ground. Refer to <b><u>Circuit Testing</u></b> and <b><u>Wiring Repairs</u></b> in Wiring Systems. Did you find and correct the condition?	-	Go to <b>Step 11</b>	Go to <b>Step 9</b>

9	<p>Inspect for poor connections at the rear wheel steering control module. Refer to <b><u>Testing for Intermittent Conditions and Poor Connections</u></b> and <b><u>Connector Repairs</u></b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	-	Go to <b>Step 11</b>	Go to <b>Step 10</b>
10	<p>Replace the rear wheel steering control module. Refer to <b><u>Control Module References</u></b> in Computer/Integrating Systems for replacement, setup, and programming.</p> <p>Did you complete the replacement?</p>	-	Go to <b>Step 11</b>	-
11	<ol style="list-style-type: none"> <li>1. Use the scan tool to clear DTCs.</li> <li>2. Operate the vehicle within the conditions for running the DTC as specified in the supporting text.</li> </ol> <p>Does DTC C0550 reset?</p>	-	Go to <b>Step 2</b>	System OK