

Component Code 53 Gear Engaged Sensor

Fault Description

This code indicates an electrical problem in the gear engaged sensor circuit.

Required Tools

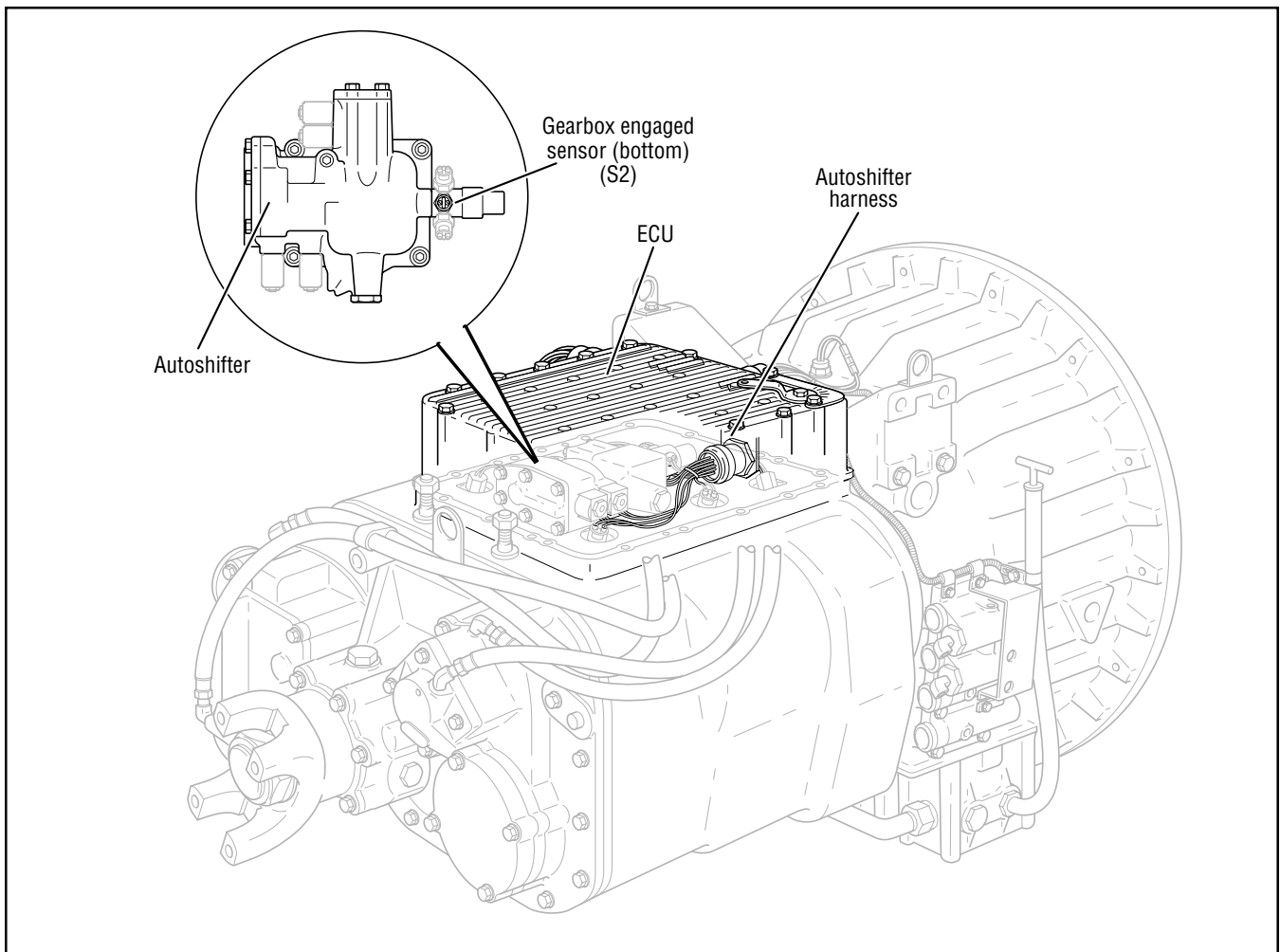
- Basic Hand Tools
- Digital Volt/Ohm Meter
- CEEMAT Troubleshooting Guide

Possible Causes

This code can be caused by an electrical open or short in any of the following areas:

- Gearbox engaged sensor
- Autoshifter wiring harness
- Autoshifter
- Faulty ECU

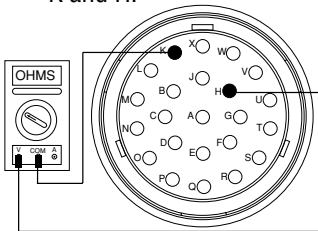
Likely Failed Components



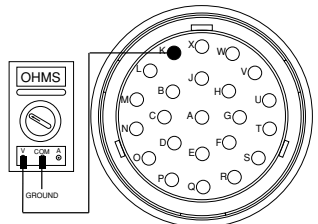
Code 53, Gear Engaged Sensor Test

Step A	Procedure	Condition	Action
	<ol style="list-style-type: none"> 1. Key off. 2. Remove ECU from transmission. 3. Disconnect autoshifter harness from ECU. 4. Inspect harness and position sensor connections for abrasions or corrosion. 	<p>→ If harness and connections are OK</p> <p>→ If harness or connections have poor connections, abrasions or corrosion</p>	<p>→ Go to Step B.</p> <p>→ Repair connections as needed. Repeat this step.</p>

Step B	Procedure	Condition	Action
	<ol style="list-style-type: none"> 1. Disconnect connector on the gearbox engaged switch (S2). 2. Install a jumper wire between the two sensor pins. 3. Measure resistance between autoshifter harness terminals K and H. 	<p>→ If resistance is 0 to .3 ohms</p> <p>→ If resistance is outside of range</p>	<p>→ Go to Step C.</p> <p>→ Repair or replace autoshifter harness. Go to Step V.</p>



Step C	Procedure	Condition	Action
	<ol style="list-style-type: none"> 1. With the jumper still connected, measure resistance between autoshifter harness terminal K and ground. 	<p>→ If resistance is more than 10K ohms or infinite</p> <p>→ If resistance is less than 10K ohms</p>	<p>→ Go to Step D.</p> <p>→ Repair or replace autoshifter harness. Go to Step V.</p>



Code 53, Gear Engaged Sensor Test, continued

Step D	Procedure	Condition	Action
	<ol style="list-style-type: none"> 1. Replace the gearbox engaged switch (S2) and reassemble transmission. 2. Key on. 3. Clear codes (see Clearing Fault Codes, page 1-3). 4. Use Driving Technique to attempt to reset the code (page 1-4). 5. Check for codes (see Retrieving Fault Codes, page 1-3). 	<p>→ If code 53 appears again</p> <p>If code 53 does not reappear</p>	<p>→ Replace the ECU. Go to Step V.</p> <p>→ Go to Step V.</p>

Step V	Procedure	Condition	Action
	<ol style="list-style-type: none"> 1. Key off. 2. Reconnect all connectors. 3. Key on. 4. Clear codes (see Clearing Fault Codes, page 1-3). 5. Use Driving Technique to attempt to reset the code (page 1-4). 6. Check for codes (see Retrieving Fault Codes, page 1-3). 	<p>→ If no codes</p> <p>If code 53 appears</p> <p>If code other than 53 appears</p>	<p>→ Test complete.</p> <p>→ Return to Step A to find error in testing.</p> <p>→ Go to Fault Isolation Procedure Index (page 1-8).</p>

