

## Instrument Panel, Gauges and Warning Indicators: Pinpoint Tests

### Test M: The Anti-Lock Brake System (ABS) Warning Indicator Is Never/Always On

#### PINPOINT TEST M: THE ANTI-LOCK BRAKE SYSTEM (ABS) WARNING INDICATOR IS NEVER/ALWAYS ON

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Test Step		Result / Action to Take
<b>M1</b>	<b>RETRIEVE THE RECORDED DTCs FROM BOTH CONTINUOUS AND ON-DEMAND ABS MODULE SELF-TESTS</b>	<b>Yes</b>
	<ul style="list-style-type: none"> <li>Retrieve the recorded ABS module DTCs from the continuous and on-demand self-tests.</li> <li><b>Are any ABS module DTCs retrieved?</b></li> </ul>	REFER to Antilock Brakes / Traction Control Systems. <b>No</b> GO to M2.
<b>M2</b>	<b>CARRY OUT THE INSTRUMENT CLUSTER INDICATOR LAMP CONTROL OUTPUT STATE CONTROL USING THE SCAN TOOL</b>	
	<ul style="list-style-type: none"> <li>Key in ON position.</li> <li>Enter the following diagnostic mode on the scan tool: Instrument Cluster Output State Control.</li> <li>Enter the instrument cluster output state control and select ABS LAMP. Command the ABS warning indicator on and off. Observe the ABS warning indicator.</li> <li><b>Does the ABS warning indicator illuminate when commanded on, and turn off when commanded off?</b></li> </ul>	<b>Yes</b> GO to M3. <b>No</b> GO to M4.
<b>M3</b>	<b>CHECK FOR CORRECT ABS MODULE OPERATION</b>	
	<ul style="list-style-type: none"> <li>Disconnect the ABS module connector.</li> <li>Check for: <ul style="list-style-type: none"> <li>corrosion</li> <li>damaged pins</li> <li>pushed-out pins</li> </ul> </li> <li>Connect the ABS module connector and make sure it seats correctly.</li> <li>Operate the system and verify the concern is still present.</li> <li><b>Is the concern still present?</b></li> </ul>	<b>Yes</b> INSTALL a new ABS module. TEST the system for normal operation. <b>No</b> The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.
<b>M4</b>	<b>CHECK FOR CORRECT INSTRUMENT CLUSTER OPERATION</b>	
	<ul style="list-style-type: none"> <li>Disconnect the instrument cluster connector.</li> <li>Check for: <ul style="list-style-type: none"> <li>corrosion</li> <li>damaged pins</li> <li>pushed-out pins</li> </ul> </li> <li>Connect the instrument cluster connector and make sure it seats correctly.</li> <li>Operate the system and verify the concern is still present.</li> <li><b>Is the concern still present?</b></li> </ul>	<b>Yes</b> INSTALL a new instrument cluster. TEST the system for normal operation. <b>No</b> The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

#### M1-M4

#### Normal Operation

The status of the ABS system is sent to the instrument cluster from the ABS module over the high speed controller area network (HS-CAN). The instrument cluster monitors the ABS input and illuminates the ABS warning indicator when a concern is present.

**NOTE:** When the ABS module detects an electronic brake distribution (EBD) fault, the ABS module sends a message to the instrument cluster. Whenever the instrument cluster receives an EBD message from the ABS module, the instrument cluster turns on both the brake warning indicator and the ABS warning indicator simultaneously.

#### Possible Causes

- ABS module
- Instrument cluster