

## DIAGNOSIS AND TESTING (Continued)

## PINPOINT TEST TX:

## NO WARNING TONE WHEN THERMOMETER SYMBOL IS BLINKING

TEST STEP		RESULT	ACTION TO TAKE
<b>TX1</b>	<b>REVIEW OPERATION / VERIFY CONDITION</b>		
	<ul style="list-style-type: none"> <li>The gauge driver alert tone is not active until at least 300 rpm or valid oil pressure has been detected, (i.e. vehicle was started).</li> <li>Warning chime module will not beep if another sound is being produced.</li> <li>Driver alert only given for temperatures above normal band.</li> </ul>		GO to TX2.
<b>TX2</b>	<b>CHECK WARNING CHIME</b>		
	<ul style="list-style-type: none"> <li>Turn ignition to RUN.</li> <li>Press any cluster control button and listen for beep.</li> <li>Does chime beep?</li> </ul>	Yes No	System OK. GO to Pinpoint Test SA.

## PINPOINT TEST TF:

## TEMPERATURE GAUGE ALWAYS INDICATES COLD TEMPERATURE (BOTTOM BAR ILLUMINATED)

TEST STEP		RESULT	ACTION TO TAKE
<b>TF1</b>	<b>CHECK TEMPERATURE GAUGE WIRING</b>		
	<ul style="list-style-type: none"> <li>Unplug connector to temperature sender and connect a jumper to ground in place of sender.</li> <li>Turn ignition to RUN.</li> <li>Gauge should give a short circuit indication. Top two and bottom two bars of gauge illuminated.</li> </ul>	Top two and bottom two bars illuminate Bars do not illuminate as specified	GO to TF3. REMOVE jumper. GO to TF2.
<b>TF2</b>	<b>CHECK WIRING AT CLUSTER</b>		
	<ul style="list-style-type: none"> <li>Disconnect ground cable to battery.</li> <li>Remove cluster.</li> <li>Connect jumper in place of temperature sender.</li> <li>Verify continuity between Pins 4A and 8A of harness.</li> <li>Is there continuity?</li> </ul>	Yes No	REPLACE cluster. SERVICE wiring Circuit 39 and/or temperature sender ground line for open circuit.
<b>TF3</b>	<b>CHECK SENDER</b>		
	<ul style="list-style-type: none"> <li>Warm up engine to normal operating temperature.</li> <li>Measure resistance of temperature sender.</li> </ul>	Resistance less than 8,000 ohms Resistance greater than 8,000 ohms	REPLACE cluster. GO to TF4.
<b>TF4</b>	<b>CHECK COOLING SYSTEM</b>		
	<ul style="list-style-type: none"> <li>Check thermostat, coolant level, etc. for proper operation.</li> </ul>	Cooling system OK Cooling system not OK	REPLACE temperature sender. SERVICE cooling system as required.

## PINPOINT TEST SA:

## DISPLAY DOES NOT RESPOND TO BUTTONS—NO BEEP WHEN BUTTONS PUSHED OR DRIVER ALERT GIVEN

TEST STEP		RESULT	ACTION TO TAKE
<b>SA1</b>	<b>VERIFY CONDITION</b>		
	<ul style="list-style-type: none"> <li>Cluster only responds to buttons when ignition is in RUN.</li> <li>Warning chime module will not beep if another sound is being produced.</li> </ul>	Display does not respond to buttons No beep sounds but display response to buttons / warnings	GO to SA3. GO to SA2.
<b>SA2</b>	<b>CHECK WARNING CHIME MODULE</b>		
	<ul style="list-style-type: none"> <li>Check for fasten safety belt reminder chime or key left in ignition reminder chime.</li> <li>Does chime sound?</li> </ul>	Yes No	GO to SA6. SERVICE warning chime module.