

<b>DTC</b>	<b>P0128</b>	<b>Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)</b>
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## CIRCUIT DESCRIPTION

HINT:

This is the troubleshooting procedure of thermostat.

If the engine coolant temperature does not reach 75°C (167°F) even after warming up, it is abnormal.

DTC No.	DTC Detection Condition	Trouble Area
P0128	Conditions (a), (b) and (c): (a) Cold start (b) After engine is warmed up (c) Engine coolant temp. < 75°C (167°F)	<ul style="list-style-type: none"> <li>• Thermostat</li> <li>• Cooling system</li> <li>• Engine coolant temp. sensor</li> <li>• ECM</li> </ul>

## INSPECTION PROCEDURE

HINT:

Read freeze frame data using the hand-held tester or the OBD II scan tool, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.

<b>1</b>	<b>Check thermostat (See page <a href="#">CO-11</a>).</b>
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**Replace thermostat (See page [CO-10](#)).**

OK

<b>2</b>	<b>Are there any other codes (besides DTC P0128) being output?</b>
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YES

**Go to relevant DTC chart (See page [DI-231](#)).**

NO

**Check and replace ECM (See page [IN-28](#)).**