DTC	P0116	Engine Coolant Temp. Circuit Range/ Performance Problem

CIRCUIT DESCRIPTION

Refer to DTC P0115 on page DI–103.

DTC No.	DTC Detecting Condition	Trouble Area
P0116	When the engine starts, the water temp. is –7°C (20°F) or less. And, 20 min. or more after the engine starts, the water temp. sensor value is 20°C (68°F) or less (2 trip detection logic)	• Water temp. sensor • Cooling system
	When the engine starts, the water temp. is between –7°C (20°F) and 10°C (50°F) And, 5 min. or more after the engine starts, the water temp. sensor value is 20°C (68°F) or less (2 trip detection logic)	

INSPECTION PROCEDURE

HINT:

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

1	**Are there any other codes (besides DTC P0116) being output?**

YES → **Go to relevant DTC chart.**

NO

2	**Check thermostat (See page CO–12).**

NG → **Replace thermostat.**

OK

Replace engine coolant temp. sensor.