

DTC	P0116	Engine Coolant Temp. Circuit Range/ Performance Problem
------------	--------------	--

CIRCUIT DESCRIPTION

Refer to DTC P0115 (Engine Coolant Temp. Circuit Malfunction) on page [DI-30](#).

DTC No..	DTC Detecting Condition	Trouble Area
P0116	If THW $\geq 10^{\circ}\text{C}$ (50°F), 2 min. or more after starting engine, engine coolant temp. sensor value is 35°C (95°F) or less (2 trip detection logic)	• Engine coolant temp. sensor • Cooling system
	If -7°C (19.4°F) $\leq$ THW $< 10^{\circ}\text{C}$ (50°F), 5 min. or more after starting engine, engine coolant temp. sensor value 35°C (95°F) or less (2 trip detection logic)	
	If THW $< -7^{\circ}\text{C}$ (19.4°F), 20 min. or more after starting engine, engine coolant temp. sensor value is 35°C (95°F) or less (2 trip detection logic)	

INSPECTION PROCEDURE

HINT:

If DTC P0115 (Engine Coolant Temp. Circuit Malfunction) and P0116 (Engine Coolant Temp. Circuit Range/Performance) are output simultaneously, engine coolant temp. sensor circuit may be open.

Perform troubleshooting of DTC P0115 first.

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

YES

Go to relevant DTC chart.

NO

2	Check thermostat (See page CO-9).
----------	--

NG

Replace the thermostat.

OK

Replace engine coolant temp. sensor.