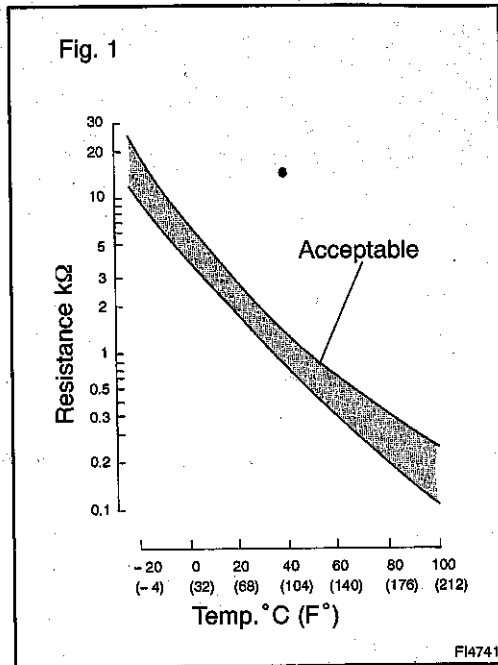


DTC	P0110	Intake Air Temp. Circuit Malfunction
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CIRCUIT DESCRIPTION



The intake air temperature sensor is built in the air cleaner cap and senses the intake air temperature.

A thermistor built in the sensor changes the resistance value according to the intake air temperature, the lower the intake air temperature, the greater the thermistor resistance value, and the higher the intake air temperature, the lower the thermistor resistance value (See Fig. 1).

The intake air temperature sensor is connected to the ECM (See below). The 5 V power source voltage in the ECM is applied to the intake air Temperature sensor from terminal THA via a resistor R.

That is, resistor R and the intake air temperature sensor are connected in series. When the resistance value of the intake air temperature sensor changes in accordance with changes in the intake air temperature, the potential at terminal THA also changes. Based on this signal, the ECM increases the fuel injection volume to improve driveability during the cold engine operation.

If the ECM detects the DTC P0110, it operates the fail safe function in which the intake air temperature is assumed to be 20°C (68°F).

DTC No.	DTC Detection Condition	Trouble Area
P0110	Open or short in intake air temp. sensor circuit	<ul style="list-style-type: none"> • Open or short in intake air temp. sensor circuit • Intake air temp. sensor • ECM

HINT:

After confirming DTC P0110, use the OBD II scan tool or TOYOTA hand-held tester to confirm the intake air temperature from the CURRENT DATA.

Displayed Temperature	Malfunction
-40°C (-40°F)	Open circuit
140°C (284°F) or more	Short circuit

① 90980-11163

Exhaust air box
IAT Sensor

② 82298-

12240 ②