

# PGM-FI System

## Intake Air Temperature (IAT) Sensor ('96 – 97 Models)

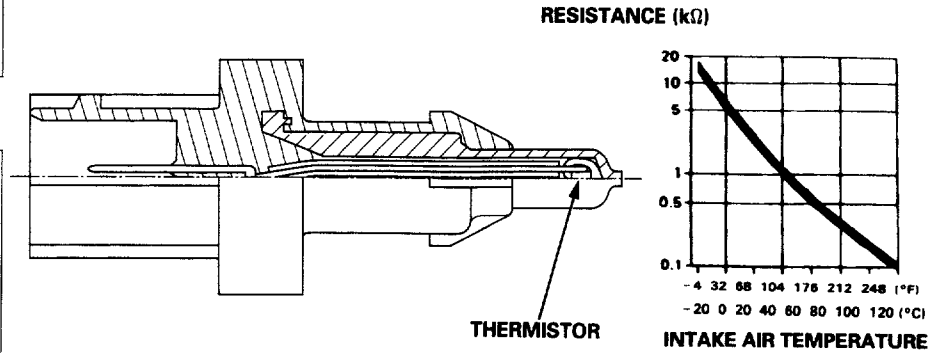
**P0111** The scan tool indicates Diagnostic Trouble Code (DTC) P0111: A range/performance problem in the Intake Air Temperature (IAT) Sensor circuit.

The IAT Sensor is a temperature dependant resistor (thermistor). The resistance of the thermistor decreases as the intake air temperature increases as shown below.

- The MIL has been reported on.
- DTC P0111 is stored.
- Or from Probable Cause List.

### Problem verification:

1. Turn the ignition switch OFF.
2. Disconnect the IAT sensor 2P connector.
3. Remove the IAT sensor.
4. Reconnect the IAT sensor 2P connector.
5. Leave the IAT sensor exposed to ambient temperature.
6. Turn the ignition switch ON (II).
7. Check the IAT with the scan tool.



Is ambient temperature indicated?

NO

Replace the IAT sensor.

YES

### Check the IAT sensor output:

1. Warm the IAT sensor with a hair dryer.
2. Check the IAT with the scan tool.

Did the IAT rise 2°F (1°C) or more from the ambient temperature?

YES

Intermittent failure, system is OK at this time.

NO

Replace the IAT sensor.



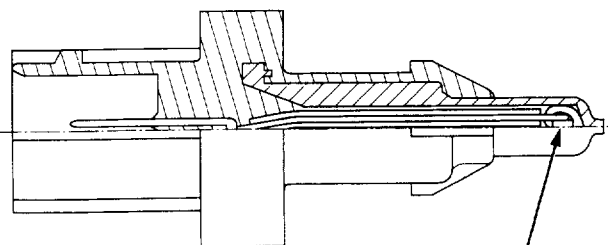
## Intake Air Temperature (IAT) Sensor

**P0112** The scan tool indicates Diagnostic Trouble Code (DTC) P0112: A low voltage (high temperature) problem in the Intake Air Temperature (IAT) sensor circuit.

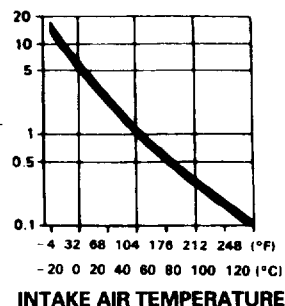
- The MIL has been reported on.
- DTC P0112 is stored.

### Problem verification:

1. Turn the ignition switch ON (II).
2. Check the IAT with the scan tool.



RESISTANCE (kΩ)



THERMISTOR

INTAKE AIR TEMPERATURE

Is 302°F (150°C) or higher (or H-Limit in Honda mode of PGM Tester) or 0 V indicated?

NO

Is the correct ambient temperature indicated\*2?

NO

Replace the IAT sensor.

\*2: If the engine is warm, it will be higher than ambient temperature.

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C112 (IAT sensor) and ECM/PCM.

### Check for a short in the IAT sensor:

1. Disconnect the IAT sensor connector.
2. Check the IAT with the scan tool.

Is 302°F (150°C) or higher (or H-Limit in Honda mode of PGM Tester) or 0 V indicated?

NO

Replace the IAT sensor.

YES

### Check for a short in the wire (IAT line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector D (16P) (C (31P))\*1.
3. Check for continuity between the IAT sensor 2P connector terminal No. 2 and body ground.

Is there continuity?

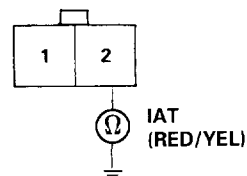
YES

Repair short in the wire between ECM/PCM (D8 (C25))\*1 and IAT sensor.

NO

Substitute a known-good ECM/PCM and recheck. If normal IAT is indicated, replace the original ECM/PCM.

IAT SENSOR 2P CONNECTOR (C112)



Wire side of female terminals

\*1: '99 - 00 models except D16Y5 engine with M/T.

# PGM-FI System

## Intake Air Temperature (IAT) Sensor (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T)

**P0113** The scan tool indicates Diagnostic Trouble Code (DTC) P0113: A high voltage (low temperature) problem in the Intake Air Temperature (IAT) sensor circuit.

- The MIL has been reported on.
- DTC P0113 is stored.

### Problem verification:

1. Turn the ignition switch ON (II).
2. Check the IAT with the scan tool.

Is  $-4^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$ ) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

**Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C112 (IAT sensor) and ECM/PCM.**

YES

### Check for an open in the IAT sensor:

1. Disconnect the IAT sensor 2P connector.
2. Connect the IAT sensor 2P connector terminals No. 1 and No. 2 with a jumper wire.
3. Check the intake air temperature with the scan tool.

Is  $-4^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$ ) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

**Replace the IAT sensor.**

YES

### Check for an open in the wires (IAT, SG2 lines):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals D8 and D11 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the IAT with the scan tool.

Is  $-4^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$ ) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

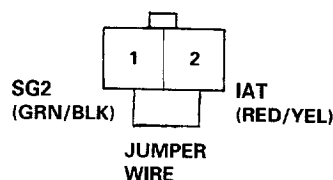
NO

**Repair open in the wires between ECM/PCM (D8, D11) and IAT sensor.**

YES

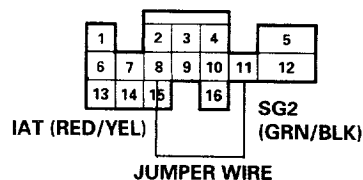
**Substitute a known-good ECM/PCM and recheck. If normal IAT is indicated, replace the original ECM/PCM.**

IAT SENSOR 2P CONNECTOR (C112)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals



## Intake Air Temperature (IAT) Sensor (’99 – 00 Models except D16Y5 engine with M/T)

**P0113**

The scan tool indicates Diagnostic Trouble Code (DTC) P0113: A high voltage (low temperature) problem in the Intake Air Temperature (IAT) sensor circuit.

- The MIL has been reported on.
- DTC P0113 is stored.

### Problem verification:

1. Turn the ignition switch ON (II).
2. Check the IAT with the scan tool.

Is  $-4^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$ ) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C112 (IAT sensor) and ECM/PCM.

YES

### Check for an open in the IAT sensor:

1. Disconnect the IAT sensor 2P connector.
2. Connect the IAT sensor 2P connector terminals No. 1 and No. 2 with a jumper wire.
3. Check the intake air temperature with the scan tool.

Is  $-4^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$ ) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Replace the IAT sensor.

YES

### Check for an open in the wires (IAT, SG2 lines):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals C18 and C25 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the IAT with the scan tool.

Is  $-4^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$ ) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

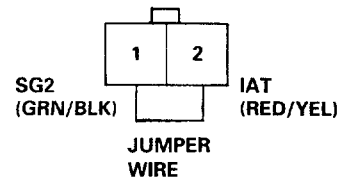
NO

Repair open in the wires between ECM/PCM (C18, C25) and IAT sensor.

YES

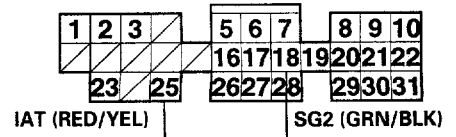
Substitute a known-good ECM/PCM and recheck. If normal IAT is indicated, replace the original ECM/PCM.

IAT SENSOR 2P CONNECTOR (C112)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals