

MIL Check

When the ignition switch is turned to ON (I), the MIL will stay on for a few seconds, then go off. If the MIL does not come on, troubleshoot the MIL circuit (page 4-25).

CURRENT DTC/STORED DTC

The DTC is indicated in two ways according to the failure status.

- In case the PCM detects the problem at present, the MIL will come on and the MIL will start to blink as its DTC. It is possible to readout the MIL blink pattern as the current DTC.
- In case the PCM does not detect any problem at present but has a problem stored in its memory, the MIL will not light and blink. If it is necessary to retrieve the past problem, readout the stored DTC by following the DTC readout procedure.

MCS INFORMATION

- The MCS can readout the DTC, stored data, current data and other PCM condition.

How to connect the MCS

Turn the ignition switch to OFF (O).

Remove the front hood (page 2-12).

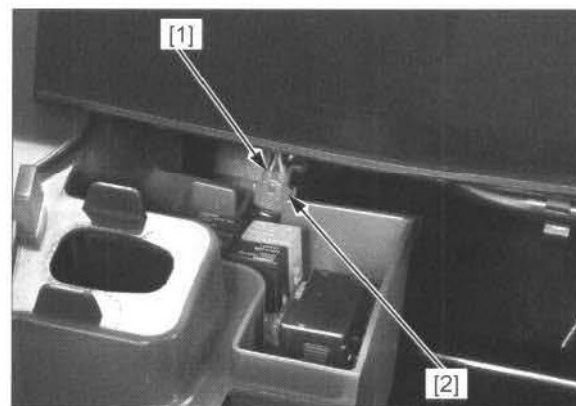
Remove the DLC [1] from the dummy connector [2].

Connect the MCS to the DLC.

Turn the ignition switch to ON (I), and check the DTC and stored data.

NOTE:

- Stored data indicates the engine conditions when the first malfunction was detected.

**DTC READOUT**

- When the ignition switch is turned to ON (I), the MIL will stay on for a few seconds, then go off.
- After performing diagnostic troubleshooting, erase the DTC(s) (page 4-8) and test-drive the vehicle to be sure that the problem(s) have been removed.

If the MIL stays on or blinks, connect the MCS to the DLC (page 4-7).

Then read the DTC and follow the troubleshooting index:

- PGM FI system: page 4-9
- A/T system: page 16-13

To read the DTC with the MIL blinking, refer to the following procedure.

PGM-FI SYSTEM

Reading DTC with the MIL

Start the engine and let it idle. Read the MIL blinking that is indicated as the current DTC and refer to the troubleshooting index:

- PGM FI system: page 4-9
- A/T system: page 16-13

When retrieving the stored DTC, refer to the following procedure.

Remove the DLC from the dummy connector (page 4-7).

Short the DLC [1] using the special tool.

TOOL:

SCS service connector [2] 070PZ-ZY30100

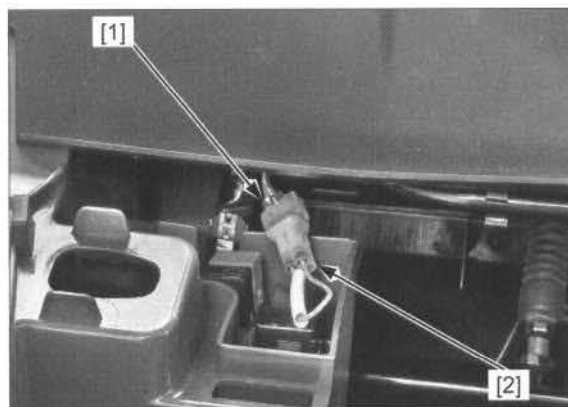
CONNECTION: Brown/red – Green

Turn the ignition switch to ON (I), read and note the MIL blinks, and refer to the troubleshooting index:

- PGM FI system: page 4-9
- A/T system: page 16-13

NOTE:

If the PCM has any DTC in its memory, the MIL will start blinking.



ERASING DTC

Erase the DTC with the MCS while the engine is stopped.

How to erase the DTC without MCS

Remove the DLC from the dummy connector (page 4-7).

Short the DLC [1] using the special tool.

TOOL:

SCS service connector [2] 070PZ-ZY30100

CONNECTION: Brown/red – Green

Turn the ignition switch to ON (I).

Remove the special tool from the DLC.

The MIL will light for approximately 5 seconds. While the MIL lights, short the DLC again with the special tool. The DTC is erased if the MIL goes off and starts blinking.

NOTE:

The DLC must be shorted while the MIL lights. If not, the MIL will not start blinking.

Note that the DTC cannot be erased if the ignition switch is turned to OFF (O) before the MIL starts blinking.



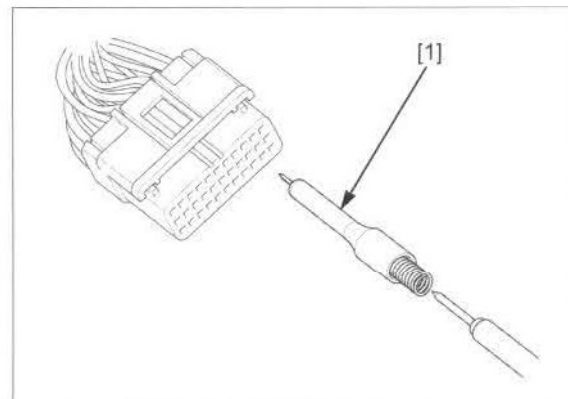
CIRCUIT INSPECTION

INSPECTION AT PCM CONNECTOR

- Always clean around and keep any foreign material away from the PCM connector before disconnecting it.
- A faulty PGM-FI system is often related to poorly connected or corroded connections. Check those connections before proceeding.
- Do not pull the wire harness while disconnecting the PCM connectors.
- In testing at PCM connector (wire harness side) terminal, always use the test probe [1]. Insert the test probe into the connector terminal, then attach the digital multimeter probe to the test probe.

TOOL:

Test probe, 2 pack 07ZAJ-RDJA110



PGM-FI DTC INDEX

NOTE:

- If the MCS is not used, perform all of the inspection on the corresponding main code (digits in front of hyphen) of the DTC.

DTC	Function Failure	Symptom/Fail-safe function	Refer to page
1-1	MAP sensor circuit low voltage (less than 0.195 V) • MAP sensor or its circuit malfunction	• Engine operates normally • Fail-safe value: 60 kPa	4-10
1-2	MAP sensor circuit high voltage (more than 3.804 V) • Loose or poor contact of the sensor unit connector • MAP sensor or its circuit malfunction	• Engine operates normally • Fail-safe value: 60 kPa	4-11
7-1	ECT sensor circuit low voltage (less than 0.015 V) • ECT sensor or its circuit malfunction	• Hard start at a low temperature • Fail-safe value: 78°C/172°F • Cooling fan turns on	4-12
7-2	ECT sensor circuit high voltage (more than 4.981 V) • Loose or poor contact of the ECT sensor connector • ECT sensor or its circuit malfunction	• Hard start at a low temperature • Fail-safe value: 78°C/172°F • Cooling fan turns on	4-13
8-1	TP sensor circuit low voltage (less than 0.107 V) • Loose or poor contact of the sensor unit connector • TP sensor or its circuit malfunction	• Poor engine acceleration • Fail-safe value: 0° • A/T shift function and anti-creep function does not work (2nd gear only)	4-14
8-2	TP sensor circuit high voltage (more than 4.981 V) • TP sensor or its circuit malfunction	• Poor engine acceleration • Fail-safe value: 0° • A/T shift function and anti-creep function does not work (2nd gear only)	4-16
9-1	IAT sensor circuit low voltage (less than 0.015 V) • IAT sensor or its circuit malfunction	• Engine operates normally • Fail-safe value: 34.8°C/94.6°F	4-17
9-2	IAT sensor circuit high voltage (more than 4.981 V) • Loose or poor contact of the IAT sensor connector • IAT sensor or its circuit malfunction	• Engine operates normally • Fail-safe value: 34.8°C/94.6°F	4-18
11-1	VS sensor circuit malfunction • Loose or poor contact of the VS sensor connector • VS sensor or its circuit malfunction	• Engine operates normally	4-19
12-1	Fuel injector circuit malfunction • Loose or poor contact of the fuel injector connector • Fuel injector or its circuit malfunction	• Engine does not start • Fuel injector, fuel pump and ignition shut down	4-20
29-1	IACV circuit malfunction • Loose or poor contact of the IACV connector • IACV or its circuit malfunction	• Rough idling	4-21
33-2 *	PCM EEPROM malfunction	• Engine operates normally	4-23
64-1	Drive power circuit low voltage (less than 6.5 V) • Blown IGN fuse (15 A) • Main relay stuck open or its circuit malfunction	• Engine does not start	4-23
64-2	Drive power circuit high voltage (more than 8.0 V when ignition switch is "OFF") • Main relay stuck ON or its circuit malfunction	• Engine does not start • Fuel injector, fuel pump and ignition shut down	4-24

* The MIL does not blink (DTC can be readout/erased only by MCS).