PGM-FI TROUBLESHOOTING INFORMATION

SYSTEM DESCRIPTION

SELF-DIAGNOSIS SYSTEM

The PGM-FI system is equipped with the self-diagnostic system. When any abnormality occurs in the system, the ECM turns on the MIL (Malfunction Indicator Lamp) and stores a failure code in its erasable memory.

### CURRENT FAILURE CODE/STORED FAILURE CODE

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

* In case the ECM detects the problem at present, the MIL will start blinking as its failure code. It is possible to read out the MIL blink pattern as the current failure code.
* In case the ECM does not detect any problem at present but has a problem stored in its memory, the MIL will not blink. If it is necessary to retrieve the past problem, read out the stored failure code by following the failure code readout procedure (page 6-14).

MIL (Malfunction Indicator Lamp)
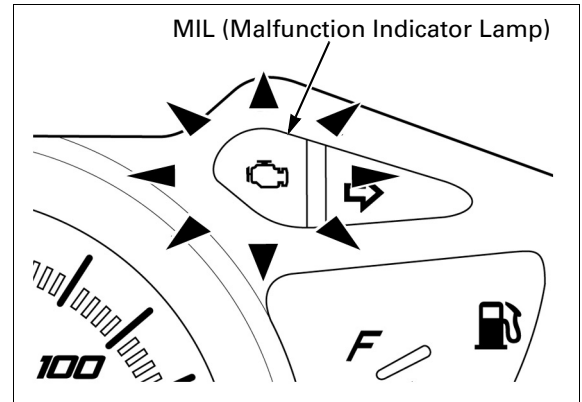
MIL BLINK PATTERN

* Failure code can be read by the MIL blink pattern.
* In case the ECM does not detect any problem at present, when the ignition switch is turned "ON", the MIL will stay on for a few seconds, then go off.
* In case the ECM detects the problem at present, when the ignition switch is turned "ON", the MIL will stay on for a few seconds and go off, then the MIL blinks as its failure code.
* The MIL has two types of blinks, a long blink and short blink. The long blinking lasts for 1.3 seconds, the short blinking lasts for 0.3 seconds. One long blink is the equivalent to ten short blinks. For example, when two long blinks are followed by five short blinks, the MIL is 25 (two long blinks = 20 blinks, plus five short blinks).
* The MIL will start blinking when the ignition switch is "ON" or engine revs are below 2,200 min^{-1} (rpm). In any other conditions, the MIL will illuminate and stay on.
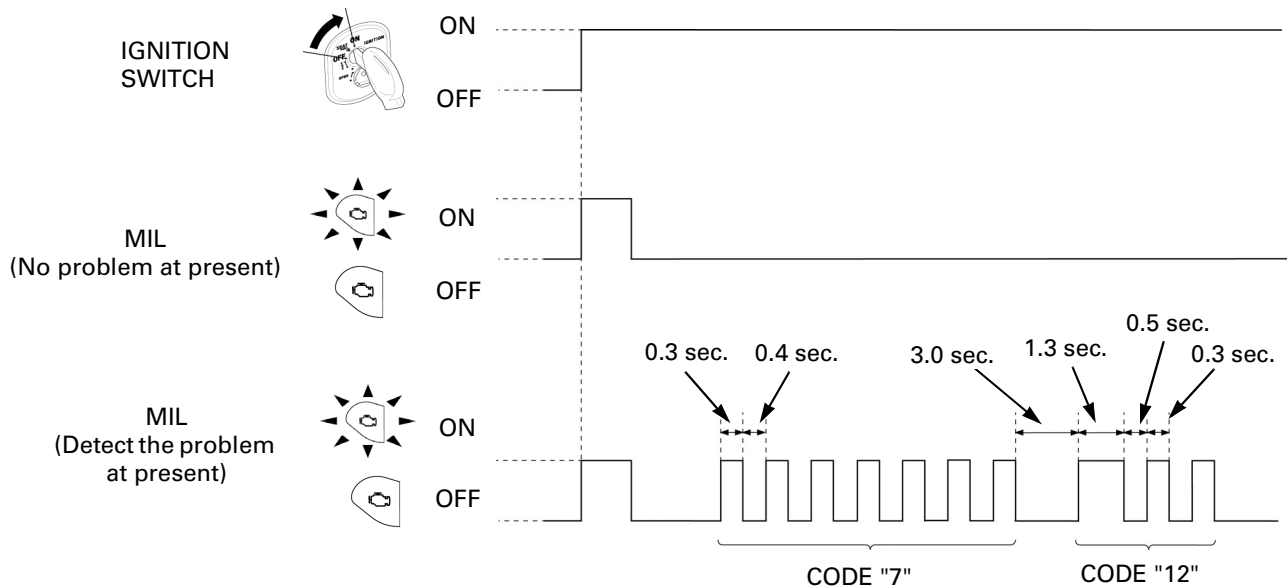
MIL CIRCUIT CHECK

If the MIL does not come on or stays on when the ignition switch is turned "ON", troubleshoot the MIL circuit (page 6-31).

FAIL-SAFE FUNCTION

The PGM-FI system is provided with a fail-safe function to secure a minimum running capability even when there is trouble in the system. When any abnormality is detected by the self-diagnosis function, running capability is maintained by pre-programed value in the simulated program map. When any abnormality is detected in the injector and/or crankshaft position (CKP) sensor, the fail-safe function stops the engine to protect it from damage.