

## DRIVETRAIN SYSTEM

---

# DRIVETRAIN TROUBLESHOOTING INFORMATION

Refer to "PGM-FI TROUBLESHOOTING INFORMATION" in PGM-FI system section except following information (page 4-6).

## SELF-DIAGNOSIS SYSTEM

The PCM (Powertrain Control Module) integrates the ECM (Engine Control Module) and the TCM (Transmission Control Module). Therefore some detection items are shared by the PGM-FI and drivetrain systems and they may affect the system operation of both systems.

The drivetrain system is equipped with the self-diagnostic system. When any abnormality occurs in the A/T system, the PCM turns on the MIL and stores a DTC in its erasable memory.

## FAIL-SAFE FUNCTION

The drivetrain system is provided with a fail-safe function to secure a minimum running capability even when there is trouble in the system.

When the PCM detects a problem in the A/T system, the PCM stops the automatic shift function and anti-creep function, and defaults the transmission into 2nd gear. Also, the MIL blinks to indicate the DTC.

## DRIVETRAIN DTC INDEX

- When the A/T system does not operate properly but no problem code is indicated and retrievable, refer to the symptom troubleshooting (page 16-5).
- 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
4-1	A/T clutch PC solenoid valve Low input <ul style="list-style-type: none"> <li>• Loose or poor contact of the A/T clutch PC solenoid valve related connector</li> <li>• A/T clutch PC solenoid valve or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-14
4-2	A/T clutch PC solenoid valve High input <ul style="list-style-type: none"> <li>• A/T clutch PC solenoid valve or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-15
4-3	A/T clutch PC solenoid valve drive circuit <ul style="list-style-type: none"> <li>• A/T clutch PC solenoid valve or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-14
8-1	TP sensor circuit Low voltage (less than 0.107 V) <ul style="list-style-type: none"> <li>• Loose or poor contact of the TP sensor connector</li> <li>• TP sensor or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Poor engine acceleration</li> <li>• Fail-safe value: 0°</li> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	4-14
8-2	TP sensor circuit High voltage (more than 4.981 V) <ul style="list-style-type: none"> <li>• TP sensor or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Poor engine acceleration</li> <li>• Fail-safe value: 0°</li> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	4-16
11-1	VS sensor no signal <ul style="list-style-type: none"> <li>• Loose or poor contact of the VS sensor connector</li> <li>• VS sensor or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	4-19
15-1	Shift solenoid valve A (short) <ul style="list-style-type: none"> <li>• Shift solenoid valve A or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-16
15-2	Shift solenoid valve A (open) <ul style="list-style-type: none"> <li>• Shift solenoid valve A or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-17
16-1	Shift solenoid valve B (short) <ul style="list-style-type: none"> <li>• Shift solenoid valve B or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-18
16-2	Shift solenoid valve B (open) <ul style="list-style-type: none"> <li>• Shift solenoid valve B or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-19
31-1	System voltage Low (less than 9.3 V) <ul style="list-style-type: none"> <li>• PCM power input circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-20
32-1	Fail-safe relay circuit <ul style="list-style-type: none"> <li>• Fail-safe relay circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-21
33-2*	PCM EEPROM malfunction	—	4-23
41-1	Gear position switch circuit <ul style="list-style-type: none"> <li>• Gear position switch circuit malfunction (Short)</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> </ul>	16-21
44-1	EOT sensor circuit low voltage (less than 0.07 V) <ul style="list-style-type: none"> <li>• EOT sensor or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> <li>• Cooling fan turns on</li> </ul>	16-23
44-2	EOT sensor circuit high voltage (more than 4.85 V) <ul style="list-style-type: none"> <li>• Loose or poor contact of the EOT sensor connector</li> <li>• EOT sensor or its circuit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• A/T shift function and anti-creep function does not work (2nd gear only)</li> <li>• Cooling fan turns on</li> </ul>	16-24

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