Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

Subject:	**Bulletin No.:** 01-003/18
LACK OF POWER, NO WARNING LIGHTS ON	**Last Issued:** 02/12/2018

APPLICABLE MODEL(S)/VINS

2016-2018 CX-9 vehicles with VINs lower than JM3TC******216875 (produced before Nov. 10, 2017)

DESCRIPTION

Some customers may experience a lack of power with no warning lights illuminated and no related DTCs stored. This concern most likely occurs when the fuel temperature is high and during situations where high power is required.

This concern may be caused when the learning value for the low pressure fuel pump exceeds a certain level and the PCM limits engine power to avoid a lack of fuel injection. Even if the low pressure fuel pump has a problem, no DTCs are stored.

To eliminate this concern, the PCM control logic has been modified not to limit engine power. After this modification, DTCs P0192:00 or P0087:00 are stored when the fuel injection amount is insufficient.

- P0192:00 - High fuel pressure sensor circuit low input
- P0087:00 - High fuel pressure sensor circuit range/performance problem

Customers having this concern should have their vehicle repaired using the following repair procedure.

REPAIR PROCEDURE

Outline:

Inspect the low pressure fuel pump using the Mazda Modular Diagnostic system (M-MDS).
- If the low pressure fuel pump exhibits normal performance, reprogram the PCM without replacing the fuel pump.
- If the low pressure fuel pump exhibits poor performance, replace it after reprogramming the PCM.

1. Connect the M-MDS to the DLC-2.
2. Warm up the vehicle and leave it at idle with least electrical loads on.
3. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.

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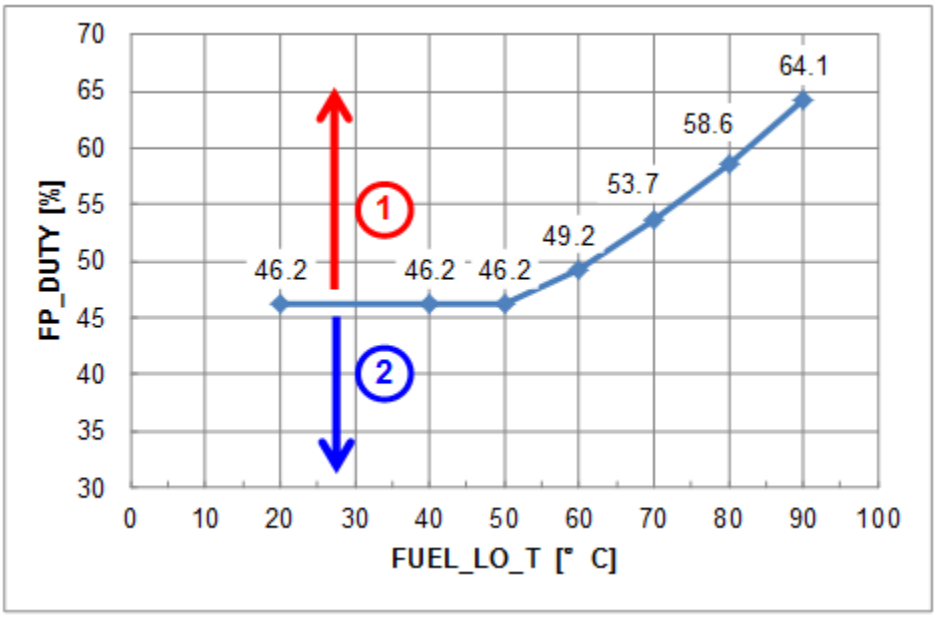
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(1) Select “Datalogger”.
(2) Select “Modules”.
(3) Select “PCM”.
4. Select following PID from the PID table.

- FP_DUTY: Fuel pump control module control duty value
- FUEL_LO_T: Fuel temperature inside the fuel supply line

5. Mark a point on the graph for the PID data and verify if the point is located above the line (in the poor performance area (1)) or below the line (in the normal performance area (2)).

For example, if FP_DUTY is 55% and FUEL_LO_T is 40 °C, the point is located in the poor performance area (1).



PCM Reprogramming:

1.Reboot the IDS to clear memory before reprogramming.

2.Using IDS**108.03**or later software, reprogram the PCM to the latest calibration (refer to “Calibration Information” table) by following the “Module Reprogramming” procedure.

NOTE:

- Always update the IDS tool first, then follow on-screen instructions to download the needed calibration file for PCM reprogramming.

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- It is not necessary to remove any fuses or relays during PCM reprogramming when the IDS screen prompts you to do so. You may accidentally stop power to one of the PCM terminals and cause the PCM to be blanked, or you may receive error messages during the IDS reprogramming procedure.
- IDS shows the calibration part numbers after programming the PCM.
- Please be aware that PCM calibration part numbers and file names listed in any Service Bulletin may change due to future releases of IDS software, and additional revisions made to those calibrations for service related concerns.
- When reprogramming a PCM, IDS will always display the "latest" calibration P/N available for that vehicle. If any calibration has been revised/updated to contain new information for a new service concern/issue, it will also contain all previously released calibrations.
- Start/Stop button vehicles only: DO NOT press the start/stop button during the reprogramming process.
- When performing this procedure, we recommend using the "Power Supply" mode in the Battery Management System to keep the vehicle battery up to capacity. If a different charger is used, make sure it does not exceed 20 AMPS. If it exceeds 20 AMPS, it could damage the VCM.

3. After performing the PCM reprogramming procedure, clear DTCs.

4. After clearing DTCs, start the engine and confirm that no warning lights stay on.

NOTE:

- If any DTCs should remain after performing DTC erase, diagnose the DTCs using MGSS online instructions or Workshop Manual section 01-02.
- Disconnect the negative battery cable and wait for 30 seconds or more to reset the fuel control learning data.

5. If the PID data is the poor performance area (1), replace the low pressure fuel pump. If not, the low pressure fuel pump does not need to be replaced.

CALIBRATION INFORMATION

Model Year	Drive	File Name
2016-17	2WD	PYFL-188K2-M
	AWD	PYFM-188K2-M
2018	2WD	PYD7-188K2-C
	AWD	PYD8-188K2-C

NOTE: If the calibration file has the suffix shown in the table (above) or later, the PCM already has the modified calibration.

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WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Fed. Emission Warranty (long term).
- Additional diagnostic time cannot be claimed for this repair.

Inspection and PCM Reprogramming:

Warranty Type	A
Symptom Code	14
Damage Code	9W
Part Number Main Cause	5555-RP-PCM
Quantity	0
Operation Number / Labor Hours:	XXP19AFX / 0.3 Hrs.

NOTE: If the low pressure fuel pump requires replacement, claim the fuel pump and labor hours as a normal warranty claim.

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