

Service Information

Mazda Motor Corporation

3-1, Shinchi, Fuchu-cho, Aki-gun
Hiroshima 730-8670, Japan
TEL : 81(82)287-5323
FAX : 81(82)287-5220



Category F	Repair Guidance	Ref. No. R062/13	Page 1 of 3
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued July 25, 2013	
Please convey this information to your <input type="checkbox"/> Director <input checked="" type="checkbox"/> General Manager <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep.		Date Revised	
Applicable Model CX-5 (KE) with SKYACTIV-G 2.0 / AT without Kickdown switch and MT		Applicable Countries or Specifications North America, Europe, China	

Subject: Unusual long cranking and rough idling after cold start at low ambient temperatures

DESCRIPTION

Some vehicles may experience following phenomenon at ambient temperatures between -4 to -10 degrees C after cold start:

- * Unusual long cranking is necessary to start the engine.
- * Immediately engine stall just after starting, but it can be re-started.
- * Rough idling

CAUSE

If fuel is containing heavy components (like summer fuel for instance) and is used in the cold season, the A/F ratio becomes lean due to its low vaporization causing the engine miss-firing.

MASS PRODUCTION CHANGE

The control logic of PCM has been changed.

BEGINNING VIN & DATE OF MODIFICATION

For the AT model of US & EC spec., this improvement has been implemented from the vehicle with kickdown switch.

US Spec. (13MY)		
JM3 KE**** ** 335496		March 25, 2013
EC Spec.		
JMZ KE**** ** 212112		April 2, 2013
China Spec.		
JM7 KE**** ** 206044		April 11, 2013

REPAIR PROCEDURE

Note: For the vehicle with i-stop, check and record the battery SOC (BATT_SOC) first by using M-MDS before starting the repair. The battery SOC data is necessary when performing the battery initial learning.

1. Reprogram the PCM with Mazda Modular Diagnostic System (M-MDS) using IDS 85.05 or later software, or IDS 86.01 or later software.

Note:

- Verify the current PCM file name in the vehicle by log view screen. If it is the same as that in the below chart or later one, you do not need to reprogram it.
- Always update the IDS tool first, then follow on-screen instructions to download the needed calibration file for PCM reprogramming.
- Follow the attached "Service Caution for reprogramming".
- After the reprogramming, verify that the file name matches with the appropriate detailed in

the below chart.

Calibration Files Information

Spec	Transmission	Drive	File Name		Note
			Mitsubishi	Denso	
Calif.	MT	2WD	PE01-188K2-K	PE1G-188K2-J	
	AT	2WD	PE02-188K2-J	PE1H-188K2-H	
		4WD	PE1B-188K2-J	PE1K-188K2-H	
Fed.	MT	2WD	PE1C-188K2-K	PE1L-188K2-J	
	AT	2WD	PE1D-188K2-J	PE1M-188K2-H	
		4WD	PE1F-188K2-J	PE1P-188K2-H	
Europe	MT	2WD	PE03-188K2-J	PE1T-188K2-H	Stage5
		4WD	PE1R-188K2-J	PE1W-188K2-H	
	AT	4WD	PE1S-188K2-J	PE1X-188K2-H	
Russia	MT	2WD	PE2W-188K2-J	PE2X-188K2-H	Stage4
	AT	2WD	PE3C-188K2-J	PE3D-188K2-H	
		4WD	PE2J-188K2-J	PE3B-188K2-H	
China	AT	2WD	PE4T-188K2-G	-	Stage4
		4WD	-	PE4V-188K2-F	
		2WD	PE4W-188K2-G	-	Stage5
		4WD	-	PE4X-188K2-F	

- After PCM reprogramming, conduct the battery condition initial setting (i-stop setting) following the Workshop Manual.

WARRANTY INFORMATION

Note: This warranty information applies only to verified customer complaint ON VEHICLE eligible for warranty repair.

Assembly group	F – Emissions	
Subassembly group	08 – EMISSION CONTROLS	
Symptom Code	02	
Damage Code	3W	
DTC Code	-	
Causal Part No.	5555 RP PCM	
Q'ty	0	
Operation No. & Labor Hours	• Reprogramming • Reprogramming • Battery Electrolyte Gravity Inspection (once).	XXJ9VXFX 0.3 Hrs XXJ9WAFX 0.4 Hrs
	• Reprogramming • Battery Electrolyte Gravity Inspection (twice) • Recharge.	XXJ9XXFX 0.5 Hrs
	Period Covered	Normal warranty period

After the reprogramming, be sure to keep the copy of “Log Viewer” screen on M-MDS along with the repair order and warranty application sheet, until the vehicle’s warranty period expires. Please refer to S/I E005/10.

Ryu Shimizugawa
Manager, Technical Information Gr.
Technical Service Dept.
Mazda Motor Corporation
2D21412022 (MC Internal Use)

-Attachment- Service Caution for Reprogramming

CAUTION

- Perform reprogramming only when the concern matches to the condition described on Service Information. Unnecessary reprogramming may change drive feeling and result in customer complaint.
- Do NOT perform reprogramming with modules which are taken from other vehicles and installed on the repaired vehicle. There is a possibility that the engine will not start.

1. Regular maintenance requirements for PC.

- Verify that the latest M-MDS software is installed on the PC.
- Make sure to keep proper free space on the PC's hard disc. Insufficient free space (less than 1 GB) may result in PC freeze during reprogramming.

2. Attentions for PC operation.

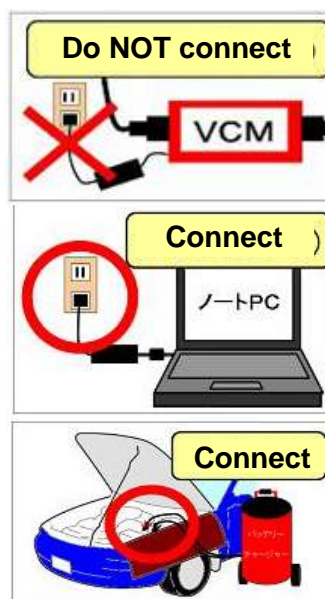
- When following M-MDS instructions such as "Select YES/NO", "Turn IG on" etc., carefully read the instructions first then acts the next operation correctly. Too quick action will cause incorrect selection/ key touching and the following PC freeze. Wait for a few seconds and then select and press correct button.
- Terminate all programs other than IDS on the PC. Or, it will take longer time for reprogramming, PC may freeze or it will cause any other problem.
- Perform reprogramming under proper Internet environment. Especially when using wireless network, make sure to have good connection.
- Set the power management of the PC to 'Always ON'.

3. Before reprogramming

- For vehicles equipped with i-stop, the parameter "Battery State of Charge" is reset during the PCM reprogramming procedure, but it is needed for "Battery condition initialization setting (i-stop setting)" to decide whether battery charging is necessary or not. Therefore check and record the PID BATT_SOC inside the PCM first by using M-MDS Data logger function before reprogramming the PCM.

- Low voltage may result in abnormal termination and/or PCM (TCM) data corruption. Please check following items.

- Do NOT connect AC adapter to VCM when M-MDS is communicating with a vehicle.
- Connect AC adapter to the PC in order to stabilize voltage fluctuation during reprogramming (Do NOT use vehicle battery outlet as power source for the PC).
- Connect battery charger (charge current maintained within 10 to 15A) to the vehicle to stabilize voltage fluctuation.
- Make sure to turn off all the electrical loads. (Especially A/C (blower), audio, rear defogger and headlights).
- Disconnect all non-genuine aftermarket electrical parts and modifications.



4. During reprogramming

- On some models, the meter illumination turns off during reprogramming. This is normal operation.
- Do not touch the VCM and DLC cable to prevent noise occurrence and bad connection.

5. After reprogramming

- After reprogramming, delete all DTCs, then perform self-test and verify no DTC is stored.
 - Note:** After reprogramming, communication error related DTCs may be stored. This is normal operation and you can delete these DTCs.
 - Note:** In some cases the vehicle may set U-codes that will not clear and the engine will not shut off. To correct this concern, disconnect the F-45 (30 amp ABS fuse) for 10 seconds, then recheck. The F-45 fuse is located in the F-01 fuse block on the left side of the engine compartment.
- Please close the session once even when you continue the reprogramming on another same model.
 - Note:** Even with the same model, the applicable reprogramming file may be different depending on the equipment type/level of transmission, immobilizer, etc.
- Please confirm the file name on the “Log Viewer” screen after reprogramming.

NOTE:
After reprogramming, once close the session. Then, open a new session again and go to the “Log Viewer” screen on which the programmed file name is displayed as shown in figure. Take the screen copy and keep it with the reprogramming date written on it.

Filename (PCM):
SW-**LFCAE**A000

LFCA : Base No.
A : Suffix

Please verify the suffix is same or later than the Service Information.

Filename (PCM):
PE7B-188K2-D

PE7B-188K2 : Base No.
D : Suffix

Please verify the suffix is same or later than the Service Information.

Filename (TCM):
PE25-21PS1-A

PE25-21PS1 : Base No.
A : Suffix

<Caution for vehicle with i-stop>

- For vehicles equipped with i-stop, perform “battery condition initial learning” after reprogramming, or i-stop does not function.