

<b>Subject:</b> <b>MASTER WARNING LIGHT IS ON AND INSTRUMENT CLUSTER WARNING MESSAGE IS DISPLAYED (DTC P1794 AND P2502)</b>	<b>Bulletin No:</b> 01-001/14
	<b>Last Issued:</b> 02/04/2014

## BULLETIN NOTE

- This bulletin supersedes the previous bulletin 01-001/14, issued 01/24/2014, 01/10/2014 and 01-028/13, issued on 11/19/2013. The APPLICABLE MODEL(S)/VINS and CALIBRATION INFORMATION have been revised.
- Changes are noted below in Red beside the change bar.

## APPLICABLE MODEL(S)/VINS

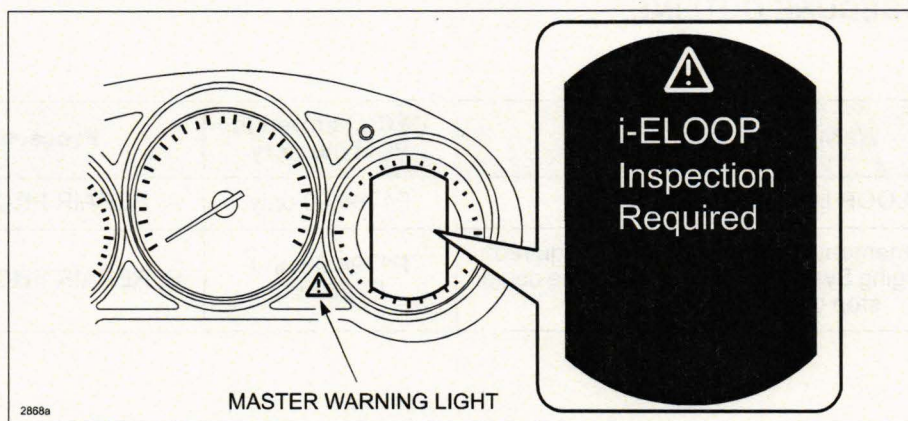
2014-2015 Mazda6 vehicles with VINs lower than JM1 GJ \*\*\*\*\* 162912 (produced before December 3, 2013)

## DESCRIPTION

Some customers may experience one of the following two symptoms:

### 1. Symptom

- Warning message "i-ELOOP Inspection Required" is displayed in the instrument cluster information display while driving.
- The Master warning light will be illuminated.

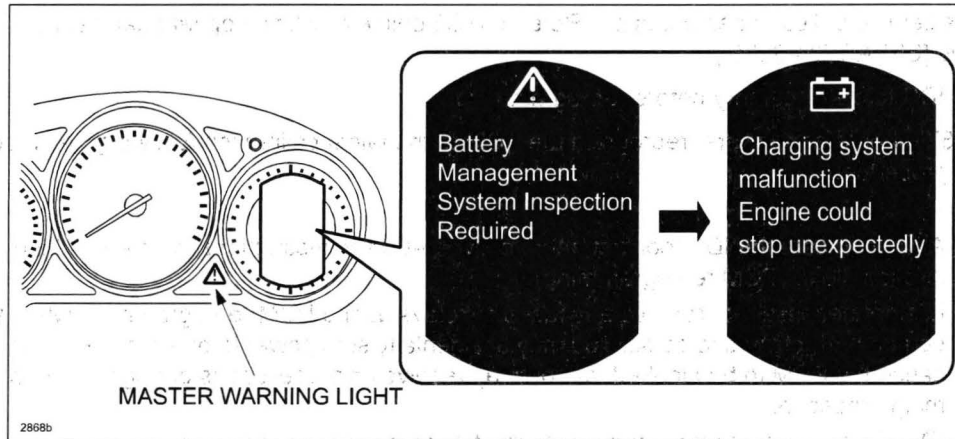


- DTC P1794:00 (Capacitor (i-ELOOP) system: Capacitor (i-ELOOP) malfunction) will be stored in PCM memory.

Customers having this concern should have their vehicle repaired using A. REPAIR PROCEDURE.

## 2. Symptom

- a. Warning message "Battery Management System Inspection Required" and then "Charging System Malfunction/Engine could stop unexpectedly" is displayed in the instrument cluster information display after driving in the rain.
- b. The Master warning light will be illuminated.



- c. The following DTCs are stored in PCM memory:
- DTC P1794:00 - Capacitor (i-ELOOP) system: Capacitor (i-ELOOP) malfunction
  - DTC P2502:00 - Generator system: Malfunction in voltage generated by generator

Customers having this concern should have their vehicle repaired using B. REPAIR PROCEDURE.

## REPAIR PROCEDURE OUTLINE

Warning Message	DTC(s) stored in PCM memory	Proceed to
"i-ELOOP Inspection Required"	P1794:00 only	A. REPAIR PROCEDURE
"Battery Management System Inspection Required" and then "Charging System Malfunction/Engine could stop unexpectedly"	P1794:00 and P2502:00	B. REPAIR PROCEDURE



## A. REPAIR PROCEDURE (DTC P1794:00 only)

1. Verify DTC P1794:00 is stored in PCM memory.
2. Select M-MDS initial screen > "Datalogger" > "Module" > "PCM" > PID "CAP\_SYS\_16" and read the value.
3. Does the "CAP\_SYS\_16" show ON?
  - Yes - Proceed to step 4.
  - No - This service bulletin does not apply. Refer to MS3 online or Workshop Manual (section 01-02 DTC P1794:00 [SKYACTIV-G 2.5]).
4. Reboot the IDS to clear memory before reprogramming.
5. Using IDS 87.04 or later software, reprogram the PCM to the latest calibration 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.
  - 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.
  - **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.**
6. After performing the PCM reprogramming procedure, verify the repair by starting the engine and making sure there are no MIL illumination or abnormal warning lights present.

### NOTE:

- If any DTCs should remain after performing DTC erase, diagnose the DTCs according to the appropriate Troubleshooting section of the Workshop Manual.
- After PCM reprogramming, it is no longer necessary to road test the vehicle to "relearn" KAM (Keep Alive Memory).

## B. REPAIR PROCEDURE (DTC P1794:00 and P2502:00)

1. Verify DTC P1794:00 and P2502:00 are stored in PCM memory.
2. Select M-MDS initial screen > "Datalogger" > "Module" > "PCM" > PID "CAP\_SYS\_13" and read the value.
3. Does the "CAP\_SYS\_13" show ON?
  - Yes - Proceed to step 4.
  - No - This service bulletin does not apply. Refer to MS3 online or Workshop Manual (section 01-02 DTC P1794:00 [SKYACTIV-G 2.5]) and (section 01-02 DTC P2502:00 [SKYACTIV-G 2.5]).
4. Reboot the IDS to clear memory before reprogramming.
5. Using IDS 88.03 or later software, reprogram the PCM to the latest calibration 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.
  - 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.
  - **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.**
6. Perform battery inspection. Refer to TSB 01-016/13. Charge or replace the battery if necessary.
  7. After performing the PCM reprogramming procedure, verify the repair by starting the engine and making sure there are no MIL illumination or abnormal warning lights present.

### NOTE:

- If any DTCs should remain after performing DTC erase, diagnose the DTCs according to the appropriate Troubleshooting section of the Workshop Manual.
- After PCM reprogramming, it is no longer necessary to road test the vehicle to "relearn" KAM (Keep Alive Memory).

## CALIBRATION INFORMATION

Model	Spec.	Transmission	File Name	Note
Mazda6	Calif (ULEV)	A/T	PY1G-188K2-F	Mitsubishi with i-ELOOP
			PY1T-188K2-F	Denso with i-ELOOP
	Fed		PY2E-188K2-F	Mitsubishi with i-ELOOP
			PY2G-188K2-F	Denso with i-ELOOP

**NOTE:** It is not necessary to order a PCM part for this repair procedure.

## WARRANTY INFORMATION

**NOTE:**

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty and Federal Emissions Limited Warranty term.
- DTC Code P1794 must be included on the claim or it will be rejected.
- Make a copy of the "Log Viewer" screen on M-MDS and attach it to the repair order.
- Additional diagnostic time cannot be claimed for this repair.

	PCM Reprogramming	<ul style="list-style-type: none"> <li>• PCM Reprogramming</li> <li>• Battery Inspection</li> </ul>	<ul style="list-style-type: none"> <li>• PCM Reprogramming</li> <li>• Battery Inspections (before and after recharge)</li> <li>• Battery Recharge</li> </ul>
Warranty Type	A	A	A
Symptom Code	6X	6X	6X
Damage Code	9W	9W	9W
DTC Code	P1794	P1794	P1794
Part Number Main Cause	5555-RP-PCM	5555-RP-PCM	5555-RP-PCM
Quantity	0	0	0
Operation Number / Labor Hours	XXK2XAFX / 0.3 Hrs.	XXK2XBFX / 0.4 Hrs.	XXK2XCFX / 0.6 Hrs.

Make a copy of the "Log Viewer" screen on M-MDS and attach it to the repair order.