MITSUBISHI MOTORS

SERVICE BULLETIN

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-11E54-515	DATE : 2011-11-20
SUBJECT : ELECTRIC MOTOR UNIT AND MAIN BATTERY TROUBLE-SHOOTING		<MODEL> (EUR) i-MiEV (HA3W) <M/Y> 11–12
GROUP : ELECTRIC MOTOR UNIT AND MAIN BATTERY		

1. Description:

Errors were found in the troubleshooting procedures for the electric motor unit and main battery in the applicable Workshop Manuals. This Service Bulletin contains the corrected descriptions.

2. Applicable Manuals:

Manual	Pub. No.	Title (Info-ID)	Attached Sheet
2011 i-MiEV Workshop Manual CD-ROM	CHAE11E1-CD (English) CHAF11E1-CD (French) CHAG11E1-CD (German) CHAS11E1-CD (Spanish) CHAI11E1-CD (Italian)	G.54D: Code No. P1AE6: EEPROM Error (BMU) (M549-21-310-01000-01)	Attached sheet 3
		G.54D: Code No. P1A51: EEPROM Abnormal (BMU) (M549-45-170-03600-01)	
2012 i-MiEV Workshop Manual CD-ROM	CHAE12E1-CD (English) CHAF12E1-CD (French) CHAG12E1-CD (German) CHAS12E1-CD (Spanish) CHAI12E1-CD (Italian)	G.54D: Code No. P1AE6: EEPROM Error (BMU) (M549-21-310-01000-01)	
		G.54D: Code No. P1A51: EEPROM Abnormal (BMU) (M549-45-170-03600-01)	

There may be some attached sheets not included in this Service Bulletin because they are not applicable to your market. Their sheet numbers are not listed in the above table.

3. Corrected Specifications:

See Attached sheet 3.

(2) Set the electric motor switch from the LOCK (OFF) position to the ON position.
(3) Check if the diagnosis code is set.

Q: Is the diagnosis code set?
YES : Return to Step 1.
NO : The diagnosis is complete.

Code No. P1AE6: EEPROM error (BMU)

⚠ CAUTION
If there is any problem in the CAN bus lines, an incorrect diagnosis code may be set. Prior to this diagnosis, always diagnose the CAN bus lines.

OPERATION
- BMU communicates with EV-ECU via CAN.

DIAGNOSIS CODE SET CONDITIONS
- When the diagnosis code No. P1A51 is set to the BMU, the diagnosis code No. P1AE6 will be set.

PROBABLE CAUSES
- Malfunction of the BMU system

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-III CAN bus diagnosis
Use the M.U.T.-III to diagnose the CAN bus lines.

Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the CAN bus line. (Refer to GROUP 54C – Troubleshooting .) Then go to Step 2.

STEP 2. Diagnosis code recheck after resetting CAN bus lines
Check again if the diagnosis code No. P1AE6 is set to the EV-ECU.
(1) Erase the stored diagnosis code.
(2) Set the electric motor switch from the LOCK (OFF) position to the ON position.
(3) Check if the diagnosis code is set.

Q: Is the diagnosis code set?
YES : Go to Step 3.
NO : This diagnosis is complete.

STEP 3. Use M.U.T.-III to confirm a diagnosis code of other systems.
Check if the diagnosis code No. P1A51 is set to the BMU.

Q: Is the diagnosis code set?
YES : Carry out troubleshooting for the diagnosis code No. P1A51. (Refer to .) Then go to Step 4.
NO : ~~Go to Step 4.~~ <old>

STEP 4. Diagnosis code recheck
Check again if the diagnosis code is set to the EV-ECU.
(1) Erase the stored diagnosis code.
(2) Set the electric motor switch from the LOCK (OFF) position to the ON position.
(3) Check if the diagnosis code is set.

Q: Is the diagnosis code set?
YES : Return to Step 1.
NO : The diagnosis is complete.

Carry out troubleshooting for the diagnosis code No.P1A51. Then go to Step4. <New>

Code No. P1AF1: EMCU READY time-out

⚠ CAUTION
If there is any problem in the CAN bus lines, an incorrect diagnosis code may be set. Prior to this diagnosis, always diagnose the CAN bus lines.

OPERATION
- EMCU communicates with the EV-ECU via CAN.

DIAGNOSIS CODE SET CONDITIONS
- If the EMCU_READY signal ON from the EMCU cannot be received for the specific time or longer, the diagnosis code No. P1AF1 will be set.

PROBABLE CAUSES
- Malfunction of the EMCU system

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-III CAN bus diagnosis
Use the M.U.T.-III to diagnose the CAN bus lines.

Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the CAN bus line. (Refer to GROUP 54C – Troubleshooting .) Then go to Step 2.

Code No. P1A51: EEPROM Abnormal (BMU)

TROUBLE JUDGMENT

Check Conditions

- The electric motor switch is "ON" position or while the main battery is charged.
- After the BMU is activated, failures are not detected even once.

Judgement Criterion

- The EEPROM cannot be read or written.

FAIL-SAFE AND BACKUP FUNCTION

- Not available

PROBABLE CAUSES

- The BMU is failed.
- Disconnect the auxiliary battery during the BMU activation.

DIAGNOSIS PROCEDURE

<Added>

NOTE: If the code No. P1AE6, EEPROM error (BMU), is detected in the EV-ECU, perform the following troubleshooting whether or not the code No. P1A51 is detected in the BMU.

STEP 1. M.U.T.-III data list

- Erase the diagnosis code.
- Item 277: Overall time backup

OK: Except 2 month (electric motor switch: ON)

NOTE: When the electric motor switch is turned in the LOCK (OFF) position, the BMU should execute the finishing process for several seconds. When the battery cable is disconnected from the auxiliary battery (–) terminal during the BMU finishing process, the BMU learning value could be deleted.

Q: Is the check result normal?

YES : Go to Step 2.

NO : Perform the BMU learning value manual written (Refer to GROUP 00 – Precautions before Service – Procedures for Writing BMU Learning Value). After the BMU learning value manual written, go to Step 2.

STEP 2. M.U.T.-III diagnosis code.

- Before checking the diagnosis code again, keep the status with the electric motor switch in the LOCK (OFF) position for more than 1 minute.

Q: Is the diagnosis code set?

YES : Replace the BMU.

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions).

<Incorrect>

<Correct>

, then erase the diagnosis code of BMU whether or not the diagnosis code is set.