SERVICE BULLETIN

MITSUBISHI MOTORS

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-14EXML54-501	DATE : 2014-01-27
SUBJECT : SERVICE DATA OF EV-ECU		<DESTINATION/MODEL> (MMNA/USTP/EUR/MMAL/ NZ) i-MiEV(HA3W) <M/Y> 12-14
GROUP : POWER UNIT/TRACTION BATTERY(Gr:54D)		

1. Description :

Please refer to the attached document for the correction of the error in writing existing in the applicable service manual.

2. Affected service manuals :

Please refer to the attached document (Attached sheet 1)

3. About the details :

Please refer to the attached document (Attached sheet 5-7)

別紙 1

Attached sheet 1

<For overseas market>

<EU>

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2012 i-MiEV Workshop Manual	ENG: CHAE12E1-CD FRE: CHAF12E1-CD GER: CHAG12E1-CD SPA: CHAS12E1-CD ITA: CHAI12E1-CD	SERVICE DATA REFERENCE TABLE (M549-20-080-03100-01)	Attached sheet 5
2013 i-MiEV Workshop Manual	ENG: CHAE13E1-CD FRE: CHAF13E1-CD GER: CHAG13E1-CD SPA: CHAS13E1-CD ITA: CHAI13E1-CD	SERVICE DATA REFERENCE TABLE (M549-20-080-03100-01)	Attached sheet 6
2014 i-MiEV Workshop Manual	ENG: CHAE14E1-CD FRE: CHAF14E1-CD GER: CHAG14E1-CD SPA: CHAS14E1-CD ITA: CHAI14E1-CD	SERVICE DATA REFERENCE TABLE (M549-20-080-06400-01)	

<MMAL/NZ>

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2013 i-MiEV Workshop Manual	AU900303 NZ:DRAFT	SERVICE DATA REFERENCE TABLE (M549-20-080-03100-01)	Attached sheet 6

<MMNA>

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2013 i-MiEV Service Manual CD-ROM	MSCD-018B-2013	SERVICE DATA REFERENCE TABLE (M549-20-080-03100-01)	Attached sheet 7
2014 i-MiEV Service Manual CD-ROM	MSCD-018B-2014	SERVICE DATA REFERENCE TABLE (M549-20-080-03101-02)	

Attached sheet 5

Item No.	M.U.T.-III display	Inspection conditions	Normal conditions
143	Contactor (+) weld flag	When the main contactor (+) is not seized	OFF
		When the main contactor (+) is seized	ON
144	Contactor (–) weld flag	When the main contactor (–) is not seized	OFF
		When the main contactor (–) is seized	ON
190	Brake pedal stroke sensor installation	Not checked or improperly installed	NG
		Properly installed	OK
204	Coolant water temperature	When the coolant temperature is –20°C	– 20 °C
		When the coolant temperature is 0°C	0 °C
		When the coolant temperature is 20°C	20 °C
		When the coolant temperature is 40°C	40 °C
		When the coolant temperature is 80°C	80 °C
205	Water pump speed	When stopped	0 r/min
		Being operated	1,000 to 5,000 r/min
206	On board charger connecting signal voltage	When the regular charging connection is not connected	4.24 V – 4.65 V
		When the regular charging connection is connected and the release button is ON	1.25 V – 1.91 V
		When the regular charging connection is connected and the release button is OFF (while on board charging)	2.42 V – 3.10 V
207	On board charger connecting signal	When the regular charging connection is not connected	Not available
		When the regular charging connection is connected and the release button is ON	Release ON
		When the regular charging connection is connected and the release button is OFF (while on board charging)	Release OFF
219	Quick charge contactor circuit status	When quick charging is in progress	OFF
		Other than quick charging (Power switch = ON)	ON
251	VP: Failsafe relay state (brake electric vacuum pump main relay)	When the electric motor switch is set to the ON position	ON
252	VP: Control relay 1 state (brake electric vacuum pump control relay 1)	When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
253	VP: Control relay 2 state (brake electric vacuum pump control relay 2)	When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF

<Incorrect>

<Correct>

Lo voltage
Hi voltage

Attached sheet 6 (1/3)

Item No.	M.U.T.-III display	Inspection conditions	Normal conditions
53	Main contactor (–)	• When the Ready indicator is lit • When the charging indicator is lit	ON
		Other than above	OFF
54	Motor inverter shutdown	When the selector lever is in the R, D, B, or C position while the Ready indicator is lit	ON
		Other than above	OFF
55	12 V DC/DC converter shutdown	• When the Ready indicator is lit • When the charging indicator is lit	ON
		Other than above	OFF
56	Radiator fan 1 relay (cooling fan LO relay)	When the radiator fan relay is operating at low speed or high speed	ON
		Other than above	OFF
57	Radiator fan 2 relay (cooling fan HI relay)	When the radiator fan relay is operating at high speed	ON
		Other than above	OFF
58	Water pump relay	When the water pump is operating	ON
		Other than above	OFF
59	On board charger power supply relay	• When the M.U.T.-III is connected • When charging by the on board charger is in progress (When the on board transformer is operating)	ON
		Other than above	OFF
60	A/C relay	• 10 seconds after the electric motor switch is set to the ON position • When the electric motor switch is in the START position	ON
		Other than above	OFF
61	Back lamp relay	When the selector lever is in the position other than the R position	OFF
		When the selector lever is in the R position	ON
62	Quick charging contactor relay	When quick charging is not in progress	OFF
		When quick charging is in progress	ON
63	Vacuum pump failsafe relay (brake electric vacuum pump main relay)	<Incorrect> ~~When the electric motor switch is in the ON position~~	ON
64	Vacuum pump relay 1 (Brake electric vacuum pump control relay 1)	<Incorrect> ~~• When the electric motor switch is in the ON position~~ • When the brake electric vacuum pump is operating	ON
65	Vacuum pump relay 2 (Brake electric vacuum pump control relay 2)	<Incorrect> ~~• When the electric motor switch is in the ON position~~ • When the brake electric vacuum pump is operating	ON

<Correct>
When the READY indicator is on

Attached sheet 6 (2/3)

Item No.	M.U.T.-III display	Inspection conditions	Normal conditions
143	Contactor (+) weld flag	When the main contactor (+) is not seized	OFF
		When the main contactor (+) is seized	ON
144	Contactor (–) weld flag	When the main contactor (–) is not seized	OFF
		When the main contactor (–) is seized	ON
190	Brake pedal stroke sensor installation	Not checked or improperly installed	NG
		Properly installed	OK
204	Coolant water temperature	When the coolant temperature is –20°C	– 20 °C
		When the coolant temperature is 0°C	0 °C
		When the coolant temperature is 20°C	20 °C
		When the coolant temperature is 40°C	40 °C
		When the coolant temperature is 80°C	80 °C
205	Water pump speed	When stopped	0 r/min
		Being operated	1,000 to 5,000 r/min
206	On board charger connecting signal voltage	When the regular charging connection is not connected	4.24 V – 4.65 V
		When the regular charging connection is connected and the release button is ON	1.25 V – 1.91 V
		When the regular charging connection is connected and the release button is OFF (while on board charging)	2.42 V – 3.10 V <Correct> Lo voltage / Hi voltage
207	On board charger connecting signal	When the regular charging connection is not connected	Not available
		When the regular charging connection is connected and the release button is ON	Release ON
		When the regular charging connection is connected and the release button is OFF (while on board charging)	Release OFF <Incorrect>
219	Quick charge contactor circuit status	When quick charging is in progress	OFF
		Other than quick charging (Power switch = ON)	ON
251	VP: Failsafe relay state (brake electric vacuum pump main relay)	<Incorrect> When the electric motor switch is set to the ON position	ON <Correct> When the READY indicator is on
252	VP: Control relay 1 state (brake electric vacuum pump control relay 1)	<Incorrect> When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON <Correct>
		Other than above	OFF
253	VP: Control relay 2 state (brake electric vacuum pump control relay 2)	When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF

<Correct> When the brake electric vacuum pump is operating with the READY indicator on

Attached sheet 6 (3/3)

Item No.	M.U.T.-III display	Inspection conditions	Normal conditions
254	VP: Motor drive state	<Incorrect> When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
255	VP: Buzzer drive state	<Incorrect> When the brake warning buzzer is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
256	VP: Brake warning lamp drive state	<Incorrect> When the brake warning indicator is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
259	VP: Vehicle speed	When the vehicle is driven at the speed of 40 km/h	Approximately 40 km/h

DATA LIST (MONITOR ITEM)

In this monitor item, the helpful items are set in order to comprehend the EV-ECU control situation. However, the values vary widely according to the minor differences of the measurement condition, the environmental differences, vehicle aging, or other factors, and offering the precise normal value is difficult. Therefore, only the check conditions, the display range, and the numerical change shall be listed.

NOTE: VP: Indicates the brake vacuum pressure system.

<Correct>
When the brake warning indicator is operating with the READY indicator on

<Correct>
When the brake warning buzzer is operating with the READY indicator on

<Correct>
When the brake electric vacuum pump is operating with the READY indicator on

Attached sheet 7 (1/2)

Item No.	Check item	Check conditions	Normal conditions
61	Back light relay	When the selector lever is in the position other than the R position	OFF
		When the selector lever is in the R position	ON
62	Quick charging contactor relay	When quick charging is not in progress	OFF
		When quick charging is in progress	ON
63	Vacuum pump failsafe relay (brake electric vacuum pump main relay)	<Incorrect> When the electric motor switch is in the ON position	ON
64	Vacuum pump relay 1 (Brake electric vacuum pump control relay 1)	<Incorrect> • When the electric motor switch is in the ON position • When the brake electric vacuum pump is operating	ON
65	Vacuum pump relay 2 (Brake electric vacuum pump control relay 2)	<Incorrect> • When the electric motor switch is in the ON position • When the brake electric vacuum pump is operating	ON
66	Quick charge permission signal	When quick charging is not in progress	OFF
		When quick charging is in progress	ON
75	APS 1 power supply voltage	–	4.9 V – 5.1 V
76	APS 2 power supply voltage	–	4.9 V – 5.1 V
78	APS 1 voltage	When the accelerator pedal is released	0.8 V – 1.2 V
		When the pedal is depressed	Increases in response to the depression amount.
		Fully open	4.0 V – 4.8 V
79	APS 2 voltage	When the pedal is released	0.8 V – 1.2 V
		When the pedal is depressed	Increases in response to the depression amount.
		Fully open	4.0 V – 4.8 V
81	Vacuum pump vacuum pressure sensor voltage (brake electric vacuum pump vacuum pressure sensor power supply voltage)	–	4.74 V – 5.00 V
82	Water temperature sensor voltage	When the coolant temperature is 100°C (212 °F)	0.5 V or less
		When the coolant temperature is –30°C (–22 °F)	4.2 V or more
83	Control power supply (partial pressure of control power supply value by 8/16)	When the voltage of the 12V Stater Battery is 8 V	2.14 V or more
		When the voltage of the 12V Stater Battery is 16 V	4.28 V or less

<Correct> When the READY indicator is on

TSB Revision

Attached sheet 7 (2/2)

Item No.	Check item	Check conditions	Normal conditions
207	On board charger connecting signal	When the regular charging connection is not connected	Not available
		When the regular charging connection is connected and the release button is ON	Release ON
		When the regular charging connection is connected and the release button is OFF (while on board charging)	Release OFF
219	Quick charge contactor circuit status	When quick charging is in progress	OFF
		Other than quick charging (Power switch = ON)	ON
251	VP: Failsafe relay state (brake electric vacuum pump main relay)	When the electric motor switch is set to the ON position	ON
		Other than above	OFF
252	VP: Control relay 1 state (brake electric vacuum pump control relay 1)	When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
253	VP: Control relay 2 state (brake electric vacuum pump control relay 2)	When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
254	VP: Motor drive state	When the brake electric vacuum pump is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
255	VP: Buzzer drive state	When the brake warning tone alarm is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
256	VP: Brake warning light drive state	When the brake warning indicator is operating with the electric motor switch set to the ON position	ON
		Other than above	OFF
259	VP: Vehicle speed	When the vehicle is driven at the speed of 40 km/h (24.9 mph)	Approximately 40 km/h (24.9 mph)

<Correct>
Lo voltage
Hi voltage
<Incorrect>
<Incorrect>
When the READY indicator is on
<Correct>
<Incorrect>
<Incorrect>
<Incorrect>
<Incorrect>

DATA LIST (MONITOR ITEM)

In this monitor item, the helpful items are set in order to comprehend the EV-ECU control situation. However, the values vary widely according to the minor differences of the measurement condition, the environmental differences, vehicle aging, or other factors, and offering the precise normal value is difficult. Therefore, only the check conditions, the display range, and the numerical change shall be listed.

NOTE: VP: Indicates the brake vacuum pressure

<Correct> When the brake warning indicator is operating with the READY indicator on

<Correct> When the brake warning tone alarm is operating with the READY indicator on

<Correct> When the brake electric vacuum pump is operating with the READY indicator on

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