SERVICE BULLETIN

MITSUBISHI MOTORS

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CHANGE	ISSUE NO. : MSB-13EXML42-002	DATE : 2013-07-02
SUBJECT : ADDITION OF MENTION ABOUT DTC B1130 ABOUT OSS		<Destination/Model> (AS PER ATTACHED) <M/Y> 13-14
GROUP : KOS(Gr.42B)		MIRAGE/SPACE STAR(A03A)/ATTRAGE/MIRAGE G4

1. Description :

Please refer to the attached document for the information about the change of mention in the applicable service manual.

2. Applicable service manual :

Please refer to the attached document

3. About the details :

Please refer to the attached document

<MIRAGE/SPACE STAR>

Thailand

Applicable manual	Pub No.	Applicable title (INFO ID)	Contents
2013 MIRAGE Workshop Manual	PWFE1201R	Code No.B1130 Ignition power supply (M429-62-100-03900-01)	Attached sheet 3

G.EXP

Applicable manual	Pub No.	Applicable title (INFO ID)	Contents
2014 MIRAGE Workshop Manual	PWFE1301R (Eng) PWFS1302R (Spa)	Code No.B1130 Ignition power supply (M429-62-100-03900-01)	Attached sheet 3

MMAL/NZ

Applicable manual	Pub No.	Applicable title (INFO ID)	Contents
2014 MIRAGE Workshop Manual	AU900305 NZ:DRAFT	Code No.B1130 Ignition power supply (M429-62-100-03900-01)	Attached sheet 3

EU

Applicable manual	Pub No.	Applicable title (INFO ID)	Contents
2013 MIRAGE/ SPACE STAR Workshop Manual	CA0E13E1-CD (Eng) CA0F13E1-CD (Fre) CA0G13E1-CD (Ger) CA0S13E1-CD (Spa) CA0I13E1-CD (Ita)	Code No.B1130 Ignition power supply (M429-62-100-07300-01)	Attached sheet 3

MMNA

Applicable manual	Pub No.	該当ページ (INFO ID)	Contents
2014 MIRAGE Service Manual	MSCD-016B-2014	42B-99 (M429-62-100-07300-01)	Attached sheet 4

<ATTRAGE>

G.EXP/ Thailand

Applicable manual	Pub No.	Applicable title (INFO ID)	Contents
2014 ATTRAGE Workshop Manual	PWFE1305R (Eng) PWFS1306R (Spa)	Code No.B1130 Ignition power supply (M429-62-100-03900-01)	Attached sheet 3

Attached sheet 3

Code No.B1130 Ignition power supply

⚠ CAUTION

- **If the diagnosis code No. B1130 is set, always diagnose the CAN bus lines.**
- **Before replacing ECU, ensure that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the output power supply status is different from the engine switch status information received from ETACS-ECU via CAN, OSS-ECU sets the diagnosis code No.B1130. At the same time, OSS-ECU displays the power supply system error warning to the combination meter, and flashes the indicator of engine switch in orange.

JUDGEMENT CRITERIA

Check Conditions

- The terminal voltage of +B1 and +B2 is between 10 and 16 V.

Judgment Criterion

- Any of the following conditions is met, and 2 seconds or more have elapsed.
  a. The engine switch status information received from ETACS-ECU is other than OFF when the power supply mode of OSS is OFF.
  b. The engine switch status information received from ETACS-ECU is other than ACC when the power supply mode of OSS is ACC.
  c. The engine switch status information received from ETACS-ECU is other than ON when the power supply mode of OSS is ON.
  d. IG2M is Hi with the OSS power supply mode OFF
  e. IG2M is Hi with the OSS power supply mode ACC
  f. IG2M is Lo with the OSS power supply mode ON

PROBABLE CAUSES

- Malfunction of the CAN bus line
- Damaged wiring harness or connector (short to earth, short to power supply, or open circuit in ACC line, IG1 line, IG2 line or IGM2 line)
- Malfunction of ACC relay
- Malfunction of IG1 relay
- Malfunction of IG2 Relay
- Malfunction of OSS-ECU
- Malfunction of ETACS-ECU

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-III CAN bus diagnostics

After performing the forced power supply output(refer to) "IG-ON" using the M.U.T.-III, diagnose the CAN bus line.

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

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

Check if OSS-ECU diagnosis code No.B1133 is set.

Q: Is the diagnosis code set?
YES : Troubleshoot for the relevant diagnosis code. Refer to.
NO : Go to Step 3

STEP 3. M.U.T.-III other system data list

Operate the engine switch to change the power supply mode, and check that the data list display of ETACS-ECU is changed.

- When power supply mode is ACC or ON.

ETACS-ECU data list		
Item No.	**Item name**	**Normal condition**
29	Ignition switch(ACC)	ON

- When power supply mode is ON or START.

ETACS-ECU data list		
Item No.	**Item name**	**Normal condition**
30	Ignition switch(IG1)	ON

- When power supply mode is ON.

ETACS-ECU data list		
Item No.	**Item name**	**Normal condition**
44	Ignition switch(IG2)	ON

OK: Normal conditions are displayed for all

<Added>

・Commercial electric products that are connected to the accessory socket
NOTE: Be sure to remove the commercial electric products that are connected to the accessory socket before troubleshooting. Otherwise troubleshooting cannot be performed correctly.

DTC B1130: Ignition power supply

⚠ CAUTION

- **If DTC B1130 is stored, always diagnose the CAN bus lines.**
- **Before replacing ECU, ensure that the communication circuit is normal.**

DTC SET CONDITION

If the output power supply status is different from the engine switch status information received from ETACS-ECU via CAN, OSS-ECU stores DTC B1130. At the same time, OSS-ECU displays the power supply system error warning to the combination meter, and flashes the indicator of engine switch in orange.

TECHNICAL DESCRIPTION (COMMENT)

Check Conditions

- The terminal voltage of +B1 and +B2 is between 10 and 16 V.

Judgment Criterion

- Any of the following conditions is met, and 2 seconds or more have elapsed.
  a. The engine switch status information received from ETACS-ECU is other than OFF when the power supply mode of OSS is OFF.
  b. The engine switch status information received from ETACS-ECU is other than ACC when the power supply mode of OSS is ACC.
  c. The engine switch status information received from ETACS-ECU is other than ON when the power supply mode of OSS is ON.
  d. IG2M is Hi with the OSS power supply mode OFF
  e. IG2M is Hi with the OSS power supply mode ACC
  f. IG2M is Lo with the OSS power supply mode ON

TROUBLESHOOTING HINTS

- Malfunction of the CAN bus line
- Damaged wiring harness or connector (short to ground, short to power supply, or open circuit in ACC line, IG1 line, IG2 line or IGM2 line)
- Malfunction of ACC relay
- Malfunction of IG1 relay
- Malfunction of IG2 Relay
- Malfunction of OSS-ECU
- Malfunction of ETACS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T-III), always turn the power supply mode of the engine switch to the OFF position before connecting or disconnecting scan tool (M.U.T-III).

(1) Connect scan tool (M.U.T-III). Refer to "How to connect scan tool (M.U.T.-III) ."
(2) Turn the power supply mode of the engine switch to ON.
(3) Diagnose the CAN bus line.
(4) Turn the power supply mode of the engine switch to OFF.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis).

<Added>

・Commercial electric products that are connected to the accessory socket
NOTE: Be sure to remove the commercial electric products that are connected to the accessory socket before troubleshooting. Otherwise troubleshooting cannot be performed correctly.