SERVICE BULLETIN

MITSUBISHI MOTORS

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CHANGE	ISSUE NO. : MSB-15EX13-001	DATE : 2015-04-20
SUBJECT : Some Omissions regarding the checking procedure for MPI system		<DESTINATION/MODEL> (As per attached sheet 1) <M/Y> 10-15
GROUP : Gr:13(Fuel)		PAJERO/MONTERO(V80/90)

1. Description :

Please refer to the attached document for the information about the change of mention 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 2-6)

Attached sheet 1 (1/2)

EU/RUSSIA

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2011 PAJERO/MONTERO Workshop Manual	CBKE11E1-CD (Eng) CBKF11E1-CD (Fre) CBKG11E1-CD (Ger) CBKS11E1-CD (Spa) CBKI11E1-CD (Ita) RUSSIA:N/A	CODE NO. P0171: RIGHT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-630-58300-01)	Attached sheet 2
		CODE NO. P0172: RIGHT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-640-54600-01)	Attached sheet 3
		CODE NO. P0174: LEFT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-650-27500-01)	Attached sheet 4
		CODE NO. P0175: LEFT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-660-27200-01)	Attached sheet 5
2012 PAJERO/MONTERO Workshop Manual	CBKE12E1-CD (Eng) CBKF12E1-CD (Fre) CBKG12E1-CD (Ger) CBKS12E1-CD (Spa) CBKI12E1-CD (Ita) RUSSIA:N/A	CODE NO. P0171: RIGHT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-630-58300-01)	Attached sheet 2
		CODE NO. P0172: RIGHT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-640-54600-01)	Attached sheet 3
		CODE NO. P0174: LEFT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-650-27500-01)	Attached sheet 4
		CODE NO. P0175: LEFT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-660-27200-01)	Attached sheet 5
2013 PAJERO/MONTERO Workshop Manual	CVWE13E1-CD (Eng) CVWF13E1-CD (Fre) CVWG13E1-CD (Ger) CVWS13E1-CD (Spa) CVWI13E1-CD (Ita) RUSSIA:N/A	CODE NO. P0171: RIGHT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-630-58300-01)	Attached sheet 2
		CODE NO. P0172: RIGHT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-640-54600-01)	Attached sheet 3
		CODE NO. P0174: LEFT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-650-27500-01)	Attached sheet 4
		CODE NO. P0175: LEFT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-660-27200-01)	Attached sheet 5
2014 PAJERO/MONTERO Workshop Manual	CVWE14E1-CD (Eng) CVWF14E1-CD (Fre) CVWG14E1-CD (Ger) CVWS14E1-CD (Spa) CVWI14E1-CD (Ita) RUSSIA:N/A	CODE NO. P0171: RIGHT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-630-58300-01)	Attached sheet 2
		CODE NO. P0172: RIGHT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-640-54600-01)	Attached sheet 3
		CODE NO. P0174: LEFT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-650-27500-01)	Attached sheet 4
		CODE NO. P0175: LEFT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-660-27200-01)	Attached sheet 5
2015 PAJERO/MONTERO Workshop Manual	CVWE15E1-CD (Eng) CVWF15E1-CD (Fre) CVWG15E1-CD (Ger) CVWS15E1-CD (Spa) CVWI15E1-CD (Ita) RUSSIA:N/A	CODE NO. P0171: RIGHT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-630-58300-01)	Attached sheet 2
		CODE NO. P0172: RIGHT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-640-54600-01)	Attached sheet 3
		CODE NO. P0174: LEFT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-650-27500-01)	Attached sheet 4
		CODE NO. P0175: LEFT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-660-27200-01)	Attached sheet 5

G.EXP/CHINA/HONG KONG

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2010 PAJERO/MONTERO Workshop Manual	PWJE0908R (Eng) PWJS0909R (Spa) CHINA/HONG KONG:DRAFT	CODE NO. P0171: RIGHT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-630-54900-01)	Attached sheet 2
		CODE NO. P0172: RIGHT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-640-50200-01)	Attached sheet 3
		CODE NO. P0174: LEFT BANK ABNORMAL FUEL SYSTEM (LEAN) (M131-77-650-24200-01)	Attached sheet 4
		CODE NO. P0175: LEFT BANK ABNORMAL FUEL SYSTEM (RICH) (M131-77-660-24900-01)	Attached sheet 5
		DATA LIST REFERENCE TABLE (M131-00-890-30300-01)	Attached sheet 6

Attached sheet 2

STEP 2. Check for intake system vacuum leaks.

Q: Is the check result normal?

YES : Go to Step 3.
NO : Repair.

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

- Refer to Data List Reference Table.
  a. Item 05: Intake air temperature sensor
  b. Item 06: Engine coolant temperature sensor
  c. Item 08: Manifold absolute pressure sensor
  d. Item 10: Air flow sensor

Q: Are the check results normal?

YES : Go to Step 4.
NO : Perform the diagnosis code classified check procedure for the sensor that has shown an abnormal data value (Refer to Inspection Chart for Diagnosis Code).

STEP 4. M.U.T.-III data list

- Refer to Data List Reference Table.
  a. Item BB: Barometric pressure sensor

Q: Is the check result normal?

YES : Go to Step 5.
NO : Replace the engine-ECU <M/T> or engine-A/T-ECU <A/T>.

STEP 5. Connector Check: B-45 injector intermediate connector

Q: Is the check result normal?

YES : Go to Step 6.
NO : Repair or replace the connector.

STEP 6. Perform resistance measurement at B-45 injector intermediate connector.

- Disconnect connector, and measure at harness side.
  a. Resistance between terminal No. 7 and No. 8 (No. 1 injector).
  b. Resistance between terminal No. 7 and No. 9 (No. 3 injector).
  c. Resistance between terminal No. 7 and No. 10 (No. 5 injector).

<Added> Ω

OK: 10.5 – 13.5 (at 20°C)

Q: Is the check result normal?

YES : Go to Step 9.
NO : Go to Step 7.

Attached sheet 3

STEP 2. M.U.T.-III data list

- Refer to Data List Reference Table.
  a. Item BB: Barometric pressure sensor

Q: Is the check result normal?

YES : Go to Step 3.
NO : Replace the engine-ECU <M/T> or engine-A/T-ECU <A/T>.

STEP 3. Connector check: B-45 injector intermediate connector.

Q: Is the check result normal?

YES : Go to Step 4.
NO : Repair or replace the connector.

STEP 4. Perform resistance measurement at B-45 injector intermediate connector.

- Disconnect connector, and measure at harness side.
  a. Resistance between terminal No. 7 and No. 8 (No. 1 injector).
  b. Resistance between terminal No. 7 and No. 9 (No. 3 injector).
  c. Resistance between terminal No. 7 and No. 10 (No. 5 injector).

<Added> Ω

OK: 10.5 – 13.5 (at 20°C)

Q: Is the check result normal?

YES : Go to Step 6.
NO : Go to Step 5.

STEP 5. Check No. 1, No. 3 and No. 5 injector itself.

- Check No. 1, No. 3 and No. 5 Injector itself (Refer to).

Q: Is the check result normal?

YES : Check and repair harness between injector intermediate connector and injector connector.
  a. Check and repair harness between B-45 (terminal No. 8) injector intermediate connector and B-119 (terminal No. 2) No. 1 injector connector
  b. Check and repair harness between B-45 (terminal No. 9) injector intermediate connector and B-120 (terminal No. 2) No. 3 injector connector
  c. Check and repair harness between B-45 (terminal No. 10) injector intermediate connector and B-121 (terminal No. 2) No. 5 injector connector
  - Check output line for damage.

NO : Replace the injector.

Attached sheet 4

STEP 2. Check for intake system vacuum leaks.

Q: Is the check result normal?

YES : Go to Step 3.
NO : Repair.

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

- Refer to Data List Reference Table.
  a. Item 05: Intake air temperature sensor
  b. Item 06: Engine coolant temperature sensor
  c. Item 08: Manifold absolute pressure sensor
  d. Item 10: Air flow sensor

Q: Are the check results normal?

YES : Go to Step 4.
NO : Perform the diagnosis code classified check procedure for the sensor that has shown an abnormal data value (Refer to Inspection Chart for Diagnosis Code).

STEP 4. M.U.T.-III data list

- Refer to Data List Reference Table.
  a. Item BB: Barometric pressure sensor

Q: Is the check result normal?

YES : Go to Step 5.
NO : Replace the engine-ECU <M/T> or engine-A/T-ECU <A/T>.

STEP 5. Connector Check: B-45 injector intermediate connector

Q: Is the check result normal?

YES : Go to Step 6.
NO : Repair or replace the connector.

STEP 6. Perform resistance measurement at B-45 injector intermediate connector.

- Disconnect connector, and measure at harness side.
  a. Resistance between terminal No. 7 and No. 8 (No. 2 injector).
  b. Resistance between terminal No. 7 and No. 9 (No. 4 injector).
  c. Resistance between terminal No. 7 and No. 10 (No. 6 injector).

<Added> Ω

OK: 10.5 – 13.5 (at 20°C)

Q: Is the check result normal?

YES : Go to Step 9.
NO : Go to Step 7.

Attached sheet 5

STEP 2. M.U.T.-III data list

- Refer to Data List Reference Table.
  a. Item BB: Barometric pressure sensor

Q: Is the check result normal?

YES : Go to Step 3.
NO : Replace the engine-ECU <M/T> or engine-A/T-ECU <A/T>.

STEP 3. Connector check: B-45 injector intermediate connector.

Q: Is the check result normal?

YES : Go to Step 4.
NO : Repair or replace the connector.

STEP 4. Perform resistance measurement at B-45 injector intermediate connector.

- Disconnect connector, and measure at harness side.
  a. Resistance between terminal No. 7 and No. 8 (No. 2 injector).
  b. Resistance between terminal No. 7 and No. 9 (No. 4 injector).
  c. Resistance between terminal No. 7 and No. 10 (No. 6 injector).

<Added> Ω

OK: 10.5 – 13.5 (at 20°C)

Q: Is the check result normal?

YES : Go to Step 6.
NO : Go to Step 5.

STEP 5. Check No. 2, No. 4 and No. 6 injector itself.

- Check No. 2, No. 4 and No. 6 Injector itself (Refer to).

Q: Is the check result normal?

YES : Check and repair harness between injector intermediate connector and injector connector.
  a. Check and repair harness between B-45 (terminal No. 8) injector intermediate connector and B-111 (terminal No. 2) No. 2 injector connector
  b. Check and repair harness between B-45 (terminal No. 9) injector intermediate connector and B-105 (terminal No. 2) No. 4 injector connector
  c. Check and repair harness between B-45 (terminal No. 10) injector intermediate connector and B-104 (terminal No. 2) No. 6 injector connector
  - Check output line for damage.

NO : Replace the injector.

Attached sheet 6 (1/2)

DATA LIST REFERENCE TABLE

Item No.	Inspection Item	Inspection condition		Normal condition	Code No. or inspection procedure No.	Reference page
	<Vehicles with single oxygen sensor system> <Correct>					
AC	Oxygen sensor <vehicles with catalytic converter> <Incorrect>	Engine: After warm-up (leaner by deceleration, richer acceleration)	Excessive deceleration from 4,000 r/min	0.2 V or less	Code No. P0130, P0131, P0132	
			At excessive acceleration	0.6 to 1.0 V (after few seconds)		
		Engine: After warm-up (use oxygen sensor signals, check the air-fuel ratio and the conditions under the control of the engine-ECU <M/T> or engine-A/T-ECU <A/T>)	Idle operation	0.4 V or less ⇔ 0.6 to 1.0 V (varies)		
			2,500 r/min			
				<Added> From attached sheet 6 (2/2)		
BB	Barometric pressure sensor	Ignition switch: ON	Altitude: 0 m	101 kPa	–	–
			Altitude: 600 m	95 kPa		
			Altitude: 1, 200 m	88 kPa		
			Altitude: 1, 800 m	81 kPa		
BC	Throttle position sensor (relative value)	• Remove the intake air hose at the throttle body • Disconnect the connector of the electronic-controlled throttle valve • With the special tool test harness (MB991658) bridge only the mating terminals of No. 1, No. 2, No. 3, and No. 4 of the disconnected connectors • Ignition switch: ON (engine stopped)	Fully close the throttle valve with your finger	0 – 11 %	–	–
			Fully open the throttle valve with your finger	88 – 100 %		

To attached sheet 6 (1/2) <Added>

AC	Right bank oxygen sensor (front) <Vehicles with dual oxygen sensor system>	Engine: After warm-up (leaner by deceleration, richer acceleration)	Excessive deceleration from 4,000 r/min	0.2 V or less	Code No. P0130, P0131, P0132, P0133, P0134	
			At excessive acceleration	0.6 – 1.0 V		
		Engine: After warm-up (use oxygen sensor signals, check the air-fuel ratio and the conditions under the control of the engine-ECU <M/T> or engine-A/T-ECU <A/T>)	Idle operation	0.4 V or less ⇔ 0.6 – 1.0 V (varies)		
			2,500 r/min			
AD	Right bank oxygen sensor (rear) <Vehicles with dual oxygen sensor system>	Engine: After warm-up	• Transmission: 2nd • The engine speed is maintained to 3,500 r/min or more during an accelerated driving with the throttle full-open	0.6 – 1.0 V	Code No. P0136, P0137, P0138	
AE	Left bank oxygen sensor (front) <Vehicles with dual oxygen sensor system>	Engine: After warm-up (leaner by deceleration, richer acceleration)	Excessive deceleration from 4,000 r/min	0.2 V or less	Code No. P0150, P0151, P0152, P0153, P0154	
			At excessive acceleration	0.6 – 1.0 V		
		Engine: After warm-up (use oxygen sensor signals, check the air-fuel ratio and the conditions under the control of the engine-ECU <M/T> or engine-A/T-ECU <A/T>)	Idle operation	0.4 V or less ⇔ 0.6 – 1.0 V (varies)		
			2,500 r/min			
AF	Left bank oxygen sensor (rear) <Vehicles with dual oxygen sensor system>	Engine: After warm-up	• Transmission: 2nd • The engine speed is maintained to 3,500 r/min or more during an accelerated driving with the throttle full-open	0.6 – 1.0 V	Code No. P0156, P0157, P0158	