# SERVICE BULLETIN

MITSUBISHI MOTORS

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

| | | |
|---|---|---|
| PURPOSE : CHANGE | ISSUE NO. : MSB-15EXL13-001 | DATE : 2015-01-26 |
| SUBJECT : Omission of the inspection procedure of the clutch switch system | | <DESTINATION/MODEL> (As per attached sheet 1) <M/Y> 14-15 |
| GROUP : Gr:13(Fuel) | | |

**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 2-7)

L200
<EU/RUSSIA>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014 L200<br>Workshop Manual | CKTE14E1-CD (ENG)<br>CKTF14E1-CD (FRE)<br>CKTG14E1-CD (GER)<br>CKTS14E1-CD (SPA)<br>CKTI14E1-CD (ITA)<br>RUSSIA:N/A | SYMPTOM CHART<br>(M133-00-410-80600-01) | Attached sheet 2 |
| | | DPF LAMP SYSTEM<br>(M133-61-080-05500-01) | Attached sheet 3 |
| | | DATA LIST REFERENCE TABLE<br>(M133-00-421-16300-01) | Attached sheet 4 |
| | | CHECK AT THE ECU TRMINALS<br>(M133-00-451-16700-01) | Attached sheet 5 |
| 2015 L200<br>Workshop Manual | CKTE15E1-CD (ENG)<br>CKTF15E1-CD (FRE)<br>CKTG15E1-CD (GER)<br>CKTS15E1-CD (SPA)<br>CKTI15E1-CD (ITA)<br>RUSSIA:N/A | SYMPTOM CHART<br>(M133-00-410-80600-01) | Attached sheet 2 |
| | | DPF LAMP SYSTEM<br>(M133-61-080-05500-01) | Attached sheet 3 |
| | | DATA LIST REFERENCE TABLE<br>(M133-00-421-22600-01) | Attached sheet 4 |
| | | CHECK AT THE ECU TRMINALS<br>(M133-00-451-09000-01) | Attached sheet 5 |

L200/ L200 SPORTERO
<EXP/THAI>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014 L200/<br>L200 SPORTERO Workshop Manual | PWTE1308R(ENG)<br>PWTS1309R(SPA)<br>THAI:DRAFT | GENERAL INFORMATION<br>(M133-00-011-28300-01) | Attached Sheet 6 |
| | | GENERAL INFORMATION<br>(M133-00-011-29400-01) | |
| | | GENERAL INFORMATION<br>(M133-00-011-30200-01) | |

<BRAZIL>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014 L200 /<br>L200 SPORTERO Workshop Manual | DRAFT | GENERAL INFORMATION<br>(M133-00-011-37900-01) | Attached Sheet 6 |

TRITON
<MMAL/NZ>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014<br>TRITON Workshop Manual | AU900406<br><br>NZ:DRAFT | GENERAL INFORMATION<br>(M133-00-011-30200-01) | Attached Sheet 6 |

NATIVA/PAJERO SPORT/MONTERO SPORT
<EXP/EAST EUROPEAN COUNTRIES/RUSSIA/THAI>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014<br>NATIVA/PAJERO SPORT/MONTERO SPORT<br>Workshop Manual | PWJE1310R(ENG)<br>PWJS1311R(SPA)<br>RUSSIA:N/A<br>THAI:DRAFT | GENERAL INFORMATION<br>(M133-00-011-32400-01) | Attached sheet 7 |

<BRAZIL>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014<br>NATIVA/PAJERO SPORT/MONTERO SPORT<br>Workshop Manual | DRAFT | GENERAL INFORMATION<br>(M133-00-011-37900-01) | Attached sheet 7 |

CHALLENGER
<MMAL/NZ>

| Applicable manual | Pub. No. | Applicable title (INFO ID) | Content |
|---|---|---|---|
| 2014<br>GHALLENGER Workshop Manual | AU900407<br><br>NZ:DRAFT | GENERAL INFORMATION<br>(M133-00-011-32400-01) | Attached Sheet 7 |

Attached sheet 2

## PROBLEM SYMPTOMS TABLE

| Inspection procedure No. | Trouble symptom | Reference page |
|---|---|---|
| 1 | Communication with engine-ECU is not possible | |
| 2 | The engine warning lamp does not illuminate right after the ignition switch is turned the "ON" position | |
| 3 | The engine warning lamp remains illuminating and never goes out or is blinking | |
| 4 | The starter is impossible to operate <M/T> | |
| | The starter is impossible to operate <A/T> | |
| 5 | Starting impossible (Starter operative but no initial combustion) | |
| 6 | Improper starting (Long time to start) | |
| 7 | Improper idling | |
| 8 | The engine stalls when decelerating | |
| 9 | Poor acceleration | |
| 10 | A large amount of fuel consumption | |
| 11 | Knocking, Abnormal noise | |
| 12 | White smoke | |
| 13 | Black smoke | |
| 14 | Battery rundown <Euro5b> | |
| | Battery rundown <Except Euro5b> | |
| 15 | Overheating | |
| 16 | Engine-ECU power supply system | |
| 17 | Engine-ECU battery back-up system | |
| 18 | 4LLC switch system <M/T-high power engine vehicle> | |
| 19 | Condenser fan relay system <Vehicles with A/C condenser fan> | |
| 20 | A/C switch system | |
| 21 | A/C compressor relay system | |
| 22 | Power steering fluid pressure switch system | |
| 23 | Glow system <Except Euro5b> | |
| 24 | PTC heater relay system <Vehicles with PTC heater> | |
| 25 | Blower switch system <Euro5b> | |
| 26 | Rear window defogger system <Euro5b> | |
| 27 | DPF lamp system <Euro5b> | |

<Added>

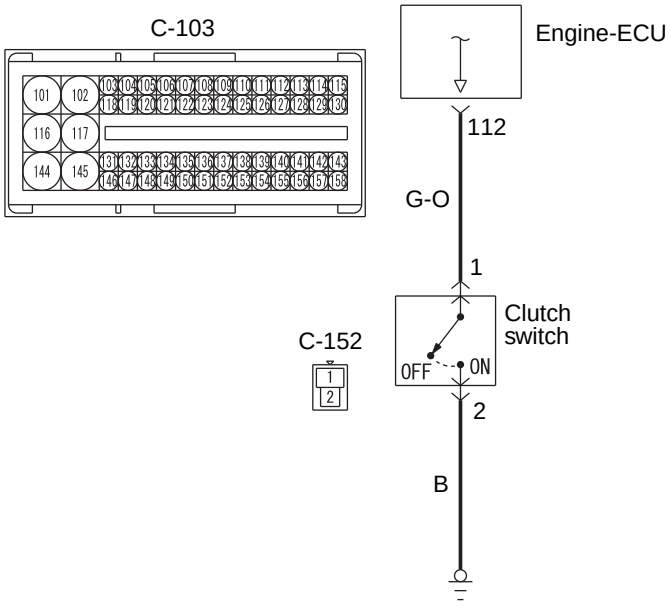
| | | |
|---|---|---|
| 28 | Clutch switch system <M/T – except low power engine vehicle> | |

<Added>

Attached sheet 3 (1/2)

## Inspection Procedure 28: Clutch Switch System <M/T – Except Low Power Engine Vehicle>

### Clutch Switch Circuit




Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Grey R : Red P : Pink V : Violet PU : Purple SI : Silver

ACE03706AB

**OPERATION**

- The power voltage is applied to the clutch switch (terminal No. 1) from the engine-ECU (terminal No. 112).

**FUNCTION**

- The clutch switch detects the presence or absence of the clutch pedal depressed, and then inputs the signal into the engine-ECU.
- The engine-ECU regulates the fuel injection amount so that the engine speed remains 3,000 r/min or less when the vehicle starts. Doing this prevents the drive train system from being overloaded shaply.

**POSSIBLE CAUSES**

- Failed clutch switch
- Open/short circuit in clutch switch circuit or loose connector contact
- Failed engine-ECU

## DIAGNOSIS PROCEDURE

**STEP 1. Check the data list.**

Using M.U.T.-III, check the data list (Refer to Data List Reference Table).

- Item 131: Clutch switch

**Q: Is the check result normal?**

**YES :** It can be assumed that this malfunction is intermittent (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points, How to Cope with Intermittent Malfunction).

**NO :** Go to Step 2.

<Added>

**STEP 2. Connectors check: C-103 engine-ECU connector and C-152 clutch switch connector.**

**Q: Is the check result normal?**

**YES :** Go to Step 3.
**NO :** Repair or replace the damaged connector.

**STEP 3. Check the harness wire between engine-ECU connector C-103 terminal No.112 and clutch switch connector C-152 terminal No.1, and between clutch switch connector C-152 terminal No.2 and earth.**

- Check harness wire for open/short circuit and damage.

**Q: Is the check result normal?**

**YES :** Go to Step 4.
**NO :** Repair or replace the damaged harness wire.

**STEP 4. Check the clutch switch.**

Refer to GROUP 21A – Clutch Pedal, Inspection, Clutch Switch Continuity Check.

**Q: Is the check result normal?**

**YES :** Go to Step 5.
**NO :** Replace the clutch switch (Refer to GROUP 21A – Clutch Pedal).

**STEP 5. Check the data list**

Using M.U.T.-III, check the data list (Refer to Data List Reference Table).

- Item 131: Clutch switch

**Q: Is the check result normal?**

**YES :** It can be assumed that this malfunction is intermittent (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points, How to Cope with Intermittent Malfunction).
**NO :** Replace the engine-ECU (Refer to GROUP 13A – Engine-ECU).

Attached sheet 4

| Item No. | Check item | Inspection conditions | | Value to be determined as normal | Code No. or inspection procedure No. | Reference page |
|---|---|---|---|---|---|---|
| 135 | Brake lamp switch | Ignition switch: ON | Release the brake pedal | OFF | – | – |
| | | | Depress the brake pedal | ON | | |

<Added>

| | | | | | | |
|---|---|---|---|---|---|---|
| 131 | Clutch switch <M/T–except low power engine vehicle> | Ignition switch: ON | Depress the clutch pedal | OFF | – | – |
| | | | Release the clutch pedal | ON | | |

Attached sheet 5

| Terminal No. | Check item | Inspection condition (engine status) | Normal condition: |
|---|---|---|---|
| 111 | Ignition switch-ST | Engine: Cranking | System voltage |
| 114 | Throttle valve control servo (positive) | Engine: Stopped from idling speed | Voltage changed for few seconds |

<Added>

| | | | | |
|---|---|---|---|---|
| 112 | Clutch switch <M/T–except low power engine vehicle> | Ignition switch: ON | Release the clutch pedal | 10 V or more |
| | | | Depress the clutch pedal | 1 V or less |

- Due to the abolition of the 1st and 2nd rail switch, inspection procedure No. 18 1st and 2nd rail switch system has been abolished.
- Due to the deletion of the back-up lamp switch signal, inspection procedure No. 19 back-up lamp switch system has been abolished.

<Added>

- Instead of these switch signals, the engine-ECU controls the engine torque by using the clutch switch signal during vehicle start. Due to this change, the troubleshooting section regarding the clutch switch circuit has been added.

# TROUBLESHOOTING

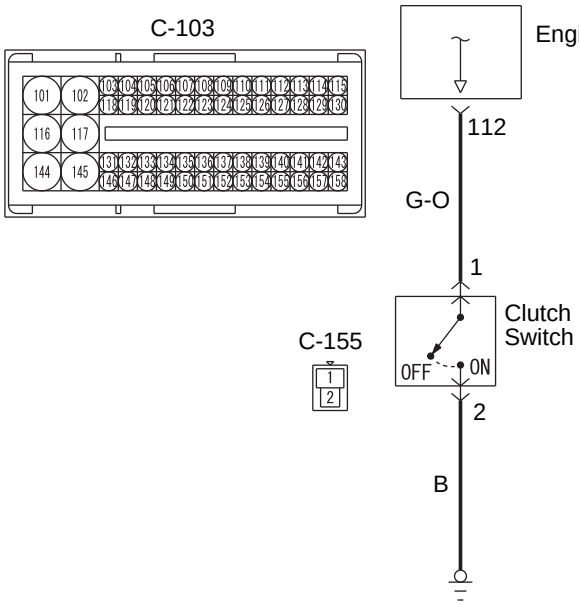
## PROBLEM SYMPTOMS TABLE

| Inspection procedure No. | Trouble symptom | Reference page |
|---|---|---|
| 2A | Clutch switch system <M/T> | |

<Added>

## Inspection Procedure 2A: Clutch Switch System <M/T>

### Clutch Switch Circuit




Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Grey R : Red P : Pink V : Violet PU : Purple SI : Silver

ACE03706AC

### OPERATION
- The power voltage is applied to the clutch switch (terminal No. 1) from the engine-ECU (terminal No. 112).

### FUNCTION
- The clutch switch detects the presence or absence of the clutch pedal depressed, and then inputs the signal into the engine-ECU.
- The engine-ECU regulates the fuel injection amount so that the engine speed remains 3,000 r/min or less when the vehicle starts. Doing this prevents the drive train system from being overloaded shaply.

### POSSIBLE CAUSES
- Failed clutch switch
- Open/short circuit in clutch switch circuit or loose connector contact
- Failed engine-ECU

## DIAGNOSIS PROCEDURE

**STEP 1. Check the data list.**
Using M.U.T.-III, check the data list (Refer to Data List Reference Table).
- Item 131: Clutch switch

**Q: Is the check result normal?**

**YES :** It can be assumed that this malfunction is intermittent (Refer to GROUP 00 – How to Use Troubleshooting/ Inspection Service Points, How to Cope with Intermittent Malfunction).

**NO :** Go to Step 2.

<Added>

**STEP 2. Connectors check: C-103 engine-ECU connector and C-155 clutch switch connector.**

**Q: Is the check result normal?**

**YES :** Go to Step 3.
**NO :** Repair or replace the damaged connector.

**STEP 3. Check the harness wire between engine-ECU connector C-103 terminal No.112 and clutch switch connector C-155 terminal No.1, and between clutch switch connector C-155 terminal No.2 and earth.**

- Check harness wire for open/short circuit and damage.

**Q: Is the check result normal?**

**YES :** Go to Step 4.
**NO :** Repair or replace the damaged harness wire.

**STEP 4. Check the clutch switch.**

Refer to GROUP 21A – Clutch Pedal, Inspection, Clutch Switch Continuity Check.

**Q: Is the check result normal?**

**YES :** Go to Step 5.
**NO :** Replace the clutch switch (Refer to GROUP 21A – Clutch Pedal).

**STEP 5. Check the data list.**

Using M.U.T.-III, check the data list (Refer to Data List Reference Table).

- Item 131: Clutch switch

**YES :** It can be assumed that this malfunction is intermittent (Refer to GROUP 00 – How to Use Troubleshooting/ Inspection Service Points, How to Cope with Intermittent Malfunction).
**NO :** Replace the engine-ECU (Refer to Engine-ECU Removal and Installation).

<Added>

## DATA LIST REFERENCE TABLE

| Item No. | Check item | Inspection conditions | | Value to be determined as normal | Code No. or inspection procedure No. | Reference page |
|---|---|---|---|---|---|---|
| 131 | Clutch switch <M/T> | Ignition switch: ON | Depress the clutch pedal | OFF | – | – |
| | | | Release the clutch pedal | ON | | |

## CHECK AT THE ECU TERMINAL

## TERMINAL VOLTAGE CHECK CHART

| Terminal No. | Check item | Inspection condition (engine status) | | Normal condition: |
|---|---|---|---|---|
| 112 | Clutch switch <M/T> | Ignition switch: ON | Release the clutch pedal | 10 V or more |
| | | | Depress the clutch pedal | 1 V or less |

## GENERAL INFORMATION

### OUTLINE OF CHANGE

Due to the changes below, the service procedure has been established.

- Due to the abolition of the 1st and 2nd rail switch, inspection procedure No. 18 1st and 2nd rail switch system has been abolished. <M/T>
- Due to the deletion of the back-up lamp switch signal, inspection procedure No. 19 back-up lamp switch system has been abolished. <M/T>

<Added>

- Instead of these switch signals, the engine-ECU controls the engine torque by using the clutch switch signal during vehicle start. Due to this change, the troubleshooting section regarding the clutch switch circuit has been added. <M/T>

# TROUBLESHOOTING

### PROBLEM SYMPTOMS TABLE

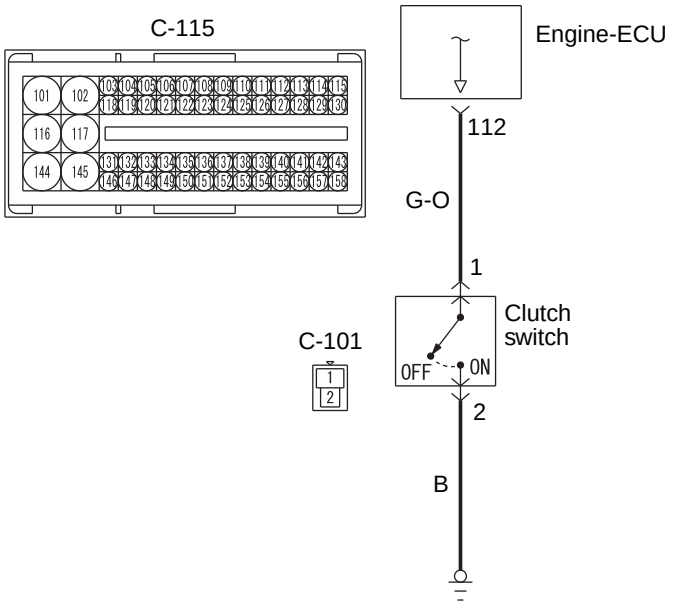
| Inspection procedure No. | Trouble symptom | Reference page |
|---|---|---|
| 2A | Clutch switch system <M/T> | |

<Added>

Attached sheet 7 (2/4)

## Inspection Procedure 2A: Clutch Switch System <M/T>

### Clutch Switch Circuit




Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Grey R : Red P : Pink V : Violet PU : Purple SI : Silver

ACE03706AD

### OPERATION

- The power voltage is applied to the clutch switch (terminal No. 1) from the engine-ECU (terminal No. 112).

### FUNCTION

- The clutch switch detects the presence or absence of the clutch pedal depressed, and then inputs the signal into the engine-ECU. The engine-ECU figures out the vehicle state and the signal of the clutch switch to control the fuel injection amount.

### POSSIBLE CAUSES

- Failed clutch switch
- Open/short circuit in clutch switch circuit or loose connector contact
- Failed engine-ECU

## DIAGNOSIS PROCEDURE

**STEP 1. Check the data list.**

Using M.U.T.-III, check the data list (Refer to Data List Reference Table).

- Item 131: Clutch switch

**Q: Is the check result normal?**

**YES :** It can be assumed that this malfunction is intermittent (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points, How to Cope with Intermittent Malfunction).

**NO :** Go to Step 2.

<Added>

**STEP 2. Connectors check: C-115 engine-ECU connector and C-101 clutch switch connector.**

**Q: Is the check result normal?**

**YES :** Go to Step 3.
**NO :** Repair or replace the damaged connector.

**STEP 3. Check the harness wire between engine-ECU connector C-115 terminal No.112 and clutch switch connector C-101 terminal No.1, and between clutch switch connector C-101 terminal No.2 and earth.**

- Check harness wire for open/short circuit and damage.

**Q: Is the check result normal?**

**YES :** Go to Step 4.
**NO :** Repair or replace the damaged harness wire.

**STEP 4. Check the clutch switch.**

Refer to GROUP 21A – Clutch Pedal, Inspection, Clutch Switch Continuity Check.

**Q: Is the check result normal?**

**YES :** Go to Step 5.
**NO :** Replace the clutch switch (Refer to GROUP 21A – Clutch Pedal).

**STEP 5. Check the data list**

Using M.U.T.-III, check the data list (Refer to Data List Reference Table).

- Item 131: Clutch switch

**Q: Is the check result normal?**

**YES :** It can be assumed that this malfunction is intermittent (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points, How to Cope with Intermittent Malfunction).
**NO :** Replace the engine-ECU (Refer to Engine-ECU Removal and Installation).

<Added>

## DATA LIST REFERENCE TABLE

| Item No. | Check item | Inspection conditions | | Value to be determined as normal | Code No. or inspection procedure No. | Reference page |
|---|---|---|---|---|---|---|
| 131 | Clutch switch <M/T> | Ignition switch: ON | Depress the clutch pedal | OFF | – | – |
| | | | Release the clutch pedal | ON | | |

## CHECK AT THE ECU TERMINAL

## TERMINAL VOLTAGE CHECK CHART

| Terminal No. | Check item | Inspection condition (engine status) | | Normal condition: |
|---|---|---|---|---|
| 112 | Clutch switch <M/T> | Ignition switch: ON | Release the clutch pedal | 10 V or more |
| | | | Depress the clutch pedal | 1 V or less |