SERVICE BULLETIN

MITSUBISHI MOTORS

DOMESTIC SALES & AFTER SALES SERVICE OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-10E13-502	DATE : 2010-09-05
SUBJECT : PROBABLE CAUSE OF DIAGNOSIS CODE P0657		<MODEL> (EUR/RUSSIA) OUTLANDER (CW0W) <M/Y> 08–11
GROUP : FUEL		

1. Description:

One of the probable causes of the diagnosis code P0657 for 4B1 engine has been incorrect. This Service Bulletin contains the correct probable cause.

<Correct> Failed throttle valve control servo relay

↑

<Incorrect> Failed throttle valve return spring

2. Applicable Manuals:

See Attached sheet 1.

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 2.

Attached sheet 1

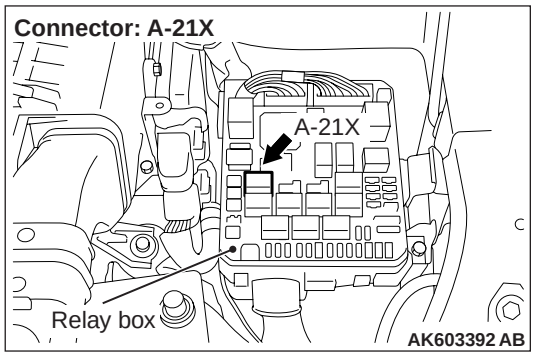
<EUR>

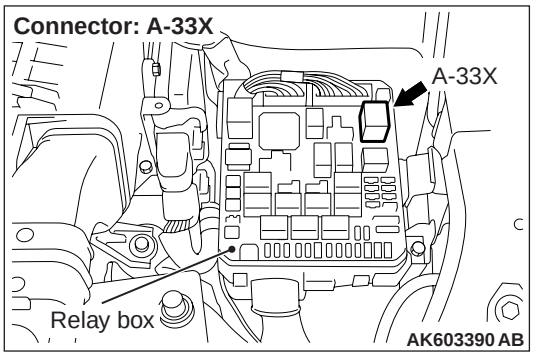
Manual	Pub. No.	Engine	Title (Info-ID)	Attached Sheet
2008 OUTLANDER Workshop Manual	CGXE08E2-CD (English) CGXS08E2-CD (Spanish) CGXF08E2-CD (French) CGXG08E2-CD (German)	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-45300-01)	Attached sheet 2
2009 OUTLANDER Workshop Manual	CGXE09E1-CD (English) CGXS09E1-CD (Spanish) CGXF09E1-CD (French) CGXG09E1-CD (German) CGXI09E1-CD (Italian)	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-65700-01)	Attached sheet 2
2010 OUTLANDER Workshop Manual	CGXE10E1-CD (English) CGXS10E1-CD (Spanish) CGXF10E1-CD (French) CGXG10E1-CD (German) CGXI10E1-CD (Italian)	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-65700-01)	Attached sheet 2
2011 OUTLANDER Workshop Manual	CGXE11E1-CD (English) CGXS11E1-CD (Spanish) CGXF11E1-CD (French) CGXG11E1-CD (German) CGXI11E1-CD (Italian)	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-65700-01)	Attached sheet 2

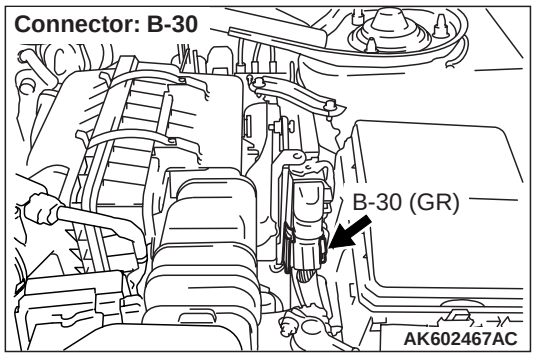
<RUSSIA>

Underneath Manual	Underneath Pub. No.	Engine	Title (Info-ID)	Attached Sheet
2008 OUTLANDER Workshop Manual	N/A	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-45300-01)	Attached sheet 2
2009 OUTLANDER Workshop Manual	N/A	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-65700-01)	Attached sheet 2
2010 OUTLANDER Workshop Manual	N/A	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-65700-01)	Attached sheet 2
2011 OUTLANDER Workshop Manual	N/A	4B12	P0657: Throttle Valve Control Servo Relay Circuit Malfunction (M131-76-110-65700-01)	Attached sheet 2

Attached sheet 2







OPERATION

- Battery voltage is applied to the throttle valve control servo relay terminal (terminal No. 4).
- Battery voltage is applied to the throttle valve control servo relay terminal (terminal No. 2) from the engine control relay (terminal No. 2).
- Engine-ECU (terminal No. 84) applies current to the throttle valve control servo relay coil by turning ON the power transistor in the unit in order to turn the relay ON.
- When the throttle valve control servo relay turns ON, battery voltage is supplied by the throttle valve control servo relay (terminal No. 3) to the engine-ECU (terminal No. 72).

FUNCTION

- When the ignition switch ON signal is input into the engine-ECU, the engine-ECU turns ON the throttle valve control servo.

TROUBLE JUDGMENT

Check Condition

- Battery positive voltage is higher than 8.3 V.

Judgement Criterion

- The power line voltage of the electronic controlled throttle system should be 6.0 V or less.

PROBALE CAUSES

- ~~Failed throttle valve return spring~~ <Incorrect>
- Open/short circuit or harness damage in throttle valve control servo circuit or loose connector contact.
- Failed engine-ECU

<Correct>
Failed throttle valve control servo relay

DIAGNOSIS

STEP 1. Connector check: A-21X throttle valve control servo relay connector

Q: Is the check result normal?

YES : Go to Step 2 .
NO : Repair or replace the connector.

STEP 2. Check throttle valve control servo relay itself.

- Check throttle valve control servo relay itself (Refer to Throttle Valve Control Servo Relay Continuity Check