

SERVICE BULLETIN

AFTERSALES SERVICE OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-08E13-509	DATE : 2008-10-20
SUBJECT : ACCELERATOR PEDAL POSITION SENSOR	<div> <div><MODEL></div> <div>(EUR)</div> <div>OUTLANDER</div> <div>(GS45X)(CW0W)</div> </div> <div> <div><M/Y></div> <div>07-09</div> </div>	
GROUP : FUEL		

1. Description:

The accelerator pedal position sensor-related descriptions (output terminal voltages, etc.) in the data list reference table and the table for the check at the ECU terminals have been incorrect in the applicable Workshop Manuals. This Service Bulletin contains the corrected descriptions.

2. Applicable Manuals:

Manual	Pub. No.	Title (Info-ID)	Attachment
2007 OUTLANDER Workshop Manual	CGXE07E1-CD (English)	Data List Reference Table (M133-00-420-17100-01)	Attachment 1, 2
	CGXS07E1-CD (Spanish)	Check at the ECU Terminals (M133-00-450-15000-01)	Attachment 3
	CGXF07E1-CD (French)		
	CGXG07E1-CD (German)		
2008 OUTLANDER Workshop Manual	CGXE08E2-CD (English)	Data List Reference Table (M133-00-420-34200-01)	Attachment 4, 5
	CGXS08E2-CD (Spanish)	Check at the ECU Terminals (M133-00-450-34300-01)	Attachment 6
	CGXF08E2-CD (French)		
	CGXG08E2-CD (German)		
2009 OUTLANDER Workshop Manual	CGXE09E1-CD (English)	Data List Reference Table (M133-00-420-34200-01)	Attachment 4, 5
	CGXS09E1-CD (Spanish)	Check at the ECU Terminals (M133-00-450-34300-01)	Attachment 6
	CGXF09E1-CD (French)		
	CGXG09E1-CD (German)		
	CGXI09E1-CD (Italian)		

3. Corrected Specifications:

See Attachments 1 to 6.

DATA LIST REFERENCE TABLE

DATA LIST REFERENCE TABLE

Item No.	Inspection item	Inspection condition		Normal condition
2	Engine speed average	Engine: Cranking	Compare engine speed on tachometer with the value displayed on M.U.T.-III	Matched
		<ul style="list-style-type: none"> Engine: Idling after warming up Transmission: Neutral A/C switch: OFF 		780 – 880 r/min
3	Injection mass	<ul style="list-style-type: none"> Engine: Idling after warming up Lights and all accessories: OFF Transmission: Neutral 		3 – 9 mm ³ /cyc
4	Air flow sensor	Engine: Idling		180 – 300 mg/Hub
7	Boost pressure sensor	Ignition switch: ON	Altitude: 0 m	1,013 hPa
			Altitude: 600 m	950 hPa
			Altitude: 1,200 m	880 hPa
			Altitude: 1,800 m	810 hPa
		Engine: Idling		900 – 1,150 hPa
		<ul style="list-style-type: none"> Engine: After warm-up, idle operation Lights and all accessories: OFF Transmission: Neutral 	When engine is suddenly raced.	Pressure change in response to revving
10	Accelerator pedal position sensor (main)	Ignition switch: ON	Release the accelerator pedal.	0 %
			Depress the accelerator pedal gradually.	Increases in response to the pedal depression stroke
			Depress the accelerator pedal fully.	98 % or more
11	Accelerator pedal position sensor (sub)	Ignition switch: ON	Release the accelerator pedal.	0 %
			Depress the accelerator pedal gradually.	Increases in response to the pedal depression stroke
			Depress the accelerator pedal fully.	98 % or more

<Delete>

DATA LIST REFERENCE TABLE

Item No.	Inspection item	Inspection condition		Normal condition
13	Engine coolant temperature sensor	Ignition switch: ON or engine running	Engine coolant temperature: -20°C	-20°C
			Engine coolant temperature: 0°C	0°C
			Engine coolant temperature: 20°C	20°C
			Engine coolant temperature: 40°C	40°C
			Engine coolant temperature: 80°C	80°C
15	EGR control solenoid valve	<ul style="list-style-type: none"> Engine: Idle after warming up Transmission: Neutral 	For approximately 2 minutes after racing the engine.	20 – 70 %
18	Barometric pressure sensor	Ignition switch: ON	Altitude: 0 m	1,013 hPa
			Altitude: 600 m	950 hPa
			Altitude: 1,200 m	880 hPa
			Altitude: 1,800 m	810 hPa
20	Air mass per cylinder	Engine: Idling		180 – 300 mg/Hub
52	Vehicle speed sensor	Drive 40 km/h		Approximately 40 km/h
80	A/C main switch	Engine: Idling (The A/C compressor should be in operation when the A/C switch is ON)	A/C switch: ON	1
			A/C switch: OFF	0
82	Stop lamp switch	Ignition switch: ON	Brake pedal: Depressed	1
			Brake pedal: Released	0
104	Ignition switch-IG	Ignition switch: ON		1
		Ignition switch: OFF		0
105	Ignition switch-ST	Ignition switch: ON	Engine: Except cranking	0
			Engine: Cranking	1
129	Battery voltage	Ignition switch: ON		System voltage
133	Accelerator pedal position sensor (sub)	Ignition switch: ON	Release the accelerator pedal	500 – 900 mV <Incorrect>
			Depress the accelerator pedal gradually	Increases in response to the pedal depression stroke
			Depress the accelerator pedal fully	2,500 mV or more <Incorrect>
134	Intake air temperature sensor	Ignition switch: ON or engine running	Intake air temperature: Approximately 25°C	1,500 – 2,500 mV

2,000 mV or more

<Correct>

400 - 600 mV

<Correct>

CHECK AT THE ECU TERMINALS

Terminal No.	Check item	Check condition (Engine condition)		Normal condition
70	Boost pressure sensor earth	Ignition switch: ON		0 – 0.2 V
72	Boost pressure sensor	Ignition switch: ON	Altitude: 0 m	Approximately 1.6 V
		Engine: Racing		Voltage increases
76	Air flow sensor	Ignition switch: ON		0.2 – 1.8 V
		Engine: Idling after warming up		1.1 – 2.8 V
77	Accelerator pedal position sensor (main)	Ignition switch: ON	Release the accelerator pedal	0.9 – 1.1 V
			Depress the accelerator pedal fully	4.0 V or more
78	Accelerator pedal position sensor (main) supply voltage	Ignition switch: ON		4.9 – 5.1 V
80	Ignition switch-ST	Engine: Cranking		8 V or more
81	Stop lamp switch	Depress the brake pedal		8 V or more
		Release the brake pedal		1 V or less
85	A/C compressor relay	<ul style="list-style-type: none"> Engine: Idling A/C switch: OFF → ON (A/C compressor is operating) 		System voltage → 1 V or less
86	Starter relay	Ignition switch: ON		System voltage
		Engine: Cranking		1 V or less
		Engine: Idling		System voltage
90	Fuel pump relay	Ignition switch: ON		System voltage
		Engine: Cranking		1 V or less
		Engine: Idling		1 V or less
98	Air flow sensor earth	Ignition switch: ON		0 – 0.2 V
99	Accelerator pedal position sensor (sub)	Ignition switch: ON	Release the accelerator pedal	0.5 – 0.9 V <Incorrect>
			Depress the accelerator pedal fully	0.5 V or more <Incorrect>
100	Accelerator pedal position sensor (sub) supply voltage	Ignition switch: ON		4.9 – 5.1 V
101	Glow diagnostic signal	Ignition switch: ON		6 V or more

2.0 V or more

<Correct>

0.4 - 0.6 V

<Correct>

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2	Engine speed average	Engine: Cranking	Compare engine speed on tachometer with the value displayed on M.U.T.-III	Matched
		<ul style="list-style-type: none"> • Engine: Idling after warming up • Transmission: Neutral • A/C switch: OFF 		780 – 880 r/min
3	Injection mass	<ul style="list-style-type: none"> • Engine: Idling after warming up • Lights and all accessories: OFF • Transmission: Neutral 		3 – 9 mm ³ /cyc
4	Air flow sensor	Engine: Idling		180 – 300 mg/Hub
7	Boost pressure sensor	Ignition switch: ON	Altitude: 0 m	1,013 hPa
			Altitude: 600 m	950 hPa
			Altitude: 1,200 m	880 hPa
			Altitude: 1,800 m	810 hPa
		<ul style="list-style-type: none"> • Engine: After warm-up, idle operation • Lights and all accessories: OFF • Transmission: Neutral 	Engine: Idling	900 – 1,150 hPa
			When engine is suddenly raced.	Pressure change in response to revving
10	Accelerator pedal position sensor (main)	Ignition switch: ON	Release the accelerator pedal.	0 %
			Depress the accelerator pedal gradually.	Increases in response to the pedal depression stroke
			Depress the accelerator pedal fully.	98 % or more
11	Accelerator pedal position sensor (sub)	Ignition switch: ON	Release the accelerator pedal.	0 %
			Depress the accelerator pedal gradually.	Increases in response to the pedal depression stroke
			Depress the accelerator pedal fully.	98 % or more

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15	EGR control solenoid valve	<ul style="list-style-type: none"> Engine: Idle after warming up Transmission: Neutral 	For approximately 2 minutes after racing the engine.	20 – 70 %
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			A/C switch: OFF	0
82	Stop lamp switch	Ignition switch: ON	Brake pedal: Depressed	1
			Brake pedal: Released	0
104	Ignition switch-IG	Ignition switch: ON		1
105	Ignition switch-ST	Ignition switch: ON	Engine: Except cranking	0
			Engine: Cranking	1
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		Engine: Racing		Voltage increases
76	Air flow sensor	Ignition switch: ON		0.2 – 1.8 V
		Engine: Idling after warming up		1.1 – 2.8 V
77	Accelerator pedal position sensor (main)	Ignition switch: ON	Release the accelerator pedal	0.9 – 1.1 V
			Depress the accelerator pedal fully	4.0 V or more
78	Power supply voltage applied to accelerator pedal position sensor (main)	Ignition switch: ON		4.9 – 5.1 V
80	Ignition switch-ST	Engine: Cranking		8 V or more
81	Stop lamp switch	Depress the brake pedal		8 V or more
		Release the brake pedal		1 V or less
85	A/C compressor relay	<ul style="list-style-type: none"> Engine: Idling A/C switch: OFF → ON (A/C compressor is operating) 		System voltage → 1 V or less
86	Starter relay	Ignition switch: ON		System voltage
		Engine: Cranking		1 V or less
		Engine: Idling		System voltage
90	Fuel pump relay	Ignition switch: ON		System voltage
		Engine: Cranking		1 V or less
		Engine: Idling		1 V or less
98	Air flow sensor earth	Ignition switch: ON		0 – 0.2 V
99	Accelerator pedal position sensor (sub)	Ignition switch: ON	Release the accelerator pedal	0.5 – 0.9 V <Incorrect>
			Depress the accelerator pedal fully	3.5 V or more <Incorrect>
100	Sensor supplied voltage	Ignition switch: ON		4.9 – 5.1 V
101	Glow diagnostic signal	Ignition switch: ON		6 V or more

2.0 V or more

<Correct>

0.4 - 0.6 V

<Correct>