MITSUBISHI MOTORS

SERVICE BULLETIN

AFTERSALES SERVICE OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-08E13-503	DATE : 2008-06-05
SUBJECT : LIST OF FAIL-SAFE AND BACKUP FUNCTION ITEMS		<MODEL> <M/Y>
GROUP : FUEL		(EUR/RUSSIA) See following 2.Applicable Manuals.

1. Description:

The list of fail-safe and backup function items for vehicles equipped with the 4B1 engine is corrected in the applicable Workshop Manuals. This Service Bulletin contains the modified list.

2. Applicable Manuals:

See Attachment 1.

3. Corrected Specifications:

See Attachments 2 to 6.

Attachment 1

<EUR>

Manual	<M/Y>	Pub. No.	Engine	Title (Info-ID)	Attachment
2008 OUTLANDER Workshop Manual (GS45X)(CW0W)	08	CGXE08E1-CD	4B12	Diagnosis Function **<Added>** (M131-15-552-36000-01)	Attachment 2
2008 LANCER Workshop Manual (GS41)(CY0A)	08	CG1E08E1-CD (English) CG1S08E1-CD (Spanish) CG1F08E1-CD (French) CG1G08E1-CD (German)	4B10, 4B11	Diagnosis Function (M131-15-552-05800-01)	Attachment 3
~~2009 LANCER Workshop Manual (GS41)(CY0A)~~	~~09~~	~~Not applicable~~	~~4B10, 4B11~~	~~Diagnosis Function (M131-15-552-95100-01)~~	~~Attachment 4, 5~~

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<RUSSIA>

Manual	<M/Y>	Pub. No.	Engine	Title (Info-ID)	Attachment
2008 OUTLANDER Workshop Manual (GS45X)(CW0W)	08	N/A	4B12	Diagnosis Function **<Added>** (M131-15-552-36000-01)	Attachment 2
2008 LANCER Workshop Manual (GS41)(CY0A)	08	N/A	4B10, 4B11	Diagnosis Function (M131-15-552-05800-01)	Attachment 3
2008 LANCER Workshop Manual (GS41)(CY0A)	08	N/A	4B11	Diagnosis Function (M131-15-552-05800-01)	Attachment 3
~~2009 LANCER Workshop Manual (GS41)(CY0A)~~	~~09~~	~~Not applicable~~	~~4B10, 4B11~~	~~Diagnosis Function (M131-15-552-95100-01)~~	~~Attachment 4, 5~~

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Attachment 2

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Malfunction item	Control content during malfunction
Accelerator pedal position sensor (main)	• Detects accelerator pedal depressed amount using throttle position sensor (sub) signals.Treats as if it is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if accelerator pedal position sensor (sub) fails.
Throttle position sensor (sub)	• Controls throttle valve position using throttle position sensor (main) signals. • Treats as if the accelerator pedal depressed amount is approximately half opening. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if throttle position sensor (main) fails.
Ignition coil (power transistor)	Shuts off fuel injection to misfiring cylinders.
Intake camshaft position sensor	• Controls by continuing the condition before malfunction determination. • Cut off fuel after the lapse of 4 seconds from malfunction detection. (In the case, however, when No. 1 cylinder top dead center has never been detected after the ignition switch is turned ON)
Exhaust camshaft position sensor	• Controls by continuing the condition before failure determination. • Cut off fuel after the lapse of 4 seconds from malfunction detection. (In the case, however, when No. 1 cylinder top dead center has never been detected after the ignition switch is turned ON)
Detonation sensor	Fix the ignition timing with an allowance against detonation.
Throttle valve control microcomputer	Stops electronic control throttle valve system to control engine output.
Alternator FR terminal	Prohibits alternator output suppression control against current consumers. (Operates as a normal alternator.)
Intake oil feeder control valve	• Does not control variable valve timing (V.V.T.). • Cuts off fuel when the engine speed exceeds 5,000 r/min.
Exhaust oil feeder control valve	• Does not control variable valve timing (V.V.T.). • Cuts off fuel when the engine speed exceeds 5,000 r/min.
Throttle valve control servo	Stops electronic control throttle valve system to control engine output.
Throttle valve position feedback	Stops electronic control throttle valve system to control engine output.
Communication between throttle valve control microcomputer and engine control microcomputer	• Treats as if the accelerator pedal depressed amount is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min.
Accelerator pedal position sensor (sub)	• Detects accelerator pedal depressed amount using throttle position sensor (main) signals.Treats as if it is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if accelerator pedal position sensor (main) fails.

Insert the Attachment 6-A

Insert the Attachment 6-B

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Attachment 3

Malfunction item	Control content during malfunction
Throttle position sensor (sub)	• Controls throttle valve position using throttle position sensor (main) signals. • Treats as if the accelerator pedal depressed amount is approximately half opening. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if throttle position sensor (main) fails.
Ignition coil (power transistor)	Shuts off fuel injection to misfiring cylinders.
Inlet camshaft position sensor	• Controls by continuing the condition before malfunction determination. • Cut off fuel after the lapse of 4 seconds from malfunction detection. (In the case, however, when No. 1 cylinder top dead center has never been detected after the ignition switch is turned ON)
Exhaust camshaft position sensor	• Controls by continuing the condition before failure determination. • Cut off fuel after the lapse of 4 seconds from malfunction detection. (In the case, however, when No. 1 cylinder top dead center has never been detected after the ignition switch is turned ON)
Detonation Sensor	Fix the ignition timing with an allowance against detonation.
Throttle valve control microcomputer	Stops electronic control throttle valve system to control engine output.
Alternator FR terminal	Prohibits alternator output suppression control against current consumers. (Operates as a normal alternator.)
Inlet oil feeder control valve	• Does not control variable valve timing (V.V.T.). • Cuts off fuel when the engine speed exceeds 5,000 r/min.
Exhaust oil feeder control valve	• Does not control variable valve timing (V.V.T.). • Cuts off fuel when the engine speed exceeds 5,000 r/min.
Throttle valve control servo	Stops electronic control throttle valve system to control engine output.
Throttle valve position feedback	Stops electronic control throttle valve system to control engine output.
Communication between throttle valve control microcomputer and engine control microcomputer	• Treats as if the accelerator pedal depressed amount is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min.
Accelerator pedal position sensor (sub)	• Detects accelerator pedal depressed amount using throttle position sensor (main) signals.Treats as if it is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if accelerator pedal position sensor (main) fails.

Insert the Attachment 6-A

Insert the Attachment 6-B

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Attachment 4

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*NOTE: *4: Condition in which fuel is controlled without oxygen sensor signals being fed back to the engine-ECU because the condition to shift to the closed loop is not met.*

*NOTE: *5: Data items are displayed on M.U.T.-III display, but the in-line 4 engine is not applicable and its data is displayed as "N/A" or "*****".*

*NOTE: *6: Time between engine start and malfunction detection.*

FAIL-SAFE AND BACKUP FUNCTION

This function exercises control, by predetermined control logic, to keep a condition in which a vehicle can be safely driven when main sensor failures are detected by the diagnosis function.

List of fail-safe and backup function items

Malfunction item	Control content during malfunction
Air flow sensor	• Reads the injector basic drive time and basic ignition timing from the preset map using throttle position sensor signals and engine speed signals (crank angle sensor signals). • Does not control idle speed.
Manifold absolute pressure sensor	Does not correct the injector drive time corresponding to inlet manifold vacuum pressure.
Intake air temperature sensor	Controls as if the intake air temperature is 25°C.
Engine coolant temperature sensor threaded portion	Controls as if the engine coolant temperature is 80°C. (Continues this control until the ignition switch is turned to the "LOCK " (OFF) position even if sensor signals return to normal.))
Throttle position sensor (main)	• Controls throttle valve position using throttle position sensor (sub) signals. • Treats as if the accelerator pedal depressed amount is approximately half opening. • Prohibits engine speed feedback control. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if throttle position sensor (sub) fails.
Oxygen sensor (front)	Does not control air-fuel ratio closed loop.
Oxygen sensor (rear)	Controls air-fuel ratio closed loop using only oxygen sensor (front) signals.
Accelerator pedal position sensor (main)	• Detects accelerator pedal depressed amount using accelerator pedal position sensor (sub) signals.Treats as if it is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if accelerator pedal position sensor (sub) fails.
Throttle position sensor (sub)	• Controls throttle valve position using throttle position sensor (main) signals. • Treats as if the accelerator pedal depressed amount is approximately half opening. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if throttle position sensor (main) fails.
Ignition coil (power transistor)	Shuts off fuel injection to misfiring cylinders.
Inlet camshaft position sensor	• Controls by continuing the condition before malfunction determination. • Cut off fuel after the lapse of 4 seconds from malfunction detection. (In the case, however, when No. 1 cylinder top dead center has never been detected after the ignition switch is turned ON)

Insert the Attachment 6-A

TSB Revision

Attachment 5

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Malfunction item	Control content during malfunction
Exhaust camshaft position sensor	• Controls by continuing the condition before failure determination. • Cut off fuel after the lapse of 4 seconds from malfunction detection. (In the case, however, when No. 1 cylinder top dead center has never been detected after the ignition switch is turned ON)
Detonation Sensor	Fix the ignition timing with an allowance against detonation.
Throttle valve control microcomputer	Stops electronic control throttle valve system to control engine output.
Alternator FR terminal	Prohibits alternator output suppression control against current consumers. (Operates as a normal alternator.)
Inlet oil feeder control valve	• Does not control variable valve timing (V.V.T.). • Cuts off fuel when the engine speed exceeds 5,000 r/min.
Exhaust oil feeder control valve	• Does not control variable valve timing (V.V.T.). • Cuts off fuel when the engine speed exceeds 5,000 r/min.
Throttle valve control servo	Stops electronic control throttle valve system to control engine output.
Throttle valve position feedback	Stops electronic control throttle valve system to control engine output.
Communication between throttle valve control microcomputer and engine control microcomputer	• Treats as if the accelerator pedal depressed amount is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min.
Accelerator pedal position sensor (sub)	• Detects accelerator pedal depressed amount using throttle position sensor (main) signals.Treats as if it is approximately half of what it is when normal. • Cuts off fuel when the engine speed exceeds 3,000 r/min. • Stops electronic control throttle valve system to control engine output if accelerator pedal position sensor (main) fails.

Insert the Attachment 6-B

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Attachment 6

A

- Engine runs in learned pattern until engine stops.
- Does not control variable valve timing (V.V.T.).

B

Does not control variable valve timing (V.V.T.).