



SERVICE BULLETIN

AFTERSALES SERVICE OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-09E35-501	DATE : 2009-01-20
SUBJECT : ETACS-ECU STANDARD VOLTAGE	<div> <div><MODEL></div> <div>(EUR/RUSSIA)</div> <div>LANCER</div> <div>(GS41)(CY0A),</div> <div>OUTLANDER</div> <div>(GS45X)(CW0W)</div> </div> <div> <div><M/Y></div> <div>07-08</div> </div>	
GROUP : SERVICE BRAKE		

1. Description:

In the procedures for troubleshooting the ABS and ASC, the range of the standard voltage for the ETACS-ECU has been incorrect in the applicable Workshop Manuals. This Service Bulletin contains the corrected range.

2. Applicable Manuals:

See Attached sheets A and B.

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 sheets 2 to 9.

<EUR>

Manual	Pub. No.	Title (Info-ID)	Attached Sheet
2007 OUTLANDER Workshop Manual	CGXE07E1-CD (English)	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-01700-01)	Attached sheet 3
	CGXS07E1-CD (Spanish) CGXF07E1-CD (French) CGXG07E1-CD (German)	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-02200-01)	Attached sheet 4
2008 OUTLANDER Workshop Manual	CGXE08E2-CD (English)	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-13600-01)	Attached sheet 5
	CGXS08E2-CD (Spanish) CGXF08E2-CD (French) CGXG08E2-CD (German)	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-07700-01)	Attached sheet 2
2008 LANCER Workshop Manual	CG1E08E1-CD (English)	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-08400-01)	Attached sheet 6
	CG1S08E1-CD (Spanish) CG1F08E1-CD (French) CG1G08E1-CD (German)	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-13000-01)	Attached sheet 7
		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-09500-01)	Attached sheet 8
		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-10700-01)	Attached sheet 9

<RUSSIA>

Underneath Manual	Underneath Pub. No.	Title (Info-ID)	Attached Sheet
2007 OUTLANDER Workshop Manual	N/A	Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-01700-01)	Attached sheet 3
		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-02200-01)	Attached sheet 4
2008 OUTLANDER Workshop Manual		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-13600-01)	Attached sheet 5
		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-07700-01)	Attached sheet 2
2008 LANCER Workshop Manual		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-08400-01)	Attached sheet 6
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		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M352-02-880-09500-01)	Attached sheet 8
		Code No. C1000 Abnormality in Stop Lamp Switch Circuit (M355-01-970-10700-01)	Attached sheet 9

STEP 9. Connector check: C-304 ETACS-ECU connector, C-126 stop lamp switch connector (A9)
Q: Is the check result normal?

YES : The short or open circuit between the C-304 ETACS-ECU connector terminal No.1 and the C-126 stop lamp switch connector terminal No.2 may be present. Repair the wiring harness between the C-304 ETACS-ECU connector terminal No.1 and the C-126 stop lamp switch connector terminal No.2.

NO : Repair the defective connector.

STEP 10. ETACS-ECU fuse No.2 check (A0)
Q: Is the check result normal?

YES : Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU), and then go to Step 13.

NO : Replace fuse No.2. Then go to Step 14.

STEP 11. Voltage measurement at C-312 ETACS-ECU connector (B1)

(1) Disconnect C-312 ETACS-ECU connector, and measure the voltage at ETACS-ECU side.

(2) Turn the ignition switch to the ON position.

CAUTION

Do not depress the brake pedal.

(3) Measure the voltage between the terminal No.16 and the body earth. ~~<Incorrect>~~

OK: ~~Approximately 5 V~~

<Correct>

1 V or less

Q: Is the check result normal?

YES : Go to Step 12.

NO : Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU), and then go to Step 14.

STEP 12. Connector check: C-312 ETACS-ECU connector, C-126 stop lamp switch connector (B2)
Q: Is the check result normal?

YES : The short circuit between the C-312 ETACS-ECU connector terminal No.16 and the C-126 stop lamp switch connector terminal No.1 may be present. Repair the wiring harness between the C-312 ETACS-ECU connector terminal No.16 and the C-126 stop lamp switch connector terminal No.1.

NO : Repair the defective connector.

STEP 13. Check whether the diagnosis code is reset. (B3)
Q: Is the diagnosis code No.1000 set?

YES : Replace the ASC-ECU (Refer to). Then go to Step 14.

NO : The trouble can be an intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

STEP 8. ETACS-ECU fuse No.2 check (A8)**Q: Is the check result normal?****YES** : Replace the ETACS-ECU, and then go to Step 11.**NO** : Go to Step 9.

STEP 9. Voltage measurement at C-312 ETACS-ECU connector (A9)

(1) Turn the ignition switch to the ON position.

(2) Measure the voltage between the terminal No. 16 and the body earth. **<Incorrect>****OK: Approximately 5 V****<Correct>****1 V or less****Q: Is the check result normal?****YES** : Go to Step 10.**NO** : Replace the ETACS-ECU, and then go to Step 11.

STEP 10. Connector check: C-312 ETACS-ECU connector, C-126 stop lamp switch connector (A0)**Q: Is the check result normal?****YES** : The short circuit between the C-312 ETACS-ECU connector terminal No. 16 and the C-126 stop lamp switch connector terminal No. 1 may be present.
Repair the wiring harness between the C-312 ETACS-ECU connector terminal No. 16 and the C-126 stop lamp switch connector terminal No. 1.**NO** : Repair the defective connector.

STEP 11. Check whether the diagnosis code is reset. (B1)**Q: Is the diagnosis code No. 1000 set?****YES** : Replace the ABS-ECU.**NO** : This diagnosis is complete.

STEP 7. Connector check: C-304 ETACS-ECU connector, C-109 stop lamp switch connector ^(A7)**Q: Is the check result normal?**

YES : The short circuit between the C-304 ETACS-ECU connector terminal No. 1 and the C-109 stop lamp switch connector terminal No. 2 may be present. Repair the wiring harness between the C-304 ETACS-ECU connector terminal No. 1 and the C-109 stop lamp switch connector terminal No. 2.

NO : Repair the defective connector.

STEP 8. ETACS-ECU fuse No.2 check ^(A8)**Q: Is the check result normal?**

YES : Replace the ETACS-ECU, and then go to Step 12.

NO : Go to Step 9.

STEP 9. Connector check: C-131 intermediate connector ^(A9)**Q: Is the check result normal?**

YES : The short circuit between the C-131 intermediate connector terminal No. 9 and the C-126 stop lamp switch connector terminal No. 1. may be present. Repair the wiring harness between the C-131 intermediate connector terminal No. 9 and the C-126 stop lamp switch connector terminal No. 1.

NO : Repair the defective connector.

STEP 10. Voltage measurement at C-312 ETACS-ECU connector ^(B0)

- (1) Turn the ignition switch to the ON position.
- (2) Measure the voltage between the terminal No. 16 and the body earth.

OK: ~~Approximately 5 V~~

<Correct>

1 V or less

Q: Is the check result normal?

YES : Go to Step 11.

NO : Replace the ETACS-ECU, and then go to Step 12.

STEP 11. Connector check: C-312 ETACS-ECU connector, C-126 stop lamp switch connector ^(B1)**Q: Is the check result normal?**

YES : The short circuit between the C-312 ETACS-ECU connector terminal No. 16 and the C-126 stop lamp switch connector terminal No. 1 may be present. Repair the wiring harness between the C-312 ETACS-ECU connector terminal No. 16 and the C-126 stop lamp switch connector terminal No. 1.

NO : Repair the defective connector.

STEP 7. Voltage measurement at C-304 ETACS-ECU connector ^(A7)

- (1) Disconnect C-304 ETACS-ECU connector, and measure the voltage at ETACS-ECU side.
- (2) Turn the ignition switch to the ON position.

⚠ CAUTION**Do not depress the brake pedal.**

- (3) Measure the voltage between the terminal No.1 and the body earth.

OK: Approximately battery voltage**Q: Is the check result normal?****YES :** Go to Step 8.**NO :** Go to Step 9.**STEP 8. Connector check: C-304 ETACS-ECU connector, C-126 stop lamp switch connector ^(A8)****Q: Is the check result normal?**

YES : The open or short circuit between the C-304 ETACS-ECU connector terminal No.1 and the C-126 stop lamp switch connector terminal No.2 may be present. Repair the wiring harness between the C-304 ETACS-ECU connector terminal No.1 and the C-126 stop lamp switch connector terminal No.2.

NO : Repair the defective connector.**STEP 9. ETACS-ECU fuse No.2 check ^(A9)****Q: Is the check result normal?****YES :** Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU), and then go to Step 12.**NO :** Replace the fuse No.2.**STEP 10. Voltage measurement at C-312 ETACS-ECU connector ^(A0)**

- (1) Disconnect C-312 ETACS-ECU connector, and measure the voltage at ETACS-ECU side.
- (2) Turn the ignition switch to the ON position.

⚠ CAUTION**Do not depress the brake pedal.**

- (3) Measure the voltage between the terminal No.16 and the body earth. **<Incorrect>**

OK: ~~Approximately battery voltage~~**<Correct>****Q: Is the check result normal?****YES :** Go to Step 11.**NO :** Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU), and then go to Step 12.**1 V or less**

STEP 7. Voltage measurement at C-304 ETACS-ECU connector ^(A7)

- (1) Turn the ignition switch to the ON position.
- (2) Measure the voltage between the terminal No.1 and the body earth.

OK: Approximately battery voltage

Q: Is the check result normal?

YES : Go to Step 8.

NO : Go to Step 9.

STEP 8. Connector check: C-304 ETACS-ECU connector, C-24 stop lamp switch connector ^(A8)

Q: Is the check result normal?

YES : The short circuit between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2 may be present. Repair the wiring harness between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2.

NO : Repair the defective connector.

STEP 9. ETACS-ECU fuse No.2 check ^(A9)

Q: Is the check result normal?

YES : Replace the ETACS-ECU, and then go to Step 12.

NO : Replace the fuse No.2.

STEP 10. Voltage measurement at C-312 ETACS-ECU connector ^(A0)

- (1) Turn the ignition switch to the ON position.

CAUTION

Do not depress the brake pedal.

- (2) Measure the voltage between the terminal No.16 and the body earth. **<Incorrect>**

OK: ~~Approximately 5 V~~

**<Correct>
1 V or less**

Q: Is the check result normal?

YES : Go to Step 11.

NO : Replace the ETACS-ECU, and then go to Step 12.

STEP 11. Connector check: C-312 ETACS-ECU connector, C-24 stop lamp switch connector ^(B1)

Q: Is the check result normal?

YES : The short circuit between the C-312 ETACS-ECU connector terminal No.16 and the C-24 stop lamp switch connector terminal No.1 may be present. Repair the wiring harness between the C-312 ETACS-ECU connector terminal No.16 and the C-24 stop lamp switch connector terminal No.1.

NO : Repair the defective connector.

STEP 9. Connector check: C-304 ETACS-ECU connector, C-24 stop lamp switch connector (A9)

Q: Is the check result normal?

YES : The short circuit between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2 may be present.
Repair the wiring harness between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2.

NO : Repair the defective connector.

STEP 10. ETACS-ECU fuse No.2 check (A0)

Q: Is the check result normal?

YES : Replace the ETACS-ECU, and then go to Step 13.

NO : Replace fuse No. 2. Then go to Step 14.

STEP 11. Measure the voltage at the C-312 ETACS-ECU connector. (B1)

(1) Turn the ignition switch to the ON position.

CAUTION

Do not depress the brake pedal.

(2) Measure the voltage between the terminal No.16 and the body earth.

OK ~~Approximately 5 V~~

<Correct>

1 V or less

Q: Is the check result normal?

YES : Go to Step 12.

NO : Replace the ETACS-ECU, and then go to Step 14.

STEP 12. Connector check: C-312 ETACS-ECU connector, C-24 stop lamp switch connector (B2)

Q: Is the check result normal?

YES : The short circuit between the C-312 ETACS-ECU connector terminal No.16 and the C-24 stop lamp switch connector terminal No.1 may be present.
Repair the wiring harness between the C-312 ETACS-ECU connector terminal No.16 and the C-24 stop lamp switch connector terminal No.1.

NO : Repair the defective connector.

STEP 13. Check whether the diagnosis code is reset. (B3)

Q: Is diagnosis code No.1000 set?

YES : After the hydraulic unit (integrated with ASC-ECU) is replaced, carry out the calibration of the steering wheel sensor, the G and yaw rate sensor and brake fluid pressure sensor to make ASC-ECU learn the neutral point again (Refer to , and). Then go to Step 14.

NO : The trouble can be an intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

STEP 8. Connector check: C-304 ETACS-ECU connector, C-24 stop lamp switch connector (A8)

Q: Is the check result normal?

YES : The short circuit between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2 may be present.
Repair the wiring harness between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2.

NO : Repair the defective connector.

STEP 9. ETACS-ECU fuse No.2 check (A9)

Q: Is the check result normal?

YES : Replace the ETACS-ECU, and then go to Step 12.

NO : Replace the fuse No.2.

STEP 10. Voltage measurement at C-312 ETACS-ECU connector (A0)

(1) Turn the ignition switch to the ON position.

CAUTION

Do not depress the brake pedal.

(2) Measure the voltage between the terminal No.16 and the body earth by back probing.

OK: ~~Approximately 5 V~~ **<Correct>
1 V or less**

<Incorrect>

Q: Is the check result normal?

YES : Go to Step 11.

NO : Replace the ETACS-ECU, and then go to Step 12.

STEP 11. Connector check: C-312 ETACS-ECU connector, C-24 stop lamp switch connector (B1)

Q: Is the check result normal?

YES : The short circuit between the C-312 ETACS-ECU connector terminal No.16 and the C-24 stop lamp switch connector terminal No.1 may be present.
Repair the wiring harness between the C-312 ETACS-ECU connector terminal No.16 and the C-24 stop lamp switch connector terminal No.1.

NO : Repair the defective connector.

STEP 12. Check whether the diagnosis code is reset. (B2)

Q: Is the diagnosis code No. 1000 set?

YES : Replace the ABS-ECU.

NO : This diagnosis is complete.

Diagnosis Code Chart).

Q: Is the check result normal?

YES : Go to Step 7.

NO : Diagnose the rear combination lamp (Refer to GROUP 54A, Rear Combination Lamp – Diagnosis Code Chart). Then go to Step 14.

STEP 7. Battery check (A7)

Refer to GROUP 54A – Battery Test.

Q: Is the battery in good condition?

YES : Go to Step 8.

NO : Charge or replace the battery, and go to Step 8.

STEP 8. Voltage measurement at C-304 ETACS-ECU connector (A8)

- (1) Turn the ignition switch to the ON position.
- (2) Measure the voltage between the terminal No.1 and the body earth by back probing.

OK: Approximately battery voltage

Q: Is the check result normal?

YES : Go to Step 9.

NO : Go to Step 10.

STEP 9. Connector check: C-304 ETACS-ECU connector, C-24 stop lamp switch connector (A9)

Q: Is the check result normal?

YES : The short circuit between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2 may be present. Repair the wiring harness between the C-304 ETACS-ECU connector terminal No.1 and the C-24 stop lamp switch connector terminal No.2.

NO : Repair the defective connector.

STEP 10. ETACS-ECU fuse No.2 check (A0)

Q: Is the check result normal?

YES : Replace the ETACS-ECU, and then go to Step 13.

NO : Replace fuse No. 2. Then go to Step 14.

STEP 11. Measure the voltage at the C-312 ETACS-ECU connector. (B1)

- (1) Turn the ignition switch to the ON position.

CAUTION

Do not depress the brake pedal.

- (2) Measure the voltage between the terminal No.16 and the body earth by back probing.

OK: ~~Approximately 5 V~~

**<Correct>
1 V or less**

<Incorrect>

Q: Is the check result normal?

YES : Go to Step 12.

NO : Replace the ETACS-ECU, and then go to Step 14.