MITSUBISHI MOTORS

SERVICE BULLETIN

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-11E35-501	DATE : 2011-07-05
SUBJECT : DIAGNOSIS CODE C2100 TROUBLESHOOTING PROCEDURE		<MODEL> (EUR/RUSSIA) LANCER (CY0A), OUTLANDER (CW0W) <M/Y> 07–11
GROUP : ANTI-SKID BRAKING SYSTEM (ABS)		

1. Description:

Some of the troubleshooting procedure steps for diagnosis code C2100 have been incorrect in the applicable Workshop Manuals. This Service Bulletin contains the corrected descriptions.

2. Applicable Manuals:

See Attached sheets 1 (1/2) to 1 (2/2).

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, 4, 6, 8.

Attached sheet 1 (1/2)

<EUR>

Manual	Pub. No.	Title (Info-ID)	Attached Sheet
2008 LANCER Workshop Manual CD-ROM	CG1E08E1-CD (English) CG1S08E1-CD (Spanish) CG1F08E1-CD (French) CG1G08E1-CD (German)	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-12200-01)	Attached sheet 2
2007 OUTLANDER Workshop Manual CD-ROM	CGXE07E1-CD (English) CGXS07E1-CD (Spanish) CGXF07E1-CD (French) CGXG07E1-CD (German)	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-01400-01)	Attached sheet 4
2008 OUTLANDER Workshop Manual CD-ROM	CGXE08E2-CD (English) CGXS08E2-CD (Spanish) CGXF08E2-CD (French) CGXG08E2-CD (German)	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-15500-01)	Attached sheet 6
2009 OUTLANDER Workshop Manual CD-ROM	CGXE09E2-CD (English) CGXS09E2-CD (Spanish) CGXF09E2-CD (French) CGXG09E2-CD (German) CGXI09E2-CD (Italian)	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-23000-01)	Attached sheet 8
		Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-23001-01)	
2010 OUTLANDER Workshop Manual CD-ROM	CGXE10E1-CD (English) CGXS10E1-CD (Spanish) CGXF10E1-CD (French) CGXG10E1-CD (German) CGXI10E1-CD (Italian)	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-34800-01)	
2011 OUTLANDER Workshop Manual CD-ROM	CGXE11E1-CD (English) CGXS11E1-CD (Spanish) CGXF11E1-CD (French) CGXG11E1-CD (German) CGXI11E1-CD (Italian)	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-34801-01)	

<RUSSIA>

Underneath Manual	Underneath Pub. No.	Title (Info-ID)	Attached Sheet
2008 LANCER Workshop Manual	N/A	Code No.C2100 Abnormality in Battery Voltage (Low Voltage) (M352-02-900-09200-01)	Attached sheet 2

Attached sheet 2 (1/2)

(3) Measure the voltage between terminal No.26 and body earth.

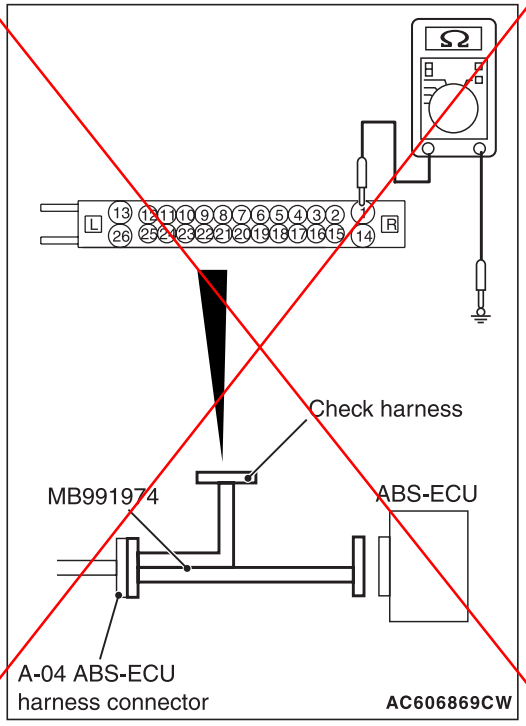
OK: Approximately battery voltage

Q: Is the check result normal?
YES : Go to Step 8.
NO : Go to Step 7.

STEP 7. Connector check: A-04 ABS-ECU connector

Q: Is the check result normal?
YES : The open or short circuit may be present in the power supply circuit. Repair the wiring harness between the A-04 ABS-ECU connector terminal No.26 and the fusible link No.27.
NO : Repair the defective connector.

STEP 8. Resistance measurement at the A-04 ABS-ECU connector



(1) Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.

NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.

(2) Resistance between terminal No.1 and body earth, and between terminal No.14 and body earth.

OK: Continuity exists (2 Ω or less)

Q: Is the check result normal?
YES : Go to Step 10.
NO : Go to Step 9.

STEP 9. Connector check: A-04 ABS-ECU connector

Q: Is the check result normal?
YES : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-04 ABS-ECU connector terminal No.1 and body earth, and between the A-04 ABS-ECU connector terminal No.14 and body earth.
NO : Repair the defective connector.

STEP 10. Check whether the diagnosis code is reset.

Q: Is the diagnosis code No. C2100 set?
YES : Replace the ABS-ECU (Refer to).
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

<Incorrect>

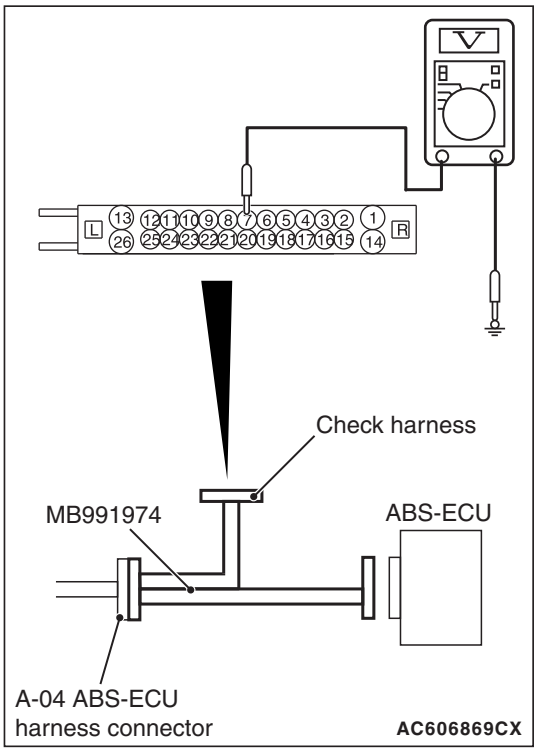
<Incorrect>

From Attached sheet 2 (2/2)

To Attached sheet 2 (1/2)

<Correct>

STEP 8. Voltage measurement at the A-04 ABS-ECU connector

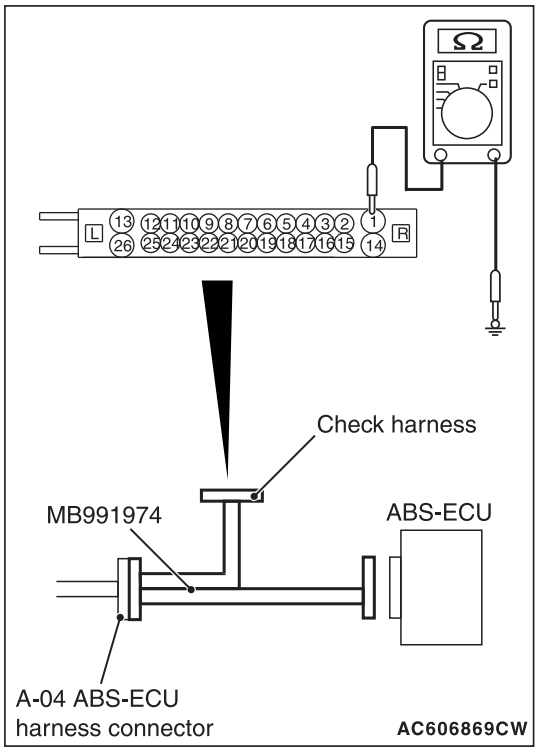


(1)Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the voltage at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2)Turn the ignition switch to the "ON" position.
(3)Voltage between terminal No.7 and body earth.
OK: Approximately system voltage
Q:Is the check result normal?
YES : Go to Step 10.
NO : Go to Step 9.

STEP 9. Connector check: A-04 ABS-ECU connector
Q:Is the check result normal?
YES : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-04 ABS-ECU connector terminal No.7 and C-317 ETACS-ECU connector terminal No.5, fuse No.12. Or replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU).
NO : Repair the defective connector.

<Correct>

STEP 10. Resistance measurement at the A-04 ABS-ECU connector



(1)Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2)Resistance between terminal No.1 and body earth, and between terminal No.14 and body earth.
OK: Continuity exists (2 Ω or less)
Q:Is the check result normal?
YES : Go to Step 12.
NO : Go to Step 11.

STEP 11. Connector check: A-04 ABS-ECU connector
Q:Is the check result normal?
YES : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-04 ABS-ECU connector terminal No.1 and body earth, and between the A-04 ABS-ECU connector terminal No.14 and body earth.
NO : Repair the defective connector.

STEP 12. Check whether the diagnosis code is reset.
Q:Is the diagnosis code No. C2100 set?
YES : Replace the ABS-ECU (Refer to).
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

Attached sheet 4 (1/2)

OPERATION
When the power is supplied from the ignition switch (IG1) to the IG1 relay in ETACS-ECU, IG1 relay is turned on. At this time, the ABS-ECU power supply signal is sent to ABS-ECU (terminal No. 6) from the fusible link No. 33 through the multi-purpose fuse No. 12.

DIAGNOSIS CODE SET CONDITIONS
This diagnosis code is set in the following case.
- When the ABS-ECU power supply voltage drops below 9.7 ± 0.3 V during driving
- When the ABS-ECU power supply voltage drops below 8.0 ± 0.5 V during driving

PROBABLE CAUSES
- Battery failure
- Battery terminal looseness
- Charging system failed
- Damaged wiring harness and connectors
- ABS-ECU malfunction

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-III CAN bus diagnosis
Use M.U.T.-III to diagnose the CAN bus lines.

Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the CAN bus lines (Refer to GROUP 54C – CAN Bus Diagnosis table). On completion, go to Step 2.

STEP 2. Diagnosis code recheck after resetting CAN bus lines

Q: Is the diagnosis code No. C2100 set?
YES : Go to Step 3.
NO : This diagnosis is complete.

STEP 3. Battery check
Refer to GROUP 54A – Battery Test .

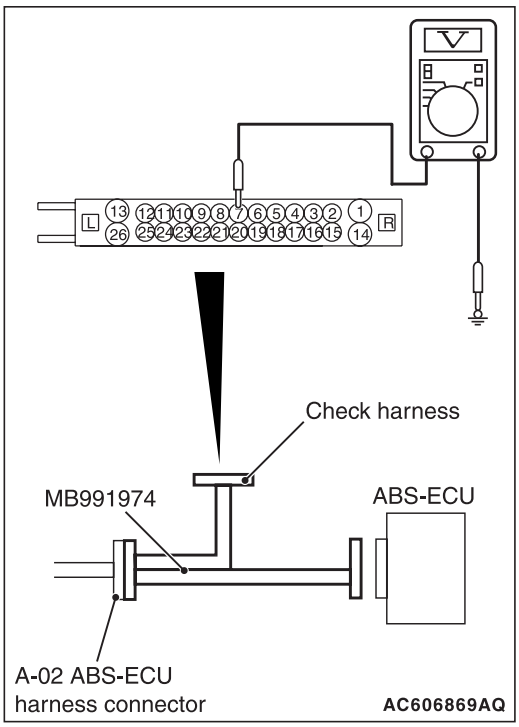
Q: Is the battery in good condition?
YES : Go to Step 4.
NO : Charge or replace the battery.

STEP 4. Charging system check
Refer to GROUP 16 – Charging System .

Q: Is the charging system in good condition?
YES : Go to Step 5.
NO : Repair or replace the charging system component(s).

MSB- From Attached sheet 4 (2/2)

STEP 5. Voltage measurement at the A-02 ABS-ECU connector



(1) Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2) Turn the ignition switch to the ON position.
(3) Measure the voltage between terminal No. 7 and body earth.
OK: Battery voltage

Q: Is the check result normal?
YES : Go to Step 7. <Incorrect>
NO : Go to Step 6.
Step 8 <Correct>

STEP 6. Connector check: A-02 ABS-ECU connector <Added>

Then go to Step 7.

Q: Is the check result normal?
YES : The open or short circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No. 7 and the fusible link No. 33.
NO : Repair the defective connector.

<Incorrect>

STEP 7. Check whether the diagnosis code is reset.
- Drive the vehicle at 20 km/h or more.

6 **Q: Is the diagnosis code No. C2100 set?**

Attached sheet 4 (2/2)

YES : Replace the ABS-ECU.
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

<Incorrect>

To Attached sheet 4 (1/2)

<Correct>

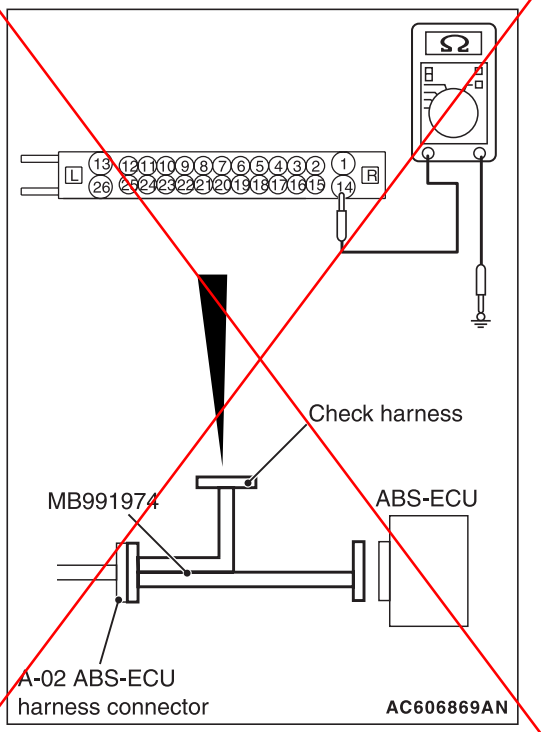
STEP 7. Check whether the diagnosis code is reset.
・Drive the vehicle at 20 km/h or more.
Q:Is the diagnosis code No. C2100 set?
YES : Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU), and then go to Step 8.
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

STEP 8. Check whether the diagnosis code is reset.
・Drive the vehicle at 20 km/h or more.
Q:Is the diagnosis code No. C2100 set?
YES : Replace the ABS-ECU.
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

Attached sheet 6 (1/2)

YES : The open or short circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.26 and the fusible link No.27.
NO : Repair the defective connector.

STEP 8. Resistance measurement at the A-02 ABS-ECU connector



(1) Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2) Resistance between terminal No.1 and body earth, and between terminal No.14 and body earth.

OK: Continuity exists (2 Ω or less)

Q: Is the check result normal?
YES : Go to Step 10.
NO : Go to Step 9.

STEP 9. Connector check: A-02 ABS-ECU connector

Q: Is the check result normal?
YES : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.1 and body earth, and between the A-02 ABS-ECU connector terminal No.14 and body earth.
NO : Repair the defective connector.

STEP 10. Check whether the diagnosis code is reset.

Q: Is the diagnosis code No. C2100 set?
YES : Replace the ABS-ECU (Refer to).
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

<Incorrect>

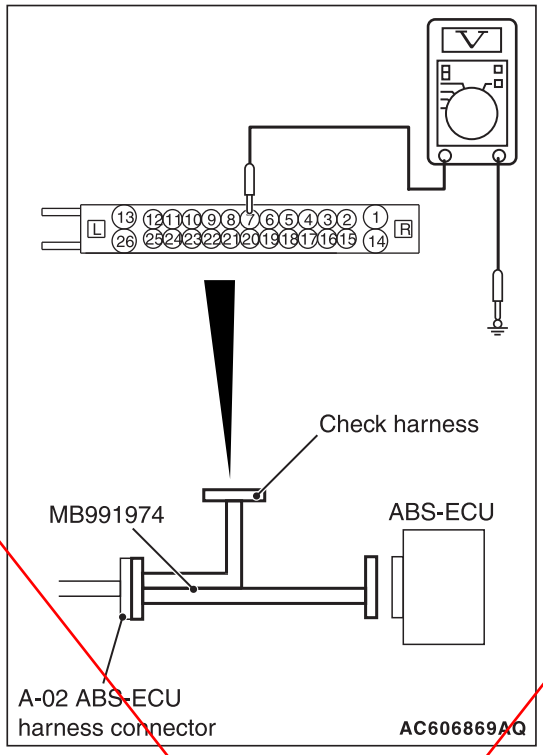
<Incorrect>

From Attached sheet 6 (2/2)

To Attached sheet 6 (1/2)

<Correct>

STEP 8. Voltage measurement at the A-02 ABS-ECU connector



(1)Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the voltage at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2)Turn the ignition switch to the "ON" position.
(3)Voltage between terminal No.7 and body earth.

OK: Approximately system voltage

Q:Is the check result normal?

YES : Go to Step 10.
NO : Go to Step 9.

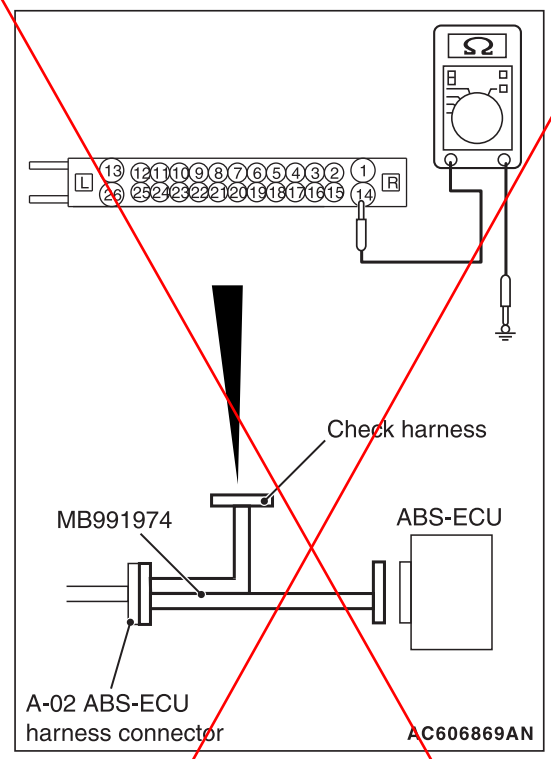
STEP 9. Connector check: A-02 ABS-ECU connector

Q:Is the check result normal?

YES : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.7 and C-317 ETACS-ECU connector terminal No.5, fuse No.12. Or replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU).
NO : Repair the defective connector.

<Correct>

STEP 10. Resistance measurement at the A-02 ABS-ECU connector



(1)Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2)Resistance between terminal No.1 and body earth, and between terminal No.14 and body earth.

OK: Continuity exists (2 Ω or less)

Q:Is the check result normal?

YES : Go to Step 12.
NO : Go to Step 11.

STEP 11. Connector check: A-02 ABS-ECU connector

Q:Is the check result normal?

YES : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.1 and body earth, and between the A-02 ABS-ECU connector terminal No.14 and body earth.
NO : Repair the defective connector.

STEP 12. Check whether the diagnosis code is reset.

Q:Is the diagnosis code No. C2100 set?

YES : Replace the ABS-ECU (Refer to).
NO : Intermittent malfunction (Refer to GROUP 00 – How to Cope with Intermittent Malfunction).

Attached sheet 8 (1/6)

STEP 4. Charging system check

Refer to GROUP 16 – On–vehicle Service/Alternator Output Line Voltage Drop Test .

Q: Is the charging system in good condition?

YES : Go to Step 5.

NO : Repair or replace the charging system component(s).

STEP 5. Connector check: A-02 ABS-ECU connector, C-37 intermediate connector, C-210 ignition switch connector, C-309 ETACS-ECU connector, C-317 ETACS-ECU connector

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the damaged connector.

<Correct>

STEP 6. Fusible link check: Check the fusible link No.27.

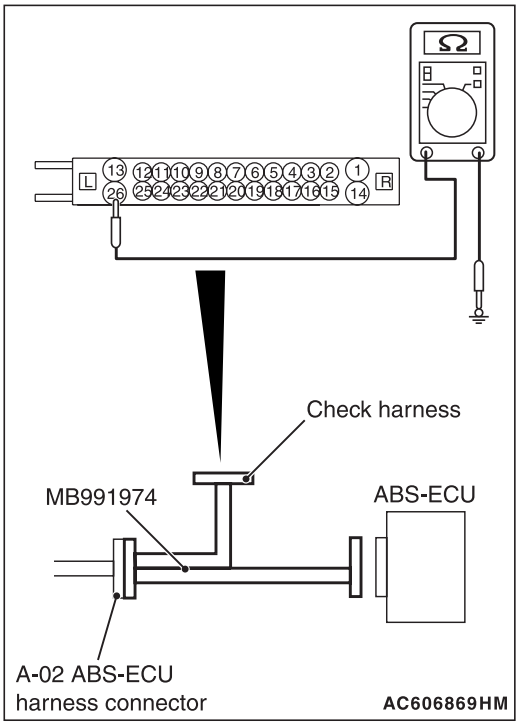
Q: Is the check result normal?

YES : Go to Step 8.

NO : Go to Step 7.

STEP 7. Resistance measurement at A-02 ABS-ECU connector

(1) Removal the fusible link No.27.



(2) Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.

NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.

(3) Resistance between the terminal No.26 and the body earth.

OK: No continuity

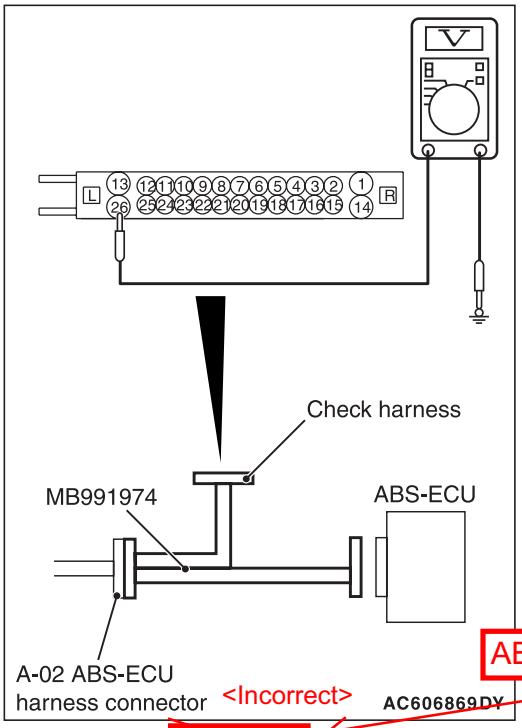
Q: Is the check result normal?

YES : Replace the fusible link No.27. Then go to ~~Step 20.~~ <Incorrect>

NO : The short circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.26 and the fusible link No.27, and then replace the fusible link No.27. Then go to ~~Step 20.~~ <Incorrect>

Step 21

STEP 8. Voltage measurement at the A-02 ABS-ECU connector



<Correct>

ABS-ECU

<Incorrect>

(1) Disconnect the ~~ASC-ECU~~ connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the voltage at the special tool connector side.

NOTE: Do not connect the special tool ABS check harness (MB991974) to ~~ASC-ECU~~.

<Incorrect>

(2) Measure the voltage between terminal No.26 and body earth.

OK: Approximately system voltage

Q: Is the check result normal?

Attached sheet 8 (2/6)

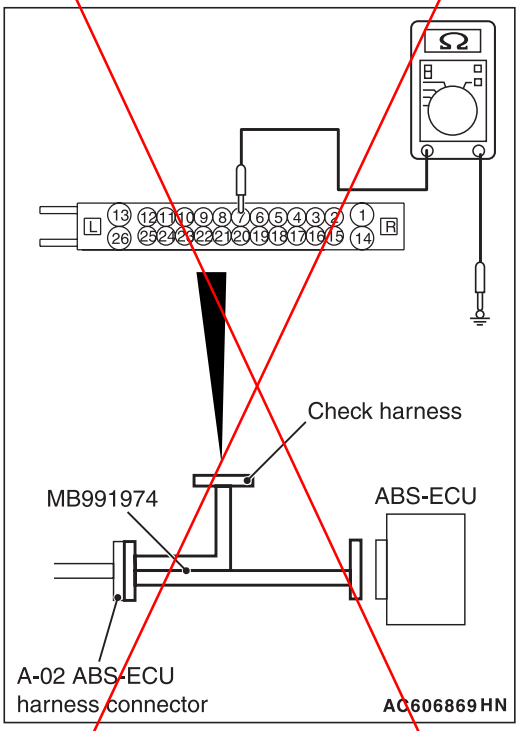
YES : Go to Step 9.
NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.26 and the fusible link No.27. Then go to Step 20.

<Correct>
Step 21
<Incorrect>

STEP 9. Check the fuse No.12.
Visually check for open circuit in fuse No.12.

Q: Is the check result normal?
YES : Go to Step 11.
NO : Go to Step 10.

STEP 10. Resistance measurement at A-02 ABS-ECU connector
(1) Disconnect the C-317 ETACS-ECU connector.



(2) Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.

NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.

(3) Resistance between the terminal No.7 and the body earth.

OK: No continuity

Q: Is the check result normal?

<Incorrect>

From Attached sheet 8 (5/6),(6/6)

YES : Replace the fuse No.12. Then go to Step 20.
NO : The short circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.7 and the C-317 ETACS-ECU connector terminal No.5, and then replace the fuse No.12. Then go to Step 20.

STEP 11. Measure the voltage at the C-309 ETACS-ECU connector.
(1) Disconnect the connector, and measure at the wiring harness-side connector.
(2) Measure the voltage between the terminal No.1 and the body earth.

OK: Approximately system voltage

Q: Is the check result normal?
YES : Go to Step 15.
NO : Go to Step 12.

STEP 12. Fusible link check: Check the fusible link No.33.

Q: Is the check result normal?
YES : Go to Step 14.
NO : Go to Step 13.

STEP 13. Resistance measurement at C-309 ETACS-ECU connector
(1) Removal the fusible link No.33.
(2) Disconnect the C-309 ETACS-ECU connector, and then measure the resistance at the harness connector side.
(3) Resistance between the terminal No.1 and the body earth.

OK: No continuity

Q: Is the check result normal?
YES : Replace the fusible link No.33. Then go to Step 20.
NO : The short circuit may be present in the power supply circuit. Repair the wiring harness between the C-309 ETACS-ECU connector terminal No.1 and the fusible link No.33, and then replace the fusible link No.33. Then go to Step 20.

STEP 14. Resistance measurement at fusible link No.33 and C-309 ETACS-ECU connector
(1) Disconnect the C-309 ETACS-ECU connector and fusible link No.33, and then measure the resistance at the harness connector side.

<Incorrect>

Attached sheet 8 (3/6)

(2) Resistance between the fusible link No.33 and C-309 ETACS-ECU connector terminal No.1.

OK: Continuity exists (2 Ω or less)

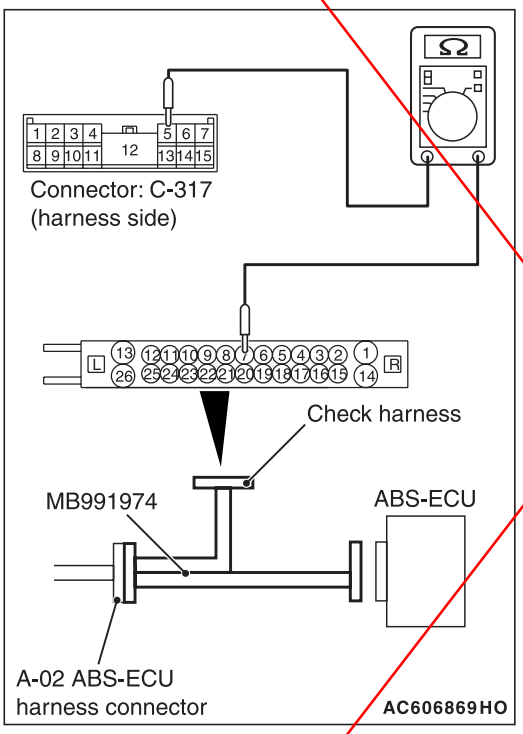
Q: Is the check result normal?

YES : Go to Step 20.

NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the fusible link No.33 and C-309 ETACS-ECU connector terminal No.1. Then go to Step 20.

STEP 15. Resistance measurement at A-02 ABS-ECU connector

(1) Disconnect the C-317 ETACS-ECU connector.



(2) Disconnect the A-02 ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.

NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.

(3) Resistance between the A-02 ABS-ECU connector terminal No.7 and the C-317 ETACS-ECU connector terminal No.5.

OK: Continuity exists (2 Ω or less)

Q: Is the check result normal?

YES : Go to Step 16.

NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.7 and the C-317 ETACS-ECU connector terminal No.5. Then go to Step 20.

STEP 16. Measure the voltage at the C-317 ETACS-ECU connector.

(1) Measure by backprobing without disconnecting the connector.

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

(3) Measure the voltage between the terminal No.6 and the body earth.

OK: Approximately system voltage

Q: Is the check result normal?

YES : Go to Step 18.

NO : Go to Step 17.

STEP 17. Resistance measurement at C-317 ETACS-ECU connector and the C-210 ignition switch connector

(1) Disconnect the C-317 ETACS-ECU connector and C-210 ignition switch connector, and then measure the resistance at the harness connector side.

(2) Resistance between the C-317 ETACS-ECU connector terminal No.6 and C-210 ignition switch connector terminal No.2.

OK: Continuity exists (2 Ω or less)

Q: Is the check result normal?

YES : Diagnosis the ignition switch (Refer to GROUP 54A – Ignition switch/Trouble symptom Chart).

NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the C-317 ETACS-ECU connector terminal No.6 and C-210 ignition switch connector terminal No.2. Then go to Step 20.

STEP 18. Check whether the diagnosis code is reset.

(1) Erase the diagnosis code.

(2) Drive the vehicle at 20 km/h or higher.

NOTE: The ABS warning lamp does not turn OFF in some cases unless the vehicle runs at 20 km/h or higher.

Q: Is the diagnosis code No.C2100 set?

<Incorrect>

From Attached sheet 8 (6/6)

<Incorrect>

YES : Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU). Then go to Step 19.
NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/How to Cope with Intermittent Malfunctions .)

STEP 19. Check whether the diagnosis code is reset.
(1) Erase the diagnosis code.
(2) Drive the vehicle at 20 km/h or higher.

NOTE: The ABS warning lamp does not turn OFF in some cases unless the vehicle runs at 20 km/h or higher.

Q: Is the diagnosis code No.C2100 set?

<Incorrect>

<Correct>

YES : Replace the hydraulic unit (ABS-ECU) (Refer to). Then go to Step 20.
NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/How to Cope with Intermittent Malfunctions .)

STEP 20. Check whether the diagnosis code is reset.
(1) Erase the diagnosis code.
(2) Drive the vehicle at 20 km/h or higher.

NOTE: The ABS warning lamp does not turn OFF in some cases unless the vehicle runs at 20 km/h or higher.

Q: Is the diagnosis code No.C2100 set?
YES : Return to Step 1.
NO : This diagnosis is complete.

<Incorrect>

STEP 20. Check whether the diagnosis code is reset.
(1)Erase the diagnosis code.
(2)Drive the vehicle at 20 km/h or higher.
NOTE: The ABS warning lamp does not turn OFF in some cases unless the vehicle runs at 20 km/h or higher.
Q:Is the diagnosis code No.C2100 set?
YES : Replace the hydraulic unit (ABS-ECU) (Refer to). Then go to Step 21.
NO : Intermittent malfunction (Refer to GROUP 00 - How to Use Troubleshooting/How to Cope with Intermittent Malfunctions).

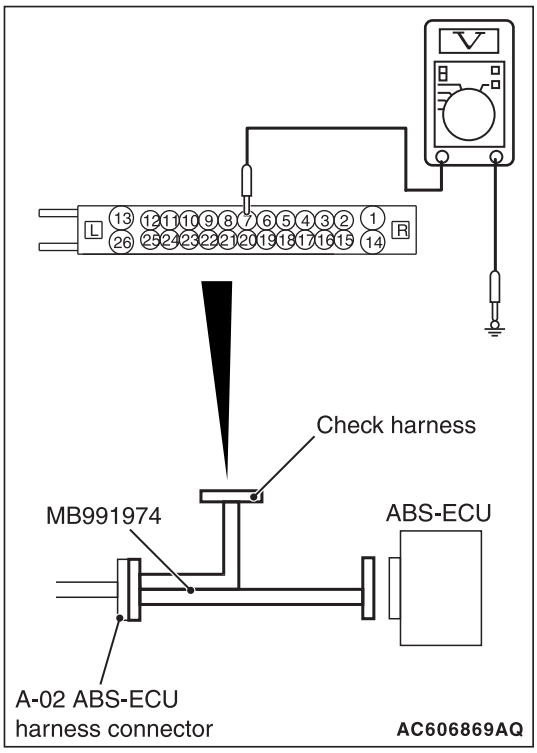
STEP 21. Check whether the diagnosis code is reset.
(1)Erase the diagnosis code.
(2)Drive the vehicle at 20 km/h or higher.
NOTE: The ABS warning lamp does not turn OFF in some cases unless the vehicle runs at 20 km/h or higher.
Q:Is the diagnosis code No.C2100 set?
YES : Return to Step 1.
NO : This diagnosis is complete.

To Attached sheet 8 (2/6)

Attached sheet 8 (5/6)

<Correct>

STEP 9. Voltage measurement at the A-02 ABS-ECU connector

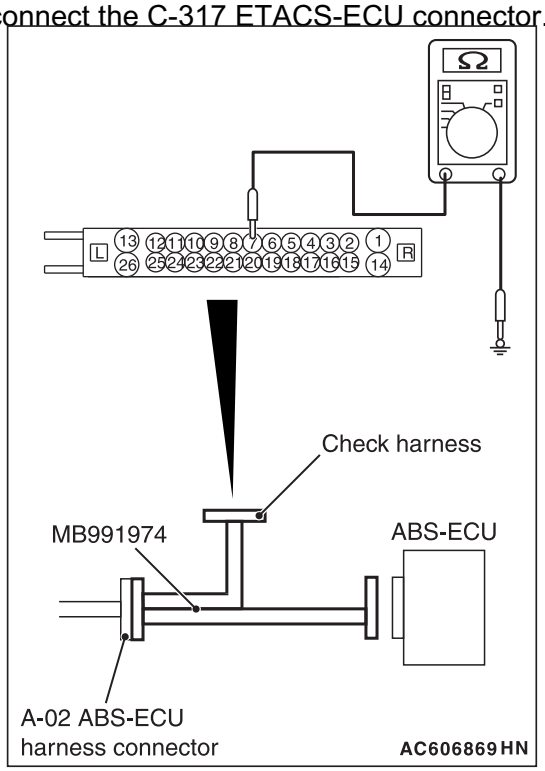


(1)Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the voltage at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(2)Turn the ignition switch to the "ON" position.
(3)Voltage between terminal No.7 and body earth.
OK: Approximately system voltage
Q:Is the check result normal?
YES : Go to Step 20.
NO : Go to Step 10.

STEP 10. Check the fuse No.12.
Visually check for open circuit in fuse No.12.
Q:Is the check result normal?
YES : Go to Step 12.
NO : Go to Step 11.

<Correct>

STEP 11. Resistance measurement at the A-02 ABS-ECU connector
(1)Disconnect the C-317 ETACS-ECU connector.



(2)Disconnect the ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.
NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.
(3)Resistance between the terminal No.7 and body earth.
OK: No continuity
Q:Is the check result normal?
YES : Replace the fuse No.12. Then go to Step 21.
NO : The short circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.7 and the C-317 ETACS-ECU connector terminal No.5, and then replace the fuse No.12. Then go to Step 21.

STEP 12. Measure the voltage at the C-309 ETACS-ECU connector.
(1)Disconnect the connector, and measure at the wiring harness-side connector.
(2)Measure the voltage between the terminal No.1 and the body earth.
OK: Approximately system voltage
Q:Is the check result normal?
YES : Go to Step 15.
NO : Go to Step 13.

STEP 13. Fusible link check: Check the fusible link No.33.
Q:Is the check result normal?
YES : Go to Step 15.
NO : Go to Step 14.

Attached sheet 8 (6/6)

<Correct>

To Attached sheet 8 (2/6)～(4/6)

STEP 14. Resistance measurement at the C-309 ETACS-ECU connector

(1)Removal the fusible link No.33.

(2)Disconnect the C-309 ETACS-ECU connector, and then measure the resistance at the harness connector side.

(3)Resistance between the terminal No.1 and the body earth.

OK: No continuity

Q:Is the check result normal?

YES : Replace the fusible link No.33. Then go to Step 21.

NO : The short circuit may be present in the power supply circuit. Repair the wiring harness between the C-309 ETACS-ECU connector terminal No.1 and the fusible link No.33, and then replace the fusible link No.33. Then go to Step 21.

STEP 15. Resistance measurement at fusible link No.33 and C-309 ETACS-ECU connector

(1)Disconnect the C-309 ETACS-ECU connector and fusible link No.33, and then measure the resistance at the harness connector side.

(2)Resistance between the fusible link No.33 and C-309 ETACS-ECU connector terminal No.1.

OK: Continuity exists (2 Ω or less)

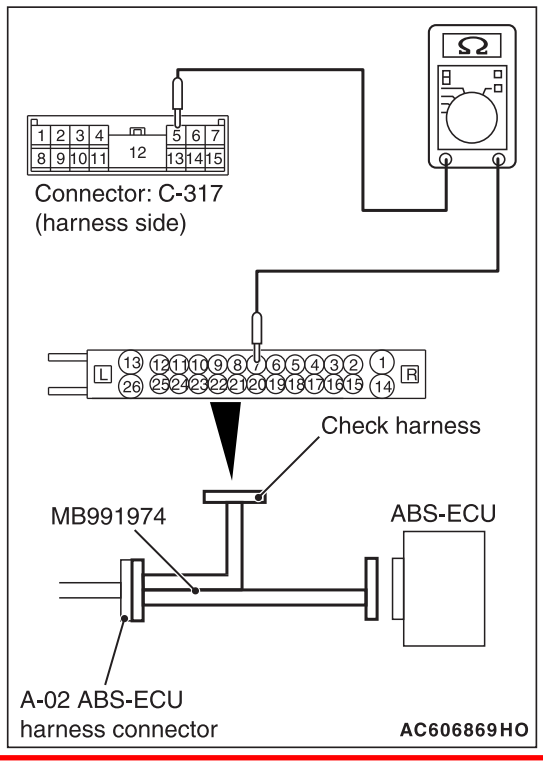
Q:Is the check result normal?

YES : Go to Step 16.

NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the fusible link No.33 and C-309 ETACS-ECU connector terminal No.1. Then go to Step 21.

STEP 16. Resistance measurement at the A-02 ABS-ECU connector

(1)Disconnect the C-317 ETACS-ECU connector



(2)Disconnect the A-02 ABS-ECU connector, connect special tool ABS check harness (MB991974) to the harness-side connector, and then measure the resistance at the special tool connector side.

NOTE: Do not connect the special tool ABS check harness (MB991974) to ABS-ECU.

(3)Resistance between the A-02 ABS-ECU connector terminal No.7 and the C-317 ETACS-ECU connector terminal No.5.

OK: Continuity exists (2 Ω or less)

Q:Is the check result normal?

YES : Go to Step 17.

NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the A-02 ABS-ECU connector terminal No.7 and the C-317 ETACS-ECU connector terminal No.5. Then go to Step 21.

STEP 17. Measure the voltage at the C-317 ETACS-ECU connector.

(1)Measure by backprobing without disconnecting the connector.

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

(3)Measure the voltage between the terminal No.6 and the body earth.

OK: Approximately system voltage

Q:Is the check result normal?

YES : Go to Step 20.

NO : Go to Step 18.

STEP 18. Resistance measurement at the C-317 ETACS-ECU connector and the C-210 ignition switch connector

(1)Disconnect the C-317 ETACS-ECU connector and C-210 ignition switch connector, and then measure the resistance at the harness connector side.

(2)Resistance between the C-317 ETACS- ECU connector terminal No.6 and C-210 ignition switch connector terminal No.2.

OK: Continuity exists (2 Ω or less)

Q:Is the check result normal?

YES : Diagnosis the ignition switch (Refer to GROUP 54A – Ignition switch/Trouble symptom Chart) and then go to Step 21.

NO : The open circuit may be present in the power supply circuit. Repair the wiring harness between the C-317 ETACS-ECU connector terminal No.6 and C-210 ignition switch connector terminal No.2. Then go to Step 19.

STEP 19. Check whether the diagnosis code is reset.

(1)Erase the diagnosis code.

(2)Drive the vehicle at 20 km/h or higher.

NOTE: The ABS warning lamp does not turn OFF in some cases unless the vehicle runs at 20 km/h or higher.

Q:Is the diagnosis code No.C2100 set?

YES : Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU). Then go to Step 20.

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/How to Cope with Intermittent Malfunctions).