

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

12. Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B1100 INTEG. UNIT SYSTEM ERROR

DTC DETECTING CONDITION:

System error in body integrated unit

TROUBLE SYMPTOM:

LAN communication or immobilizer function may not be executed normally.

Step	Check	Yes	No
1 CHECK DTC. Check DTC indicated by body integrated unit. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is the DTC B1100 displayed current malfunction?	Go to step 2.	Temporary EEPROM access error occurred.
2 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is the DTC B1100 displayed current malfunction?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Temporary EEPROM access error occurred.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

B: DTC B1101 BATT P/SUPPLY MALFUNCTION CONT

DTC DETECTING CONDITION:

- Battery power supply circuit is open or shorted.
- Battery voltage is too high or too low.

TROUBLE SYMPTOM:

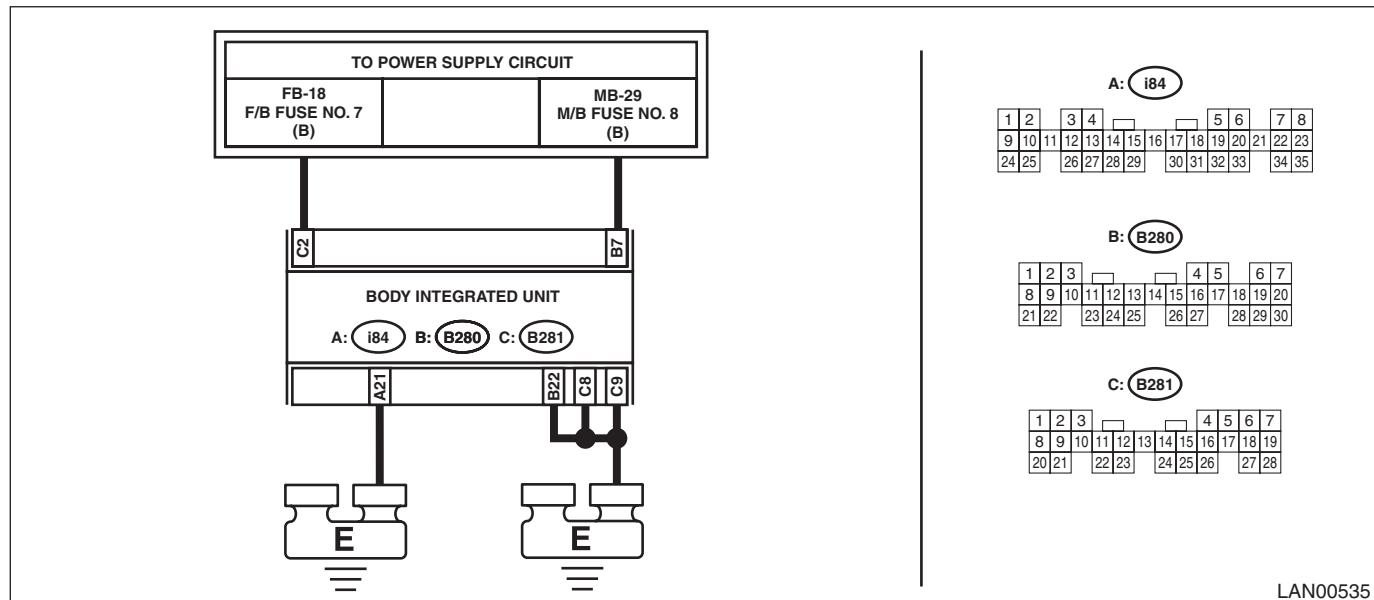
Each function stops operation.

NOTE:

When B1102 BATT P/SUPPLY MALFUNCTION BACKUP is output at the same time, all the function of body integrated unit may not operate.

WIRING DIAGRAM:

Immobilizer system <Ref. to WI-74, WIRING DIAGRAM, Immobilizer System.>



LAN00535

Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1101 current malfunction?	Go to step 2.	Go to step 5.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit and reconnect. 3) Wait approx. 2 minutes. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1101 current malfunction?	Go to step 3.	Go to step 5.
3 CHECK FUSE. 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
4 CHECK HARNESS. 1) Disconnect the body integrated unit connector (B281). 2) Measure the voltage between body integrated unit connector and chassis ground using tester. <i>Connector & terminal (B281) No. 2 (+) — Chassis ground (-):</i>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B281).	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

C: DTC B1102 BATT P/SUPPLY MALFUNCTION BACKUP

DTC DETECTING CONDITION:

Back-up power supply circuit input voltage is too high or too low.

TROUBLE SYMPTOM:

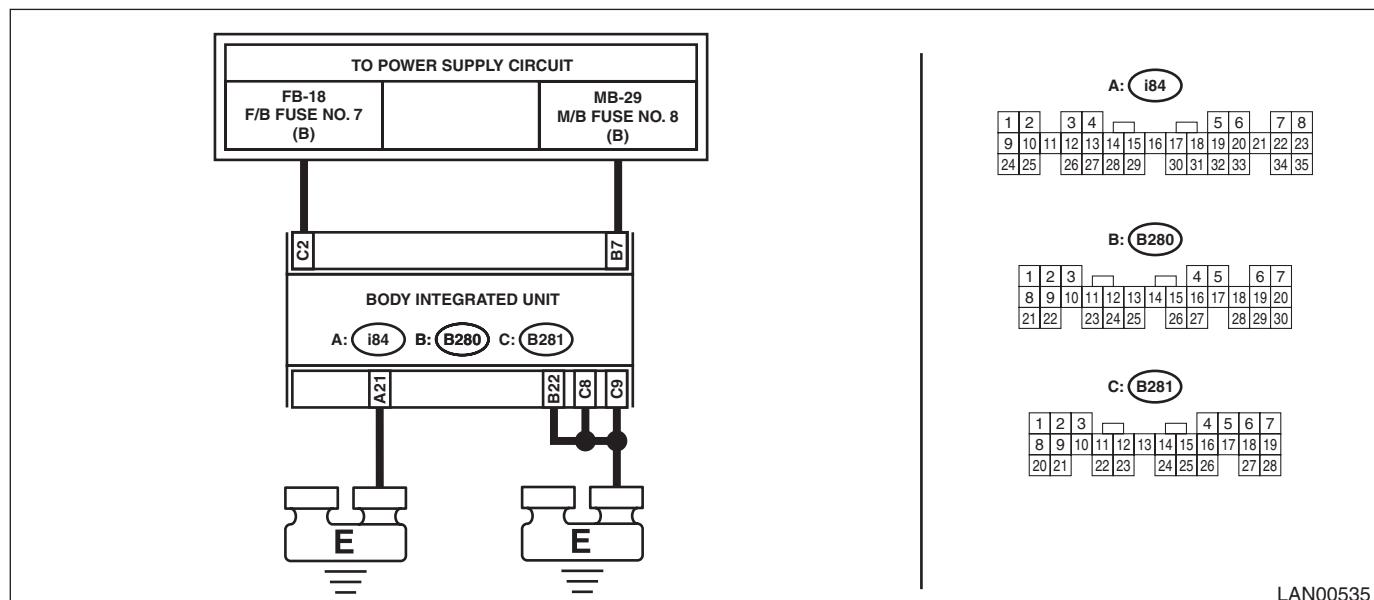
No influence.

NOTE:

When B1101 BATT P/SUPPLY MALFUNCTION CONT. is output at the same time, all function of body integrated unit may not operate.

WIRING DIAGRAM:

Immobilizer system <Ref. to WI-74, WIRING DIAGRAM, Immobilizer System.>



Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1102 current malfunction?	Go to step 2.	Go to step 5.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit and reconnect. 3) Wait approx. 2 minutes. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1102 current malfunction?	Go to step 3.	Go to step 5.
3 CHECK FUSE. 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
4 CHECK HARNESS. 1) Disconnect the body integrated unit connector (B280). 2) Measure the voltage between body integrated unit connector and chassis ground using tester. <i>Connector & terminal (B280) No. 7 (+) — Chassis ground (-):</i>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B280).	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

D: DTC B1103 IGNITION POWER FAILURE

DTC DETECTING CONDITION:

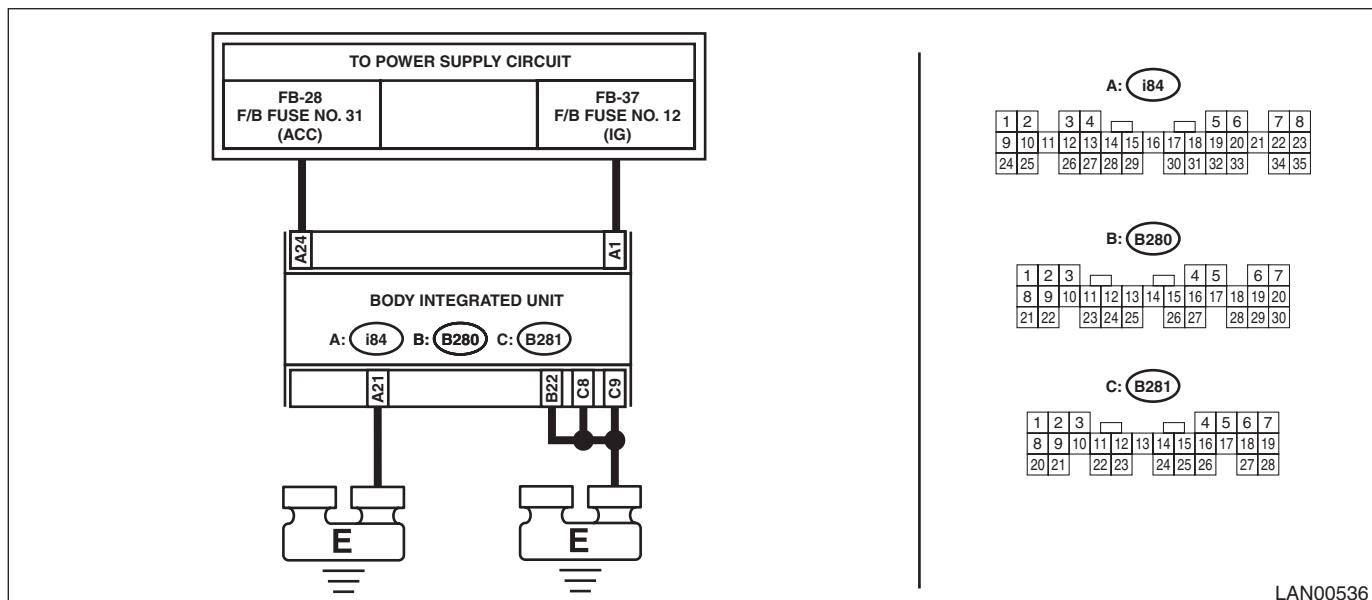
IGN power supply circuit input voltage is too high or too low.

TROUBLE SYMPTOM:

Error related to LAN system will not be detected.

WIRING DIAGRAM:

AT shift lock control system <Ref. to WI-57, WIRING DIAGRAM, AT Shift Lock Control System.>



Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1103 current malfunction?	Go to step 2.	Go to step 5.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit and reconnect. 3) Turn the ignition switch to ON. 4) Wait approx. 2 minutes. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1103 current malfunction?	Go to step 3.	Go to step 5.
3 CHECK FUSE. 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
4 CHECK HARNESS. 1) Disconnect the body integrated unit connector (i84). 2) Turn the ignition switch to ON. 3) Measure the voltage between body integrated unit connector and chassis ground using tester. <i>Connector & terminal (i84) No. 1 (+) — Chassis ground (-):</i>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (i84).	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

E: DTC B1104 ACC POWER FAILURE

DTC DETECTING CONDITION:

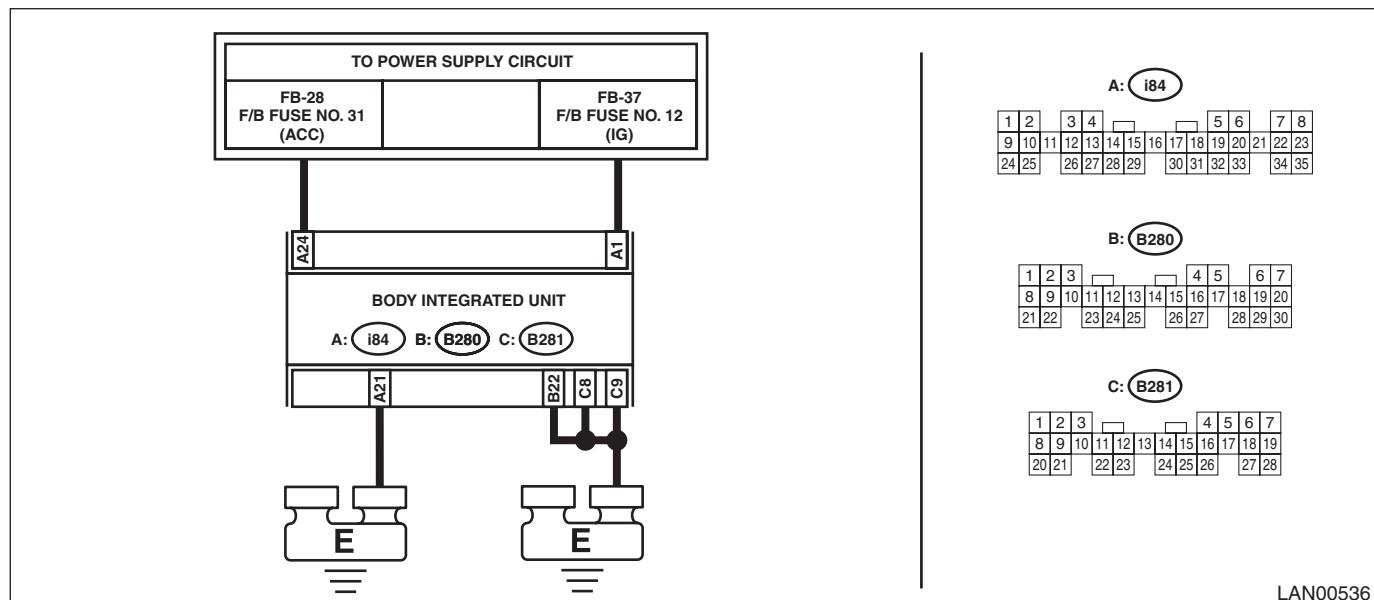
ACC power supply circuit input voltage is too high or too low.

TROUBLE SYMPTOM:

Rear wiper may not operate at ACC position.

WIRING DIAGRAM:

AT shift lock control system <Ref. to WI-57, WIRING DIAGRAM, AT Shift Lock Control System.>



Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1104 current malfunction?	Go to step 2.	Go to step 5.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit and reconnect. 3) Turn the ignition switch to ACC. 4) Wait approx. 2 minutes. 5) Turn the ignition switch to ON. 6) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1104 current malfunction?	Go to step 3.	Go to step 5.
3 CHECK FUSE. 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
4 CHECK HARNESS. 1) Disconnect the body integrated unit connector (i84). 2) Turn the ignition switch to ACC. 3) Measure the voltage between body integrated unit connector and chassis ground using tester. <i>Connector & terminal (i84) No. 24 (+) — Chassis ground (-):</i>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (i84).	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

F: DTC B1105 KEY INTERLOCK CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

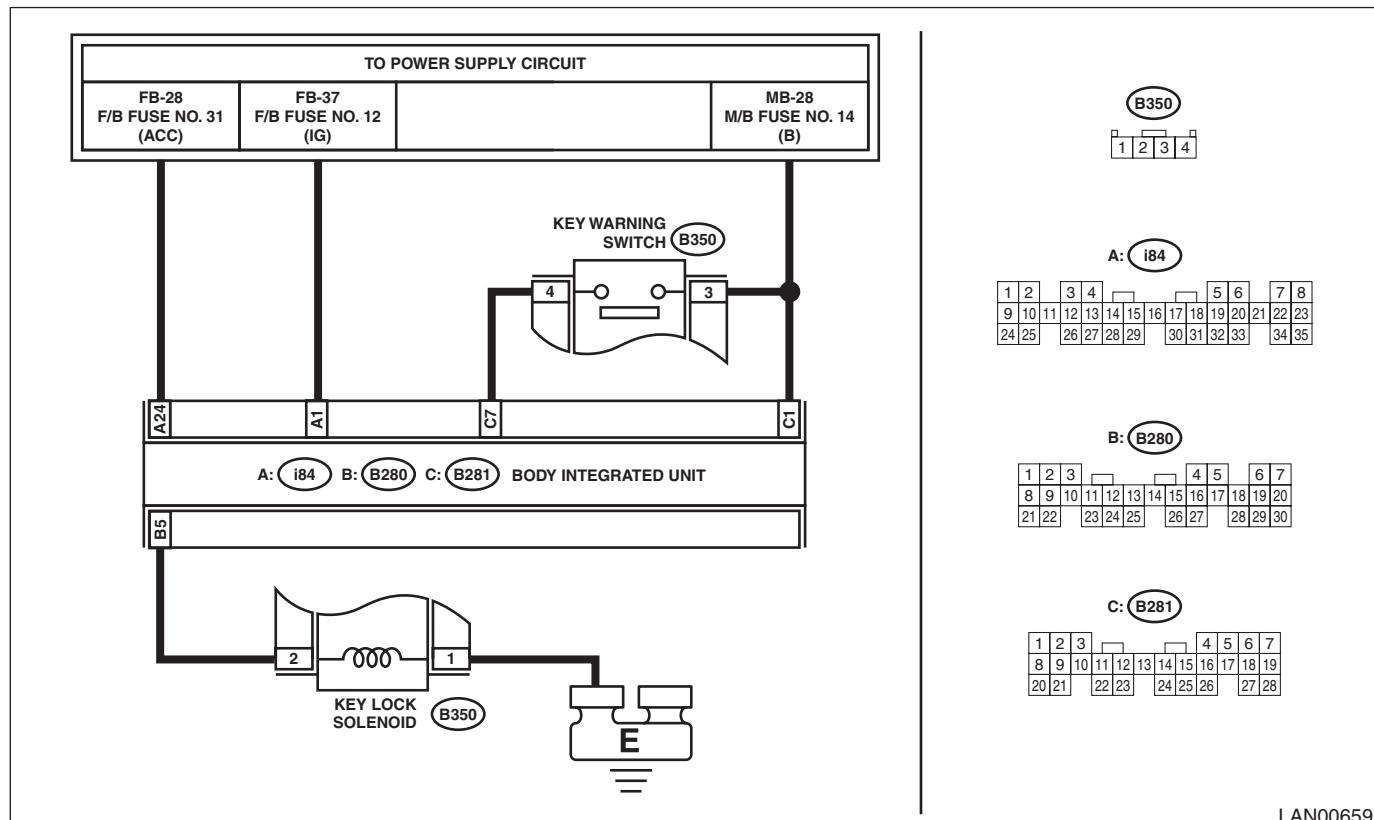
Key interlock circuit is shorted to ground.

TROUBLE SYMPTOM:

- There is no key interlock power supply.
- Key interlock does not release or does not keep lock condition.

WIRING DIAGRAM:

AT shift lock control system <Ref. to WI-57, WIRING DIAGRAM, AT Shift Lock Control System.>



Step	Check	Yes	No
1 CHECK DTC. 1) Insert the ignition key. 2) Shift to the Neutral range. 3) Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1105 current malfunction?	Go to step 2.	Go to step 8.
2 CHECK DTC. 1) Remove the ignition key. 2) Disconnect the key lock solenoid connector (B350) and body integrated unit connector (B280). 3) Connect the disconnected connectors. 4) Insert the key and shift into Neutral. 5) Turn the ignition switch to ON. 6) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1105 current malfunction?	Go to step 3.	Go to step 8.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK KEY LOCK SOLENOID. 1) Disconnect the key lock solenoid connector (B350). 2) Measure the resistance between the key lock solenoid connector. <i>Connector & terminal (B350) No. 1 — No. 2:</i>	Is the resistance 12 — 14.5 Ω ?	Go to step 4.	Replace the key lock solenoid.
4 CHECK KEY LOCK SOLENOID. 1) Turn the ignition switch to OFF. 2) Disconnect the key lock solenoid connector. 3) Connect the battery terminal to key lock solenoid. <i>Terminals (B350) No. 2 — positive terminal: (B350) No. 1 — ground terminal:</i>	Is the solenoid activated and then key locked?	Go to step 5.	Replace the key lock solenoid.
5 CHECK HARNESS. 1) Disconnect the body integrated unit connector (B280). 2) Measure the resistance between body integrated unit and key lock solenoid using tester. <i>Connector & terminal (B350) No. 2 — (B280) No. 5:</i>	Is the resistance less than 10 Ω ?	Go to step 6.	Repair or replace the open circuit of harness.
6 CHECK HARNESS. Measure the resistance between body integrated unit and chassis ground using tester. <i>Connector & terminal (B280) No. 5 — Chassis ground:</i>	Is the resistance 1 $M\Omega$ or more?	Go to step 7.	Repair or replace the short circuit of the harness.
7 CHECK HARNESS. 1) Turn the ignition switch to ON. 2) Measure the voltage between body integrated unit and chassis ground using tester. <i>Connector & terminal (B280) No. 5 (+) — Chassis ground (-):</i>	Is the voltage 1.5 V or more?	Repair or replace the short circuit of the harness.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
8 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B280) and key lock solenoid connector (B350).	Is there poor contact at disconnected connector terminal?	Repair the terminal where poor contact exists, or replace harness.	It is possible that temporary poor contact occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

G: DTC B1106 SHIFT LOCK CIRCUIT FAILURE

DTC DETECTING CONDITION:

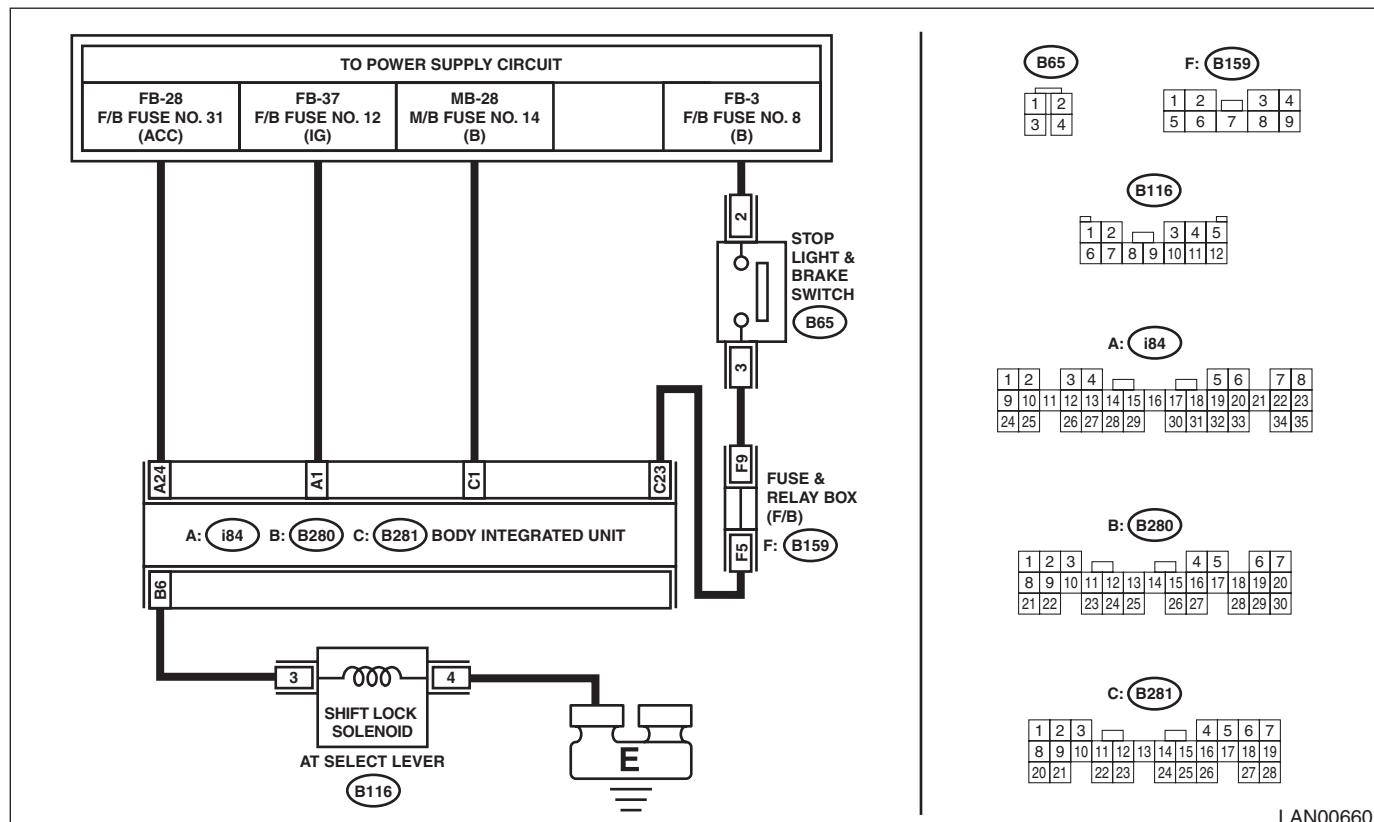
Shift lock circuit is shorted to ground.

TROUBLE SYMPTOM:

Shift lock does not be released or remain locked.

WIRING DIAGRAM:

AT shift lock control system <Ref. to WI-57, WIRING DIAGRAM, AT Shift Lock Control System.>



Step	Check	Yes	No
1 CHECK DTC. 1) Turn the ignition switch to ON. 2) Keep the Parking range for approx. 5 seconds. 3) Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1106 current malfunction?	Go to step 2.	Go to step 7.
2 CHECK DTC. 1) Disconnect the body integrated unit connector (B280) and shift lock solenoid connector (B116). 2) Connect the disconnected connectors. 3) Turn the ignition switch to ON, then keep the Parking range for approx. 5 seconds. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step 3.	Repair or replace the open or short circuit of harness.
3 CHECK HARNESS. 1) Disconnect the shift lock solenoid connector (B116). 2) Measure the resistance between shift lock solenoid and chassis ground using tester. Connector & terminal (B116) No. 4 — Chassis ground:	Is the resistance less than 10 Ω?	Go to step 4.	Repair the open circuit of harness or replace harness.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
4 CHECK SHIFT LOCK SOLENOID. 1) Disconnect the shift lock solenoid connector. 2) Measure the resistance between the shift lock solenoid connector. Connector & terminal (B116) No. 4 — No. 3:	Is the resistance 19 — 25 Ω ?	Go to step 5.	Replace the shift lock solenoid.
5 CHECK SHIFT LOCK SOLENOID. 1) Turn the ignition switch to OFF. 2) Disconnect the shift lock solenoid connector. 3) Connect the battery terminal to shift lock solenoid. Terminals (B116) No. 3 — positive terminal: (B116) No. 4 — ground terminal:	Is the solenoid activated, and then the shift lock released?	Go to step 6.	Replace the shift lock solenoid.
6 CHECK HARNESS. 1) Disconnect the body integrated unit connector (B280). 2) Measure the resistance between body integrated unit connector (B280) and chassis ground. Connector & terminal (B280) No. 6 — Chassis ground:	Is the resistance 1 $M\Omega$ or more?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair the short circuit of harness or replace harness.
7 CHECK DTC. 1) Turn the ignition switch to ON. 2) With Parking range, depress the brake pedal and keep it at depressed condition. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step 8.	Go to step 9.
8 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B280) and shift lock solenoid connector (B116). 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Shift into Parking range, then depress the brake pedal. 6) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step 4.	Go to step 9.
9 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B280) and shift lock solenoid connector (B116).	Is there poor contact of connector terminal?	Repair the poor contact of the terminal or replace the harness.	It is possible that temporary poor contact occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

H: DTC U1201 CAN-HS COUNTER ABNORMAL

DTC DETECTING CONDITION:

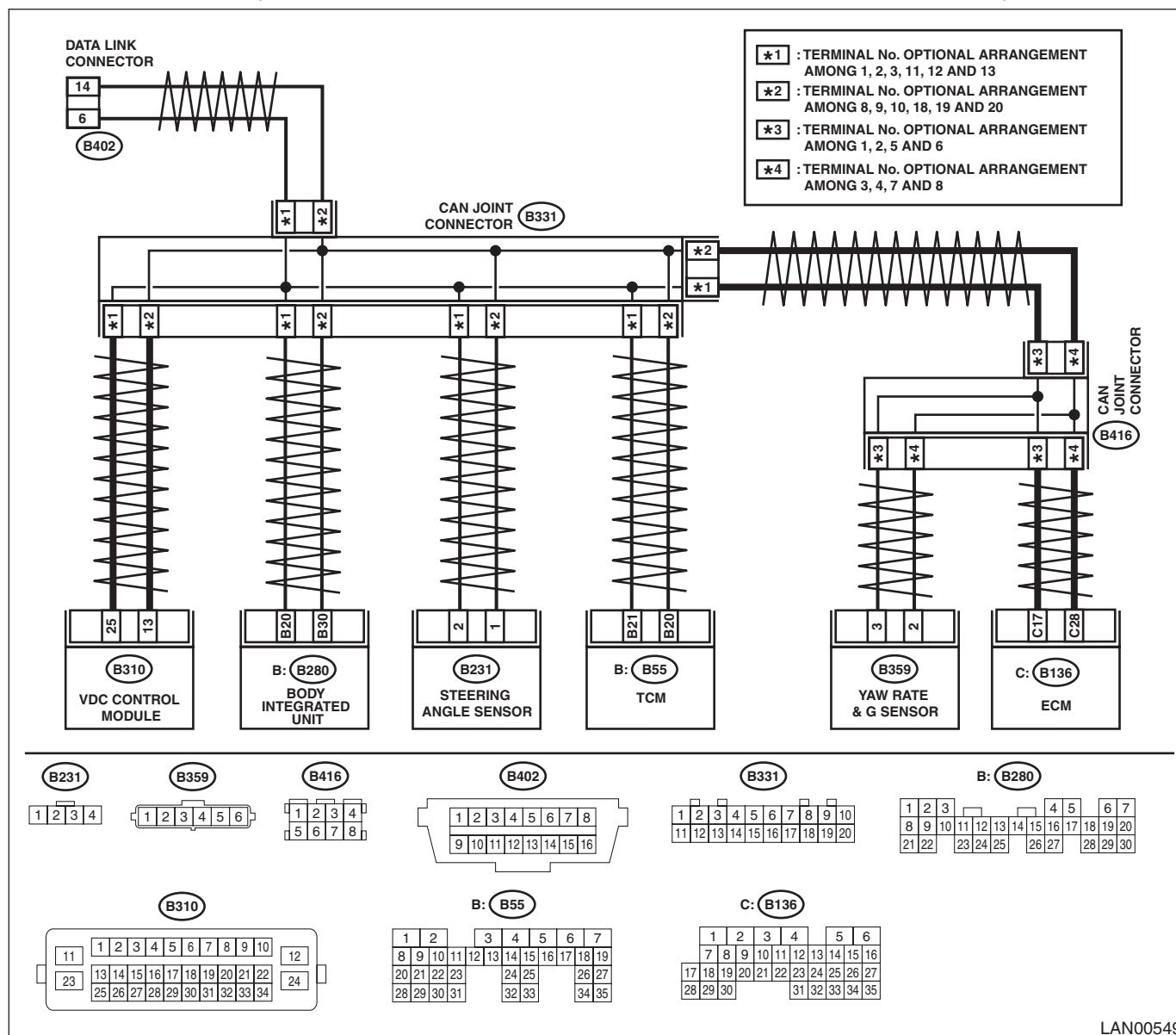
High speed CAN communication becomes unstable.

TROUBLE SYMPTOM:

- CAN communication can not be executed normally.
- Malfunction indicator light illuminates.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Are there U1202 or DTCs other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Check DTC indicated by body integrated unit.	Is U1201 a current malfunction?	Go to step 3.	Go to step 14.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 3) Connect all the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Go to step 4.	Go to step 14.
4 CHECK TCM. 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector (B55). 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Go to step 5.	Go to step 16.
5 CHECK STEERING ANGLE SENSOR. 1) Turn the ignition switch to OFF. 2) Connect the TCM connector. 3) Disconnect the steering angle sensor connector (B231). 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Go to step 6.	Go to step 17.
6 CHECK YAW RATE SENSOR. 1) Turn the ignition switch to OFF. 2) Connect the steering angle sensor connector. 3) Disconnect the yaw rate sensor connector (B359). 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Go to step 7.	Go to step 18.
7 CHECK VDCCM. 1) Turn the ignition switch to OFF. 2) Connect the yaw rate sensor connector. 3) Disconnect the VDCCM connector (B310). 4) Install the 120 Ω resistance to VDCCM connector terminals. <i>Terminals</i> <i>(B310) No. 13 — No. 25:</i> 5) Using the tester, measure the resistance between terminals of data link connector. <i>Terminals</i> <i>(B402) No. 6 — No. 14:</i>	Is the resistance 60 Ω ?	Go to step 8.	Go to step 10.
8 CHECK DTC. 1) Turn the ignition switch to ON. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Go to step 9.	Go to step 10.
9 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Replace the VDC CM. <Ref. to VDC-6, REMOVAL, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step 10.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
10 CHECK ECM. 1) Turn the ignition switch to OFF. 2) Connect the VDCCM. 3) Disconnect the ECM connector (B136). 4) Install the 120 Ω resistance to ECM connector. Terminals (B136) No. 17 — No. 28: 5) Using the tester, measure the resistance between terminals of data link connector. Connector & terminal (B402) No. 6 — No. 14:	Is the resistance 60 Ω?	Go to step 11.	Repair or replace the open circuit of harness.
11 CHECK DTC. 1) Turn the ignition switch to ON. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Go to step 12.	Go to step 13.
12 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Replace the ECM. <Ref. to FU(H6DO)-51, Engine Control Module (ECM).>	Go to step 13.
13 CHECK DTC. 1) Reconnect all the disconnected connectors. 2) Turn the ignition switch to ON. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Go to step 14.
14 CHECK HARNESS. 1) Shake the instrument harness and bulk-head harness, rear harness. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1201 a current malfunction?	Repair or replace the harness.	Go to step 15.
15 CHECK CONNECTOR. 1) Disconnect the connector used for CAN circuit. 2) Check the connector terminal.	Is there poor contact of connector terminal?	Repair the connector terminal where poor contact exists, or replace harness.	Temporary communication failure occurs.
16 CHECK HARNESS. Using the tester, check for open or short (power supply-output short, GND-output short) in the harness between terminals of data link connector and TCM. Connector & terminal (B402) No. 14 — (B55) No. 20: (B402) No. 6 — (B55) No. 21:	Is harness normal?	Replace the TCM. <Ref. to 5AT-54, REMOVAL, Transmission Control Module (TCM).>	Repair or replace the harness.
17 CHECK HARNESS. Using the tester, check for open or short (power supply-output short, GND-output short) in the harness between terminals of data link connector and steering angle sensor. Connector & terminal (B402) No. 14 — (B231) No. 1: (B402) No. 6 — (B231) No. 2:	Is harness normal?	Replace the steering angle sensor. <Ref. to VDC-17, REPLACEMENT, Steering Angle Sensor.>	Repair or replace the harness.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
18 CHECK HARNESS. Using the tester, check for open or short (power supply-output short, GND-output short) in the harness between terminals of data link connector and yaw rate sensor. <i>Connector & terminal</i> <i>(B402) No. 14 — (B359) No. 2:</i> <i>(B402) No. 6 — (B359) No. 3:</i>	Is harness normal?	Replace the yaw rate sensor. <Ref. to VDC-16, REMOVAL, Yaw Rate and G. Sensor.>	Repair or replace the harness.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

I: DTC U1202 CAN-HS BUS OFF

DTC DETECTING CONDITION:

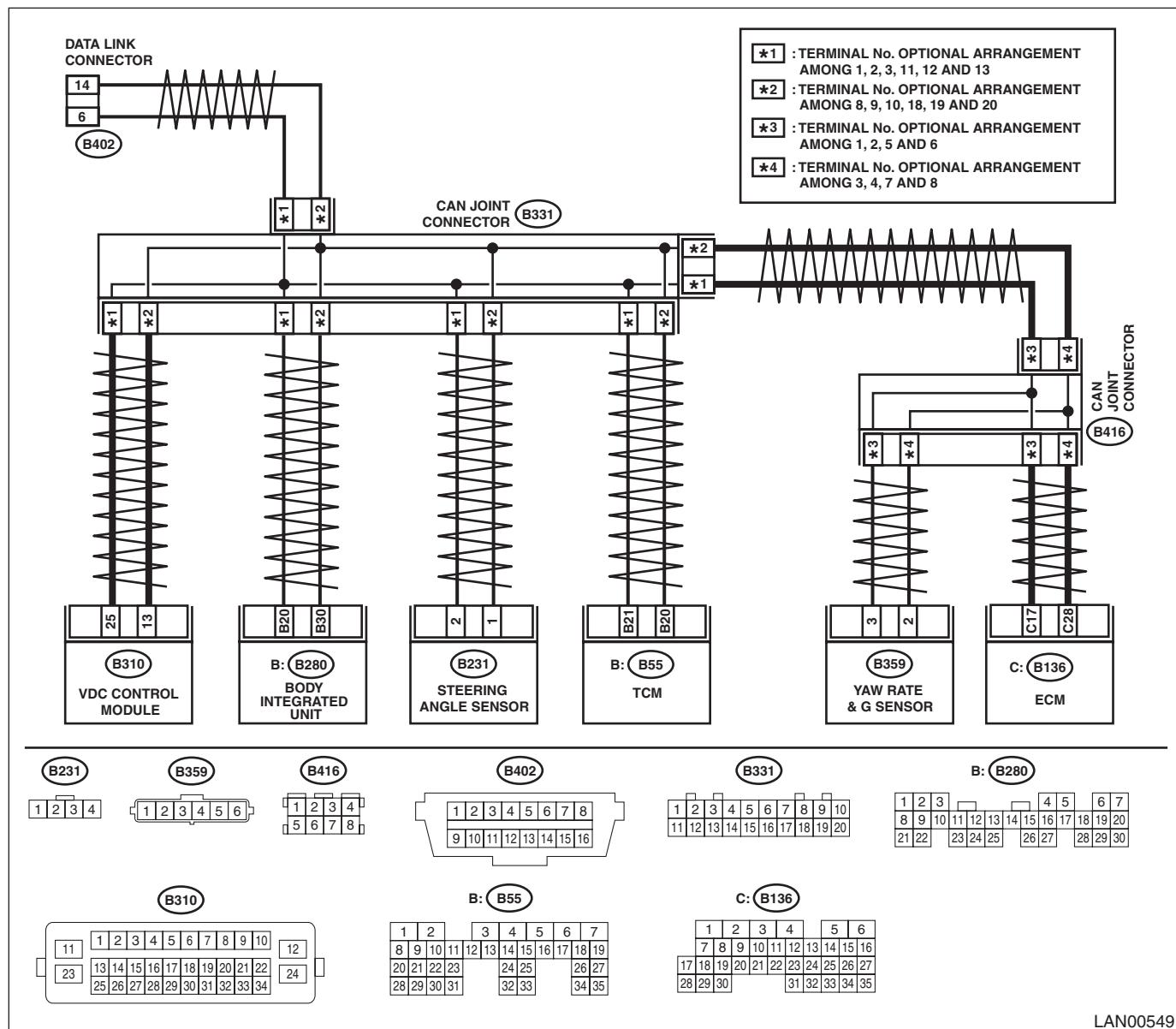
Integrated unit communication is shut down because of high speed CAN error.

TROUBLE SYMPTOM:

CAN communication is not normal.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Using the Subaru Select Monitor, confirm all DTCs. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is any DTC other than for the body integrated unit displayed?	Perform the diagnosis according to displayed DTC.	Go to step 2.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Go to step 3.	Go to step 10.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Go to step 4.	Go to step 10.
4 CHECK HARNESS. 1) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 2) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. <i>Connector & terminal</i> (B402) No. 6 — (B136) No. 17: (B402) No. 6 — (B310) No. 25: (B402) No. 6 — (B359) No. 3: (B402) No. 6 — (B231) No. 2: (B402) No. 6 — (B55) No. 21: (B402) No. 6 — (B280) No. 20:	Is harness normal?	Go to step 5.	Repair or replace the harness.
5 CHECK HARNESS. Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. <i>Connector & terminal</i> (B402) No. 14 — (B136) No. 28: (B402) No. 14 — (B310) No. 13: (B402) No. 14 — (B359) No. 2: (B402) No. 14 — (B231) No. 1: (B402) No. 14 — (B55) No. 20: (B402) No. 14 — (B280) No. 30:	Is harness normal?	Go to step 6.	Repair or replace the harness.
6 CHECK ECM. 1) Connect the ECM. 2) Using the tester, measure the resistance between terminals of data link connector. <i>Connector & terminal</i> (B402) No. 6 — No. 14:	Is the resistance $120\pm5\ \Omega$?	Go to step 7.	Inspect the ECM. <Ref. to EN(H6DO)(diag)-37, HOW TO USE THE SUBARU SELECT MONITOR, OPERATION, Subaru Select Monitor.>
7 CHECK VDC/ABS CM. 1) Disconnect the ECM connector (B136). 2) Connect the VDC/ABS CM. 3) Using the tester, measure the resistance between terminals of data link connector. <i>Connector & terminal</i> (B402) No. 6 — No. 14:	Is the resistance $120\pm5\ \Omega$?	Go to step 8.	Replace the VDC/ABS CM. <Ref. to VDC-6, REMOVAL, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
8 CHECK HARNESS. 1) Connect the disconnected connectors. 2) Using the tester, measure the resistance between terminals of data link connector and chassis ground. Connector & terminal (B402) No. 6 — Chassis ground: (B402) No. 14 — Chassis ground:	Is the resistance 1 MΩ or more?	Go to step 9.	Go to step 12.
9 CHECK HARNESS. 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals of data link connector and chassis ground. Connector & terminal (B402) No. 6 (+) — Chassis ground (-): (B402) No. 14 (+) — Chassis ground (-):	Is the voltage less than 6 V?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Go to step 13.
10 CHECK HARNESS. 1) Shake the harness. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Repair or replace the harness.	Go to step 11.
11 CHECK CONNECTOR. Disconnect the connector used for high speed CAN circuit.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	It is possible that temporary poor communication occurs.
12 CHECK CONTROL MODULE. With the tester connected, disconnect each control module connector.	Is there any control module whose resistance has changed?	Replace the control module whose resistance has changed.	Repair or replace the open or short circuit of the harness.
13 CHECK ECM. With the tester connected, disconnect each control module connector.	Is there any control module whose voltage has changed?	Replace the control module whose voltage has changed.	Repair or replace the short circuit of the harness.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

J: DTC U1211 CAN-HS ECM DATA ABNORMAL

DTC DETECTING CONDITION:

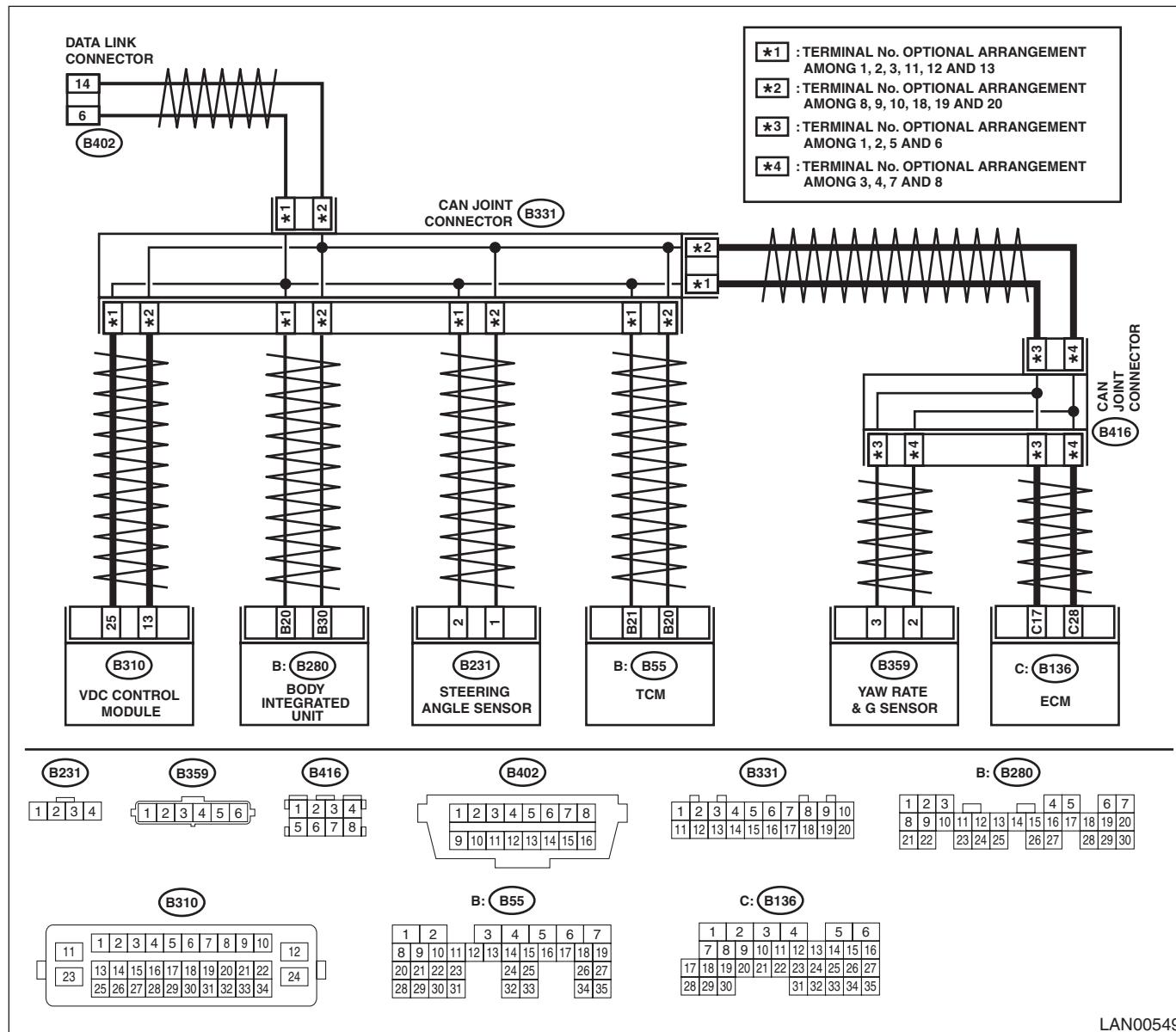
Received error data from ECM.

TROUBLE SYMPTOM:

“Er EG” is displayed in odo/trip meter.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is there U1202, or any DTC other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Check DTC indicated by body integrated unit.	Is U1211 a current malfunction?	Go to step 3.	Go to step 4.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the ECM connector. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1211 a current malfunction?	Replace the ECM. <Ref. to FU(H6DO)-51, Engine Control Module (ECM).>	Go to step 4.
4 CHECK HARNESS. 1) Shake the harness used for CAN communication circuit. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1211 a current malfunction?	Repair the poor contact or temporary open circuit of harness.	Go to step 5.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector that is connected to high speed CAN circuit.	Is there poor contact of connector?	Repair the connector terminal where poor contact exists, or replace harness.	It is possible that temporary poor communication occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

K: DTC U1212 CAN-HS TCM DATA ABNORMAL

DTC DETECTING CONDITION:

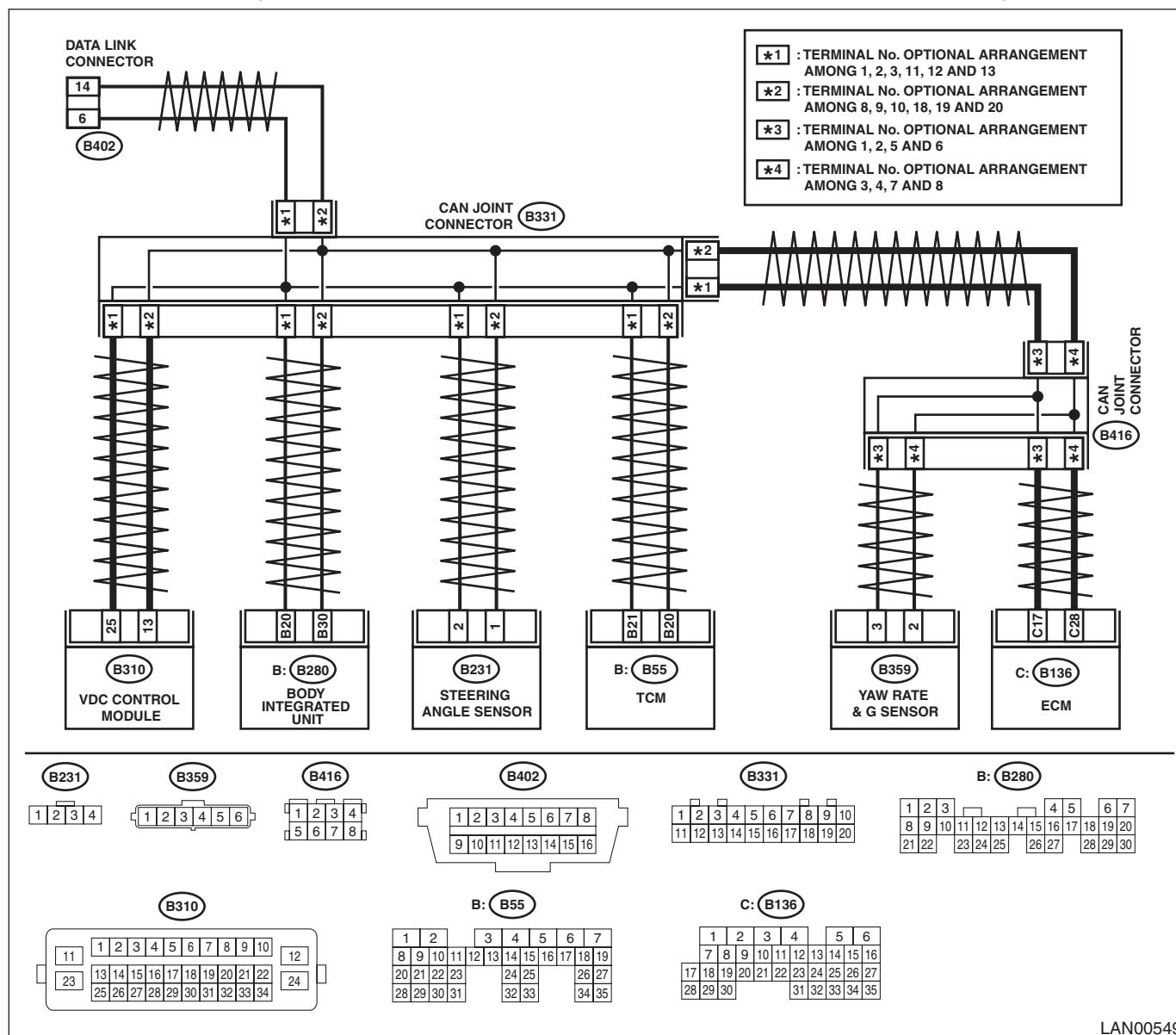
Received error data from TCM.

TROUBLE SYMPTOM:

- SPORT indicator light blinks.
- “Er tC” is displayed in odo/trip meter.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is there U1202, or any DTC other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1212 a current malfunction?	Go to step 3.	Go to step 4.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1212 a current malfunction?	Replace the TCM. <Ref. to 5AT-54, Transmission Control Module (TCM).>	Go to step 4.
4 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Shake the harness used for CAN communication circuit. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1212 a current malfunction?	Repair or replace the harness.	Go to step 5.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector that is connected to high speed CAN circuit.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

L: DTC U1213 CAN-HS VDC/ABS DATA ABNORMAL

DTC DETECTING CONDITION:

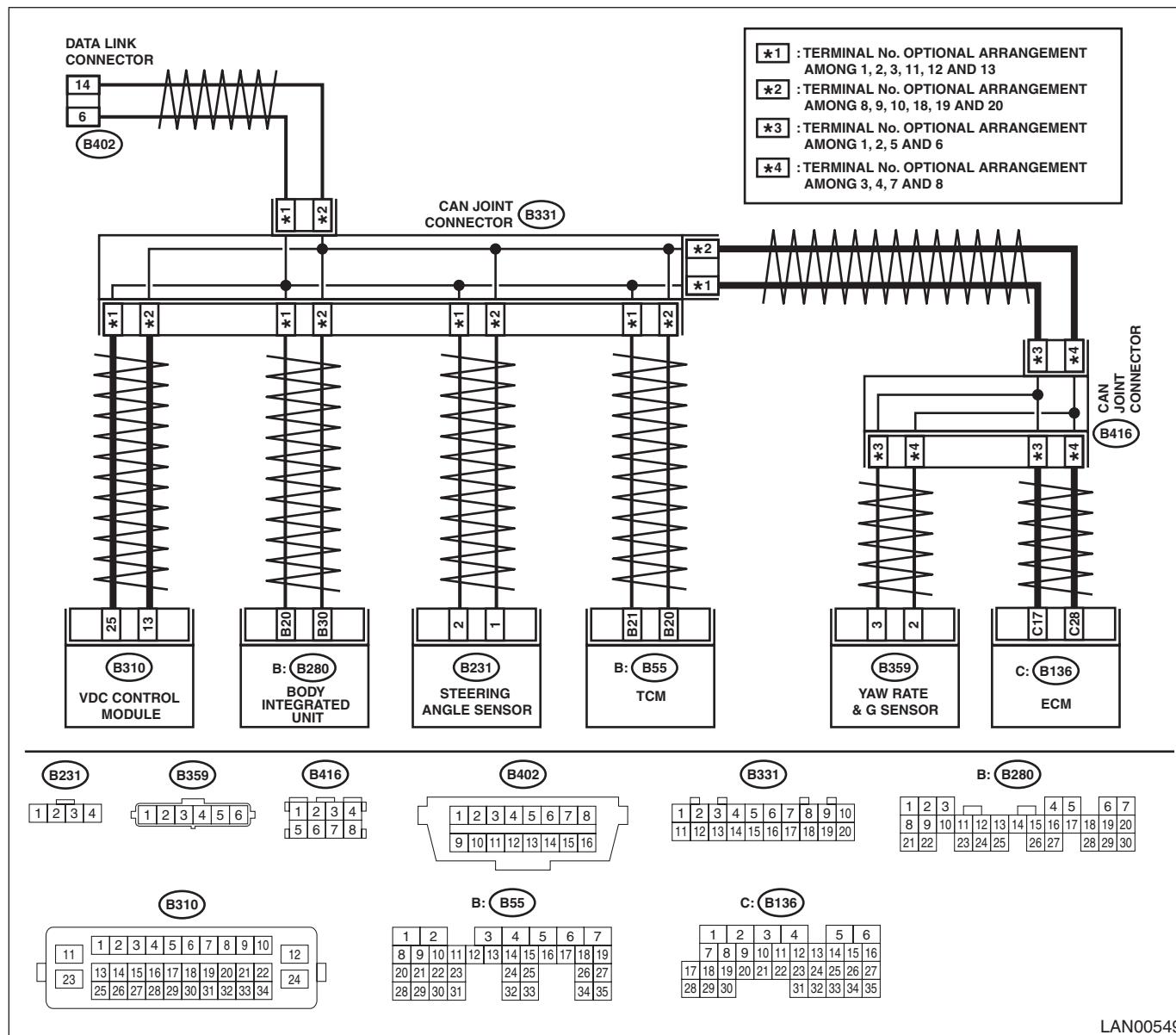
Received error data from VDC module.

TROUBLE SYMPTOM:

- ABS warning light and VDC warning light illuminate.
- “Er Ab” is displayed in odo/trip meter.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is there U1202, or any DTC other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Check DTC indicated by body integrated unit.	Is U1213 a current malfunction?	Go to step 3.	Go to step 4.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the VDC/ABS CM connector. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1213 a current malfunction?	Replace the VDC CM. <Ref. to VDC-6, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step 4.
4 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Shake the harness used for CAN communication circuit. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1213 a current malfunction?	Repair or replace the harness.	Go to step 5.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector that is connected to high speed CAN circuit.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	It is possible that temporary poor communication occurs.

M: DTC U1221 CAN-HS ECM NO-RECEIVE DATA

DTC DETECTING CONDITION:

Not received data from ECM.

NOTE:

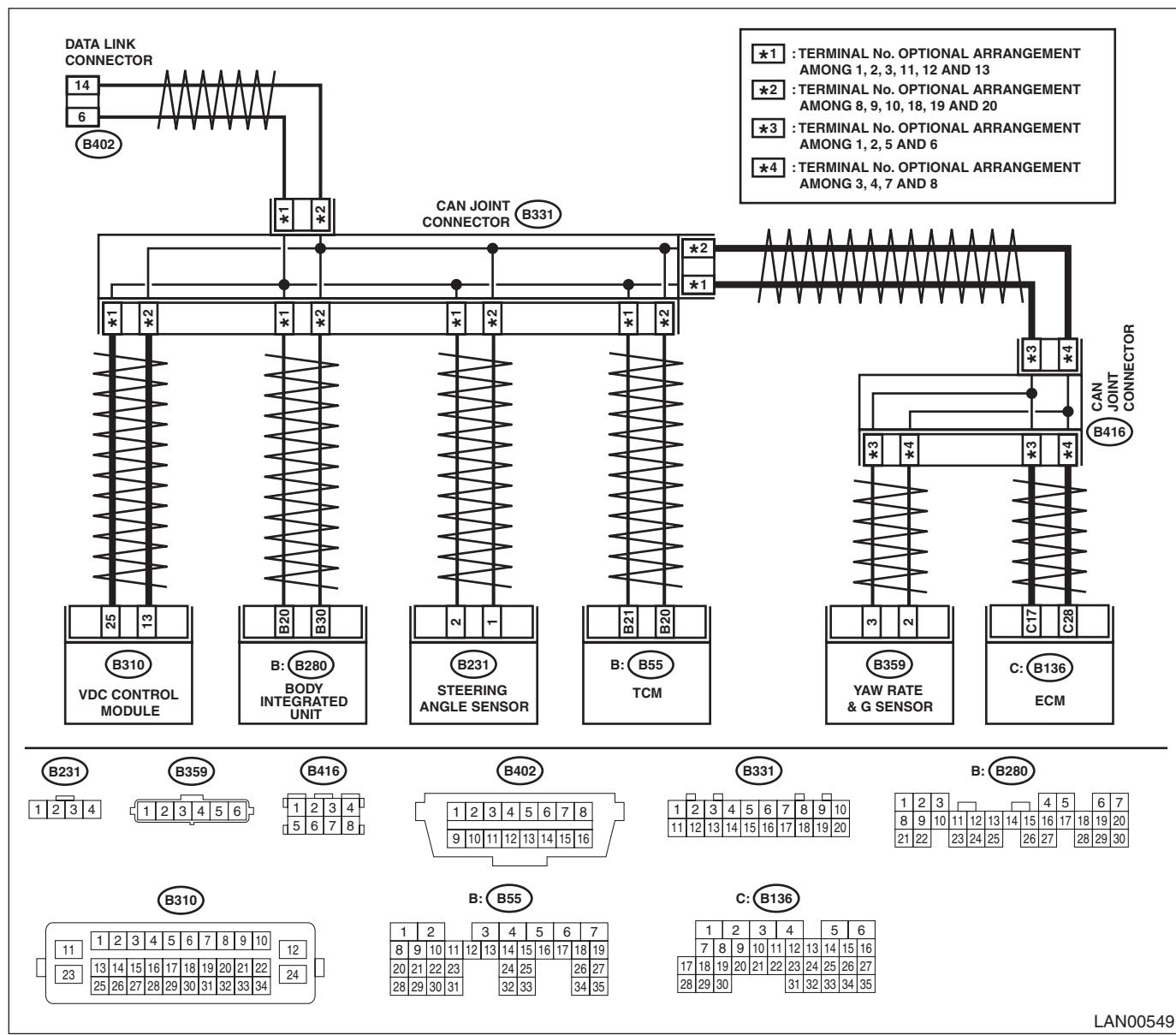
When multiple DTC codes have occurred, <Ref. to LAN(diag)-32, DTC TABLE, LIST, List of Diagnostic Trouble Code (DTC).>

TROUBLE SYMPTOM:

- Malfunction indicator light illuminates.
- “Er HC” is displayed in odo/trip meter.
- P1718 (TCM) and C0047 (VDCCM) is output.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is there U1202, or any DTC other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Check DTC indicated by body integrated unit.	Is U1221 a current malfunction?	Go to step 3.	Go to step 8.
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1221 a current malfunction?	Go to step 4.	Go to step 8.
4 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 3) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. <i>Connector & terminal</i> (B402) No. 6 — (B136) No. 17: (B402) No. 6 — (B310) No. 25: (B402) No. 6 — (B359) No. 3: (B402) No. 6 — (B231) No. 2: (B402) No. 6 — (B55) No. 21: (B402) No. 6 — (B280) No. 20:	Is harness normal?	Go to step 5.	Repair or replace the harness.
5 CHECK HARNESS. Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. <i>Connector & terminal</i> VDC model (B402) No. 14 — (B136) No. 28: (B402) No. 14 — (B310) No. 13: (B402) No. 14 — (B359) No. 2: (B402) No. 14 — (B231) No. 1: (B402) No. 14 — (B55) No. 20: (B402) No. 14 — (B280) No. 30:	Is harness normal?	Go to step 6.	Repair or replace the harness.
6 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Connect the disconnected connectors. 3) Start the engine and stop. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1221 a current malfunction?	Go to step 7.	Go to step 8.
7 CHECK DTC. Read all DTCs using the Subaru Select Monitor.	Are DTCs P1718 or C0047 detected?	Replace the ECM. <Ref. to FU(H6DO)-51, Engine Control Module (ECM).>	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
8 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Shake the harness used for CAN communication circuit. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1221 a current malfunction?	Repair or replace the harness.	Go to step 9 .
9 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all the connector that is connected to high speed CAN circuit.	Is there poor contact of connector terminal?	Repair the connector terminal where poor contact exists, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

N: DTC U1222 CAN-HS TCM NO-RECEIVE DATA

DTC DETECTING CONDITION:

Not received data from TCM.

NOTE:

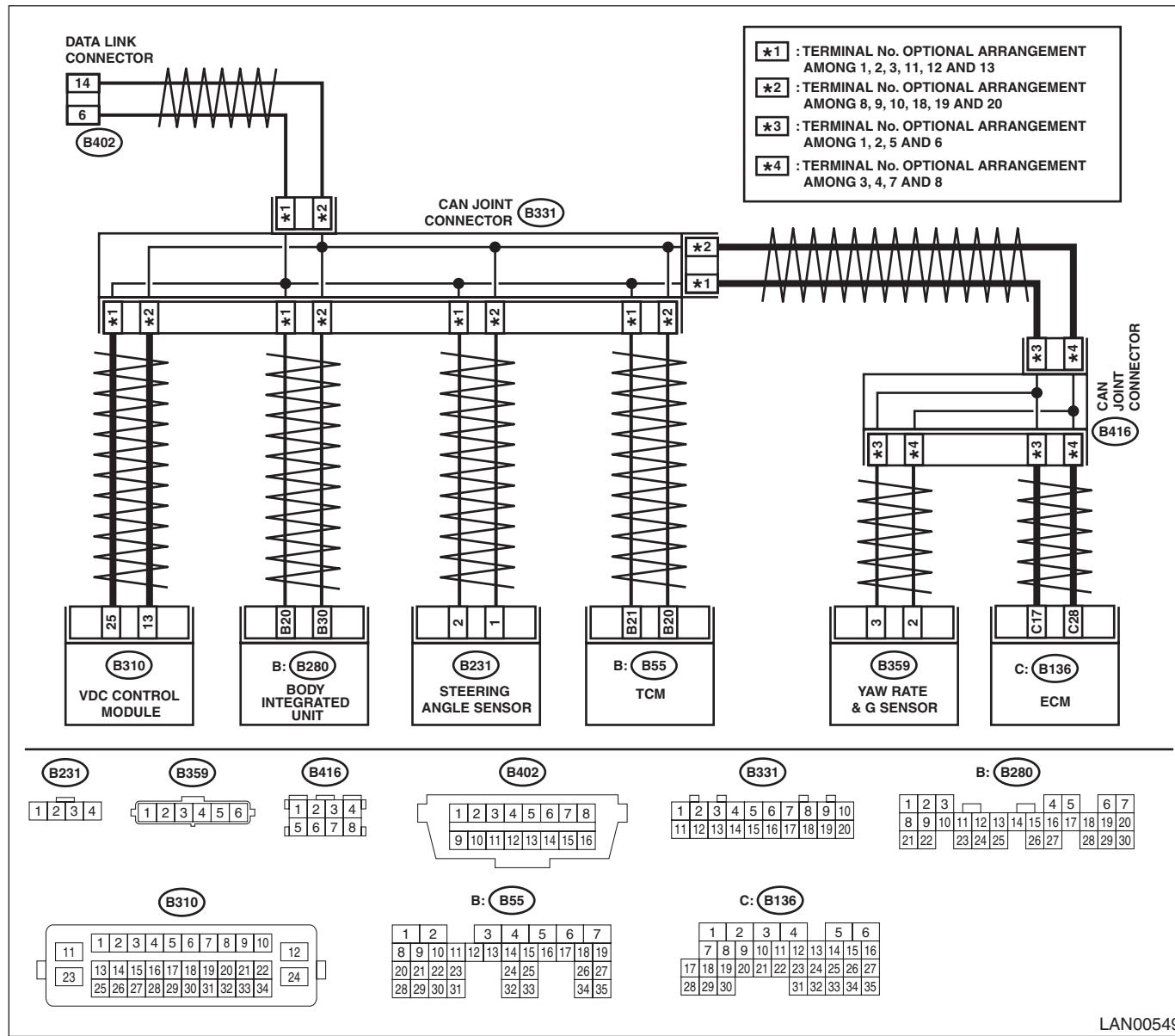
When multiple DTC codes have occurred, <Ref. to LAN(diag)-32, DTC TABLE, LIST, List of Diagnostic Trouble Code (DTC).>

TROUBLE SYMPTOM:

- Malfunction indicator light illuminates.
- "Er HC" is displayed in odo/trip meter.
- U0101 (ECM) and C0047 (VDCCM) is output.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



LAN00549

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is there U1202, or any DTC other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1222 a current malfunction?	Go to step 3.	Go to step 7.
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1222 a current malfunction?	Go to step 4.	Go to step 7.
4 CHECK HARNESS. 1) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 2) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. Connector & terminal (B55) No. 20 — (B402) No. 14: (B55) No. 21 — (B402) No. 6:	Is harness normal?	Go to step 5.	Repair or replace the harness.
5 CHECK DTC. 1) Connect the disconnected connectors. 2) Start the engine and stop. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1222 a current malfunction?	Go to step 6.	Go to step 7.
6 CHECK DTC. Using the Subaru Select Monitor, read all DTCs.	Is U0101 or C0047 displayed?	Replace the TCM. <Ref. to 5AT-54, Transmission Control Module (TCM).>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit. >
7 CHECK HARNESS. 1) Shake the harness used for CAN communication circuit. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1222 a current malfunction?	Repair or replace the harness.	Go to step 8.
8 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all the connector that is connected to high speed CAN circuit.	Is there poor contact of connector terminal?	Repair the connector terminal where poor contact exists, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

O: DTC U1223 CAN-HS VDC/ABS NO-RECEIVE DATA

DTC DETECTING CONDITION:

Not received data from VDCCM.

NOTE:

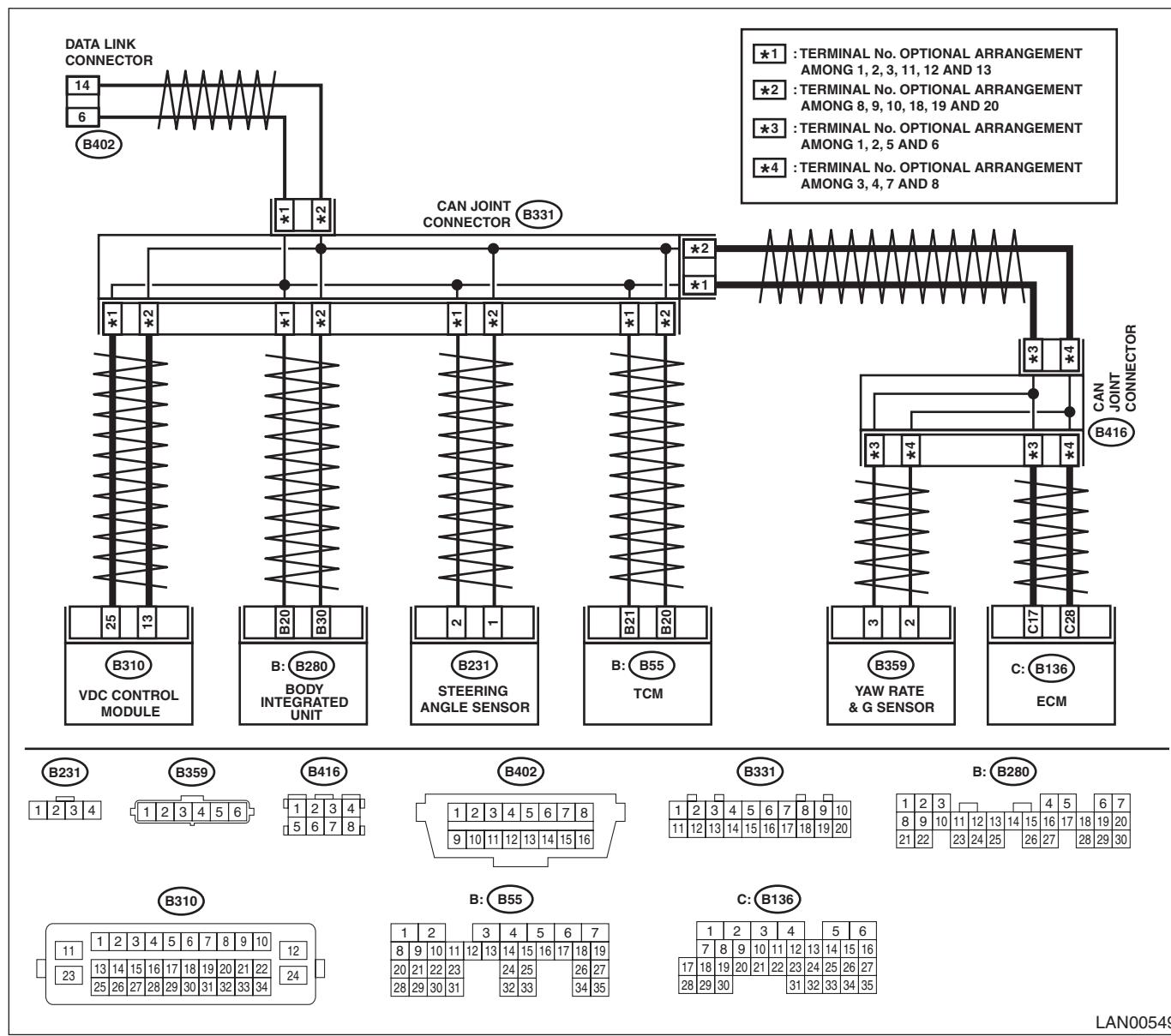
When multiple DTCs have occurred, <Ref. to LAN(diag)-32, DTC TABLE, LIST, List of Diagnostic Trouble Code (DTC).>

TROUBLE SYMPTOM:

- ABS warning light and VDC warning light illuminate.
- "Er HC" is displayed in odo/trip meter.
- U0122 (ECM) and P1718 (TCM) is output.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK DTC. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is there U1202, or any DTC other than for the body integrated unit?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Check DTC indicated by body integrated unit.	Is U1223 a current malfunction?	Go to step 3.	Go to step 7.
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1223 a current malfunction?	Go to step 4.	Go to step 7.
4 CHECK HARNESS. 1) Disconnect all control module connectors (B280, B310, B55, B136, B230, B231) that are connected to high speed CAN communication line. 2) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. <i>Connector & terminal</i> (B402) No. 6 — (B310) No. 25: (B402) No. 14 — (B310) No. 13:	Is harness normal?	Go to step 5.	Repair or replace the harness.
5 CHECK DTC. 1) Connect the disconnected connectors. 2) Start the engine and stop. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1223 a current malfunction?	Go to step 6.	Go to step 7.
6 CHECK DTC. Read all DTCs using the Subaru Select Monitor.	Is P1718 or U0122 displayed?	Replace the VDC/ABS CM. <Ref. to VDC-6, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
7 CHECK HARNESS. 1) Shake the harness used for CAN communication circuit. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1223 a current malfunction?	Repair or replace the harness.	Go to step 8.
8 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (B280, B310, B55, B136, B359, B231) that are connected to high speed CAN communication line.	Is there connector terminal where poor contact exists?	Repair the connector terminal where poor contact exists, or replace harness.	Temporary poor contact occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

P: DTC U1300 CAN-LS MALFUNCTION

DTC DETECTING CONDITION:

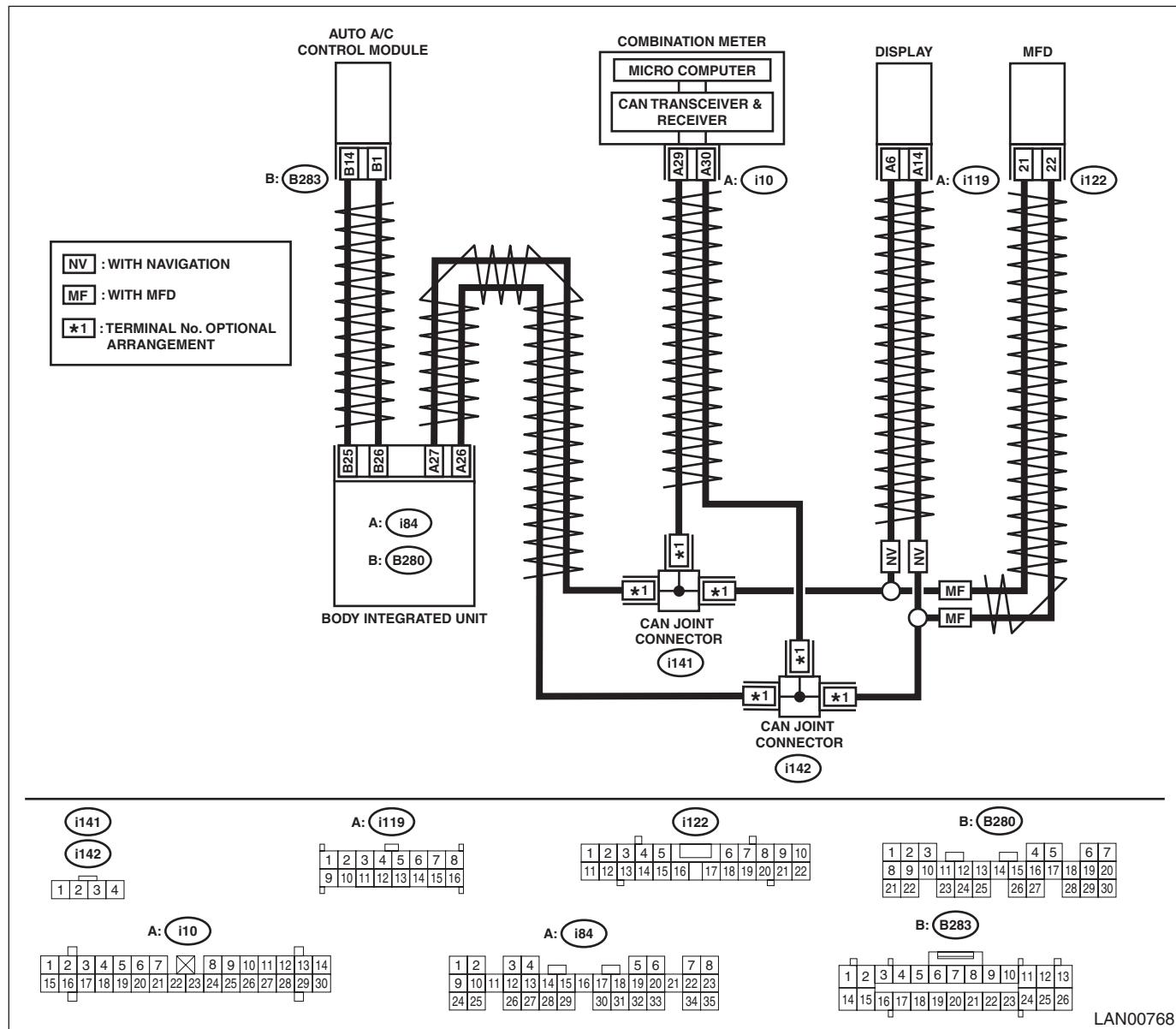
Open or short in low speed CAN circuit

TROUBLE SYMPTOM:

“Er LC” is displayed in odo/trip meter, but communicating function is OK.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is U1300 a current malfunction?	Go to step 2.	Go to step 7.
2 CHECK DTC. 1) Disconnect all connectors for control module (i84 or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 2) Connect the disconnected connectors. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1300 a current malfunction?	Go to step 3.	Go to step 7.
3 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect all connectors for control module (i84 or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). Connector & terminal <i>(i84) No. 27 — (i10) No. 29 (combination meter):</i> <i>(i84) No. 26 — (i10) No. 30 (combination meter):</i> <i>(B280) No. 25 — (B283) No. 14 (auto A/C):</i> <i>(B280) No. 26 — (B283) No. 1 (auto A/C):</i> <i>(i84) No. 27 — (i122) No. 21 (MFD):</i> <i>(i84) No. 26 — (i122) No. 22 (MFD):</i> <i>(i84) No. 27 — (i119) No. 6 (navigation):</i> <i>(i84) No. 26 — (i119) No. 14 (navigation):</i>	Is harness normal?	Go to step 4.	Repair or replace the harness.
4 CHECK MFD OR NAVIGATION. 1) Connect the disconnected connectors. 2) Disconnect the connector of navigation (i119) or MFD (i122). 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1300 a current malfunction?	Go to step 5.	Replace the navigation or MFD. <Ref. to ET-27, REMOVAL, Navigation Body.>
5 CHECK AUTO A/C CONTROL MODULE. 1) Turn the ignition switch to OFF. 2) Connect the MFD or navigation connectors. 3) Disconnect the auto A/C control module connector (B283). 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1300 a current malfunction?	Go to step 6.	Replace the auto A/C control module. <Ref. to AC-32, REMOVAL, Control Unit (Auto A/C Model).>
6 CHECK BODY INTEGRATED UNIT. 1) Turn the ignition switch to OFF. 2) Connect the auto A/C control module. 3) Replace the body integrated unit of your vehicle with the body integrated unit from other vehicle, which is working normally. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1300 a current malfunction?	Replace the combination meter. <Ref. to IDI-11, REMOVAL, Combination Meter.>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
7 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Shake the harness used for CAN communication circuit. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1300 a current malfunction?	Repair or replace the harness.	Go to step 8 .
8 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector that is connected to low speed CAN circuit.	Is there poor contact at disconnected connector?	Repair the connector terminal, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Q: DTC U1301 CAN-LS COUNTER ABNORMAL

DTC DETECTING CONDITION:

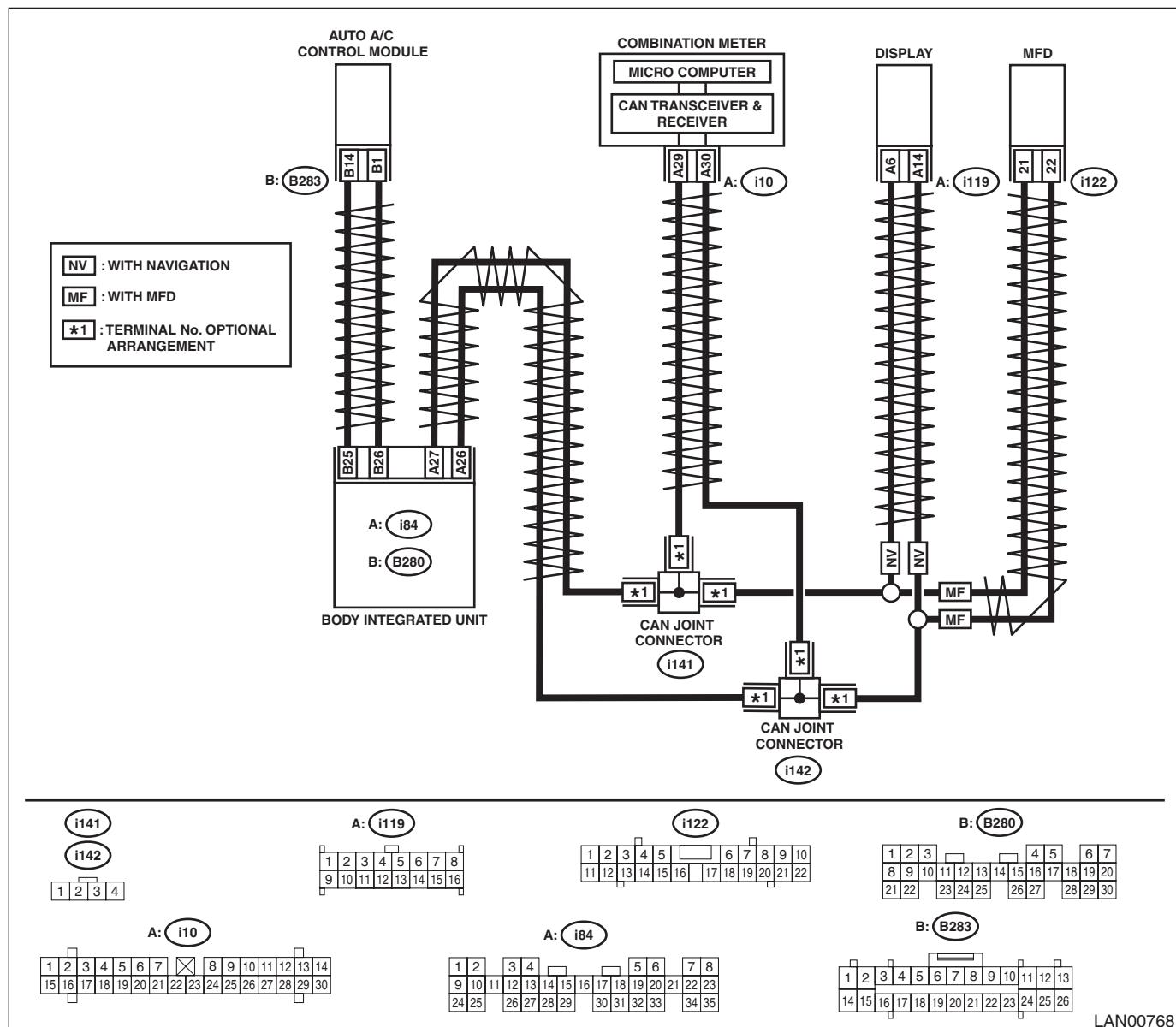
High speed CAN communication becomes unstable because of low speed CAN communication error.

TROUBLE SYMPTOM:

Display error may occur in fuel gauge because the CAN communication is not transmitted (sending/receiving) normally.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Are there DTC U1300 or U1302?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1301 a current malfunction?	Go to step 3.	Go to step 9.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1301 a current malfunction?	Go to step 4.	Go to step 9.
4 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. Connector & terminal <i>(i84) No. 27 — (i10) No. 29 (combination meter):</i> <i>(i84) No. 26 — (i10) No. 30 (combination meter):</i> <i>(B280) No. 25 — (B283) No. 14 (auto A/C):</i> <i>(B280) No. 26 — (B283) No. 1 (auto A/C):</i> <i>(i84) No. 27 — (i122) No. 21 (MFD):</i> <i>(i84) No. 26 — (i122) No. 22 (MFD):</i> <i>(i84) No. 27 — (i119) No. 6 (navigation):</i> <i>(i84) No. 26 — (i119) No. 14 (navigation):</i>	Is harness normal?	Go to step 5.	Repair or replace the harness.
5 CHECK MFD OR NAVIGATION. 1) Connect the disconnected connectors. 2) Disconnect the connector of navigation (i119) or MFD (i122). 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1301 a current malfunction?	Go to step 6.	Replace the MFD or navigation. <Ref. to ET-26, REMOVAL, Navigation Display.>
6 CHECK AUTO A/C CONTROL MODULE. 1) Turn the ignition switch to OFF. 2) Connect the audio or navigation module. 3) Disconnect the auto A/C control module connector (B283). 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1301 a current malfunction?	Go to step 7.	Replace the auto A/C control module. <Ref. to AC-32, REMOVAL, Control Unit (Auto A/C Model).>
7 CHECK COMBINATION METER. 1) Turn the ignition switch to OFF. 2) Connect the disconnected connectors. 3) Perform the self-diagnosis of combination meter.	Is the self-diagnosis of combination meter OK?	Go to step 8.	Replace the combination meter.
8 CHECK BODY INTEGRATED UNIT. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1301 a current malfunction?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Go to step 9.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
9 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Shake the harness used for low speed CAN communication circuit. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1301 a current malfunction?	Repair or replace the harness.	Go to step 10 .
10 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

R: DTC U1302 CAN-LS BUS OFF

DTC DETECTING CONDITION:

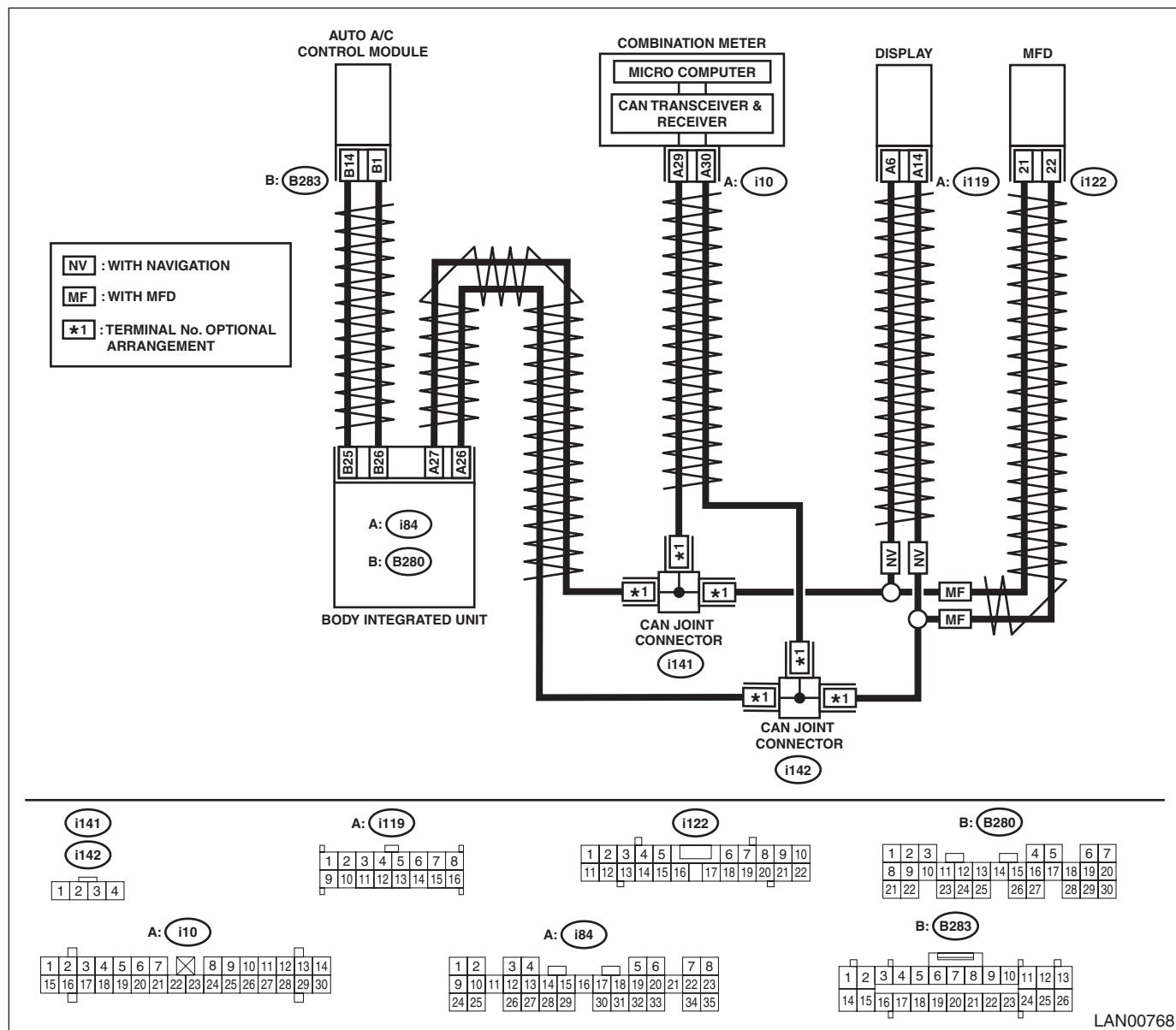
Integrated unit communication is shut down because of low speed CAN communication error.

TROUBLE SYMPTOM:

Display error may occur in fuel system because the CAN communication is not transmitted (sending/receiving) normally.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is U1302 a current malfunction?	Go to step 2.	Go to step 8.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1302 a current malfunction?	Go to step 3.	Go to step 8.
3 CHECK HARNESS. 1) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 2) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. Connector & terminal <i>(i84) No. 26 — (i10) No. 30 (combination meter):</i> <i>(i84) No. 27 — (i10) No. 29 (combination meter):</i> <i>(B280) No. 25 — (B283) No. 14 (auto A/C):</i> <i>(B280) No. 26 — (B283) No. 1 (auto A/C):</i> <i>(i84) No. 26 — (i85) No. 22 (MFD):</i> <i>(i84) No. 27 — (i85) No. 21 (MFD):</i> <i>(i84) No. 26 — (i50) No. 14 (navigation):</i> <i>(i84) No. 27 — (i50) No. 6 (navigation):</i>	Is harness normal?	Go to step 4.	Repair or replace the harness.
4 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Connect the disconnected connectors. 3) Using the tester, measure the resistance between harness connector and chassis ground. Connector & terminal <i>(i84) No. 26 — Chassis ground:</i> <i>(i84) No. 27 — Chassis ground:</i>	Is the resistance 1 MΩ or more?	Go to step 5.	Go to step 7.
5 CHECK HARNESS. 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between harness connector and chassis ground. Connector & terminal <i>(i84) No. 26 (+) — Chassis ground (-):</i> <i>(i84) No. 27 (+) — Chassis ground (-):</i>	Is the voltage less than 6 V?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Go to step 6.
6 CHECK HARNESS. With the tester connected, disconnect control module.	Is there any control module whose voltage has changed?	Replace the control module whose voltage has changed.	Repair or replace the short circuit of the harness.
7 CHECK HARNESS. With the tester connected, disconnect control module.	Is there any control module whose resistance has changed?	Replace the control module whose resistance has changed.	Repair or replace the short circuit of the harness.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
8 CHECK HARNESS. 1) Shake the harness used for low speed CAN communication circuit. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1302 a current malfunction?	Repair or replace the open, short circuit of the harness.	Go to step 9 .
9 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

S: DTC U1311 CAN-LS METER UNIT DATA ABNORMAL

DTC DETECTING CONDITION:

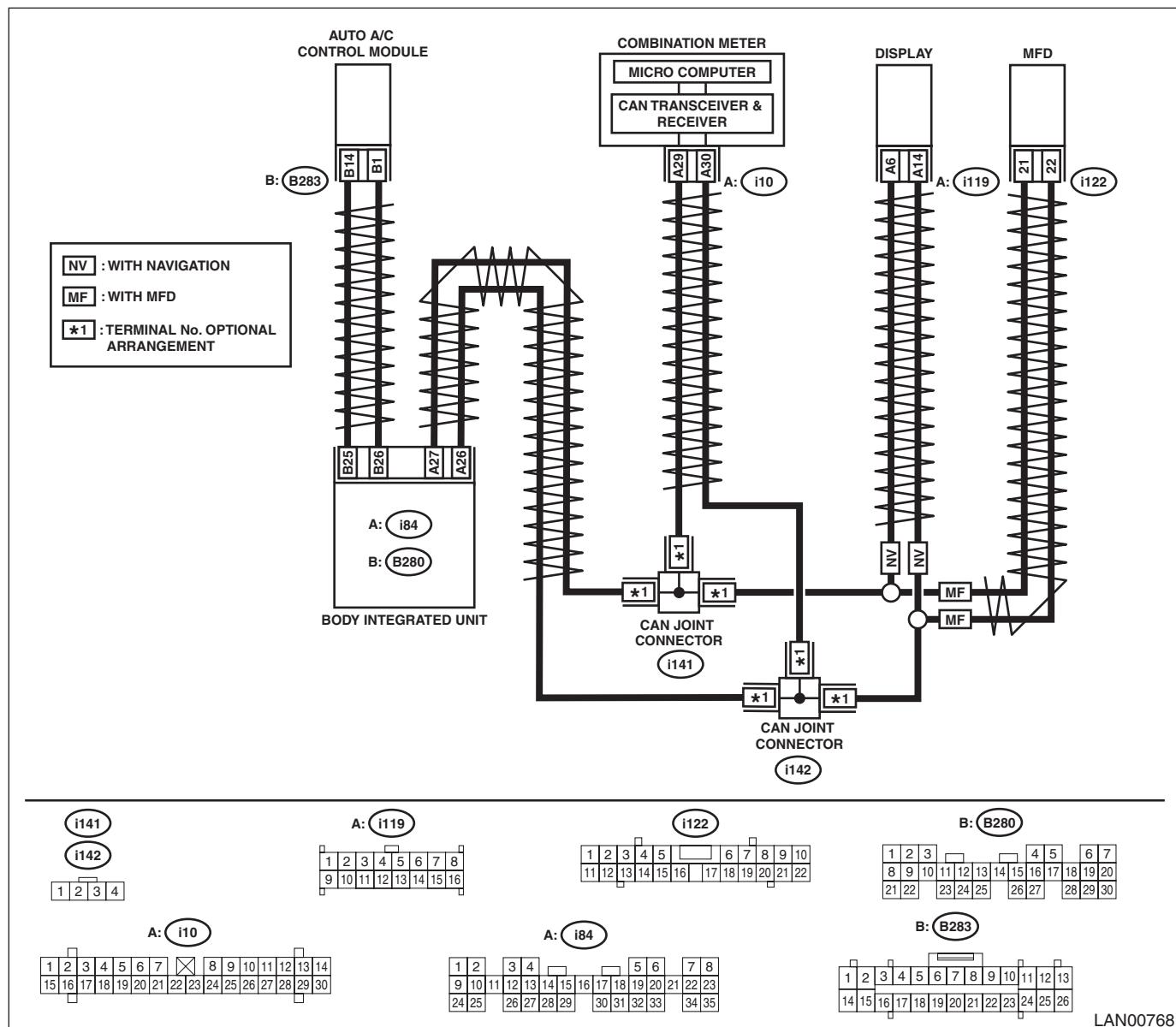
Error data is received from combination meter.

TROUBLE SYMPTOM:

Defective data from combination meter occurs.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is DTC U1300 or U1302 displayed?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1311 a current malfunction?	Go to step 3.	Go to step 4.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the combination meter connector (i10). 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1311 a current malfunction?	Replace the combination meter. <Ref. to IDI-11, REMOVAL, Combination Meter.>	Go to step 4.
4 CHECK HARNESS. 1) Shake the harness used for low speed CAN communication circuit. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1311 a current malfunction?	Repair or replace the harness.	Go to step 5.
5 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	Temporary communication failure occurs.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

T: DTC U1321 CAN-LS METER NO-RECEIVE DATA

DTC DETECTING CONDITION:

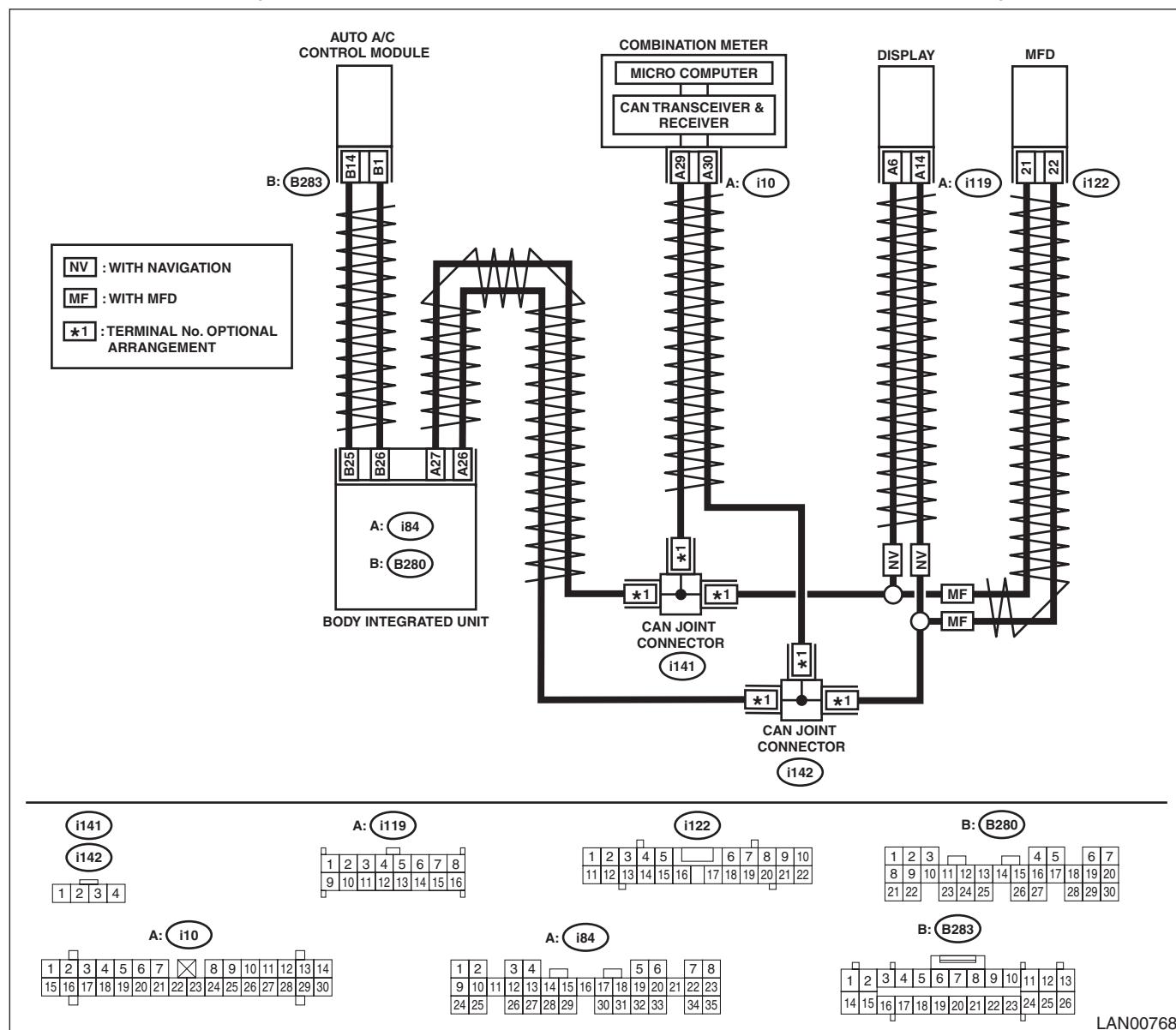
Not received data from combination meter.

TROUBLE SYMPTOM:

- Engine may not be started.
- “Er LC” is displayed in odo/trip meter.

WIRING DIAGRAM:

CAN communication system <Ref. to WI-78, WIRING DIAGRAM, CAN Communication System.>



Step	Check	Yes	No
1 CHECK ALL DTCs. Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is U1300 or U1302 displayed?	Perform the diagnosis according to DTC.	Go to step 2.
2 CHECK DTC. Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1321 a current malfunction?	Go to step 3.	Go to step 7.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
3 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1321 a current malfunction?	Go to step 4.	Go to step 7.
4 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. Connector & terminal (i84) No. 26 — (i10) No. 30 (combination meter): (i84) No. 27 — (i10) No. 29 (combination meter): (B280) No. 25 — (B283) No. 14 (auto A/C): (B280) No. 26 — (B283) No. 1 (auto A/C): (i84) No. 26 — (i85) No. 22 (MFD): (i84) No. 27 — (i85) No. 21 (MFD): (i84) No. 26 — (i50) No. 14 (navigation): (i84) No. 27 — (i50) No. 6 (navigation):	Is harness normal?	Go to step 5.	Repair or replace the harness.
5 CHECK COMBINATION METER. 1) Connect the disconnected connectors. 2) Perform the self-diagnosis of combination meter.	Is the self diagnosis normal?	Go to step 6.	Replace the combination meter.
6 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1321 a current malfunction?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Go to step 7.
7 CHECK HARNESS. 1) Shake the harness used for low speed CAN communication circuit. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1321 a current malfunction?	Repair the poor contact, open circuit of harness or replace harness.	Go to step 8.
8 CHECK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect all control module connectors (i84, or B280, i10, B283, i119 or i122) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	It is possible that temporary poor communication occurs.

U: DTC B1500 KEYLESS UART COM. MALFUNCTION

DTC DETECTING CONDITION:

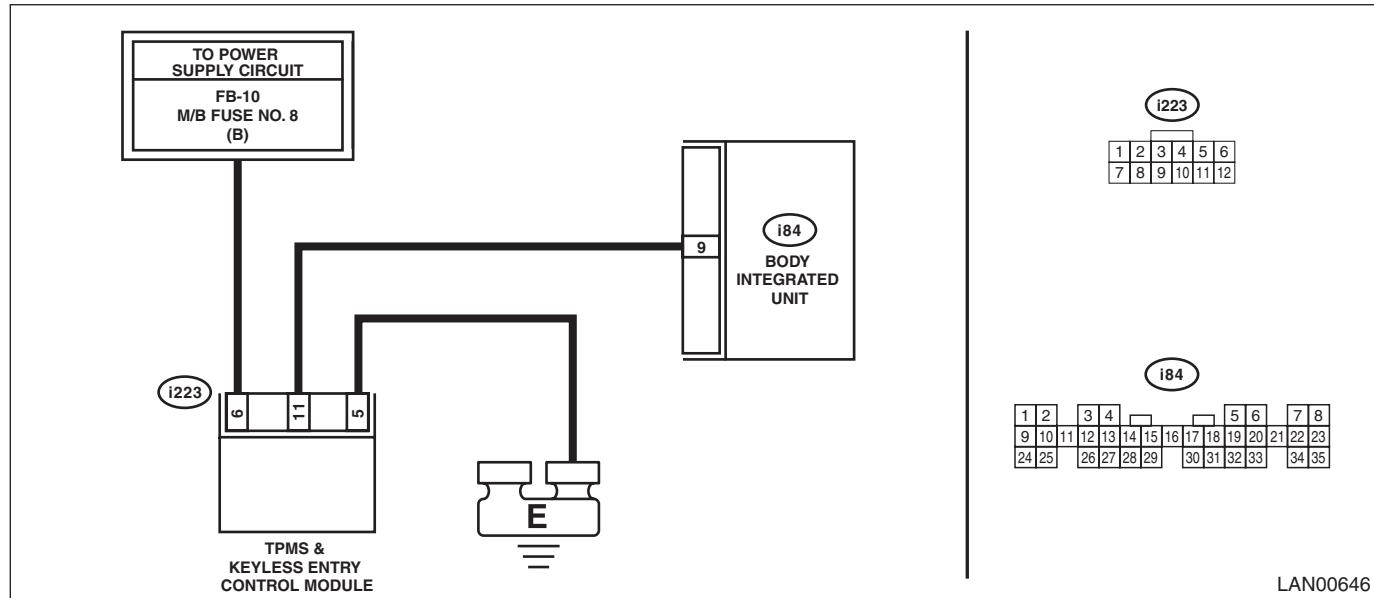
UART (communication line) between TPMS & keyless entry control module and body integrated unit is open or shorted, the connector is not connected properly, or the terminal is crimped improperly, TPMS & keyless entry control module internal error.

TROUBLE SYMPTOM:

Door lock does not operate with keyless.

WIRING DIAGRAM:

Keyless entry system <Ref. to WI-158, WIRING DIAGRAM, Keyless Entry System.>



Step	Check	Yes	No
1 CHECK DTC. 1) Insert the ignition key and remove. 2) Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-26, Read Diagnostic Trouble Code (DTC).>	Is B1500 current malfunction?	Go to step 2.	Go to step 7.
2 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from body integrated unit and TPMS & keyless entry control module. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1500 current malfunction?	Go to step 3.	Go to step 7.
3 CHECK HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from body integrated unit and TPMS & keyless entry control module. 3) Using the tester, check for open, short (power supply-output short, GND-output short) in the harness. <i>Connector & terminal (i84) No. 9 — (i223) No. 11:</i>	Is harness normal?	Go to step 4.	Repair or replace the harness.

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
4 CHECK HARNESS. Using the tester, measure the voltage between TPMS & keyless entry control module and chassis ground. Connector & terminal (i223) No. 6 (+) — Chassis ground (-):	Is the voltage battery voltage?	Go to step 5 .	Check the power supply circuit for TPMS & keyless entry control module.
5 CHECK HARNESS. Using the tester, measure the resistance between TPMS & keyless entry control module and chassis ground. Connector & terminal (i223) No. 5 — Chassis ground:	Is the resistance less than 10 Ω ?	Go to step 6 .	Repair or replace the open circuit of harness.
6 CHECK OPERATION. 1) Install the TPMS & keyless entry control module from other vehicle, which is working normally. 2) Register the keyless key which is working normally. 3) Operate the keyless key.	Does the door locking operate?	Replace the TPMS & keyless entry control module. <Ref. to SL-45, REMOVAL, Keyless Entry Control Module.>	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
7 CHECK CONNECTOR. Disconnect the connectors from body integrated unit and TPMS & keyless entry control module.	Is there poor contact of connector?	Repair the connector, or replace harness.	Temporary communication failure occurs.