

## Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

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### 12. Diagnostic Procedure with Diagnostic Trouble Code (DTC)

#### A: DTC B1100 INTEG. UNIT SYSTEM ERROR

##### DTC DETECTING CONDITION:

Memory read out error in body integrated unit

##### TROUBLE SYMPTOM:

LAN communication immobilizer function may not be executed normally.

Step	Check	Yes	No
<b>1</b> <b>CHECK DTC.</b> Check DTC indicated by body integrated unit. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is B1100 a current malfunction?	Go to step 2.	Temporary EEPROM access error occurred.
<b>2</b> <b>CHECK CONNECTOR.</b> 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 B1100 a current malfunction?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Temporary EEPROM access error occurred.

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### WIRING DIAGRAM:



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Step	Check	Yes	No
<b>2 CHECK DTC.</b> 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.
<b>3 CHECK FUSE.</b> 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
<b>4 CHECK HARNESS.</b> 1) Disconnect the body integrated unit connector (B280). 2) Measure the voltage between body integrated unit connector and chassis ground using tester. <i><b>Connector &amp; terminal (B280) No. 6 (+) — Chassis ground (-):</b></i>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.
<b>5 CHECK CONNECTOR.</b> 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.

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Step	Check	Yes	No
<b>2</b> <b>CHECK DTC.</b> 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.
<b>3</b> <b>CHECK FUSE.</b> 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
<b>4</b> <b>CHECK HARNESS.</b> 1) Disconnect the body integrated unit connector (B281). 2) Measure the voltage between body integrated unit connector and chassis ground using tester. <i><b>Connector &amp; terminal</b></i> <i><b>(B281) No. 2 (+) — Chassis ground (–):</b></i>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.
<b>5</b> <b>CHECK CONNECTOR.</b> 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.

### D: DTC B1103 IGNITION POWER FAILURE

#### DTC DETECTING CONDITION:

- Open or short in IGN power supply circuit
- Voltage malfunction caused by poor contact

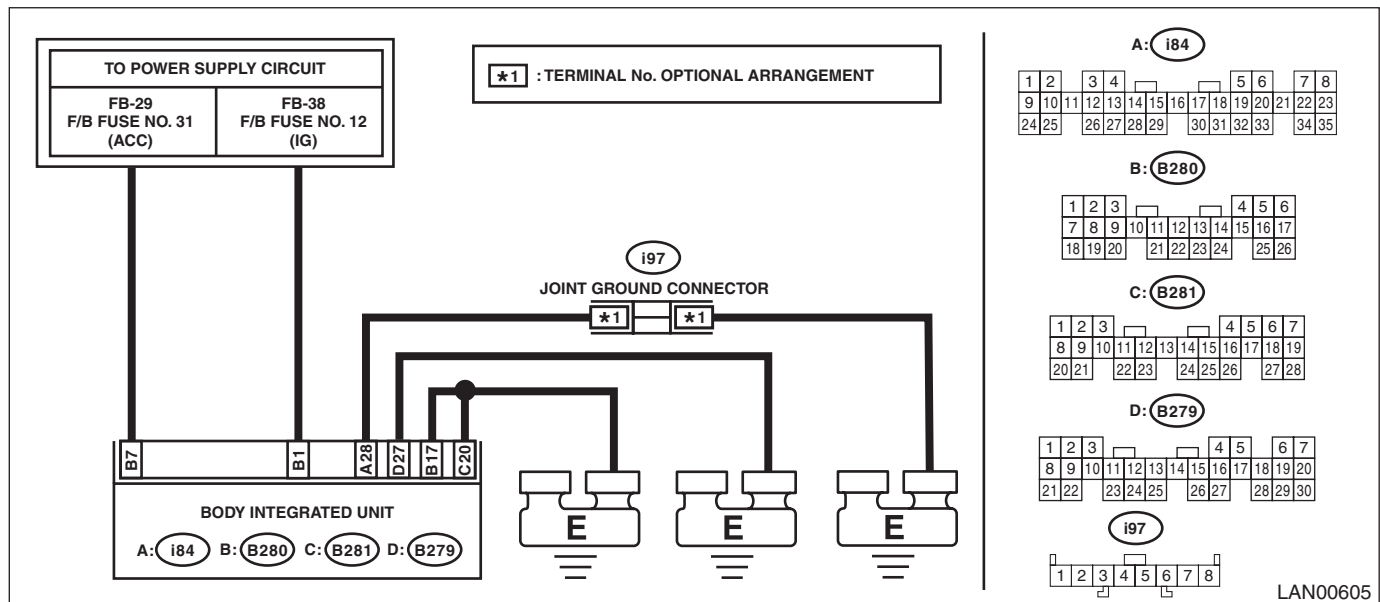
#### TROUBLE SYMPTOM:

Error related to LAN system will not be detected.

#### NOTE:

B1103 may output when the ignition switch turns to ON with the weak battery condition.

#### WIRING DIAGRAM:



Step	Check	Yes	No
<b>1 CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is B1103 current malfunction?	Go to step 2.	Go to step 5.
<b>2 CHECK DTC.</b> 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.
<b>3 CHECK FUSE.</b> 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
<b>4 CHECK HARNESS.</b> 1) Disconnect the body integrated unit connector (B280). 2) Turn the ignition switch to ON. 3) Measure the voltage between body integrated unit connector and chassis ground using tester. <b>Connector &amp; terminal</b> <b>(B280) No. 1 (+) — Chassis ground (-):</b>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.

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Step		Check	Yes	No
5	<b>CHECK CONNECTOR.</b> 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.

## E: DTC B1104 ACC POWER FAILURE

### DTC DETECTING CONDITION:

- Open or short in ACC power supply circuit
- Voltage malfunction caused by poor contact

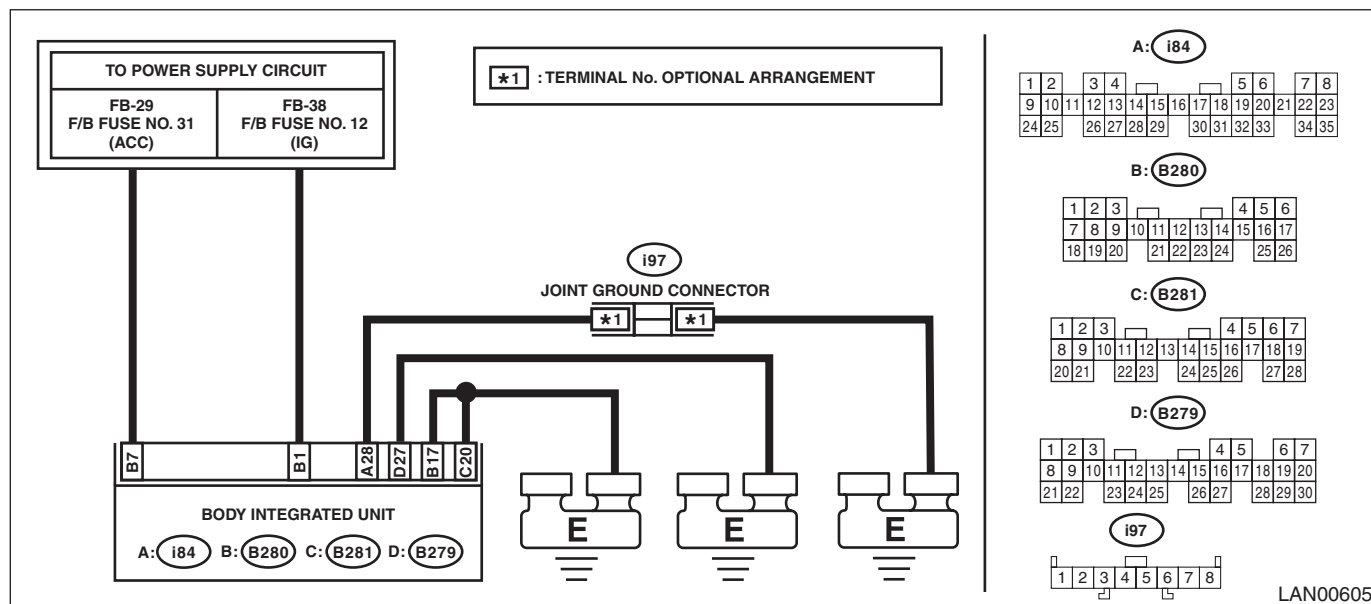
### TROUBLE SYMPTOM:

Does not exist.

### NOTE:

B1104 may output when the ignition switch turns to ACC with the weak battery condition.

### WIRING DIAGRAM:



Step	Check	Yes	No
<b>1 CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is B1104 current malfunction?	Go to step 2.	Go to step 5.
<b>2 CHECK DTC.</b> 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.
<b>3 CHECK FUSE.</b> 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step 4.	Replace the defective fuse.
<b>4 CHECK HARNESS.</b> 1) Disconnect the body integrated unit connector (B280). 2) Turn the ignition switch to ACC. 3) Measure the voltage between body integrated unit connector and chassis ground using tester. <b>Connector &amp; terminal</b> <b>(B280) No. 7 (+) — Chassis ground (–):</b>	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Repair or replace the open or shorted circuit between body integrated unit and fuse.



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Step		Check	Yes	No
5	<b>CHECK CONNECTOR.</b> 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.

## F: DTC B1105 KEY INTERLOCK CIRCUIT ABNORMAL

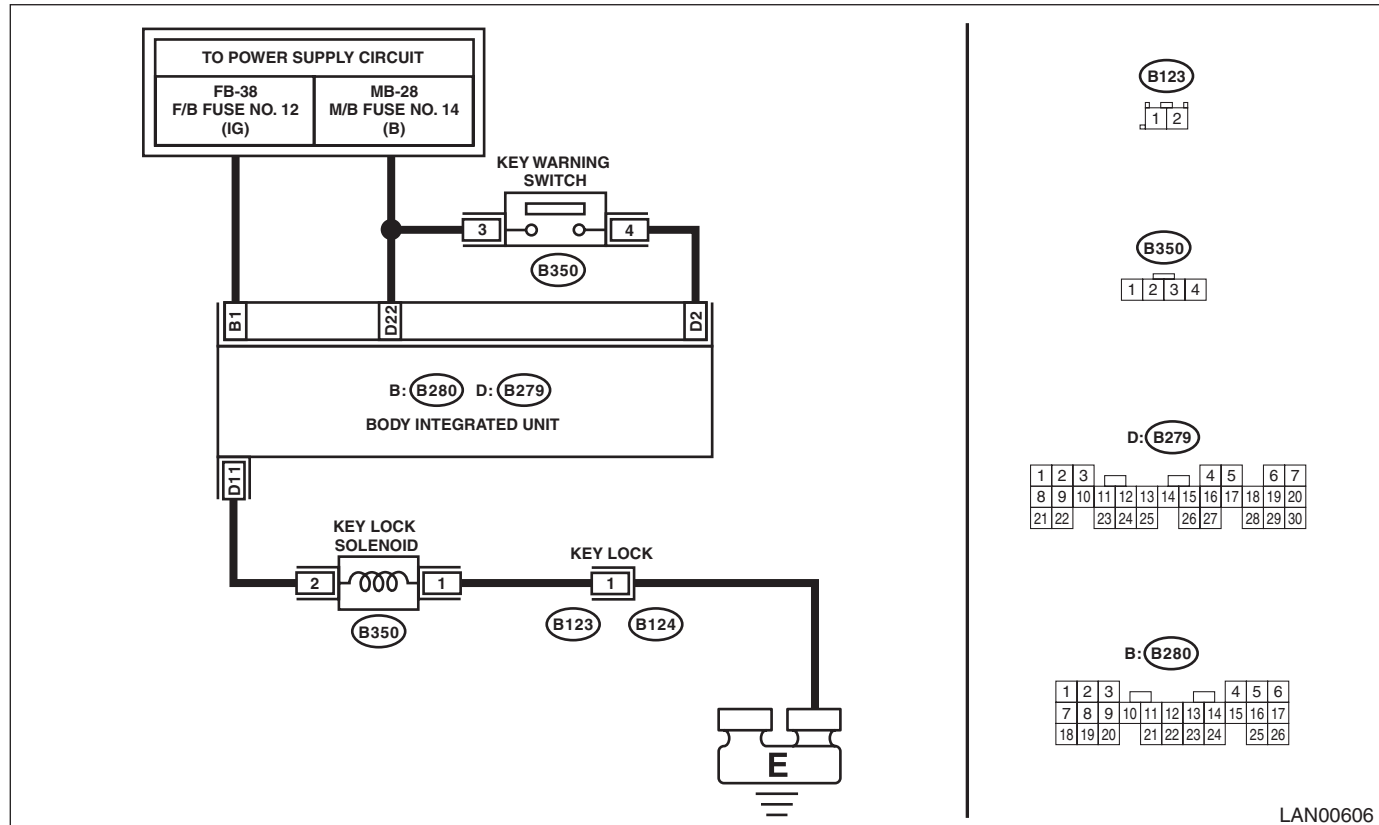
### DTC DETECTING CONDITION:

Ground short of key interlock circuit

### TROUBLE SYMPTOM:

Key interlock does not keep lock condition.

### WIRING DIAGRAM:



Step	Check	Yes	No
<b>1</b> <b>CHECK DTC.</b> 1) Insert the ignition key. 2) Shift to the Neutral range. 3) Turn the ignition switch to ON. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1105 current malfunction?	Go to step 2.	Go to step 8.
<b>2</b> <b>CHECK DTC.</b> 1) Shift the select lever to P range. 2) Remove the ignition key. 3) Disconnect the key lock solenoid connector (B350) and body integrated unit connector (B279). 4) Connect the disconnected connectors. 5) Insert the ignition key. 6) Turn the ignition switch to ON and shift into Neutral. 7) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1105 current malfunction?	Go to step 3.	Go to step 8.

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Step	Check	Yes	No
<b>3 CHECK KEY LOCK SOLENOID.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the key lock solenoid connector (B350). 3) Measure the resistance between the key lock solenoid connector. <b>Connector &amp; terminal</b> <b>(B350) No. 1 — No. 2:</b>	Is the resistance 12 — 14.5 $\Omega$ ?	Go to step 4.	Replace the key lock solenoid.
<b>4 CHECK KEY LOCK SOLENOID.</b> Connect the battery terminal to key lock solenoid. <b>Terminals</b> <b>(B350) No. 2 — positive terminal:</b> <b>(B350) No. 1 — ground terminal:</b>	Is the solenoid activated and then key locked?	Go to step 5.	Replace the key lock solenoid.
<b>5 CHECK HARNESS.</b> 1) Disconnect the body integrated unit connector (B279). 2) Measure the resistance between body integrated unit and key lock solenoid using tester. <b>Connector &amp; terminal</b> <b>(B350) No. 2 — (B279) No. 11:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 6.	Repair or replace the open circuit of harness.
<b>6 CHECK HARNESS.</b> Measure the resistance between body integrated unit and chassis ground using tester. <b>Connector &amp; terminal</b> <b>(B279) No. 11 — Chassis ground:</b>	Is the resistance 1 M $\Omega$ or more?	Go to step 7.	Repair or replace the short circuit of the harness.
<b>7 CHECK HARNESS.</b> 1) Connect the body integrated unit. 2) Turn the ignition switch to ON. 3) Measure the voltage between body integrated unit and chassis ground using tester. <b>Connector &amp; terminal</b> <b>(B279) No. 11 (+) — Chassis ground (-):</b>	Is the voltage 6 V or more?	Repair or replace the short circuit of the harness.	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
<b>8 CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B279) 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.

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### WIRING DIAGRAM:



Step		Check	Yes	No
1	<b>CHECK DTC.</b> 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.	Is B1106 current malfunction?	Go to step 2.	Go to step 8.
2	<b>CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B279) and shift lock solenoid connector (B117). 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON, then keep the Parking range for approx. 5 seconds. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step 3.	Go to step 8.

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Step	Check	Yes	No
<b>3 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the shift lock solenoid connector (B117). 3) Measure the resistance between shift lock solenoid and chassis ground using tester. <b>Connector &amp; terminal</b> <b>(B117) No. 4 — Chassis ground:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Repair the open circuit of harness or replace harness.
<b>4 CHECK SHIFT LOCK SOLENOID.</b> Measure the resistance between the shift lock solenoid connector. <b>Connector &amp; terminal</b> <b>(B117) No. 4 — No. 3:</b>	Is the resistance 19 — 25 $\Omega$ ?	Go to step 5.	Replace the shift lock solenoid.
<b>5 CHECK SHIFT LOCK SOLENOID.</b> Connect the battery terminal to shift lock solenoid. <b>Terminals</b> <b>(B117) No. 3 — positive terminal:</b> <b>(B117) No. 4 — ground terminal:</b>	Is the solenoid activated, and then the shift lock released?	Go to step 6.	Replace the shift lock solenoid.
<b>6 CHECK HARNESS.</b> 1) Disconnect the body integrated unit connector (B279). 2) Measure the resistance between body integrated unit connector (B279) and chassis ground. <b>Connector &amp; terminal</b> <b>(B279) No. 12 — Chassis ground:</b>	Is the resistance 1 M $\Omega$ or more?	Go to step 7.	Repair the short circuit of harness or replace harness.
<b>7 CHECK HARNESS.</b> Measure the resistance between body integrated unit connector (B279) and shift lock solenoid (B117). <b>Connector &amp; terminal</b> <b>(B117) No. 3 — (B279) No. 12:</b>	Is the resistance less than 10 $\Omega$ ?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Repair the open circuit of harness or replace harness.
<b>8 CHECK DTC.</b> 1) With Parking range, depress the brake pedal and keep it at depressed condition. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step 9.	Go to step 10.
<b>9 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B279) and shift lock solenoid connector (B117). 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 10.
<b>10 CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B279) and shift lock solenoid connector (B117).	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.

### H: DTC U1201 CAN-HS COUNTER ABNORMAL

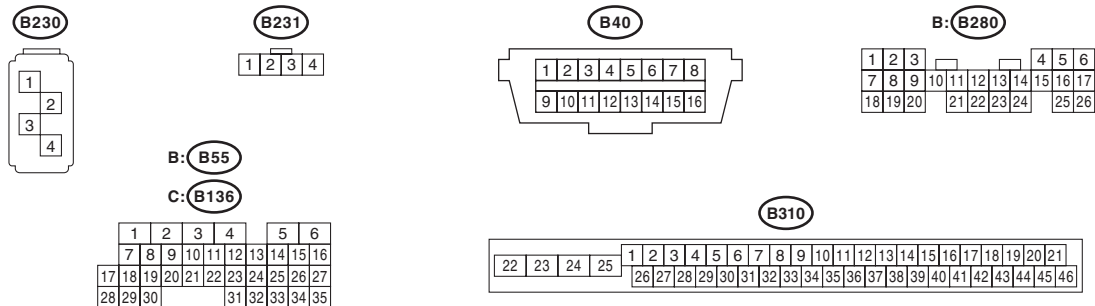
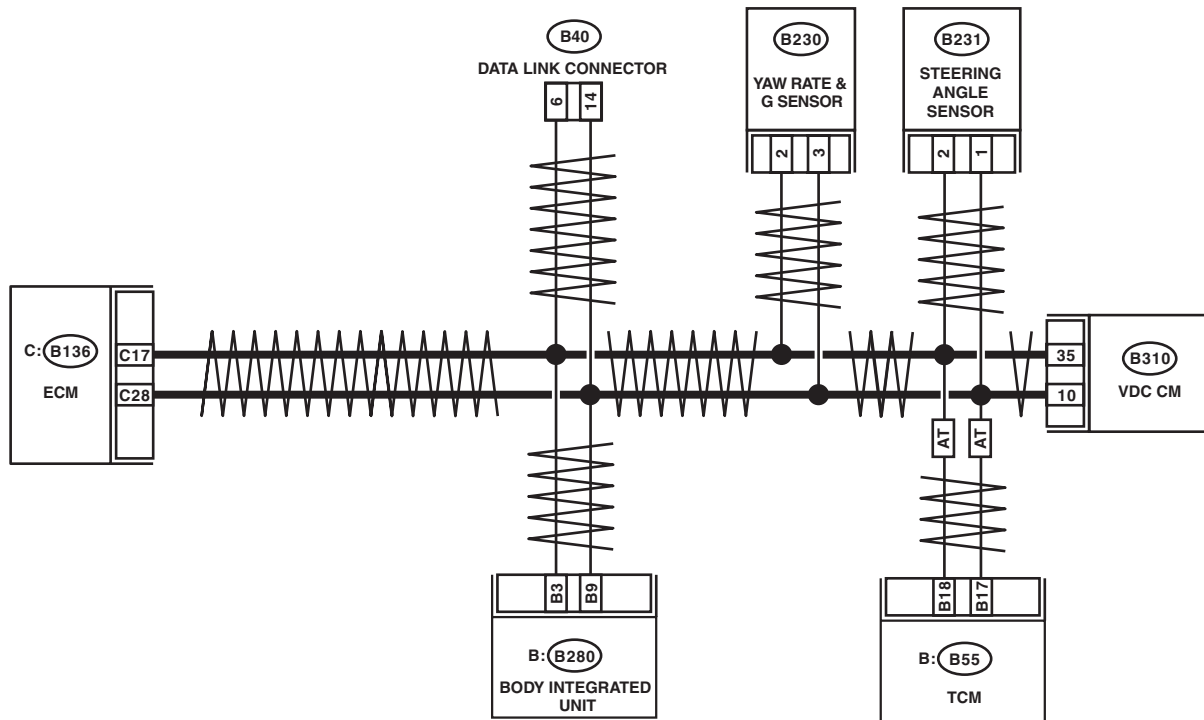
#### DTC DETECTING CONDITION:

Communication is unstable because of high speed CAN communication error.

#### TROUBLE SYMPTOM:

Malfunction indicator light illuminates.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Perform the diagnosis according to DTC.	Go to step 2.
2	<b>CHECK DTC.</b> Check DTC indicated by body integrated unit.	Go to step 3.	Go to step 14.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, 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.
<b>4 CHECK TCM.</b> <b>NOTE:</b> If the vehicle is MT model, go to the next step. 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.
<b>5 CHECK STEERING ANGLE SENSOR.</b> 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.
<b>6 CHECK YAW RATE SENSOR.</b> 1) Turn the ignition switch to OFF. 2) Connect the steering angle sensor connector. 3) Disconnect the yaw rate sensor connector (B230). 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.
<b>7 CHECK VDC/ABS CM.</b> 1) Turn the ignition switch to OFF. 2) Connect the yaw rate sensor connector. 3) Disconnect the VDC/ABS CM (B301 or B310) connector. 4) Install the 120 $\Omega$ resistance to VDC/ABS CM connector terminals. <b>Terminals</b> <b>(B310) No. 10 — No. 35:</b> 5) Using the tester, measure the resistance between terminals of data link connector. <b>Terminals</b> <b>(B40) No. 6 — No. 14:</b>	Is the resistance 60 $\Omega$ ?	Go to step 8.	Go to step 10.
<b>8 CHECK DTC.</b> 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.
<b>9 CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Replace the VDC/ABS CM. <Ref. to VDC-7, REMOVAL, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step 10.

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Step	Check	Yes	No
<b>10 CHECK ECM.</b> 1) Turn the ignition switch to OFF. 2) Connect the VDC/ABS CM. 3) Disconnect the ECM connector (B136). 4) Install the 120 $\Omega$ resistance to ECM connector. <b>Terminals</b> <b>(B136) No. 17 — No. 28:</b> 5) Using the tester, measure the resistance between terminals of data link connector. <b>Connector &amp; terminal</b> <b>(B40) No. 6 — No. 14:</b>	Is the resistance 60 $\Omega$ ?	Go to step 11.	Repair or replace the open circuit of harness.
<b>11 CHECK DTC.</b> 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.
<b>12 CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1202 a current malfunction?	Replace the ECM. <Ref. to FU(H4SO)-46, REMOVAL, Engine Control Module (ECM).>	Go to step 13.
<b>13 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Reconnect all the disconnected connectors. 3) Turn the ignition switch to ON. 4) 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.
<b>14 CHECK HARNESS.</b> 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.
<b>15 CHECK CONNECTOR.</b> 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.	It is possible that temporary poor communication occurs.
<b>16 CHECK HARNESS.</b> Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short) between terminals of data link connector and TCM. <b>Connector &amp; terminal</b> <b>(B40) No. 14 — (B55) No. 17:</b> <b>(B40) No. 6 — (B55) No. 18:</b>	Is harness normal?	Replace the TCM. <Ref. to 4AT-58, REMOVAL, Transmission Control Module (TCM).>	Repair or replace the harness.
<b>17 CHECK HARNESS.</b> Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short) between terminals of data link connector and steering angle sensor. <b>Connector &amp; terminal</b> <b>(B40) No. 14 — (B231) No. 1:</b> <b>(B40) No. 6 — (B231) No. 2:</b>	Is harness normal?	Replace the steering sensor. <Ref. to VDC-21, REPLACEMENT, Steering Angle Sensor.>	Repair or replace the harness.



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Step	Check	Yes	No
<b>18</b> <b>CHECK HARNESS.</b> Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short) between terminals of data link connector and yaw rate sensor. <b>Connector &amp; terminal</b> <b>(B40) No. 14 — (B230) No. 3:</b> <b>(B40) No. 6 — (B230) No. 2:</b>	Is harness normal?	Replace the yaw rate sensor. <Ref. to VDC-19, REMOVAL, Yaw Rate and G Sensor.>	Repair or replace the harness.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

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## I: DTC U1202 CAN-HS BUS OFF

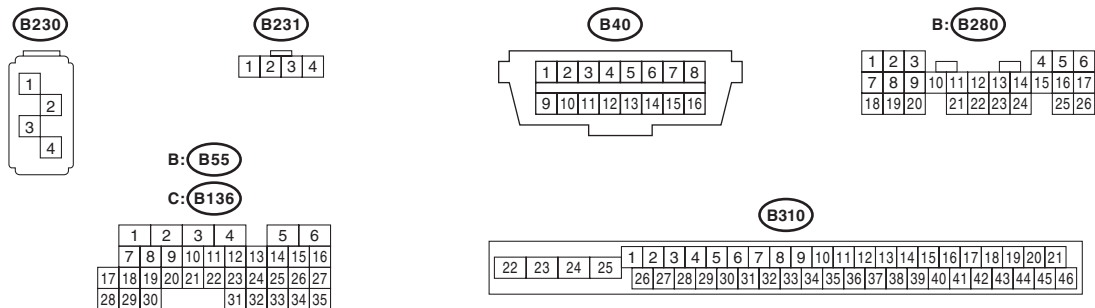
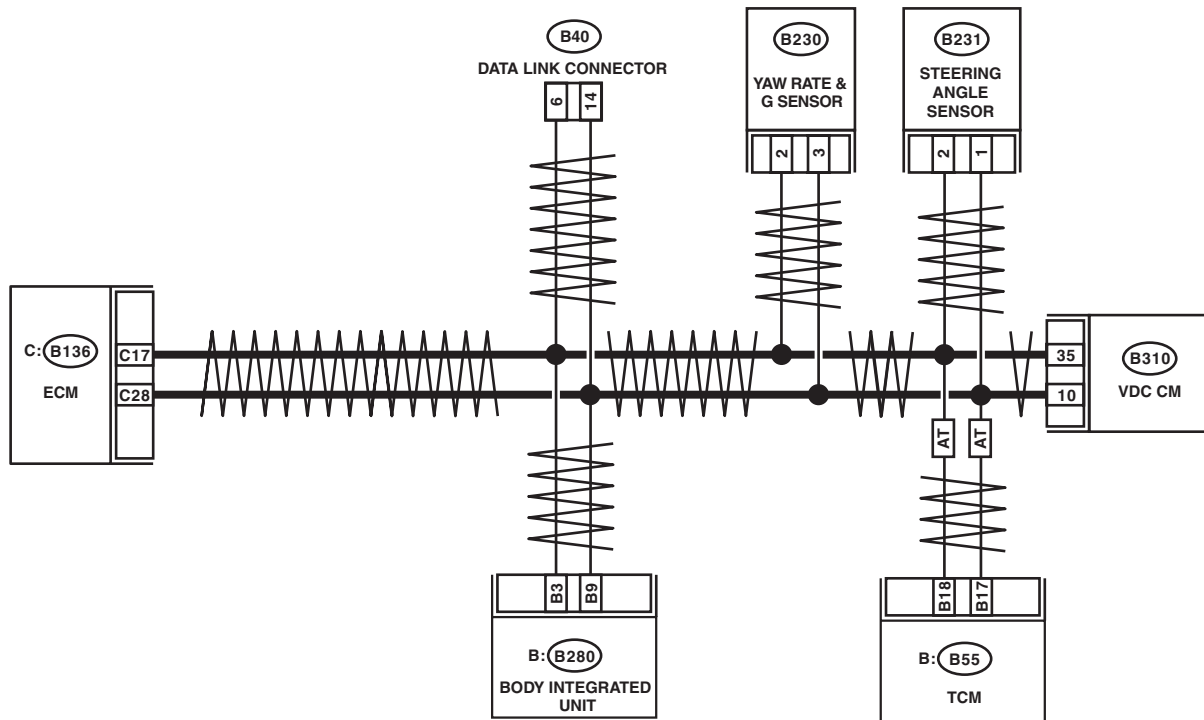
### DTC DETECTING CONDITION:

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

### TROUBLE SYMPTOM:

Each warning light illuminates because the CAN communication (sending and receiving) is not normal.

### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Using the Subaru Select Monitor, confirm all DTCs. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Perform the diagnosis according to displayed DTC.	Go to step 2.
2	<b>CHECK DTC.</b> 1) Turn the ignition switch to OFF → ON. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Go to step 3.	Go to step 10.

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Step	Check	Yes	No
<b>3 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, 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.
<b>4 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, B231) that are connected to high speed CAN communication line. 3) Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>(B40) No. 6 — (B136) No. 17:</b> <b>(B40) No. 6 — (B310) No. 35:</b> <b>(B40) No. 6 — (B230) No. 2:</b> <b>(B40) No. 6 — (B231) No. 2:</b> <b>(B40) No. 6 — (B55) No. 18:</b> <b>(B40) No. 6 — (B280) No. 3:</b>	Is harness normal?	Go to step 5.	Repair or replace the harness.
<b>5 CHECK HARNESS.</b> Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>(B40) No. 14 — (B136) No. 28:</b> <b>(B40) No. 14 — (B310) No. 10:</b> <b>(B40) No. 14 — (B230) No. 3:</b> <b>(B40) No. 14 — (B231) No. 1:</b> <b>(B40) No. 14 — (B55) No. 17:</b> <b>(B40) No. 14 — (B280) No. 9:</b>	Is harness normal?	Go to step 6.	Repair or replace the harness.
<b>6 CHECK ECM.</b> 1) Connect the ECM. 2) Using the tester, measure the resistance between terminals of data link connector. <b>Connector &amp; terminal</b> <b>(B40) No. 6 — No. 14:</b>	Is the resistance $120 \pm 5 \Omega$ ?	Go to step 7.	Replace the ECM. <Ref. to FU(H4SO)-46, REMOVAL, Engine Control Module (ECM).>
<b>7 CHECK VDC/ABS CM.</b> 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. <b>Connector &amp; terminal</b> <b>(B40) No. 6 — No. 14:</b>	Is the resistance $120 \pm 5 \Omega$ ?	Go to step 8.	Replace the VDC/ABS CM. <Ref. to VDC-7, REMOVAL, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
<b>8 CHECK HARNESS.</b> 1) Connect the disconnected connectors. 2) Using the tester, measure the resistance between terminals of data link connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B40) No. 6 — Chassis ground:</b> <b>(B40) No. 14 — Chassis ground:</b>	Is the resistance $1 M\Omega$ or more?	Go to step 9.	Go to step 12.

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Step	Check	Yes	No
<b>9</b> <b>CHECK HARNESS.</b> 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals of data link connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B40) No. 6 — Chassis ground:</b> <b>(B40) No. 14 — Chassis ground:</b>	Is the voltage less than 6 V?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Go to step 13.
<b>10</b> <b>CHECK HARNESS.</b> 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.
<b>11</b> <b>CHECK CONNECTOR.</b> 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.
<b>12</b> <b>CHECK CONTROL MODULE.</b> 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.
<b>13</b> <b>CHECK ECM.</b> 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

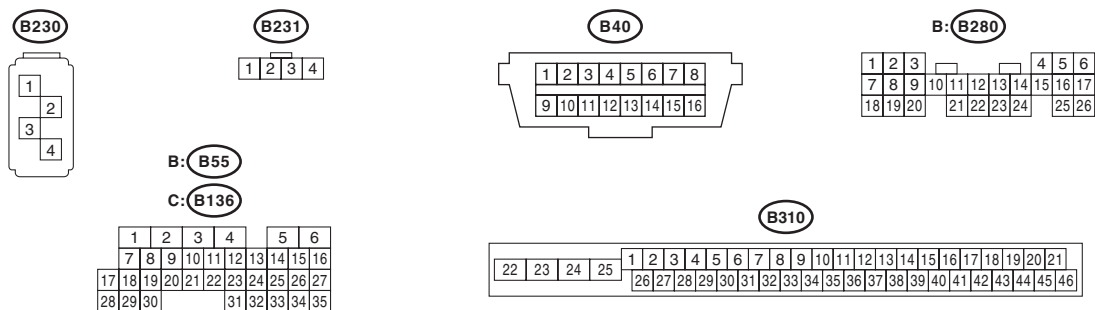
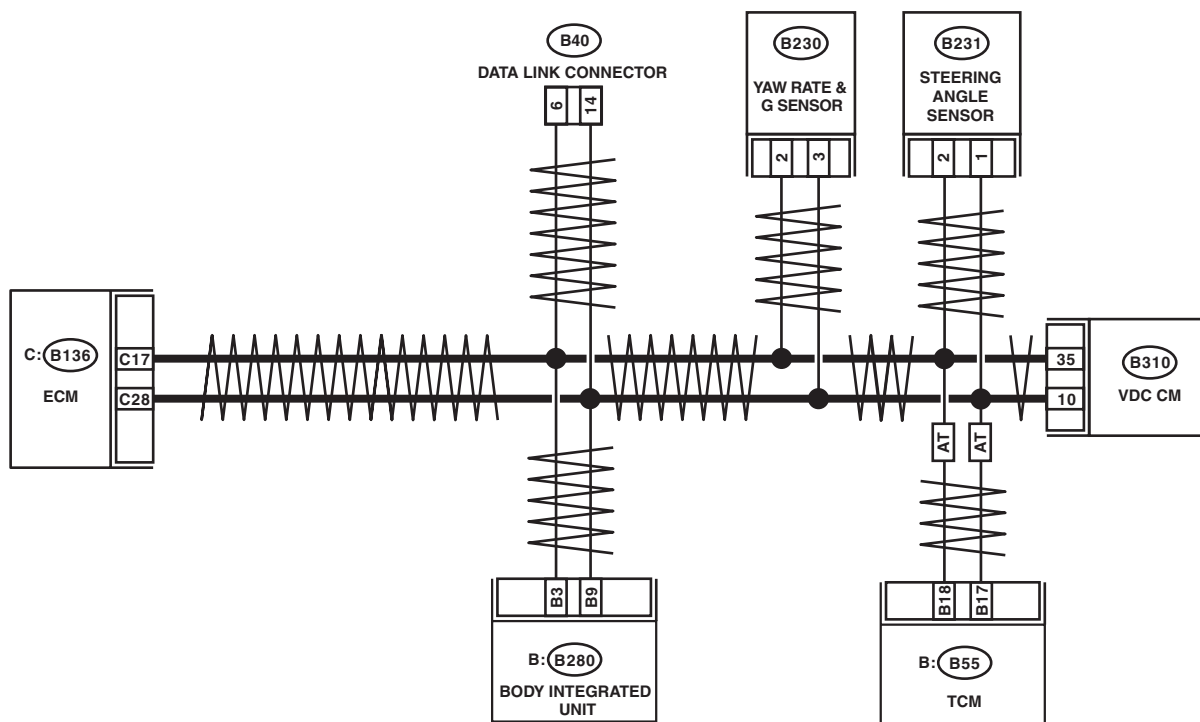
#### DTC DETECTING CONDITION:

Received error data from ECM.

#### TROUBLE SYMPTOM:

It is possible that engine control error may occur.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Perform the diagnosis according to DTC.	Go to step 2.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Go to step 3.	Go to step 4.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3</b> <b>CHECK ECM.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ECM. 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(H4SO)-46, REMOVAL, Engine Control Module (ECM).>	Go to step 4.
<b>4</b> <b>CHECK HARNESS.</b> 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 U1211 a current malfunction?	Repair the poor contact or temporary open circuit of harness.	Go to step 5.
<b>5</b> <b>CHECK CONNECTOR.</b> 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

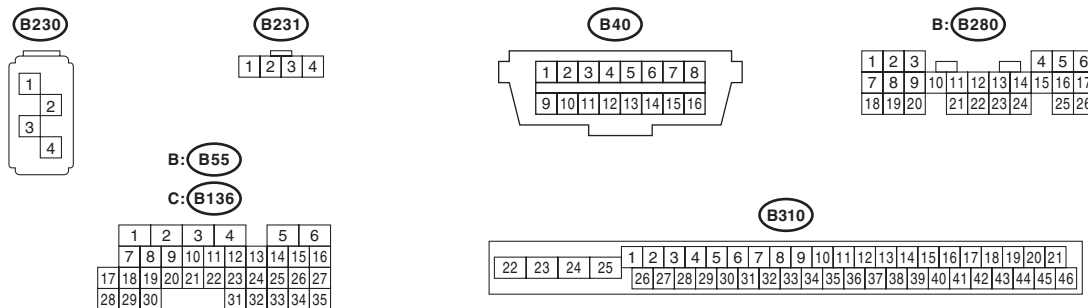
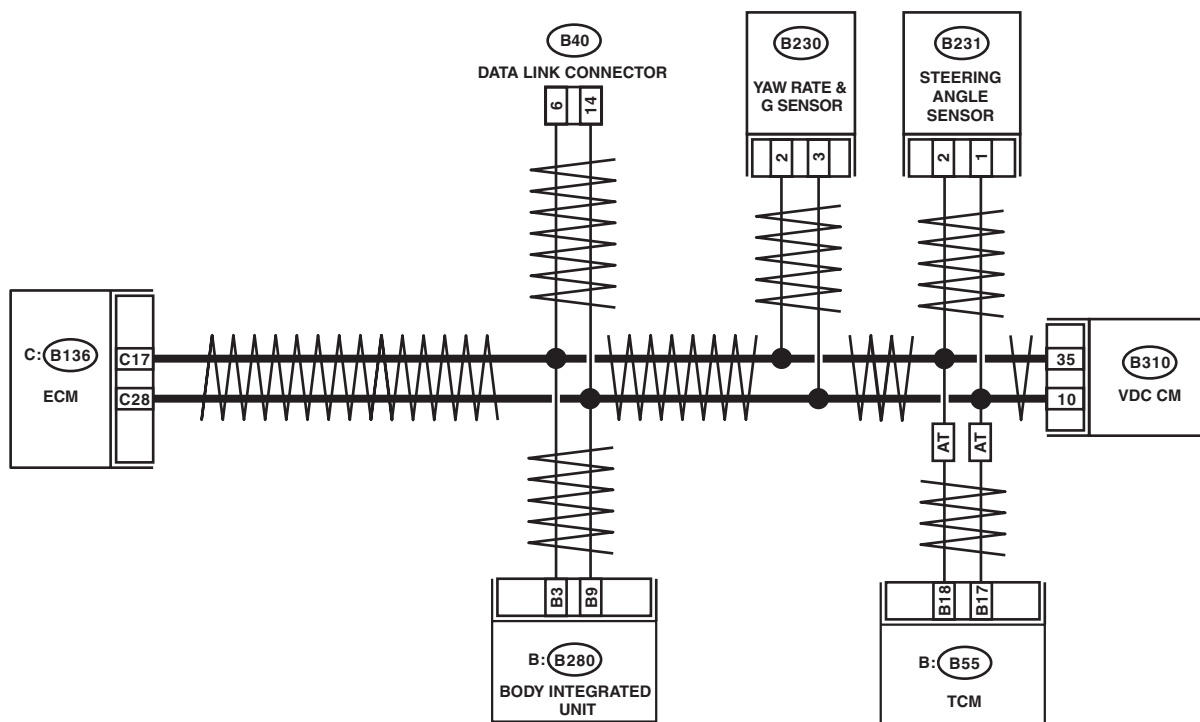
#### DTC DETECTING CONDITION:

Received error data from TCM.

#### TROUBLE SYMPTOM:

It is possible that transmission control error may occur.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Perform the diagnosis according to DTC.	Go to step 2.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Go to step 3.	Go to step 4.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3</b> <b>CHECK DTC.</b> 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 4AT-58, Transmission Control Module (TCM).>	Go to step 4.
<b>4</b> <b>CHECK HARNESS.</b> 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.
<b>5</b> <b>CHECK CONNECTOR.</b> 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 poor contact occurs.



# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

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

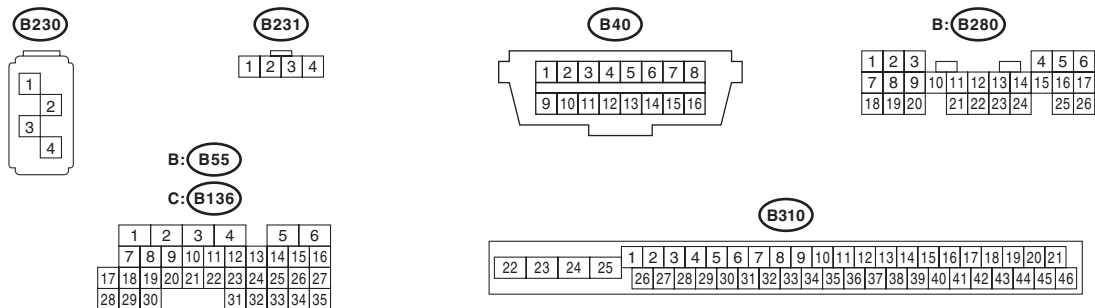
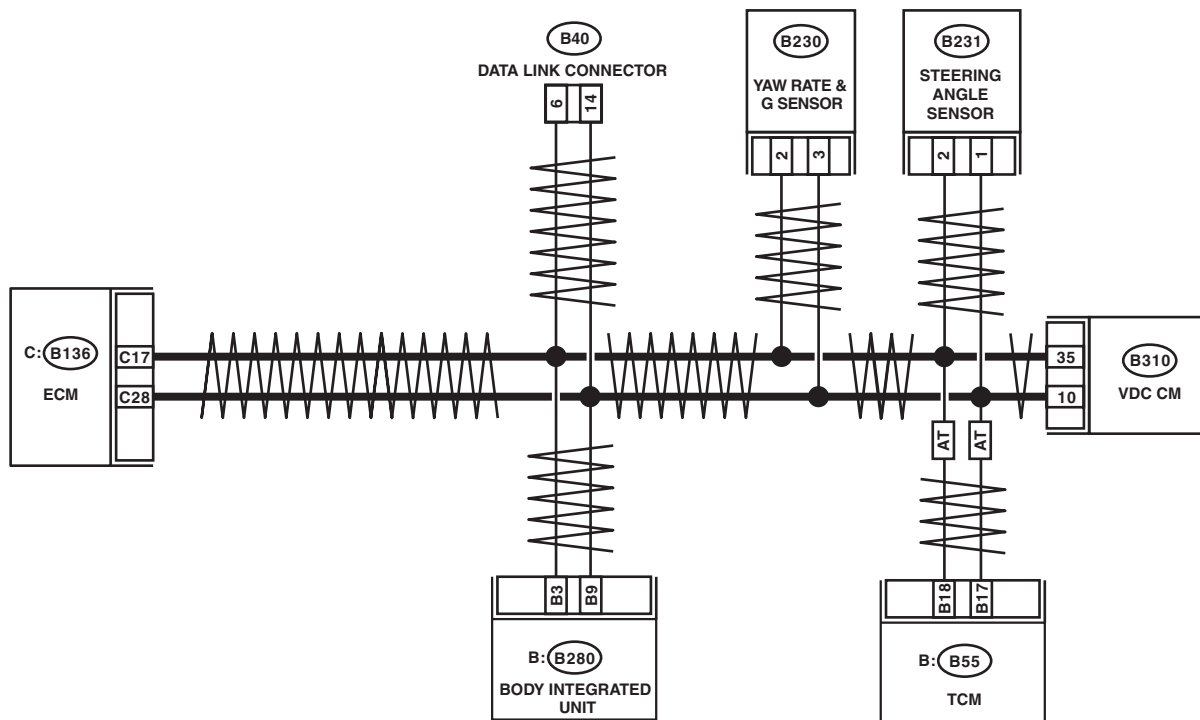
#### DTC DETECTING CONDITION:

Received error data from VDC/ABS module.

#### TROUBLE SYMPTOM:

It is possible that brake control error may occur.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is there DTC U1202?	Perform the diagnosis according to DTC.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1213 a current malfunction?	Go to step 2. / Go to step 4.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3</b> <b>CHECK DTC.</b> 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/ABS CM. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step 4.
<b>4</b> <b>CHECK HARNESS.</b> 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.
<b>5</b> <b>CHECK CONNECTOR.</b> 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.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

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

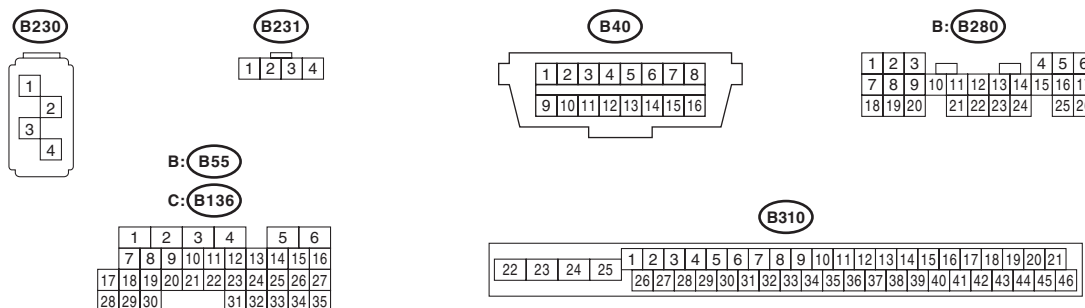
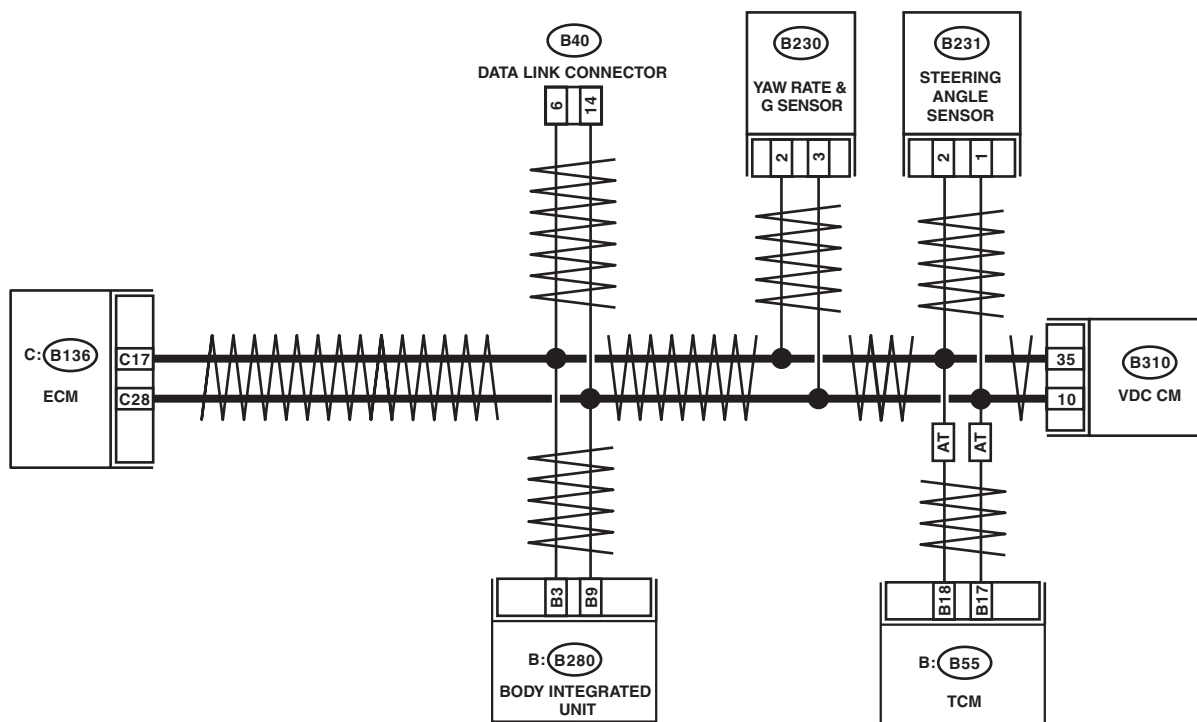
#### DTC DETECTING CONDITION:

Not received data from ECM.

#### TROUBLE SYMPTOM:

Malfunction indicator light illuminates.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is there DTC U1202?	Perform the diagnosis according to DTC.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1221 a current malfunction?	Go to step 2. Go to step 8.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, 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.
<b>4 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, B231) that are connected to high speed CAN communication line. 3) Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>(B40) No. 6 — (B136) No. 17:</b> <b>(B40) No. 6 — (B310) No. 35:</b> <b>(B40) No. 6 — (B230) No. 2:</b> <b>(B40) No. 6 — (B231) No. 2:</b> <b>(B40) No. 6 — (B55) No. 18:</b> <b>(B40) No. 6 — (B280) No. 3:</b>	Is harness normal?	Go to step 5.	Repair or replace the harness.
<b>5 CHECK HARNESS.</b> Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>(B40) No. 14 — (B136) No. 28:</b> <b>(B40) No. 14 — (B310) No. 10:</b> <b>(B40) No. 14 — (B230) No. 3:</b> <b>(B40) No. 14 — (B231) No. 1:</b> <b>(B40) No. 14 — (B55) No. 17:</b> <b>(B40) No. 14 — (B280) No. 9:</b>	Is harness normal?	Go to step 6.	Repair or replace the harness.
<b>6 CHECK DTC.</b> 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.
<b>7 CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor.	Are DTCs P1718 or C0047 detected?	Replace the ECM. <Ref. to FU(H4SO)-46, REMOVAL, Engine Control Module (ECM).>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
<b>8 CHECK HARNESS.</b> 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.
<b>9 CHECK CONNECTOR.</b> 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 poor contact occurs.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

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

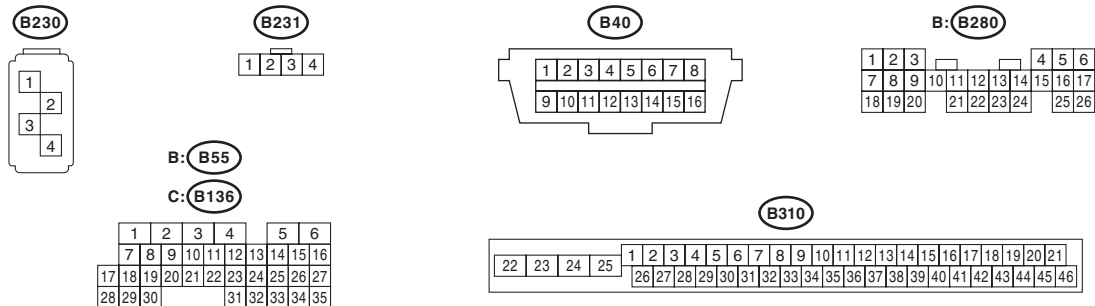
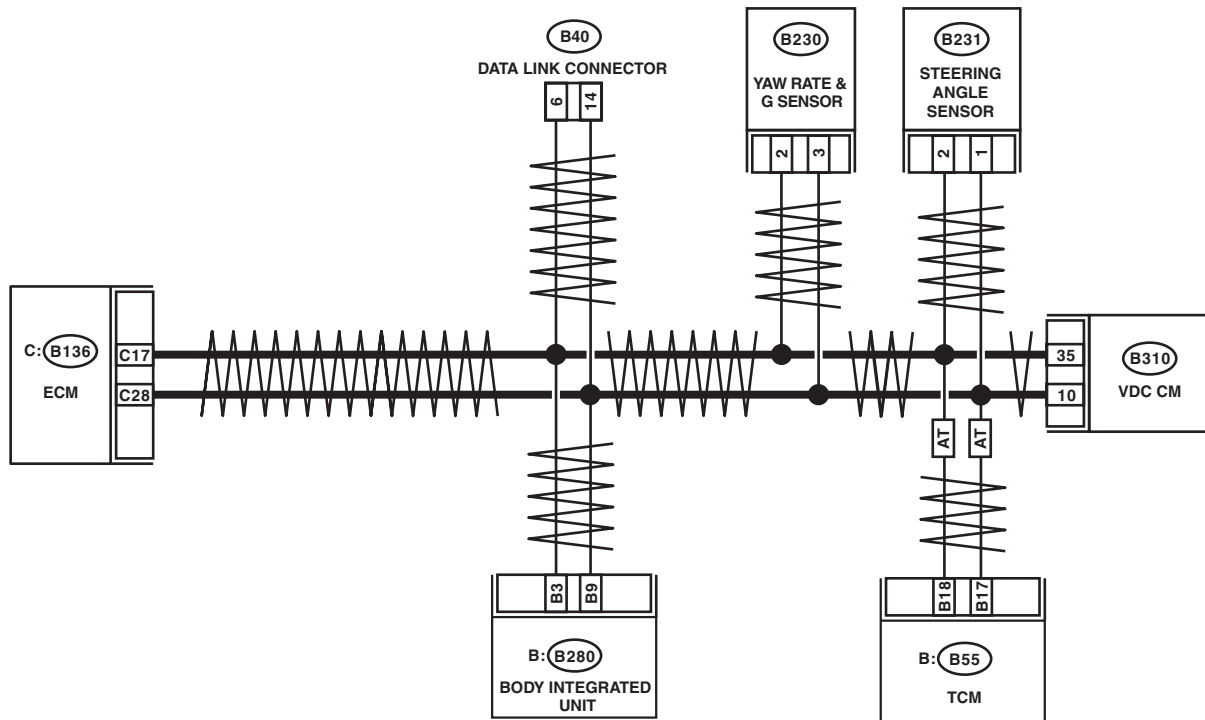
#### DTC DETECTING CONDITION:

Not received data from TCM.

#### TROUBLE SYMPTOM:

Malfunction indicator light illuminates.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is there DTC U1202?	Perform the diagnosis according to DTC.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1222 a current malfunction?	Go to step 2.
		Go to step 3.	Go to step 7.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3</b> <b>CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, 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.
<b>4</b> <b>CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, B231) that are connected to high speed CAN communication line. 3) Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>(B55) No. 17 — (B40) No. 14:</b> <b>(B55) No. 18 — (B40) No. 6:</b>	Is harness normal?	Go to step 5.	Repair or replace the harness.
<b>5</b> <b>CHECK DTC.</b> 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.
<b>6</b> <b>CHECK DTC.</b> Using the Subaru Select Monitor, read all DTCs.	Are U0101 or C0047, C0140 displayed?	Replace the TCM. <Ref. to 4AT-58, Transmission Control Module (TCM).>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
<b>7</b> <b>CHECK HARNESS.</b> 1) Turn the ignition switch to ON. 2) Shake the harness used for CAN communication circuit. 3) Turn the ignition switch to OFF. 4) 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.
<b>8</b> <b>CHECK CONNECTOR.</b> 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 poor contact occurs.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

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

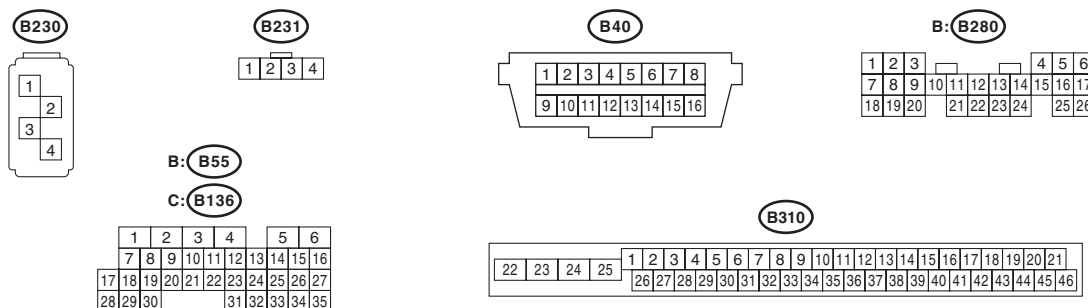
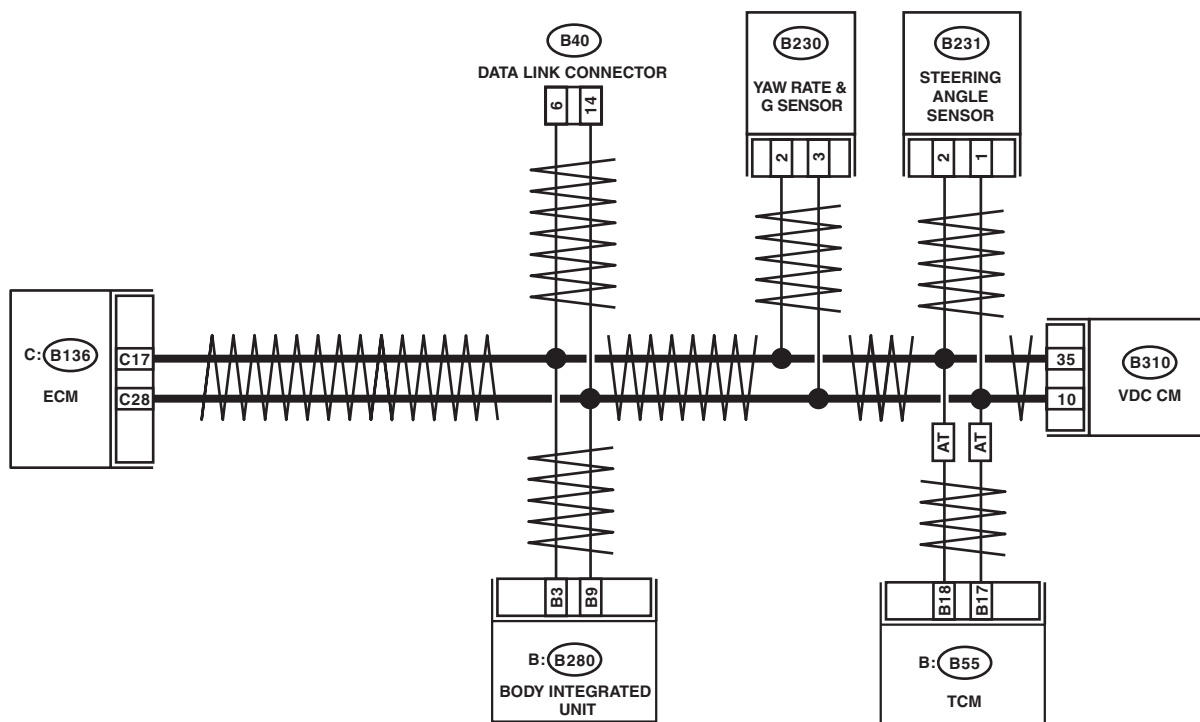
#### DTC DETECTING CONDITION:

Not received data from VDC/ABS CM.

#### TROUBLE SYMPTOM:

ABS warning light and VDC warning light illuminate.

#### WIRING DIAGRAM:



LAN00608

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is there DTC U1202?	Perform the diagnosis according to DTC.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1223 a current malfunction?	Go to step 2. Go to step 7.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3</b> <b>CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, 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.
<b>4</b> <b>CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, B231) that are connected to high speed CAN communication line. 3) Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>(B40) No. 6 — (B310) No. 35:</b> <b>(B40) No. 14 — (B310) No. 10:</b>	Is harness normal?	Go to step 5.	Repair or replace the harness.
<b>5</b> <b>CHECK DTC.</b> 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.
<b>6</b> <b>CHECK DTC.</b> Read all DTCs using the Subaru Select Monitor.	Is P1718 or U0122 displayed?	Replace the VDC/ABS CM. <Ref. to VDC-7, REMOVAL, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
<b>7</b> <b>CHECK HARNESS.</b> 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 U1223 a current malfunction?	Repair or replace the harness.	Go to step 8.
<b>8</b> <b>CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (B280, B310, B55, B136, B230, 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

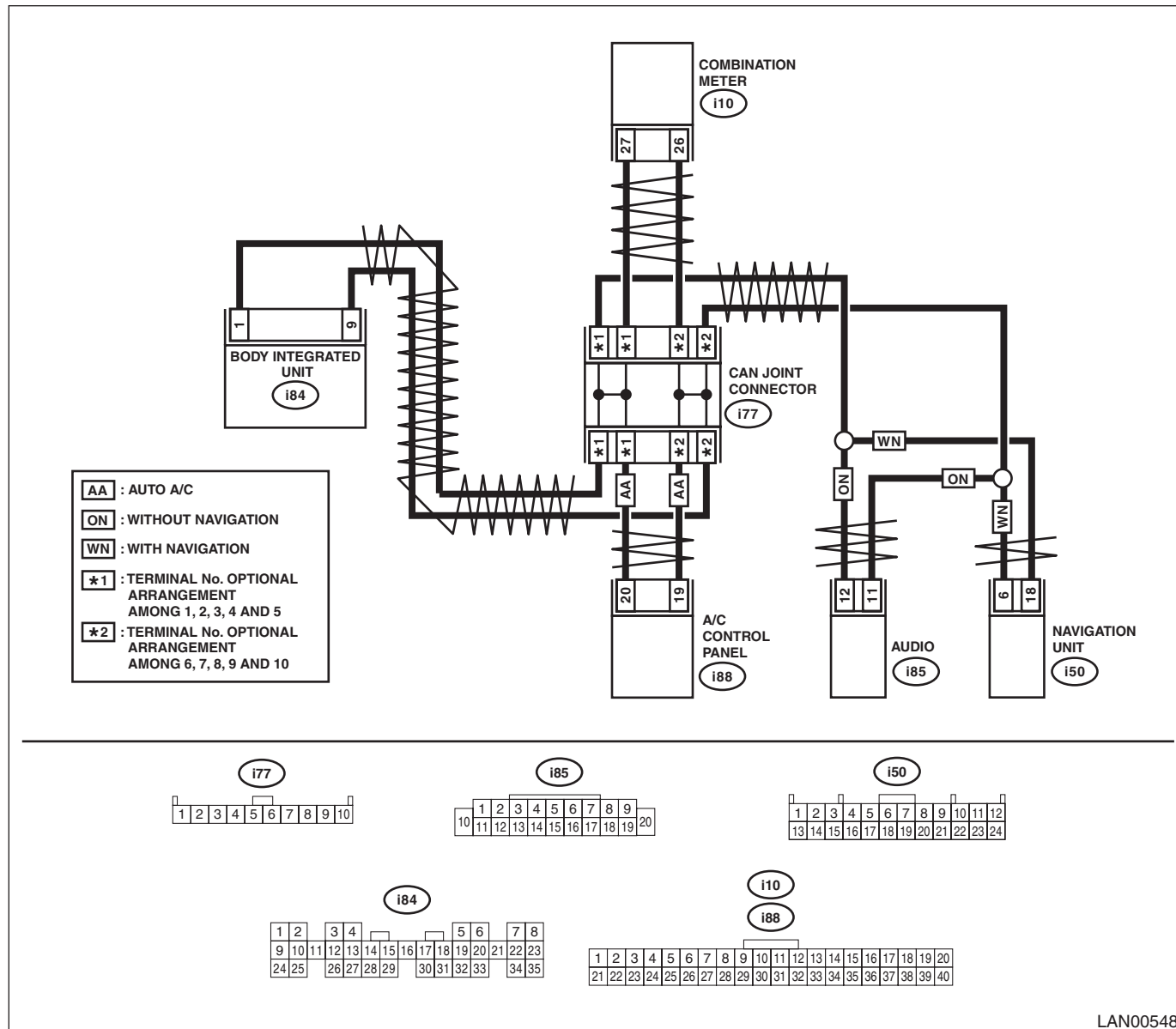
#### DTC DETECTING CONDITION:

Open or short in low speed CAN circuit

#### TROUBLE SYMPTOM:

Low speed CAN communication is not normal.

#### WIRING DIAGRAM:



LAN00548

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Go to step 2.	Go to step 7.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2 CHECK DTC.</b> 1) Disconnect all connectors (i84, i10, i88, i85 or i50) 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.
<b>3 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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). <b>Connector &amp; terminal</b> <i>(i84) No. 1 — (i10) No. 27 (combination meter):</i> <i>(i84) No. 9 — (i10) No. 26 (combination meter):</i> <i>(i84) No. 1 — (i88) No. 20 (auto A/C):</i> <i>(i84) No. 9 — (i88) No. 19 (auto A/C):</i> <i>(i84) No. 1 — (i85) No. 12 (audio):</i> <i>(i84) No. 9 — (i85) No. 11 (audio):</i> <i>(i84) No. 1 — (i50) No. 18 (navigation):</i> <i>(i84) No. 9 — (i50) No. 6 (navigation):</i>	Is harness normal?	Go to step 4.	Repair or replace the harness.
<b>4 CHECK AUDIO OR NAVIGATION.</b> 1) Connect the disconnected connectors. 2) Disconnect the connector of navigation (i85) or audio (i50). 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 audio. <Ref. to ET-6, REMOVAL, Audio.>
<b>5 CHECK AUTO A/C CONTROL MODULE.</b> 1) Turn the ignition switch to OFF. 2) Connect the audio or navigation connectors. 3) Disconnect the auto A/C control module connector (i88). 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-31, REMOVAL, Control Unit (Auto A/C Model).>
<b>6 CHECK BODY INTEGRATED UNIT.</b> 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-14, REMOVAL, Combination Meter.>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
<b>7 CHECK HARNESS.</b> 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.

## Diagnostic Procedure with Diagnostic Trouble Code (DTC)

### LAN SYSTEM (DIAGNOSTICS)

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Step		Check	Yes	No
8	<b>CHECK CONNECTOR.</b> 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 poor contact occurs.

### Q: DTC U1301 CAN-LS COUNTER ABNORMAL

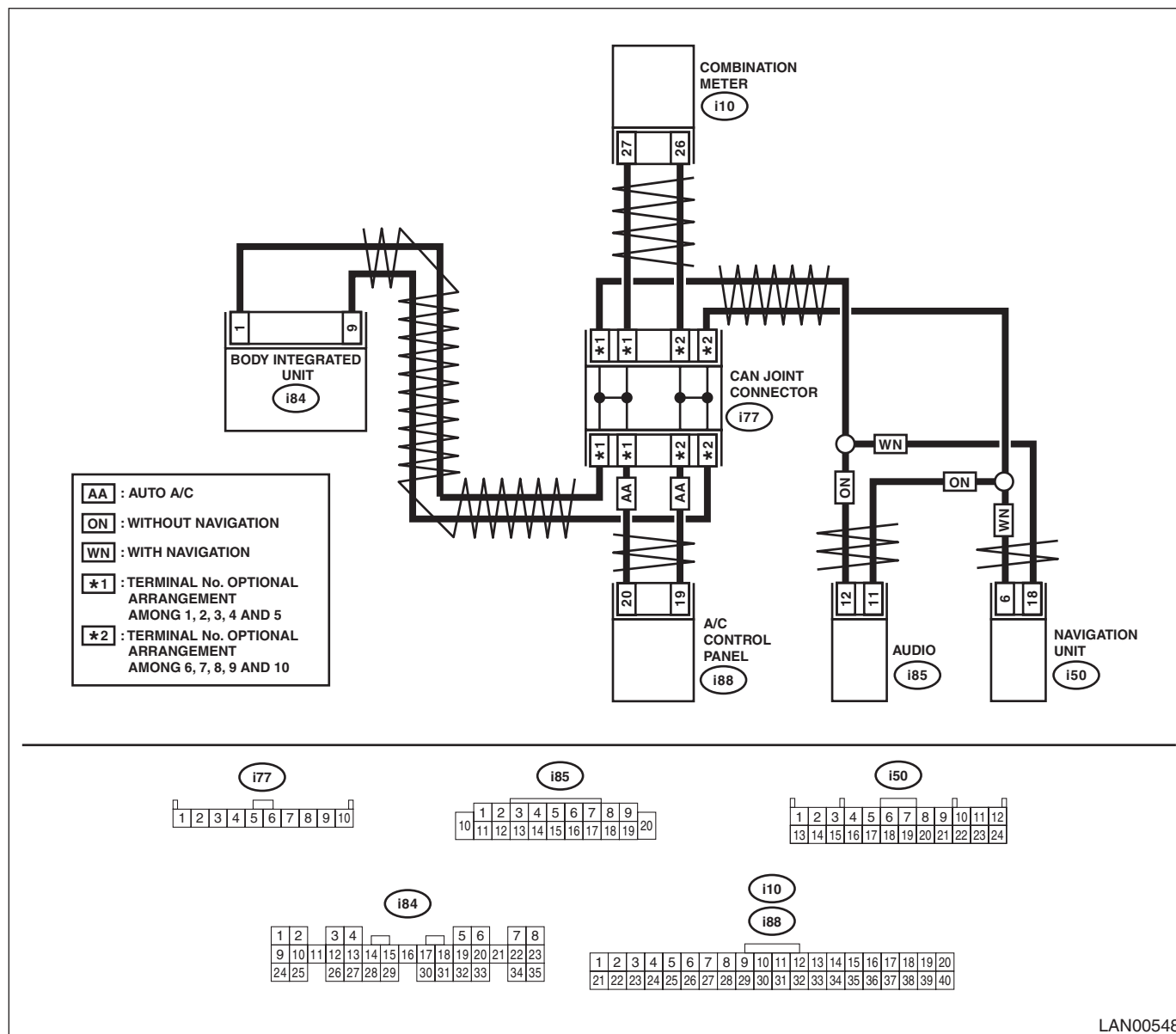
#### DTC DETECTING CONDITION:

Communication is 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:



LAN00548

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Perform the diagnosis according to DTC.	Go to step 2.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Go to step 3.	Go to step 9.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>3 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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.
<b>4 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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). <b>Connector &amp; terminal</b> <i>(i84) No. 1 — (i10) No. 27 (combination meter):</i> <i>(i84) No. 9 — (i10) No. 26 (combination meter):</i> <i>(i84) No. 1 — (i88) No. 20 (auto A/C):</i> <i>(i84) No. 9 — (i88) No. 19 (auto A/C):</i> <i>(i84) No. 1 — (i85) No. 12 (audio):</i> <i>(i84) No. 9 — (i85) No. 11 (audio):</i> <i>(i84) No. 1 — (i50) No. 18 (navigation):</i> <i>(i84) No. 9 — (i50) No. 6 (navigation):</i>	Is harness normal?	Go to step 5.	Repair or replace the harness.
<b>5 CHECK AUDIO OR NAVIGATION.</b> 1) Connect the disconnected connectors. 2) Disconnect the connector of navigation (i85) or audio (i50). 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 audio or navigation. <Ref. to ET-6, REMOVAL, Audio.>
<b>6 CHECK AUTO A/C CONTROL MODULE.</b> 1) Turn the ignition switch to OFF. 2) Connect the audio or navigation module. 3) Disconnect the auto A/C control module connector (i88). 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-31, REMOVAL, Control Unit (Auto A/C Model).>
<b>7 CHECK COMBINATION METER.</b> 1) Turn the ignition switch to OFF. 2) Connect the disconnected connectors. 3) Perform the self-diagnosis of combination meter. <Ref. to IDI-4, SELF-DIAGNOSIS, INSPECTION, Combination Meter System.>	Is the self-diagnosis of combination meter OK?	Go to step 8.	Replace the combination meter. <Ref. to IDI-14, REMOVAL, Combination Meter.>
<b>8 CHECK BODY INTEGRATED UNIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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, REMOVAL, Body Integrated Unit.>	Go to step 9.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>9</b> <b>CHECK HARNESS.</b> 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.
<b>10</b> <b>CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	Temporary poor contact occurs.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

### R: DTC U1302 CAN-LS BUS OFF

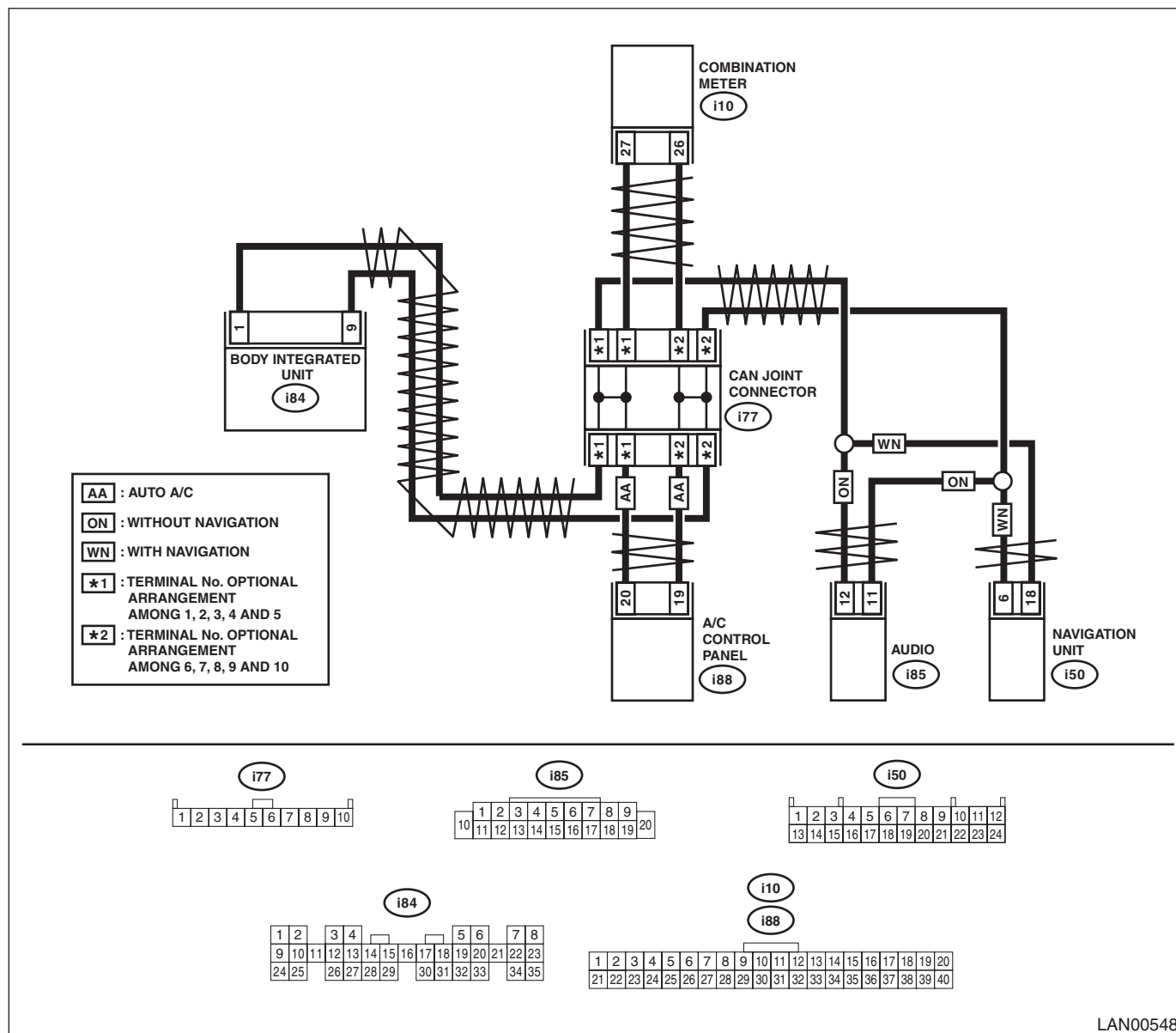
#### DTC DETECTING CONDITION:

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

#### TROUBLE SYMPTOM:

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

#### WIRING DIAGRAM:



LAN00548

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Go to step 2.	Go to step 8.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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.
<b>3 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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). <b>Connector &amp; terminal</b> <i>(i84) No. 1 — (i10) No. 27 (combination meter):</i> <i>(i84) No. 9 — (i10) No. 26 (combination meter):</i> <i>(i84) No. 1 — (i88) No. 20 (auto A/C):</i> <i>(i84) No. 9 — (i88) No. 19 (auto A/C):</i> <i>(i84) No. 1 — (i85) No. 12 (audio):</i> <i>(i84) No. 9 — (i85) No. 11 (audio):</i> <i>(i84) No. 1 — (i50) No. 18 (navigation):</i> <i>(i84) No. 9 — (i50) No. 6 (navigation):</i>	Is harness normal?	Go to step 4.	Repair or replace the harness.
<b>4 CHECK HARNESS.</b> 1) Connect the disconnected connectors. 2) Using the tester, measure the resistance between harness connector and chassis ground. <b>Connector &amp; terminal</b> <i>(i84) No. 1 — Chassis ground:</i> <i>(i84) No. 9 — Chassis ground:</i>	Is the resistance 1 MΩ or more?	Go to step 5.	Go to step 7.
<b>5 CHECK HARNESS.</b> 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between harness connector and chassis ground. <b>Connector &amp; terminal</b> <i>(i84) No. 1 (+) — Chassis ground (-):</i> <i>(i84) No. 9 (+) — Chassis ground (-):</i>	Is the voltage less than 6 V?	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>	Go to step 6.
<b>6 CHECK HARNESS.</b> 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.
<b>7 CHECK HARNESS.</b> 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.
<b>8 CHECK HARNESS.</b> 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 U1302 a current malfunction?	Repair or replace the open, short circuit of the harness.	Go to step 9.



## Diagnostic Procedure with Diagnostic Trouble Code (DTC)

### LAN SYSTEM (DIAGNOSTICS)

Step		Check	Yes	No
9	<b>CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.	Temporary poor contact occurs.

## S: DTC U1311 CAN-LS METER UNIT DATA ABNORMAL

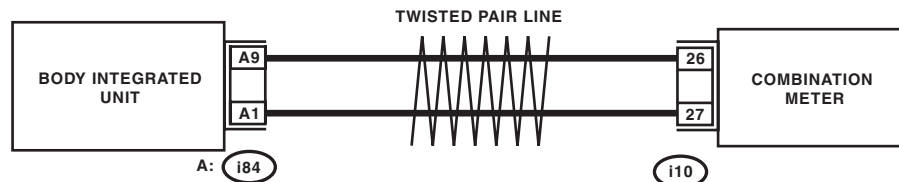
### DTC DETECTING CONDITION:

Received error data from meter.

### TROUBLE SYMPTOM:

Defective data from combination meter occurs.

### WIRING DIAGRAM:



LAN00292

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is DTC U1300 or U1302 displayed?	Perform the diagnosis according to DTC.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1311 a current malfunction?	Go to step 3.
3	<b>CHECK DTC.</b> 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-14, REMOVAL, Combination Meter.>
4	<b>CHECK HARNESS.</b> 1) Turn the ignition switch to ON. 2) Shake the harness used for low speed CAN communication circuit. 3) Turn the ignition switch to OFF. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1311 a current malfunction?	Repair or replace the harness.
5	<b>CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) that are connected to low speed CAN communication line.	Is there poor contact of connector terminal?	Repair the connector terminal, or replace harness.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

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

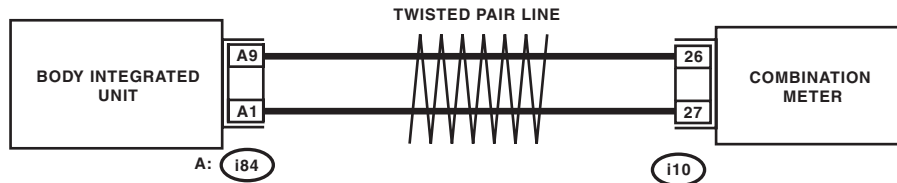
#### DTC DETECTING CONDITION:

Not received data from meter.

#### TROUBLE SYMPTOM:

Engine may not be started.

#### WIRING DIAGRAM:



LAN00292

	Step	Check	Yes	No
1	<b>CHECK ALL DTCs.</b> Read all DTCs using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Is U1300 or U1302 displayed?	Perform the diagnosis according to DTC.	Go to step 2.
2	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1321 a current malfunction?	Go to step 3.	Go to step 7.
3	<b>CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>4 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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). <b>Connector &amp; terminal</b> <i>(i84) No. 1 — (i10) No. 27 (combination meter):</i> <i>(i84) No. 9 — (i10) No. 26 (combination meter):</i> <i>(i84) No. 1 — (i88) No. 20 (auto A/C):</i> <i>(i84) No. 9 — (i88) No. 19 (auto A/C):</i> <i>(i84) No. 1 — (i85) No. 12 (audio):</i> <i>(i84) No. 9 — (i85) No. 11 (audio):</i> <i>(i84) No. 1 — (i50) No. 18 (navigation):</i> <i>(i84) No. 9 — (i50) No. 6 (navigation):</i>	Is harness normal?	Go to step 5.	Repair or replace the harness.
<b>5 CHECK COMBINATION METER.</b> 1) Connect the disconnected connectors. 2) Perform the self-diagnosis of combination meter. <Ref. to IDI-4, SELF-DIAGNOSIS, INSPECTION, Combination Meter System.>	Is the self diagnosis normal?	Go to step 6.	Replace the combination meter. <Ref. to IDI-14, REMOVAL, Combination Meter.>
<b>6 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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, REMOVAL, Body Integrated Unit.>	Go to step 7.
<b>7 CHECK DTC.</b> 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 U1321 a current malfunction?	Repair the poor contact, open circuit of harness or replace harness.	Go to step 8.
<b>8 CHECK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect all connectors (i84, i10, i88, i85 or i50) 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.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## LAN SYSTEM (DIAGNOSTICS)

### U: DTC B1500 KEYLESS UART COM. MALFUNCTION

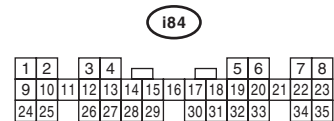
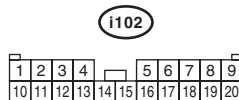
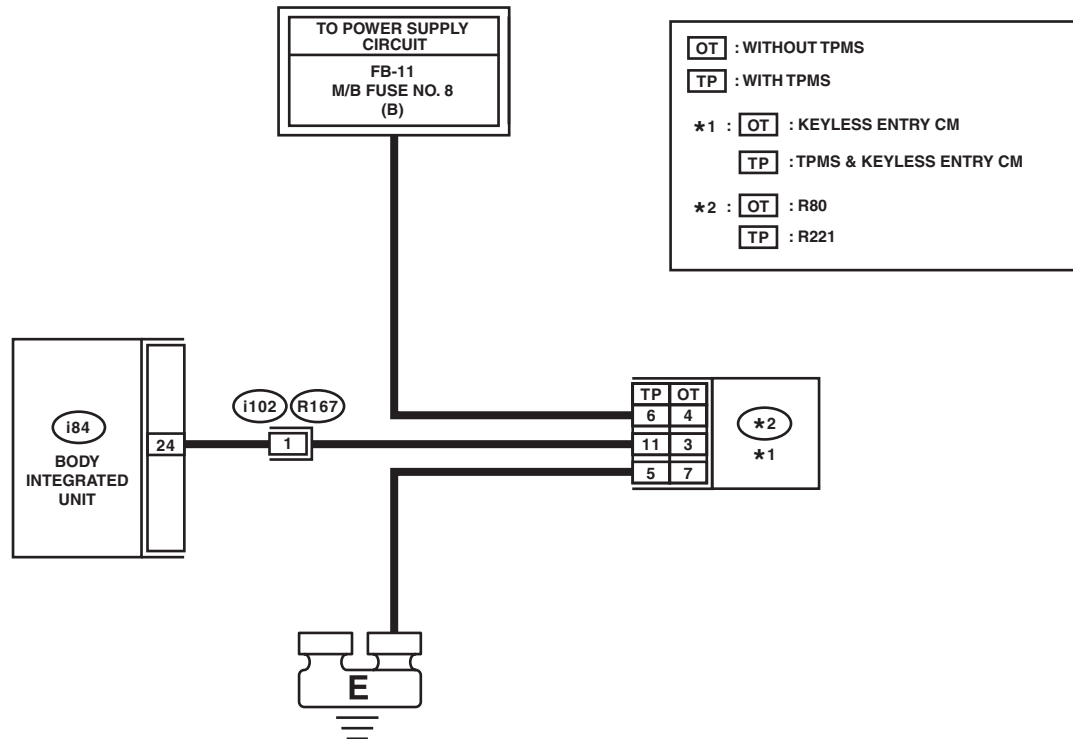
#### DTC DETECTING CONDITION:

Open or short circuit in keyless UART circuit

#### TROUBLE SYMPTOM:

Door lock does not operate with keyless.

#### WIRING DIAGRAM:



LAN00609

Step	Check	Yes	No
1	<b>CHECK DTC.</b> Read the DTC of body integrated unit using Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>	Go to step 2.	Go to step 7.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

LAN SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2 CHECK DTC.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from body integrated unit and 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.
<b>3 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from body integrated unit and keyless entry control module. 3) Using the tester, inspect the open circuit of harness and short (power supply-output short, GND-output short). <b>Connector &amp; terminal</b> <b>Keyless entry CM</b> <b>(i84) No. 24 — (R80) No. 3:</b> <b>TPMS &amp; keyless entry CM</b> <b>(i84) No. 24 — (R221) No. 11:</b>	Is harness normal?	Go to step 4.	Repair or replace the harness.
<b>4 CHECK HARNESS.</b> Using the tester, measure the voltage between keyless entry control module and chassis ground. <b>Connector &amp; terminal</b> <b>Keyless entry CM</b> <b>(R80) No. 4 (+) — Chassis ground (–):</b> <b>TPMS &amp; keyless entry CM</b> <b>(R221) No. 6 (+) — Chassis ground (–):</b>	Is the voltage battery voltage?	Go to step 5.	Check the power supply circuit for keyless entry control module.
<b>5 CHECK HARNESS.</b> Using the tester, measure the resistance between keyless entry control module and chassis ground. <b>Connector &amp; terminal</b> <b>Keyless entry CM</b> <b>(R80) No. 7 — Chassis ground:</b> <b>TPMS &amp; keyless entry CM</b> <b>(R221) No. 5 — Chassis ground:</b>	Is the resistance less than 10 Ω?	Go to step 6.	Repair the open circuit of harness or replace harness.
<b>6 CHECK OPERATION.</b> 1) Install the 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.	Is the door locking operate?	Replace the keyless entry control module. <Ref. to SL-45, REMOVAL, Keyless Entry Control Module.>	Replace the body integrated unit. <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
<b>7 CHECK CONNECTOR.</b> Disconnect the connectors from body integrated unit and keyless entry control module.	Is there poor contact of connector?	Repair the connector, or replace harness.	Temporary poor contact occurs.