

### 13. Diagnostic Procedure for Subaru Select Monitor Communication

#### A: COMMUNICATION FOR INITIALIZING IMPOSSIBLE

##### DIAGNOSIS:

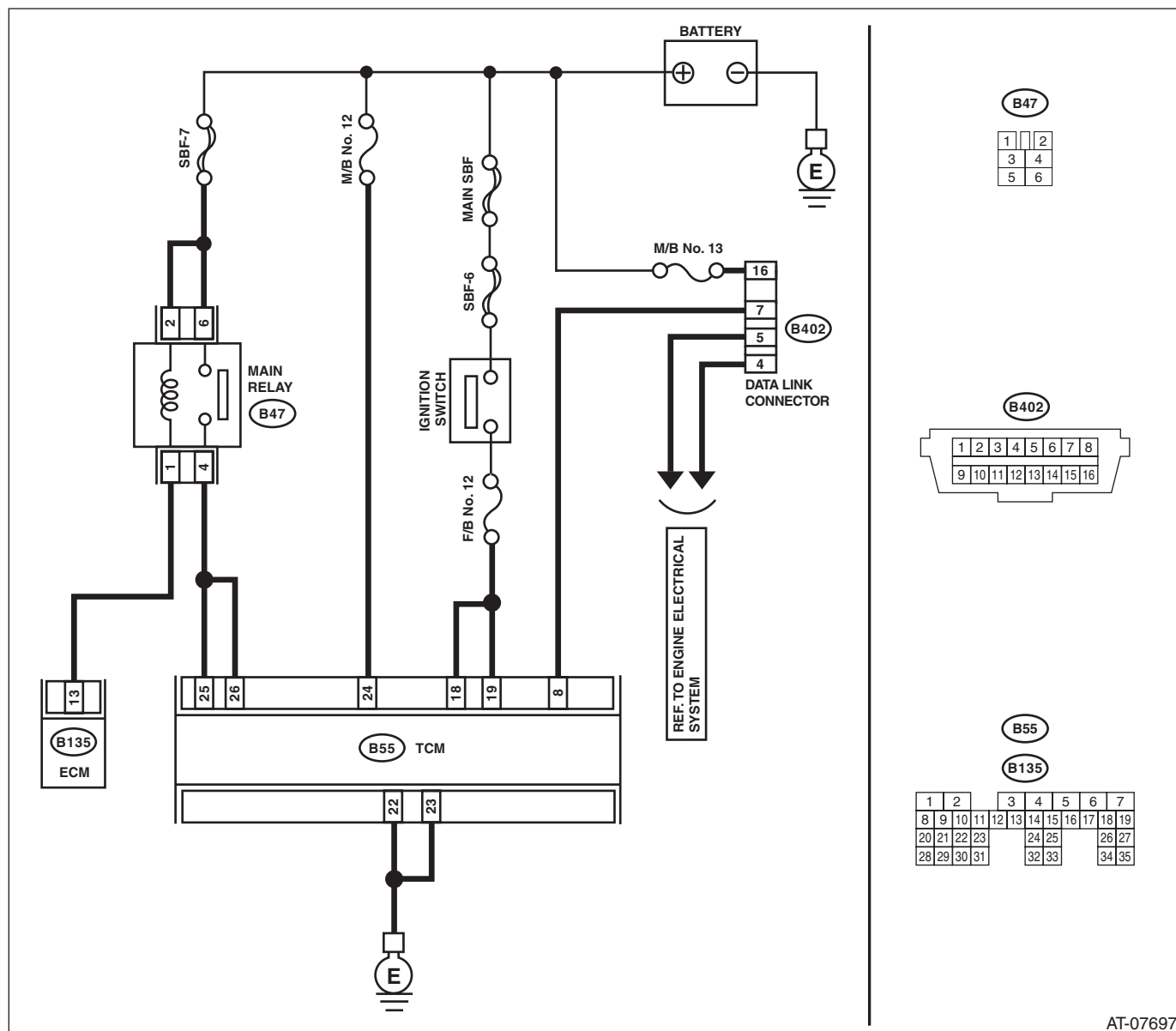
Defective harness connector

##### TROUBLE SYMPTOM:

Subaru Select Monitor communication failure

##### WIRING DIAGRAM:

AT control system <Ref. to WI-50, AT Control System.>



AT-07697

# Diagnostic Procedure for Subaru Select Monitor Communication

## AUTOMATIC TRANSMISSION (DIAGNOSTICS)

Step	Check	Yes	No
<b>1 CHECK SUBARU SELECT MONITOR POWER SUPPLY CIRCUIT.</b> Measure the voltage between data link connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B402) No. 16 (+) — Chassis ground (-):</b>	Is the voltage 10 V or more?	Go to step 2.	Repair harness connector between the battery and data link connector, and poor contact of the connector.
<b>2 CHECK SUBARU SELECT MONITOR GROUND CIRCUIT.</b> Measure the resistance of harness between data link connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B402) No. 4 — Chassis ground:</b> <b>(B402) No. 5 — Chassis ground:</b>	Is the resistance less than 1 $\Omega$ ?	Go to step 3.	Repair the open circuit of harness between data link connector and ground terminal, and poor contact of connector.
<b>3 CHECK COMMUNICATION OF SUBARU SELECT MONITOR.</b> 1) Turn the ignition switch to ON. 2) Check communication with the transmission system using the Subaru Select Monitor.	Is the name of system displayed on Subaru Select Monitor?	Go to step 8.	Go to step 4.
<b>4 CHECK COMMUNICATION OF SUBARU SELECT MONITOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector. 3) Turn the ignition switch to ON. 4) Check communication with the engine system.	Is the name of system displayed on Subaru Select Monitor?	Go to step 6.	Go to step 5.
<b>5 CHECK COMMUNICATION OF SUBARU SELECT MONITOR.</b> 1) Turn the ignition switch to OFF. 2) Connect the TCM connector. 3) Disconnect the ECM connector. 4) Turn the ignition switch to ON. 5) Check communication with the transmission system.	Is the name of system displayed on Subaru Select Monitor?	Inspect the ECM.	Go to step 6.
<b>6 CHECK HARNESS CONNECTOR BETWEEN EACH CONTROL MODULE AND DATA LINK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and ECM connector. 3) Measure the resistance between TCM connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B402) No. 7 — Chassis ground:</b>	Is the resistance 1 M $\Omega$ or more?	Go to step 7.	Check harness and connector between each control module and data link connector.
<b>7 CHECK OUTPUT SIGNAL OF TCM.</b> 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM and chassis ground. <b>Connector &amp; terminal</b> <b>(B402) No. 7 (+) — Chassis ground (-):</b>	Is the voltage 1 V or more?	Check harness and connector between each control module and data link connector.	Go to step 8.
<b>8 CHECK HARNESS CONNECTOR BETWEEN TCM AND DATA LINK CONNECTOR.</b> Measure the resistance between TCM connector and data link connector. <b>Connector &amp; terminal</b> <b>(B55) No. 8 — (B402) No. 7:</b>	Is the resistance less than 1 $\Omega$ ?	Go to step 9.	Check the harness and connector between TCM and data link connector.
<b>9 CHECK INSTALLATION OF TCM CONNECTOR.</b> Turn the ignition switch to OFF.	Is TCM connector connected to TCM?	Go to step 10.	Connect the TCM connector to TCM.

# Diagnostic Procedure for Subaru Select Monitor Communication

## AUTOMATIC TRANSMISSION (DIAGNOSTICS)

Step	Check	Yes	No
<b>10</b> <b>CHECK INSTALLATION OF TRANSMISSION HARNESS CONNECTOR.</b>	Is the transmission harness connector connected to bulk-head harness connector?	Go to step 11.	Connect the bulk-head harness connector to transmission harness connector.
<b>11</b> <b>CHECK POOR CONTACT OF CONNECTORS.</b>	Is there poor contact of control module power supply and data link connector?	Repair the poor contact.	Go to step 12.
<b>12</b> <b>CHECK POWER SUPPLY OF TCM.</b> 1) Disconnect the connector from TCM. 2) Turn the ignition switch to ON. 3) Measure the voltage between TCM connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B55) No. 24 (+) — Chassis ground (–):</b> <b>(B55) No. 25 (+) — Chassis ground (–):</b> <b>(B55) No. 26 (+) — Chassis ground (–):</b>	Is the voltage 10 — 13 V?	Go to step 15.	Go to step 13.
<b>13</b> <b>CHECK FUSE (M/B NO. 12).</b> 1) Turn the ignition switch to OFF. 2) Remove the fuse (M/B No. 12).	Is the fuse (M/B No. 12) blown out?	Replace the fuse (M/B No. 12).	Go to step 14.
<b>14</b> <b>CHECK HARNESS.</b> Measure the resistance between TCM connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B55) No. 24 — Chassis ground:</b> <b>(B55) No. 25 — Chassis ground:</b> <b>(B55) No. 26 — Chassis ground:</b>	Is the resistance 10 $\Omega$ or less?	Replace the fuse (No. 12). If the replaced fuse (No. 12) blows out easily, repair the short circuit of harness between fuse (No. 12) and TCM.	Go to step 15.
<b>15</b> <b>CHECK IGNITION POWER SUPPLY CIRCUIT.</b> 1) Turn the ignition switch to ON (engine OFF). 2) Measure the ignition power supply voltage between TCM connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B55) No. 18 (+) — Chassis ground (–):</b> <b>(B55) No. 19 (+) — Chassis ground (–):</b>	Is the voltage 10 — 13 V?	Go to step 17.	Go to step 16.
<b>16</b> <b>CHECK FUSE (F/B NO. 12).</b> Remove the fuse (F/B No. 12).	Is the fuse (F/B No. 12) blown out?	Replace the fuse (F/B No. 12). If the replaced fuse (F/B No. 12) blows out easily, repair the short circuit of harness between fuse (F/B No. 12) and TCM.	Go to step 17.
<b>17</b> <b>CHECK HARNESS CONNECTOR BETWEEN TCM AND TRANSMISSION.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the connector from TCM. 3) Measure the resistance of the harness between TCM and transmission ground. <b>Connector &amp; terminal</b> <b>(B55) No. 22 — Transmission ground:</b> <b>(B55) No. 23 — Transmission ground:</b>	Is the resistance 1 M $\Omega$ or more?	Repair the short circuit of harness between TCM and transmission harness connector, and poor contact of connector.	Go to step 18.
<b>18</b> <b>CHECK POOR CONTACT OF CONNECTORS.</b>	Is there poor contact of TCM power supply, ground and data link connector?	Repair the connector.	Replace the TCM. <Ref. to 5AT-54, Transmission Control Module (TCM).>