16.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC P0500 VEHICLE SPEED SENSOR “A”

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-6, DTC P0500 VEHICLE SPEED SENSOR “A”, Diagnostic Trouble Code (DTC) Detecting Criteria.>

NOTE:
Refer to the “ENGINE (DIAGNOSTICS)” for diagnostic procedure. <Ref. to EN(H4DO HEV)(diag)-254, DTC P0500 VEHICLE SPEED SENSOR “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

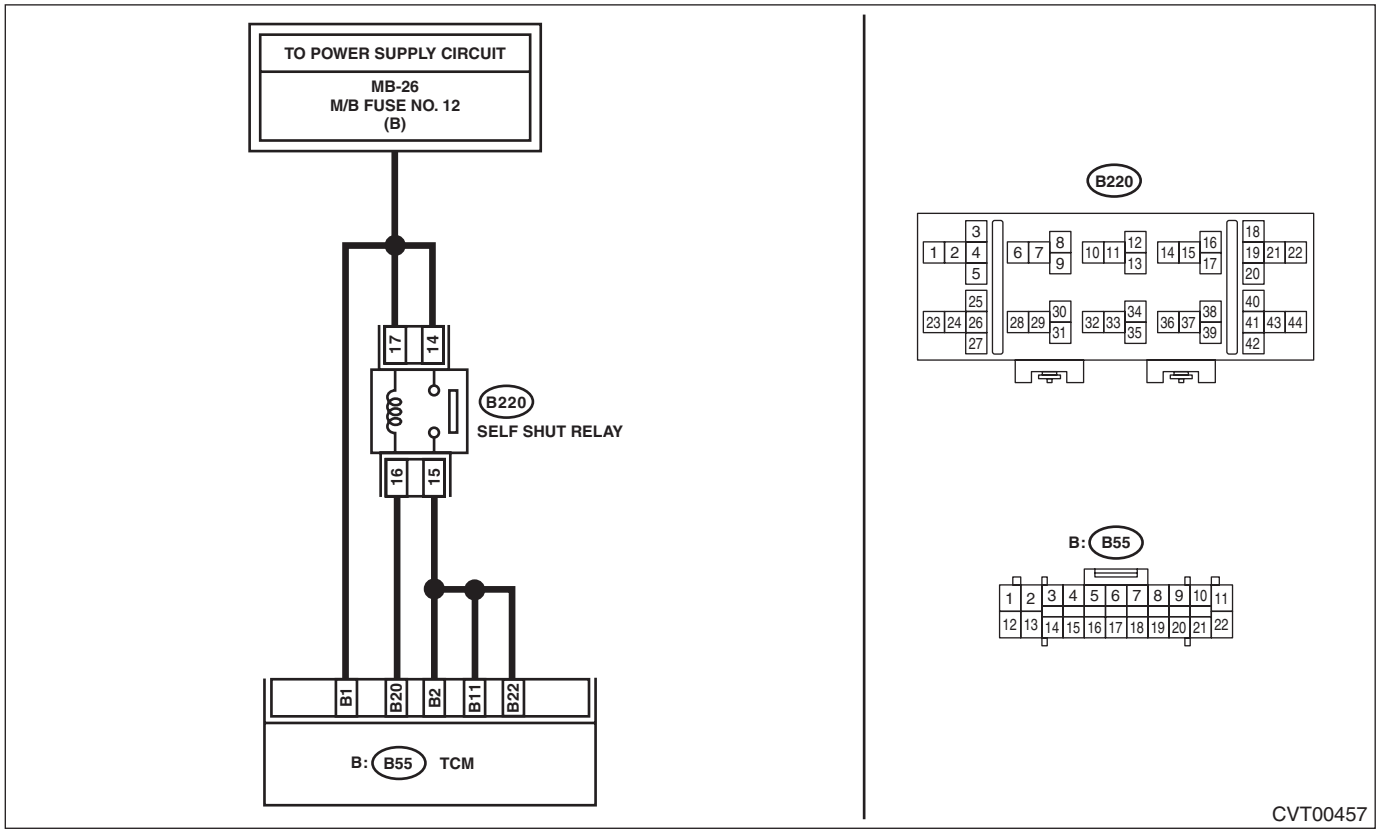
B: DTC P0560 SYSTEM VOLTAGE

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-7, DTC P0560 SYSTEM VOLTAGE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK FUSE.** Remove the fuse (M/B No. 12).	Is the fuse blown out?	Replace the fuse. If the replaced fuse has blown out easily, repair short circuit of harness between fuse and TCM.	Go to step **2**.
2	**CHECK BACKUP POWER SUPPLY.** Read the data of «System Voltage» using the Subaru Select Monitor.	Is the voltage 10 — 13 V?	Current condition is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the TCM connector. 2) Measure the resistance of harness between TCM and fuse (M/B No. 12). ***Connector & terminal*** ***(B55) No. 1 — fuse (M/B No. 12):***	Is the resistance less than 1 Ω?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Repair the open circuit of harness.

C: DTC P0601 INTERNAL CONTROL MODULE MEMORY CHECKSUM ERROR

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-8, DTC P0601 INTERNAL CONTROL MODULE MEMORY CHECKSUM ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

TCM ROM malfunction

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Perform the Clear Memory Mode using the Subaru Select Monitor. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Read the DTC.	Is DTC P0601 displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Current condition is normal. Check for interference from noise, etc.

D: DTC P0603 INTERNAL CONTROL MODULE KEEP ALIVE MEMORY (KAM) ERROR

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-9, DTC P0603 INTERNAL CONTROL MODULE KEEP ALIVE MEMORY (KAM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

TCM back-up RAM malfunction

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Perform the Clear Memory Mode using the Subaru Select Monitor. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Read the DTC.	Is DTC P0603 displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Current condition is normal. Check for interference from noise, etc.

E: DTC P0604 INTERNAL CONTROL MODULE RANDOM ACCESS MEMORY (RAM) ERROR

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-10, DTC P0604 INTERNAL CONTROL MODULE RANDOM ACCESS MEMORY (RAM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

TCM RAM malfunction

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Perform the Clear Memory Mode using the Subaru Select Monitor. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Read the DTC.	Is DTC P0604 displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Current condition is normal. Check for interference from noise, etc.

F: DTC P062F INTERNAL CONTROL MODULE EEPROM ERROR

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-11, DTC P062F INTERNAL CONTROL MODULE EEPROM ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- AT learning is not finished.
- Shock occurs when selecting N → D, N → R.
- Shock occurs when the vehicle starts to move after power generation at stand still.

	Step	Check	Yes	No
1	**CHECK TCM CONNECTOR.**	Is there improper connection of TCM connector?	Connect the TCM connector.	Go to step **2**.
2	**CHECK SELF SHUT RELAY.** Turn the ignition switch to ON.	Does the relay operates simultaneously?	Go to step **3**.	Perform the diagnosis according to DTC P0890.
3	**CHECK SELF SHUT RELAY.** Turn the ignition switch to OFF.	Does the relay operate after two or three seconds delay?	Go to step **4**.	Perform the diagnosis according to DTC P0890.
4	**PERFORM AT LEARNING.** 1) Perform {Clear AT learning value}. 2) Perform the AT learning. <Ref. to CVT(HEV)(diag)-26, Learning Control.> 3) Start the engine.	Does the AT OIL TEMP light blink after AT learning is finished correctly?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **5**.
5	**CHECK DTC DISPLAY.** 1) Perform the Clear Memory Mode. 2) Turn the ignition switch to OFF. 3) Start the engine after 10 seconds. 4) Repeat steps 2) and 3).	Does the AT OIL TEMP light blink and is DTC P1724 detected?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Current condition is normal. Check for poor contact of TCM connector or harness.

G: DTC P0705 TRANSMISSION RANGE SENSOR CIRCUIT (PRNDL INPUT)

DTC DETECTING CONDITION:

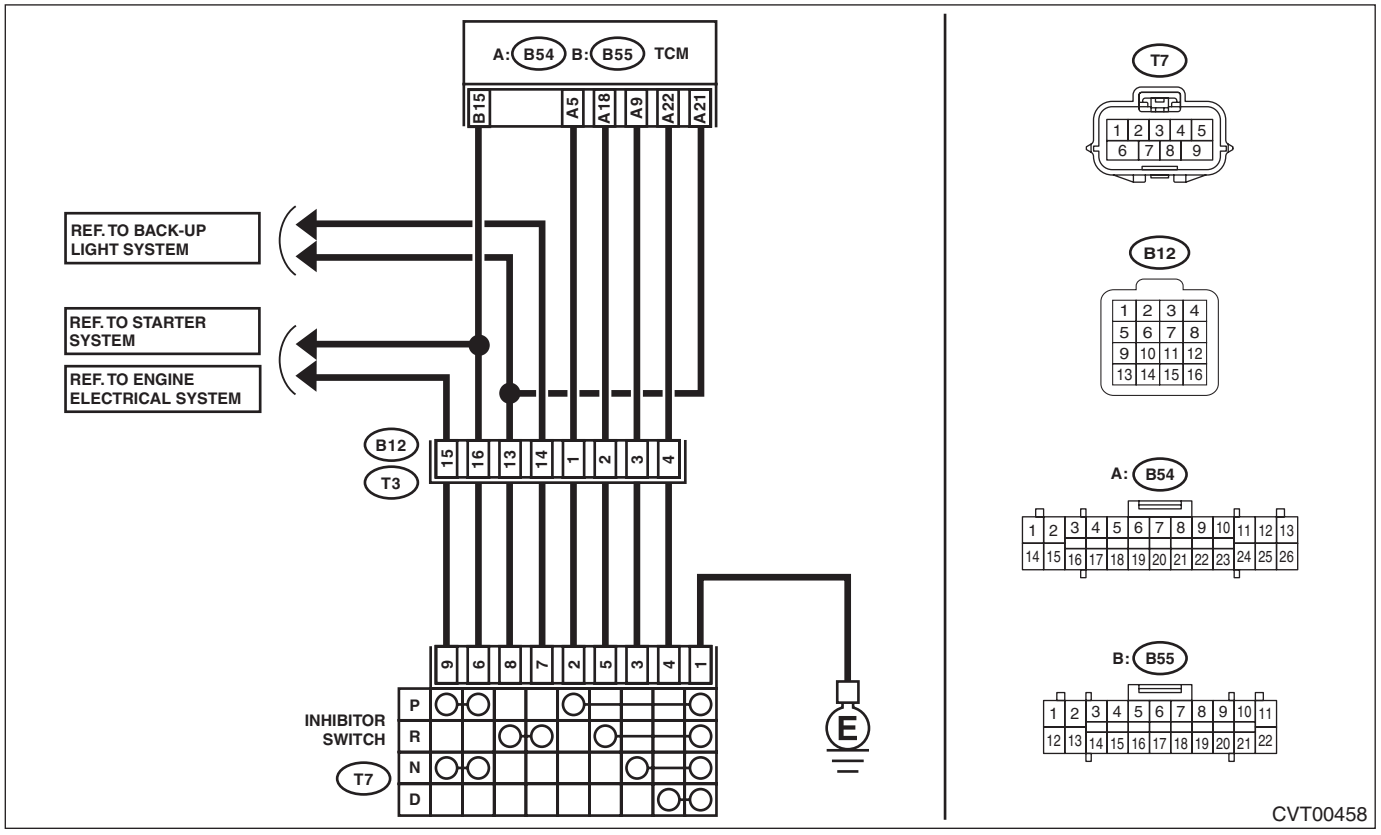
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-12, DTC P0705 TRANSMISSION RANGE SENSOR CIRCUIT (PRNDL INPUT), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shift characteristics are erroneous.
- The range position of the select lever and the position of shift indicator display do not match.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Turn the ignition switch to ON. 2) Move the select lever to each range, and read the data of «P Range», «R Range», «N Range», «D Range», «N/P Range Signal», «R Range Signal2» using the Subaru Select Monitor.	Is display “OFF” for the range other than corresponding range?	Go to step **5**.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 5 — Chassis ground:*** ***(B54) No. 18 — Chassis ground:*** ***(B54) No. 9 — Chassis ground:*** ***(B54) No. 21 — Chassis ground:*** ***(B55) No. 15 — Chassis ground:*** ***(B54) No. 22 — Chassis ground:***	Is each resistance 1 MΩ or more?	Go to step **3**.	Repair the short circuit of body harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** 1) Disconnect the inhibitor switch connector. 2) Measure the resistance between transmission connector and chassis ground. ***Connector & terminal*** ***(T3) No. 1 — Chassis ground:*** ***(T3) No. 2 — Chassis ground:*** ***(T3) No. 3 — Chassis ground:*** ***(T3) No. 4 — Chassis ground:*** ***(T3) No. 13 — Chassis ground:*** ***(T3) No. 16 — Chassis ground:***	Is each resistance 1 MΩ or more?	Go to step **4**.	Repair the short circuit of transmission harness.
4	**CHECK INHIBITOR SWITCH.** Move the select lever to each range, and measure the resistance between inhibitor switch connector terminals. ***Terminals*** ***No. 2 — No. 1:*** ***No. 5 — No. 1:*** ***No. 3 — No. 1:*** ***No. 4 — No. 1:*** ***No. 6 — No. 1:*** ***No. 8 — No. 1:***	Is the resistance other than corresponding range 1 MΩ or more?	Go to step **5**.	Replace the inhibitor switch. <Ref. to CVT(TH58A)-97, Inhibitor Switch.>
5	**CHECK FOR POOR CONTACT.**	Is there poor contact between TCM, inhibitor switch, transmission ground?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

H: DTC P0708 AT RANGE SWITCH NOT INPUTTED

DTC DETECTING CONDITION:

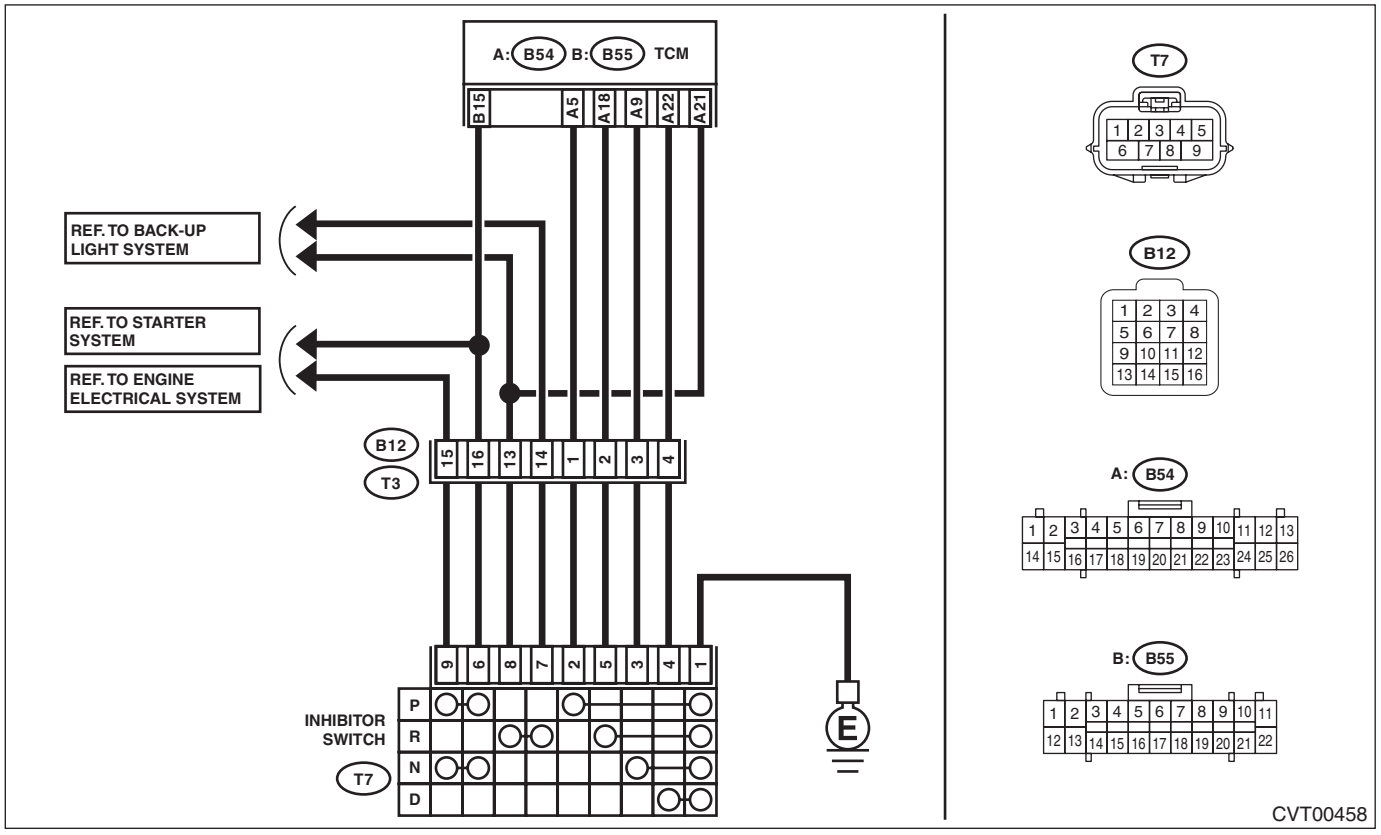
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-13, DTC P0708 AT RANGE SWITCH NOT INPUTTED, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shift characteristics are erroneous.
- The range position of the select lever and the position of shift indicator display do not match.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Turn the ignition switch to ON. 2) Move the select lever to each range, and read the data of «P Range», «R Range», «N Range», «D Range», «N/P Range Signal», «R Range Signal2» using the Subaru Select Monitor.	Is the display of the corresponding range “ON”?	Go to step **7**.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance of harness between TCM connector and transmission connector. ***Connector & terminal*** ***(B54) No. 5 — (B12) No. 1:*** ***(B54) No. 18 — (B12) No. 2:*** ***(B54) No. 9 — (B12) No. 3:*** ***(B54) No. 22 — (B12) No. 4:*** ***(B54) No. 21 — (B12) No. 13:*** ***(B55) No. 15 — (B12) No. 16:***	Is each resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of body harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Measure the resistance of harness between inhibitor switch connector and transmission ground. ***Connector & terminal*** ***(T7) No. 1 — Transmission ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the open circuit of harness.
4	**CHECK HARNESS.** 1) Disconnect the inhibitor switch connector. 2) Measure the resistance between transmission connector and inhibitor switch connector. ***Connector & terminal*** ***(T3) No. 1 — (T7) No. 2:*** ***(T3) No. 2 — (T7) No. 5:*** ***(T3) No. 3 — (T7) No. 3:*** ***(T3) No. 4 — (T7) No. 4:*** ***(T3) No. 13 — (T7) No. 8:*** ***(T3) No. 16 — (T7) No. 6:***	Is each resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of transmission harness.
5	**CHECK INHIBITOR SWITCH.** Move the select lever to each range, and measure the resistance between inhibitor switch connector terminals. ***Terminals*** ***No. 2 — No. 1:*** ***No. 5 — No. 1:*** ***No. 3 — No. 1:*** ***No. 4 — No. 1:*** ***No. 8 — No. 1:*** ***No. 6 — No. 1:***	Is the resistance of the corresponding range less than 1 MΩ?	Go to step **6**.	Replace the inhibitor switch. <Ref. to CVT(TH58A)-97, Inhibitor Switch.>
6	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between each connector and chassis ground. ***Connector & terminal*** ***Transmission connector (B12 side)*** ***(B12) No. 1 (+) — Chassis ground (–):*** ***(B12) No. 2 (+) — Chassis ground (–):*** ***(B12) No. 3 (+) — Chassis ground (–):*** ***(B12) No. 4 (+) — Chassis ground (–):*** ***(B12) No. 13 (+) — Chassis ground (–):*** ***(B12) No. 16 (+) — Chassis ground (–):*** ***Transmission connector (T7 side)*** ***(T7) No. 2 (+) — Chassis ground (–):*** ***(T7) No. 5 (+) — Chassis ground (–):*** ***(T7) No. 3 (+) — Chassis ground (–):*** ***(T7) No. 4 (+) — Chassis ground (–):*** ***(T7) No. 8 (+) — Chassis ground (–):*** ***(T7) No. 6 (+) — Chassis ground (–):***	Is each voltage less than 1 V?	Go to step **7**.	Repair the harness which outputs 1 V or more.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact between TCM, inhibitor switch, transmission ground?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

I: DTC P0711 ATF TEMP. SENSOR CIRCUIT RANGE/PERFORMANCE

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-14, DTC P0711 ATF TEMP. SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

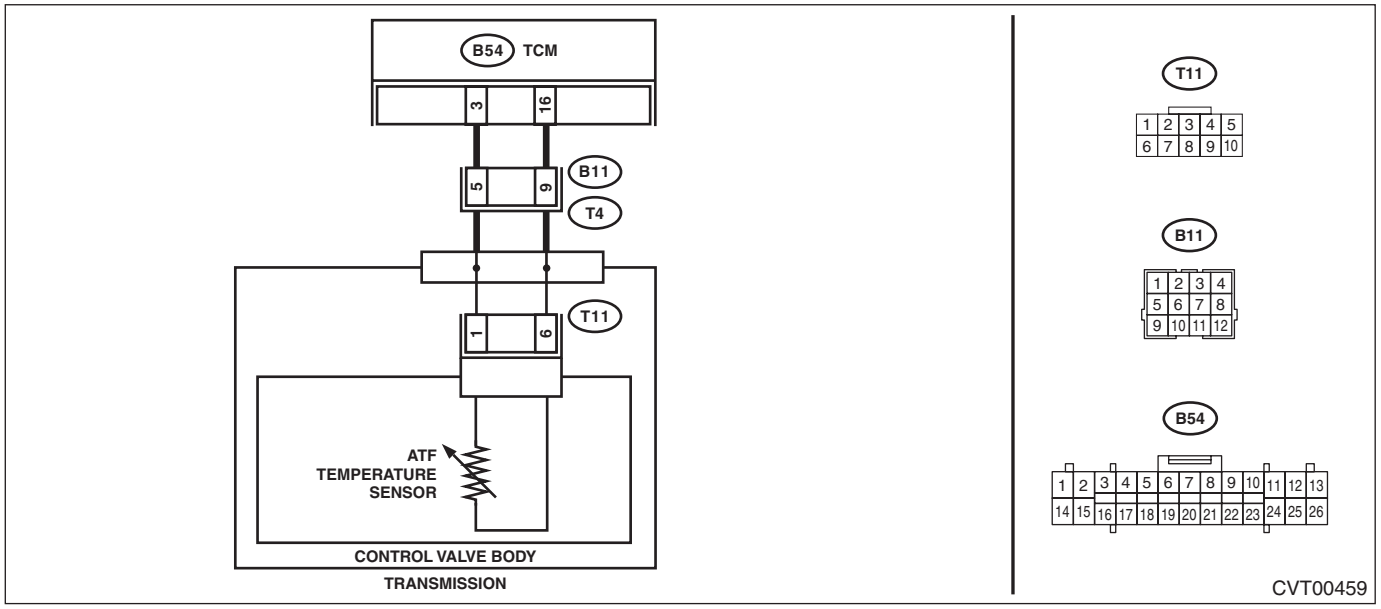
Excessive shift shock

CAUTION:

After diagnosis, perform Clear Memory Mode for each system.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Check the DTC using Subaru Select Monitor.	Is DTC P0712 or P0713 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK TRANSMISSION FLUID.** Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **3**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
3	**CHECK INPUT SIGNAL FOR TCM.** Check «ATF Temp.» using the Subaru Select Monitor.	Is «ATF Temp.» less than 20°C (68°F)?	Go to step **4**.	Reconfirm after the ATF temperature drops below 20°C (68°F).
4	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Apply the electronic parking brake. 3) Start the engine. 4) Set the select lever to “D” range. 5) Warm up the engine until the ATF temperature reaches 20°C (68°F). 6) Read the data of «ATF Temp.» using the Subaru Select Monitor.	Does «ATF Temp.» increase by 1°C (1.8°F) within 10 minutes?	Current condition is normal.	Go to step **5**.

	Step	Check	Yes	No
5	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 3 — (B11) No. 5:*** ***(B54) No. 16 — (B11) No. 9:***	Is the resistance less than 1 Ω?	Go to step **6**.	Check for poor contact of the ATF temperature sensor and transmission connector harness, and repair the defective part.
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the connector to TCM. (with the transmission connector disconnected) 2) Turn the ignition switch to ON. 3) Read the data of «ATF Temp.» using the Subaru Select Monitor.	Is –50°C (–58°F) displayed in «ATF Temp.»?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

J: DTC P0712 TRANSMISSION FLUID TEMPERATURE SENSOR CIRCUIT LOW INPUT

DTC DETECTING CONDITION:

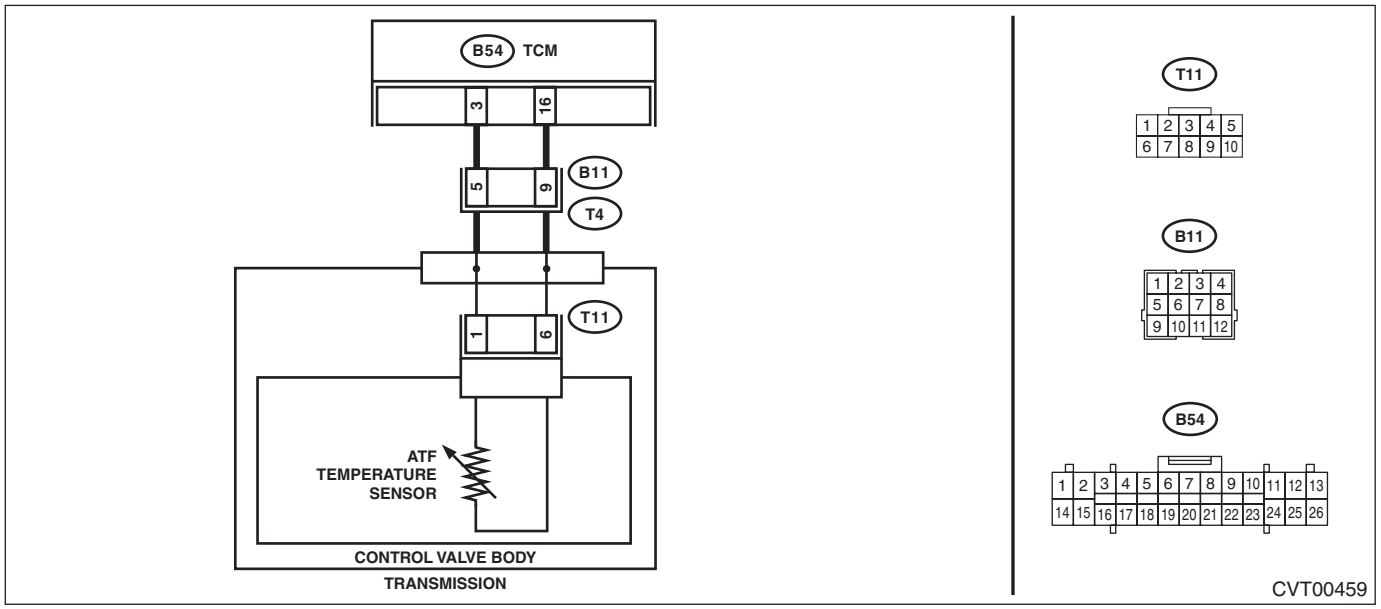
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-15, DTC P0712 TRANSMISSION FLUID TEMPERATURE SENSOR CIRCUIT LOW INPUT, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Excessive shift shock
- Shift characteristics malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector. 3) Measure the resistance of harness between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 3 — Chassis ground:*** ***(B54) No. 16 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the transmission connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 5 — Transmission body:*** ***(T4) No. 9 — Transmission body:***	Is the resistance 1 MΩ or more?	Repair the short circuit of body harness.	Go to step **3**.
3	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK ATF TEMPERATURE SENSOR.** Measure the resistance between transmission connector terminals. ***Connector & terminal*** ***(T11) No. 1 — No. 6:*** NOTE: Perform the measurement under multiple oil temperatures.	Is resistance as follows? Fluid temperature 0°C → Approx. 6.0 kΩ Fluid temperature 20°C → Approx. 2.5 kΩ Fluid temperature 80°C → Approx. 330 Ω	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>

K: DTC P0713 TRANSMISSION FLUID TEMPERATURE SENSOR CIRCUIT HIGH INPUT

DTC DETECTING CONDITION:

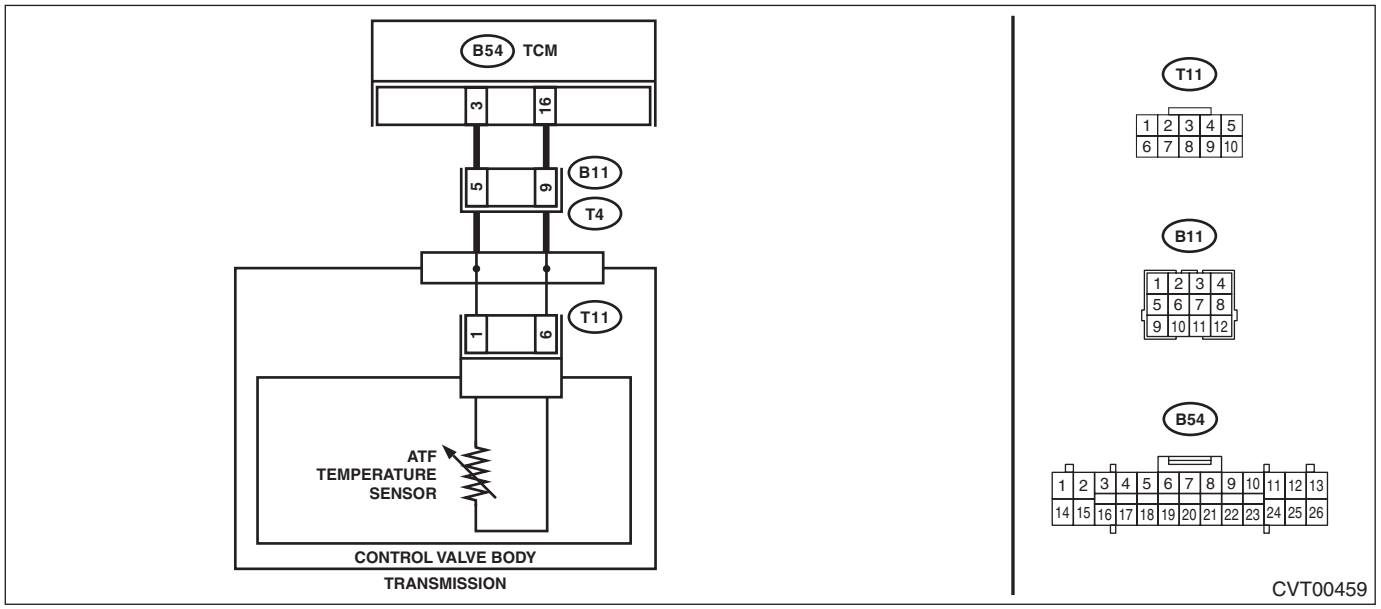
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-16, DTC P0713 TRANSMISSION FLUID TEMPERATURE SENSOR CIRCUIT HIGH INPUT, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Excessive shift shock
- Shift characteristics malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connectors. ***Connector & terminal*** ***(B54) No. 3 (+) — (B54) No. 16 (–):***	Is the voltage 5 V or more?	Repair the short circuit of harness.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 3 — (B11) No. 5:*** ***(B54) No. 16 — (B11) No. 9:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of body harness.
3	**CHECK ATF TEMPERATURE SENSOR.** Measure the resistance between transmission connector terminals. ***Connector & terminal*** ***(T4) No. 5 — No. 9:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Go to step **5**.

	Step	Check	Yes	No
4	**CHECK HARNESS.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Measure the resistance between transmission connector and control valve body connector. ***Connector & terminal*** ***(T4) No. 5 — (T11) No. 1:*** ***(T4) No. 9 — (T11) No. 6:***	Is the resistance less than 1 Ω?	Repair the open circuit of transmission harness on the control valve side.	Repair the open circuit of transmission harness on the outside of the transmission.
5	**CHECK ATF TEMPERATURE SENSOR.** 1) Connect the connectors to TCM and transmission. 2) Start the engine. 3) Warm up until the ATF temperature exceeds 50°C (122°F). 4) Turn the ignition switch to OFF. 5) Disconnect the transmission connector. 6) Measure the resistance between transmission connector terminals. ***Connector & terminal*** ***(T4) No. 5 — No. 9:***	Is the resistance 650 — 990 Ω?	Go to step **6**.	Go to step **8**.
6	**CHECK ATF TEMPERATURE SENSOR.** Measure the resistance between transmission connector terminals. ***Connector & terminal*** ***(T4) No. 5 — No. 9:***	Does the resistance value increase gradually while the ATF temperature decreases?	Go to step **7**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the transmission connector. 2) Turn the ignition switch to ON. (Do not start engine.) 3) Read the data of «ATF Temp.» using the Subaru Select Monitor.	Does the ATF temperature gradually decrease?	Check for poor contact of the ATF temperature sensor and transmission connector harness, and repair the defective part.	Go to step **8**.
8	**CHECK FOR POOR CONTACT.**	Is there poor contact of ATF temperature sensor circuit?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

L: DTC P0716 TORQUE CONVERTER TURBINE SPEED

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-17, DTC P0716 TORQUE CONVERTER TURBINE SPEED, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shock occurs when selecting shift position.
- Shift characteristics malfunction

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0716, is DTC U0100 or U0401 displayed?	Perform the diagnosis according to DTCs other than P0716.	Perform the diagnosis according to DTC P0717. <Ref. to CVT(HEV)(diag)-57, DTC P0717 INPUT/TURBINE SPEED SENSOR "A" CIRCUIT NO SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

M: DTC P0717 INPUT/TURBINE SPEED SENSOR "A" CIRCUIT NO SIGNAL

DTC DETECTING CONDITION:

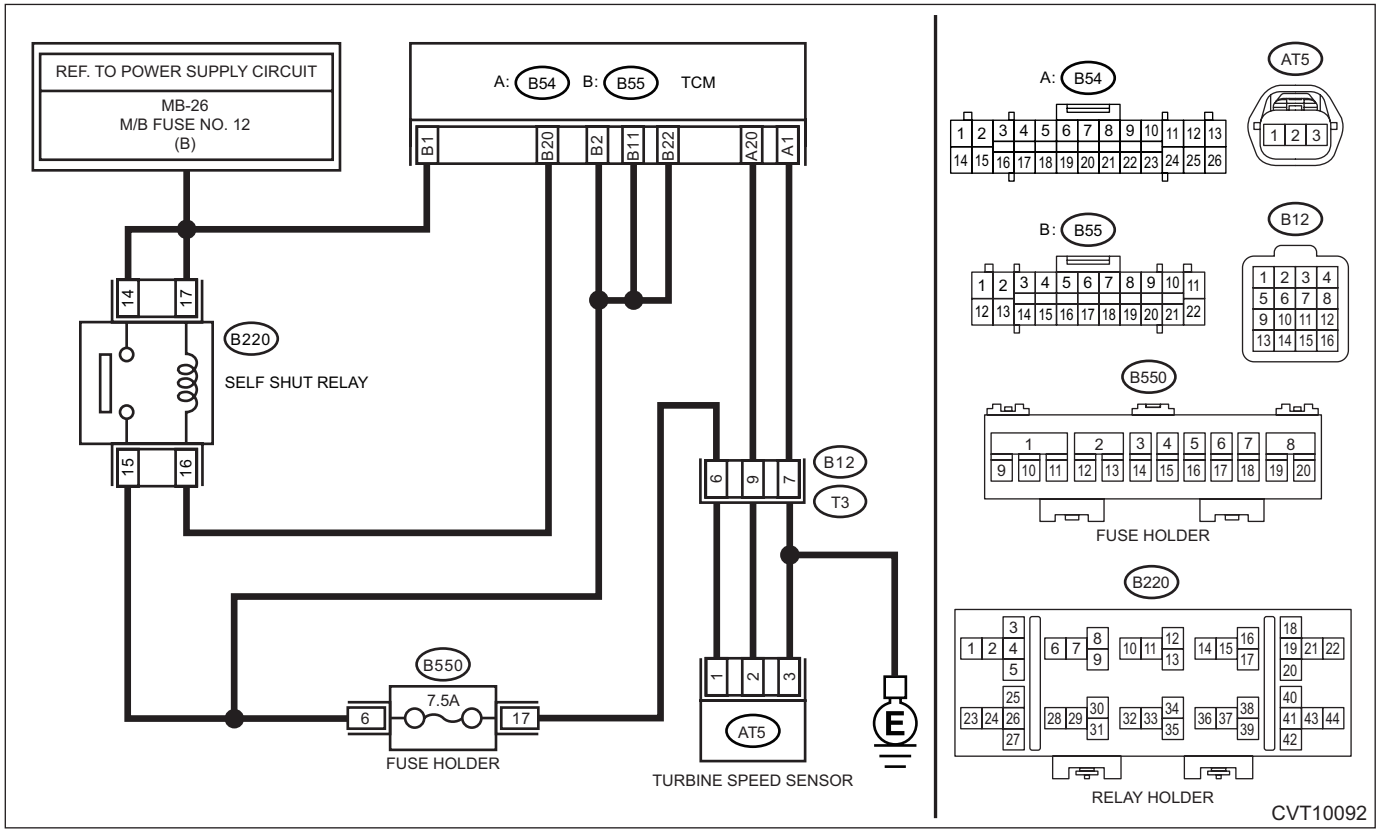
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-18, DTC P0717 INPUT/TURBINE SPEED SENSOR "A" CIRCUIT NO SIGNAL, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Standing start problems
- Shock occurs when engaging the lockup clutch.
- Shock occurs when selecting shift position.
- Shock occurs when engine starts from EV traveling.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Remove the fuse (7.5 A) from the fuse holder.	Is the fuse blown out?	Replace the fuse. If the replaced fuse blows out easily, repair the short circuit of harness.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the TCM and self shut relay connectors. 2) Measure the resistance between TCM connector and self shut relay connector. ***Connector & terminal*** ***(B55) No. 20 — (B220) No. 16:*** ***(B55) No. 2 — (B220) No. 15:*** ***(B55) No. 11 — (B220) No. 15:*** ***(B55) No. 22 — (B220) No. 15:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B55) No. 20 — Chassis ground:*** ***(B55) No. 2 — Chassis ground:*** ***(B55) No. 11 — Chassis ground:*** ***(B55) No. 22 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Repair the short circuit of harness.
4	**CHECK RELAY POWER SUPPLY.** Measure the voltage between self shut relay connector and chassis ground. ***Connector & terminal*** ***(B220) No. 14 (+) — Chassis ground (–):*** ***(B220) No. 17 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Repair the open or short circuit of harness.
5	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Terminals*** ***No. 16 — No. 17:***	Is the resistance 110 — 140 Ω?	Go to step **6**.	Replace the self shut relay.
6	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Terminals*** ***No. 14 — No. 15:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the self shut relay.
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the connectors of TCM and self shut relay. 2) Read the data of «Control module voltage» using Subaru Select Monitor.	Is the «Control module voltage» 10 V or more?	Current condition is normal. Check for poor contact in connectors or harnesses, and repair the defective part.	Go to step **8**.
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Set the select lever to “D” range. 4) While the vehicle is at a standstill, read the data of «Turbine Revolution Speed» and «Primary Pulley Speed» using Subaru Select Monitor.	Is the value of «Turbine Revolution Speed» and «Primary Pulley Speed» 0 rpm?	Go to step **9**.	Check the turbine speed sensor circuit.
9	**CHECK INPUT SIGNAL FOR TCM.** Read the data of «Turbine Revolution Speed» and «Primary Pulley Speed» using Subaru Select Monitor.	Does the value of «Turbine Revolution Speed» and «Primary Pulley Speed» change according to the engine speed?	Current condition is normal.	Go to step **10**.
10	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 1 — (B12) No. 7:*** ***(B54) No. 20 — (B12) No. 9:*** ***(B550) No. 17 — (B12) No. 6:***	Is the resistance less than 1 Ω?	Go to step **11**.	Repair the open circuit of harness.
11	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 20 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **12**.	Repair the short circuit of harness.

	Step	Check	Yes	No
12	**CHECK HARNESS.** Measure the resistance between self shut relay connector and fuse holder. ***Connector & terminal*** ***(B220) No. 15 — (B550) No. 6:***	Is the resistance less than 1 Ω?	Go to step **13**.	Repair the open circuit of harness.
13	**CHECK TRANSMISSION HARNESS.** 1) Install the fuse. 2) Connect the TCM connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between transmission connector. ***Connector & terminal*** ***(B12) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 — 13 V?	Go to step **14**.	Repair the open circuit of harness or poor contact of connector.
14	**CHECK TRANSMISSION HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Lift up the vehicle. 4) Disconnect the turbine speed sensor connector. 5) Measure the resistance between transmission connector and turbine speed sensor connector. ***Connector & terminal*** ***(T3) No. 6 — (AT5) No. 1:*** ***(T3) No. 7 — (AT5) No. 3:*** ***(T3) No. 9 — (AT5) No. 2:***	Is the resistance less than 1 Ω?	Go to step **15**.	Replace the transmission harness.
15	**CHECK TURBINE SPEED SENSOR HARNESS.** Measure the resistance between transmission connector and chassis ground. ***Connector & terminal*** ***(T3) No. 6 — Chassis ground:*** ***(T3) No. 9 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **16**.	Repair the short circuit of harness.
16	**CHECK TURBINE SPEED SENSOR.** 1) Turn the ignition switch to OFF. 2) Replace the turbine speed sensor. <Ref. to CVT(TH58A)-104, Turbine Speed Sensor.> 3) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 4) Read the DTC.	Is DTC P0717 displayed?	Go to step **17**.	The original turbine speed sensor is defective.
17	**CHECK SELF SHUT RELAY.** 1) Turn the ignition switch to OFF. 2) Replace the self shut relay. 3) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 4) Read the DTC.	Is DTC P0717 displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	The original self shut relay is defective.

N: DTC P0719 BRAKE SWITCH CIRCUIT LOW

DTC DETECTING CONDITION:

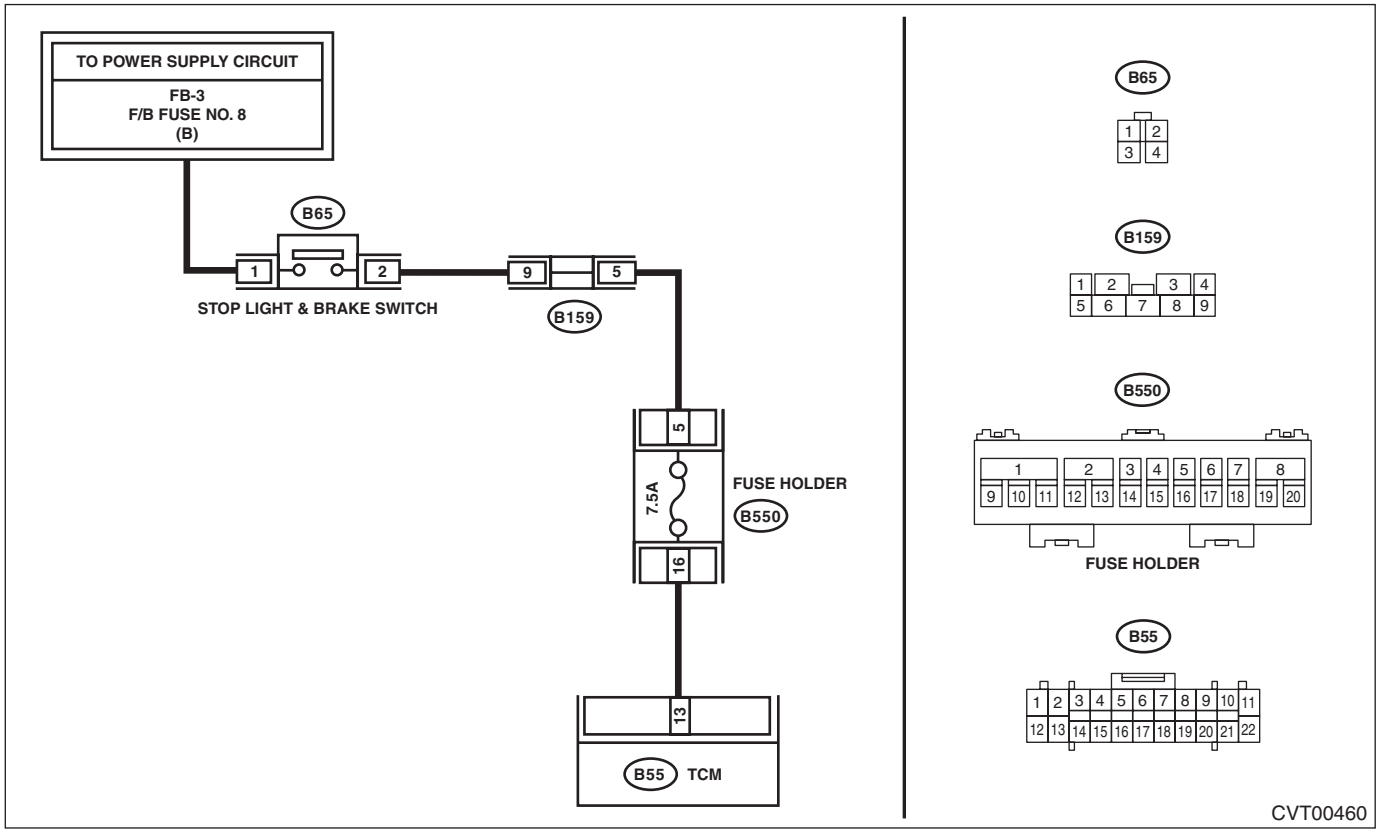
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-19, DTC P0719 BRAKE SWITCH CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Symptoms such as shift-down not operating may occur.

WIRING DIAGRAM:

Stop light system <Ref. to WI(HEV)-210, Stop Light System.>



Step		Check	Yes	No
1	**CHECK FUSE (NO. 8).** 1) Turn the ignition switch to OFF. 2) Remove the fuse (No. 8).	Is the fuse (No. 8) blown out?	Replace the fuse (No. 8). If the new fuse (No. 8) has blown out easily, repair the short circuit of harness between fuse (No. 8) and stop light switch.	Go to step **2**.
2	**CHECK FUSE.** Remove the fuse (7.5 A) from the fuse holder.	Is the fuse (7.5 A) blown out?	Replace the fuse (7.5 A). If the replaced fuse (7.5 A) blows out easily, repair the short circuit of harness between fuse (7.5 A) and TCM.	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and stop light switch connector. 3) Measure the resistance between TCM connector and stop light switch connector. ***Connector & terminal*** ***(B55) No. 13 — (B65) No. 2:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the open circuit of harness.
4	**CHECK HARNESS.** Measure the resistance between the stop light switch connector and fuse (No. 8). ***Connector & terminal*** ***(B65) No. 1 — fuse (No. 8):***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of harness.
5	**CHECK INPUT SIGNAL FOR TCM.** 1) Install the fuse (No. 8). 2) Connect the TCM and stop light switch connector. 3) Depress the brake pedal. 4) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B55) No. 13 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **6**.	Replace the stop light switch. <Ref. to BR-74, Stop Light Switch.>
6	**CHECK INPUT SIGNAL FOR TCM.** With brake pedal depressed, read the data of «Stop Light Switch» using Subaru Select Monitor.	Is “ON” displayed?	Current condition is normal. Check for poor contact in connectors or harnesses, and repair the defective part.	Go to step **7**.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact of input signal of stop light switch?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

O: DTC P0720 OUTPUT SPEED SENSOR CIRCUIT

DTC DETECTING CONDITION:

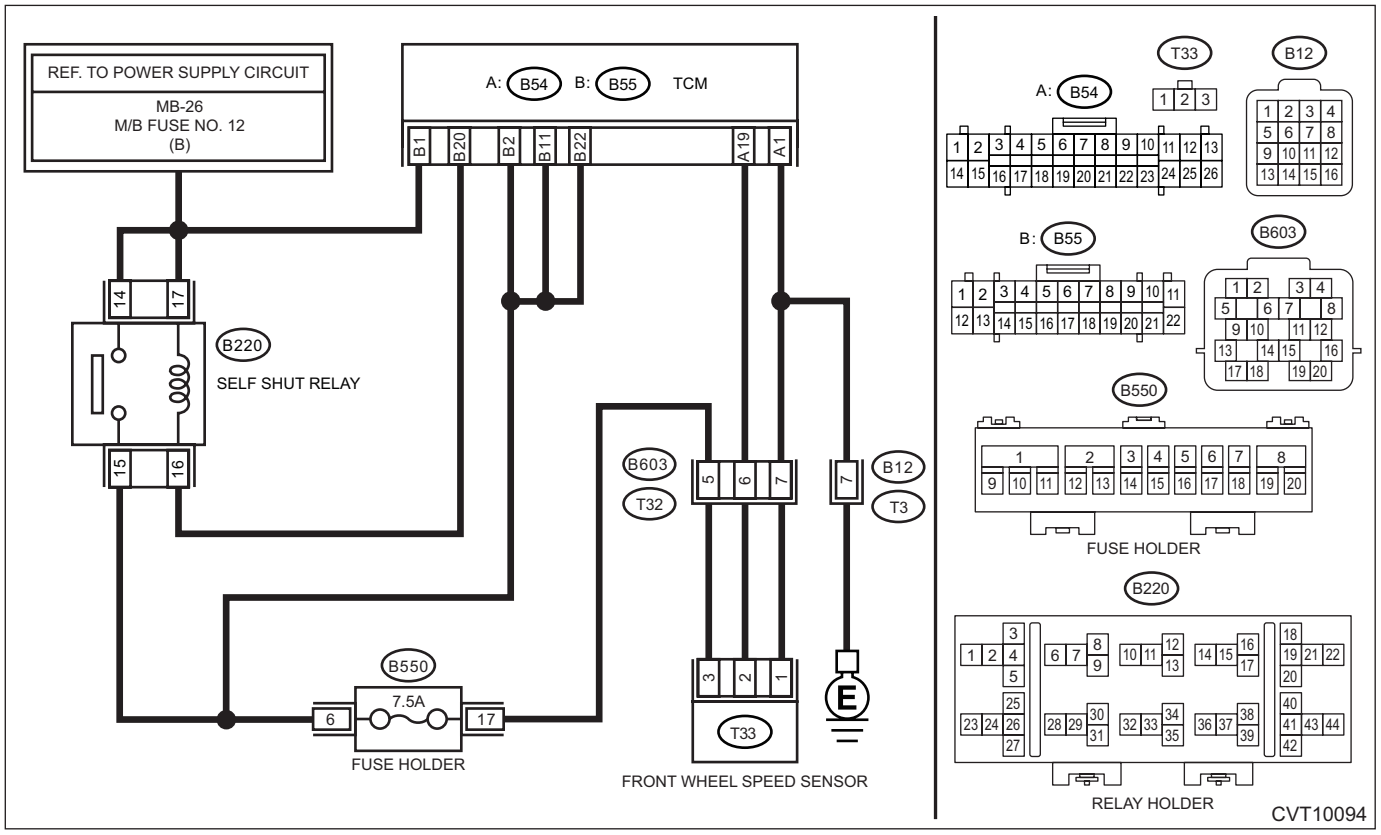
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-20, DTC P0720 OUTPUT SPEED SENSOR CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Symptoms such as vehicle-vibration may occur.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Remove the fuse (7.5 A) from the fuse holder.	Is the fuse blown out?	Replace the fuse. If the replaced fuse blows out easily, repair the short circuit of harness.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the TCM and self shut relay connectors. 2) Measure the resistance between TCM connector and self shut relay connector. ***Connector & terminal*** ***(B55) No. 20 — (B220) No. 16:*** ***(B55) No. 2 — (B220) No. 15:*** ***(B55) No. 11 — (B220) No. 15:*** ***(B55) No. 22 — (B220) No. 15:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B55) No. 20 — Chassis ground:*** ***(B55) No. 2 — Chassis ground:*** ***(B55) No. 11 — Chassis ground:*** ***(B55) No. 22 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Repair the short circuit of harness.
4	**CHECK RELAY POWER SUPPLY.** Measure the voltage between self shut relay connector and chassis ground. ***Connector & terminal*** ***(B220) No. 14 (+) — Chassis ground (–):*** ***(B220) No. 17 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Repair the open or short circuit of harness.
5	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Terminals*** ***No. 16 — No. 17:***	Is the resistance 110 — 140 Ω?	Go to step **6**.	Replace the self shut relay.
6	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Terminals*** ***No. 14 — No. 15:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the self shut relay.
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the connectors of TCM and self shut relay. 2) Read the data of «Control module voltage» using Subaru Select Monitor.	Is the «Control module voltage» 10 V or more?	Current condition is normal. Check for poor contact in connectors or harnesses, and repair the defective part.	Go to step **8**.
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Slowly increase the speed to 30 km/h (18 MPH). 4) Read the data of «Front Wheel Speed» using Subaru Select Monitor.	Does the value of «Front Wheel Speed» change according to the engine speed?	Current condition is normal.	Go to step **9**.
9	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 1 — (B12) No. 7:*** ***(B54) No. 1 — (B603) No. 7:*** ***(B54) No. 19 — (B603) No. 6:*** ***(B550) No. 17 — (B603) No. 5:***	Is the resistance less than 1 Ω?	Go to step **10**.	Repair the open circuit of harness.
10	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 19 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **11**.	Repair the short circuit of harness.
11	**CHECK HARNESS.** Measure the resistance between self shut relay connector and fuse holder. ***Connector & terminal*** ***(B220) No. 15 — (B550) No. 6:***	Is the resistance less than 1 Ω?	Go to step **12**.	Repair the open circuit of harness.

	Step	Check	Yes	No
12	**CHECK TRANSMISSION HARNESS.** 1) Install the fuse. 2) Connect the TCM connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between transmission connector. ***Connector & terminal*** ***(B603) No. 5 (+) — Chassis ground (–):***	Is the voltage 10 — 13 V?	Go to step **13**.	Repair the open circuit of harness or poor contact of connector.
13	**CHECK TRANSMISSION HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Lift up the vehicle. 4) Disconnect the front wheel speed sensor connector. 5) Measure the resistance between transmission connector and front wheel speed sensor connector. ***Connector & terminal*** ***(T32) No. 5 — (T33) No. 3:*** ***(T32) No. 6 — (T33) No. 2:*** ***(T32) No. 7 — (T33) No. 1:***	Is the resistance less than 1 Ω?	Go to step **14**.	Replace the transmission harness.
14	**CHECK FRONT WHEEL SPEED SENSOR HARNESS.** Measure the resistance between transmission connector and chassis ground. ***Connector & terminal*** ***(T32) No. 5 — Chassis ground:*** ***(T32) No. 6 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **15**.	Repair the short circuit of harness.
15	**CHECK FRONT WHEEL SPEED SENSOR.** 1) Turn the ignition switch to OFF. 2) Replace the front wheel speed sensor. <Ref. to CVT(TH58A)-108, Front Wheel Speed Sensor.> 3) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 4) Read the DTC.	Is DTC P0720 displayed?	Go to step **16**.	The original front wheel speed sensor is defective.
16	**CHECK SELF SHUT RELAY.** 1) Turn the ignition switch to OFF. 2) Replace the self shut relay. 3) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 4) Read the DTC.	Is DTC P0720 displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	The original self shut relay is defective.

P: DTC P0721 OUTPUT SHAFT SPEED SENSOR CIRCUIT RANGE/PERFORMANCE

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-21, DTC P0721 OUTPUT SHAFT SPEED SENSOR CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- No lock-up occurs.
- The engine stalls when the vehicle is stopped.
- Shift control malfunction

Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0721, is any of the DTC P0500, U0122 or U0416 displayed?	Perform the diagnosis according to DTCs other than P0721.	Perform the diagnosis according to DTC P0720. <Ref. to CVT(HEV)(diag)-62, DTC P0720 OUTPUT SPEED SENSOR CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Q: DTC P0724 BRAKE SWITCH CIRCUIT HIGH

DTC DETECTING CONDITION:

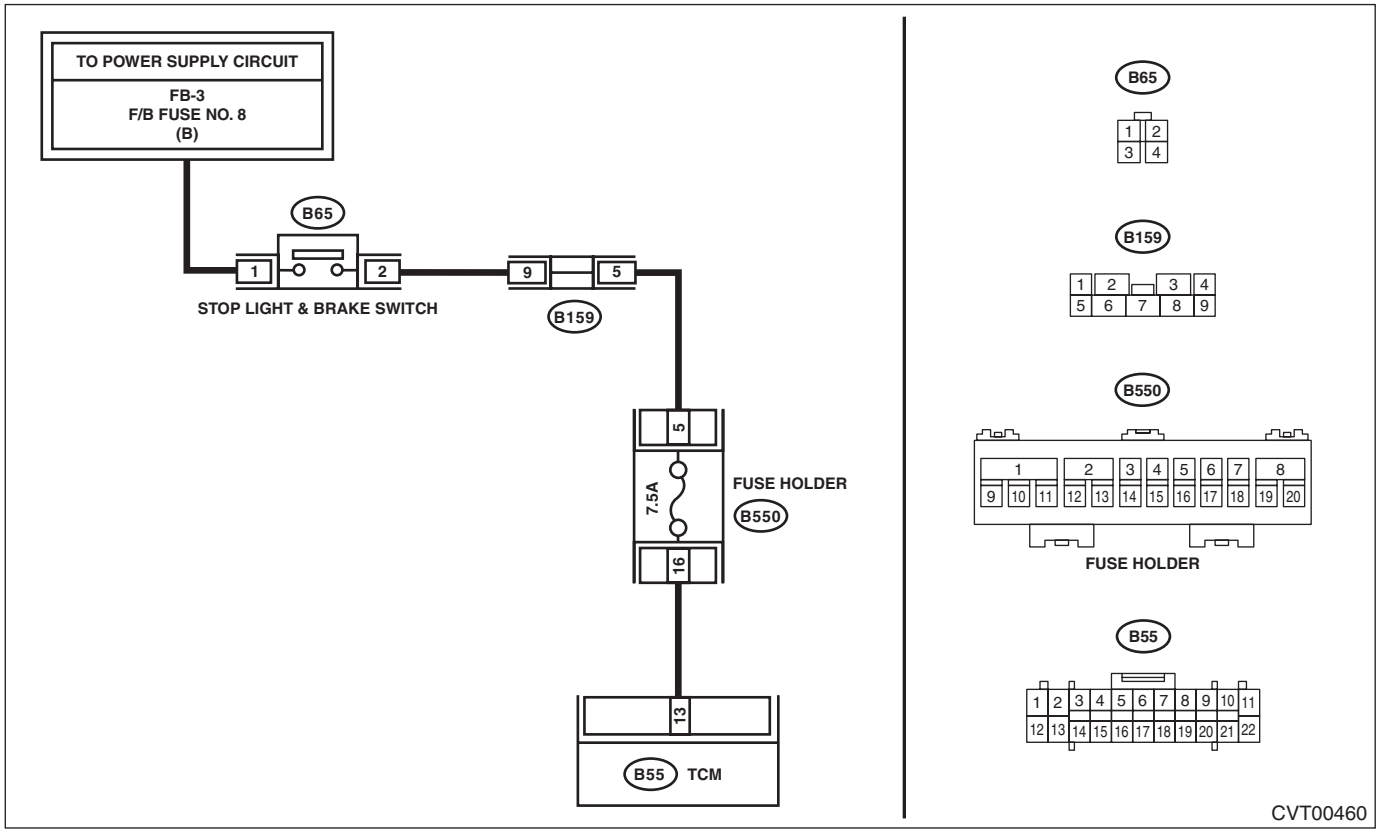
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-22, DTC P0724 BRAKE SWITCH CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Symptoms such as shift-down not operating may occur.

WIRING DIAGRAM:

Stop light system <Ref. to WI(HEV)-210, Stop Light System.>



Step		Check	Yes	No
1	**CHECK STOP LIGHT SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the stop light switch connector. 3) Measure the resistance of harness between stop light switch connectors. ***Connector & terminal*** ***(B65) No. 1 — No. 2:***	Is the resistance 1 MΩ or more?	Go to step **2**.	Replace the stop light switch. <Ref. to BR-74, Stop Light Switch.>
2	**CHECK HARNESS.** 1) Disconnect the TCM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B55) No. 13 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Repair the short circuit of harness.	Go to step **3**.
3	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the TCM and stop light switch connector. 2) Turn the ignition switch to ON. 3) Read the data of «Stop Light Switch» using Subaru Select Monitor.	Is “OFF” displayed?	Current condition is normal. Check for poor contact in connectors or harnesses, and repair the defective part.	Go to step **4**.

Step		Check	Yes	No
4	CHECK FOR POOR CONTACT.	Is there poor contact of input signal of stop light switch?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

R: DTC P0730 GEARSHIFT CONTROL PERFORMANCE ABNORMAL

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-23, DTC P0730 GEARSHIFT CONTROL PERFORMANCE ABNORMAL, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- Shift control malfunction
- Engine speed increases abruptly.

	Step	Check	Yes	No
1	**CHECK TRANSMISSION FLUID.** Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **2**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
2	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **3**.	Check according to the “Corrective action” of ATF (CVTF) “CONDITION CHECK”. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
3	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to “D” range. 5) Shift the select lever to “P” range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **4**.	Perform the diagnosis according to DTC P0841. <Ref. to CVT(HEV)(diag)-86, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
4	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to “D” range. 2) Release the brake pedal to stabilize the engine speed and front wheel speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 1.5 — 2.6?	Go to step **5**.	Go to step **6**.
5	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to “D” range. 2) Slowly increase the speed to 40 km/h (24 MPH) and keep the constant speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 0.5 — 0.9?	Go to step **6**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
6	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the “Inspection Mode”. <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0730 detected?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

S: DTC P0746 PRESSURE CONTROL SOLENOID "A" PERFORMANCE/STUCK OFF

DTC DETECTING CONDITION:

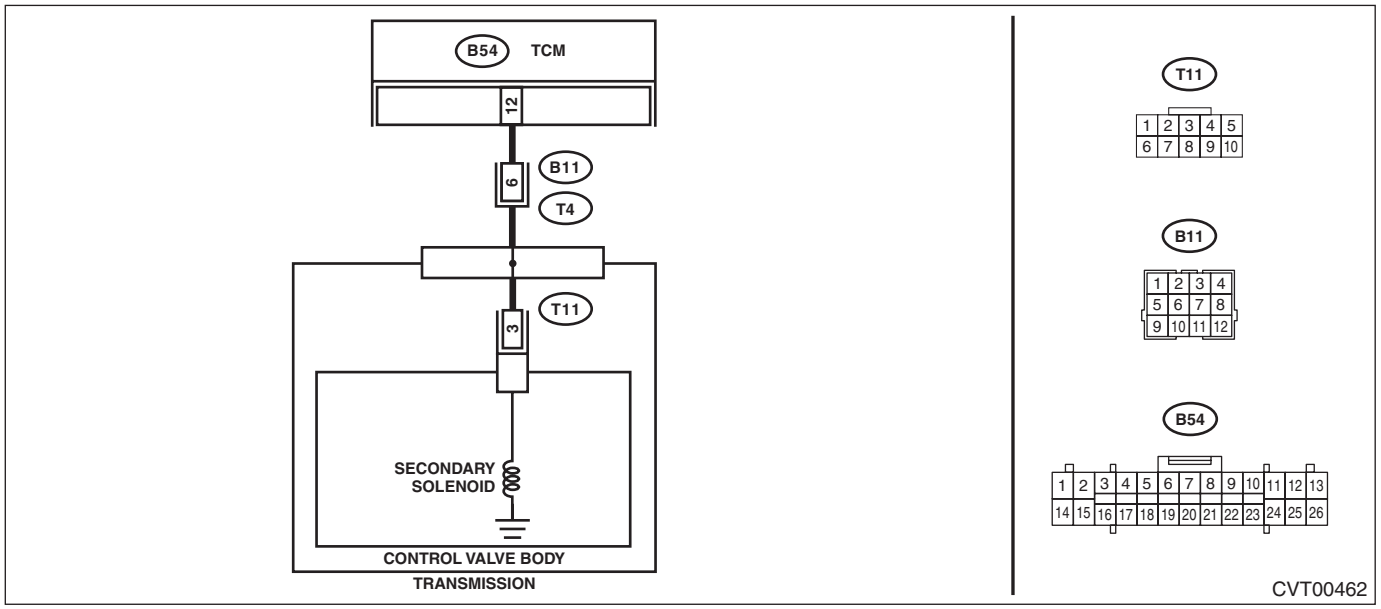
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-24, DTC P0746 PRESSURE CONTROL SOLENOID "A" PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shift control malfunction
- CVT chain slippage

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0746, is any of the DTCs P0842, P0843, P0962 and P0963 displayed?	Perform the diagnosis according to DTCs other than P0746.	Go to step **2**.
2	**CHECK SECONDARY SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 — Transmission body:***	Is the resistance approx. 5 — 7 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Keep the engine speed at 3,000 rpm. 2) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» higher than step 6 value? Does the value change according to the engine speed?	Go to step **8**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
8	**CHECK TCM INPUT SIGNAL (STALL TEST).** 1) Apply the parking brake. 2) Set the select lever to "D" range. 3) Depress the brake pedal firmly. 4) Slowly open the accelerator fully, and stabilize the engine speed. 5) Read the data of «Actual secondary pressure» using Subaru Select Monitor. **CAUTION:** **Do not perform a stall test for over 5 seconds at a time.**	Is the «Actual secondary pressure» higher than step 7 value? Does the value change according to the engine speed?	Go to step **9**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
9	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0746 displayed?	Perform the secondary pressure test. <Ref. to CVT(TH58A)-54, Secondary Pressure (Line Pressure) Test.>	Current condition is normal. It is possible that temporary poor contact occurs.

T: DTC P0747 PRESSURE CONTROL SOLENOID "A" STUCK ON

DTC DETECTING CONDITION:

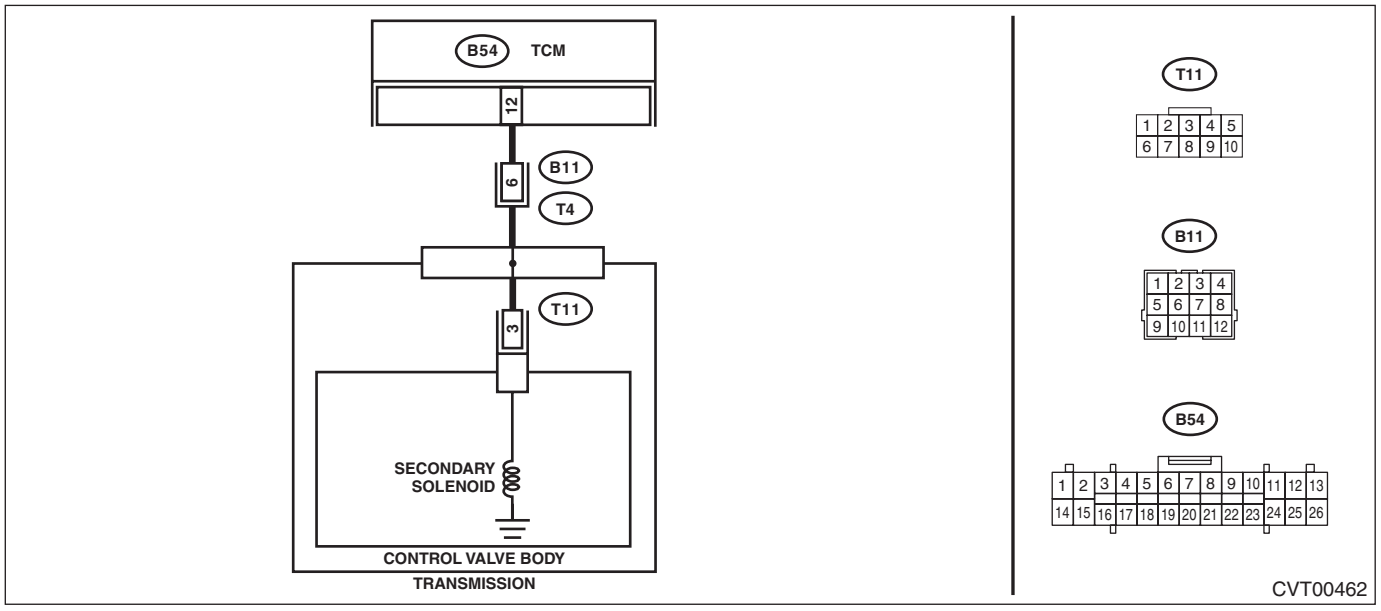
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-25, DTC P0747 PRESSURE CONTROL SOLENOID "A" STUCK ON, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- Shift control malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0747, is any of the DTCs P0842, P0843, P0962 and P0963 displayed?	Perform the diagnosis according to DTCs other than P0747.	Go to step **2**.
2	**CHECK SECONDARY SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 — Transmission body:***	Is the resistance approx. 5 — 7 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Keep the engine speed at 3,000 rpm. 2) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» higher than step 6 value? Does the value change according to the engine speed?	Go to step **8**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
8	**CHECK TCM INPUT SIGNAL (STALL TEST).** 1) Apply the parking brake. 2) Set the select lever to "D" range. 3) Depress the brake pedal firmly. 4) Slowly open the accelerator fully, and stabilize the engine speed. 5) Read the data of «Actual secondary pressure» using Subaru Select Monitor. **CAUTION:** **Do not perform a stall test for over 5 seconds at a time.**	Is the «Actual secondary pressure» higher than step 7 value? Does the value change according to the engine speed?	Go to step **9**.	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>
9	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0747 displayed?	Perform the secondary pressure test. <Ref. to CVT(TH58A)-54, Secondary Pressure (Line Pressure) Test.>	Current condition is normal. It is possible that temporary poor contact occurs.

U: DTC P0751 SHIFT SOLENOID "A" PERFORMANCE/STUCK OFF

DTC DETECTING CONDITION:

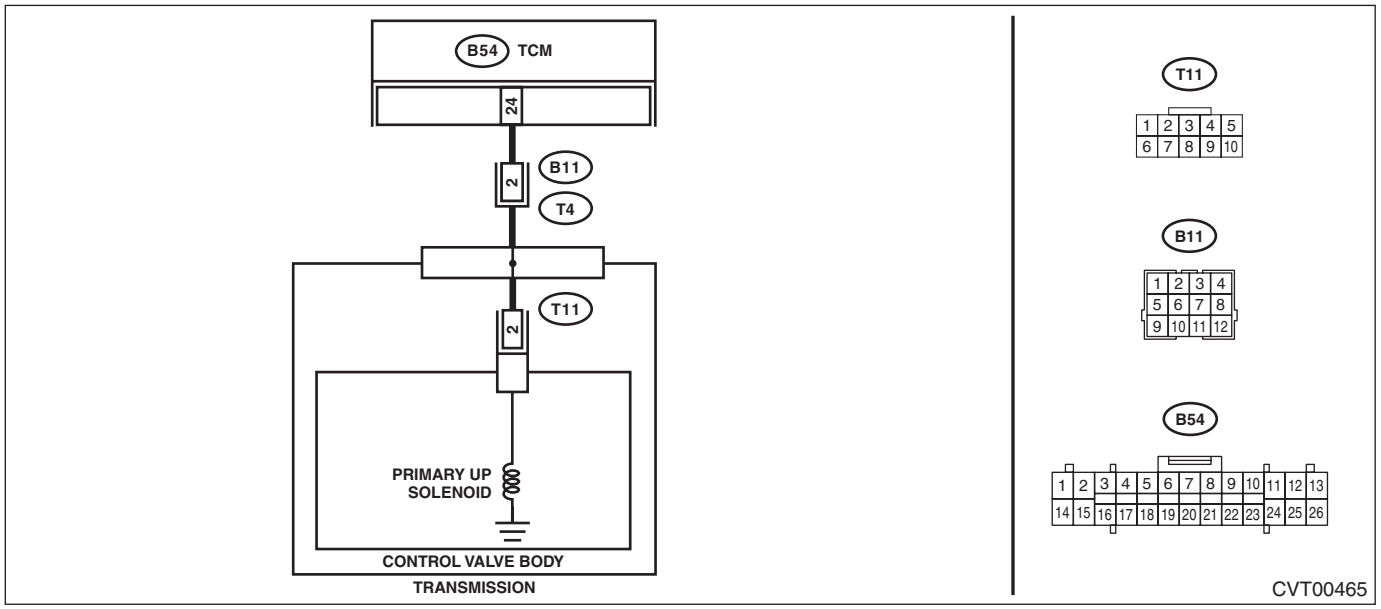
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-26, DTC P0751 SHIFT SOLENOID "A" PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shift control malfunction
- Engine speed increases abruptly.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0751, is any of the DTC P0973, P0974, P0976, P0977, P2751, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P0751.	Go to step **2**.
2	**CHECK PRIMARY UP SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 2 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Release the brake pedal to stabilize the engine speed and front wheel speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 1.5 — 2.6?	Go to step **8**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Slowly increase the speed to 40 km/h (25 MPH) and keep the constant speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 0.5 — 0.9?	Go to step **9**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
9	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0751 displayed?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

V: DTC P0752 SHIFT SOLENOID "A" STUCK ON

DTC DETECTING CONDITION:

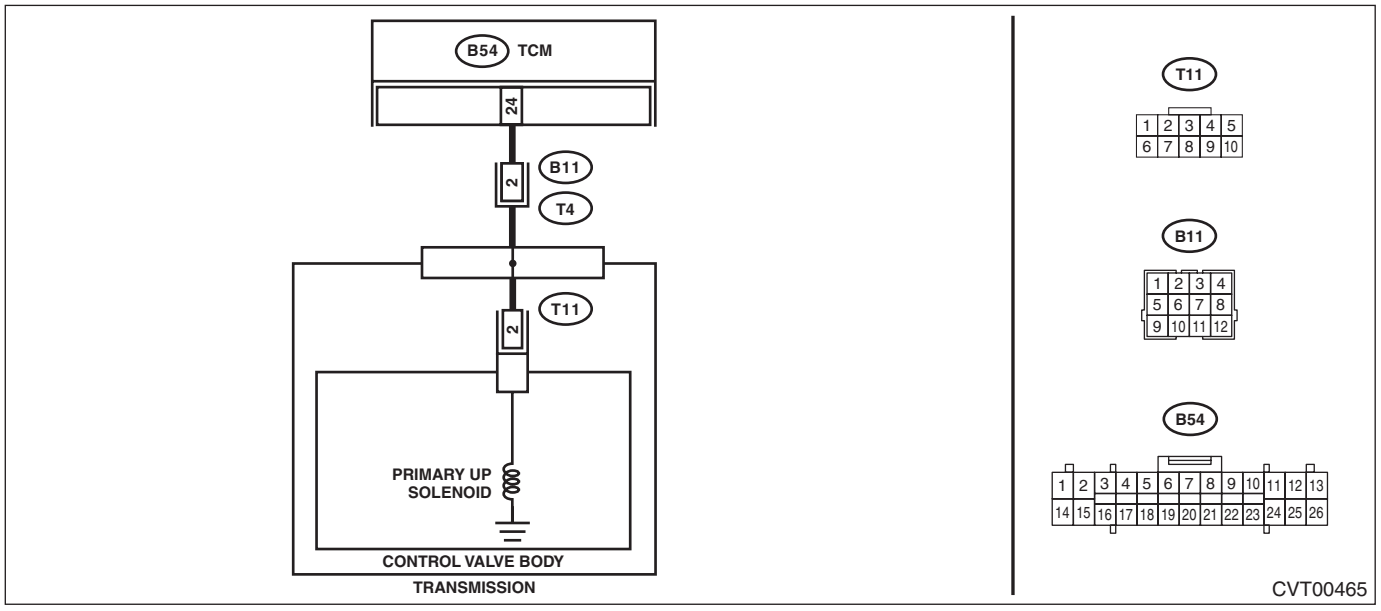
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-27, DTC P0752 SHIFT SOLENOID "A" STUCK ON, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- Shift control malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0752, is any of the DTC P0973, P0974, P0976, P0977, P2751, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P0752.	Go to step **2**.
2	**CHECK PRIMARY UP SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 2 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Release the brake pedal to stabilize the engine speed and front wheel speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 1.5 — 2.6?	Go to step **8**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Slowly increase the speed to 40 km/h (25 MPH) and keep the constant speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 0.5 — 0.9?	Go to step **9**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
9	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0752 displayed?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

W: DTC P0756 SHIFT SOLENOID "B" PERFORMANCE/STUCK OFF

DTC DETECTING CONDITION:

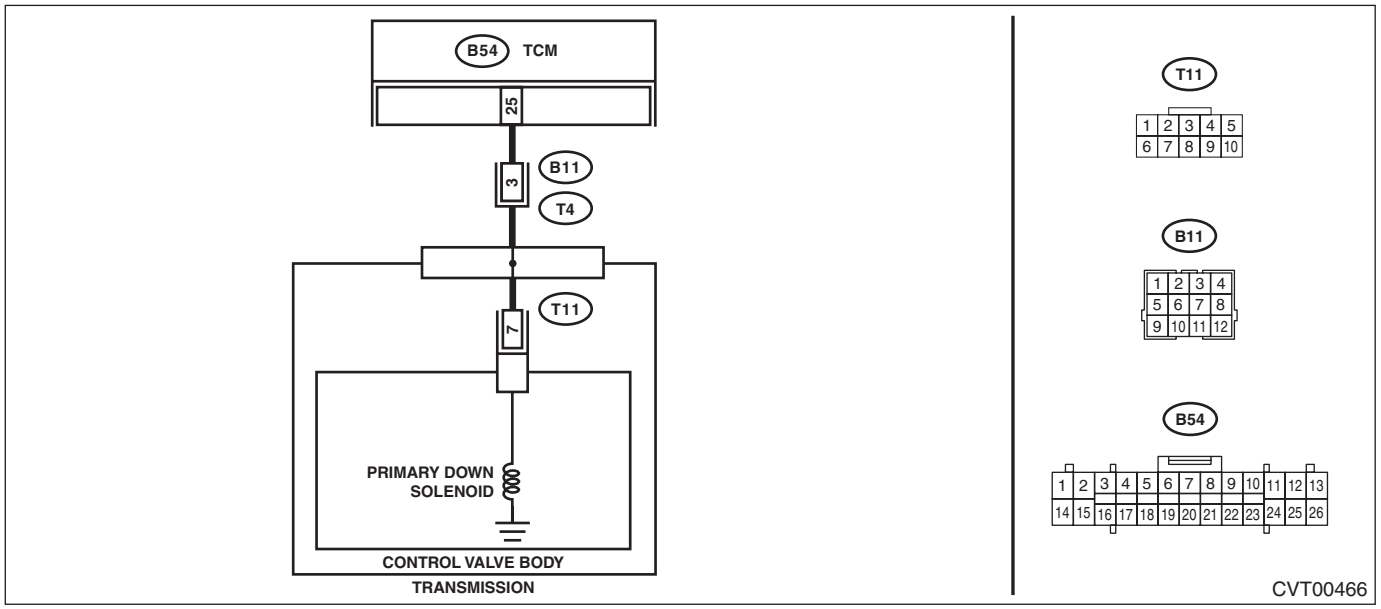
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-28, DTC P0756 SHIFT SOLENOID "B" PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- Shift control malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0756, is any of the DTC P0973, P0974, P0976, P0977, P2751, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P0756.	Go to step **2**.
2	**CHECK PRIMARY DOWN SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 3 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Release the brake pedal to stabilize the engine speed and front wheel speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 1.5 — 2.6?	Go to step **8**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Slowly increase the speed to 40 km/h (25 MPH) and keep the constant speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 0.5 — 0.9?	Go to step **9**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
9	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0756 displayed?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

X: DTC P0757 SHIFT SOLENOID "B" STUCK ON

DTC DETECTING CONDITION:

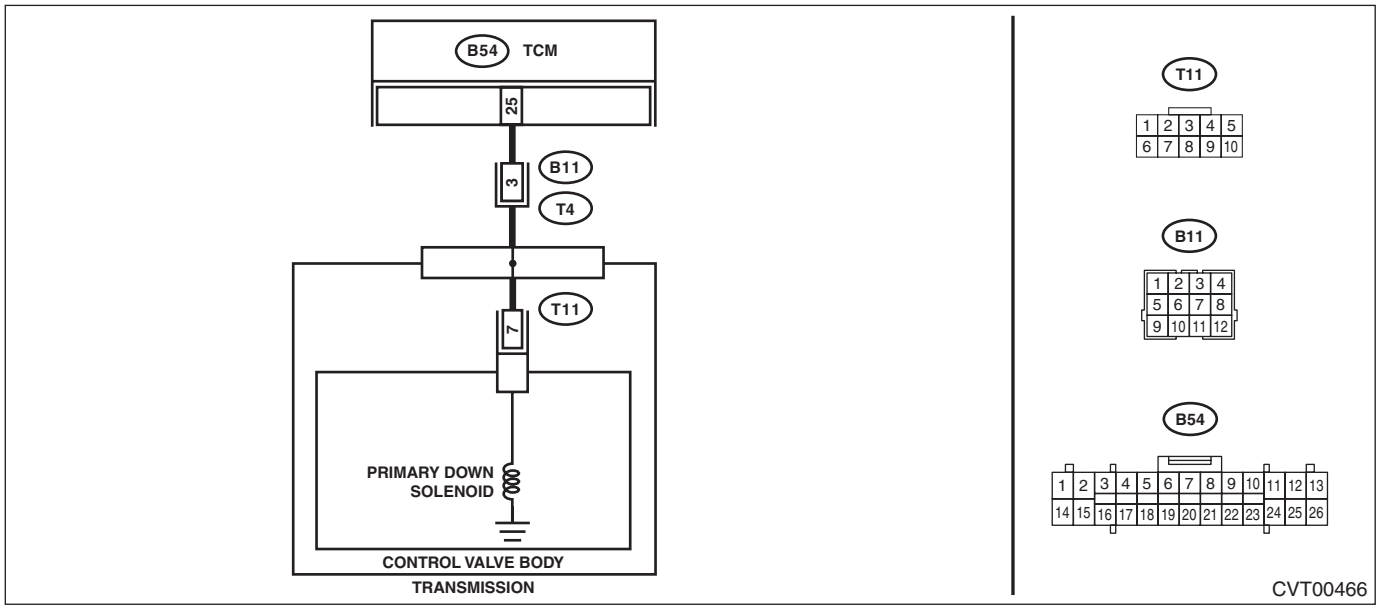
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-29, DTC P0757 SHIFT SOLENOID "B" STUCK ON, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Vibration occurs at shift change.
- Shift control malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0757, is any of the DTC P0973, P0974, P0976, P0977, P2751, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P0757.	Go to step **2**.
2	**CHECK PRIMARY DOWN SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 3 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Release the brake pedal to stabilize the engine speed and front wheel speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 1.5 — 2.6?	Go to step **8**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Set the select lever to "D" range. 2) Slowly increase the speed to 40 km/h (25 MPH) and keep the constant speed. 3) Read the data of «Actual Gear Ratio» using Subaru Select Monitor.	Is the «Actual Gear Ratio» 0.5 — 0.9?	Go to step **9**.	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
9	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0757 displayed?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

Y: DTC P0776 PRESSURE CONTROL SOLENOID "B" PERFORMANCE/STUCK OFF

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-30, DTC P0776 PRESSURE CONTROL SOLENOID "B" PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Engine speed increases abruptly, and can not accelerate.
- Excessive slippage is felt.

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0776, is any of the DTC P0717, P0966, P0967, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P0776.	Go to step **2**.
2	**CHECK TRANSMISSION FLUID.** Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **3**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
3	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **4**.	Check according to the “Corrective action” of ATF (CVTF) “CONDITION CHECK”. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
4	**CHECK INPUT SIGNAL FOR TCM.** 1) Start the engine. 2) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 3) Depress the brake pedal, and shift the select lever to “D” range. 4) Shift the select lever to “P” range. 5) Stabilize the engine speed at idle. 6) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **5**.	Perform the diagnosis according to DTC P0841. <Ref. to CVT(HEV)(diag)-86, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
5	**STALL TEST.** Perform the stall test. <Ref. to CVT(TH58A)-52, Stall Test.>	Is the stall test normal?	Go to step **6**.	Replace the transmission assembly if the stall speed is higher than the standard value of the stall test. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>
6	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the “Inspection Mode”. <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0776 detected?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

Z: DTC P0777 PRESSURE CONTROL SOLENOID "B" STUCK ON

DTC DETECTING CONDITION:

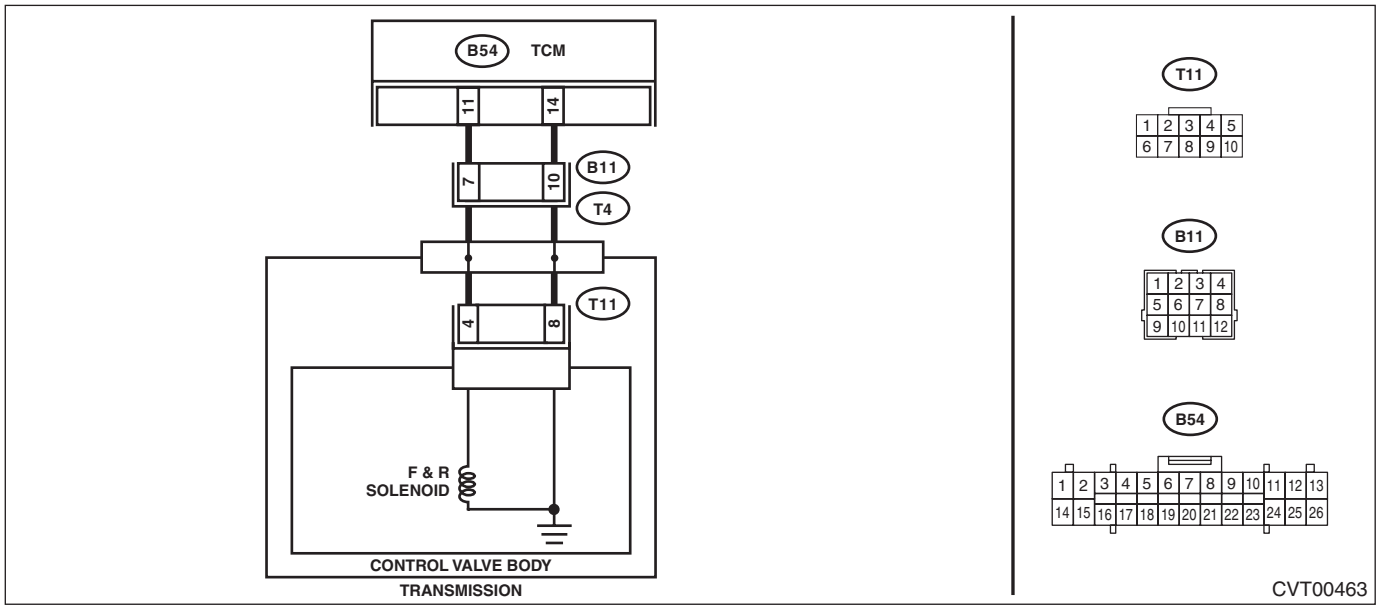
- F&R solenoid malfunction
- Hydraulic circuit malfunction (stuck to high pressure side)

TROUBLE SYMPTOM:

- Excessive shift shock.
- Decelerating speed in EV mode is higher than normal.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0777, is any of the DTC P0717, P0966, P0967, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P0777.	Go to step **2**.
2	**CHECK F&R SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 7 — Transmission body:***	Is the resistance approx. 4 — 6 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**TEST DRIVE TO CHECK F&R CLUTCH CONDITION.** 1) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Turn the ignition switch to OFF. 3) Start the engine. 4) Warm up until the ATF temperature exceeds 60°C. 5) Place the vehicle on the ground. 6) While driving at a legal speed, gently depress the brake pedal to enter EV traveling mode. 7) After entering EV traveling mode, release the brake pedal and the accelerator pedal, and keep the coast driving until the vehicle speed drops to 10 km/h (6 MPH). 8) When the speed becomes 10 km/h (6 MPH) or less, stop the vehicle and place the select lever to "P" range. 9) Turn the ignition switch to OFF. 10) Start the engine. 11) Perform the procedure in step 6) again. 12) Read the DTC using Subaru Select Monitor.	Does the AT OIL TEMP light blink and is DTC P0777 displayed?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Go to step **7**.
7	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the "Inspection Mode". <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P0777 displayed?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

AA:DTC P0801 REVERSE INHIBIT CONTROL CIRCUIT

NOTE:
For diagnostic procedures, refer to "BODY CONTROL SYSTEM (DIAGNOSTICS)". <Ref. to BC(diag)-38, DTC B1016 SHIFT LOCK CIRCUIT FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AB:DTC P0812 REVERSE INPUT CIRCUIT

DTC DETECTING CONDITION:

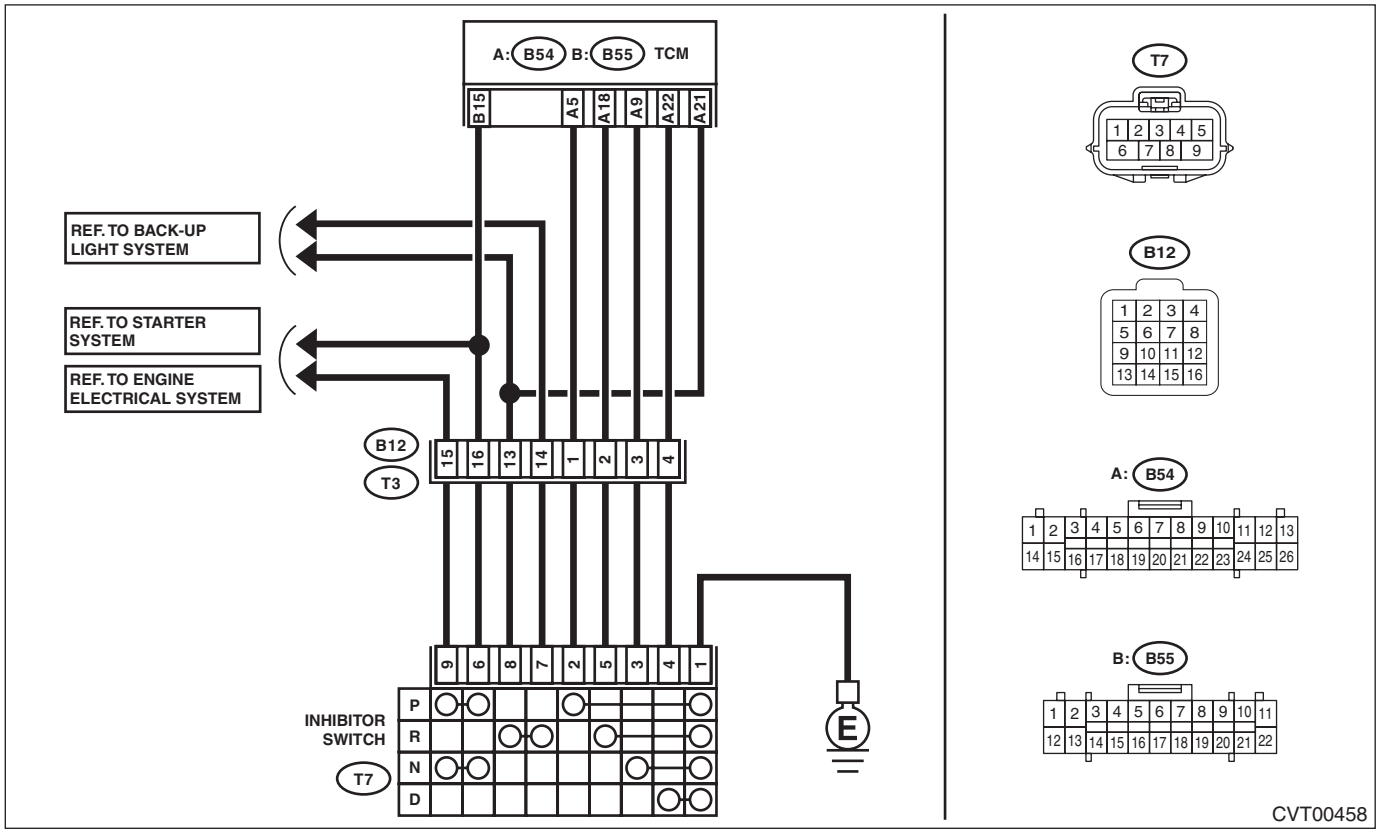
- Inhibitor switch is faulty.
- R range signal is not input.

TROUBLE SYMPTOM:

- Shift characteristics are erroneous.
- The range position of the select lever and the position of shift indicator display do not match.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Turn the ignition switch to ON. 2) Move the select lever to “R” range, and read the data of «R Range» using the Subaru Select Monitor.	Is “ON” displayed?	Go to step **7**.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance of harness between TCM connector and transmission connector. ***Connector & terminal*** ***(B54) No. 18 — (B12) No. 2:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of body harness.
3	**CHECK HARNESS.** Measure the resistance of harness between inhibitor switch connector and transmission ground. ***Connector & terminal*** ***(T7) No. 1 — Transmission ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the inhibitor switch connector. 2) Measure the resistance between transmission connector and inhibitor switch connector. ***Connector & terminal*** ***(T3) No. 2 — (T7) No. 5:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of transmission harness.
5	**CHECK INHIBITOR SWITCH.** Move the select lever to "R" range, and measure the resistance between inhibitor switch connector terminals. ***Terminals*** ***No. 5 — No. 1:***	Is the resistance less than 1 Ω?	Go to step **6**.	Replace the inhibitor switch. <Ref. to CVT(TH58A)-97, Inhibitor Switch.>
6	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between each connector and chassis ground. ***Connector & terminal*** ***Transmission connector (B12 side)*** ***(B12) No. 2 (+) — Chassis ground (–):*** ***Transmission connector (T7 side)*** ***(T7) No. 5 (+) — Chassis ground (–):***	Is each voltage less than 1 V?	Go to step **7**.	Repair the harness which outputs 1 V or more.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact between TCM, inhibitor switch, transmission ground?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AC:DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE

DTC DETECTING CONDITION:

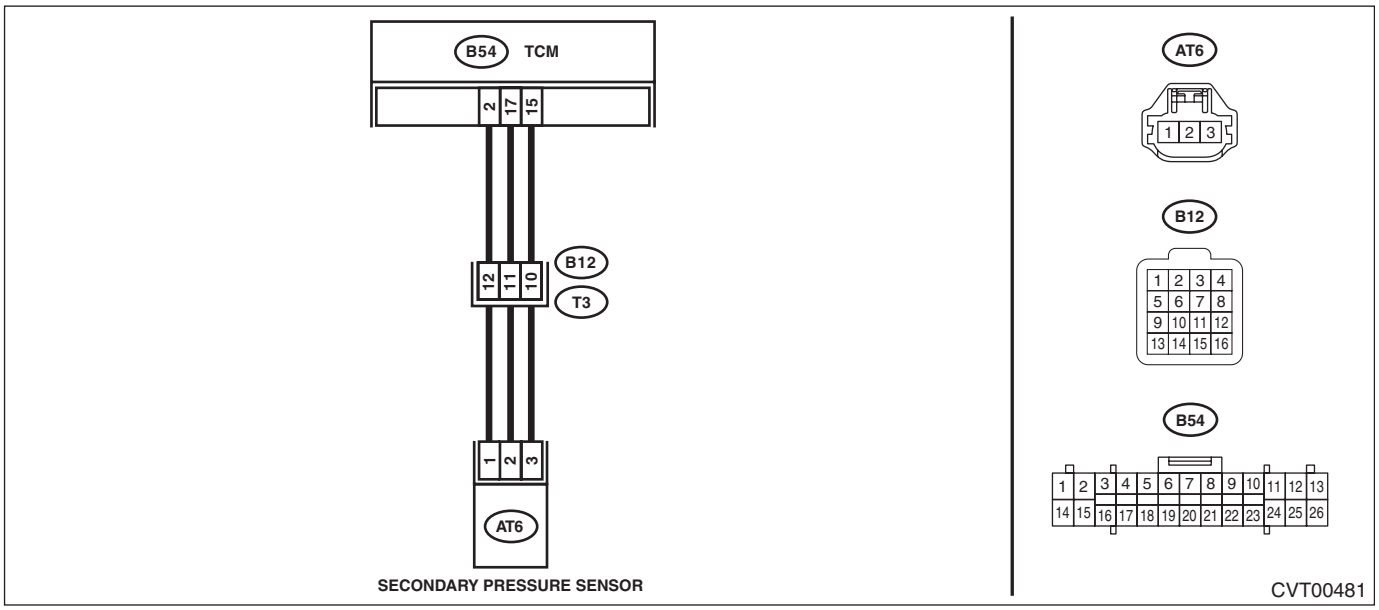
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-31, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- Shift control malfunction
- Engine speed increases abruptly.

CAUTION:
Before performing diagnosis, record the freeze frame data.

WIRING DIAGRAM:
CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



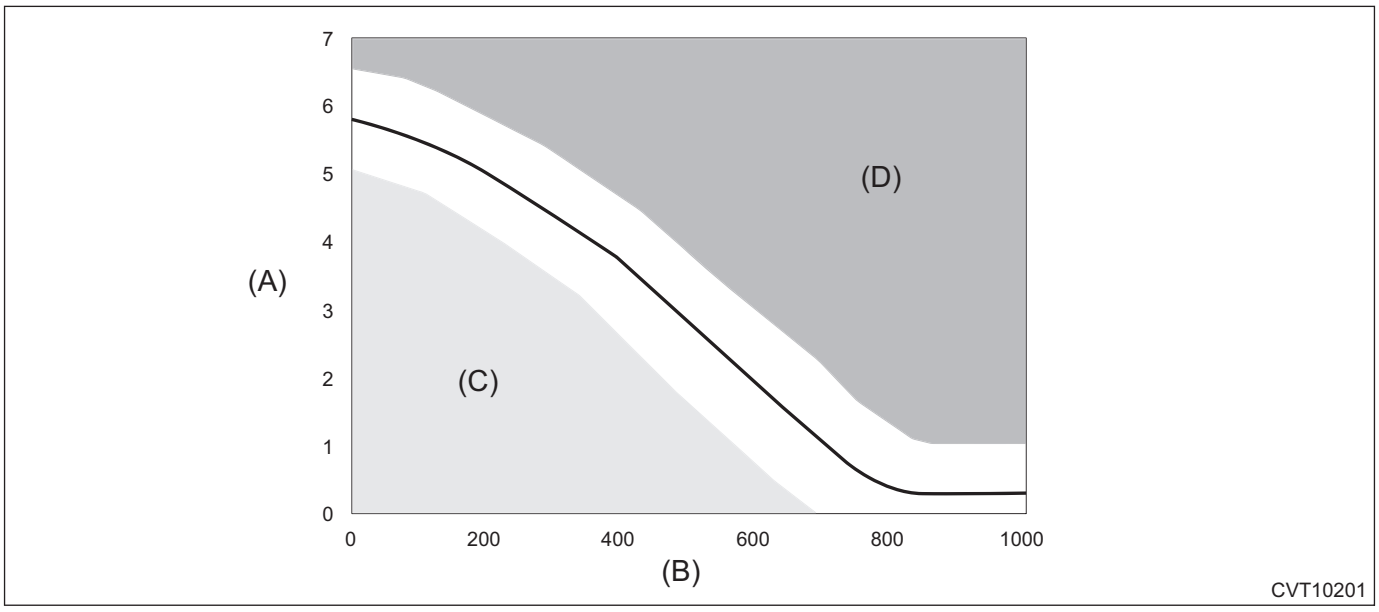
Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Are DTCs other than P0841 displayed?	Perform the diagnosis according to DTC. After the diagnosis, start the engine, and drive for 20 minutes in any driving pattern. (Include driving at a constant legal speed (for 20 seconds) at least once.) Read the DTC, and if P0841 alone is detected, Go to step **2**.	Go to step **2**.
2	**CHECK INPUT SIGNAL FOR TCM.** 1) Turn the ignition switch to ON. 2) Read the data of «secondary pressure sensor voltage» using Subaru Select Monitor. (While shaking the secondary pressure sensor harness)	Is the value of «secondary pressure sensor voltage» 0.39 — 0.61 V?	Go to step **10**.	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector of TCM and secondary pressure sensor. 3) Measure the resistance between TCM connector and secondary pressure sensor connector. ***Connector & terminal*** ***(B54) No. 2 — (AT6) No. 1:*** ***(B54) No. 15 — (AT6) No. 3:*** ***(B54) No. 17 — (AT6) No. 2:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the open circuit of harness.
4	**CHECK HARNESS.** Measure the resistance between TCM connectors. ***Connector & terminal*** ***(B54) No. 2 — (B54) No. 17:*** ***(B54) No. 15 — (B54) No. 2:*** ***(B54) No. 17 — (B54) No. 15:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Repair the short circuit of harness.
5	**CHECK HARNESS.** Measure the resistance between TCM connector and transmission body. ***Connector & terminal*** ***(B54) No. 2 — Transmission body:*** ***(B54) No. 15 — Transmission body:*** ***(B54) No. 17 — Transmission body:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair the short circuit of harness.
6	**CHECK POWER SUPPLY FOR SECONDARY PRESSURE SENSOR.** 1) Connect the TCM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between TCM connectors. ***Connector & terminal*** ***(B54) No. 2 (+) — (B54) No. 15 (–):***	Is the voltage 4.6 — 5.4 V?	Go to step **7**.	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>
7	**CHECK POWER SUPPLY FOR SECONDARY PRESSURE SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect the secondary pressure sensor connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between TCM connectors. ***Connector & terminal*** ***(B54) No. 2 (+) — (B54) No. 15 (–):***	Is the voltage 4.6 — 5.4 V?	Go to step **8**.	Replace the secondary pressure sensor. <Ref. to CVT(TH58A)-110, Secondary Pressure Sensor.>
8	**CHECK SECONDARY PRESSURE SENSOR OUTPUT.** Measure the voltage between TCM connectors. ***Connector & terminal*** ***(B54) No. 17 (+) — (B54) No. 15 (–):***	Is the voltage 0.39 — 0.61 V?	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **9**.
9	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector of TCM and secondary pressure sensor. 3) Check the TCM connector (B54) and the secondary pressure sensor connector (AT6).	Is there any fault in the TCM connector or the secondary pressure connector?	Repair the connector, or replace harness.	Go to step **10**.

	Step	Check	Yes	No
10	**CHECK TRANSMISSION FLUID.** 1) Connect all connectors. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **11**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.> Go to step **11**.
11	**CHECK INPUT SIGNAL FOR TCM.** 1) Perform the Clear Memory Mode. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal and move the select lever to each range at an interval of five seconds. NOTE: Move the select lever in the following order: “P” → “R” → “N” → “D” → “N” → “R” → “P”. 5) Stabilize the engine speed at idle. 6) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **12**.	Replace the secondary pressure sensor. <Ref. to CVT(TH58A)-110, Secondary Pressure Sensor.>
12	**CHECK INPUT SIGNAL FOR TCM.** 1) Shift the select lever to “P” range. 2) Keep the engine speed at 3,000 rpm. 3) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 1.5 — 2.5 MPa? And is the difference of the actual oil pressure 0.2 MPa or more compared with the value measured in step 11?	Go to step **13**.	Replace the secondary pressure sensor. <Ref. to CVT(TH58A)-110, Secondary Pressure Sensor.>
13	**CHECK FREEZE FRAME DATA.** 1) Turn the ignition switch to OFF. 2) Check the recorded freeze frame data.	Was the detected symptom low-voltage malfunction? <Ref. to CVT(HEV)(diag)-89, CLASSIFICATION OF SYMPTOM USING FREEZE FRAME DATA, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Go to step **14**.
14	**CHECK TCM INPUT SIGNAL (STALL TEST).** 1) Lift up the vehicle. 2) Start the engine. 3) Apply the parking brake. 4) Set the select lever to “D” range. 5) Depress the brake pedal firmly. 6) Slowly open the accelerator fully, and stabilize the engine speed. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 4.5 — 6.0 MPa?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Go to step **15**.
15	**CHECK TCM INPUT SIGNAL (STALL TEST).** Check the «Actual Secondary Pressure» in step 14.	Is the «Actual secondary pressure» 4.5 MPa or less?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>

1. CLASSIFICATION OF SYMPTOM USING FREEZE FRAME DATA

Apply the values of «Actual Secondary Pressure» and «Secondary Actual Current» recorded in the freeze frame data onto the graph shown in the following figure, and judge if either low-voltage malfunction or high-voltage malfunction occurs.



(A) Actual secondary pressure (MPa)
(B) Secondary actual current (mA)
(C) Low-voltage malfunction
(D) High-voltage malfunction

NOTE:
Symptom that the DTC P0841 illuminates can be classified into 2 patterns.
- Low-voltage malfunction: detected due to insufficient oil pressure
- High-voltage malfunction: detected due to excessive oil pressure

AD:DTC P0842 SECONDARY OIL PRESSURE SENSOR CIRCUIT (LOW)

DTC DETECTING CONDITION:

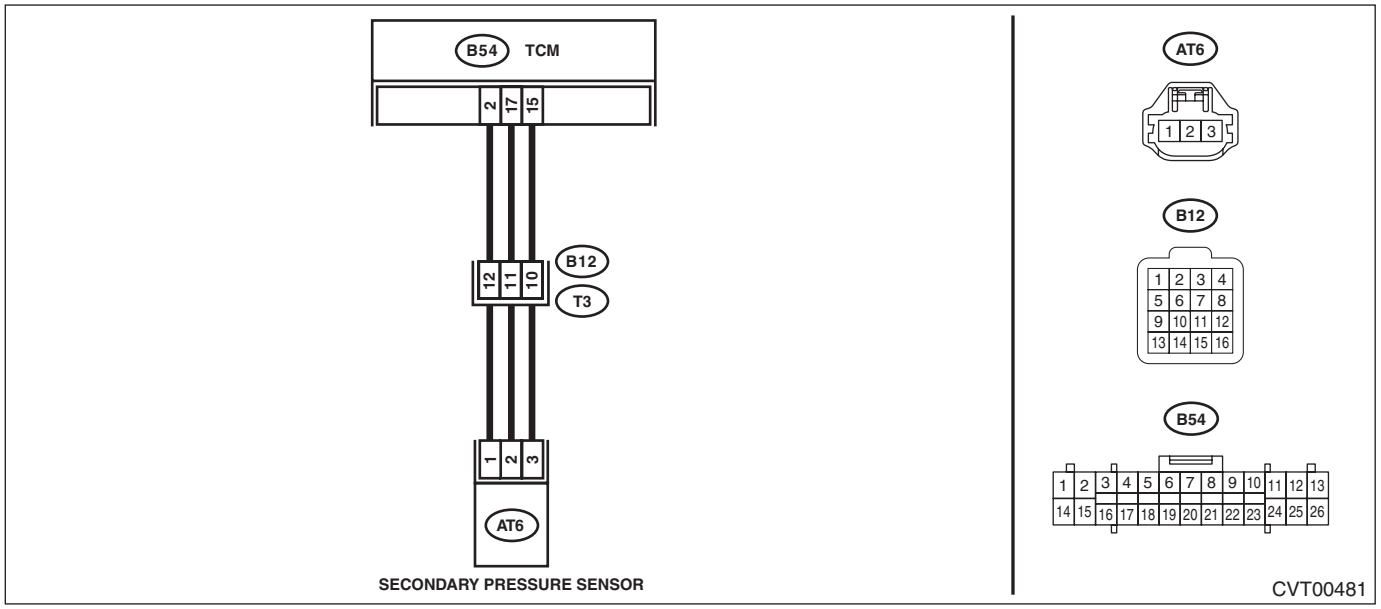
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-32, DTC P0842 SECONDARY OIL PRESSURE SENSOR CIRCUIT (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Shift characteristics malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Start the engine. 2) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 3) Depress the brake pedal, and shift the select lever to “D” range. 4) Shift the select lever to “P” range. 5) Stabilize the engine speed at idle. 6) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 2 — (B12) No. 12:*** ***(B54) No. 15 — (B12) No. 10:*** ***(B54) No. 17 — (B12) No. 11:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.
3	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 2 — Chassis ground:*** ***(B54) No. 17 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Repair the short circuit of harness.

	Step	Check	Yes	No
4	**CHECK TRANSMISSION HARNESS.** 1) Disconnect the secondary pressure sensor connector. 2) Measure the resistance between transmission connector and secondary pressure sensor connector. ***Connector & terminal*** ***(T3) No. 10 — (AT6) No. 3:*** ***(T3) No. 11 — (AT6) No. 2:*** ***(T3) No. 12 — (AT6) No. 1:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of harness.
5	**CHECK TRANSMISSION HARNESS.** Measure the resistance between transmission connector and chassis ground. ***Connector & terminal*** ***(T3) No. 11 — Chassis ground:*** ***(T3) No. 12 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair the short circuit of harness.
6	**CHECK SENSOR POWER SUPPLY.** 1) Connect the connectors of TCM and transmission. 2) Turn the ignition switch to ON. 3) Measure the voltage between secondary pressure sensor connector terminals. ***Connector & terminal*** ***(AT6) No. 1 (+) — (AT6) No. 3 (–):***	Is the voltage 4.5 V or more?	Replace the secondary pressure sensor. <Ref. to CVT(TH58A)-110, Secondary Pressure Sensor.>	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AE:DTC P0843 SECONDARY OIL PRESSURE SENSOR CIRCUIT (HIGH)

DTC DETECTING CONDITION:

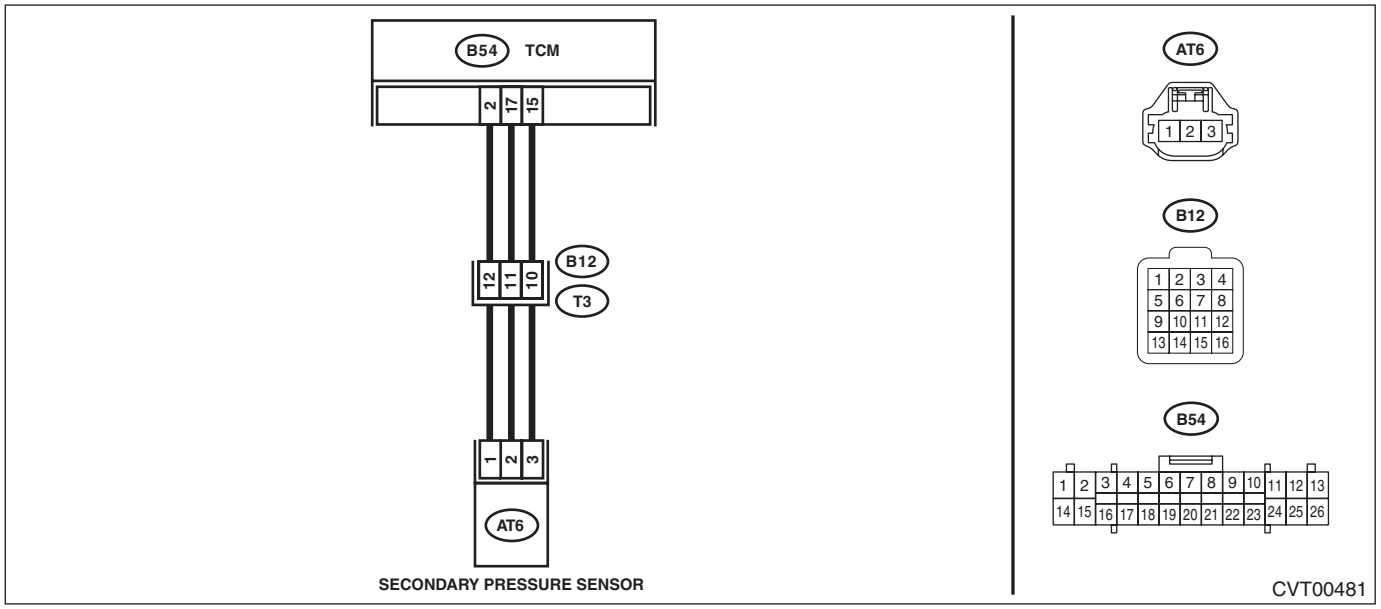
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-33, DTC P0843 SECONDARY OIL PRESSURE SENSOR CIRCUIT (HIGH), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Shift characteristics malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



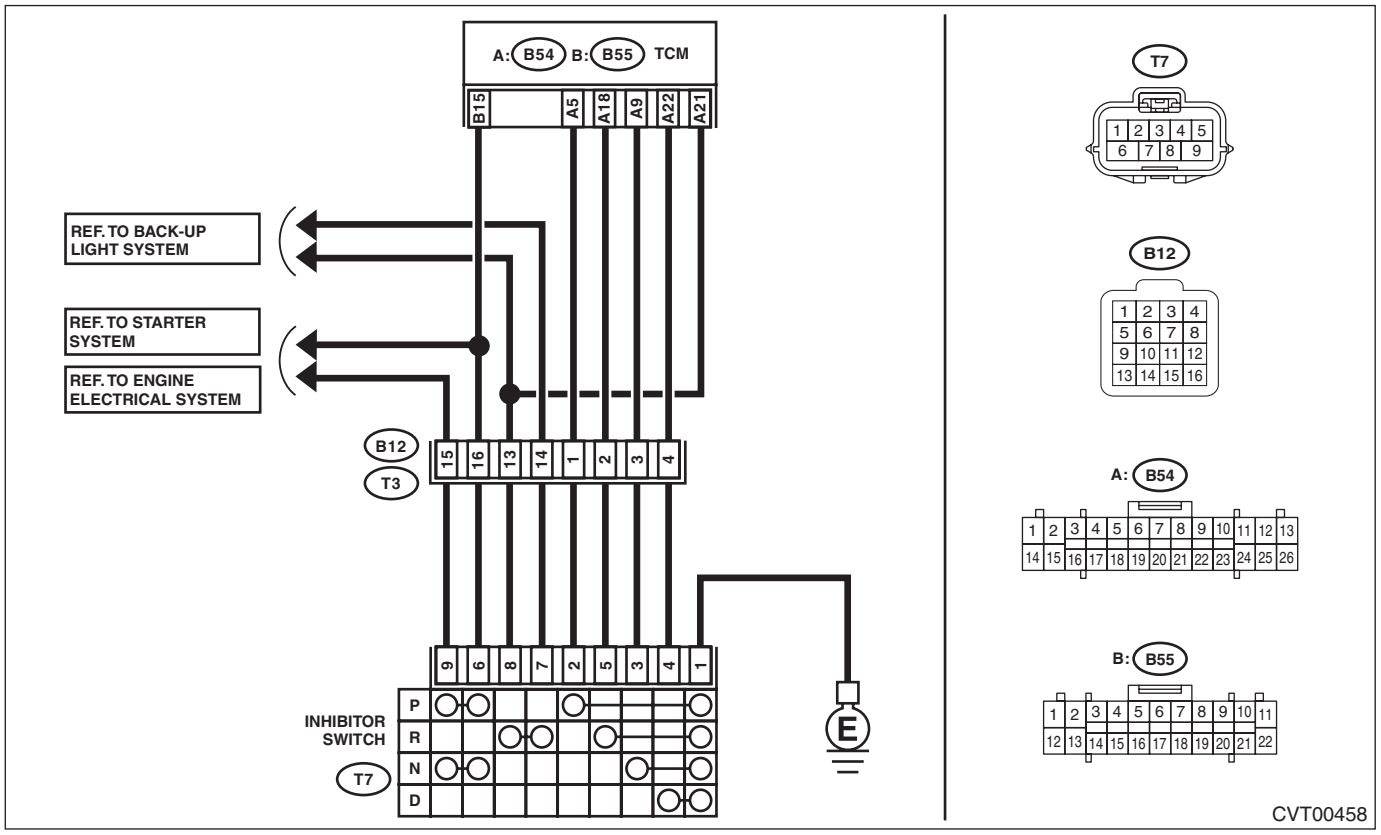
Step		Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Start the engine. 2) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 3) Depress the brake pedal, and shift the select lever to “D” range. 4) Shift the select lever to “P” range. 5) Stabilize the engine speed at idle. 6) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Turn the ignition switch to ON. 4) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 2 (+) — Chassis ground (–):*** ***(B54) No. 17 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between TCM connector terminals. ***Connector & terminal*** ***(B54) No. 2 — (B54) No. 17:***	Is the resistance less than 1 Ω?	Repair the short circuit of harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK TRANSMISSION HARNESS.** 1) Disconnect the secondary pressure sensor connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and chassis ground. ***Connector & terminal*** ***(T3) No. 11 (+) — Chassis ground (–):*** ***(T3) No. 12 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **5**.	Repair the short circuit of harness.
5	**CHECK TRANSMISSION HARNESS.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between transmission connector terminals. ***Connector & terminal*** ***(T3) No. 11 — (T3) No. 12:***	Is the resistance less than 1 Ω?	Repair the short circuit of harness.	Go to step **6**.
6	**CHECK SENSOR POWER SUPPLY.** 1) Connect the connectors of TCM and transmission. 2) Turn the ignition switch to ON. 3) Measure the voltage between secondary pressure sensor connector terminals. ***Connector & terminal*** ***(AT6) No. 1 (+) — (AT6) No. 3 (–):***	Is the voltage 4.5 V or more?	Replace the secondary pressure sensor. <Ref. to CVT(TH58A)-110, Secondary Pressure Sensor.>	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AF:DTC P0851 PARK/NEUTRAL SWITCH INPUT CIRCUIT LOW

DTC DETECTING CONDITION:
Inhibitor switch is faulty.
TROUBLE SYMPTOM:
- Shift characteristics are erroneous.
- The range position of the select lever and the position of shift indicator display do not match.

WIRING DIAGRAM:
CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Turn the ignition switch to ON. 2) Move the select lever to each range, and read the data of «P Range» and «N/P Range Signal» at P range, and the data of «N Range» and «N/P Range Signal» at N range using the Subaru Select Monitor.	Is the display of the corresponding range “ON”?	Go to step **7**.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance of harness between TCM connector and transmission connector. ***Connector & terminal*** ***(B54) No. 5 — (B12) No. 1:*** ***(B54) No. 9 — (B12) No. 3:*** ***(B55) No. 15 — (B12) No. 16:***	Is each resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of body harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Measure the resistance of harness between inhibitor switch connector and transmission ground. ***Connector & terminal*** ***(T7) No. 1 — Transmission ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the open circuit of harness.
4	**CHECK HARNESS.** 1) Disconnect the inhibitor switch connector. 2) Measure the resistance between transmission connector and inhibitor switch connector. ***Connector & terminal*** ***(T3) No. 1 — (T7) No. 2:*** ***(T3) No. 3 — (T7) No. 3:*** ***(T3) No. 16 — (T7) No. 6:***	Is each resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of transmission harness.
5	**CHECK INHIBITOR SWITCH.** Move the select lever to each range, and measure the resistance between inhibitor switch connector terminals. ***Terminals*** ***No. 2 — No. 1:*** ***No. 3 — No. 1:*** ***No. 6 — No. 1:***	Is the resistance of the corresponding range less than 1 MΩ?	Go to step **6**.	Replace the inhibitor switch. <Ref. to CVT(TH58A)-97, Inhibitor Switch.>
6	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between each connector and chassis ground. ***Connector & terminal*** ***Transmission connector (B12 side)*** ***(B12) No. 1 (+) — Chassis ground (–):*** ***(B12) No. 3 (+) — Chassis ground (–):*** ***(B12) No. 16 (+) — Chassis ground (–):*** ***Transmission connector (T7 side)*** ***(T7) No. 2 (+) — Chassis ground (–):*** ***(T7) No. 3 (+) — Chassis ground (–):*** ***(T7) No. 6 (+) — Chassis ground (–):***	Is each voltage less than 1 V?	Go to step **7**.	Repair the harness which outputs 1 V or more.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact between TCM, inhibitor switch, transmission ground?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AG:DTC P086C REVERSE INPUT CIRCUIT 2

DTC DETECTING CONDITION:

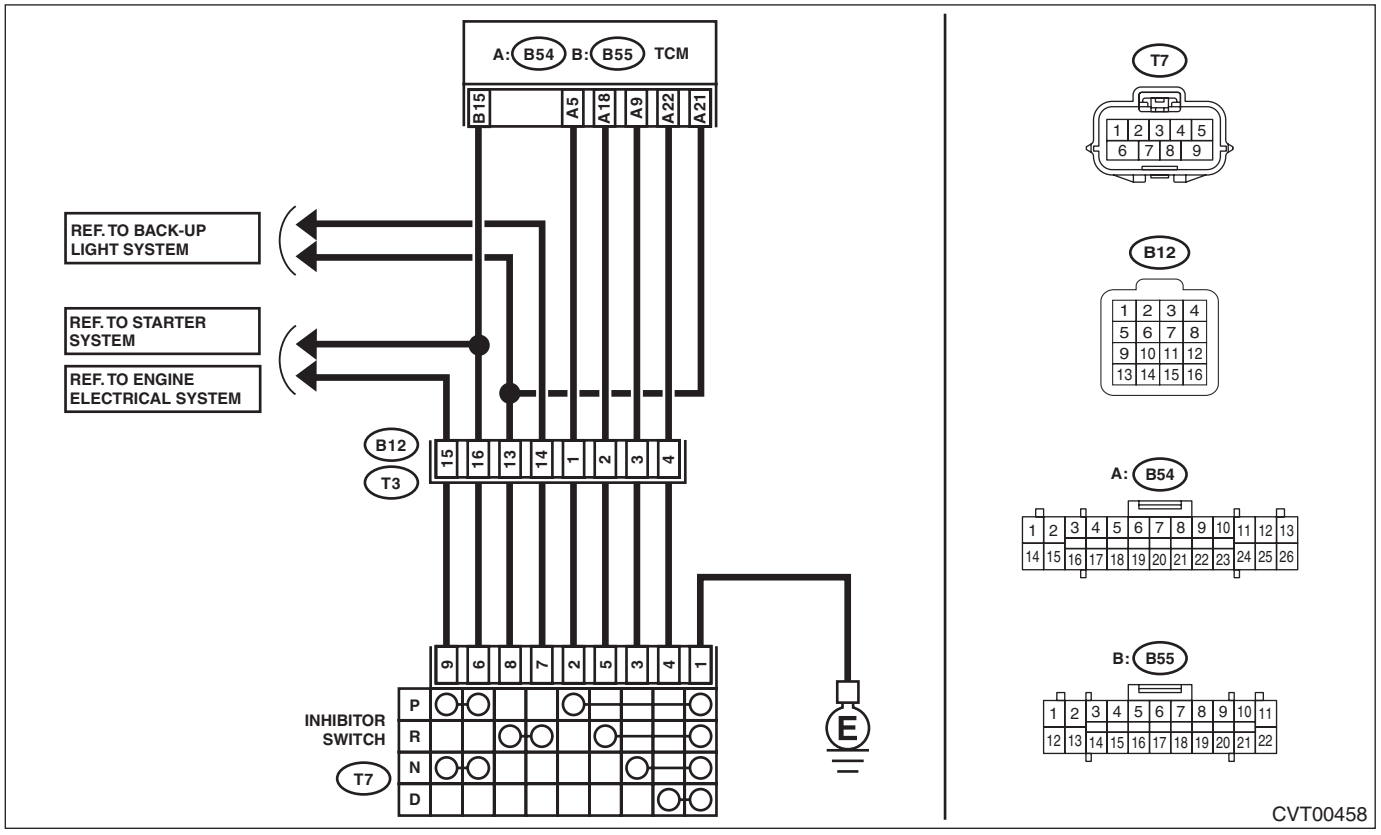
- Inhibitor switch is faulty.
- R range 2 signal is not input.

TROUBLE SYMPTOM:

- Shift characteristics are erroneous.
- The range position of the select lever and the position of shift indicator display do not match.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) Turn the ignition switch to ON. 2) Move the select lever to "R" range, and read the data of «R Range Signal2» using the Subaru Select Monitor.	Is "ON" displayed?	Go to step **7**.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance of harness between TCM connector and transmission connector. ***Connector & terminal*** ***(B54) No. 21 — (B12) No. 13:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of body harness.
3	**CHECK HARNESS.** Measure the resistance of harness between inhibitor switch connector and transmission ground. ***Connector & terminal*** ***(T7) No. 1 — Transmission ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the inhibitor switch connector. 2) Measure the resistance between transmission connector and inhibitor switch connector. ***Connector & terminal*** ***(T3) No. 13 — (T7) No. 8:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of transmission harness.
5	**CHECK INHIBITOR SWITCH.** Move the select lever to "R" range, and measure the resistance between inhibitor switch connector terminals. ***Terminals*** ***No. 8 — No. 1:***	Is the resistance less than 1 Ω?	Go to step **6**.	Replace the inhibitor switch. <Ref. to CVT(TH58A)-97, Inhibitor Switch.>
6	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between each connector and chassis ground. ***Connector & terminal*** ***Transmission connector (B12 side)*** ***(B12) No. 13 (+) — Chassis ground (–):*** ***Transmission connector (T7 side)*** ***(T7) No. 8 (+) — Chassis ground (–):***	Is each voltage less than 1 V?	Go to step **7**.	Repair the harness which outputs 1 V or more.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact between TCM, inhibitor switch, transmission ground?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AH:DTC P0882 TCM POWER INPUT SIGNAL LOW

NOTE:
Refer to "DTC P0890 AT SELF-SHUT RELAY DIAGNOSIS (LOW)" for diagnostic procedure. <Ref. to CVT(HEV)(diag)-98, DTC P0890 AT SELF-SHUT RELAY DIAGNOSIS (LOW), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AI: DTC P0890 AT SELF-SHUT RELAY DIAGNOSIS (LOW)

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-34, DTC P0890 AT SELF-SHUT RELAY DIAGNOSIS (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

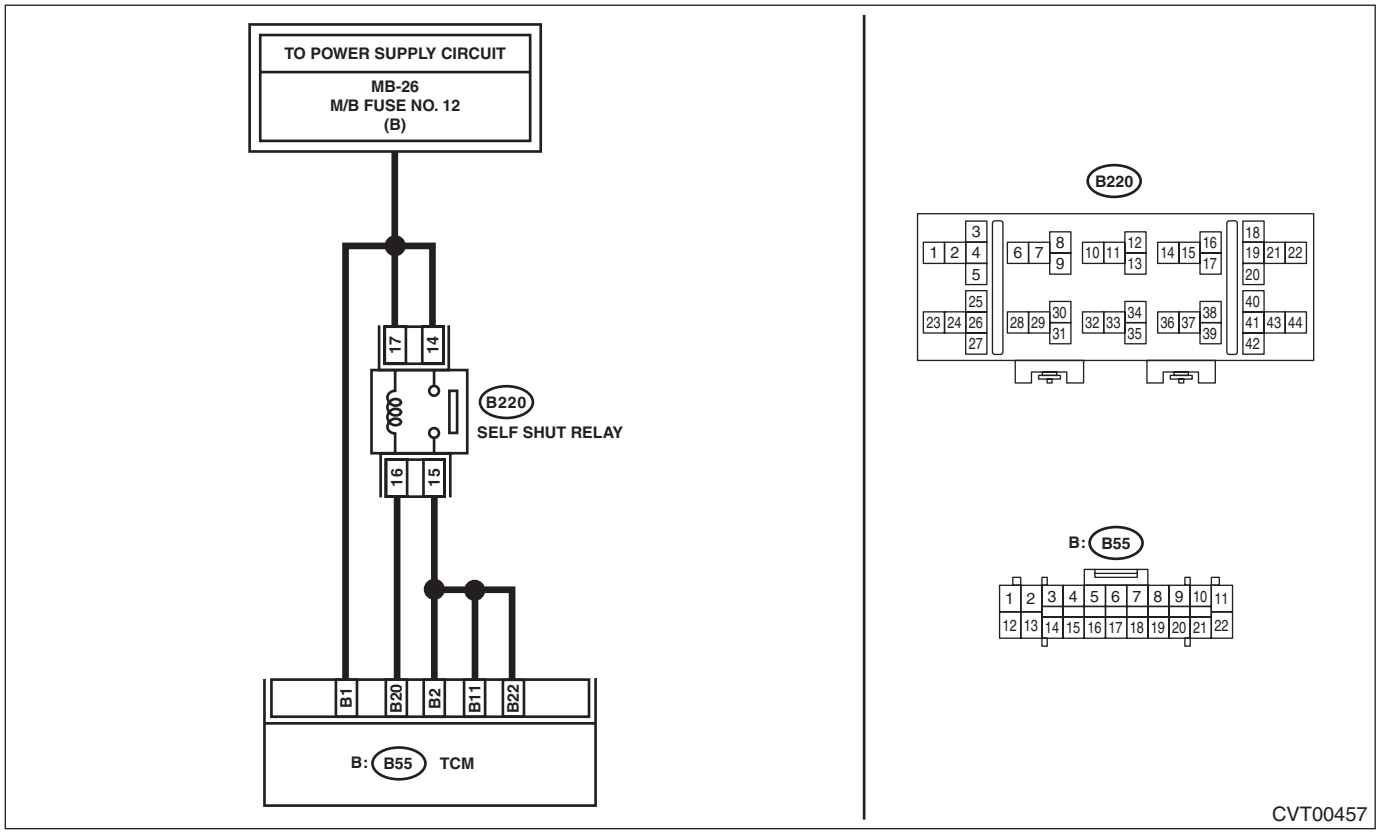
Gear is not changed.

CAUTION:

After diagnosis, perform Clear Memory Mode for ECM. <Ref. to EN(H4DO HEV)(diag)-66, Clear Memory Mode.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>

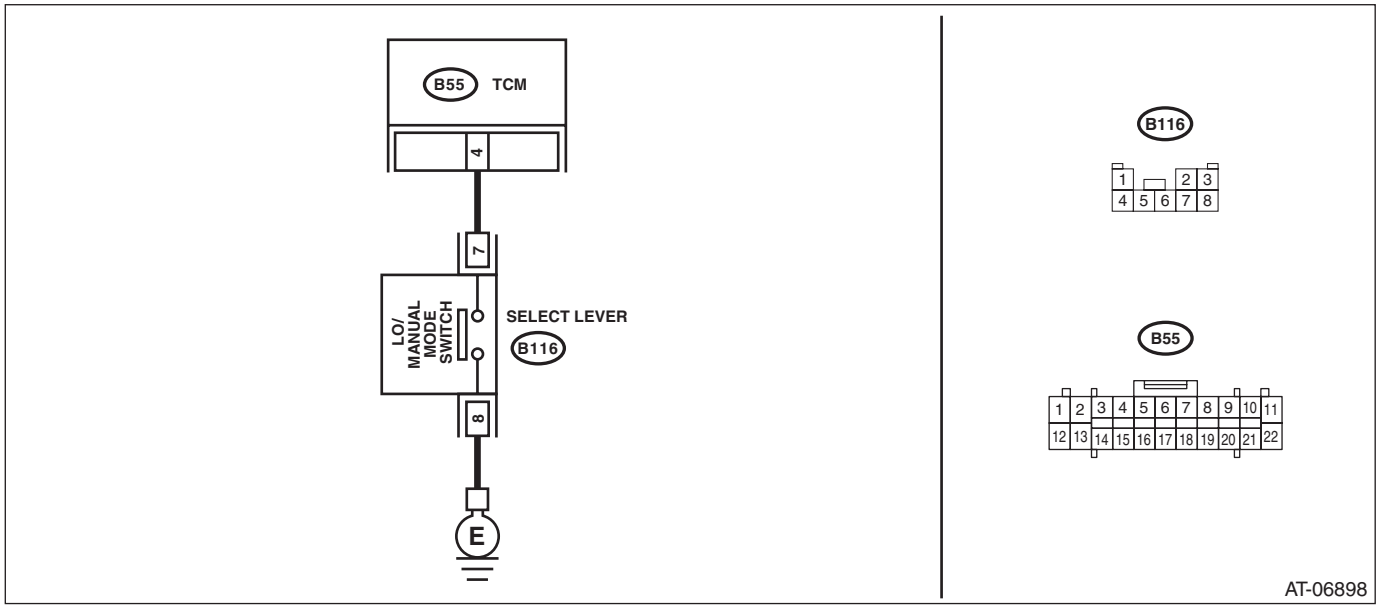


Step		Check	Yes	No
1	**CHECK HARNESS.** 1) Disconnect the TCM and self shut relay connectors. 2) Measure the resistance between TCM connector and self shut relay connector. ***Connector & terminal*** ***(B55) No. 20 — (B220) No. 16:*** ***(B55) No. 2 — (B220) No. 15:*** ***(B55) No. 11 — (B220) No. 15:*** ***(B55) No. 22 — (B220) No. 15:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the open circuit of harness.

	Step	Check	Yes	No
2	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B55) No. 20 — Chassis ground:*** ***(B55) No. 2 — Chassis ground:*** ***(B55) No. 11 — Chassis ground:*** ***(B55) No. 22 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK RELAY POWER SUPPLY.** Measure the voltage between self shut relay connector and chassis ground. ***Connector & terminal*** ***(B220) No. 14 (+) — Chassis ground (–):*** ***(B220) No. 17 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	Repair the open or short circuit of harness.
4	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Connector & terminal*** ***(B220) No. 16 — (B220) No. 17:***	Is the resistance 110 — 140 Ω?	Go to step **5**.	Replace the self shut relay.
5	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Connector & terminal*** ***(B220) No. 14 — (B220) No. 15:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Replace the self shut relay.
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the connectors of TCM and self shut relay. 2) Read the data of «Control module voltage» using Subaru Select Monitor.	Is the «Control module voltage» 10 V or more?	Current condition is normal. Check for poor contact in connectors or harnesses, and repair the defective part.	Go to step **7**.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact of the self shut relay circuit?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AJ:DTC P0951 MANUAL SWITCH

DTC DETECTING CONDITION:
Input signal circuit of manual mode switch is open or shorted.
TROUBLE SYMPTOM:
Manual mode can not be set.
WIRING DIAGRAM:
CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the manual mode switch connector. 3) Measure the resistance between manual mode switch connector and chassis ground. ***Connector & terminal*** ***(B116) No. 8 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the open circuit of harness.
2	**CHECK MANUAL MODE SWITCH.** Measure the resistance between manual mode switch terminals. ***Connector & terminal*** ***(B116) No. 7 — No. 8:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Replace the select lever assembly. <Ref. to CS-24, Select Lever.>
3	**CHECK MANUAL MODE SWITCH.** 1) Shift the select lever to manual mode. 2) Measure the resistance between manual mode switch terminals. ***Connector & terminal*** ***(B116) No. 7 — No. 8:***	Is the resistance less than 1 Ω?	Go to step **4**.	Replace the select lever assembly. <Ref. to CS-24, Select Lever.>
4	**CHECK HARNESS.** 1) Disconnect the TCM connector. 2) Measure the resistance between TCM connector and manual mode switch connector. ***Connector & terminal*** ***(B55) No. 4 — (B116) No. 7:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair the open circuit of harness or poor contact of connector.
5	**CHECK HARNESS.** Measure the resistance between manual mode switch connector and chassis ground. ***Connector & terminal*** ***(B116) No. 7 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair the short circuit of harness.

	Step	Check	Yes	No
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the TCM and manual mode switch connector. 2) Turn the ignition switch to ON. 3) Set the select lever to “D” range. 4) Read the data of «Tiptronic Mode Switch» using Subaru Select Monitor.	Does the value of «Tiptronic Mode Switch» change to “ON” with select lever in manual mode, and “OFF” with select lever in other than manual mode?	Current condition is normal.	Go to step **7**.
7	**CHECK FOR POOR CONTACT.**	Is there poor contact of the manual mode switch circuit?	Repair the poor contact.	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AK:DTC P0961 PRESSURE CONTROL SOLENOID "A" CONTROL CIRCUIT RANGE/PERFORMANCE

DTC DETECTING CONDITION:

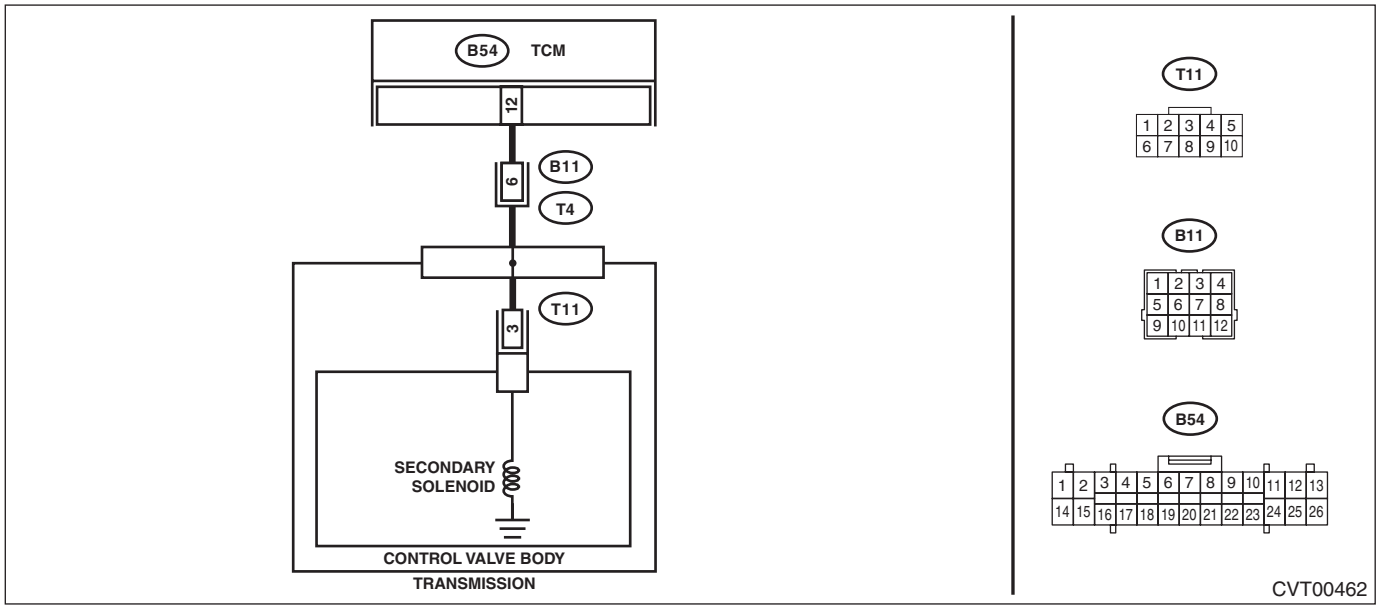
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-35, DTC P0961 PRESSURE CONTROL SOLENOID "A" CONTROL CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Acceleration is poor during standing start.
- Shift control malfunction
- Engine speed increases abruptly.
- Excessive shift shock.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0961, is DTC P0962 or P0963 displayed?	Perform the diagnosis according to DTCs other than P0961.	Go to step **2**.
2	**CHECK FOR POOR CONTACT.** Check for poor contact of harness and connector between TCM and secondary solenoid.	Is there poor contact?	Repair the poor contact of harness and connector.	Go to step **3**.
3	**CHECK SECONDARY SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 — Transmission body:***	Is the resistance approx. 5 — 7 Ω? (when cold)	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Recheck the poor contact of harness and connector. Replace the TCM if no fault is found. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AL:DTC P0962 SECONDARY SOLENOID CIRCUIT (LOW)

DTC DETECTING CONDITION:

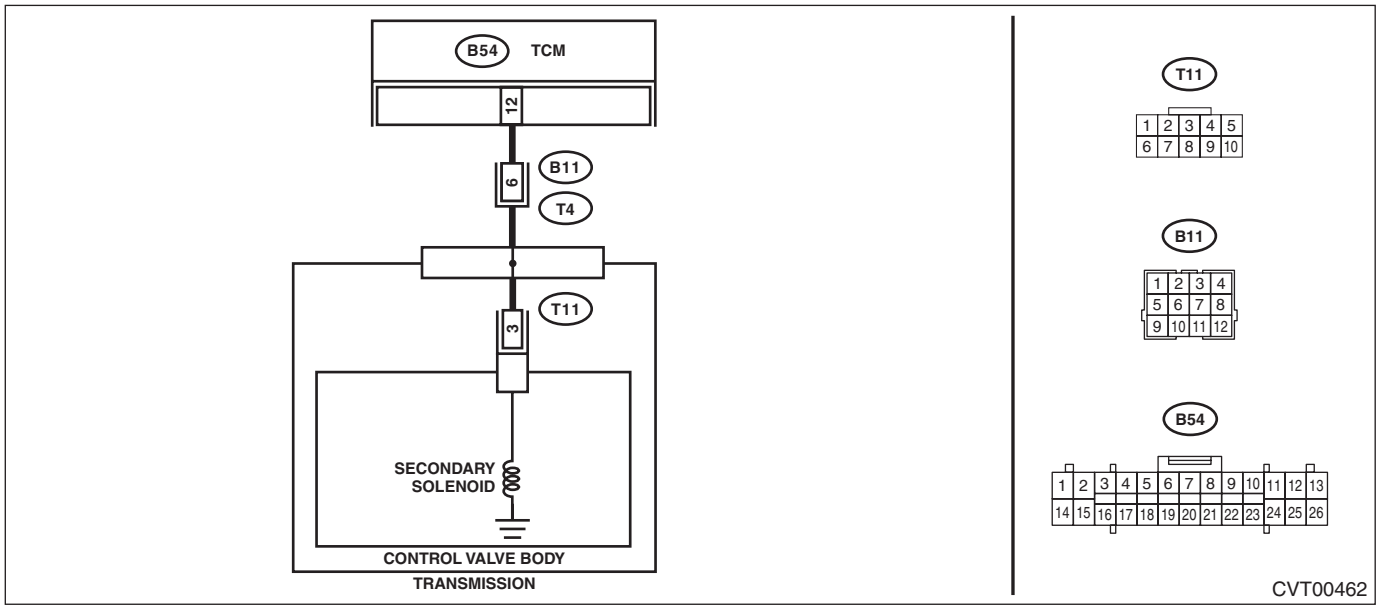
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-36, DTC P0962 SECONDARY SOLENOID CIRCUIT (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Engine speed increases abruptly, and can not start.
- Engine speed increases abruptly during driving.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) After driving with warm up condition, park the vehicle while depressing the brake pedal at "N" range. 2) Read the data of «Sec. Sol. Set Current» and «Sec. Sol. Actual Current» using Subaru Select Monitor.	Does the value of «Sec. Sol. Set Current» and «Sec. Sol. Actual Current» almost correspond?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 12 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK SECONDARY SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 — Transmission body:***	Is the resistance approx. 5 — 7 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **5**.
5	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 — Transmission body:***	Is the resistance 1 MΩ or more?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AM:DTC P0963 SECONDARY SOLENOID CIRCUIT (HIGH)

DTC DETECTING CONDITION:

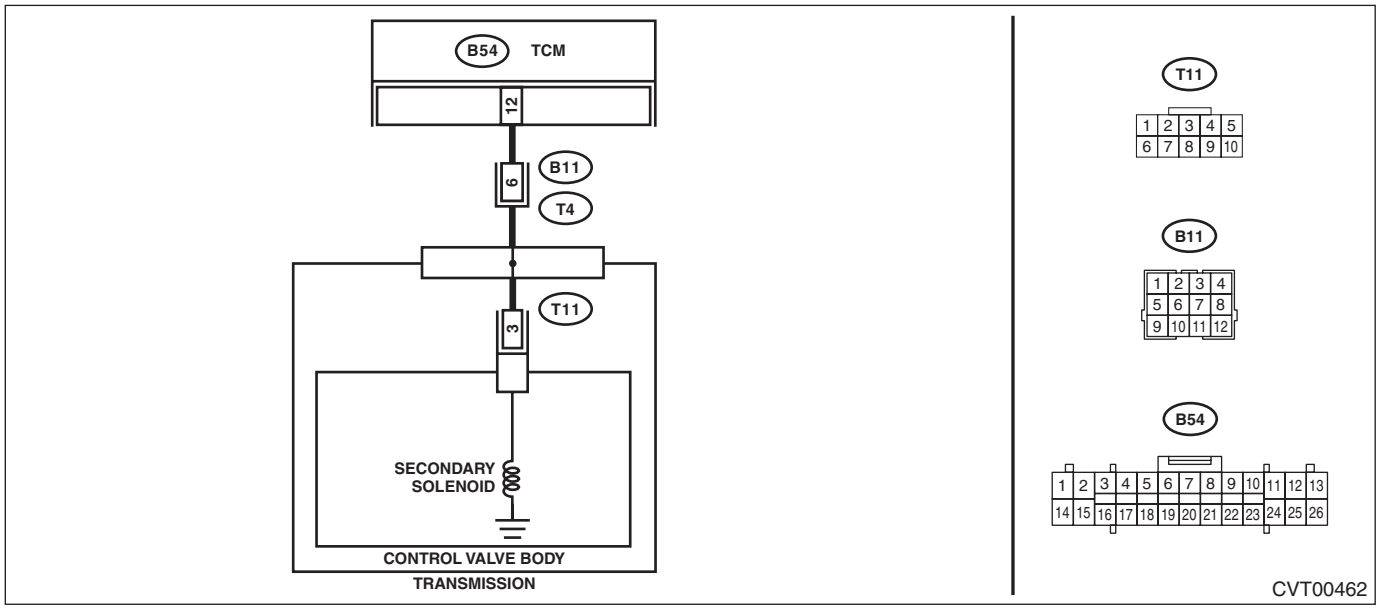
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-37, DTC P0963 SECONDARY SOLENOID CIRCUIT (HIGH), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Engine speed increases abruptly, and can not start.
- Engine speed increases abruptly during driving.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) After driving with warm up condition, park the vehicle while depressing the brake pedal at "N" range. 2) Read the data of «Sec. Sol. Set Current» and «Sec. Sol. Actual Current» using Subaru Select Monitor.	Does the value of «Sec. Sol. Set Current» and «Sec. Sol. Actual Current» almost correspond?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 12 — (B11) No. 6:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 12 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **4**.	Repair the short circuit of harness.

	Step	Check	Yes	No
4	**CHECK SECONDARY SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 — Transmission body:***	Is the resistance approx. 5 — 7 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **5**.
5	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **6**.
6	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 6 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AN:DTC P0965 FORWARD & REVERSE SOLENOID FUNCTION

DTC DETECTING CONDITION:

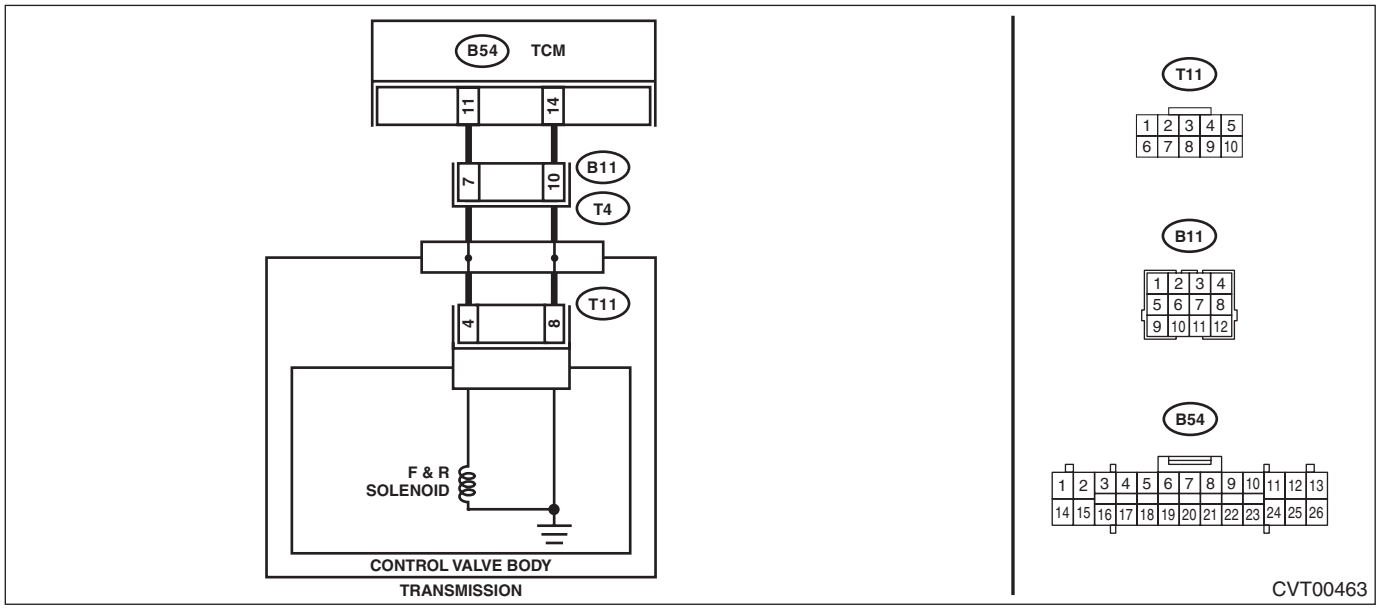
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-38, DTC P0965 FORWARD & REVERSE SOLENOID FUNCTION, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Engine speed increases abruptly, and can not accelerate.
- Excessive slippage is felt.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P0965, is DTC P0966 or P0967 displayed?	Perform the diagnosis according to DTCs other than P0965.	Go to step **2**.
2	**CHECK FOR POOR CONTACT.** Check for poor contact of harness and connector between TCM and F&R solenoid.	Is there poor contact?	Repair the poor contact of harness and connector.	Go to step **3**.
3	**CHECK F&R SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 7 — Transmission body:***	Is the resistance approx. 4 — 6 Ω? (when cold)	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Recheck the poor contact of harness and connector. Replace the TCM if no fault is found. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>

AO:DTC P0966 FORWARD & REVERSE SOLENOID CIRCUIT (LOW)

DTC DETECTING CONDITION:

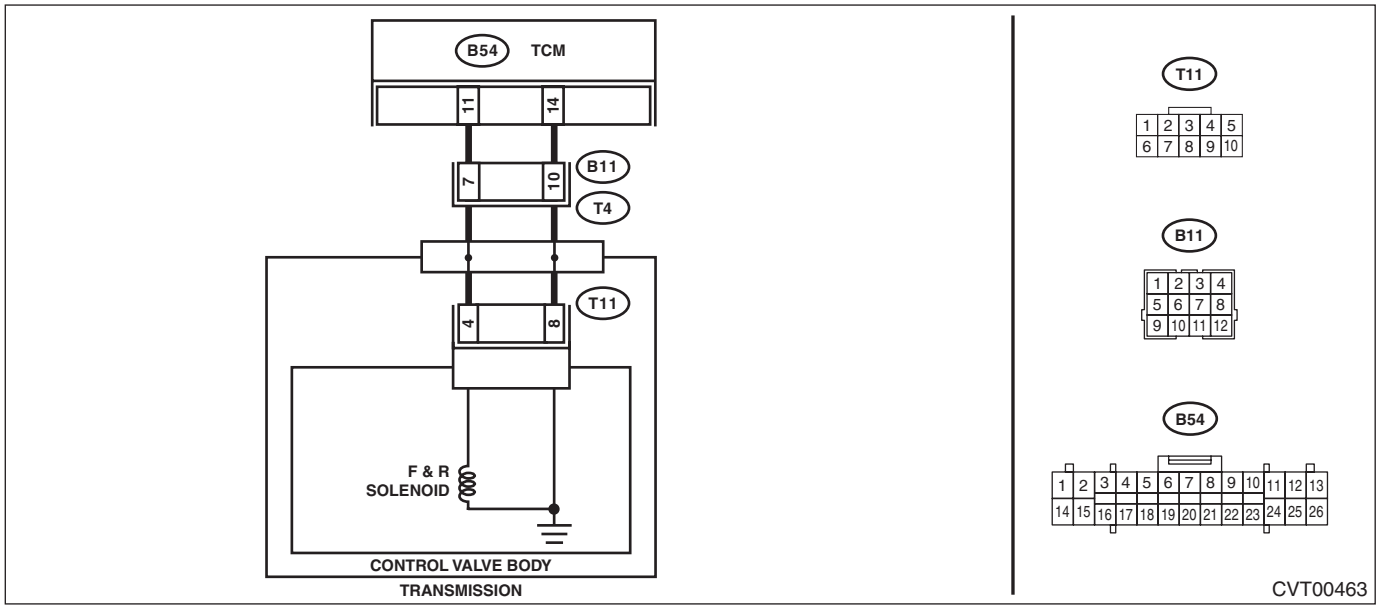
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-39, DTC P0966 FORWARD & REVERSE SOLENOID CIRCUIT (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Excessive shift shock

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) After driving with warm up condition, park the vehicle while depressing the brake pedal at "D" range. 2) Read the data of «F&R Linear Solenoid Set Current» and «F&R Linear Solenoid Actual Current» using Subaru Select Monitor.	Does the value of «F&R Linear Solenoid Set Current» and «F&R Linear Solenoid Actual Current» almost correspond?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 11 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK F&R SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 7 — Transmission body:***	Is the resistance approx. 4 — 6 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **5**.
5	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 7 — Transmission body:***	Is the resistance 1 MΩ or more?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AP:DTC P0967 FORWARD & REVERSE LINEAR SOLENOID CIRCUIT (HIGH)

DTC DETECTING CONDITION:

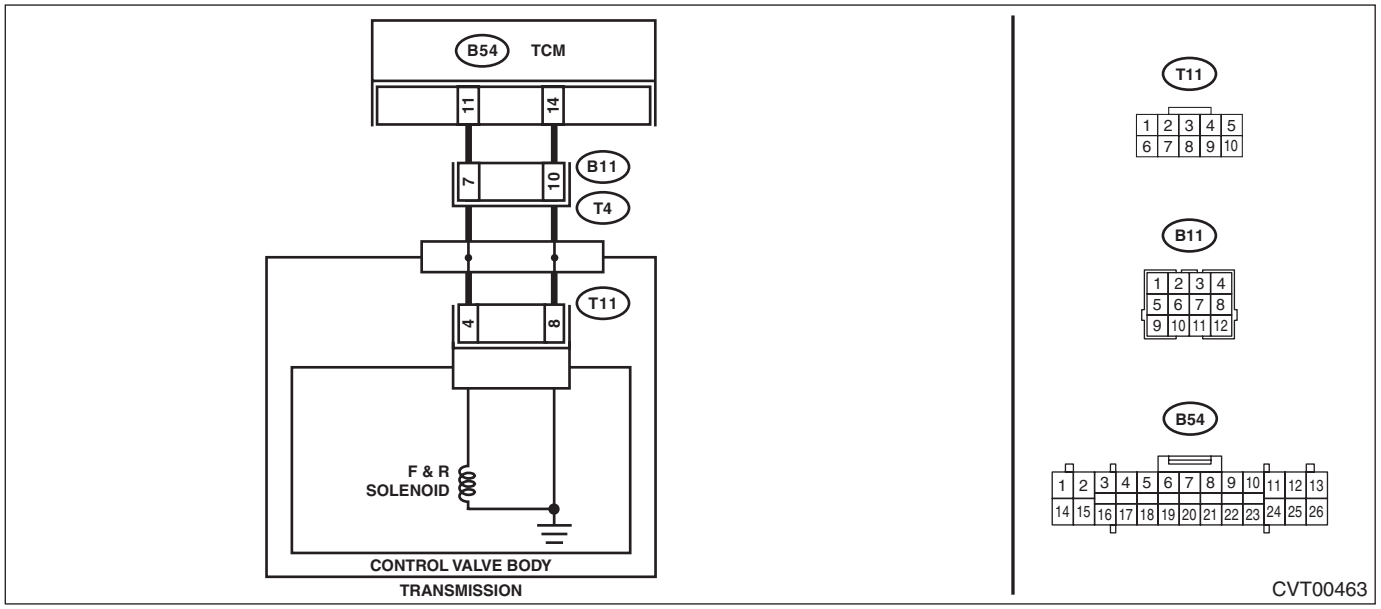
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-40, DTC P0967 FORWARD & REVERSE LINEAR SOLENOID CIRCUIT (HIGH), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Engine speed increases abruptly, and can not start.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>

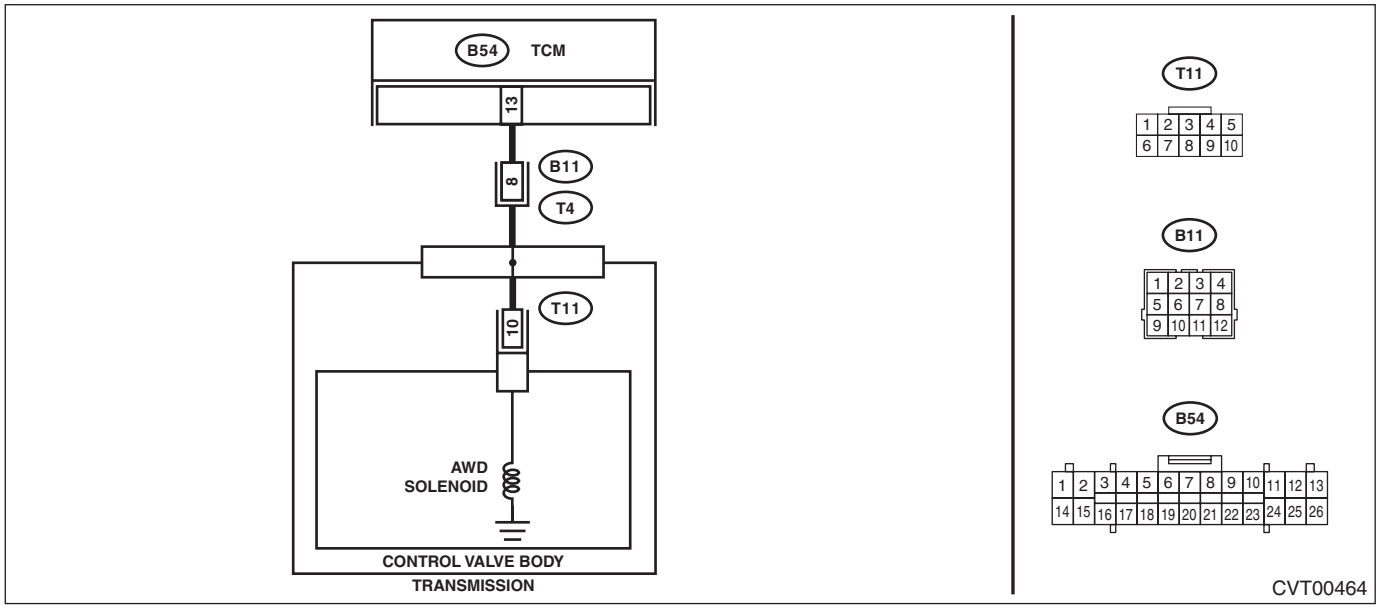


	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) After driving with warm up condition, park the vehicle while depressing the brake pedal at "D" range. 2) Read the data of «F&R Linear Solenoid Set Current» and «F&R Linear Solenoid Actual Current» using Subaru Select Monitor.	Does the value of «F&R Linear Solenoid Set Current» and «F&R Linear Solenoid Actual Current» almost correspond?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 11 — (B11) No. 7:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 11 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **4**.	Repair the short circuit of harness.

	Step	Check	Yes	No
4	**CHECK F&R SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 7 — Transmission body:***	Is the resistance approx. 4 — 6 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **5**.
5	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **6**.
6	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 7 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AQ:DTC P0970 TRANSFER SOLENOID CIRCUIT (LOW)

DTC DETECTING CONDITION:
Output signal circuit of AWD solenoid is shorted.
TROUBLE SYMPTOM:
Drivability getting worse.
WIRING DIAGRAM:
CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 13 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **2**.	Repair the short circuit of harness.
2	**CHECK AWD SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 8 — Transmission body:***	Is the resistance approx. 2 — 4.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **3**.
3	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **4**.
4	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 8 — Transmission body:***	Is the resistance 1 MΩ or more?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AR:DTC P0971 TRANSFER SOLENOID CIRCUIT (HIGH)

DTC DETECTING CONDITION:

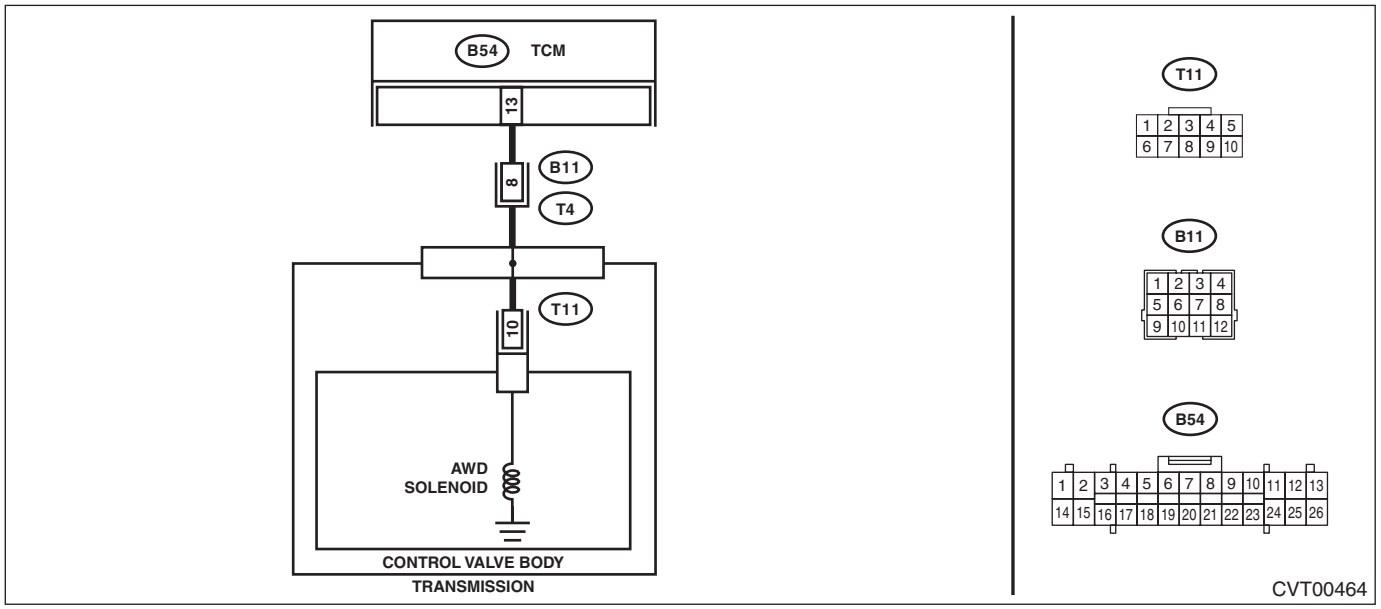
- Output signal circuit of AWD solenoid is open or shorted.
- AWD solenoid has open circuit inside.

TROUBLE SYMPTOM:

- Tight corner braking phenomenon occurs.
- Drivability getting worse.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 13 — (B11) No. 8:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the open circuit of harness.
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 13 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK AWD SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 8 — Transmission body:***	Is the resistance approx. 2 — 4.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.
4	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **5**.

Step		Check	Yes	No
5	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 8 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AS:DTC P0973 PRIMARY SOLENOID SYSTEM A CIRCUIT (LOW)

DTC DETECTING CONDITION:

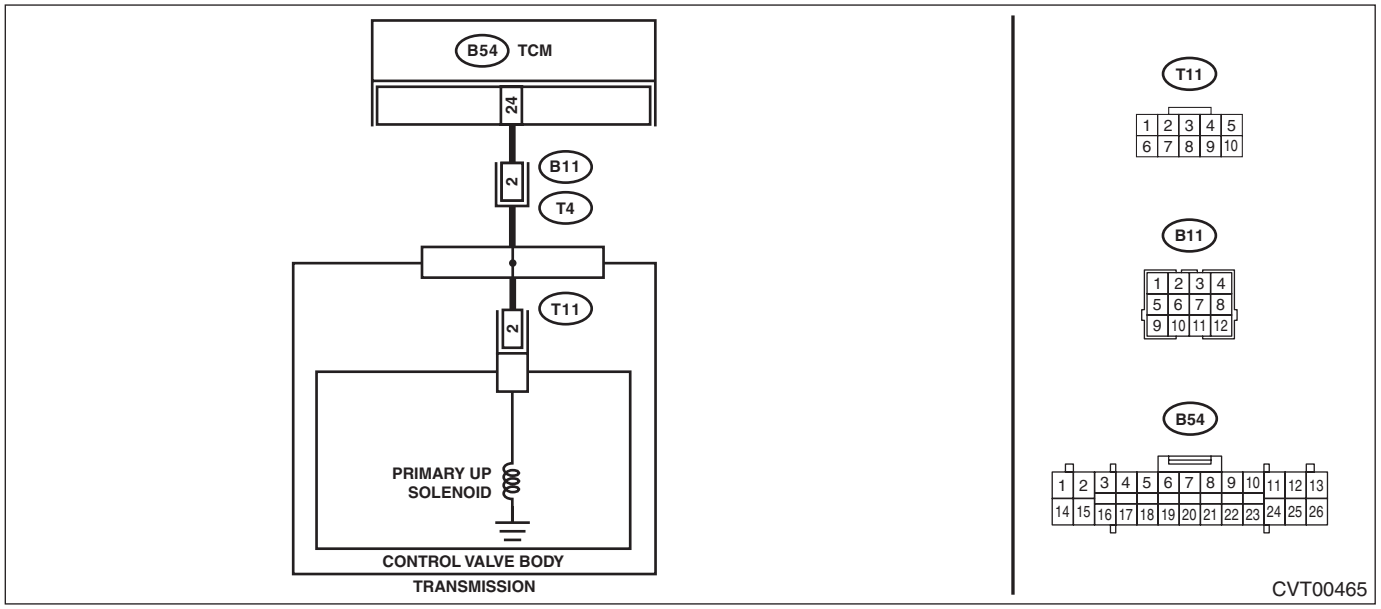
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-41, DTC P0973 PRIMARY SOLENOID SYSTEM A CIRCUIT (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Gear is not changed. (No up-shift)

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 24 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **2**.	Repair the short circuit of harness.
2	**CHECK PRIMARY UP SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 2 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **3**.
3	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 2 — Transmission body:***	Is the resistance 1 MΩ or more?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AT:DTC P0974 PRIMARY SOLENOID SYSTEM A CIRCUIT (HIGH)

DTC DETECTING CONDITION:

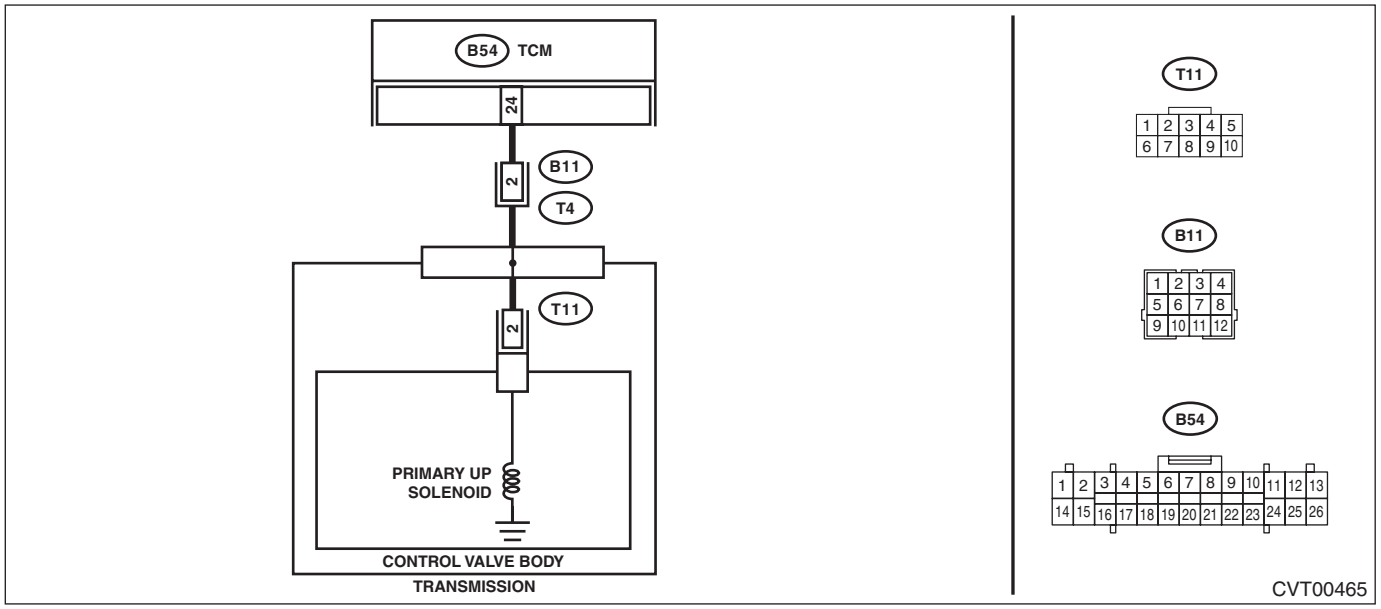
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-42, DTC P0974 PRIMARY SOLENOID SYSTEM A CIRCUIT (HIGH), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Gear is not changed. (No up-shift)

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 24 — (B11) No. 2:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the open circuit of harness.
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 24 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK PRIMARY UP SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 2 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.
4	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **5**.

	Step	Check	Yes	No
5	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 2 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AU:DTC P0976 PRIMARY SOLENOID SYSTEM B CIRCUIT (LOW)

DTC DETECTING CONDITION:

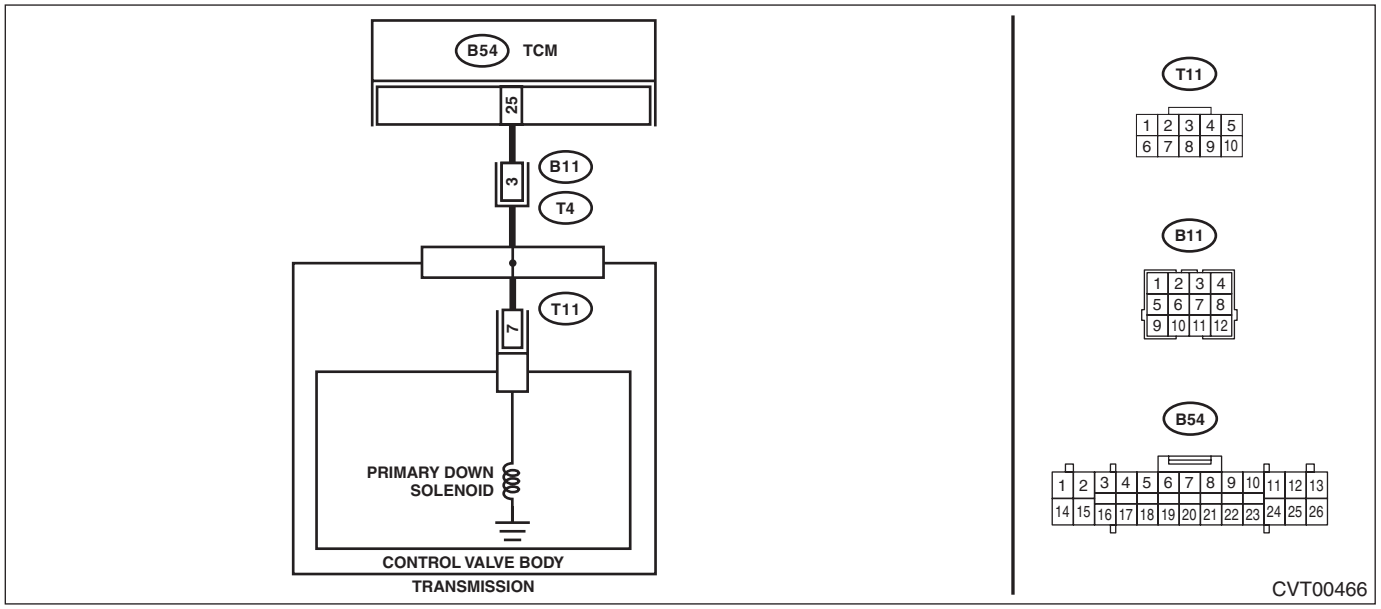
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-43, DTC P0976 PRIMARY SOLENOID SYSTEM B CIRCUIT (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Gear is not changed. (No down-shift)

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 25 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **2**.	Repair the short circuit of harness.
2	**CHECK PRIMARY DOWN SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 3 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **3**.
3	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 3 — Transmission body:***	Is the resistance 1 MΩ or more?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AV:DTC P0977 PRIMARY SOLENOID SYSTEM B CIRCUIT (HIGH)

DTC DETECTING CONDITION:

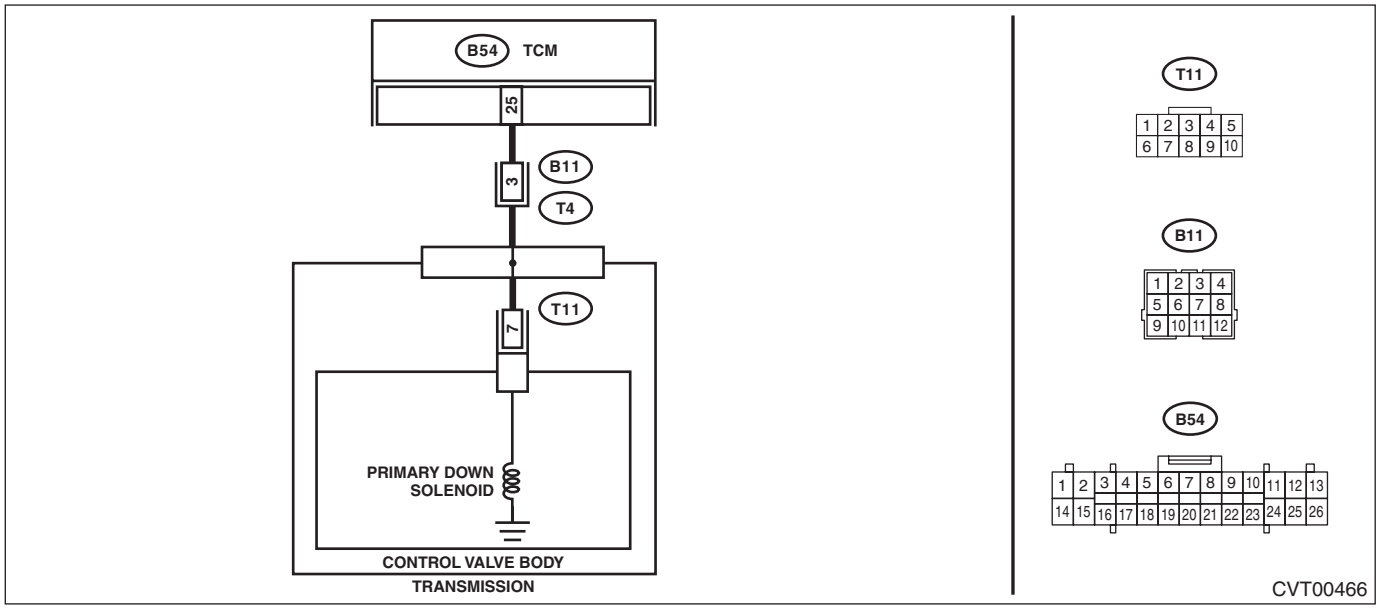
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-44, DTC P0977 PRIMARY SOLENOID SYSTEM B CIRCUIT (HIGH), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Gear is not changed. (No down-shift)

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 25 — (B11) No. 3:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the open circuit of harness.
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 25 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK PRIMARY DOWN SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 3 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.
4	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **5**.

Step		Check	Yes	No
5	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 3 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

AW:DTC P0B0A AUXILIARY TRANSMISSION FLUID PUMP MOTOR SUPPLY VOLTAGE CIRCUIT LOW

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-45, DTC P0B0A AUXILIARY TRANSMISSION FLUID PUMP MOTOR SUPPLY VOLTAGE CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Check the DTC relating the HPCM, BECM using the Subaru Select Monitor.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK BUS BAR.** 1) Turn the ignition switch to OFF. 2) Disconnect the ground cable of the 12 volt auxiliary battery, and as for the 12 volt engine restart battery, disconnect the ground cable from the 12V engine restart battery sensor. <Ref. to NT-5, BATTERY, NOTE, Note.> 3) Remove the service disconnect plug. <Ref. to HEV-15, Service Plug.> 4) Wait for 10 minutes. 5) Check the bus bar.	Is there any bend or looseness?	Reinstall or replace the bus bar.	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>

AX:DTC P0B0B AUXILIARY TRANSMISSION FLUID PUMP MOTOR SUPPLY VOLTAGE CIRCUIT HIGH

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-46, DTC P0B0B AUXILIARY TRANSMISSION FLUID PUMP MOTOR SUPPLY VOLTAGE CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Check the DTC relating the HPCM, BECM using the Subaru Select Monitor.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK DTC.** Check the displayed DTC using Subaru Select Monitor. (While the vehicle is stopped and idling)	Is the DTC P0B0B a current malfunction?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **3**.
3	**CHECK DTC.** Check other DTC using the Subaru Select Monitor.	Is a past malfunction DTC detected? (TCM, HPCM, BECM, DMCM)	Perform the diagnosis according to DTC.	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>

AY:DTC P0B0D AUXILIARY TRANSMISSION FLUID PUMP MOTOR CONTROL MODULE

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-47, DTC P0B0D AUXILIARY TRANSMISSION FLUID PUMP MOTOR CONTROL MODULE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Check the DTC using Subaru Select Monitor.	Is the DTC a current malfunction?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **2**.
2	**CHECK DTC.** 1) Perform the Clear Memory Mode. 2) Start the engine. 3) Check the DTC using Subaru Select Monitor.	Is DTC P0B0D detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Perform the Inspection Mode, and if there is no problem, finish the diagnosis. <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>

AZ:DTC P0C1D AUXILIARY TRANSMISSION FLUID PUMP CONTROL MODULE INTERNAL TEMPERATURE SENSOR RANGE/PERFORMANCE

DTC DETECTING CONDITION:
Electric oil pump inverter circuit board failure
TROUBLE SYMPTOM:
Electric oil pump does not operate.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Check the DTC using Subaru Select Monitor.	Is the DTC a current malfunction?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **2**.
2	**CHECK DTC.** 1) Perform the Clear Memory Mode. 2) Start the engine. 3) Warm up the engine until the ATF temperature reaches 40°C (104°F) or more. 4) Check the DTC using Subaru Select Monitor.	Is DTC P0C1D detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Perform the Inspection Mode, and if there is no problem, finish the diagnosis. <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>

BA:DTC P0C21 AUXILIARY TRANSMISSION FLUID PUMP PHASE U-V-W CIRCUIT LOW

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-48, DTC P0C21 AUXILIARY TRANSMISSION FLUID PUMP PHASE U-V-W CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

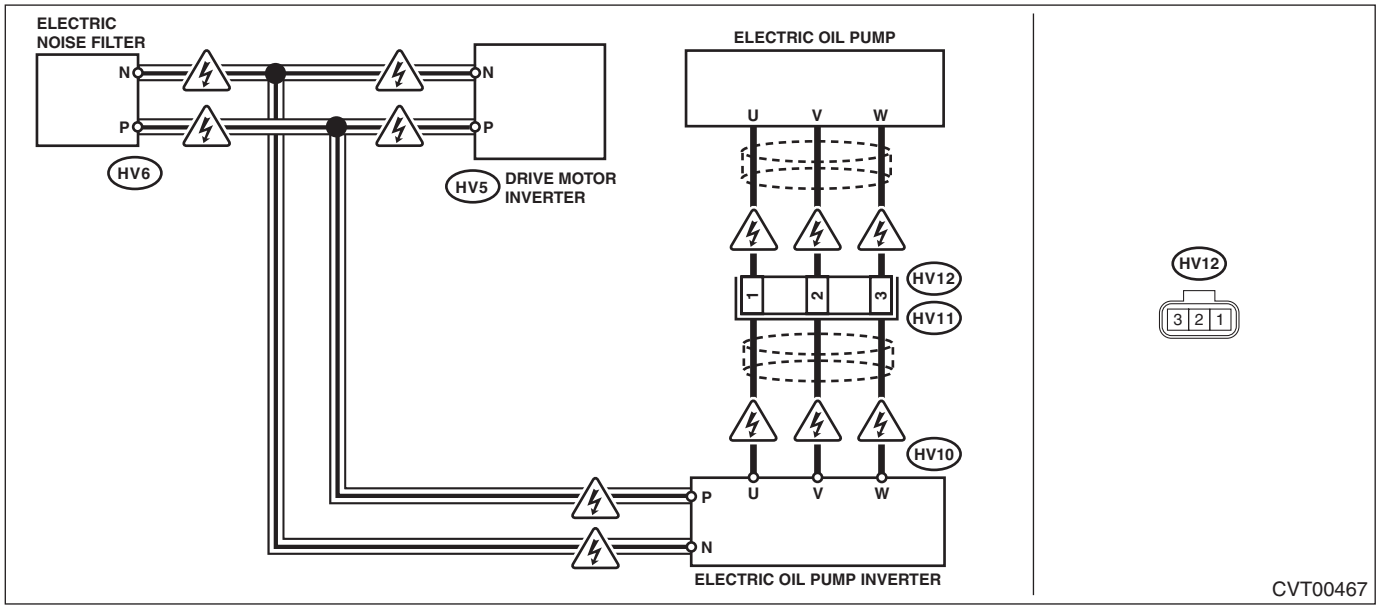
Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



Step		Check	Yes	No
1	**CHECK POWER CABLE.** 1) Turn the ignition switch to OFF. 2) Disconnect the ground cable of the 12 volt auxiliary battery, and as for the 12 volt engine restart battery, disconnect the ground cable from the 12V engine restart battery sensor. <Ref. to NT-5, BATTERY, NOTE, Note.> 3) Remove the service disconnect plug. 4) Wait for 10 minutes. 5) Check the power cables of the electric oil pump and the electric oil pump inverter.	Is there any fault in the power cable? (looseness or rust)	Repair the power cable.	Go to step **2**.
2	**CHECK POWER CABLE.** 1) Disconnect the coupling connector of the electric oil pump and electric oil pump inverter. (HV11•HV12) 2) Disconnect the power cable from electric oil pump inverter. 3) Measure the resistance of power cable. ***Connector & terminal*** ***(HV10) U — (HV11) No. 1:*** ***(HV10) V — (HV11) No. 2:*** ***(HV10) W — (HV11) No. 3:***	Is the resistance less than 1 Ω?	Go to step **3**.	Replace the power cable. <Ref. to HEV-52, Power Cable.>

	Step	Check	Yes	No
3	**CHECK ELECTRIC OIL PUMP INVERTER.** Measure the resistance between the electric oil pump inverter terminals. ***Connector & terminal*** ***Electric oil pump inverter U terminal —*** ***Electric oil pump inverter N terminal:*** ***Electric oil pump inverter V terminal —*** ***Electric oil pump inverter N terminal:*** ***Electric oil pump inverter W terminal —*** ***Electric oil pump inverter N terminal:***	Is the resistance 1 kΩ or more?	Go to step **4**.	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>
4	**CHECK ELECTRIC OIL PUMP SIDE POWER CABLE.** Measure the resistance of electric oil pump side power cable. ***Connector & terminal*** ***(HV12) No. 1 — (HV12) No. 2:*** ***(HV12) No. 1 — (HV12) No. 3:*** ***(HV12) No. 2 — (HV12) No. 3:***	Is the resistance 0.3 Ω or more?	Go to step **5**.	Replace the electric oil pump. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.>
5	**CHECK ELECTRIC OIL PUMP.** 1) Replace the removed/disconnected parts back to the vehicle. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C21 detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **6**.
6	**Auto Start Stop ROAD TEST.** Perform the Auto Start Stop road test. <Ref. to CVT(TH58A)-51, Auto Start Stop, INSPECTION, Road Test.>	Is P0C21 detected?	Replace the electric oil pump and the electric oil pump inverter. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.> <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Current condition is normal.

BB:DTC P0C22 AUXILIARY TRANSMISSION FLUID PUMP PHASE U-V-W CIRCUIT HIGH

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-49, DTC P0C22 AUXILIARY TRANSMISSION FLUID PUMP PHASE U-V-W CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

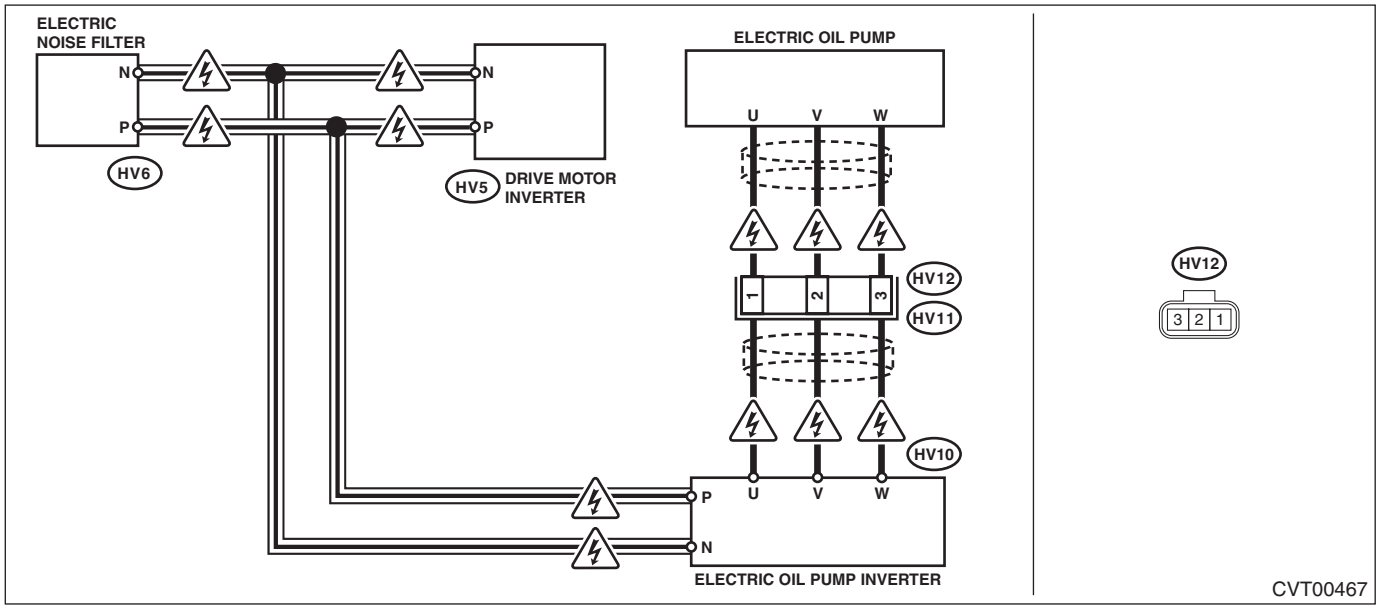
Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



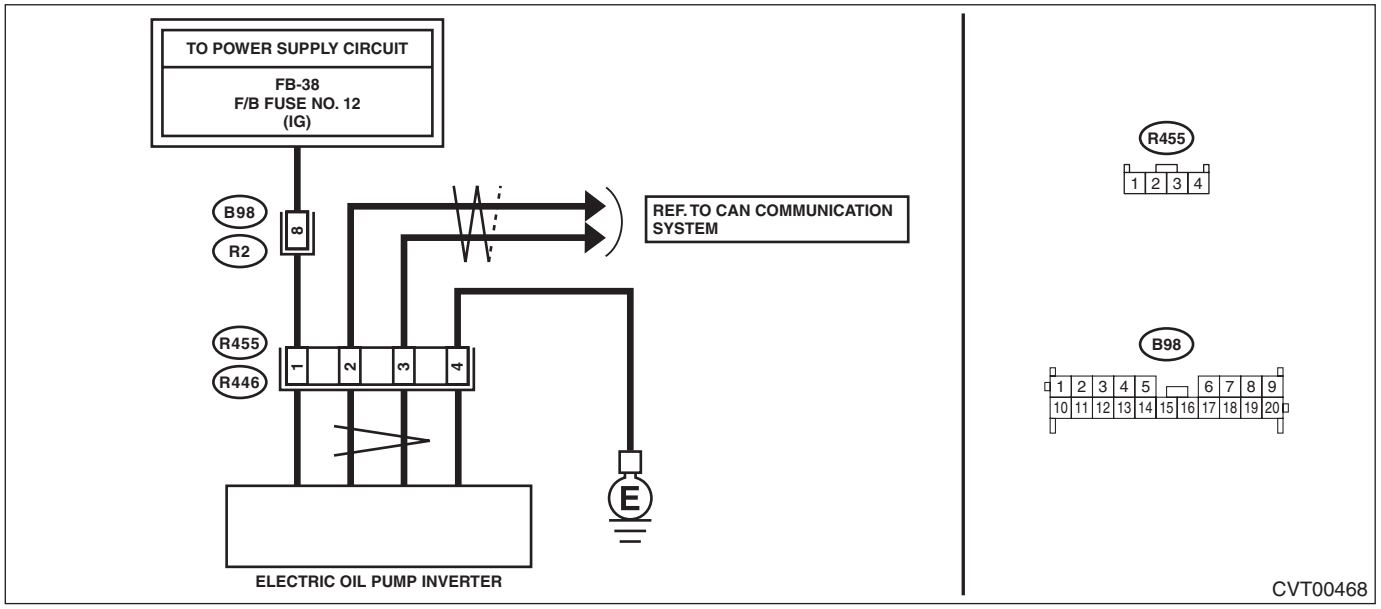
	Step	Check	Yes	No
1	**CHECK POWER CABLE.** 1) Turn the ignition switch to OFF. 2) Disconnect the ground cable of the 12 volt auxiliary battery, and as for the 12 volt engine restart battery, disconnect the ground cable from the 12V engine restart battery sensor. <Ref. to NT-5, BATTERY, NOTE, Note.> 3) Remove the service disconnect plug. 4) Wait for 10 minutes. 5) Check the power cables of the electric oil pump and the electric oil pump inverter.	Is there any fault in the power cable? (looseness or rust)	Repair the power cable.	Go to step **2**.
2	**CHECK POWER CABLE.** 1) Disconnect the coupling connector of the electric oil pump and electric oil pump inverter. (HV11•HV12) 2) Disconnect the power cable from electric oil pump inverter. 3) Measure the resistance of power cable. ***Connector & terminal*** ***(HV10) U — (HV11) No. 1:*** ***(HV10) V — (HV11) No. 2:*** ***(HV10) W — (HV11) No. 3:***	Is the resistance less than 1 Ω?	Go to step **3**.	Replace the power cable. <Ref. to HEV-52, Power Cable.>

	Step	Check	Yes	No
3	**CHECK ELECTRIC OIL PUMP INVERTER.** Measure the resistance between the electric oil pump inverter terminals. ***Connector & terminal*** ***Electric oil pump inverter U terminal —*** ***Electric oil pump inverter P terminal:*** ***Electric oil pump inverter V terminal —*** ***Electric oil pump inverter P terminal:*** ***Electric oil pump inverter W terminal —*** ***Electric oil pump inverter P terminal:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>
4	**CHECK ELECTRIC OIL PUMP SIDE POWER CABLE.** Measure the resistance of electric oil pump side power cable. ***Connector & terminal*** ***(HV12) No. 1 — (HV12) No. 2:*** ***(HV12) No. 1 — (HV12) No. 3:*** ***(HV12) No. 2 — (HV12) No. 3:***	Is the resistance 0.3 Ω or more?	Go to step **5**.	Replace the electric oil pump. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.>
5	**CHECK ELECTRIC OIL PUMP.** 1) Replace the removed/disconnected parts back to the vehicle. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C22 detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **6**.
6	**Auto Start Stop ROAD TEST.** Perform the Auto Start Stop road test. <Ref. to CVT(TH58A)-51, Auto Start Stop, INSPECTION, Road Test.>	Is P0C22 detected?	Replace the electric oil pump and the electric oil pump inverter. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.> <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Current condition is normal.

BC:DTC P0C24 AUXILIARY TRANSMISSION FLUID PUMP CONTROL MODULE CIRCUIT LOW

DTC DETECTING CONDITION:
Electric oil pump inverter 12 V supply voltage is shorted.
TROUBLE SYMPTOM:
Electric oil pump does not operate.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>
WIRING DIAGRAM:
CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>

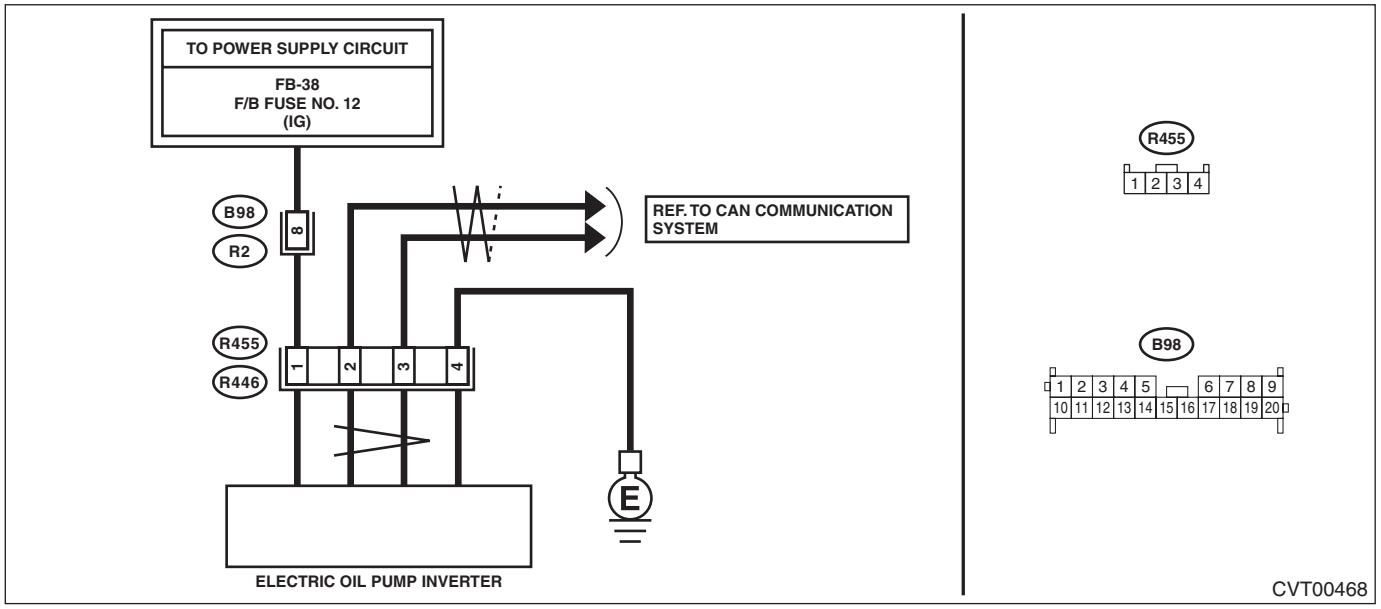


Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, confirm all DTCs.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK INPUT SIGNAL FOR TCM.** Read the data of «Control module voltage» using Subaru Select Monitor.	Is the «Control Module Voltage» 10 V or more?	Go to step **3**.	Check the battery and TCM power supply circuit.
3	**CHECK HARNESS.** 1) Disconnect the connector from electric oil pump inverter. 2) Measure the voltage between the electric oil pump inverter connector and the ground bolt of inverter frame body. (ignition ON) ***Connector & terminal*** ***(R455) No. 1 (+) — Ground bolt of inverter frame body:***	Is the voltage 10 V or more?	Go to step **4**.	Check the power supply circuit between the fuse and the electric oil pump inverter connector (R455).
4	**CHECK HARNESS.** Measure the resistance between the electric oil pump inverter connector and the ground bolt of inverter frame body. ***Connector & terminal*** ***(R455) No. 4 — Ground bolt of inverter frame body:***	Is the resistance less than 1 Ω?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Repair the ground circuit.

BD:DTC P0C25 AUXILIARY TRANSMISSION FLUID PUMP CONTROL MODULE CIRCUIT HIGH

DTC DETECTING CONDITION:
Electric oil pump inverter 12 V supply voltage is shorted.
TROUBLE SYMPTOM:
Electric oil pump does not operate.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>
WIRING DIAGRAM:
CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, confirm all DTCs.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK INPUT SIGNAL FOR TCM.** Read the data of «Control module voltage» using Subaru Select Monitor.	Is the «Control Module Voltage» 16 V or more?	Go to step **3**.	Check the battery and TCM power supply circuit.
3	**CHECK HARNESS.** 1) Disconnect the connector from electric oil pump inverter. 2) Measure the voltage between the electric oil pump inverter connector terminals. (ignition ON) ***Connector & terminal*** ***(R455) No. 1 (+) — (B455) No. 4 (–):***	Is the voltage 16 V or more?	Check the power supply circuit between the fuse and the electric oil pump inverter connector (R455).	Go to step **4**.
4	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C25 detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Current condition is normal.

BE:DTC P0C27 AUXILIARY TRANSMISSION FLUID PUMP MOTOR CURRENT LOW

DTC DETECTING CONDITION:
Electric oil pump inverter failure
TROUBLE SYMPTOM:
Electric oil pump does not operate.

	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, confirm all DTCs.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C27 detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **3**.
3	**Auto Start Stop ROAD TEST.** Perform the Auto Start Stop road test. <Ref. to CVT(TH58A)-51, Auto Start Stop, INSPECTION, Road Test.>	Is P0C27 detected?	Replace the electric oil pump and the electric oil pump inverter. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.> <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Current condition is normal.

BF:DTC P0C28 AUXILIARY TRANSMISSION FLUID PUMP MOTOR CURRENT HIGH

DTC DETECTING CONDITION:
Electric oil pump inverter failure
TROUBLE SYMPTOM:
Electric oil pump does not operate.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, confirm all DTCs.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C28 detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **3**.
3	**Auto Start Stop ROAD TEST.** Perform the Auto Start Stop road test. <Ref. to CVT(TH58A)-51, Auto Start Stop, INSPECTION, Road Test.>	Is P0C28 detected?	Replace the electric oil pump and the electric oil pump inverter. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.> <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Current condition is normal.

BG:DTC P0C29 AUXILIARY TRANSMISSION FLUID PUMP DRIVER CURRENT PERFORMANCE

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-50, DTC P0C29 AUXILIARY TRANSMISSION FLUID PUMP DRIVER CURRENT PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

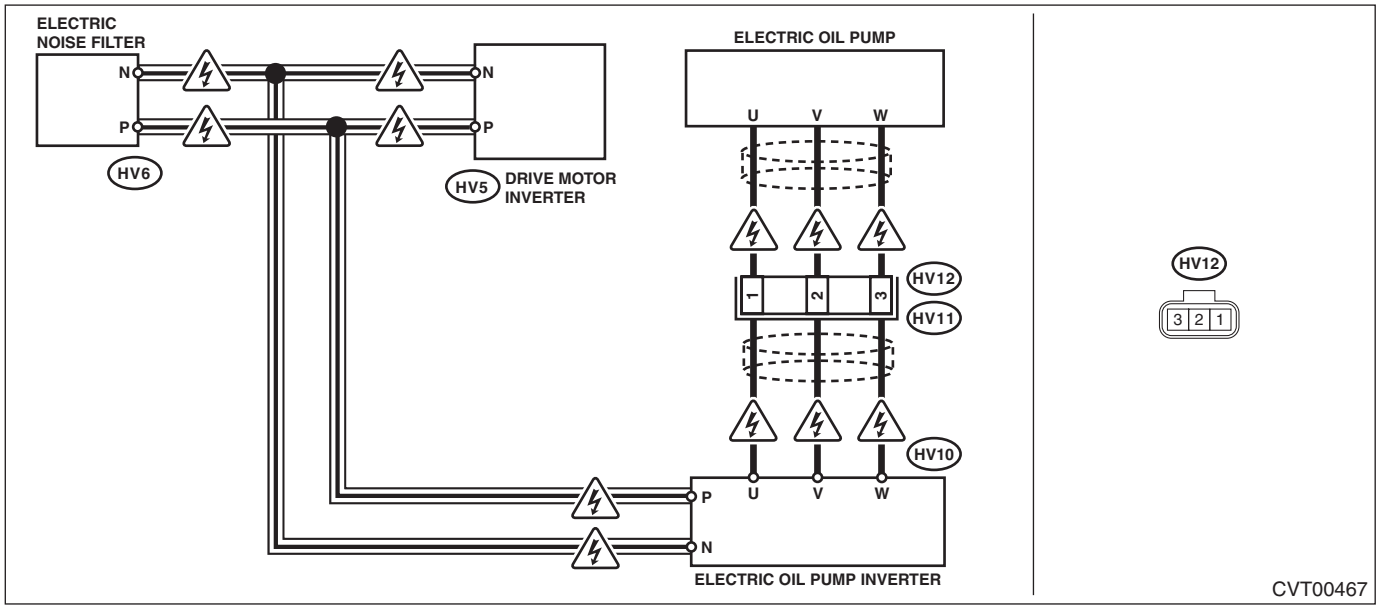
Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



Step		Check	Yes	No
1	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C29 detected?	Go to step **2**.	Current condition is normal.
2	**CHECK POWER CABLE.** 1) Turn the ignition switch to OFF. 2) Disconnect the ground cable of the 12 volt auxiliary battery, and as for the 12 volt engine restart battery, disconnect the ground cable from the 12V engine restart battery sensor. <Ref. to NT-5, BATTERY, NOTE, Note.> 3) Remove the service disconnect plug. 4) Wait for 10 minutes. 5) Remove the power cable from electric oil pump inverter. 6) Measure the resistance of power cable. ***Connector & terminal*** ***(HV10) U — (HV10) V:*** ***(HV10) U — (HV10) W:*** ***(HV10) V — (HV10) W:***	Is the resistance 0.3 Ω or more?	Go to step **3**.	Go to step **4**.

	Step	Check	Yes	No
3	**CHECK POWER CABLE.** 1) Disconnect the coupling connector of the electric oil pump and electric oil pump inverter. (HV11•HV12) 2) Measure the resistance of power cable. ***Connector & terminal*** ***(HV12) No. 1 — (HV12) No. 2:*** ***(HV12) No. 1 — (HV12) No. 3:*** ***(HV12) No. 2 — (HV12) No. 3:***	Is the resistance 0.3 Ω or more?	Replace the electric oil pump. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.>	Replace the power cable. <Ref. to HEV-52, Power Cable.>
4	**CHECK ELECTRIC OIL PUMP INVERTER.** Measure the resistance between the electric oil pump inverter terminals. ***Terminals*** ***Electric oil pump inverter U terminal — Electric oil pump inverter V terminal:*** ***Electric oil pump inverter U terminal — Electric oil pump inverter W terminal:*** ***Electric oil pump inverter V terminal — Electric oil pump inverter W terminal:***	Is the resistance 1 kΩ or more?	Go to step **5**.	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>
5	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the power cable and the battery. 2) Turn the ignition switch to ON. 3) Read the data of «Electric Fluid Pump Actual Current» using Subaru Select Monitor.	Is the «Electric Fluid Pump Actual Current» 0 A?	Go to step **6**.	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>
6	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode».	Is P0C29 detected?	Replace the electric oil pump. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.>	Current condition is normal.

BH:DTC P0C2A AUXILIARY TRANSMISSION FLUID PUMP MOTOR STALLED

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-51, DTC P0C2A AUXILIARY TRANSMISSION FLUID PUMP MOTOR STALLED, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK ELECTRIC OIL PUMP.** 1) Turn the ignition switch to ON. 2) Perform the Clear Memory Mode. 3) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is P0C2A detected?	Go to step **3**.	Go to step **2**.
2	**CHECK ELECTRIC OIL PUMP NOISE.** Perform the «Electric Fluid Pump inspection mode».	Does the electric oil pump emit noise while performing the «Electric Fluid Pump inspection mode»?	Go to step **3**.	Current condition is normal.
3	**CHECK SECONDARY PRESSURE.** 1) Perform the «Electric Fluid Pump inspection mode». 2) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 1.53 MPa or more? Or 0.3 MPa or less?	Replace the drive motor assembly. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>	Go to step **4**.
4	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode».	Is P0C2A detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **5**.
5	**Auto Start Stop ROAD TEST.** Perform the Auto Start Stop road test. <Ref. to CVT(TH58A)-51, Auto Start Stop, INSPECTION, Road Test.>	Is P0C2A detected?	Replace the electric oil pump and the electric oil pump inverter. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.> <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Current condition is normal.

BI: DTC P160A RANDOM ACCESS MEMORY (RAM) ERROR

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-52, DTC P160A RANDOM ACCESS MEMORY (RAM) ERROR, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

TCM RAM malfunction

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Perform the Clear Memory Mode using the Subaru Select Monitor. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Read the DTC.	Is DTC P160A displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Current condition is normal. Check for interference from noise, etc.

BJ:DTC P172A AUXILIARY TRANSMISSION FLUID PUMP REVERSE ROTATION

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-53, DTC P172A AUXILIARY TRANSMISSION FLUID PUMP REVERSE ROTATION, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Check the DTC relating the HPCM, BECM using the Subaru Select Monitor.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is DTC P172A detected?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Go to step **3**.
3	**STALL TEST.** Perform the stall test. <Ref. to CVT(TH58A)-52, Stall Test.>	Is DTC P172A detected?	Replace the drive motor assembly. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>	Go to step **4**.
4	**Auto Start Stop ROAD TEST.** Perform the Auto Start Stop road test. <Ref. to CVT(TH58A)-51, Auto Start Stop, INSPECTION, Road Test.>	Is DTC P172A detected?	Replace the drive motor assembly. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>	Current condition is normal.

BK:DTC P2530 IGNITION SWITCH RUN POSITION CIRCUIT

DTC DETECTING CONDITION:

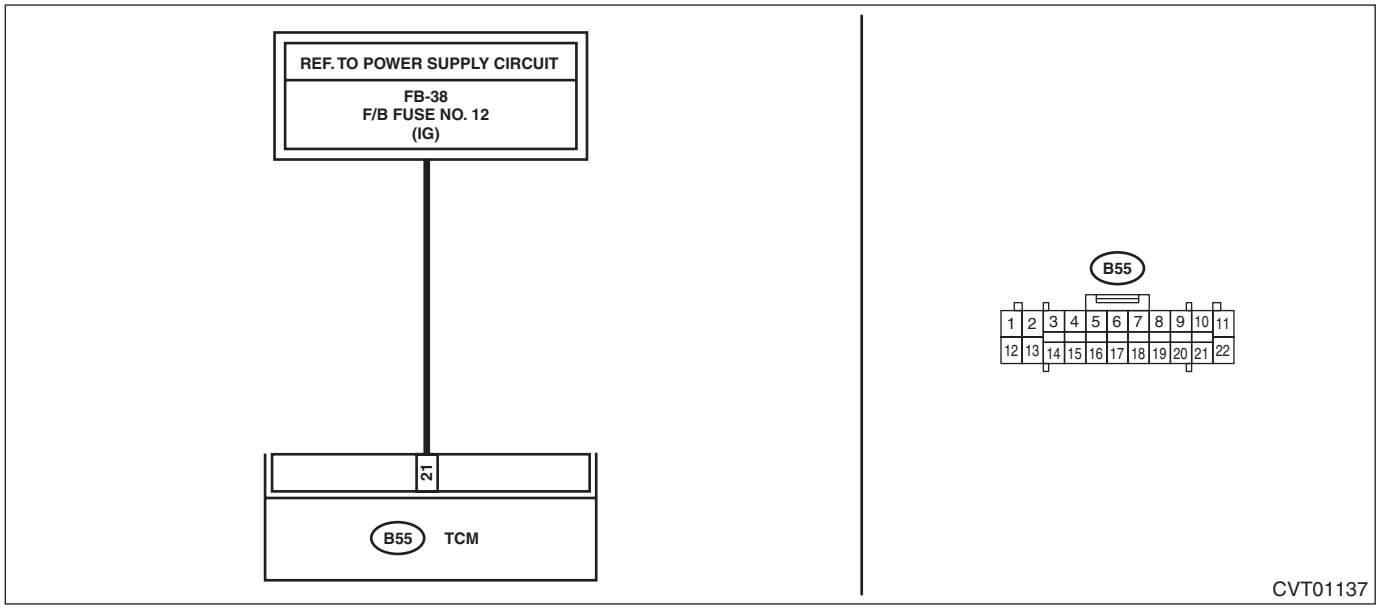
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-54, DTC P2530 IGNITION SWITCH RUN POSITION CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Faulty TCM operation

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** Check the installing condition of TCM connector.	Is the TCM connector installed properly?	Go to step **2**.	Install the TCM connector.

Step		Check	Yes	No
2	**CHECK INPUT VOLTAGE OF TCM.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. (While wiggling the harness) ***Connector & terminal*** ***(B55) No. 21 (+) — Chassis ground (–):***	Is the voltage 8 V or more?	Even if DTC is detected, the circuit has returned to a normal condition at this time. Reproduce the failure, and then perform the diagnosis again. NOTE: In this case, the following items may be the cause of fault. • Open circuit or short circuit to ground of harness between TCM connector and ignition switch connector (IG relay 1 connector for model with push button start) • Poor contact of ignition switch connector (IG relay 1 connector for model with push button start) • Poor contact of ignition switch (IG relay 1 for model with push button start)	Repair the harness and connector. NOTE: In this case, repair the following item: • Open circuit or short circuit to ground of harness between TCM connector and ignition switch connector (IG relay 1 connector for model with push button start) • Poor contact of ignition switch connector (IG relay 1 connector for model with push button start) • Poor contact of ignition switch (IG relay 1 for model with push button start)

BL:DTC P2714 PRESSURE CONTROL SOLENOID "D" PERFORMANCE/STUCK OFF

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-55, DTC P2714 PRESSURE CONTROL SOLENOID "D" PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Engine speed increases abruptly, and can not accelerate.
- Excessive slippage is felt.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P2714, is any of the DTC P2751, P0720, P2720 or P2721 displayed?	Perform the diagnosis according to DTCs other than P2714.	Go to step **2**.
2	**CHECK TRANSMISSION FLUID.** Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **3**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
3	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **4**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
4	**CHECK INPUT SIGNAL FOR TCM.** 1) Start the engine. 2) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 3) Depress the brake pedal, and shift the select lever to "D" range. 4) Shift the select lever to "P" range. 5) Stabilize the engine speed at idle. 6) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **5**.	Perform the diagnosis according to DTC P0841. <Ref. to CVT(HEV)(diag)-86, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
5	**STALL TEST.** Perform the stall test. <Ref. to CVT(TH58A)-52, Stall Test.>	Is the stall test normal?	Go to step **6**.	Replace the transmission assembly if the stall speed is higher than the standard value of the stall test. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>

	Step	Check	Yes	No
6	**DRIVING CHECK BY INSPECTION MODE.** 1) Turn the ignition switch to OFF. 2) Perform a drive check based on the “Inspection Mode”. <Ref. to CVT(HEV)(diag)-21, Inspection Mode.>	Does the AT OIL TEMP light blink and is DTC P2714 detected?	Replace the transmission assembly. <Ref. to CVT(TH58A)-63, Automatic Transmission Assembly.>	Current condition is normal. It is possible that temporary poor contact occurs.

BM:DTC P2715 PRESSURE CONTROL SOLENOID D STUCK ON

CAUTION:
Before performing diagnosis, refer to “CAUTION” in “General Description”. <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

NOTE:
Replace the drive motor assembly when this DTC is detected. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>

BN:DTC P2719 PRESSURE CONTROL SOLENOID D CONTROL CIRCUIT RANGE/PERFORMANCE

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-56, DTC P2719 PRESSURE CONTROL SOLENOID D CONTROL CIRCUIT RANGE/PERFORMANCE, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

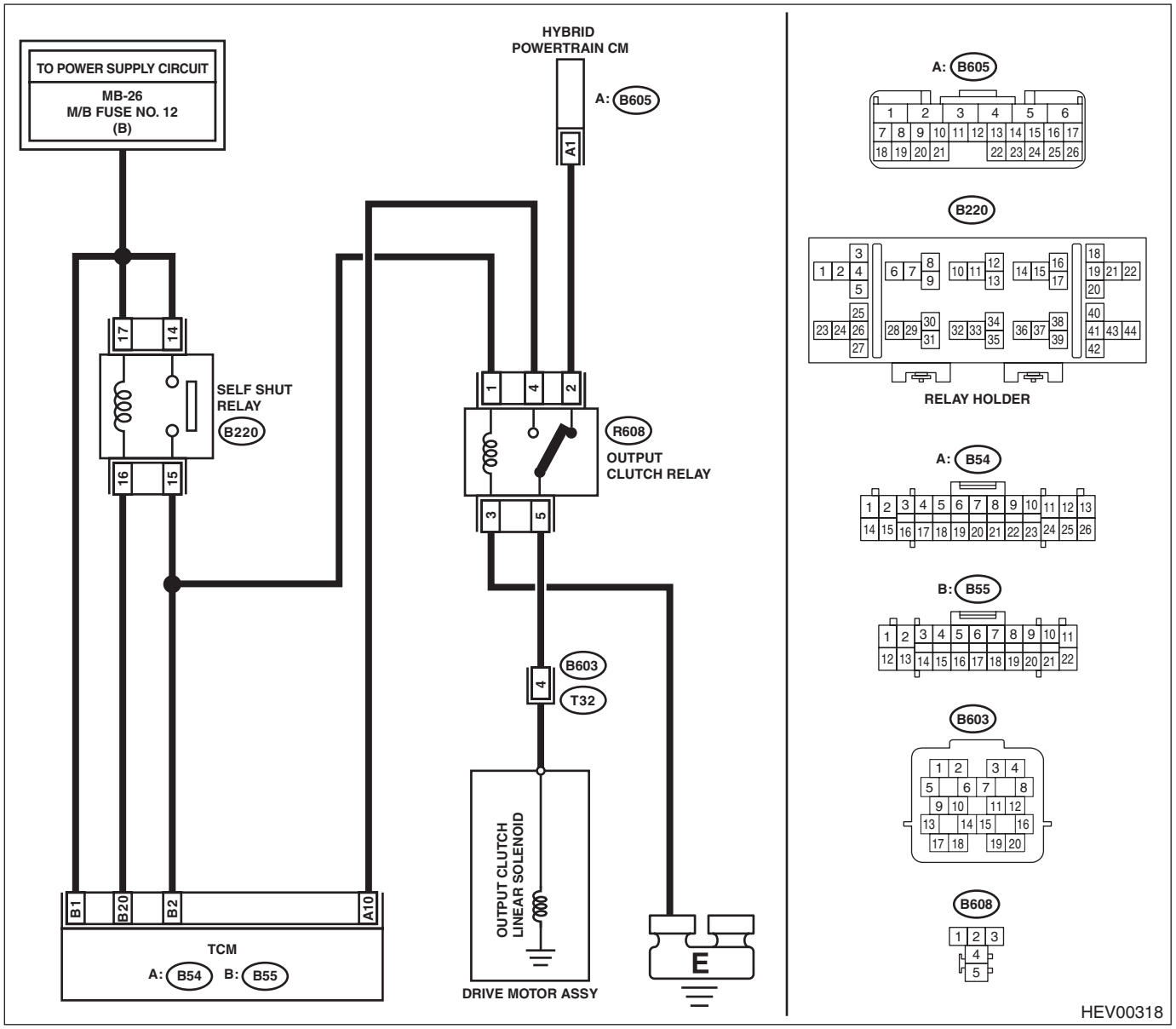
- Engine speed increases abruptly, and can not accelerate.
- Excessive slippage is felt.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P2719, is DTC P2720 or P2721 displayed?	Perform the diagnosis according to DTCs other than P2719.	Go to step **2**.
2	**CHECK FOR POOR CONTACT.** Check for poor contact of harness and connector between TCM and output clutch linear solenoid.	Is there poor contact?	Repair the poor contact of harness and connector.	Go to step **3**.
3	**CHECK OUTPUT CLUTCH LINEAR SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the drive motor assembly connector. 3) Measure the resistance between drive motor assembly connector and transmission body. ***Connector & terminal*** ***(T32) No. 4 — Transmission body:***	Is the resistance approx. 4 — 6 Ω? (when cold)	Recheck the poor contact of harness and connector. Replace the TCM if no fault is found. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Replace the output clutch control valve body. <Ref. to CVT(TH58A)-121, OUTPUT CLUTCH CONTROL VALVE BODY, REMOVAL, Control Valve Body.>

BO:DTC P2720 PRESSURE CONTROL SOLENOID D CONTROL CIRCUIT LOW

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-57, DTC P2720 PRESSURE CONTROL SOLENOID D CONTROL CIRCUIT LOW, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

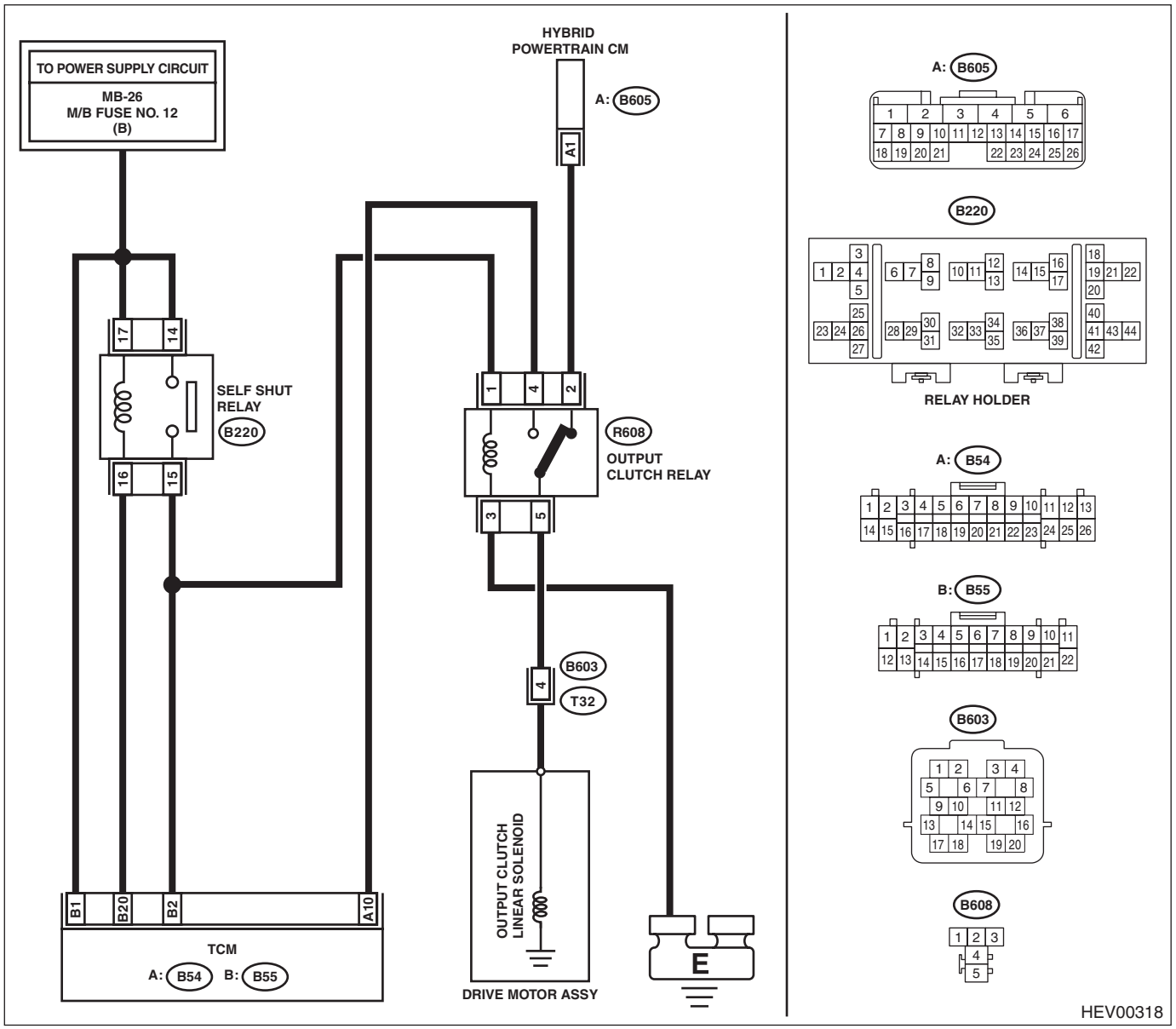
Unexpected vibration occurs.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) After driving with warm up condition, park the vehicle while depressing the brake pedal at "D" range. 2) Read the data of «Output Clutch Linear Solenoid Set Current» and «Output Clutch Linear Solenoid Actual Current» using Subaru Select Monitor.	Does the value of «Output Clutch Linear Solenoid Set Current» and «Output Clutch Linear Solenoid Actual Current» almost correspond?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector. 3) Remove the output clutch relay. 4) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 10 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between output clutch relay and chassis ground. ***Connector & terminal*** ***(B608) No. 5 — Transmission body:***	Is the resistance approximately 6 Ω?	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.
4	**CHECK RELAY.** Check the output clutch relay. <Ref. to CVT(TH58A)-161, INSPECTION, Relay and Fuse.>	Is the output clutch relay OK?	Go to step **5**.	Replace the output clutch relay.
5	**CHECK HARNESS.** 1) Disconnect connector (B603) of the drive motor assembly. 2) Measure the resistance of drive motor assembly harness. ***Connector & terminal*** ***(B603) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Replace the drive motor assembly. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>	Replace the transmission harness.

BP:DTC P2721 PRESSURE CONTROL SOLENOID D CONTROL CIRCUIT HIGH

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-58, DTC P2721 PRESSURE CONTROL SOLENOID D CONTROL CIRCUIT HIGH, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

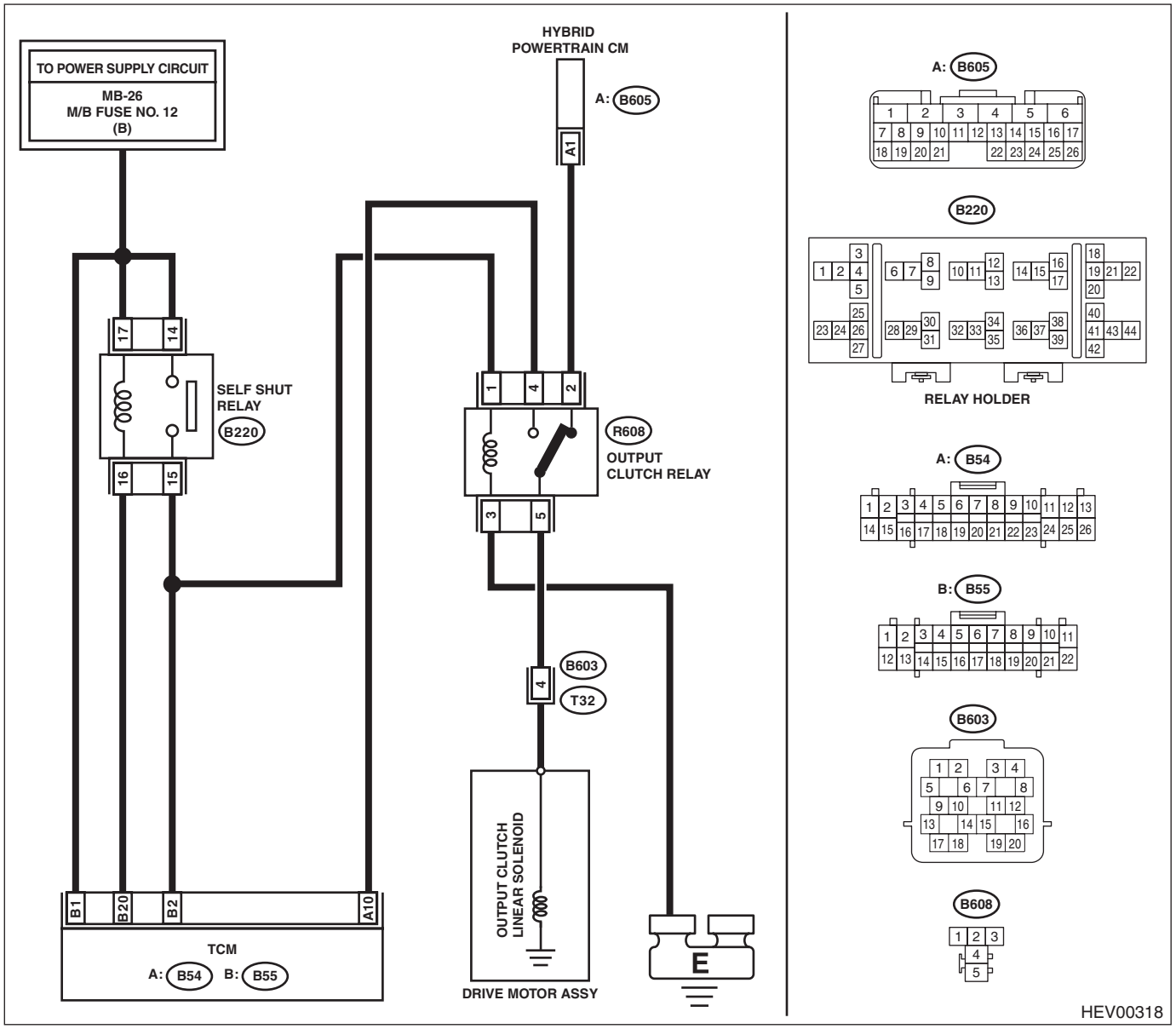
- Engine speed increases abruptly, and can not start.
- Unexpected vibration occurs.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>
Hybrid system <Ref. to WI(HEV)-140, Hybrid Electric Vehicle System.>



	Step	Check	Yes	No
1	**CHECK INPUT SIGNAL FOR TCM.** 1) After driving with warm up condition, park the vehicle while depressing the brake pedal at "D" range. 2) Read the data of «Output Clutch Linear Solenoid Set Current» and «Output Clutch Linear Solenoid Actual Current» using Subaru Select Monitor.	Does the value of «Output Clutch Linear Solenoid Set Current» and «Output Clutch Linear Solenoid Actual Current» almost correspond?	Check for poor contact of connector.	Go to step **2**.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector. 3) Measure the resistance between TCM connector and output clutch relay connector. ***Connector & terminal*** ***(B54) No. 10 — (B608) No. 4:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 10 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **4**.	Repair the short circuit of harness.
4	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between output clutch relay and chassis ground. ***Connector & terminal*** ***(B608) No. 5 — Chassis ground:***	Is the resistance approximately 6 Ω?	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **5**.
5	**CHECK RELAY.** Check the output clutch relay. <Ref. to CVT(TH58A)-161, INSPECTION, Relay and Fuse.>	Is the output clutch relay OK?	Go to step **6**.	Replace the output clutch relay.
6	**CHECK HARNESS.** 1) Disconnect connector (B603) of the drive motor assembly. 2) Turn the ignition switch to ON. 3) Measure the voltage between drive motor assembly harness and transmission body. ***Connector & terminal*** ***(B603) No. 4 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the drive motor assembly. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>	Replace the transmission harness.

BQ:DTC P2750 SEC. PULLEY REVOLUTION SPEED SENSOR CIRCUIT

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-59, DTC P2750 SEC. PULLEY REVOLUTION SPEED SENSOR CIRCUIT, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shift control malfunction
- Shock felt when lock-up is engaged

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P2750, is any of the DTC P2751, U0110 or U0411 displayed?	Perform the diagnosis according to DTCs other than P2750.	Perform the diagnosis according to DTC P2751. <Ref. to CVT(HEV)(diag)-150, DTC P2751 INTERMEDIATE SHAFT SPEED SENSOR "C" CIRCUIT NO SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

BR:DTC P2751 INTERMEDIATE SHAFT SPEED SENSOR "C" CIRCUIT NO SIGNAL

DTC DETECTING CONDITION:

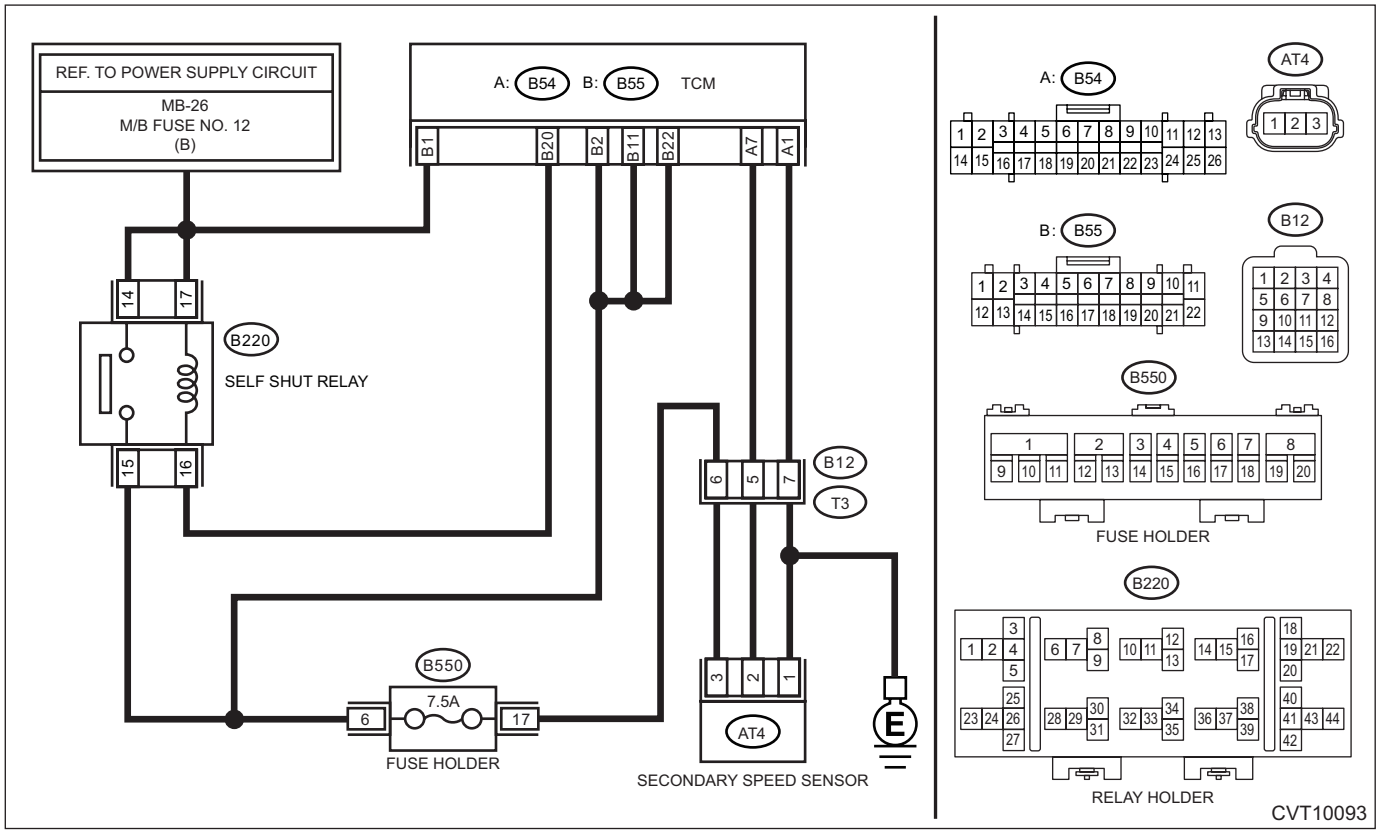
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-60, DTC P2751 INTERMEDIATE SHAFT SPEED SENSOR "C" CIRCUIT NO SIGNAL, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- Shifting shock is felt.
- Acceleration is poor during standing start.
- Shift control malfunction

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Remove the fuse (7.5 A) from the fuse holder.	Is the fuse blown out?	Replace the fuse. If the replaced fuse blows out easily, repair the short circuit of harness.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the TCM and self shut relay connectors. 2) Measure the resistance between TCM connector and self shut relay connector. ***Connector & terminal*** ***(B55) No. 20 — (B220) No. 16:*** ***(B55) No. 2 — (B220) No. 15:*** ***(B55) No. 11 — (B220) No. 15:*** ***(B55) No. 22 — (B220) No. 15:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the open circuit of harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B55) No. 20 — Chassis ground:*** ***(B55) No. 2 — Chassis ground:*** ***(B55) No. 11 — Chassis ground:*** ***(B55) No. 22 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Repair the short circuit of harness.
4	**CHECK RELAY POWER SUPPLY.** Measure the voltage between self shut relay connector and chassis ground. ***Connector & terminal*** ***(B220) No. 14 (+) — Chassis ground (–):*** ***(B220) No. 17 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Repair the open or short circuit of harness.
5	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Terminals*** ***No. 16 — No. 17:***	Is the resistance 110 — 140 Ω?	Go to step **6**.	Replace the self shut relay.
6	**CHECK SELF SHUT RELAY.** Measure the resistance between self shut relay terminals. ***Terminals*** ***No. 14 — No. 15:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the self shut relay.
7	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the connectors of TCM and self shut relay. 2) Read the data of «Control module voltage» using Subaru Select Monitor.	Is the «Control module voltage» 10 V or more?	Current condition is normal. Check for poor contact in connectors or harnesses, and repair the defective part.	Go to step **8**.
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Set the select lever to “D” range. 4) Read the data of «Secondary Pulley Speed» and «Front Wheel Speed» using Subaru Select Monitor.	Does the value of «Secondary Pulley Speed» change according to those of «Front Wheel Speed»?	Current condition is normal.	Go to step **9**.
9	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 1 — (B12) No. 7:*** ***(B54) No. 7 — (B12) No. 5:*** ***(B550) No. 17 — (B12) No. 6:***	Is the resistance less than 1 Ω?	Go to step **10**.	Repair the open circuit of harness.
10	**CHECK HARNESS.** Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 7 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **11**.	Repair the short circuit of harness.
11	**CHECK HARNESS.** Measure the resistance between self shut relay connector and fuse holder. ***Connector & terminal*** ***(B220) No. 15 — (B550) No. 6:***	Is the resistance less than 1 Ω?	Go to step **12**.	Repair the open circuit of harness.

	Step	Check	Yes	No
12	**CHECK TRANSMISSION HARNESS.** 1) Install the fuse. 2) Connect the TCM connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between transmission connector. ***Connector & terminal*** ***(B12) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 — 13 V?	Go to step **13**.	Repair the open circuit of harness or poor contact of connector.
13	**CHECK TRANSMISSION HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Disconnect the secondary speed sensor connector. 4) Measure the resistance between transmission connector and secondary speed sensor connector. ***Connector & terminal*** ***(T3) No. 5 — (AT4) No. 2:*** ***(T3) No. 6 — (AT4) No. 3:*** ***(T3) No. 7 — (AT4) No. 1:***	Is the resistance less than 1 Ω?	Go to step **14**.	Replace the transmission harness.
14	**CHECK SECONDARY SPEED SENSOR HARNESS.** Measure the resistance between transmission connector and chassis ground. ***Connector & terminal*** ***(T3) No. 5 — Chassis ground:*** ***(T3) No. 6 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **15**.	Repair the short circuit of harness.
15	**CHECK SECONDARY SPEED SENSOR.** 1) Turn the ignition switch to OFF. 2) Replace the secondary speed sensor. <Ref. to CVT(TH58A)-106, Secondary Speed Sensor.> 3) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 4) Read the DTC.	Is DTC P2751 displayed?	Go to step **16**.	The original secondary speed sensor is defective.
16	**CHECK SELF SHUT RELAY.** 1) Turn the ignition switch to OFF. 2) Replace the self shut relay. 3) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 4) Read the DTC.	Is DTC P2751 displayed?	Replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	The original self shut relay is defective.

BS:DTC P2757 TORQUE CONVERTER CLUTCH PRESSURE CONTROL SOLENOID CONTROL CIRCUIT PERFORMANCE/STUCK OFF

DTC DETECTING CONDITION:

- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-61, DTC P2757 TORQUE CONVERTER CLUTCH PRESSURE CONTROL SOLENOID CONTROL CIRCUIT PERFORMANCE/STUCK OFF, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Lock-up malfunction

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P2757, is any of the DTC P0717, P2763, P2764, U0100 or U0401 displayed?	Perform the diagnosis according to DTCs other than P2757.	Go to step **2**.
2	**CHECK DTC.** Read the DTC relating the ECM using the Subaru Select Monitor.	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Read the DTC relating the TCM using the Subaru Select Monitor.	Are P0841, P0842, P0843 detected?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK TRANSMISSION FLUID.** Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the “Corrective action” of ATF (CVTF) “CONDITION CHECK”. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to “D” range. 5) Shift the select lever to “P” range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Perform the diagnosis according to DTC P0841. <Ref. to CVT(HEV)(diag)-86, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

	Step	Check	Yes	No
7	**DRIVING CHECK FOR LOCK-UP CONDITION.** 1) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Turn the ignition switch to OFF. 3) Start the engine. 4) Warm up until the ATF temperature exceeds 50°C. 5) Drive the vehicle for one minute or more while keeping the constant speed so that the display shown in the Subaru Select Monitor is as follows: «Lock Up Duty Ratio» is 70 % or more, and «Front Wheel Speed» is 40 km/h or more. 6) Turn the ignition switch to OFF. 7) Start the engine. 8) Perform the procedure in step 5) again. 9) Read the DTC using Subaru Select Monitor.	Does the AT OIL TEMP light blink and is DTC P2757 detected?	Perform the secondary pressure test. <Ref. to CVT(TH58A)-54, Secondary Pressure (Line Pressure) Test.> When DTC other than P2757 is displayed, perform the diagnosis corresponding to the DTC.	Current condition is normal. Temporary oil pressure malfunction.

BT:DTC P2758 TORQUE CONVERTER CLUTCH PRESSURE CONTROL SOLENOID CONTROL CIRCUIT STUCK ON

DTC DETECTING CONDITION:

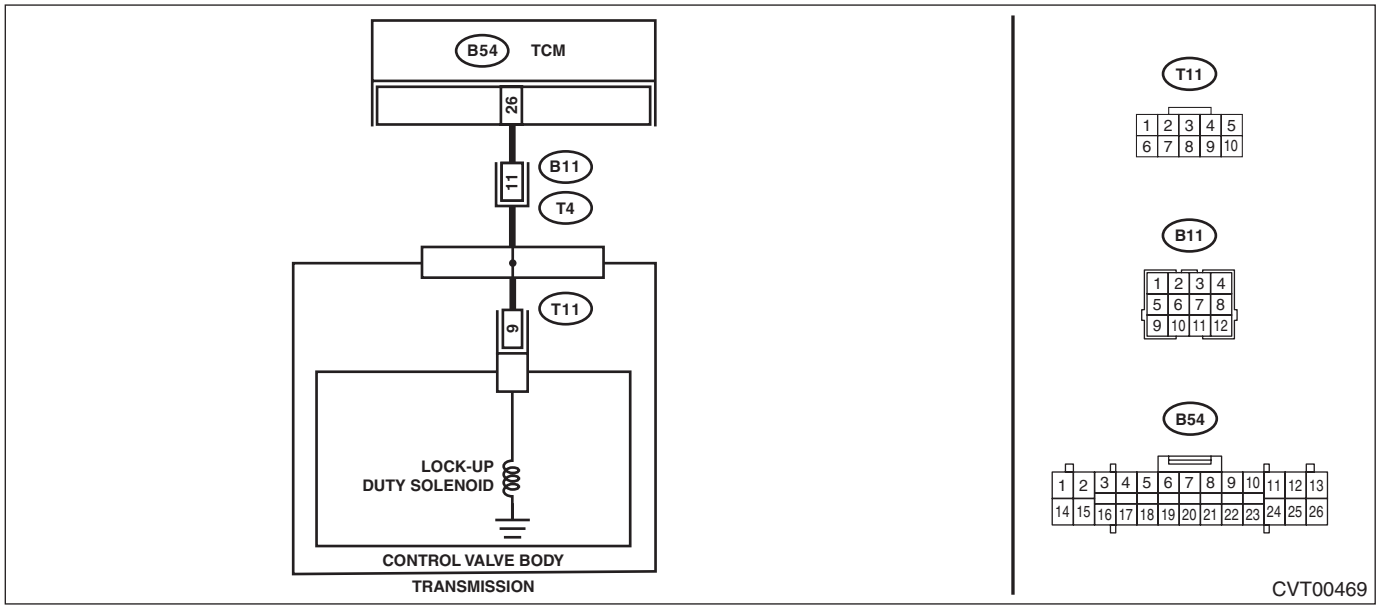
- Detected when two consecutive driving cycles with fault occur.
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-62, DTC P2758 TORQUE CONVERTER CLUTCH PRESSURE CONTROL SOLENOID CONTROL CIRCUIT STUCK ON, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

The engine stalls when the vehicle is stopped.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC using Subaru Select Monitor.	Besides DTC P2758, is any of the DTC P0717, P2763, P2764, U0100 or U0401 displayed?	Perform the diagnosis according to DTCs other than P2758.	Go to step **2**.
2	**CHECK LOCK-UP DUTY SOLENOID.** 1) Turn the ignition switch to OFF. 2) Disconnect the transmission connector. 3) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 11 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Go to step **4**.	Go to step **3**.
3	**CHECK HARNESS.** Check the harness for continuity.	Is the harness normal? (Is it free from defects such as open circuit, power supply-output short or GND-output short circuit, or poor contact?)	Go to step **4**.	Repair the harness.
4	**CHECK TRANSMISSION FLUID.** 1) Connect the transmission connector. 2) Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **5**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

	Step	Check	Yes	No
5	**CHECK TRANSMISSION FLUID.** Check the condition of ATF. <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>	Is the ATF OK?	Go to step **6**.	Check according to the "Corrective action" of ATF (CVTF) "CONDITION CHECK". <Ref. to CVT(TH58A)-44, CONDITION CHECK, CVTF.>
6	**CHECK INPUT SIGNAL FOR TCM.** 1) Lift up the vehicle. 2) Start the engine. 3) Warm up until the ATF temperature reaches to 40 — 70°C (104 — 158°F). 4) Depress the brake pedal, and shift the select lever to "D" range. 5) Shift the select lever to "P" range. 6) Stabilize the engine speed at idle. 7) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.5 — 1.5 MPa?	Go to step **7**.	Perform the diagnosis according to DTC P0841. <Ref. to CVT(HEV)(diag)-86, DTC P0841 SECONDARY OIL PRESSURE SENSOR PERFORMANCE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
7	**ACTUAL DRIVING CHECK FOR LOCK-UP CONDITION.** 1) Perform the Clear Memory Mode. <Ref. to CVT(HEV)(diag)-20, Clear Memory Mode.> 2) Turn the ignition switch to OFF. 3) Start the engine. 4) Warm up until the ATF temperature exceeds 50°C. 5) Drive the vehicle for one minute or more while keeping such constant speed that «Lock Up Duty Ratio» is 0%, and «Front Wheel Speed» is 5 km/h (3 MPH) or less, which are displayed on the Subaru Select Monitor. 6) Turn the ignition switch to OFF. 7) Start the engine. 8) Perform the procedure in step 5) again. 9) Read the DTC using Subaru Select Monitor.	Does the AT OIL TEMP light blink and is DTC P2758 displayed? Or does the engine stall?	Perform the secondary pressure test. <Ref. to CVT(TH58A)-54, Secondary Pressure (Line Pressure) Test.> When DTC other than P2758 is displayed, perform the diagnosis according to the DTC.	Current condition is normal. Check for poor contact of connector or harness.

BU:DTC P2763 LOCK-UP DUTY SOLENOID CIRCUIT (HIGH)

DTC DETECTING CONDITION:

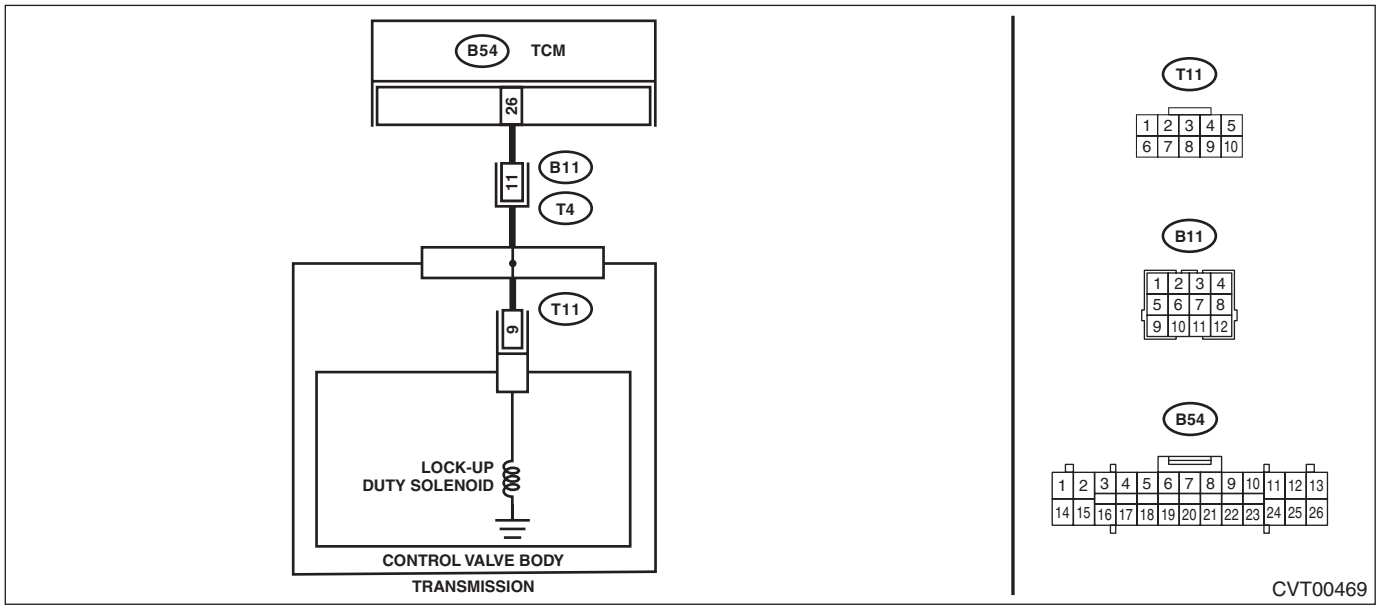
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-63, DTC P2763 LOCK-UP DUTY SOLENOID CIRCUIT (HIGH), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

- No lock-up occurs.
- Engine stalls.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



Step		Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and transmission connectors. ***Connector & terminal*** ***(B54) No. 26 — (B11) No. 11:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the open circuit of harness.
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 26 (+) — Chassis ground (–):***	Is the voltage approx. 0 V?	Go to step **3**.	Repair the short circuit of harness.
3	**CHECK LOCK-UP DUTY SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 11 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **5**.
5	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 11 (+) — Transmission body (–):***	Is the voltage approx. 0 V?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

BV:DTC P2764 LOCK-UP DUTY SOLENOID CIRCUIT (LOW)

DTC DETECTING CONDITION:

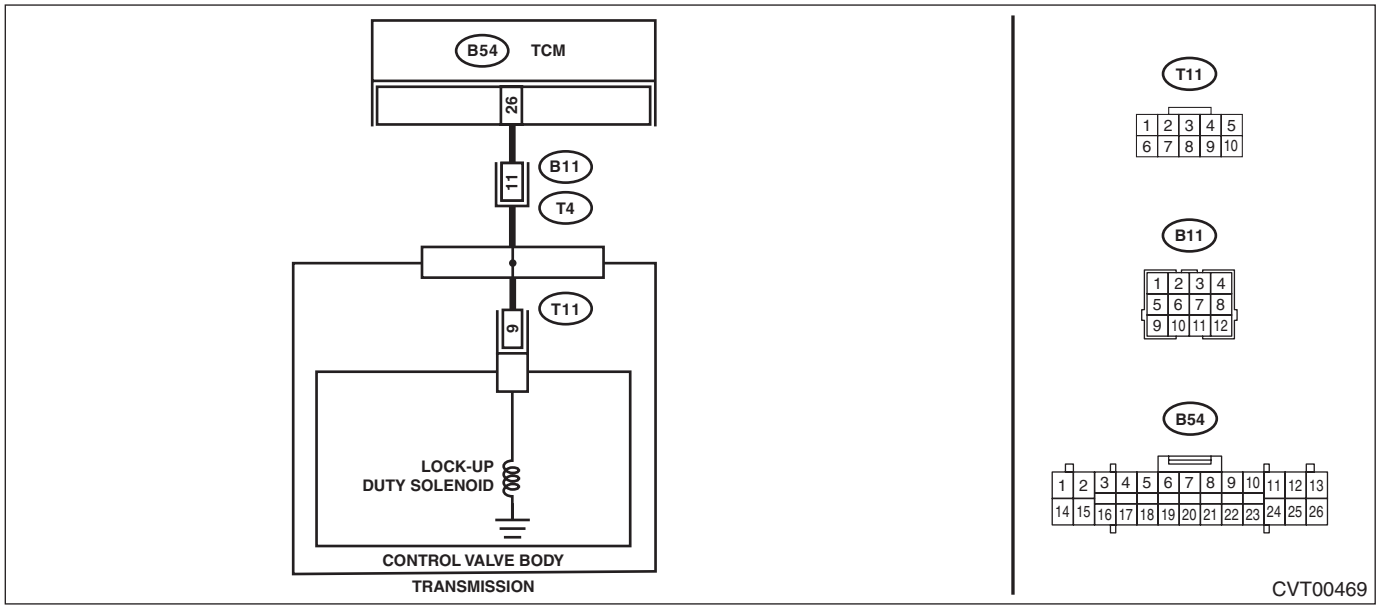
- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-64, DTC P2764 LOCK-UP DUTY SOLENOID CIRCUIT (LOW), Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

No lock-up occurs.

WIRING DIAGRAM:

CVT control system <Ref. to WI(HEV)-86, CVT Control System.>



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM and transmission connectors. 3) Measure the resistance between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 26 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **2**.	Repair the short circuit of harness.
2	**CHECK LOCK-UP DUTY SOLENOID.** Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 11 — Transmission body:***	Is the resistance approx. 10 — 13.5 Ω? (when cold)	Check for poor contact of connector, and if no fault is found, replace the TCM. <Ref. to CVT(TH58A)-158, Transmission Control Module (TCM).>	Go to step **3**.
3	**CHECK HARNESS INSIDE TRANSMISSION.** **CAUTION:** **Start work after ATF cools down.** 1) Remove the transmission valve cover. 2) Check for the harness pinch, damage.	Is there any fault in the harness?	Replace the transmission harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS INSIDE TRANSMISSION.** 1) Disconnect the control valve body connector. 2) Measure the resistance between transmission connector and transmission body. ***Connector & terminal*** ***(T4) No. 11 — Transmission body:***	Is the resistance 1 MΩ or more?	Replace the control valve body. <Ref. to CVT(TH58A)-115, Control Valve Body.>	Replace the transmission harness.

BW:DTC P2797 AUXILIARY TRANSMISSION FLUID PUMP

DTC DETECTING CONDITION:

- Immediately at fault recognition
- GENERAL DESCRIPTION <Ref. to GD(CVT)(HEV)-65, DTC P2797 AUXILIARY TRANSMISSION FLUID PUMP, Diagnostic Trouble Code (DTC) Detecting Criteria.>

TROUBLE SYMPTOM:

Electric oil pump does not operate.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to CVT(HEV)(diag)-5, HYBRID SYSTEM, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK TRANSMISSION FLUID.** Check the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>	Is the ATF amount correct?	Go to step **2**.	Adjust the amount of ATF. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
2	**CHECK DTC.** Check the DTC relating the TCM using the Subaru Select Monitor.	Is P0841 detected?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK ELECTRIC OIL PUMP.** 1) Perform the Clear Memory Mode. 2) Perform the «Electric Fluid Pump inspection mode». <Ref. to CVT(TH58A)-141, INSPECTION, Electric Fluid Pump.>	Is a DTC other than DTC P2797 displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK ELECTRIC OIL PUMP.** 1) Perform the «Electric Fluid Pump inspection mode». 2) Read the data of «Electric Fluid Pump Target RPM» and «Electric Fluid Pump Actual RPM» using Subaru Select Monitor.	Is the difference between «Electric Fluid Pump Target RPM» and «Electric Fluid Pump Actual RPM» 200 rpm or more?	Go to step **6**.	Go to step **5**.
5	**CHECK ELECTRIC OIL PUMP.** 1) Perform the «Electric Fluid Pump inspection mode». 2) Read the data of «Actual secondary pressure» using Subaru Select Monitor.	Is the «Actual secondary pressure» 0.3 MPa or less?	Replace the drive motor assembly. <Ref. to CVT(TH58A)-217, Drive Motor Assembly.>	Current condition is normal.
6	**CHECK DTC HISTORY WHEN RECEIVING THE VEHICLE.**	Was DTC P0C21 recorded when receiving the vehicle?	Replace the electric oil pump inverter. <Ref. to HEV-45, ELECTRIC OIL PUMP INVERTER, REMOVAL, Inverter.>	Replace the electric oil pump. <Ref. to CVT(TH58A)-134, Electric Fluid Pump.>

BX:DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

BY:DTC U0075 CONTROL MODULE COMMUNICATION BUS "PU-CAN" OFF

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

BZ:DTC U0076 CONTROL MODULE COMMUNICATION BUS "HEV-CAN" OFF

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CA:DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CB:DTC U0101 LOST COMMUNICATION WITH TCM

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CC:DTC U0110 LOST COMMUNICATION WITH DRIVE MOTOR CONTROL MODULE "A"

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CD:DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CE:DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CF:DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CG:DTC U0287 LOST COMMUNICATION WITH TRANSMISSION FLUID PUMP MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CH:DTC U0293 LOST COMMUNICATION WITH HYBRID POWERTRAIN CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CI: DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CJ:DTC U0402 INVALID DATA RECEIVED FROM TCM

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CK:DTC U0411 INVALID DATA RECEIVED FROM DRIVE MOTOR CONTROL MODULE "A"

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CL:DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CM:DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CN:DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CO:DTC U0588 INVALID DATA RECEIVED FROM TRANSMISSION FLUID PUMP MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CP:DTC U0594 INVALID DATA RECEIVED FROM HYBRID POWERTRAIN CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CQ:DTC U1100 LOST COMMUNICATION WITH ECM/PCM PU-CAN

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CR:DTC U1235 LOST COMMUNICATION WITH EyeSight

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CS:DTC U1293 LOST COMMUNICATION WITH HYBRID POWERTRAIN CONTROL MODULE PU-CAN

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CT:DTC U1401 INVALID DATA RECEIVED FROM ECM/PCM PU-CAN

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CU:DTC U1433 INVALID DATA RECEIVED FROM EyeSight

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>

CV:DTC U1594 INVALID DATA RECEIVED FROM HYBRID POWERTRAIN CONTROL MODULE PU-CAN

NOTE:
Refer to “LAN SYSTEM (HEV) (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.>