

Secondary Pressure (Line Pressure) Test

CONTINUOUSLY VARIABLE TRANSMISSION

8. Secondary Pressure (Line Pressure) Test

A: INSPECTION

CAUTION:

- Directly after the vehicle has been running or the engine has been idling for a long time, the CVTF is hot. Be careful not to burn yourself.
- Make sure no other person is around the vehicle during secondary pressure (line pressure) test measurement.
- After performing the secondary pressure (line pressure) test measurement, adjust the CVTF level.

NOTE:

- If the pulley and variator chain, clutch or brake show signs of slipping or shift feel is not correct, check the secondary pressure (line pressure).
- Connect Subaru Select Monitor to vehicle so as to measure the engine speed and actual secondary pressure (secondary pressure (line pressure)).
- In many cases, slippage or inability to operate the vehicle may be due to insufficient oil pressure for the operation of clutch, brake or control valve body.

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CONTINUOUSLY VARIABLE TRANSMISSION

- 1) Lift up the vehicle.
- 2) Remove the secondary pressure (line pressure) test plug, and install ST1 and ST2.

CAUTION:

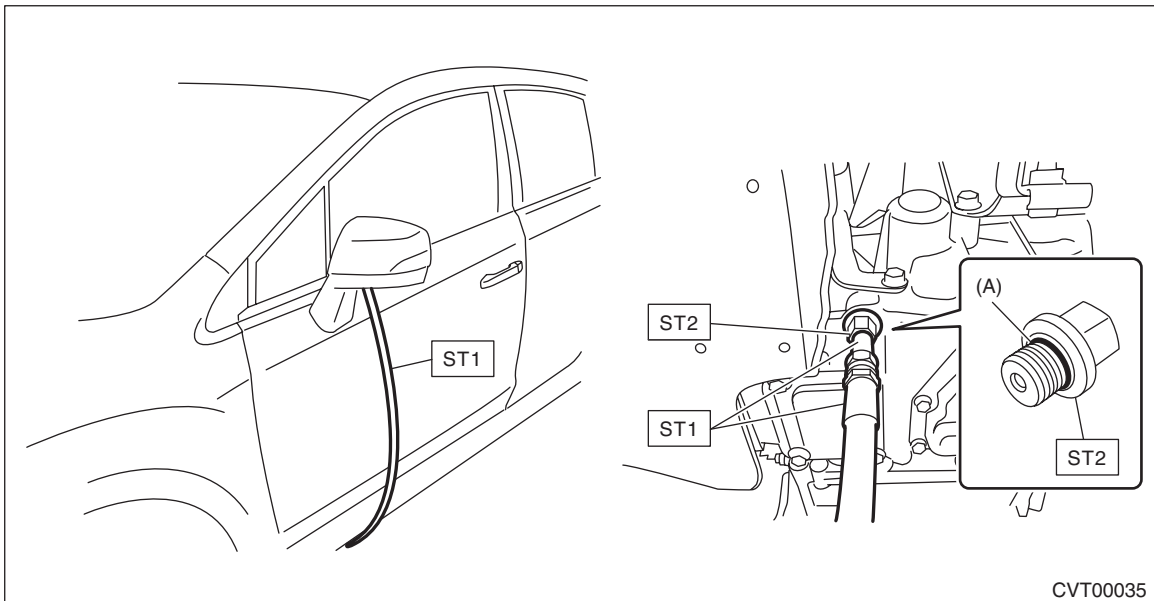
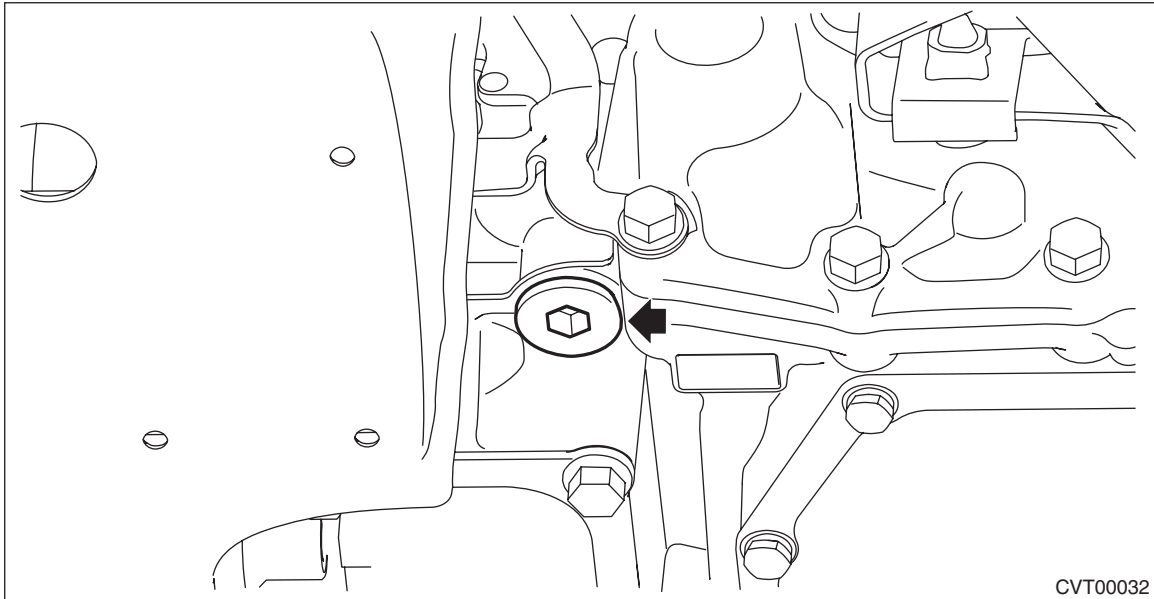
Removal of the test plug and installation of the ST shall be both performed quickly.

NOTE:

Use ST2 PRESSURE GAUGE ADAPTER with genuine O-ring (part No. 806916050) attached.

ST1 18801AA000 OIL PRESSURE GAUGE ASSY

ST2 18681AA010 PRESSURE GAUGE ADAPTER



(A) O-ring (genuine part)

- 3) Lower the vehicle.

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- 4) Set the gauge so that it can be seen from the driver's seat.
- 5) Using the Subaru Select Monitor, check if the throttle valve operates when you depress the accelerator pedal. <Ref. to EN(H4DO HEV)(diag)-36, OPERATION, Subaru Select Monitor.>
- 6) Check the engine oil level. <Ref. to LU(H4DO(w/o HEV))-12, Engine Oil.>
- 7) Check the coolant level. <Ref. to CO(H4DO(w/o HEV))-16, Engine Coolant.>
- 8) Adjust the CVTF level. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>
- 9) Increase the CVTF temperature to 60 — 80°C (140 — 176°F) with the engine running and the select lever shifted to "N" or "P" range.
- 10) Shift the select lever to "D" range.
- 11) Depress the accelerator pedal to the full while fully depressing the foot brake pedal with your left foot.
- 12) Immediately after the engine speed becomes steady, record the reading of the secondary pressure (line pressure), engine speed and actual secondary pressure on Subaru Select Monitor. And then release the accelerator pedal. Shift the select lever to "N" range. Let the engine idle for one minute or more to cool it down.

NOTE:

- Do not continue the stall test for 5 seconds or more at a time (from fully closed throttle, fully open throttle to secondary pressure (line pressure) reading). Failure to follow this instruction will cause the engine oil and CVTF to deteriorate and the clutch and brake to be adversely affected.
- After performing the secondary pressure (line pressure) test, be sure to cool down the engine for at least one minute with the select lever set in "P" or "N" range and with the idle speed at 1,200 r/min or less.
- Under each condition, check that the measured pressure matches almost totally with actual secondary pressure.
- When both measured pressure and actual secondary pressure are out of specification, judge as control valve body malfunction.
- The value at stall is for reference because the pressure changes under different conditions or circumstances.
- The value at idling is steady because it is not affected by any condition or circumstance.
- After starting the engine with the select lever set in "P" range, when the secondary pressure is measured during idling without performing shift operation, the result may exceed the standard. Shift the select lever to "D" or "R" range before performing the measurement.

Secondary pressure (line pressure) standard				
	Range	Throttle	Brake	Secondary pressure (line pressure) (MPa (kgf/cm ² , psi))
Stall	D, R	Full open	ON	4.5 — 6.0 (45.9 — 61.2, 652 — 870)
Idling	P, N	Full closed	OFF	0.5 — 1.5 (5.1 — 15.3, 72 — 218)

- 13) Remove the ST and install the plug after measurement.

CAUTION:

Removal of the ST and installation of the test plug shall be both performed quickly.

NOTE:

- Use new O-rings.
- Apply CVTF to the O-ring.

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)

- 14) Adjust the CVTF level. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>