#### **ATTENTION:**

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GENERAL MANAGER PARTS MANAGER CLAIMS PERSONNEL SERVICE MANAGER IMPORTANT - AII Service Personnel Should Read and Initial in the boxes provided, right.



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# SERVICE PROGRAM BULLETIN

APPLICABILITY: 2017 MY Forester (non-Turbo) with CVT

**SUBJECT:** Service Campaign – Forester CVT Low

Fluid Level

**NUMBERS: WTJ-70R DATE:** 10/03/16

**REVISED:** 08/03/17

## **INTRODUCTION:**

Subaru of America, Inc. (Subaru) is initiating a Service Campaign for certain 2017 model year Forester normally aspirated vehicles with CVT transmissions. Subaru has determined vehicles affected by this Service Program require additional CVT fluid.

The CVT fluid (CVTFII) in affected vehicles was not filled to the proper specified level at the factory. The condition could cause a noticeable air vacuum noise or possibly even chain slip under high levels of shock load depending upon driving conditions (i.e. rapid acceleration or hill climbing). Extended driving under this low-fill condition is not recommended.

## **AFFECTED VEHICLES:**

Some 2017 model year Forester (non-Turbo) vehicles with CVT Transmission

Coverage for all affected vehicles must be confirmed by using the Vehicle Coverage Inquiry function on subarunet.com. This data is now available.

Model Year	Model	Starting Production Date	<b>Ending Production Date</b>
2017	Forester	February 15, 2016	August 4, 2016

## **OWNER NOTIFICATION:**

Notification letters will be sent by first class mail to owners of all potentially affected vehicles in October 2016. A copy of the letter is included at the end of this bulletin.

## **RETAILER AFFECTED VIN LISTS:**

Each Subaru retailer will receive an affected VIN list from their Zone office when owner notification begins.

#### CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

#### SUBARU OF AMERICA, INC. IS **ISO 14001 COMPLIANT**

ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

Continued...

Bulletin Number: WTJ-70R; Revised: 08/03/17

#### SUBARU RETAILER PROGRAM RESPONSIBILITY:

Retailers are strongly requested to promptly perform the applicable Service Procedures to correct all affected vehicles in their inventory. Additionally, whenever a vehicle subject to this Service Program is taken into inventory or brought in for service, necessary steps should be taken to ensure these repair procedures have been performed before selling or releasing the vehicle.

Any vehicles listed in a Service Program which are in the retailer's stock must be:

- Immediately identified
- Tagged or otherwise marked to prevent their delivery or use prior to inspection and/or repair
- Repaired in accordance with the repair procedures outlined in this Service Program Bulletin.

## **TOOLS REQUIRED:**

- Sharpie® (or equivalent permanent marker) to mark the CVT case when completed
- 3/8" Drive Ratchet
- 12mm Socket (for under cover removal)
- Flat Blade Pocket Screwdriver (for under cover removal)
- 8mm Hex Bit Socket (as shown) for filler plug removal
- 3/8" Torque Wrench



#### **PART INFORMATION:**

- CVTFII can be ordered by the quart (case of 12): SOA427V1660\* or 5 Gallon pail: SOA427V1610\*
- Gasket 18x24x1.0, p.n. 803918060 Qty: 1

\*NOTE: Only 700ml of CVTFII is required per repair.

## **SERVICE PROCEDURE / INFORMATION:**

**IMPORTANT: BEFORE** proceeding with this procedure, always confirm the following:

- Campaign applicability by performing a Vehicle Coverage Inquiry on subarunet.com.
- Inspect the vehicle transmission ID label area for a paint mark as shown in the photos below.
- If you find a paint mark in this area, this procedure has already been completed. **STOP**. No further action is required.
- If there is not a paint mark, proceed with the balance of this Service Procedure.





<u>IMPORTANT:</u> There are <u>two</u> distinct Service Procedures outlined in this bulletin. Be sure to follow the one applicable to the vehicle being worked on.

- The first procedure applies (ONLY) to "In-Stock / Undelivered" vehicles.
- The second applies (ONLY) to vehicles already "Delivered" to customers (vehicle left the retailer and later returned for this campaign).
- Follow the procedure applicable based upon the vehicle status as In-Stock / Undelivered or Delivered.

# **Procedure for "In-Stock / Undelivered" Vehicles:**

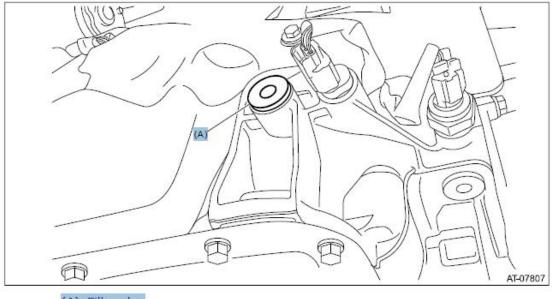
Adjust the CVTFII level following the procedure outlined in the applicable Service Manual and outlined below for reference.

- Connect the SDS Notebook and DST-I to the vehicle. Select SSM4 from the GUI.
- When SSM4 opens, select Diagnosis.
- After the vehicle specification populates, click OK.
- Select Each System followed by Transmission and click Next.
- Select Data Monitor and when all PIDs are displayed, click OK.
- Select the data for "ATF TEMP"

## **CAUTION:**

- CVTFII level changes along with CVTFII temperature. When inspecting CVTFII level, observe the specified CVTFII temperature.
- Always use the specified CVTFII. Using other fluid will cause malfunction.
- Pay special attention to the following operations as the engine is at idle.
- 1. Idle the engine to raise CVTFII temperature to 35 45°C (95 113°F) on the Subaru Select Monitor.
- 2. Operate the select lever in  $P \to R \to N \to D$  and  $D \to N \to R \to P$  to circulate CVTFII with the engine idling.
- **3.** Lift up the vehicle while the engine is running.
- **4.** Remove the under cover front transmission.
- **5.** Remove the filler plug (A) as shown in the illustration below.

NOTE: The CVT is full when the fluid level is at the bottom of the filler plug hole.



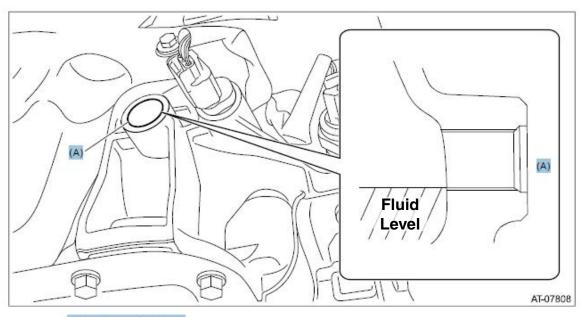
(A) Filler plug

**6.** When there is no CVTFII leakage, add the specified fluid up to the filler plug hole lower section. A small amount of CVTFII may drain initially from the filler plug hole due to the presence of residual fluid in the access port. It is expected 700 ml of fluid will need to be added to achieve correct fill in all cases. If the CVT appears to need significantly more or less than 700ml, confirm the fluid temperature is still correct for inspection and that the engine is running.

Specified Fluid: CVTFII by the quart (Part# SOA427V1660 – 12 quart case) or 5 Gallon pail (SOA427V1670)

## **CAUTION:**

If CVTFII is added up to the lower section of filler plug hole while the transmission is in cold condition, overfilling of CVTFII occurs, causing the oil to spill out.



(A) Filler plug hole

**7.** Install the filler plug.

NOTE: Always use a new filler plug gasket, part number: 803918060.

**Tightening torque:** 

50 N·m (36.9 ftlb)

**8.** Reinstall the under cover front - transmission.

**Tightening torque:** 

18 N·m (13.3 ftlb)

**IMPORTANT:** Mark the CVT case for visual verification of the completed repair as shown in the photo to the right.



# Procedure For Vehicles Already "Delivered" To A Customer

## **INSPECTION**

## **CAUTION:**

Make sure no other person is around the vehicle during the stall test measurement.

## **NOTE:**

A stall test is extremely important in diagnosing the condition of the CVT and engine. The test is necessary to measure the engine stall speeds in "R" and "D" range.

**Purposes of the stall test:** 

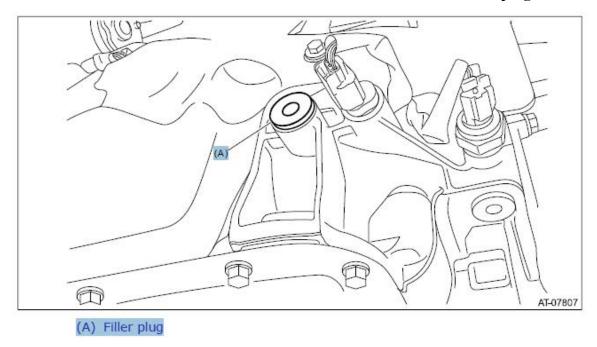
- Operational check of forward clutch and reverse brake
- Operational check of the torque converter assembly
- Engine performance check.
- 1. Place wheel chocks at the front and rear of all wheels and engage the parking brake.
- **2.** Turn the A/C OFF.
- **3.** Using the Subaru Select Monitor, check if the throttle valve operates when you depress the accelerator pedal.
  - Connect the SDS Notebook and DST-I to the vehicle. Select SSM4 from the GUI.
  - When SSM4, opens select Diagnosis.
  - After the vehicle specification populates, click OK.
  - Select Each System followed by Engine and click Next.
  - Select the data for Throttle Opening Angle and Accel. Opening Angle then click OK.
  - Confirm the throttle valve operation by viewing the data while manipulating the accelerator pedal.
- **4.** Check the engine oil level.
  - Park the vehicle on a level surface
  - After the engine has been off for at least 5 minutes, remove the engine oil level dipstick, wipe clean and reinsert.
  - Remove the dipstick again and inspect. Confirm the engine oil level is between the upper and lower marks on the dipstick before proceeding.

- 5. Check the engine coolant level. When adding coolant, always use SUBARU Super Coolant.
  - Park the vehicle on a level surface.
  - Check the engine coolant amount and if the coolant level is low, check for the coolant leakage, then add if required to bring the level to full.
  - Make sure the coolant level in the reservoir tank is between "FULL" and "LOW" with the engine in a cold condition.
  - **CAUTION:** Coolant may be HOT. Do **NOT** perform the following if coolant is hot. Open the radiator cap and make sure that the radiator is filled with engine coolant up to the filler neck.
- **6.** Adjust the CVTFII level.

## **CAUTION:**

- CVTFII level changes along with CVTFII temperature. When inspecting CVTFII level, observe the specified CVTFII temperature.
- Always use specified CVTFII. Using other fluid will cause malfunction.
- Pay special attention to the following operations as the engine is at idle.
- 7. Idle the engine to raise CVTFII temperature to 35 45°C (95 113°F) on Subaru Select Monitor.
- 8. Operate the select lever in  $P \to R \to N \to D$  and  $D \to N \to R \to P$  to circulate CVTFII with the engine idling.
- **9.** Lift up the vehicle while the engine is running.
- **10.** Remove the under cover front transmission.
- 11. Remove the filler plug (A) as shown in the illustration below.

NOTE: The CVT is full when the fluid level is at the bottom of the filler plug hole.

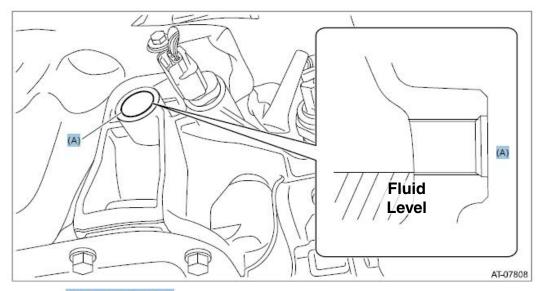


**12.** When there is no CVTFII leakage, add the specified fluid up to the filler plug hole lower section. A small amount of CVTFII may drain initially from the filler plug hole due to the presence of residual fluid in the access port. It is expected 700 ml of fluid will need to be added to achieve correct fill in all cases. If the CVT appears to need significantly more or less than 700ml, confirm the fluid temperature is still correct for inspection and that the engine is running.

Specified Fluid: CVTFII by the quart (Part# SOA427V1660 – 12 quart case) or 5 Gallon pail (SOA427V1670)

## **CAUTION:**

If CVTFII is added up to the lower section of filler plug hole while the transmission is in cold condition, overfilling of CVTFII occurs, causing the oil to spill out.



(A) Filler plug hole

**13.** Install the filler plug.

NOTE: Always use a new filler plug gasket, part number: 803918060.

# **Tightening torque:**

50 N·m (36.9 ftlb)

**14.** Install the under cover front - transmission.

## **Tightening torque:**

18 N·m (13.3 ftlb)

- **15.** Increase the CVTFII temperature to 60 80°C (140 176°F) with the engine running and the select lever shifted to "N" or "P" range.
- **16.** Hold down the precollision brake OFF switch to turn OFF the precollision brake function. (vehicles with EyeSight).
- **17.** Shift the select lever to "D" range.
- **18.** Depress the accelerator pedal fully while fully depressing the foot brake pedal with your left foot.
- **19.** When the engine speed stabilizes, quickly record the engine speed and release accelerator pedal. Shift the select lever to "N" range. Let the engine idle for at least one minute or more allowing it to cool down.
- **20.** Shift to "R" range and perform the same test again.

## **NOTE:**

- Do not perform a stall test for over 5 seconds at a time. (From closed throttle, fully open throttle to stall speed reading.) Failure to follow this instruction will cause the engine oil and CVTFII to deteriorate and the clutch and brake to be adversely affected.
- Always cool down the engine for at least one minute after each stall test with the select lever set in the "P" or "N" range and with the idle speed of 1,200 rpm or less.
- If the stall speed is higher than the specified range, attempt to finish the stall test in as short a time as possible, to prevent the CVT from sustaining damage.

## **Stall Speed Standards:**

**D Range:** 2,000 — 2,750 rpm **R Range:** 1,900 — 2,650 rpm

Stall test judgment

Range	Range	Probable cause		
Lower than standard value	D, R	<ul><li>Insufficient engine output</li><li>Torque converter malfunction</li></ul>		
	D	<ul> <li>Forward clutch slippage</li> <li>Secondary pressure (line pressure) is l</li> <li>Variator chain malfunction</li> </ul>		
Higher than standard value	R	<ul> <li>Reverse brake slippage</li> <li>Secondary pressure (line pressure) is low.</li> <li>Variator chain malfunction</li> </ul>		
	D, R	<ul> <li>Torque converter malfunction</li> <li>Control valve body malfunction</li> <li>TCM malfunction</li> <li>Damaged harness and harness connector</li> </ul>		

If stall test results are higher than standard value supplied above, the CVT will need to be replaced. This should be an **extremely rare** case. If necessary to replace the CVT assembly, refer to applicable Service Manual for all related procedures.

**IMPORTANT:** Mark the CVT case for visual verification of the completed repair.

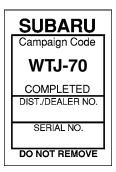


#### **SERVICE PROGRAM IDENTIFICATION LABEL:**

Type or print the necessary information on a Campaign Identification Label. The completed label should be attached to the vehicle's upper radiator support.

Additional labels are available through normal parts ordering channels. The part number is MSA6P1302, which comes as one sheet of 20 labels.

Part Number	Applicability	Description	Order Quantity
MSA6P1302	All models	Campaign Completion Labels (contains one sheet of 20 labels)	1



## **CLAIM REIMBURSEMENT AND ENTRY PROCEDURES:**

Credit to perform this Service Campaign will be based on the submission of properly completed repair order information. Retailers may submit claims through subarunet.com. One quart of CVT Transmission Fluid, p.n. SOA635304 can be claimed for each fluid level adjustment.

Labor Description	Labor Operation #	Labor Time	Fail Code	Claim Type
CVTFII TOP-OFF ONLY	B130-371	0.3		
WTJ-70 STALL TESTING	C130-370	0.2	WTJ-70	RC
WTJ-70 CVT REPLACEMENT	C130-377	3.5		

#### **IMPORTANT REMINDERS:**

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.

## **OWNER NOTIFICATION LETTER**

This notice applies to the VIN identified in the address section printed below.



Subaru of America, Inc

Subaru Plaza PO Box 6000 Cherry Hill, NJ 08034-6000 800-782-2783 www.subaru.com

Subaru Service Program WTJ-70 October 2016

#### **Dear Subaru Owner:**

We would like to thank you for your selection of a Subaru vehicle. We take pride in our products and are committed to your continued satisfaction

Subaru has become aware that the CVT transmission in certain 2017 Subaru Forester models may not have been filled with the specified amount of fluid.

You received this notice because our records indicate that you currently own one of these vehicles. In the interest of your continued satisfaction, we would like to ensure that the CVT fluid is topped off in your vehicle at no cost to you to avoid any future potential concerns.

#### DESCRIPTION

The CVT fluid in your vehicle may not have been filled to the proper specified factory level. The condition could cause a noticeable air vacuum noise or possibly even chain slip under high levels of shock load depending upon driving conditions (e.g., rapid acceleration or hill climbing). Extended driving under this low-fill condition is not recommended.

#### REPAIR

Subaru will add factory approved CVT fluid to your vehicle's transmission and perform a test to ensure that your transmission is performing correctly.

#### WHAT YOU SHOULD DO

You should immediately contact your Subaru retailer (dealer) for an appointment to have this repair performed.

#### HOW LONG WILL THE REPAIR TAKE?

The time to add the necessary fluid and perform the test is approximately 45 minutes. However, it may be necessary to leave your vehicle for a longer period of time on the day of your scheduled appointment to allow your Subaru retailer flexibility in scheduling.

## CHANGED YOUR ADDRESS OR SOLD YOUR SUBARU?

If you have moved or sold your vehicle, please complete the enclosed prepaid postcard and mail it to us. Or if you prefer to update this information online, please go to www.subaru.com, select 'Customer Support,' then select 'Address Update' or 'Ownership Update' from the drop down menu.

#### IF YOU NEED FURTHER ASSISTANCE:

To locate the nearest Subaru retailer, you can access our website at www.subaru.com and select 'Find a Retailer.'

For additional information, please go to: http://www.wtg67.service-campaign.com.

If you need additional assistance, please contact us directly:

- By e-mail: Go to www.subaru.com, Customer Support and select "Contact Us"
- By telephone: 1-800-SUBARU3 (1-800-782-2783)
   Monday through Thursday between 7:30 a.m. and 8:00 p.m. ET
   Friday between 10:30 a.m. and 5:00 p.m. ET
   Saturday between 9:00 a.m. and 3:30 p.m. ET
- By U.S. Postal mail: Write us at Subaru of America, Inc., Attn: Customer-Retailer Services Department, P.O. Box 6000, Cherry Hill, NJ 08034-6000

Please contact us immediately if the Subaru retailer fails or is unable to make the necessary repairs free of charge.

Your continued satisfaction with your Subaru is important to us. Please understand that we have taken this action in the interest of your vehicle's proper operation. We sincerely apologize for any inconvenience this matter may cause and urge you to schedule an appointment as soon as possible to have this repair performed.

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Subaru of America, Inc.

Notice to Lessors: Under Federal law the lessor of a vehicle who receives this letter must provide a copy of it to the vehicle lessee(s) within 10 business days from receipt. The lessor must also keep a record of the lessee(s) to whom this letter is sent, the date sent, and the applicable vehicle identification number (VIN). (For the purposes of this section, a lessor means a person or entity that in the last twelve months prior to the date of this notification has been the owner, as referenced on the vehicle's title, of any five or more leased vehicles. A leased vehicle is a vehicle leased to another person for a term of at least four months.)

A subsidiary of Fuji Heavy Industries Ltd.

Bulletin Number: WTJ-70R; Revised: 08/03/17