Subarunet Announcement

To: All Subaru Retailers

From: Subaru of America, Inc. Date: November 26, 2019

New STOP SALE/Safety Recall: WUV-07- CVT Chain Slip Recall

Subaru of America, Inc. (Subaru) is initiating a new safety recall for certain 2019 model year Ascent vehicles in which the Continually Variable Transmission (CVT) chain may slip.

Description of the Defect and Safety Risk

The CVT chain may slip resulting in irregular noise, vibration, hesitation while driving, and/or MIL illumination. If driving under this condition continues, the vehicle may experience a loss of motive power, increasing the risk of a crash.

Affected Vehicles

A total of 76,842 U.S. vehicles will be affected by this recall, as listed below:

Model Year	Carlines	Production Date Range	
2019	Ascent	February 22, 2018 – May 7, 2019	

Not all vehicles in the production ranges listed above are affected by these recall. Coverage <u>must</u> be confirmed by using the Vehicle Coverage Inquiry function on subarunet.com prior to repair. Coverage information will be available today.

Service, Parts, and Claim Instructions

Reprogramming PAK files are currently available. Detailed service, parts, and claim information will be available in the WUV-07 Product Campaign Bulletin early next week. Until that bulletin is available, please refer to the service procedure and claim submission information at the end of this message.

Retailer Responsibility

Any vehicles listed in any recall/campaign that are in retailer stock must be:

- Immediately identified
- Tagged or otherwise marked to prevent their delivery or use prior to repair
- Repaired in accordance with the repair procedures outlined in the Product Campaign Bulletin

Retailers are to promptly perform the applicable service procedures, to correct all affected vehicles in their inventory (used, demo & SSLP). Additionally, whenever a vehicle subject to this recall is taken into retailer inventory necessary steps should be taken to ensure the recall correction has been made before selling or releasing the vehicle.

Please be advised that it is a violation of Federal law for a dealer to deliver a new motor vehicle covered by a recall under a sale or lease until the defect is remedied. Therefore, any Authorized Subaru Retailer failing to perform the applicable service procedures to correct all affected vehicles in their inventory prior to the vehicle being placed in service may be subject to civil penalties of up to \$21,000 per violation (i.e., for each vehicle), as provided in 49 CFR §578.6 and will also be in breach of the Subaru Dealer Agreement.

Owner Notification

Subaru will notify affected vehicle owners by first class mail within 60 days. Owners with a valid email address on file will also be notified by email. Retailers will be advised when the notification is scheduled.

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Service procedure and Claim Information

WUV-07 Service Procedure

Flow Chart:

Check if the following DTCs are stored in either "Current" or "History" memory and perform the diagnosis procedure based on the result.

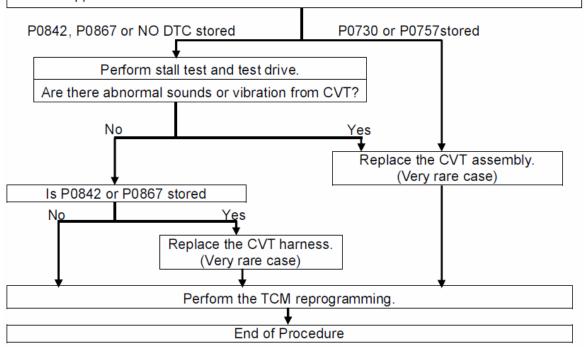
[P0730: INCORRECT GEAR RATIO]

[P0757: SHIFT SOLENOID "B" STUCK ON]

[P0842: TRANSMISSION FLUID PRESSURE SENSOR/SWITCH "A" CIRCUIT LOW]

[P0867: TRANSMISSION FLUID PRESSURE]

*If any other DTCs are stored in memory, perform the diagnosis procedure in accordance with the applicable Service Manual.



PARTS INFORMATION:

In a **VERY RARE** case where the CVT assembly or CVT wiring harness replacement is determined to be necessary, the parts ordering information is below:

Transmission Harness: 24031AA851

NOTE: NEVER use old harness p.n. 24031AA850 for this repair. Any remaining inventory of this p.n. **must** be scrapped.

• CVT Assembly: **31000AK130** for Ascent **WITH** auxiliary CVTF Cooler

CVT Assembly: 31000AK140 for Ascent WITHOUT auxiliary CVTF Cooler

SERVICE PROCEDURE:

REMINDER: Customer satisfaction and retention starts with performing quality repairs.

Step 1- Connect the SSM4 and perform a DTC Check to see if any of the following DTCs are stored in either the TCM "Current" or "History" memory.

[P0730: INCORRECT GEAR RATIO]

[P0757: SHIFT SOLENOID "B" STUCK ON]

[P0842: TRANSMISSION FLUID PRESSURE SENSOR/SWITCH "A" CIRCUIT LOW]

[P0867: TRANSMISSION FLUID PRESSURE]

*If other DTCs are stored in memory, perform the diagnosis procedure in accordance with the applicable service manual.

- DTC P0842, P0867 or NO DTCs stored: Proceed to Step 2 and check for any abnormal sounds or vibration while performing stall test and test drive. See applicable Service Manual for stall test procedure.
- DTC P0730 or P0757 stored (very rare case): Replace the CVT assembly following the procedure
 in the applicable Service Manual. When complete, clear the TCM of any DTCs and proceed to
 Step 4.

Step 2- Perform a stall test and test drive the vehicle to check for any abnormal noise or vibration. **IMPORTANT NOTE:** A brief chirp -type sound heard when engaging R or D is a non-detrimental characteristic of this model CVT.

- No abnormal sounds or vibration detected during stall test and test drive: proceed to **STEP 3**.
- Abnormal sounds or vibration detected: replace the CVT assembly following the procedure in the applicable Service Manual. When complete, proceed to **STEP 4.**

Step 3- Was DTC P0842 or P0867 stored in the TCM while performing Step 1 above?

- No DTCs stored: proceed to **Step 4** and reprogram the TCM.
- P0842 or P0867 is stored (very rare case): replace the CVT harness. See the applicable Service
 Manual for the CVT harness replacement procedures. For more experienced Subaru
 Technicians, an alternative procedure is provided in the Harness Replacement Tips section
 below. When harness replacement is complete, clear the TCM memory of any codes, proceed
 to Step 4.

Step 4- Reprogram the TCM following the normal FlashWrite procedure and perform the CVT Relearn procedure supplied in the applicable Service Manual.

IMPORTANT CAUTIONS:

- The PAK file is different for each car model.
- Turn off all the electrical components to prevent the vehicle battery from going dead.
- The Transmission Control Module may be damaged if the reprogramming is interrupted due to the PC battery going dead during the reprogramming, etc.
- Supply power to the PC at all times during reprogramming.
- Never turn off the PC power before reprogramming is completed.
- NEVER disconnect any of the cables (power supply, DLC, USB cable) during reprogramming.

Pack File Applicability:

Model	PAK File Name	New TCM Part Number	Old TCM Part Numbers	Decryptio n Keyword	New TCM CID Number
Ascent WITH Auxiliary CVTF Cooler	30919AF99C.pak	30919AF99C	30919AF99A, 99B	06F4F4FF	R8FEF700
Ascent W/OUT Auxiliary CVTF Cooler	30919AF98C.pak	30919AF98C	30919AF98A, 98B	2DAA4E53	R8FEE700

Subaru of America, Inc. (SOA) highly recommends connecting either the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-100 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed.

Once the Midtronics charger is connected to the vehicle, **if the battery is fully charged**, it takes less than three (3) minutes to boot-up the charger, select the Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

NOTES:

- For instructions on using the power supply mode, reference the applicable User Manual for the Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Midtronics GR8-1100 Diagnostic Battery Charger on STIS.
- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched **OFF** before setting up the charger for Power Supply Mode.
- Select the correct battery type (Flooded, EFB, Gel, AGM or AGM Spiral).
- Input the CCA which matches the vehicle's battery. **NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery's CCA rating before proceeding.
- If using a DCA-8000 Dynamic Diagnostic Charging System, set the power supply voltage to 13.5 volts.
- **DO NOT** connect the DST-i or SDI until the Power Supply mode function has completed its battery test mode and the Charging Voltage has dropped to and shows a steady 13.5 Volts on the display.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DST-i or SDI to the OBD connector and proceed with initiating the normal FlashWrite reprogramming process.
- Amperage will fluctuate based upon the vehicle's demand for power. **NOTE:** If the voltage rises beyond 14V while programming is in process, the procedure will abort. This can indicate a need to test or charge the vehicle battery before any further attempt at programming is made.

VERY IMPORTANT:

This information is applicable to the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Subaru Midtronics GR8-1100 Diagnostic Battery Charger **ONLY**. It does not apply to any other

brand / type of "generic" battery charger whatsoever. **ONLY** the DCA-8000 and the GR8-1100 and their Power Supply Mode feature have been tested and approved by SOA.

REMINDER: If the DCA-8000 or GR8-1100 indicates the vehicle's battery must be charged, charge it fully using the DCA-8000 or GR8-1100 before proceeding to reprogram the vehicle using the Power Supply Mode.

NOTE: Control module failures resulting from battery discharge during reprogramming are not a matter for warranty. Should any DTCs reset after the reprogramming update is performed, diagnose per the procedure outlined in the applicable Service Manual.

Using the SSM4, clear the AT Learning Data using the following procedure:

- Start > Diagnosis > Vehicle Selection > Each System > Transmission > Work Support > Clear AT Learning Data.
- Click "YES" and when "Execute Clear AT Learning" is displayed, click "YES" again.
- Turn the ignition OFF, wait at LEAST 30 seconds then turn the ignition back ON. At this point, the AT Temp light will start blinking; 4 times in 2 seconds to signify the Clear AT Learning procedure has completed successfully. If the AT Temp light does not flash as described, repeat Step 2 again from the beginning.

Using the SSM4, perform the AT Learning Control following the procedure outlined in the applicable Service Manual.

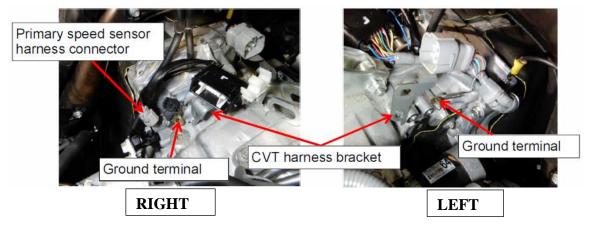
IMPORTANT: The **NEW** Calibration Identification number (CID) for any newly-installed programming (as confirmed from the actual control module **AFTER** installation) **MUST** be noted on the repair order as this information is required for claim submission.

NOTE: The pack file listings provided in this bulletin are the latest available at the time of publishing. Updates are often released thereafter without revision to the original bulletin. For this reason, it is critical to always have the latest version of Select Monitor software installed on your system. You can confirm if a later version is available by entering the CID listed in this bulletin into FlashWrite. If a newer CID is shown as available in FlashWrite, reprogram using that file.

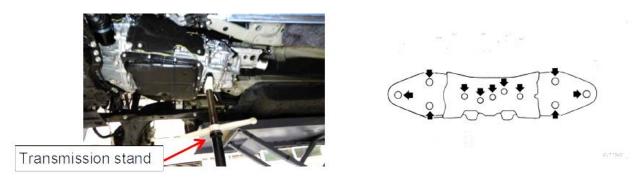
Harness Replacement Tips:

The following is being presented as an allowable alternative procedure for more experienced Subaru trained Technicians. The CVT wiring harness can be replaced **without** removal of the CVT assembly using the procedure below:

- Remove the battery ground terminal, intercooler and the pitching stopper following the procedures in the applicable Service Manual.
- Disconnect the CVT harness bracket, the ground terminal and the primary speed sensor harness connector as shown in the photos below.



- Raise the vehicle. Remove the center exhaust pipe (rear), selector cable, CVT oil pan, drain the CVTF
 - and remove the propeller shaft following the procedures in the applicable Service Manual.
- Set a transmission stand in place as shown below and remove the transmission rear cross member. CAUTION: <u>NEVER</u> place any stand or jack on the transmission pan as damage will occur which could lead to CVT failure.



• Lower the transmission stand by **NO MORE THAN 75mm**. Remove the 6 bolts securing the transmission cover then CAREFULLY slide cover toward the rear of the vehicle.

CAUTION: Never lower the transmission stand by more than 75mm or the A/C hose may be damaged.

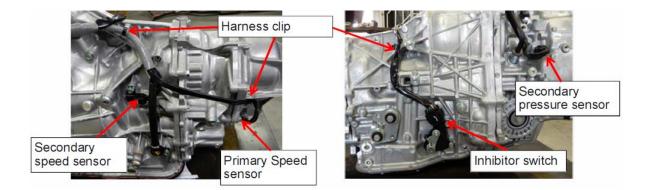
NOTE: TAKE YOUR TIME when removing the transmission cover being careful to not catch the inside of it on the external components of the CVT.







 CAREFULLY remove the harness connectors and retaining clips shown below and remove the CVT harness from the CVT housing.



- **CAREFULLY** remove the control valve body **closely** following the procedure in the applicable Service Manual and remove the CVT harness.
- Install the new transmission harness, reassemble in reverse order of disassembly.
- When complete clear the TCM memory of any DTCs, reprogram the TCM following the normal FlashWrite procedure and, perform the CVT Relearn procedure supplied in the applicable Service Manual.

Claim Reimbursement and Entry Procedures:

Credit to perform this recall will be based on properly completed repair order information. Retailers may submit claims through Subarunet.com.

Labor Description	Labor Operation #	Labor Time	Fail Code
TCM REPROGRAMMING, Includes: DTC Check, Stall Test, Test Drive and CVT Relearn Procedure	A186-701	0.9	
CVT REPLACEMENT, Includes: TCM Reprogramming, DTC Check, Stall Test, Test Drive and CVT Relearn Procedure	A130-341	5.6	WUV-07
CVT HARNESS REPLACEMENT, Includes: TCM Reprogramming, DTC Check, Stall Test, Test Drive and CVT Relearn Procedure	A130-342	6.8	

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.