

ATTENTION:
 GENERAL MANAGER
 PARTS MANAGER
 CLAIMS PERSONNEL
 SERVICE MANAGER

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2019-22MY Ascent
 2020-22MY Legacy & Outback 2.4L Turbo

NUMBER: 16-136-22R

DATE: 01/20/22

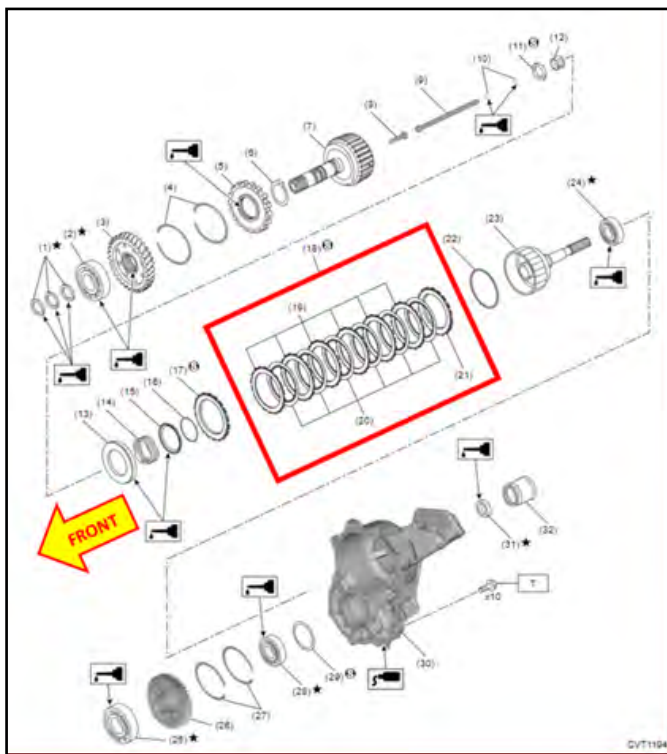
SUBJECT: Vibration & Possible Judder Concern on Turns Under Acceleration

REVISED: 09/28/23

INTRODUCTION:

This service bulletin provides a repair procedure to address vibrations and/or judder concerns experienced on turns during acceleration. If either of these conditions are verified, follow the confirmation process outlined below. If confirmed, the multiple plate transfer (MPT) clutch will require replacement.

PART INFORMATION:



IMPORTANT NOTE:

There is a specified sequence of assembly for the Driven Plates (19) and the Drive Plates (20).

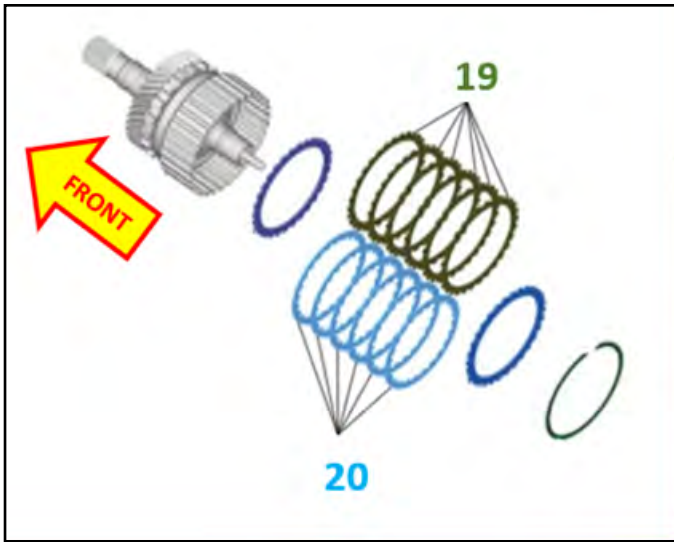
CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

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.

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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.

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IMPORTANT NOTE:

As per the applicable Subaru Service Manual, assembly of the Plates must start with the external toothed Driven Plates (19) and then alternately assembled with the internally toothed Drive Plates (20).

IMPORTANT NOTES:

- Always order the most up-to-date replacement parts based on the specific VIN being repaired.
- Part quantities indicated with a (*) in the information below **MUST** be ordered with the correct thickness. Refer to the applicable Service Manual for details on thrust bearing thickness confirmation.

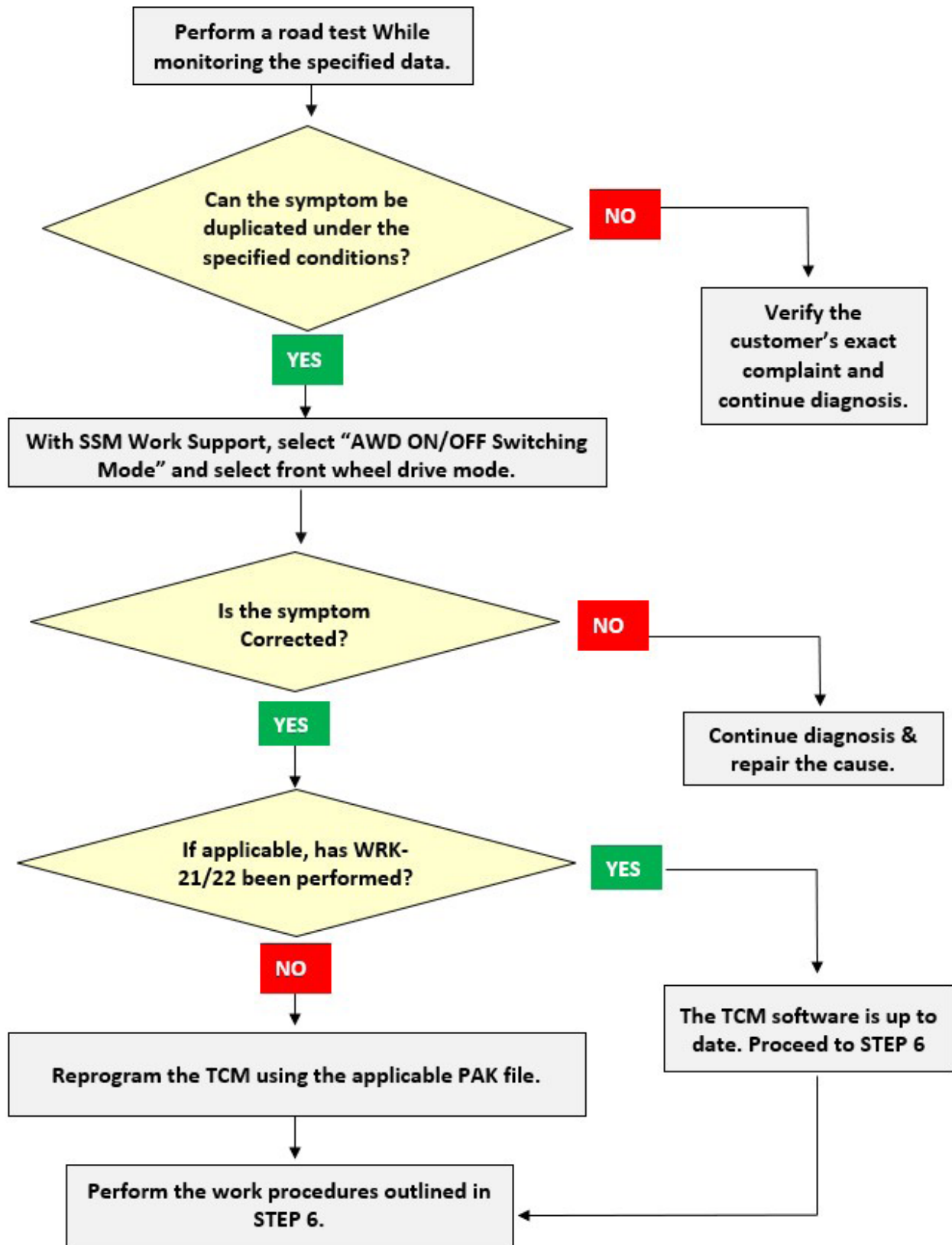
LEGACY & OUTBACK			ASCENT & OUTBACK WILDERNESS		
Part Description	Part Number	Qty	Part Description	Part Number	Qty
CLUTCH ASSY-TRF	33119AA740	1	CLUTCH ASSY-TRF	33119AA720	1
THRUST BEARING	806536020	1*	THRUST BEARING	806536020	1*
	806535030			806535030	
	806535040			806535040	
	806535050			806535050	
	806535060			806535060	
	806535070			806535070	
806535090	806535090				
GASKET	803916010	1	GASKET	803916010	1
GASKET	803918060	1	GASKET	803918060	1
RING-SEAL	31377AA490	3	RING-SEAL	31377AA490	3
High Torque CVT-LV (As Needed)			High Torque CVT-LV (As Needed)		

Model	Transmission Fluid	Part Number	Quantity/Unit/Pack	Warranty Part #
ALL	High Torque CVTF-LV	SOA748V0300	5 Gallon Pail	SOA635312
		SOA748V0310	16-Gallon Keg	

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SERVICE PROCEDURE / INFORMATION:

Procedure Overview Flowchart:



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Detailed Diagnosis Procedure:

IMPORTANT NOTE: Before applying this bulletin, confirm the WRK-21/22 recall has been completed if applicable.

STEP 1: Using Subaru Select Monitor (SSM), observe the selected data items listed in the table below. Road test and confirm if the symptom can be duplicated under the suggested conditions as listed.

CAUTION: It is highly recommended for **TWO** people to perform this procedure; one to observe SSM data while the other drives the vehicle.

Selected Data Items	Conditions
CVT oil pan temperature	Bellow 176 Deg F
Acceleration opening angle	10% to 30%
Steering angle	FULL Steer
Vehicle speed	Under 20mph

IMPORTANT NOTE: Always save the recorded data in Subaru Select Monitor.

STEP 2: Can the symptom be duplicated under the conditions described above?

YES – Proceed to **STEP 3**.

NO – Verify the customer’s exact complaint and continue diagnosis.

STEP 3: Using the SSM, select “Work Support” within the “Transmission” menu. Select “AWD ON/OFF Switching Mode” and switch to front wheel drive mode. Road test again in this mode and attempt to duplicate the described symptom.

STEP 4: Can the symptom be duplicated while operating in front wheel drive mode?

YES – Continue diagnosis and repair the cause.

NO – Proceed to **STEP 5**

CRITICAL: In a case when WRK21/22 has NOT been performed when applicable, perform the WRK-21/22 procedure. In a case when WRK21/22 is not applicable, proceed to STEP 5.

STEP 5: Reprogram the TCM following the normal FlashWrite procedure. AT Learning procedure in **NOT** required after reprogramming has been performed.

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 to supply a stable **13.5** volts anytime a vehicle control module is being reprogrammed.

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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.

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PAK File Information:

All reprogramming files are to be included in Sept 2022 SSM4 software. Confirm the WRK-21/22 recall has been completed if applicable.

NOTE: AT learning procedure is NOT required after reprogramming is complete.

Model Year	Vehicle	File name	Specification	Old Part Number	Decryption Keyword	New CID
19	ASCENT	30919AF98G.pak	2.4L DIT CVT without CVTF cooler (air cool)	30919AF98E 30919AF98F	6CB17BE5	R83EE000
19	ASCENT	30919AF99G.pak	2.4L DIT CVT with CVTF cooler (air cool)	30919AF99E 30919AF99F	1648933C	R83EF000
20-21	ASCENT	30919AH13H.pk2	2.4L DIT CVT without CVTF cooler (air cool)	30919AH13F 30919AH13G	B3DFD2E3	Q93EE100
20-21	ASCENT	30919AH14H.pk2	2.4L DIT CVT with CVTF cooler (air cool)	30919AH14E* 30919AH14G	B5D0FB3D	Q93EF100
22	ASCENT	30919AJ53B.pk2	2.4L DIT CVT without CVTF cooler (air cool)	30919AJ53A	D3DF9A7B	N2FEE600
22	ASCENT	30919AJ54B.pk2	2.4L DIT CVT with CVTF cooler (air cool)	30919AJ54A	CED94BB7	N2FEF600
20-21	OUTBACK	30919AG76D.pk2	2.4L DIT CVT	30919AG76C	C084BD9F	C7FEF840
20-21	LEGACY	30919AG75D.pk2	2.4L DIT CVT	30919AG75C	F7DE7793	C7FEC840
22	LEGACY	30919AJ48B.pk2	2.4L DIT CVT	30919AJ48A	306A9BDE	A9FEC640
22	OUTBACK	30919AJ49B.pk2	2.4L DIT CVT	30919AJ49A	D40C8A85	A9FEF640
22	OUTBACK Wilderness	30919AJ11C.pk2	2.4L DIT CVT	30919AJ11A 30919AJ11B	11D79226	A98EF730

* A TCM with software version 30919AH14E as the current software status will require an additional step when reprogramming. Until further revision is announced, the Temporary PAK file used in WRK-21/22 MUST be reprogrammed to the TCM before the 30919AH14G file can be installed.

NOTE: The temporary reprogramming files used in WRK-21/22 are not to be used for CVT chain slip diagnosis on vehicles currently unaffected by WRK-21/22.

After reprogramming is successful proceed to **STEP 6**.

STEP 6: Replace **ALL** of the applicable parts outlined in the Part Information section of this bulletin.

The service procedures for transfer clutch disassembly, assembly, and adjustment remain unchanged. Always refer to the applicable Service Manual and review the full requirements of the repair being performed. The Service Manual procedures contain information critical to performing an effective repair the first time, every time. This includes but is not limited to important SAFETY precautions, proper inspection criteria, necessary special tools, required processes and related one-time-use parts needed for a complete and lasting repair.

Refer to STIS: Transmission/Transaxle > Transfer Clutch > REMOVAL, INSPECTION, DISASSEMBLY, ASSEMBLY, & ADJUSTMENT.

IMPORTANT NOTES:

- The CVT should be in the Neutral position when installing the park rod arm and the tail housing. With the vehicle in Neutral, the park arm is relaxed. The vehicle in park, the arm wants to lock into the plate/ gear and pawl arm is pushing up.
- The Service Manual uses a **black star (★)** in the component breakdown illustration to indicate **one-time** use parts
- Refer to the applicable Service Manual and review: General Description > Repair Contents > Action required before & after Battery Disconnect. Additionally, record any stored seat position(s) before proceeding. Relearn any seat position memory after work is complete. If the power rear gate (PRG) height has been customized, that position must also be noted and relearned.
- Whenever reconnecting the ground cable terminal to the battery sensor, torque to 7.5Nm (5.5ft.-lbs. or 66inch-lbs.) while supporting the sensor with the other hand as outlined in the applicable Service Manual under: STARTING/CHARGING SYSTEMS > Battery Sensor.

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited or Powertrain Limited Warranty period or covered by an active Subaru Added Security Powertrain, Classic or Gold plan, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Labor Time	Fail Code
CVT AWD EXTENSION HOUSING/SEALER R&R	B303-431	4.8	MSP-26
CVT TRANSFER CLUTCH ASSEMBLY OVERHAUL	C303-446	0.5	
CM VERSION UPDATE @ REPLACEMENT	C860-118	0.3	

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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.