

- ATTENTION:**
- GENERAL MANAGER
 - PARTS MANAGER
 - CLAIMS PERSONNEL
 - SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2020-24MY Legacy 2.4L
 2020-24MY Outback 2.4L
 2019-24MY Ascent
 2022-24MY WRX
 2022-25MY Outback Wilderness

NUMBER: 16-150-24R

DATE: 09/13/24

REVISED: 11/21/24

SUBJECT: Transmission Control Module (TCM) / Software Enhancement

INTRODUCTION:

This bulletin announces availability of new reprogramming files developed to address the two symptoms described below:

SYMPTOM 1: A jerk or judder sensation felt from the powertrain during braking with the air conditioning on.

SYPMTOM 2: A shudder is felt from the powertrain along with a screeching type of sound.

NOTE: Both of these symptoms are not related with a fault code.

The new files contain enhanced software optimizing input clutch application along with enhanced hydraulic pressure control during braking/deceleration. On some model applications, the Transmission Control Module (TCM) will require replacement along with a final reprogramming (if applicable). If a customer reports either of the symptoms described above *and* their vehicle is within the VIN range listed below, follow the procedures outlined within this bulletin.

PRODUCTION CHANGE INFORMATION:

The new software has been incorporated into vehicle production as per the table below.

Model	Starting VIN
Outback	TBD
Legacy	N/A
Ascent	R3439833
WRX	R8807951

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.

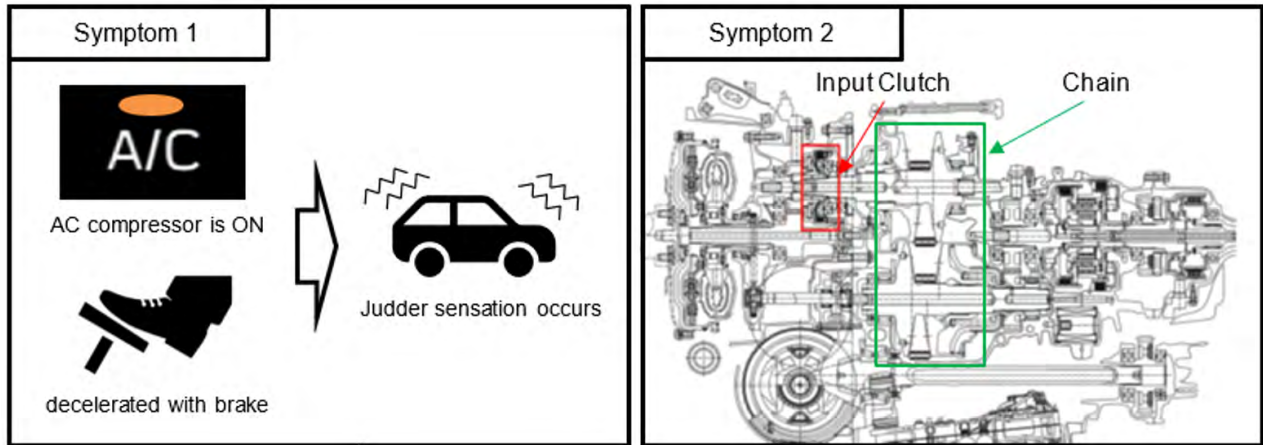
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SYMPTOM APPLICATION:

Model	Model Year		
	2023	2024	2025
LEGACY	1&2	1&2	N/A
OUTBACK	1&2	1&2	N/A
OUTBACK WILDERNESS	1&2	1&2	2
ASCENT	1&2	1&2	N/A
WRX	2	2	N/A

Applicable to Symptom 2

Applicable to Symptom 1& 2



PFC FILE INFORMATION:

Model	MY	Specification	File Description	Old Part #	New CID	New Rom ID
LEGACY	23	2.4L DIT CVT	30919AJ70C.pfc	30919AJ70A 30919AJ70B	Z1FEC73100L	A8FEC73100
	24	2.4L DIT CVT	30919AK09E.pfc	30919AK09D	A917550176L	A917550176
OUTBACK	23	2.4L DIT CVT	30919AJ71C.pfc	30919AJ71A 30919AJ71B	Z1FEF73100L	A8FEF73100
	24	2.4L DIT CVT	30919AK10E.pfc	30919AK10D	A917770176L	A917770176
OUTBACK WILDERNESS	23	2.4L DIT CVT	30919AJ72C.pfc	30919AJ72A 30919AJ72B	Z18EF73100L	A88EF73100
	24-25	2.4L DIT CVT	30919AK11E.pfc	30919AK11D	A917772176L	A917772176
ASCENT	23	2.4L DIT CVT without CVTF cooler	30919AJ79C.pfc	30919AJ79A 30919AJ79B	M3FEE70000L	04FEE70000
		2.4L DIT CVT with CVTF cooler	30919AJ80C.pfc	30919AJ80A 30919AJ80B	M3FEF70000L	04FEF70000
	24	2.4L DIT CVT with CVTF cooler	30919AK46C.pfc	30919AK46B	L4FEE70000L	05FEE70000

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Model	MY	Specification	File Description	Old Part #	New CID	New Rom ID
WRX	23	2.4L DIT CVT with CVTF cooler	30919AK221.pfc	30919AK220	G58ED60000L	228ED60000
		2.4L DIT CVT without CVTF cooler	30919AK211.pfc	30919AK210	G58EC60000L	228EC60000
	24	2.4L DIT CVT with CVTF cooler	30919AK421.pfc	30919AK420	23175A6670L	23175A6670

PAK FILE INFORMATION:

Model	MY	Specification	File Description	Old Part Number	Decryption Keyword	New CID
ASCENT	19	2.4L DIT CVT without CVTF cooler (air cool)	30919AF98J.pak	30919AF98D 30919AF98E 30919AF98F 30919AF98G 30919AF98H 30919AK94A	8130B700	R83EE200
	19	2.4L DIT CVT with CVTF cooler (air cool)	30919AF99J.pak	30919AF99D 30919AF99E 30919AF99F 30919AF99G 30919AF99H 30919AK95A	F807B512	R83EF200
	19	2.4L DIT CVT without CVTF cooler (air cool)	30919AH13K.pk2	30919AH13E 30919AH13F 30919AH13G 30919AH13H 30919AH13J 30919AK96A	9F55F789	Q93EE300
	20-21	2.4L DIT CVT with CVTF cooler (air cool)	30919AH14K.pk2	30919AH14E 30919AH14F 30919AH14G 30919AH14H 30919AH14J 30919AK97A	A7187EA9	Q93EF300
	22	2.4L DIT CVT without CVTF cooler (air cool)	30919AJ53E.pk2	30919AJ53A 30919AJ53B 30919AJ53C 30919AJ53D 30919AL06A	F060B30D	N2FEE900
	22	2.4L DIT CVT with CVTF cooler (air cool)	30919AJ54E.pk2	30919AJ54A 30919AJ54B 30919AJ54C 30919AJ54D 30919AL07A	9B880923	N2FEF900

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Model	MY	Specification	File Description	Old Part Number	Decryption Keyword	New CID
WRX	22	2.4L DIT CVT without CVTF cooler (air cool)	30919AJ371.pk2	30919AJ370	9A59D75A	F68EC60000L
	22	2.4L DIT CVT with CVTF cooler (air cool)	30919AJ381.pk2	30919AJ380	4A7F1046	F68ED60000L
Legacy	20-21	2.4L DIT CVT	30919AG75F.pk2	30919AG75C 30919AG75D 30919AG75E 30919AK98A	6F1D7586	C7FECA40
	22	2.4L DIT CVT	30919AJ48D.pk2	30919AJ48A 30919AJ48B 30919AJ48C	E87A6BAA	A9FEC840
OUTBACK	20-21	2.4L DIT CVT	30919AG76F.pk2	30919AG76C 30919AG76D 30919AG76E 30919AK99A	1294A042	C7FEFA40
	22	2.4L DIT CVT	30919AJ49D.pk2	30919AJ49A 30919AJ49B 30919AJ49C	69EEB433	A9FEF840
OUTBACK WILDERNESS	22	2.4L DIT CVT	30919AJ11E.pk2	30919AJ11A 30919AJ11B 30919AJ11C 30919AJ11D	F1B3BD86	A98EF930

SERVICE PROCEDURE / INFORMATION:

There are different service procedures depending on year and model. Always confirm the application prior to proceeding.

2019-22 Models: Perform the reprogramming procedure using the normal FlashWrite procedure.

2023-24 WRX: Perform the reprogramming procedure using SSM5-R. Additional information on using SSM5-R is available in **TSB 14-28-21R**.

2023 Models: Perform the reprogramming procedure using SSM5-R. Additional information on using SSM5-R is available in **TSB 14-28-21R**.

All other 2024-25 Models: Proceed to Step 1.

STEP 1: In some cases, the TCM cannot be reprogrammed due to software compatibility. The software compatibility **MUST** be verified using SSM-R to confirm the correct course of action. This is outlined in the next Step.

Applicable Vehicle	Model Year	SSM4	SSM5	Replace TCU	Confirm if the TCM requires reprogramming after replacement.
LEGACY/OUTBACK ASCENT	22MY	✓			
	23MY		✓		
	24MY		✓	✓	
OUTBACK W.	25MY		✓		

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STEP 2: Using SSM5-R, click on the line showing “Available” for the transmission to proceed. Additional information on using SSM5-R is available in **TSB 14-28-21R**.

Air Conditioner	8100000002	Not Available	Not Available	Equipped	Communicating
Body Control	00478BE004	Available	Not Available	Equipped	Communicating
Central Gateway	4B31393032	Available	Not Available	Equipped	Communicating
Telematics	0000160000	Not Available	Not Available	Equipped	Communicating
Transmission	20D94D2001	Available	Not Available	Equipped	Communicating
Engine	XE1P200o00G	Available	Not Available	Equipped	Communicating
EyeSight Security Gateway	9904190100	Available	Not Available	Equipped	Communicating
EyeSight	03576585000000000000	Not Available	Not Available	Equipped	Communicating

After clicking the line, does the detail text box display stating “The TCM cannot be reprogrammed, replace the TCM with latest superseded part”?

Flash

Target system	Applicable_Part_Number	Updated Part Number	Original CID / ROMID	Updated CID / ROMID
Transmission				

Reprogramming type: Campaign

Language select: ▼

Service bulletin

Details

This TCM cannot be reprogrammed, replace TCM with the latest superseded part.

NOTE:
Reprogramming can be performed when no message is displayed in the Details text box.

YES: The TCM is **NOT** suitable for reprogramming. Continue to Step 3.

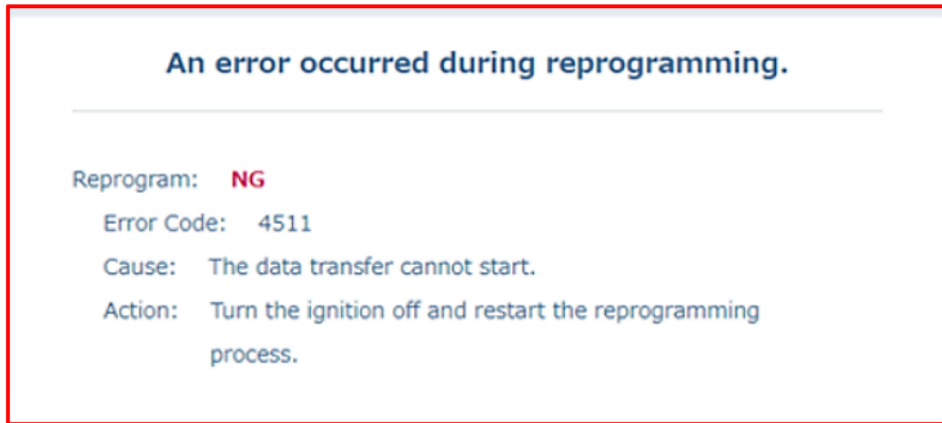
NO: The TCM is suitable for reprogramming. Perform the SSM5-R reprogramming procedure.

STEP 3: When the TCM is **NOT** suitable for reprogramming one of the following “Dummy PFC files” will be displayed along with an added instruction detail. Proceed to Step 4.

Dummy PFC Files						
MY	Model	Specification	File Description	Old Part #	Original CID	Updated ROMID
24	ASCENT	2.4L DIT CVT	30919AK46A-DM.pfc	30919AK46A	L4FEE30000L	05FEE30000
24	LEGACY	2.4L DIT CVT	30919AK09C-DM.pfc	30919AK09B 30919AK09C	A917550170L A917550172L	A917550170 A917550172
24	OUTBACK	2.4L DIT CVT	30919AK10C-DM.pfc	30919AK10B 30919AK10C	A917770170L A917770172L	A917770170 A917770172
24	OUTBACK WILDERNESS	2.4L DIT CVT	30919AK11C-DM.pfc	30919AK11B 30919AK11C	A917772170L A917772172L	A917772170 A917772172

IMPORTANT: If reprogramming is attempted on a TCM that has been determined to be not suitable, Error Code 4511 will be displayed.

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STEP 4: Transmission Control Module Replacement is required.

- Perform TCM replacement as per the applicable Service Manual.
- Perform the SSM5-R reprogramming procedure.
- Refer to the confirmation information supplied in the **APPENDIX A** section of this bulletin.

TRANSMISSION CONTROL MODULE PART INFORMATION (IF REQUIRED):

Some of the TCMs DO NOT contain the any of the countermeasure software for Symptom 2. This is why SSM5-R reprogramming is required after control module replacement.

MY	Model	Part Name	New Part No.	Symptom Countermeasure
24	ASCENT	UNIT-AT CONTROL	30919AK46B	Symptom 1 ONLY
24	LEGACY	UNIT-AT CONTROL	30919AK09D	Symptom 1 ONLY
24	OUTBACK	UNIT-AT CONTROL	30919AK10D	Symptom 1 ONLY
24-25	OUTBACK WILDERNESS	UNIT-AT CONTROL	30919AK11D	Symptom 1 ONLY

IMPORTANT NOTES:

- 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 SYSTSEMS > Battery Sensor.
- When the TCM is replaced, the new module will require registration and “AT clearing/learning” procedure performed.
- When the TCM is replaced on vehicle equipped with the Auto Start Stop function, the “Start count reading ECU to SSM” procedure will require performing.

WARRANTY / CLAIM INFORMATION:

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

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Labor Description	Labor Operation #	Labor Time	Fail Code
TRANSMISSION CONTROL MODULE REPROGRAMMING	A860-686	0.5	MJZ-48
TRANSMISSION CONTROL MODULE R&R INCLUDING RELEARN	B860-786	0.8	MJT-43
TCM UPDATE AFTER REPLACEMENT	C860-118	0.3	

IMPORTANT: Always note the original Calibration Identification number (CID) the vehicle came in with on the repair order **before** reprogramming and, make sure to list the **NEW** CID for any newly installed programming (as confirmed from the actual control module **AFTER** installation). The **NEW** CID **MUST** also be noted on the repair order as this information is required for entry in the Miscellaneous Detail field during claim submission.

NOTE: The .pfc 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. If a newer CID is shown as available in SSM5-R, reprogram using that file.

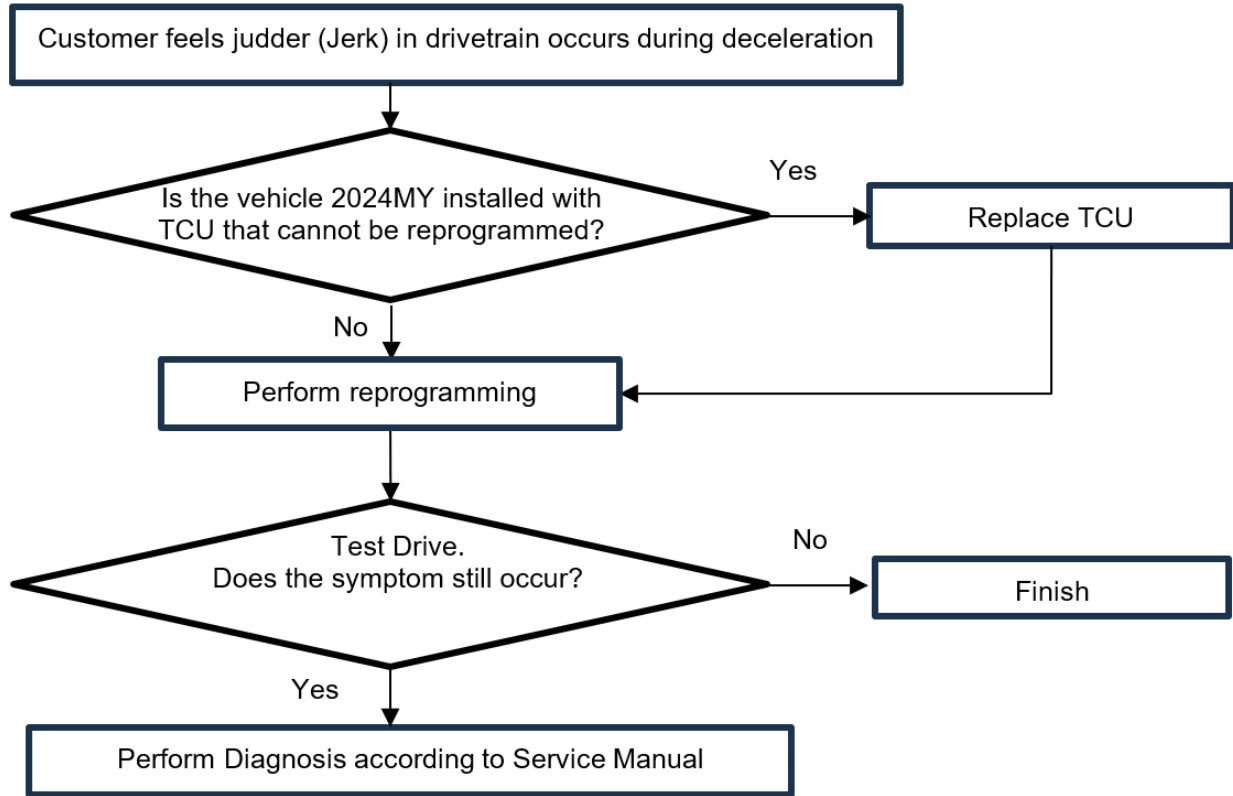
IMPORTANT REMINDERS:

- 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.

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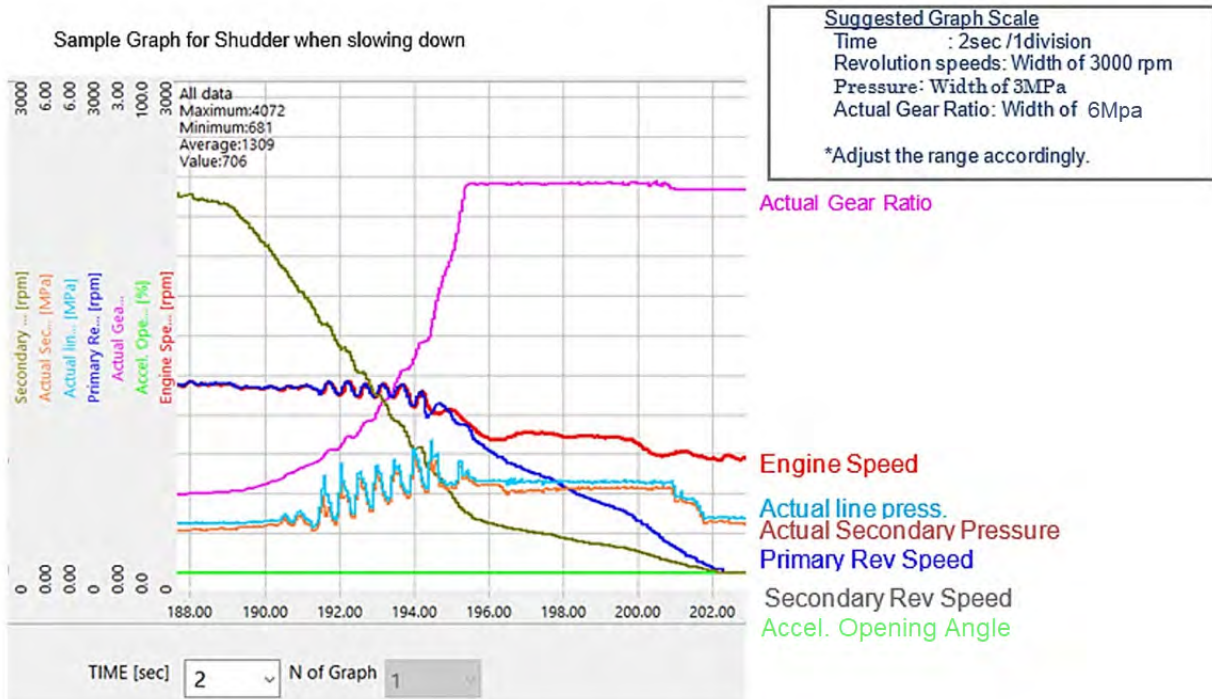
APPENDIX A: REPAIR CONFIRMATION

SYMPTOM 1:



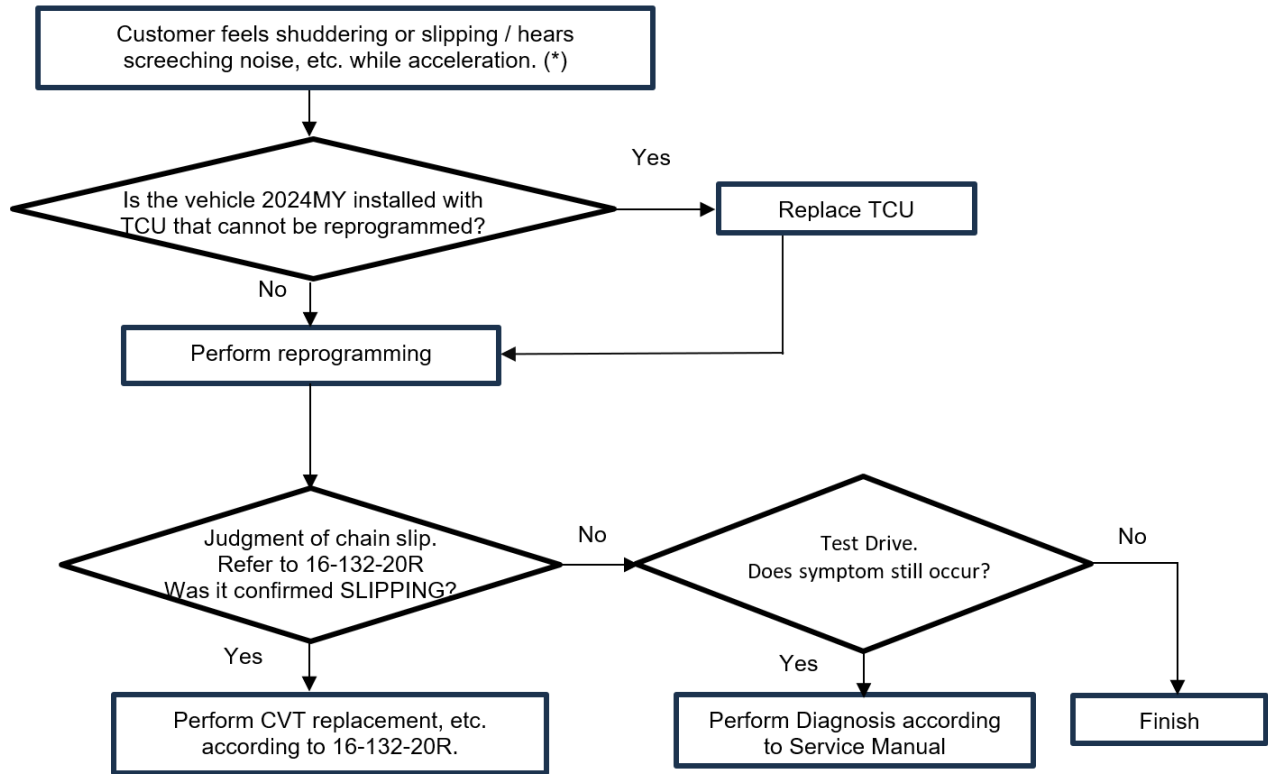
Reference: Judgement Criteria

Actual line press. and Actual Secondary Pressure are fluctuating while feeling shudder when slowing down



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SYMPTOM 2:



(*) **NOTE:** In case of chain slip caused by input clutch slip, customers may experience symptoms under the following driving conditions.

- (1) Constant speed driving between 25 and 62 mph.
- (2) Gentle acceleration between 25 and 62 mph.

Reference: Judgement Criteria

- All of the following are satisfied.
- Primary UP Duty > 80 %
 - Actual Pulley Ratio changes to Low
 - Above conditions last for 0.5sec or more

Suggested Graph Scale
 Time : 2sec /1division
 Revolution speeds: Width of 6000 rpm
 Actual Gear Ratio: Width of 3.0
 Primary UP Duty: 0 - 100 %
 *Adjust the range accordingly.

