

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: 2017-21MY Impreza 2.0L NA CVT
 2018-19MY Crosstrek 2.0L NA CVT
 2019-21MY Ascent

NUMBER: 07-198-21
DATE: 08/25/21

SUBJECT: Engine Not Starting / Excessive Noise From Starter When Starting

INTRODUCTION:

This bulletin announces availability of NEW starter motors and ECM reprogramming files created to address some reports of excessive noise while cranking the engine. If not addressed when the noise has been apparent repeatedly, it can develop into a no crank/ no start condition along with the sound from the starter. This condition is a result of a failed one-way clutch component within the starter motor. The new files contain enhanced logic to reduce the reverse torque of the one-way clutch. The applicable ECM pak files are to be installed after starter motor replacement if required.

IMPORTANT NOTE: This bulletin **ONLY** applies to CVT equipped models.

PRODUCTION CHANGE INFORMATION:

The parts and programing have been incorporated into production of the models listed below.

Model	Starting VIN	
IMPREZA	4-Door	M3606484
	5-Door	M3714913
CROSSTREK	As of 2020MY Start of Production	

ONLY the programing files have been incorporated into production of the models listed below.

Model	Starting VIN	
IMPREZA	4-Door	TBD
	5-Door	M3712840
CROSSTREK	TBD	
ASCENT	N3400001	

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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PART INFORMATION:

REMINDER: Always order the most up-to-date replacement parts based on the specific VIN being repaired.

Model	Parts Description	Part Number
Crosstrek	Starter Motor	23300AA831
Impreza	Starter Motor	23300AA85B
Ascent	Starter Motor	23300AA91B

SERVICE PROCEDURE / INFORMATION:

REMINDERS:

- Customer satisfaction and retention starts with performing quality repairs.
- There have been no changes made to the Subaru Service manual for this service procedure.
- **ALWAYS** confirm the battery CCA rating and condition before proceeding.

STEP 1) Replace the starter motor: Engine > STARTING/CHARGING SYSTEMS > Starter.

IMPORTANT NOTE: Reconnect the ground cable terminal to battery sensor and torque to 7.5 Nm (5.5ft.-lbs. or 66 inch-lbs.) while supporting the sensor with the other hand: STARTING / CHARGING SYSTEMS > Battery Sensor.

STEP 2) Confirm PAK file applicability. Reprogram the ECM following the normal FlashWrite procedure.

PAK FILE APPLICABILITY:

Model	Model Year	Specification	File Name	Decryption Keyword	New CID Number
IMPREZA	17MY	2.0L NA CVT AGS	22765AJ60K.pak	F8F0EBE7	XH3J2E0D
	17MY	2.0L NA CVT	22765AL71K.pak	A656067C	XH3J2E0B
	18MY	2.0L NA CVT AGS	22765AM28H.pak	480ACACF	XH3JB00D
	19MY	2.0L NA CVT	22765AM67F.pak	1D86981C	XH3N800B
	19MY	2.0L NA CVT AGS	22765AM66F.pak	91595E0A	XH3N800D
	20MY	2.0L NA CVT	22765AP14C.pak	35929E97	XE1M400B00G
	20MY	2.0L NA CVT AGS	22765AP13C.pak	A09A113A	XE1M400D00G
	21MY	2.0L NA CVT	22765AP86B.pak	E3B6E68B	XE1P400D00G
	21MY	2.0L NA CVT	22765AP87B.pak	ED807A0E	XE1P400B00G
CROSSTREK	18MY	2.0L NA CVT	22765AJ627.pak	EAD008BB	XH3J2E0F
	19MY	2.0L NA CVT	22765AM825.pak	AC4275D4	XH3N800F

NOTE: No PAK files are required for Ascent models.

These reprogramming files are included in the July 2021 SSM4 software update.

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Subaru of America, Inc. (SOA) highly recommends connecting either the Subaru Midtronics DCA8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 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.

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

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited Warranty period, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Fail Code	Labor Time
STARTER MOTOR ASSEMBLY R&R	B813001	FAD43	.7
CVT TORQUE CONVERTER RELEARN AFTER BATTERY DISCONNECT	C303708		.1
MFI OBDII ECM REPROGRAMMING	A455-288	UPG-48	0.4

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 pak 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.

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.