

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: 2020-23MY Legacy & Outback 2.5L
2023MY BRZ

NUMBER: 09-99-23

DATE: 01/24/23

SUBJECT: Engine Surging/Jolting During Accelerator Release
DTC P0011 & P0021

INTRODUCTION:

This bulletin announces availability of reprogramming files for the Engine Control Module (ECM) to address rare cases of the engine surging/jolting when releasing the accelerator from half-throttle. DTCs P0011 (A Camshaft Position – Timing Over-Advanced or System Performance Bank 1) and P0021 (B Camshaft Position – Timing Over-Advanced or System Performance Bank 2) may also be stored in the ECM when this occurs. The new files contain enhanced logic to optimize fuel trim providing stabilized engine combustion during Exhaust Gas Recirculation (EGR) valve operation. If this condition is duplicated and/or the referenced DTCs stored, reprogram the ECM using the procedures outlined below.

PRODUCTION CHANGE INFORMATION:

These files were incorporated into vehicle production as per the table below.

Model	Starting VIN
Legacy	P3007589
Outback	P3149667
BRZ	P3007589

PFC FILE APPLICABILITY:

MY	Model	File Description	Old ECM Part #	New CID #
23	Legacy	22765AS49B.pfc	22765AS49A	XE1W041m00G
	Outback	22765AS50B.pfc	22765AS50A	XE1W041n00G
	BRZ (AT)	22765AT541.pfc	22765AT540	ZF2M300D00G
	BRZ (MT)	22765AT551.pfc	22765AT550	ZF2M300C00G

These reprogramming files will be available on SSM5-R.

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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PAK FILE APPLICABILITY:

MY	Model	File Description	Old ECM Part #	Decryption Keyword	New CID #
20	Legacy	22765AN20F.pk2	22765AN20A 22765AN20B 22765AN20C 22765AN20D 22765AN20E	BF42DFD	XE1J402m00G
	Outback	22765AP54F.pk2	22765AP54A 22765AP54B 22765AP54C 22765AP54D 22765AP54E	FDEA31B6	XE1J402n00G
21	Legacy	22765AR18D.pk2	22765AR18A 22765AR18B 22765AR18C	170D8F4E	XE1P502m00G
	Outback	22765AR19D.pk2	22765AR19A 22765AR19B 22765AR19C	4C372166	XE1P502n00G
22	Legacy	22765AS22D.pk2	22765AS22A 22765AS22B 22765AS22C	69AE755E	XE1Q202m00G
	Outback	22765AS23D.pk2	22765AS23A 22765AS23B 22765AS23C	F44C7C7E	XE1Q202n00G

These files are included in the January 2023 SSM software update.

SERVICE PROCEDURE / INFORMATION:

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

- **2020-22 Models ONLY** - Reprogram the ECM following the normal FlashWrite procedure.
- **2023 Models ONLY** - Reprogram the ECM Control Module following the normal SSM5-R procedure. Detailed information regarding the SSM5-R reprogramming procedures can be found in TSB **14-28-21**.

Subaru of America, Inc. (SOA) highly recommends utilizing either the Subaru Midtronics DCA8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle in 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 will take 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.

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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 (Enhanced Flooded, Flooded, 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 DST-010 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 DST-010 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 14 Volts 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.
- ALWAYS set the power supply voltage to 13.5 Volts when using Power Supply Mode. NEVER turn the ignition switch on when charging at voltages 15 Volts or higher.

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.

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.

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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
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 PFC and 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.