

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: 2015-19MY Legacy and Outback 3.6L Models **NUMBER:** 11-201-21
 2015-20MY WRX STI (2.5L) **DATE:** 02/04/21

SUBJECT: DTC P0116 and / or Hard Starting in Cold Weather on Vehicles Equipped with Block Heater Accessory

INTRODUCTION:

This bulletin announces availability of reprogramming files to optimize the Engine Control Module (ECM). The new files will address DTC P0116 and hard starting in cold temperature concerns when an accessory engine block heater is utilized on the models listed above. When the block heater is used, the ECM detects a conflict between the warmed coolant and temperature inputs from other sensors. This causes the ECM to go into a fail-safe mode resulting in the hard-starting condition due to an improper fuel mixture.

PRODUCTION CHANGE INFORMATION:

This bulletin will be updated with starting VIN information when it becomes available.

PACK FILE APPLICABILITY:

Model	PAK File Name	New ECM Part Number	Old ECM Part Numbers	Decryption Keyword	New ECM CID Number
2015MY Legacy and Outback 3.6L	22765AF45F.pak	22765AF45F	22765AF45A, B, C, D & E	6C2BEA97	DB4GG00D
2016MY Legacy and Outback 3.6L	22765AJ17D.pak	22765AJ17D	22765AJ17A, B & C	7483949A	DB4GG00D
2017MY Legacy and Outback 3.6L	22765AK31E.pak	22765AK31E	22765AK31A, B, C & D	10E5158A	DB4I540D
2018MY Legacy and Outback 3.6L	22765AK89C.pak	22765AK89C	22765AK89A & B	167DD1E2	DB4T600D
2019MY Legacy and Outback 3.6L	22765AN11C.pak	22765AN11C	22765AN11A & B	52DD8240	DB4V800D
2015 WRX STI 2.5L	22765AF582.pak	22765AF582	22765AF580 & 581	C9407A2F	AE5R200V

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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Model	PAK File Name	New ECM Part Number	Old ECM Part Numbers	Decryption Keyword	New ECM CID Number
2016 WRX STI 2.5L	22765AH603.pak	22765AH603	22765AH600, 601 & 602	89240490	AE5T300V
2017 WRX STI 2.5L	22765AK173.pak	22765AK173	22765AK170, 171 & 172	C3DA1B56	AE5W200V
2018 WRX STI 2.5L	22765AK922.pak	22765AK922	22765AK920 & 921	F1217234	AE5Z120V
2018 WRX STI 2.5L Type RA	22765AM271.pak	22765AM271	22765AM270	29B4FCD5	AE5Z120W
2019 WRX STI 2.5L	22765AM461.pak	22765AM461	22765AM460	4D525EDC	AE5Z330V
2020 WRX STI 2.5L	22765AN541.pak	22765AN541	22765AN540	598CCAEB	AE5Z510V00G

SERVICE PROCEDURE:

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

VERY IMPORTANT:

- It is strongly recommended to view / save all related Freeze-Frame Data (FFD) for historical DTCs before clearing the ECM memory.
- Once any FFD is saved, clear the ECM to remove historical DTCs prior to attempting programming of the ECM.
- NEVER attempt to update an ECM with any current DTCs. Diagnose and repair those DTCs before attempting ECM update following the applicable Service Manual procedures.
- NEVER attempt to update an ECM with a modified / recalibrated CID. When in doubt, always confirm the CID as OEM with Techline before proceeding.

Reprogram the ECM following the normal FlashWrite procedure.

Subaru of America, Inc. (SOA) highly recommends connecting either the Subaru Midtronics DCA-8000 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.

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- 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 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.

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited, an applicable Emission Warranty period or covered by an active Subaru Added Security Classic or Gold plan, 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.

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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.

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