#### ATTENTION:

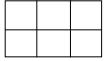
GENERAL MANAGER

PARTS MANAGER

CLAIMS PERSONNEL

SERVICE MANAGER

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



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SUBARU

### **SERVICE BULLETIN**

APPLICABILITY: 2017-19MY BRZ NUMBER: 11-184-18

**SUBJECT:** DTC P119F and P219A; **DATE:** 12/10/18

**ECM Reprogramming File Availability** 

### INTRODUCTION:

This bulletin announces reprogramming file availability to optimize the ECM. These new files prevent an incorrect diagnosis of DTC P119F: AIR FUEL RATIO IMBALANCE FOR DIRECT INJECTION (BANK 1 FLUCTUATION ENGINE SPEED) and DTC P219A: AIR FUEL RATIO IMBALANCE (BANK 1). These DTCs may set in error after the engine is warmed up due to incorrect valve clearance(s) and other factors.

### PRODUCTION CHANGE INFORMATION:

This bulletin will be revised with a starting VIN for when this new logic was incorporated into production when it becomes available.

### PACK FILE APPLICABILITY:

Model	PAK File Name	New ECM Part Number	Old ECM Part Numbers	Decryption Keyword	New CID Number
2017 MY BRZ 6MT	22765AK031.pak	22765AK031	22765AK030	54870256	ZA1JK10C
2018 MY BRZ 6MT	22765AM101.pak	22765AM101	22765AM100	81B6BE7F	ZA1JN20C
2019 MY BRZ 6MT	22765AN211.pak	22765AN211	22765AN210	5D63E304	ZA1JS10C

These update files were included in the October, 2018 SSM Update.

### **SERVICE PROCEDURE:**

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

If an applicable vehicle presents with either a DTC P119F and / or P219A, the following procedure MUST be followed <u>BEFORE</u> REPROGRAMMING THE ECM:

Continued...

## 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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Check all engine valve clearances to confirm they are within the specified ranges supplied below:

- **INTAKE:** 0.10 to 0.15mm (.0039" to .0059")
- **EXHAUST:** 0.2 to 0.24mm (.0079" to .0094")

If any valve clearances are found to be outside of the ranges specified above, remove the engine assembly and re-adjust as necessary to bring them into specification following the Service Procedure in the applicable Service Manual.

Once all the valve clearances are determined to be within specification, proceed with the ECM reprogramming procedure supplied below:

• Reprogram the ECM following the normal FlashWrite procedure.

Subaru of America, Inc. (SOA) highly recommends connecting the Subaru Midtronics GR8 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Follow the procedure as outlined in document GR8-1100 on STIS for use of the GR8's Power Supply Mode:

- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched **OFF** before setting up for Power Supply Mode.
- Select the correct battery type (Flooded, AGM or AGM Spiral).
- Select the CCA which matches the vehicle's battery (**NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery rating before proceeding.)
- If the "Charge Battery" **WARNING** appears, the battery **MUST** be charged before attempting reprogramming.
- **DO NOT** connect the DSTi or SDI until the GR8 Power Supply mode has completed its battery test mode and the Charging Voltage has dropped to a steady 13.5 Volts on the display.
- If the GR8 "beeps" or the Status Light flashes, a diagnostic charge should be performed on the battery before proceeding further.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DSTi or SDI to the OBD connector and initiate the 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.

### **IMPORTANT:**

This information is applicable to the Midtronics GR8 Diagnostic Battery Charger **ONLY**. It does not apply to any other brand / type of "generic" battery charger whatsoever. **ONLY** the GR8 and its Power Supply Mode feature has been tested and approved by SOA.

Once the GR8 is connected to the vehicle, **as long as the battery is fully charged**, it takes less than 3 minutes to boot-up the charger, select Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

Continued...

**REMINDER:** If the GR8 indicates the vehicle's battery must be charged, charge the battery using the GR8 before proceeding to reprogram the vehicle.

**NOTE:** Control module failures as a result of 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 #	Labor Time	Fail Code			
Valve Clearance Inspection, No Adjustment needed	B243-148	3.2	ACV-48			
ECM Reprogramming	C860-118	0.3				
-OR-						
Engine R&R for Valve Clearance Adjustment	B293-108	3.3 for AT	ABW-88			
Eligille han for valve clearance Aujustillent	D293-100	2.8 for MT				
Valve Clearance Adjustment- 1 Side	C293-008	4.1				
Valve Clearance Adjustment- Both Sides	C293-088	5.3				
ECM Reprogramming	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 pack 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.