



**NUMBER:** 18-027-20

**GROUP:** 18 - Vehicle Performance

**DATE:** March 25, 2020

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**This bulletin supersedes Service Bulletin 18-097-19, dated December 14, 2019, which should be removed from your files. All revisions are highlighted with **\*\*asterisks\*\*** and include an additional Diagnostic Trouble Code (DTC).**

**This Service Bulletin is also being released as Rapid Response Transmittal (RRT) 17-110. All applicable Un-Sold RRT VINs have been loaded. To verify this RRT service action is applicable to the Un-Sold vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library.**

***SUBJECT:***

Flash: Powertrain Control Module (PCM) Updates

***OVERVIEW:***

This bulletin involves reprogramming the Engine Control Module (ECM), also known as a PCM with the latest available software.

***MODELS:***

2017 - 2018 (GA) Alfa Romeo Giulia

**NOTE: This bulletin applies to vehicles within the following markets/countries: North America and LATAM.**

**NOTE: This bulletin applies to all vehicles equipped with a 2.0L I4 DI Turbo Engine (Sales Code EC2).**

***SYMPTOM/CONDITION:***

Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find one or more of the following DTCs have been set:

- **\*\*P0106-00 - Manifold Absolute Pressure/Barometric Pressure Circuit Range/Performance.\*\***
- P013A-00 - O2 Sensor Slow Response - Rich To Lean Bank 1 Sensor 2.
- P015A-00 - O2 Sensor Delayed Response - Rich To Lean Bank 1 Sensor 1.
- P026E-00 - Charge Air Cooler Coolant Pump Performance.
- U1008-00 - LIN 1 BUS.
- P1CEA-00 - Boost Side EVAP Purge System Performance.
- P04DB-00 - Crankcase Ventilation System Disconnected.
- P024A-00 - Charge Air Cooler Bypass Control "A" Range/Performance.
- P2097-00 - Post Catalyst Fuel Trim System Rich.
- P2B2F-00 - Fan 1 Performance/Stuck Off.
- P24D6-00 - EVAP System Pressure Sensor/Switch "B" Circuit Range/Performance.
- P01BA-00 - Engine Oil Temperature Sensor "B" Range/Performance.
- P164E-00 - A/C Clutch Relay Control Range/Performance.
- P0191-00 - Fuel Rail Pressure Sensor "A" Circuit Range/Performance.

- P2299-00 - Brake Pedal Position/Accelerator Pedal Position Incompatible.
- P0455-00 - Evaporative Emission System Leak Detected (Large Leak).
- P0087 - Fuel Rail Pressure Too Low - Bank 1.
- P2172 - Throttle Actuator Control System - Sudden High Air Flow Detected.
- P0171 - System Too Lean Bank 1.
- P0236 - Turbocharger/Supercharger Boost Pressure Sensor Performance.
- P0363 - Misfire Detected - Fueling Disabled.
- P250B - Engine Oil Level Sensor Circuit Performance.
- P0139 - O2 Sensor Circuit Slow Response Bank 1 Sensor 2.
- P0440 - Evaporative Emission System Incorrect Flow.
- P0441 - Evaporative Emission System Incorrect Purge Flow.
- P0002 - Fuel Quantity Regulator 1 Control Circuit Performance.
- P0244 - Turbocharger/Supercharger Wastegate Solenoid "A" Range/Performance.
- P062A - Fuel Pump "A" Control Circuit Range/Performance.
- P0128 - Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature).
- P0514 - Battery Monitor Module Temperature Monitoring Performance.
- P2AC0 - Intake Air O2 Sensor Reference Voltage Circuit Range/Performance Bank 1.
- P0402 - Exhaust Gas Recirculation "A" Flow Excessive Detected.
- P2B89 - Intake Air O2 Sensor Circuit Low Voltage.
- P0456 - Evaporative Emission System Leak Detected (Very Small Leak).

In addition, customers may comment on one or more of the following:

- Not passing vehicle certification during state inspections if performed after a system reset.
- Drive-ability issues.
- Engine misfire when cold.
- Stall when started after refueling.

The following software enhancements are also included in this software update:

- Turbo coolant pump after run duration and on-off strategy update, to improve turbo O-ring durability.
- Improved idle stability when Stop and Start (S&S) is activated.
- Changing confusing message, "S&S Not Available to Hood Open".
- Improved idle stability during tip in tip out.

### **DIAGNOSIS:**

Using a Scan Tool (wiTECH 2) with the appropriate Diagnostic Procedures available in DealerCONNECT/Service Library, verify all related systems are functioning as designed. If any DTCs or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes the symptom/condition listed above or if the technician finds the DTC, perform the Repair Procedure.

**REPAIR PROCEDURE:**

**NOTE:** Install a battery charger to ensure battery voltage does not drop below 13.2 volts. Do not allow the charging voltage to climb above 13.5 volts during the flash process.

**NOTE:** If this flash process is interrupted/aborted, the flash should be restarted.

**NOTE:** The Body Control module (BCM) and Transmission Control Module (TCM) must be updated to the latest available software at the conclusion of this repair procedure. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the BCM and TCM software.

1. Reprogram the ECM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
2. Using wiTECH, Perform the PROXI Alignment Procedure Routine. This routine is available under the 'MISC' functions tab of the BCM Module.

**NOTE:** If the "Phonic Wheel Replacement" and "RPM Sensor and/or timing chain replacement" procedures are not done correctly, DTC P1300 - Flywheel Self Learning will stay active.

3. Using wiTECH 2, go into the ECM Misc. Functions tab and perform one of the following procedures:

**NOTE:** Perform the "Phonic Wheel Replacement" procedure first and if errors occur, than perform the "RPM Sensor and/or timing chain replacement" procedure.

- "Phonic Wheel Replacement".
  - "RPM Sensor and/or timing chain replacement".
4. Clear all DTCs that may have been set in any module due to reprogramming. The wiTECH 2 application will automatically present all DTCs after the flash and allow them to be cleared.
  5. Verify the BCM and TCM are programmed with the latest available software. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the BCM and TCM software.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

<b>Labor Operation No:</b>	<b>Description</b>	<b>Skill Category</b>	<b>Amount</b>
18-19-06-A8	Module, Engine Control (ECM) - Reprogram (0 - Introduction)	1 - Engine Repair and Performance	0.4 Hrs.

**NOTE:** The expected completion time for the flash download portion of this procedure is approximately 7 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.

***FAILURE CODE:***

**The dealer must use failure code CC with this Service Bulletin.**

- If the customer's concern matches the SYMPTOM/CONDITION identified in the Service Bulletin, failure code CC is to be used.
- When utilizing this failure code, the 3C's (customer's concern, cause and correction) must be provided for processing Service Bulletin flash/reprogramming conditions.

CC	Customer Concern
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