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GROUP: Vehicle Performance

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-027-15, DATED APRIL 07, 2015 WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDES ADDITIONAL SYMPTOMS AND A NEW LOP. ****ALL NEW SYMPTOMS APPLY TO SALES CODE (EAF) ONLY.******

HELP USING THE wiTECH DIAGNOSTIC APPLICATION FOR FLASHING AN ECU IS AVAILABLE BY SELECTING “HELP” THEN “HELP CONTENTS” AT THE TOP OF THE wiTECH DIAGNOSTIC APPLICATION WINDOW.

THE wiTECH SOFTWARE LEVEL MUST BE AT **15.04**** OR HIGHER TO PERFORM THIS PROCEDURE.**

SUBJECT:

Flash:1.4L Diagnostic And System Improvements

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the Powertrain Control Module (PCM) with new software.

MODELS:

2012-2013 (FF) 500/Abarth

NOTE: This bulletin applies to vehicles equipped with a 1.4L engines (sales code**EAF**** or EAB).**

SYMPTOM/CONDITION:

A small number of customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon inspection, the technician may find one or more of the following Diagnostic Trouble Codes (DTCs) are set in the Powertrain Control Module (PCM) memory.

- ****P1524-00 Oil Pressure Out Of Range - Camshaft Advance/Retard Disabled (Sales code EAF only)****
- P1607-00 - PCM Internal Shutdown Timer Rationality. (Sales code EAB only)
- P2610-00 - PCM Internal Engine Off Timer Performance. (Sales code EAB only)
- P1239-00 - Engine Oil Temperature Too Low. (Sales code EAB only)
- P0298-00 - Engine Oil Temperature Too High. (Sales code EAB only)
- P2299-00 - Brake Pedal Position/ Accelerator Pedal Position Incompatible.
- P0456-00 - Evap System Small Leak

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In addition, the customer may also experience an intermittent crank, no start condition. The customer may indicate the engine sounds like it is freewheeling or has no compression. When this issue occurs, it is typically resolved with a simple ignition key cycle. This may happen in colder temperatures.

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine systems are functioning as designed. If 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 or if the technician find any of the above DTCs, perform the Repair Procedure.

SPECIAL TOOLS/EQUIPMENT REQUIRED:

Qty.	Part No.	Description
1	410	wiTECH Smart Cable

NOTE: The smart cable must be used to communicate and flash the Fiat 500. To obtain a smart cable, contact the wiTECH help desk at 1-888-948-3241.

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.

1. Reprogram the PCM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the "HELP" tab on the upper portion of the wiTECH window, then "HELP CONTENTS." This will open the Welcome to wiTECH Help screen where help topics can be selected.
2. Is vehicle equipped with a manual transmission?
 - a. Yes >>> DTC P1302 - Transmission Self Learning will be present. **Depress clutch pedal fully to allow DTC to store**, proceed to Step 4.
 - b. No >>> DTC P1302 - Transmission Self Learning will be stored, proceed to Step 4.
3. Perform Cruise Control Learn Procedure.
 - a. Turn Ignition Key to the OFF/LOCK position for 10 seconds to allow the module to power down.
 - b. Turn Ignition Key to the ON/RUN position.
 - c. Press, then release the Cruise ON/OFF button on the steering wheel.
 - d. Start Engine.
 - e. Press the Cruise ON/OFF button to verify that the Cruise indicator illuminates on the cluster.

NOTE: After PCM reprogramming, the following must be performed:

4. Clear any DTCs that may have been set in other modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow the tech to clear them.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-06-CS	Module, Powertrain Control (PCM) - Reprogram (1 - Semi-Skilled)	8 - Engine Performance	0.3 Hrs.

NOTE: The expected completion time for the flash download portion of this procedure is approximately 5 minutes. Actual flash download times may be effected by vehicle connection and network capabilities.

FAILURE CODE:

The dealer must choose which failure code to use. If the customer came in with an issue and the dealer found updated software to correct that issue, use failure code CC, for all other use failure code RF.

- If the customer's concern matches the SYMPTOM/CONDITION identified in the Service Bulletin, than failure code CC is to be used.
- If an available flash is completed while addressing a different customer concern, failure code RF is to be used.

CC	Customer Concern
RF	Routine Flash