

FIAT 500 1.4L Turbo MAXPower PRO ECM Installation Manual

MAXPower PRO
Engine Control Module



Introduction

Thank you for purchasing the MADNESS Autoworks **MAXPower PRO**. The **MAXPower PRO** has been developed and produced to ensure the best performance for the life of your vehicle. If you have any questions, please contact MADNESS Autoworks. We will be very happy to answer your questions about our complete product line.

The **MAXPower PRO** is a Plug-and-Play add-on (or “piggyback”) Engine Control Module (ECM) that offers additional features not available on a stock engine. It uses all the factory data, and then enhances the factory settings to optimize your vehicles performance.

The **MAXPower PRO** offers a power increase over stock throughout the RPM range, but the power is most noticeable in midrange RPM's. This greatly improves drivability and performance. The first thing you will notice is improved performance, especially if this is your first time driving a turbo vehicle with a performance module. You will experience more power, better throttle response, better passing and acceleration.

IMPORTANT:

Read all Safety, Warranty, and Installation Instructions before installing this product. Read through these instructions completely so that you understand each step prior to installation.

This D.I.Y. is for informational use only.

MADNESS Autoworks will not be held responsible for any damages caused to your vehicle due to installation or due to the use of the **MAXPower PRO**.

Professional installation is recommended but not required.

If you have any questions please contact us online or over the phone for assistance for any questions you may have.

Tools Required:

Flat Head Screwdriver
10mm Open-End Wrench
10mm Socket
3/8" Ratchet
6" 3/8" Extension

OPTIONAL:

O-Ring Pick
Nylon Pry Tool

FIAT 500 1.4L Turbo MAXPower ECM Installation



Module Installation:

The **MAXPower PRO ECM** can be mounted to the top of the motor located on the passenger side of the engine compartment. Adhere the module using Velcro or double-sided tape, allowing enough harness movement for removal (if/when required.)

Harness Connections:

Your MAXPower ECM is equipped with a harness that can be disconnected at the module itself. It is important to make sure that either the **MAXPower PRO ECM** or the **Bypass Plug** is always connected to the harness when the wiring harness is installed on the vehicle. Not doing so may cause the vehicle to run improperly, may trigger warning lights or Check Engine Light (CEL), or any combination thereof.

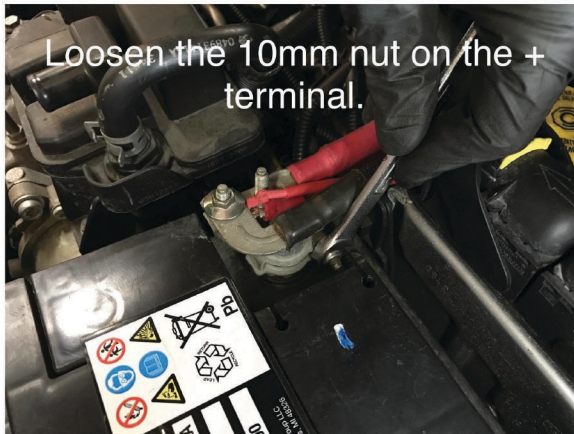
Factory Airbox Removal:

1. Disconnect the negative (black) terminal from the battery using a 10mm wrench and place the connection out of the way.
2. Loosen the 8mm hose clamp that connects the airbox coupler to the 2" turbo inlet.
3. Disconnect the vacuum lines from the stock intake tube.
4. Remove the 8mm bolt that secures the accordion tubing to the radiator core support.
5. Gently pry off the 3/4" PCV hose connected to the valve cover.
6. Lift-up and remove the airbox from the vehicle.

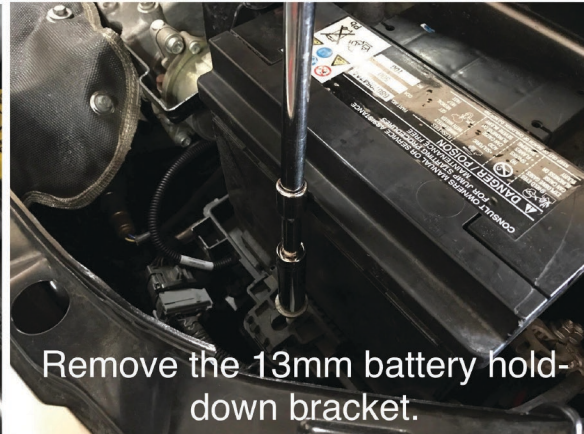


Removing Battery + Battery Tray:

You will need to make room to access the Boost Pressure sensor. Follow the steps below to remove the battery and battery tray from your vehicle.



Loosen the 10mm nut on the + terminal.



Remove the 13mm battery hold-down bracket.



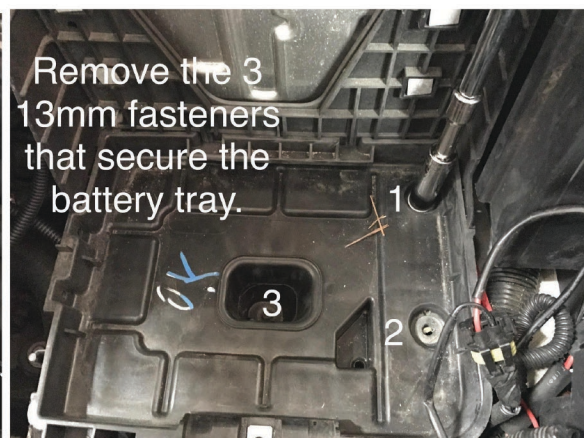
Remove the battery from the vehicle.



Pivot the ECU connector upwards to release connection.



Do the same to the second connection. Tuck harness out of the way.



Remove the 3 13mm fasteners that secure the battery tray.



Remove the battery tray.

Sensor Connections Overview:



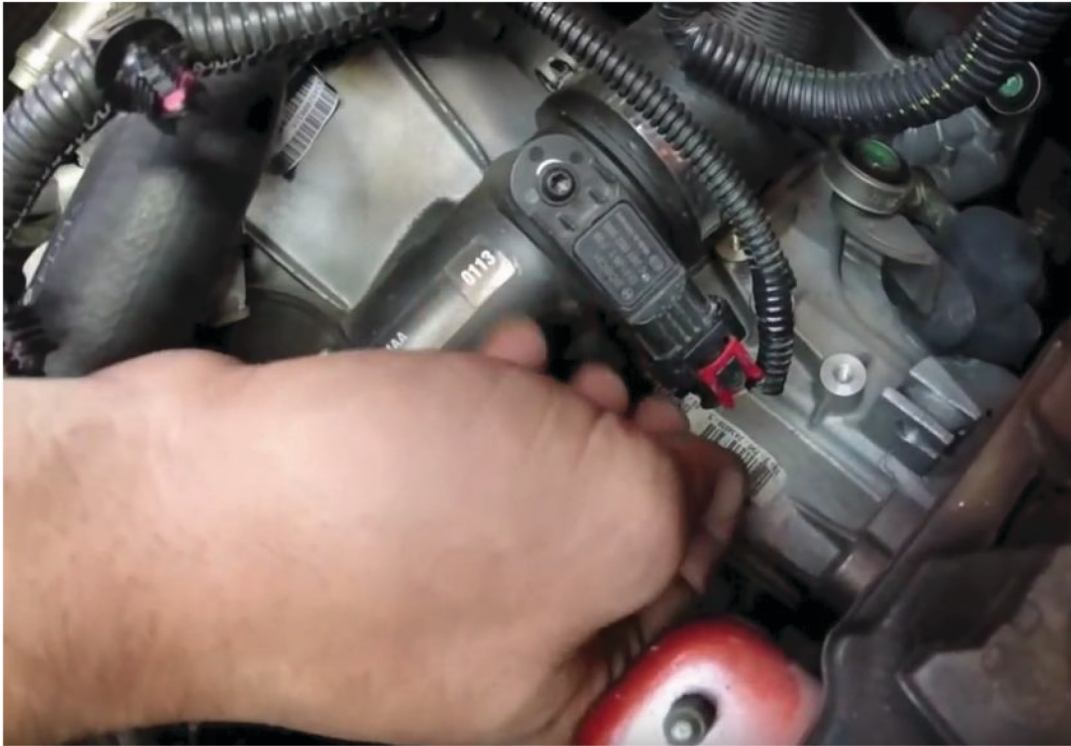
The image above shows the location of the sensors the **MAXPower PRO** taps into.

The colors and letters on the image correspond to the markings on the **MAXPower PRO** Wiring Harness.

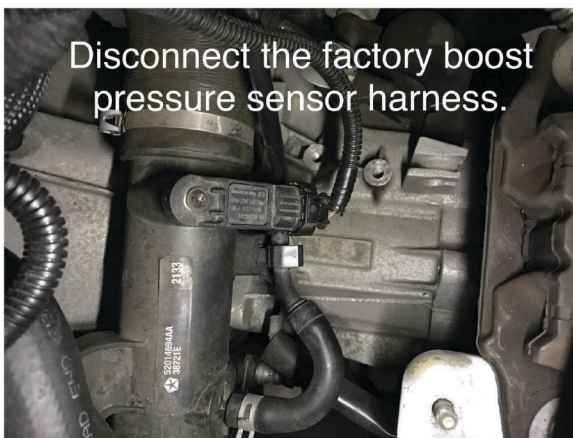
- A. Boost Pressure Sensor
- B. Manifold Air Pressure Sensor
- C. Camshaft Sensor
- + . Power Supply

A. Boost Pressure Sensor Connection:

The Boost Pressure sensor is located under the battery tray on the main charge pipe. This will require removing the battery from the vehicle as well as the battery tray.

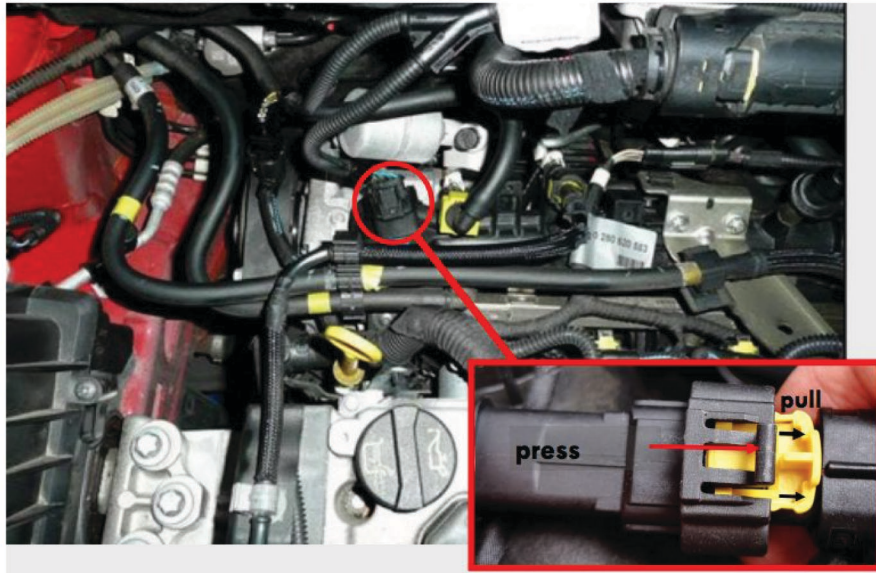


1. Disconnect the factory Boost Pressure Sensor from the factory harness.
2. Connect the **MAXPower PRO** Boost Pressure Sensor in between the factory Boost Pressure Sensor and the factory harness.



B. Manifold Pressure Sensor Connection:

The Manifold Pressure sensor located on top of the engine (passengers side near firewall). See the image below to see the exact location.

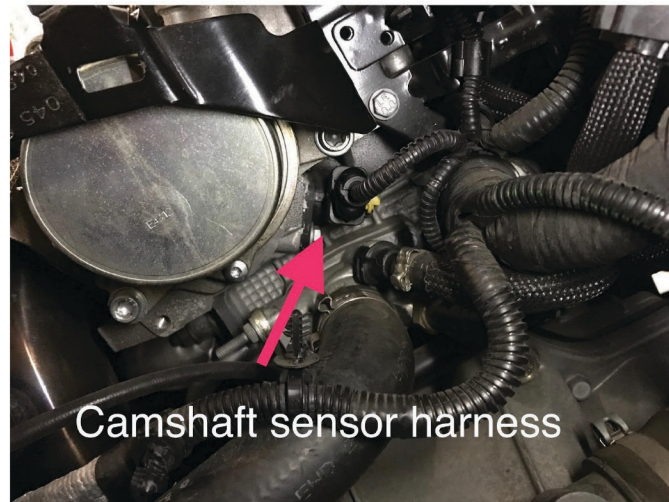


1. Disconnect the factory Manifold Pressure Sensor from the factory harness.
2. Connect the **MAXPower PRO** Manifold Pressure Sensor in between the factory Manifold Pressure Sensor and the factory harness.

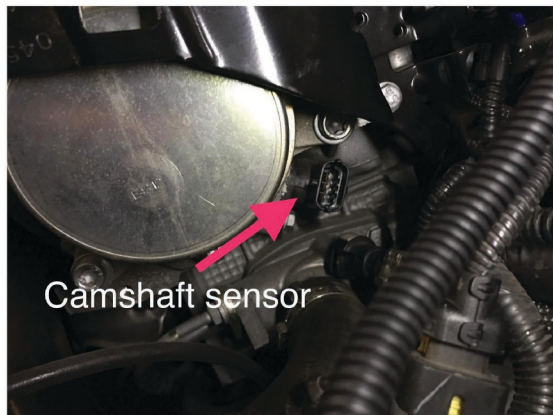


C. Camshaft Sensor:

The Camshaft sensor located on the drivers side of the block under the round vacuum canister on the head. See the image below to see the exact location.



1. Disconnect the factory Camshaft Sensor from the factory harness.
2. Connect the **MAXPower PRO** Camshaft Sensor in between the factory Wastegate Sensor and the factory harness.



+ Power Supply Connections:

Reconnect the battery and battery tray.

Connect the supplied 12-volt power connections to the positive (red) battery terminal.

1. Unbolt the 10mm nut and place the positive (red) harness lead to the battery.



Final Inspection:

1. Recheck all connections, fittings and fasteners for a properly secure installation.
2. With the Bypass Plug installed on the harness, turn the vehicle on and check If there are no CEL's (Check Engine Light).
3. Turn the vehicle off, remove the bypass plug and install the **MAXPower PRO**.

Operation:

The factory ECU will go through an adaptation phase with the **MAXPower PRO**. In general this process should take approximately 80 miles to complete. After completion the factory ECU and **MAXPower PRO** will be optimized to run together for maximum performance.

SAFETY INFORMATION

The MADNESS product you have purchased is a high performance product. As such, it does present some risks of which you should be fully aware. Do not use this product until you have carefully read all the following safety information.

SAFETY GUIDELINES:

1. Do not exceed legal speed limits on public streets. Use any performance speed capabilities of this product only in legally sanctioned racing environments expressly for this purpose.

All **MAXPower PRO** modules are built to operate with OEM ECU tunes. MADNESS Autoworks updates its active products (i.e. those currently being manufactured) to work effectively with updated OEM tunes. However, this process can take some time, as MADNESS Autoworks is not always aware of calibration changes made by OEM manufacturers.

If you have used another tuner/programmer on your vehicle, you will need to revert back to stock and remove the device before using the **MAXPower PRO**.

☐ Failure to return to stock may result in PCM failure or engine damage.

Programming your vehicle may expose existing defects in your vehicle's PCM that could disable your vehicle.

Warranty Information

LIMITED 2-YEAR WARRANTY:

MADNESS Autoworks LLC, (hereafter "SELLER") gives Limited Warranty as to description for any product's purpose, productiveness, or any other matter of SELLER's product sold herewith. The SELLER shall be in no way responsible for the product's open use and service and the BUYER hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by a written instrument signed by SELLER and BUYER.

The Warranty is Limited to 2 Years from the date of sale and limited solely to the parts contained within the product's kit. All products that are in question of Warranty must be returned shipping prepaid to the SELLER and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by MADNESS Autoworks. Under no circumstances shall the SELLER be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product, or any other contingent expenses.

If the BUYER sends back a failed unit that is out of warranty and chooses to buy a refurbished unit, the refurbished unit will only carry a 90-day warranty. If the BUYER purchases a new unit at a predetermined discounted rate, it will have the standard 1-year warranty.

Under no circumstances will the SELLER be liable for any damage or expenses insured by reason of the use or sale of any such equipment.

THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITIONS.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN THIRTY (30) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

Technical Support

To expedite your support call please have your Vehicle Information, Part Number, Serial Number, ready prior to calling Technical Support.

CA: 562-981-6800

TX: 512-982-9393