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**2017 FIAT 124 Spider 1.4L MultiAir Turbo
MADNESS Autoworks MAXPower ECM Module
Installation Instructions & Manual
Part Numbers**



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.
2. Do not operate the device while driving. Perform all adjustments while stopped. Changing a setting while driving can interfere with your attention to roadway conditions.
3. Some features may not function on all vehicle models. Check a newly installed device for all features you intend to use. Do not rely on their working without checking first.

All MADNESS MAXPower ECM 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 MADNESS Autoworks MAXPower ECM.

⚠️ 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.

Introduction:

Thank you for purchasing the MADNESS Autoworks MAXPower ECM. The MAXPower ECM 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 ECM is a “piggy-back” Engine Control Module (ECM) that offers additional features not available on a stock engine. Since it is a “piggy-back” ECM, it uses all the factory data, and then enhances the factory settings to optimize your vehicle's performance.

The MAXPower ECM 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.

Tools Required:

10mm Open Ended Wrench
12mm socket
10mm socket
14mm socket
6" extension
Pliers and/or fastener pry tool
O-ring picks

Supplied Items:

1. MADNESS Autoworks MAXPower ECM Module
2. MAXPower Wiring Harness
3. Bypass Plug

FIAT 124 Spider 1.4L MAXPower ECM Installation



Module Installation:

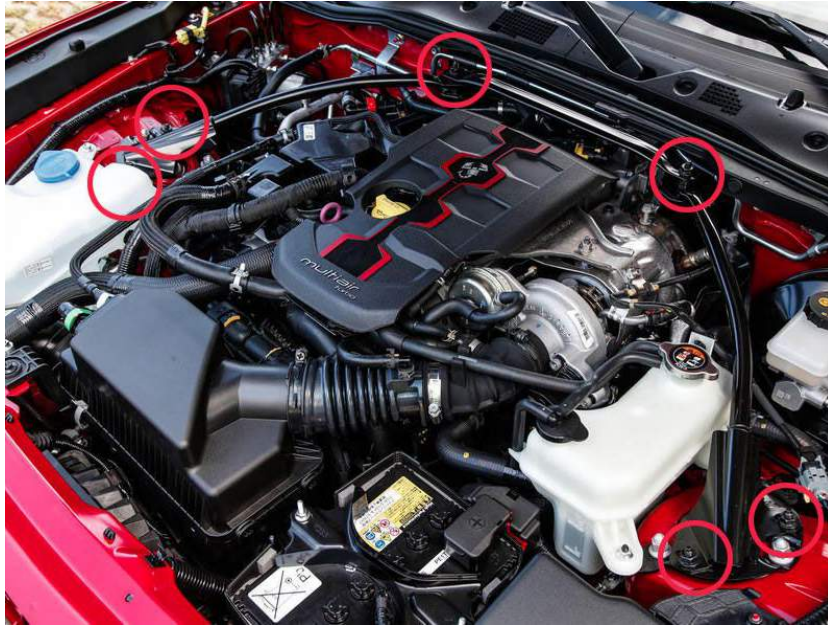
The MAXPower ECM can be mounted to the top of the motor located on the passenger side of the engine compartment. Adhere the module using Velcro or double-sided tape, allowing enough harness movement for removal (if/when required.)

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 your MAXPower ECM and/or the bypass plug are always connected to the harness when the wiring harness is installed on the vehicle. Not doing so may cause the vehicle to run improperly, and/or may trigger a Check Engine Light (CEL).

Remove Strut Bar:

Disconnect the negative (black) terminal from the battery using a 10mm wrench and place the connection out of the way.
Remove the 6 14mm nuts holding down the factory strut bar.



Remove Engine Cover:

1. Remove engine cover by pulling straight up.

Remove Windshield Wipers and Cowl:

1. With masking tape, mark the alignment of your windshield wipers as shown below.



2. Gently pry off nut cover on the windshield wipers by pulling on the edge of it upwards first and with a 14 mm socket, unbolt and remove the windshield wipers.



3. Be sure to label the windshield wipers right and left.



4. Remove the two screw covers from the cowl shown below using a screwdriver gently pry cover off and use a screwdriver or an 8mm socket to remove screws.



5. Remove the engine bay seal by squeezing the locking tabs from the bottom and gently pulling up on the seal.



6. Disconnect the windshield washer hose on the passenger side of the vehicle.



7. Unclip the cowl at the 4 locations shown below.



8. Gently pull the cowl out towards the front of the vehicle and remove.



9. Disconnect the wiper motor plug.



10. Unbolt and remove the two 10mm screws from the wiper motor assembly.



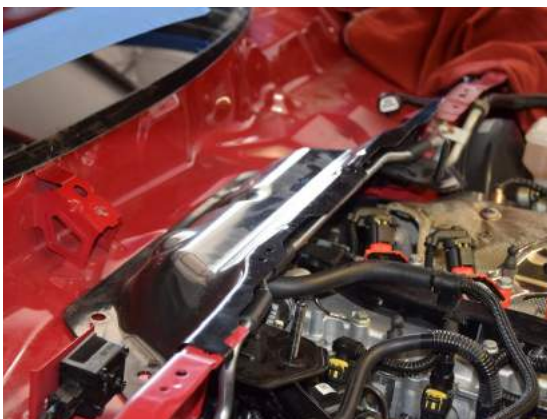
11. Slide the wiper motor assembly towards the center of the vehicle. Be cautious of the windshield. Do not pry towards the windshield.



12. Remove the upper firewall cover and remove the 8 10mm bolts.



13. Lift from the rear of the cover and tilt forward to remove.



Camshaft Sensor Connection:

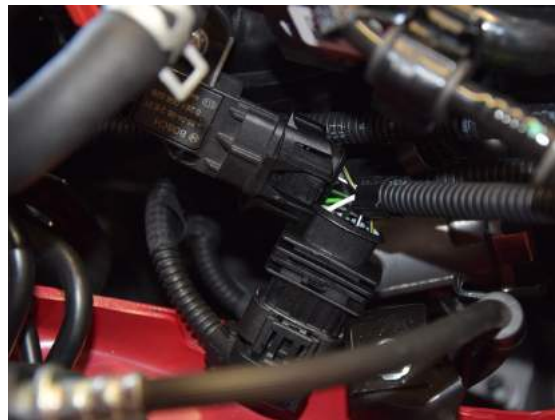
Connect the supplied Camshaft sensor wiring harness to the main wiring harness in the engine compartment. To do this you must disconnect the stock wiring harness at the Camshaft sensor located on the back side of the block under the round vacuum canister on the head. Plug the supplied Camshaft sensor connector into the stock Camshaft sensor and the stock engine wiring harness connector into the supplied Camshaft sensor connector.



After the Camshaft Sensor is connected to the MAXPower harness, follow the directions of removing the Windshield Wipers and Cowl in reverse order. Be sure to align the windshield wipers to the masking tape used previously.

Manifold Pressure Sensor Connection:

Connect the supplied Manifold Pressure sensor wiring harness to the main wiring harness in the engine compartment. To do this you must disconnect the stock wiring harness at the Manifold Pressure sensor located on the passenger side of the engine. Plug the supplied Manifold Pressure sensor connector into the stock Manifold Pressure sensor and the stock engine wiring harness connector into the supplied Manifold Pressure sensor connector.



Boost Pressure Sensor Connection:

Connect the supplied Boost Pressure sensor wiring harness to the main wiring harness in the engine compartment. To do this you must disconnect the stock wiring harness at the Boost Pressure sensor located on the passenger side of the engine located below the Manifold Air Pressure Sensor. Plug the supplied Boost Pressure sensor connector into the stock Boost Pressure sensor and the stock engine wiring harness connector into the supplied Boost Pressure sensor connector.



Battery Power Supply Connections:

Connect the supplied 12-volt power connections to the positive (red) and negative (black) battery terminals when reinstalling the battery in the vehicle.

1. Remove the positive battery terminal cover by pushing out on the tab shown below.



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



3. Reconnect the negative battery cable.



4. Undo the 12mm nut on top of the terminal and place the negative (black) harness lead to the battery.



Final Inspection and Operation:

1. Recheck all connections, fittings and fasteners for a properly secure installation.
2. Before initial startup install the included bypass plug to test the wiring harness installation. Start the engine with the bypass connector installing on the harness and check for and CEL lights. If the car starts and drives normally proceed to next step. Should a CEL light illuminate begin troubleshooting harness installation.
3. If step 2 is successful remove bypass plug and install MAXPower ECM.
4. The factory ECU will go through an adaptation phase with the MAXPower ECM. In general this process will take approximately 70 miles to complete, after completion the factory ECU and MAXPower ECM will be optimized to run together for maximum performance.

Plugging in the MAXPower ECM:

1. Plug the ECM lead from the harness to the MAXPower ECM.



Warranty Information

LIMITED 3-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 3 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

562.981.6800

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