# M-TUNER QUICK START PORSCHE

This is a step by step guide on how to use your new M-Tuner software flashing suite for your Porsche Turbo, 911 Carrera or 718!

Step 1. First you will get the M-Engineering cable and box. You will need to download the latest version of M-Tuner from Downloads and install it onto your laptop. This is only compatible with PC based computers or Mac's running on boot camp or something similar.

Step 2. Next after installing M-Tuner onto your laptop, you will need to connect the M-Engineering dongle into your OBD port. The port can be located here:

Next you will need to use M-Tuners "Read Info" button to get very important details that we will need to send you the correct calibration files for your car.
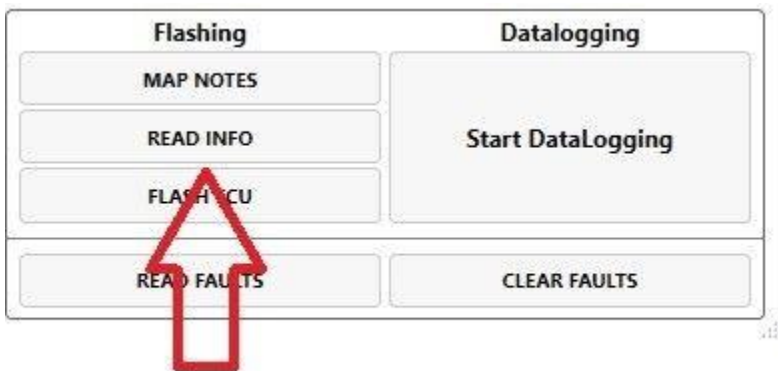
Once you click that button it will the save the info that we need on your clipboard to be able to send you the correct files. It will have a dialogue that looks similar to this:
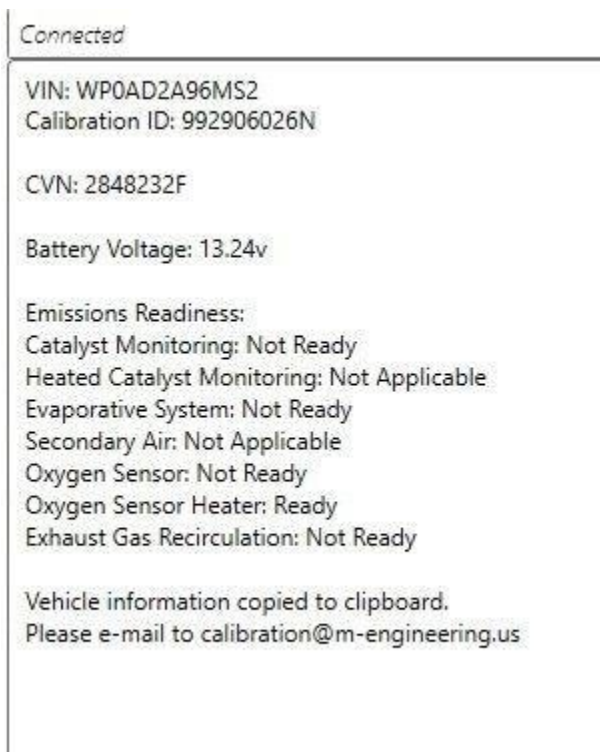

Please open your email and send an email to calibration@m-engineering.us and in the Topic Line tell us what type of car and customer name such as " 992 Turbo S, Tom Smith". Once you have done that in the subject of the email if you hit "Ctrl+V" it will paste this info in. Please also include any **vehicle modifications** and what **octane** will

be run in the car. You can then send the email to us! Once we receive it you should get a set of files with in 24 hours but most likely will be much faster if during business hours.

Step 3.

Once you get an email from us with the tuned files you will also get a license key.

Once connected you need to open M-Tuner and use the supplied license key. This will allow you to have full access to the range of functionality of M-Tuner. You will go to "Add License"
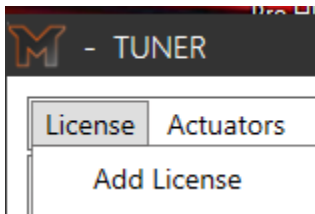
And then put your name and paste the license key in. Be sure that the key does not have any spaces in front of or behind it when you paste it in or else it will give an error.
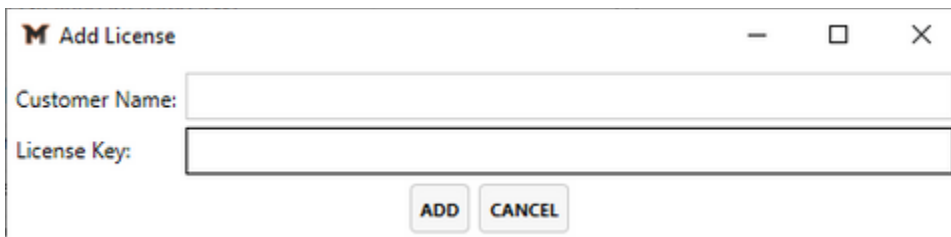
Step 4. Flashing Your ECU

A battery tender is highly recommended during flashing. <u>Do not</u> attempt to flash your vehicle if your battery life seem low or you battery power errors on the dash. An insufficient charge can lead to a failed flash!

File Types in M-Tuner

1. M-Tuner(C) - These are calibration files and are the more common file type you will be encountering. When doing calibration revisions for remote tuning these will be the type of files you will be flashing.
2. M-Tuner(F) - These are full binary files that are used for large feature updates! M-Tuner(F) is what also will be needed to recovery an ECU in the unlikely event a flash fails for any unforeseen reason.

Initiating a flash

1. Flashing is a straight forward process that can take between 90 seconds to 6 minutes depending on the file type. Simple on screen prompts guide you through the process. C
2. Open M-Tuner and connect the OBD M-Engineering dongle to your PC via the included USB cable. The other end connects to your vehicle via the OBDII port. If you have a stable connection the "Flash ECU" button (1) will now be in bold and no longer grayed out.
3. Turn the vehicle to the on position but do not start the engine. A simple way to know you're at the right point is if the tach is showing but the engine is not running. This state can be reached simply by pressing the start/stop button with your foot off of the brake pedal.
4. Click "Flash ECU." (1) A directory will appear. Select the file you'd like to flash and open it.
    1. A battery tender is highly recommend, particularly if flashing a M-Tuner(F) file.
5. A confirmation window with map notes will now appear. Click yes to proceed. No to abort.

Flashing Process

1. The console (2) will now display information as the flash process progresses.
    1. As the vehicle enters the proper flash state all CAN BUS traffic will stop and modules will shut down.
2. You may see some communication errors regarding certain modules displayed while gaining security access, this is normal.

3. Once access is granted the flashing procedure will commence and a completion percentage will update in real time.
4. As the flash is wrapping up you may again see some communication issues with certain modules, again this is normal.
5. When the flash routine is finalizing modules will come back online and alarms may once again sound. This is normal.
6. When prompted cycle the key off and on and click ok.
7. The flash is now successful and you're all set! See special precautions at the end of this section for other important data.

ECU Recovery

1. In the very rare instance a flash were to fail due to low battery voltage, turning the car off during a flash, etc, we have built a recovery mode that can flash your ECU even if the flash was inhibited while in progress.
2. Now, if for any reason discussed above the flash fails you can now simply flash your M-Tuner(F) file to the vehicle and it will recover and you'll be on your way.

If for any reason the recovery mode fails to recovery your ECU please send us an email at Info@m-engineering.us with the subject heading "M-Tuner Flash Failure" and we will assist you as soon as possible! We have yet to encounter an ECU that has not been recoverable in the field.

1. **Precautions During and After Flashing**

After the first engine start following a flash the idle can be unstable and the lambda sensors will take 2-3 minutes to come back on line. During this time special care should be taken to not drive the car hard as closed loop fuel corrections will not take place. Simply idling it for 5 minutes after a flash is generally sufficient, however a good way to tell if the lambda sensors are active is to monitor short term fuel trims and lambda for each bank. If short term fuel trims are at 1.00 then your lambdas are not online yet. This is particularly good to know if you are tuning the car remotely on the dyno.

It is ideal to keep a battery tender on the vehicle while flashing. Insufficient supply voltage to the ECU may result in a failed flash.

Take special care to not walk away from your vehicle with the key while it is flashing. This may cause the flash to fail.

Ensure your laptop has a sufficient charge or is hooked to outlet power before initiating a flash. If the laptop dies during the flash it may result in a failed flash.

Since all CAN traffic is silenced it is wise to also disconnect or power down any ancillary CAN devices which may be hooked up. e.g. radar detectors, logger dashes, etc...

Datalogging

If we send you an LCFG2 file for logging please put it in the following folder:

Documents/M-Tuner/Profiles
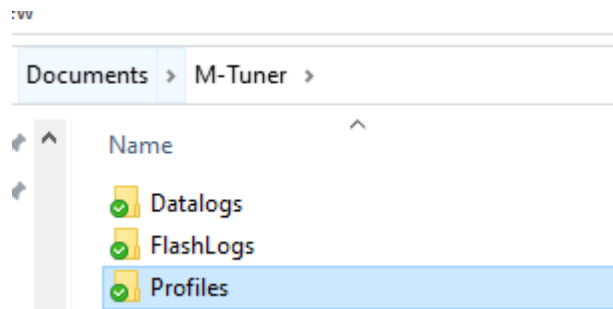
Drop it in there and then when you open M-Tuner be sure to select in in the box at the bottom left that has a drop down.