

If you are reading this, chances are you have just purchased or are looking into purchasing a Twisted Tune from Twisted Tuning. Here at Twisted Tuning we try our very best to make your experience the best, most enjoyable and painless process as possible. This instructional was created to help get a better understanding of the Twisted Tuning Flash tuning ECU re-calibration process works.

What is Flash Tuning?

Flash tuning is the process of altering vehicle ECU code stored on the ECU Rom image. This is done by first Reading the ECU information, downloading that and saving the ROM data. The ROM data is typically saved as a HEX file. This saved data is then modified here at Twisted Tuning and saved and written back to the ECU with all the changes we have made.

The Process:

Order and Install

once you place your order for your Twisted Tune, there will be a small amount of correspondence back and to get your initial setup completed to where we can start Tuning your specific vehicle. There are a few things you need in order to effectively utilize Twisted Tuning's services.

You will need the following to do the install

- Tactrix Openport 2.0 Interface (www.tactrix.com)
- USB Cable (included w/Tactrix Cable)
- Windows Laptop
- VIN number of your car
- Access to your car (for some steps)
- a working OBDII port
- a healthy <u>car battery</u> (For the initial ECU read you may be keeping the ignition[™] on for prolonged periods of time 10-30 minutes depending on the ECU and Laptop performance)

Part 1 - Install and software License

- 1. Order Software (<u>www.twisted-visionz.com/#!twisted-visionz-online-store/c1ggr</u>)
- 2. Receive email from Twisted Tuning with the software download link
- 3. Download the software EXE file from the link and install it accept license agreement
- 4. Launch MAZDAEDIT, a dialog box will pop up requesting that you enter in the license code for the software. That same dialog box has the Hardware Fingerprint Code which you need to take note of for the next step (you can copy it into the clipboard or write it down)
- 5. Email the Hardware Fingerprint Code, as well as what name you want the software license to be associated to and indicate the make/model/year of your car.

Part 2 - Software Activation, Device (OP2) and VIN Licensing

- 1. receive email from Twisted Tuning with License code
- 2. Install the Tactrix Openport 2.0 drivers (download & install) from http://www.tactrix.com/index.php: two options are
 - Driver only= under Download /"download Drivers + J2534 DLL" (select this one)
 - ECUFlash + Driver: under Download / "Download EcuFlash" (don't select this one)
- 3. Connect Laptop/Tablet to the Car via the Openport 2.0 OBDII interface
- 4. Launch MAZDAEDIT and input license code information. (copying and pasting each to the relevant input is the easiest most accurate way to do this step)
- 5. Select Main Menu/Help/Device Link
- 6. Note Device id and car VIN + email that information back to Twisted Tuning

Note: A pop up will appear indicating the success or failure of the license registration. If successful, all is good. If not successful repeat the process carefully ensuring all information are correctly input (copy and paste is best) and if it fails again take a screen shoot and email it to the vendor detailing what you did.

Part 3 - Device (OP2) and VIN Activation

- 1. You will receive a return email with
 - Device key (key.txt)
 - VIN key (key_vin.txt)
- 2. Launch Mazdaedit
- 3. Connect the Openport 2.0 to the cars OBDII port and to the laptop
- 4. Open key.txt and select Main Menu/Help/Device Link and copy and paste the text in key.txt into the <u>device key</u> input area and select Ok
- 5. Open key_vin.txt and select Main Menu/Help/VIN and copy and paste the text in key_vin.txt into the vin key input area and select OK

Note: A pop up will appear indicating the success or failure of each registration (one popup per registration). If successful, all is good. If not successful repeat the process carefully ensuring all information are correctly input (copy and paste is best) and if it fails again take a screen shoot and email it to the Twisted Tuning detailing what you did.

Part 4 - ECU Dump

- 1. Connect the Openport 2.0 to the cars OBDII port and to the laptop
- 2. Turn the ignition on
- 3. Launch Mazdaedit
- 4. Confirm that you can connect to the ECU by firing up the logger and connecting.
 - If it connects close the logger and go to the next step
 - If it does not connect you will need to figure out what's going on before proceeding (confirm the Openport 2.0 is connected, that MazdaEdit can see the Openport 2.0 and after that its more than likely the Openport 2.0 is not seated correctly
- 5. Within Mazdaedit select Tools/Flash Utility
- 6. Select, from the dropdown to the right of the Flash Utility window, the template Twisted Tuning has told you to use.
- 7. Go to options\"read ECU for epifanSoftware" and start a dump. The process takes about 10-25 minutes depending on ECU.
- 8. Save the dump file, using the disk icon on the Flash Utility tool bar
- 9. email that dump file to Twisted Tuning

NOTE: like every other modern car, your Mazda is one of many and Mazda may have used one of two types of ECU on your car. This is not apparent to the vendor until the first review of your dump file is completed = there is a chance that you will have to repeat this process twice.

Part 5 - Template and BIN install

- 1. You will receive an email from the vendor with a download of the required
 - Def file (mep.eed file)
 - BIN file (HEX Binary file for your ECU)
- 2. Overwrite the mep.eed file in "C:\Program Files\MazdaEdit Personal\" with the downloaded DEF file
- 3. Copy the bin file to "C:\Program Files\MazdaEdit\xxxx\" or to where ever you want
- 4. Make a copy/backup of your bin file (ex: MyEcu.Hex -> MyEcu.Hex.Back) and make it read only as a "just in case"
- 5. launch MazdaEdit and open your BIN/HEX file

Updates From Vendor

if you receive an update directly from Twisted Tuning the only thing you have to watch out for is the EEP file. The update is basically a fresh install and it overwrites your custom EEP file so you will have copy your EEP file back (See "Part 5 - Template and BIN install" steps 1 and 2)

NOTE:

If you installed MazdaEdit into a directory other than the default "C:\Program Files\MazdaEdit" that's where you need to put the BIN and DEF files

• When saving the files to the Mazdaedit directory Windows will more than likely tell you do not have the rights to do that. All you need to do is save the files to another directory, and copy them using explorer (which will prompt for and grant the rights required)

In Closing, We Hope the Process instructional was helpful to you. If you have any further Questions or concerns, do not hesitate to contact us at Twisted Tuning via email: <u>twistedtuned@gmail.com</u>