THANK YOU FOR PURCHASING AN OV-TUNE!

Steps below will he instructions for: Registering the software , Datalogging setup , and flashing a new file, Errors and fixes, PLEASE READ ENTIRELY!

any questions, files, logs, etc send to :

_____   **ovtphilippines@gmail.com**   _____
____

INSTRUCTION STEP 1: DOWNLOADING AND INSTALLING YOUR MAZDAEDIT SOFTWARE

Step 1:

Download the mazdaEdit software and OBD Drivers

Download mazdaEdit http://www.epifansoft.com/download/mep/mep_v2.exe

drivers:

https://www.tactrix.com/index.php?option=com_content&view=category&layout=blog&id=38&Itemid=61

Step 2:

Install the software once the download is complete.

Step 3:

Once the download has completed, double click the MazdaEdit software icon, and open the program

Step 4:

When the software opens, a window will pop up saying that you need a license key to continue. Select "OK" then you will be given a prompt that requires a Registration name and Registration key, along with a unique code called your HARDWARE FINGERPRINT

The hardware fingerprint code shown on this window (example **FED1-99AC**)

Please send this information in your email:

- Name

- order number

vehicle info : (example 2016 Mazda 3 Skyactiv 2.0L)

- Octane of gas you will tune for (87, 91, 93..)

-Hardware fingerprint code

-Modifications (engine mods like intake / exhaust)

- special requests   (Rev limiter higher?)

INSTRUCTION STEP 2:REGISTERING YOUR MAZDAEDIT SOFTWARE

Step 1:

Once you have sent the HARDWARE FINGERPRINT CODE, you will be given your registration information and License key.

Example of registration information:

Registration name: Jon Doe

Registration key: DLSK4-01351-32LDJA-130DS-0000-1110-2133-XXXX

Please INPUT your registration name in the required "REGISTRATION NAME" box

Please INPUT your License key in the "REGISTRATION KEY" box

Then press apply.

NEXT: REGISTERING YOUR TACTRIX AND VEHICLE TO THE MAZDAEDIT SOFTWARE

Step 1:

Open the mazdaEdit software and CONNECT THE TACTRIX OPEN PORT 2.0 to the Laptop PC.

Step 2:

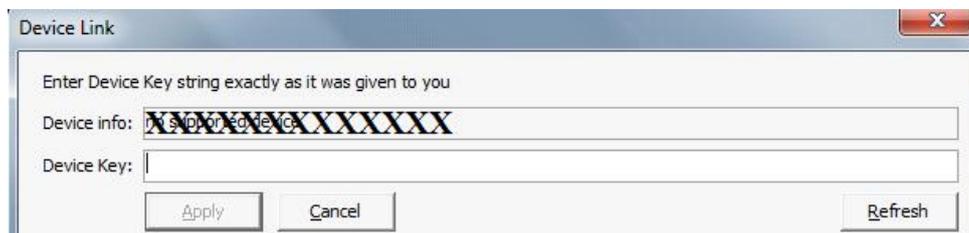**In the Software, go to HELP> DEVICE LINK (SEE PIC)**
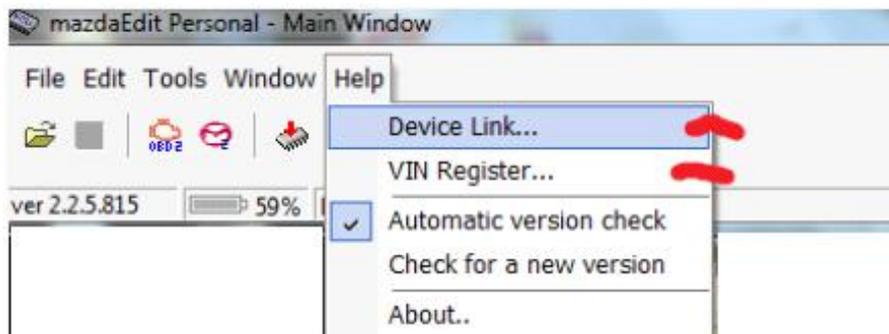
Step 3:

A window will pop up with "Device Info" and "device key" (see pic)

WHERE IT SHOWS "XXXXXXXXXXXX" WILL BE A CODE. PLEASE SEND ME OR EPIFAN THAT CODE VIA EMAIL ALONG WITH YOUR VEHICLES VIN NUMBER

IF THERE IS NO CODE, PLEASE DOWNLOAD THE LATEST TACTRIX DRIVERS @ www.Tactrix.com

Step 4:

You will receive an email from us with your next code set.

Example of codes:

Asjflkasjdflkajtkjslktjalskjrweohrwho134i0293ier09falksjdofno333420()+)(#$HK#

To enter the keys:

For the TACTRIX KEY, open mazdaedit and **CONNECT THE TACTRIX OBDII DONGLE TO THE PC,** Go to HELP> DEVICE LINK (like above) enter the Key in the "DEVICE KEY" region (as shown above in picture) and press apply.

ONLY ENTER THE CODE ONE TIME

For the VIN KEY: Go to HELP> VIN REGISTER, enter the key in the dialog box and press APPLY.

Your MazdaEdit is now fully registered.

INSTRUCTION STEP 3: OBTAINING THE 1:1 ECU DUMP COPY

Step 1:

Go to your Vehicle (bring the Tactrix, and laptop with mazdaEdit)

Connect the Tactrix to the laptop and the OBDII port

Open MazdaEdit.

Turn the vehicle key to ON, but **DO NOT START THE CAR**

In the MazdaEdit program, press the Flash Utility button (it has a Red ARROW on it)
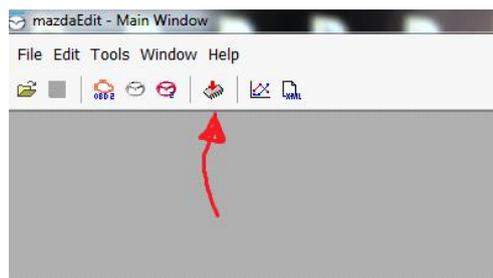
Step 2:

The Flash Utility window will pop up. FIRST YOU NEED TO SELECT THE PROPER TEMPLATE FOR YOUR VEHICLE.   Your software version will give access to only the templates needed to flash your ECU. Select from them until you find the one that works.

(for skyactiv users, unless your cars is a DIESEL, your template will almost always be the 2mb skyactiv mitsu / denso can. Try either one)
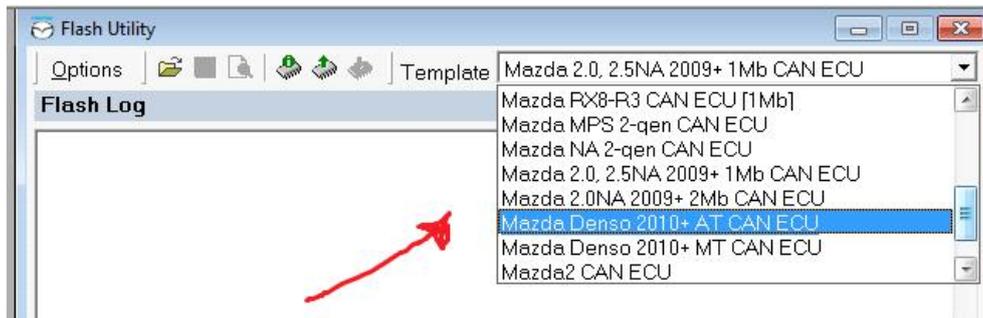
Step 3:

Next, you need to go to OPTIONS: READ ECU FOR EPIFANSOFTWARE (see pic)

ONCE IT HAS COMPLETED, PRESS THE SAVE BUTTON/ICON AND SAVE THE DUMPED INFORMATION. NAME THIS FILE "yourname_STOCK.Dump"

- Make sure NOT to save to default location! Save it to somewhere easy to find it, like desktop
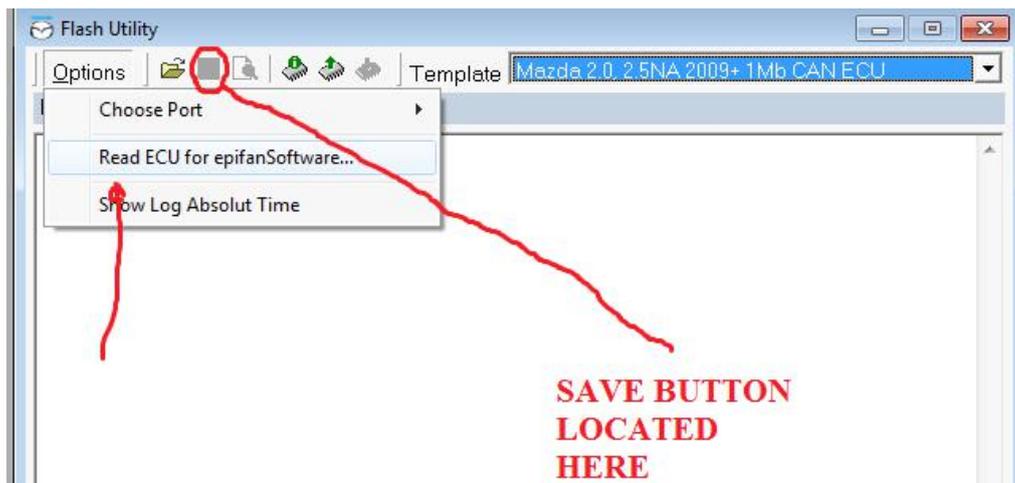
Step 3.1:

Save screenshot of ECU INFO

(to save screenshot, press screenshot button, open microsoft PAINT, and click "paste", then you can use paint to crop the image)

when connected to the car after obtaining the dump, save the stock ECU info and send it to us.

use the flash utility and the button that has the greein " i " on it.
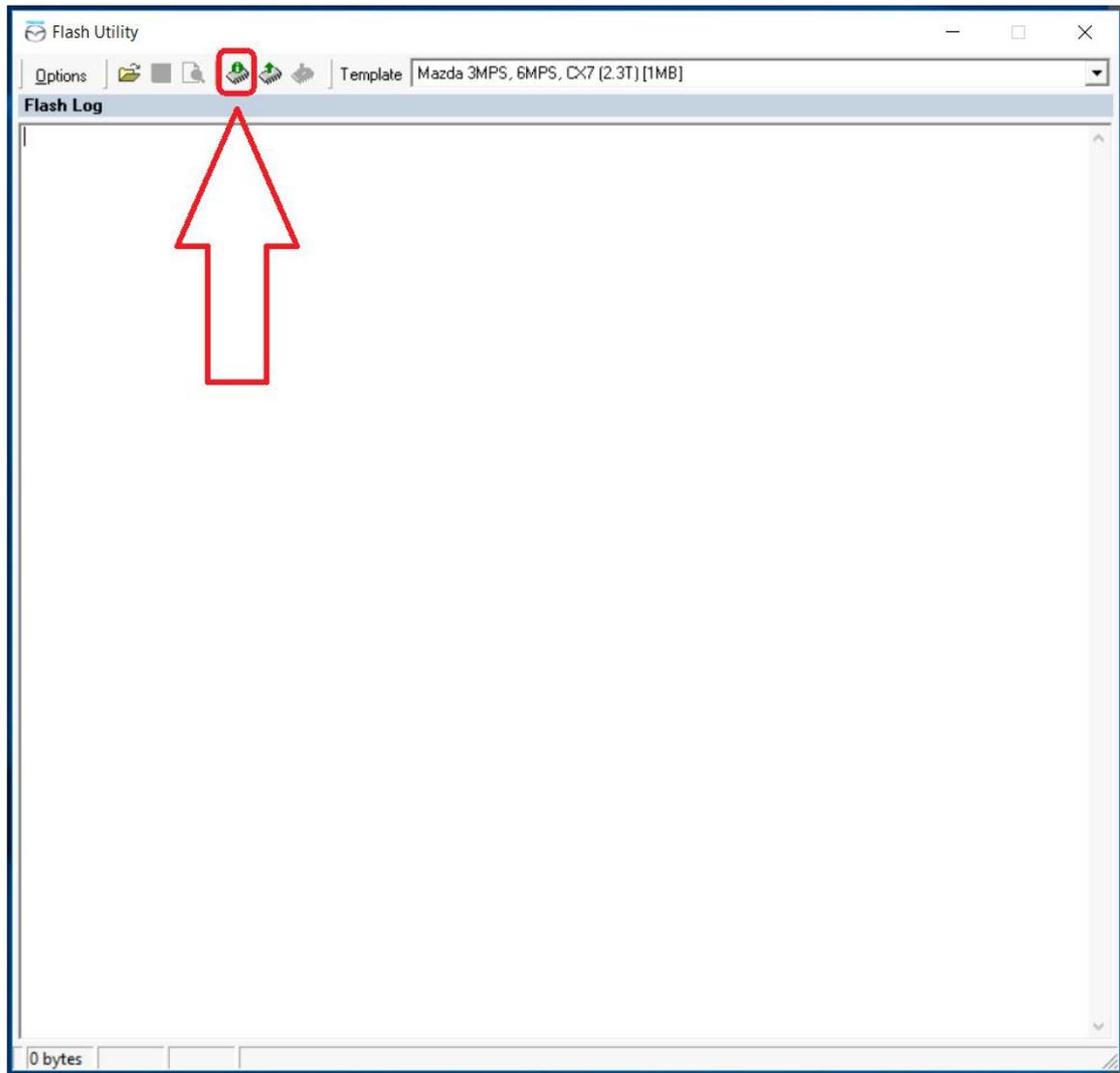
Step 4:

Email me this File.

(IF YOU GET ERRORS, PLEASE SEE ERROR SECTION FOR "CAN'T FIND PORTS" OR j2534 ERROR)

INSTRUCTION STEP 4: OBTAINING A DATALOG

Step 1:

Setting up the logger.

Open MazdaEdit, and Click the appropriate Logger option from FILE>

(If you have a 2ⁿᵈ or 3ʳᵈ gen 2.0 or 2.5 skyactiv/ MZR, select MAZDA 2ᴺᴰ GEN CAN LOGGER)

(If you have a 1rst gen 2.0 or 2.3L, select Mazda CAN LOGGER)
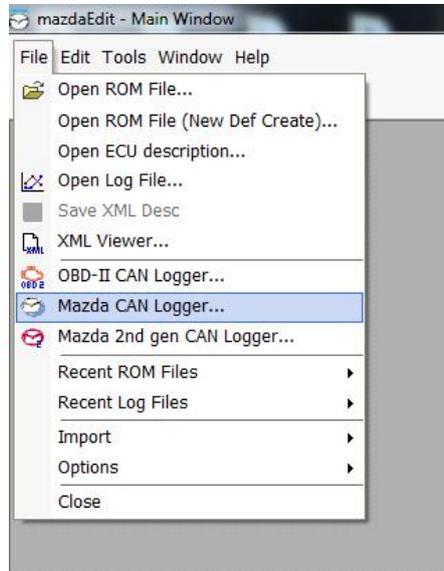
Step 2:

The logger window will pop up.

If you have a 2ⁿᵈ GEN model that is NOT skyactiv, make sure that "Show ECU Selection
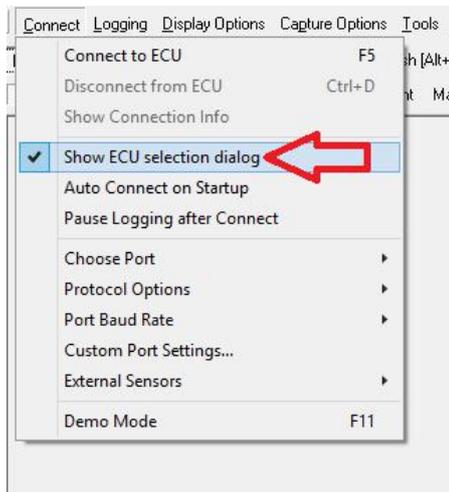
Dialog" is CHECKED.

Then another window will pop up, select MPS ECU >>>>>
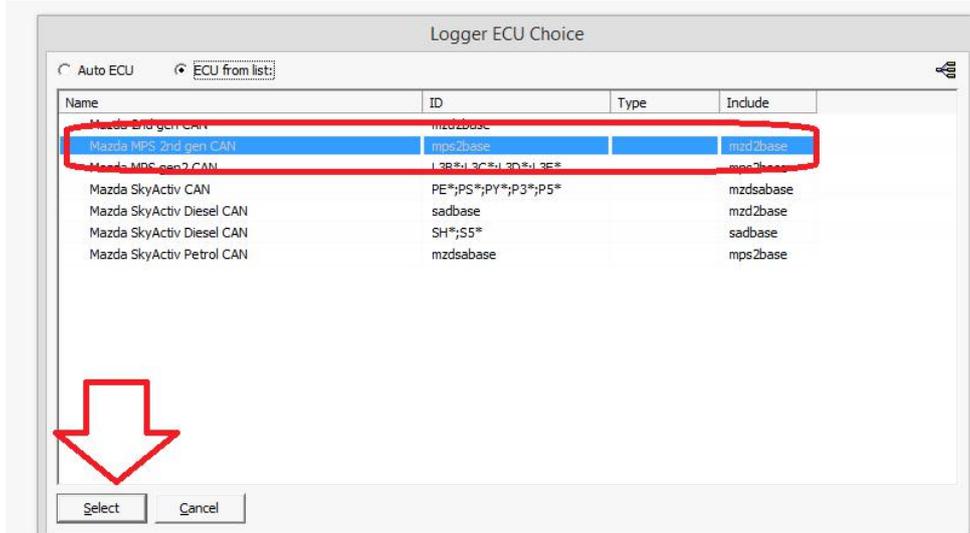
Go to Connect > DEMO MODE (located at the bottom) Note** you only use DEMO MODE to setup the logger NOT to record logs. TO RECORD A LOG PRESS CONNECT TO ECU, NOT DEMO MODE!
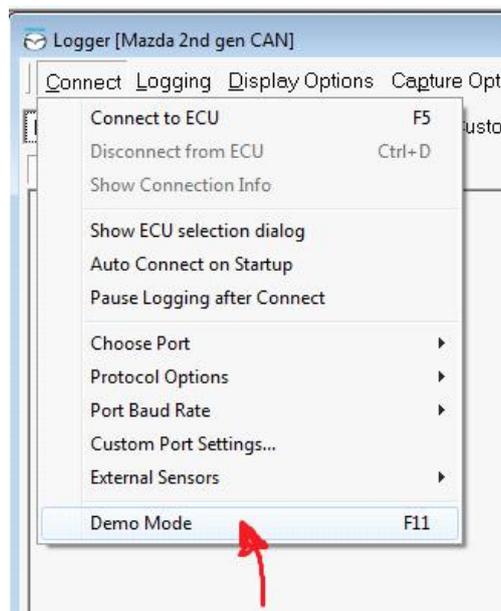
Step 3:

The Logger will now be in "demo mode" and will show the possible Logger options to select from for datalogging. Make sure to select SHOW ALL (see pic). The LOGGER OPTIONS are what need to be selected (checked) or NOT selected, dependent on your engine / car (see list below). NOTE: SOME THINGS MAY NOT BE LISTED IN DEMO MODE, BUT WILL BE AVAILABLE WHEN YOU CONNECT TO THE CAR.

Is it important to know that you select Connect > Connect to ECU, NOT demo mode, when you are connected to the vehicle, to record a log.
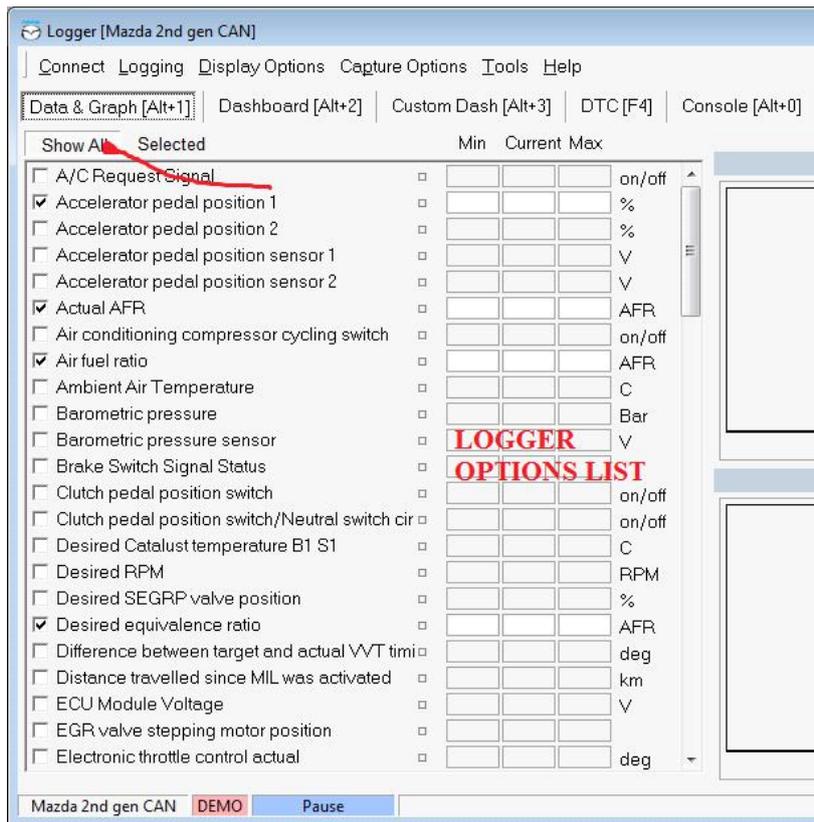
VEHICLE LOGGING PARAMETERS SELECTION

Skyactiv 2.0L and 2.5L

(IF ANY OPTION IS MISSING, SKIP IT)

☑ Fuel pressure	□			mPa
☑ Fuel pressure desired	□			mPa
☑ Fuel pulse width	□			ms
☑ Fuel system status (OL/CL)	□			
☑ I-Stop Status	□			
☑ Ignition timing	□			deg
☑ Intake air temperature	□			C
☑ Intake air temperature 2	□			C
☑ KCS Learning Value	□			deg
☑ Knock retard	□			deg
☑ Long fuel trim 1	□			%
☑ Long fuel trim 2	□			%
☑ Manifold Air temperature	□			C
☑ Manifold absolute pressure	□			Bar
☑ Mass air flow	□			g/s
☑ Mass air flow sensor	□			V
☑ Oil Temperature	□			C
☑ Primary Wastegate Duty	□			%
☑ Short fuel trim 1	□			%
☑ Short fuel trim 2	□			%
☑ Throttle position 1	□		Short fuel trim 2	
☑ Throttle position 2	□			%
☑ VVT Exhaust Actual Position	□			deg
☑ VVT Exhaust Desired	□			deg
☑ VVT Intake Actual Position	□			deg
☑ Vehicle speed	□			kph

Mazda SkyActiv Petrol CAN   DEMO   Pause   Logging Directory is C:\Users\Mathe

ver 3.6.16.946   ▭ 100%   Registered to: OrangeVirus Tuning

Mazda MZR 2.0L 2.3L 2.5L (mazda 2) (2ⁿᵈ GEN)

Show All	Selected		Min	Current	Max	
☑ Accelerator pedal position 1	□					%
☑ Accelerator pedal position 2	□					%
☑ Actual AFR	□					AFR
☑ Athmospheric Pressure	□					Bar
☑ Barometric pressure	□					Bar
☑ Commanded EGR	□					%
☑ Desired equivalence ratio	□					AFR
☑ Difference between target and actual VVT timing	□					deg
☑ ECU Module Voltage	□					V
☑ Electronic throttle control actual	□					deg
☑ Engine coolant Temperature	□					C
☑ Engine coolant temperature	□					C
☑ Engine coolant temperature 2	□					C
☑ Engine load	□					%
☑ Engine speed	□					RPM
☑ Fuel Injection amoung	□					mg/cyl
☑ Fuel pulse width	□					ms
☑ Fuel system status (OL/CL)	□					
☑ Ignition timing	□					deg
☑ Intake air temperature	□					C
☑ Intake air temperature 2	□					C
☑ Knock retard	□					deg
☑ Long fuel trim 1	□					%

☑ Knock retard	☐				deg
☑ Long fuel trim 1	☐				%
☑ Manifold Air temperature	☐				C
☑ Manifold absolute pressure	☐				Bar
☑ Mass air flow	☐				g/s
☑ Mass air flow sensor	☐				V
☑ Short fuel trim 1	Mass air flow ☐				%
☑ Throttle position 1	☐				%
☑ Throttle position 2	☐				%
☑ VVT Intake Actual Position	☐				deg
☑ Vehicle speed	☐				kph

Mazda MPS 2nd gen CAN	DEMO	Pause		Logging Directory is C:\Users\Mathew\
ver 3.6.16.946	▭ 100%	Registered to: OrangeVirus Tuning		

2.0L and 2.3L Mazda 1rst GEN (also Mazda 6 V6)

☑ AFR	☐			
☑ AFR Real	☐			
☑ Accelerator Pedal Plate	☐			%
☑ Barometric Pressure	☐			Bar
☑ Engine Coolant Temp	☐			C
☑ Engine Load	☐			
☑ Engine Speed	☐			RPM
☑ Fuel Pulse Width	☐			%
☑ Ignition Timing	☐			BTDC
☑ Intake Air Temperature Sensor	☐			Volts
☑ Intake Manifold Pressure	☐			Bar
☑ Intake Sensor Temp	☐			C
☑ Knock Correction	☐			BTDC
☑ Long Fuel Tream B1	☐			%
☑ Long Term Fuel Trim 1	☐			%
☑ MAF Flow	☐			g/sec
☑ MAF Voltage	☐			V
☑ OL/CL Status	☐			STATUS
☑ Throttle Position Sensor #1	☐			%
☑ Valve Timing Actuator	OL/CL Status ☐			BC
☑ Vehicle Speed	☐			KPH

Mazda Skyactiv Diesel 2.2L

	Min	Current	Max	
☑ Accel Pedal Position Sensor 1				%
☑ Actual Coolant Control Valve				deg
☑ Acutal Camshaft and Crankshaft Diff Pos w/o Adaptation				%
☑ Ambient Air Temp				C
☑ Athmospheric Pressure				Bar
☑ Baro Pressure				Bar
☑ Brake Booster Press				Bar
☑ Desired Coolant Control Valve				deg
☑ ECU Module Voltage				V
☑ Electrical Water Pump				%
☑ Engine Load				%
☑ Engine Oil Dilution Amount				g
☑ Engine Oil Level				?mm
☑ Engine Oil Pressure				Bar
☑ Engine Oil Temp				C
☑ Engine coolant Temperature				C
☑ Engine coolant temperature				C
☑ Engine speed				RPM
☑ Exhaust Gas Differential Pressure				?Pa
☑ Exhaust Gas Differential Pressure Average				?Pa
☑ Exhaust Shutter Valve Position Actual				?%
☑ Exhaust Shutter Valve Position Desired				%
☑ Frequency of Completed Turbocharger Learning				
☑ Fuel Injection Amount Desired				mm3/st
☑ Fuel Injection Lerning Value (Inj #1 at 100MPa)				
☑ Fuel Injection Lerning Value (Inj #1 at 140MPa)				

Mazda SkyActiv Diesel CAN   DEMO   Pause

ver 3.6.16.946   100%   Registered to: OrangeVirus Tuning   Logging Directory is C:\Users\Mathe

	Min	Current	Max	
☑ Fuel Injection Lerning Value (Inj #1 at 100MPa)				
☑ Fuel Injection Lerning Value (Inj #1 at 140MPa)				
☑ Fuel Injection Lerning Value (Inj #1 at 197MPa)				
☑ Fuel Injection Lerning Value (Inj #1 at 35MPa)				
☑ Fuel Injection Lerning Value (Inj #1 at 65MPa)				
☑ Fuel Injection Lerning Value (Inj #2 at 100MPa)				
☑ Fuel Injection Lerning Value (Inj #2 at 140MPa)				
☑ Fuel Injection Lerning Value (Inj #2 at 197MPa)				
☑ Fuel Injection Lerning Value (Inj #2 at 35MPa)				
☑ Fuel Injection Lerning Value (Inj #2 at 65MPa)				
☑ Fuel Injection Lerning Value (Inj #3 at 100MPa)				
☑ Fuel Injection Lerning Value (Inj #3 at 140MPa)				
☑ Fuel Injection Lerning Value (Inj #3 at 197MPa)				
☑ Fuel Injection Lerning Value (Inj #3 at 35MPa)				
☑ Fuel Injection Lerning Value (Inj #3 at 65MPa)				
☑ Fuel Injection Lerning Value (Inj #4 at 100MPa)				
☑ Fuel Injection Lerning Value (Inj #4 at 140MPa)				
☑ Fuel Injection Lerning Value (Inj #4 at 197MPa)				
☑ Fuel Injection Lerning Value (Inj #4 at 35MPa)				
☑ Fuel Injection Lerning Value (Inj #4 at 65MPa)				
☑ Fuel Injection Pump Flow Control				A
☑ Fuel Injection Pump Suction Control Valve				mA
☑ Fuel Rail Pressure (diesel)				kPa

✓ Fuel Rail Pressure (diesel)	□				kPa
✓ Fuel Rail Pressure (relative to manifold vacuum)	□				kPa
✓ Glow Plug Coil Duty Cycle	□				%
✓ Glow Plug Voltage	□				?V
✓ Injector #1 Correction Value	□				!mm3/st
✓ Injector #2 Correction Value	□				!mm3/st
✓ Injector #3 Correction Value	□				!mm3/st
✓ Injector #4 Correction Value	□				!mm3/st
✓ Intake Air Temperature	□				C
✓ Long Term Fuel Trim B1 (OBD)	□				%
✓ Long Term Fuel Trim B2 (OBD)	□				%
✓ MAF Flow	□				g/s
✓ Manifold Absolute Pressure	□				Bar
✓ Manifold Absolute Pressure Desired	□				Bar
✓ Oxygen Concentration in Exhaust Gas	□				%
✓ Short Term Fuel Trim B1 (OBD)	□				%
✓ Short Term Fuel Trim B2 (OBD)	□				%
✓ T/C Comressor Inlet Pressure Sensor A	□				Bar
✓ T/C Comressor Inlet Pressure Sensor B	□				Bar
✓ Turbocharger VTG Position Actual	□				%
✓ Turbocharger VTG Position Desired	□				%
✓ Turbocharger VTG Position Desired #2	□				%

Step 4:

Choose logging Directory. This will make finding your logs easy. When sending a log via email ONLY send the .CSV File. The Text file is not needed.
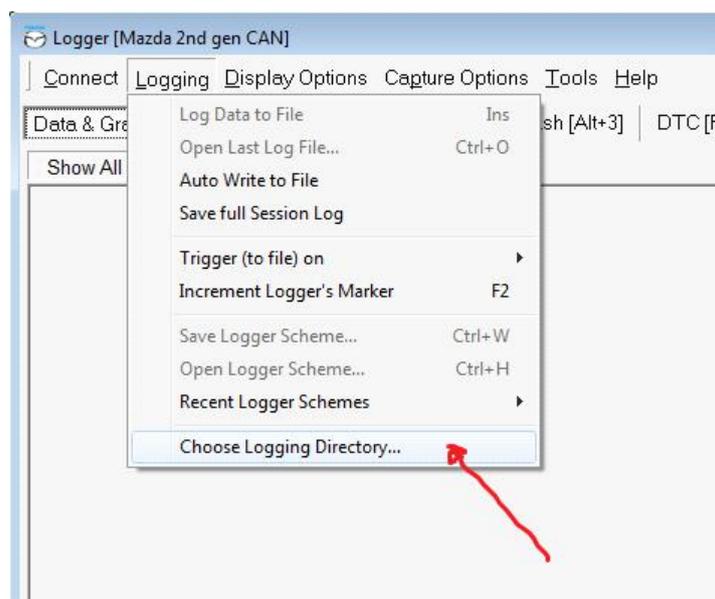
LOGGER SETUP IS NOW COMPLETE. PLEASE DOUBLE CHECK WHEN THE LOGGER IS CONNECTED TO THE VEHICLE THAT ALL PIDS ARE STILL SELECTED

RECORDING A LOG!!!!:

Steps:

1. **Connect tactrix to vehicle and to laptop. Vehicle should be running**

2. **Open mazdaEdit**

3. **Connect to ECU (noted below).**

4. **Personally it is easier to connect to the ecu, set it all up and put the laptop in the passenger seat. When you are ready to record, turn it on when you can safely. IT IS OKAY IF YOU TURN THE LOGGER ON AND RECORD EARLY, FOR INSTANCE IF YOU TURN IT ON BEFORE YOUR DESTINATION TO PERFORM A WOT LOG, THAT IS FINE, THE UNNECESSARY PARTS CAN BE REMOVED BY US.**

Notice in the picture above you see the grayed out "Log data to file" **Once you are CONNECTED TO ECU (see instruction above) you press LOG DATA TO FILE to START logging, you will notice a GREEN bar below, this means it IS RECORDING. Ensure you are NOT in DEMO MODE, it will also show a green bar at the bottom. You press "log data**

to file" again to STOP recording. The recorded log will be saved in your logging directory chosen.

WHAT LOGS ARE NEEDED? (please make separate logs if you can) :

Please Record:

1 log- WARMED UP IDLE- 2-3 minutes

1 log- Driving around town 5-10 minutes

2x log- Wide open throttle 2nd gear or higher from lowest possible rpm (about 1500) to Redline. If you are automatic trans, Record as high as it lets you until it shifts. Newer skyactivs with KICK DOWN SWITCH. It is easiest to record the logs if you DO NOT activate the kick down switch, HOWEVER we REQUIRE the WIDE OPEN THROTTLE LOGS USE THE KICKDOWN. You can start the log from the lowest RPM the transmission allows that will NOT downshift.

INSTRUCTION STEP 5: FLASHING A NEW FILE TO THE ECU

Step 1:

Connect the Tactrix to the vehicle and to the laptop.

Turn the car ON, but DO NOT START

Open MazdaEdit program

Click the "Flash Utility button"

ENSURE THE TEMPLATE IS CORRECT FOR YOUR VEHICLE

Select the OPEN FOLDER Icon (see pic) and Select the File sent
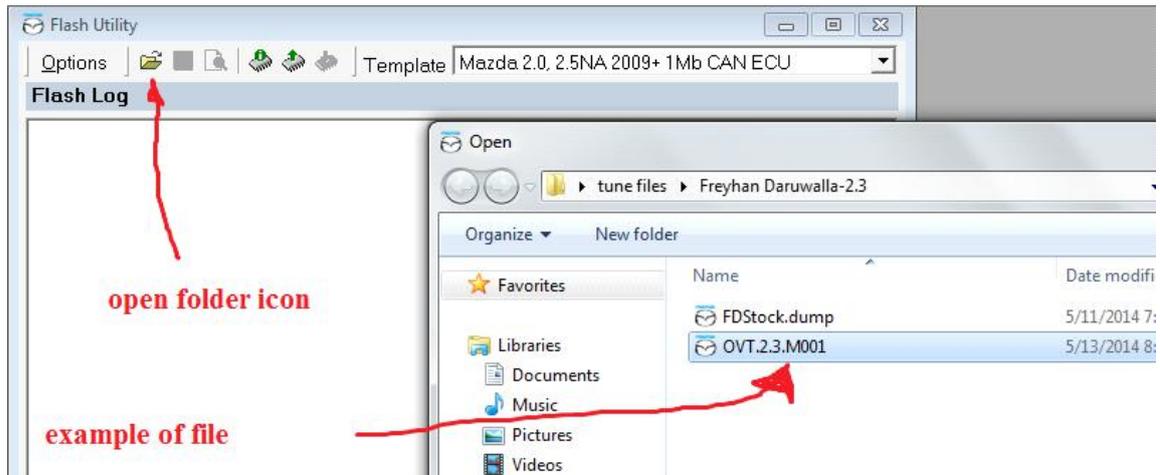
Step 2:

Once the file has been loaded, **AND THE VEHICLE IS ON BUT NOT STARTED. PRESS THE FLASH UTILITY BUTTON (RED ARROW) TO BEGIN THE FLASHING PROCESS. FOLLOW THE ON SCREEN PROMPTS UNTIL FLASHING IS COMPLETE. THEN AFTER, ATTEMPT TO START THE CAR TO ENSURE THE FLASH WAS SUCCESSFUL.**

Step 3:

Once the Flash has been completed, and vehicle successfully starts. The Flashing process is complete, and you are ready to begin logging for the next updated file for your tune. **PLEASE MAKE SURE THAT YOU DRIVE AT LEAST 20-25 MILES AFTER A FLASH BEFORE BEGINNING TO RE-LOG FOR THE NEXT UPDATE SO THAT THE FUEL TRIMS HAVE SETTLED PROPERLY.**

THE FLASHING PROCESS IS NOW COMPLETE.

ERRORS-TROUBLESHOOTING SECTION:

ERRORS:

Incorrect license / registration name.

Fix: The license and registration name is created ONLY for that HARDWARE FINGERPRINT, which is UNIQUE to that pc. You cannot put it on   another PC with a different HARDWARE FINGERPRINT. IF you still have the same fingerprint and have this error, email me immediately for a resolution.

Device link not installed error

Fix: When putting the device key in, if you get a device link not installed error, make sure the tactrix is plugged into the laptop. If it is plugged in, please ensure the drivers are up-to-date FROM TACTRIX and retry with the license again. THE KEY WILL NOT INSTALL if the device info says "no supported device" which means tactrix is not plugged in / drivers updated.

Flashing error "can't Find Ports"

Fix: With the flash window open go to OPTIONS> Choose port> make sure "auto select" is checked. IF it is checked, make sure you have the updated tactrix drivers. If the updated tactrix drivers are installed, then go back to your HELP> DEVICE LINK> and RE-ENTER your Device Key. IF you are still having problems, please email me immediately for a resolution.

Flashing Error "Can't find map description for ECU ID, please make request to epifansoftware"

Fix: Your MazdaEdit version ECU Definitions do not currently have your ECU specific Definitions.

your ECU is new to the software and you will need a new software build, EMAIL us for the new software version. ovtphilippines@gmail.com

Flashing Error J2534 DLL ERROR can't find port

Fix: Please email me for the appropriate DLL to fix this flashing error.

Flashing Error "File associated with Different VIN"

Fix: please email me and let me know right away if you experience this error, this is a checksum error when a ROM is locked to a VIN. that needs to be handled for proper flashing.

VEHICLE DOES NOT START AFTER FLASH OR ERROR DURING FLASHING

Fix: First, attempt to flash your STOCK FILE. Usually if an Error occurs during flashing, that means there was a loss of connection with the tactrix. If you continue to get errors, Email me immediately.

IF YOU GET AN ERROR NOT SPECIFIED IN THIS SECTION, PLEASE EMAIL ME ABOUT THIS ERROR FOR RESOLUTION.