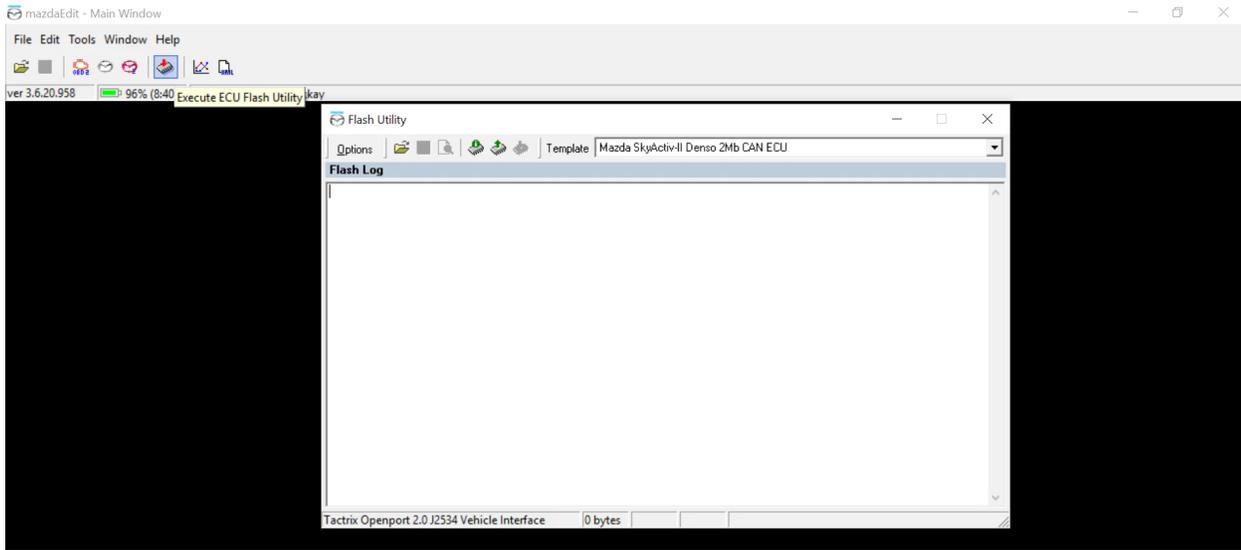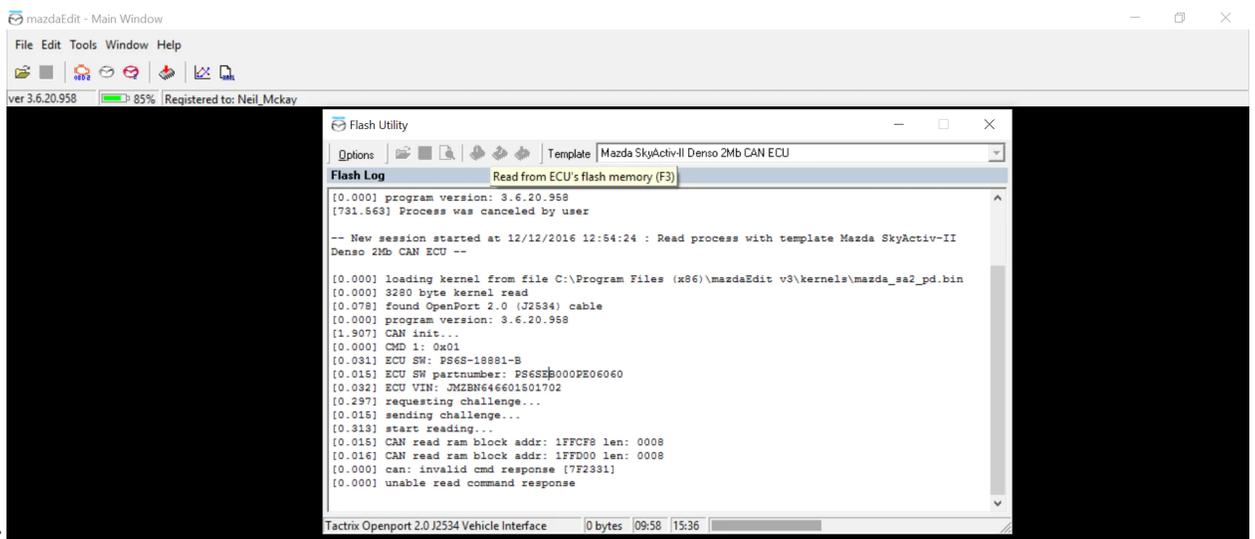## Rom Reading / Pulling stock ecu file:

Connect programming cable to your vehicle OBD, turn vehicle ignition on *(do not start the engine)* turn off headlights/air conditioning/radio etc. Open MazdaEdit.

- Open the flash utility as below:

- Read ROM file – For 2014-2019 models: select template "Mazda SkyActiv II Denso 2mb CAN ECU" and select

  "Options - Read ECU for epifanSoftware...", follow onscreen instructions as directed. Should an "Errors

  Occurred" window pop up do not be alarmed this is due to an incorrect template. A number of Mazda vehicles

  also use a Mitsubishi ECU. Please change the template to "Mazda SkyActiv II Mitsubishi 2mb CAN ECU" and

  read. Please note reading the ROM can take up to 40 minutes (this is only done once). When reading has

  begun the Flash Utility window will be displayed as below showing a countdown to completion of read at


  bottom right:

- Save your ROM file and attach it to the tuning request form i emailed you – when reading is complete a

  window will pop up stating "The operation completed successfully. Turn ignition off" follow these instructions

and select OK. Save your ROM file to a convenient location eg. My Documents by selecting the "Save read Flash memory to file" see window below:

Please save your ROM file as the following format before emailing to me: **Software_vehicle_year_power,**

Example: PS6SEB_Mazda3_2017_120PS.
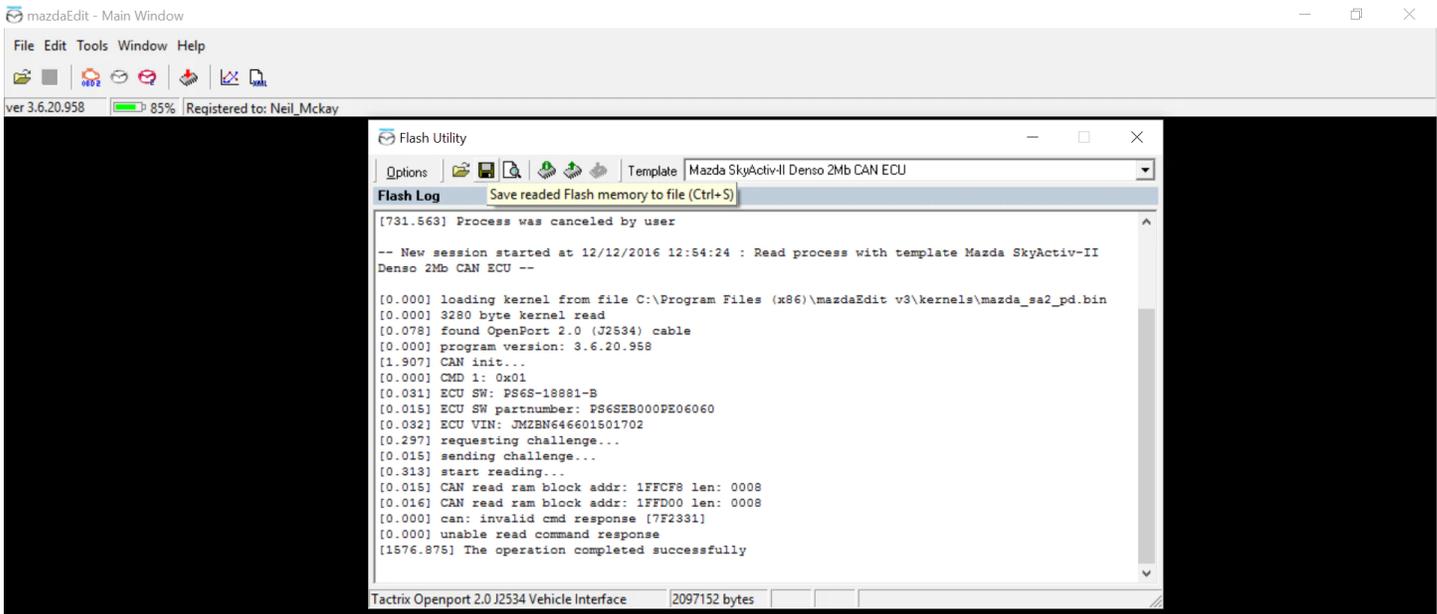
MazdaEdit file/map writing:

Connect programming cable to your vehicle OBD, turn vehicle ignition on *(do not start the engine)* turn off headlights/air conditioning/radio etc. Open MazdaEdit. Open the flash utility (identical to ROM file reading).

- Open ROM file as sent by me – Select "Open ECU ROM image file" as shown below:
  Note: should an error message display "Can't find map description for ********* Please make request

description to epifan. Simply uninstall and reinstall MazdaEdit software.
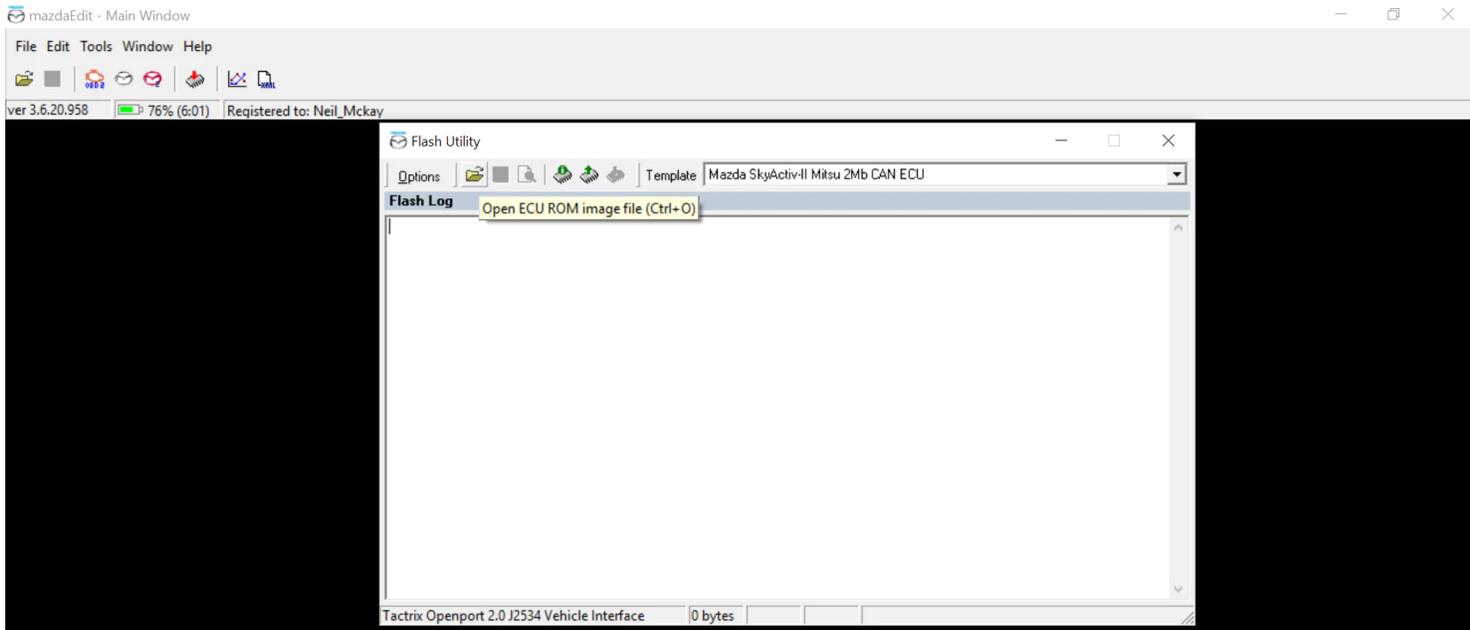
- Using the same template for successful ROM reading above, Select "Write to ECU's flash memory" as shown below follow instructions as directed.
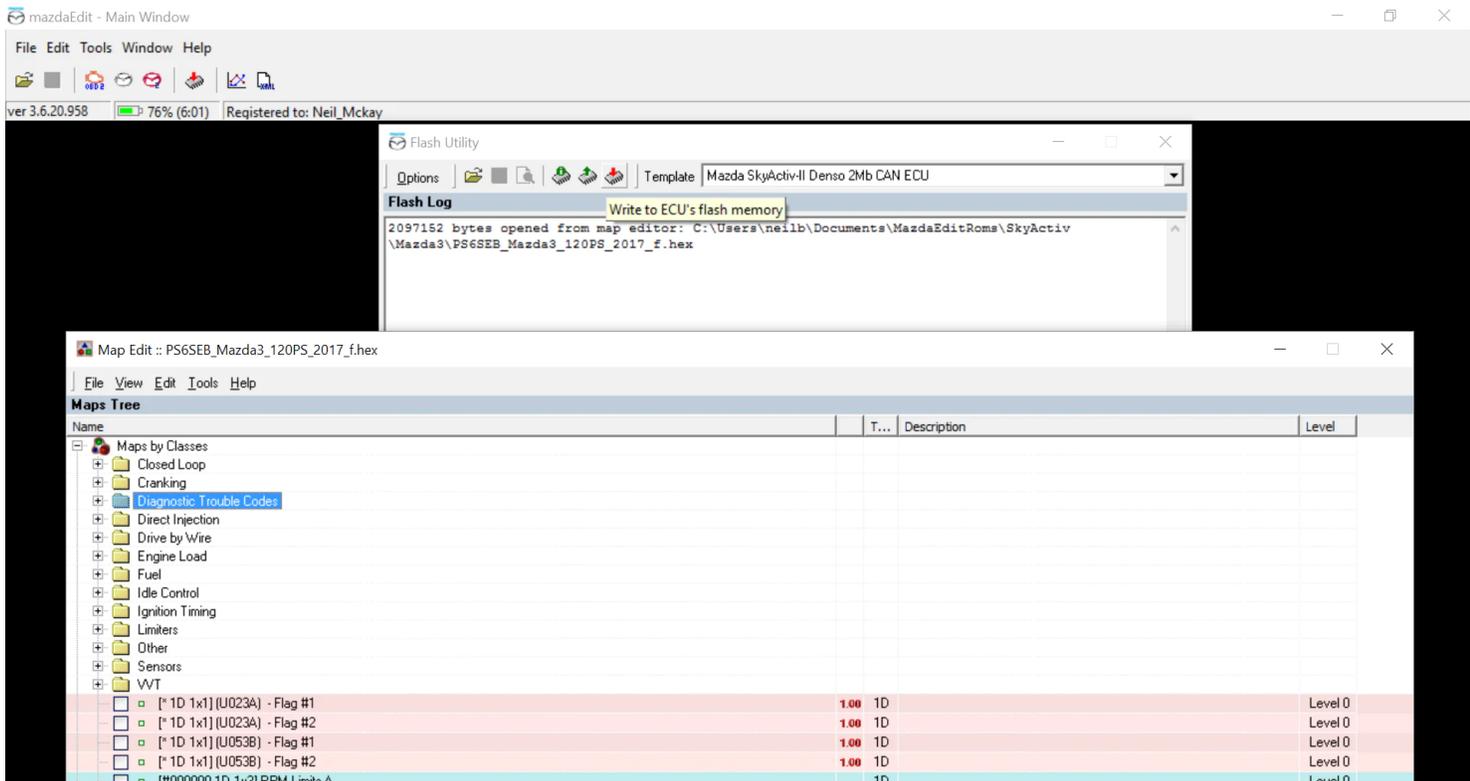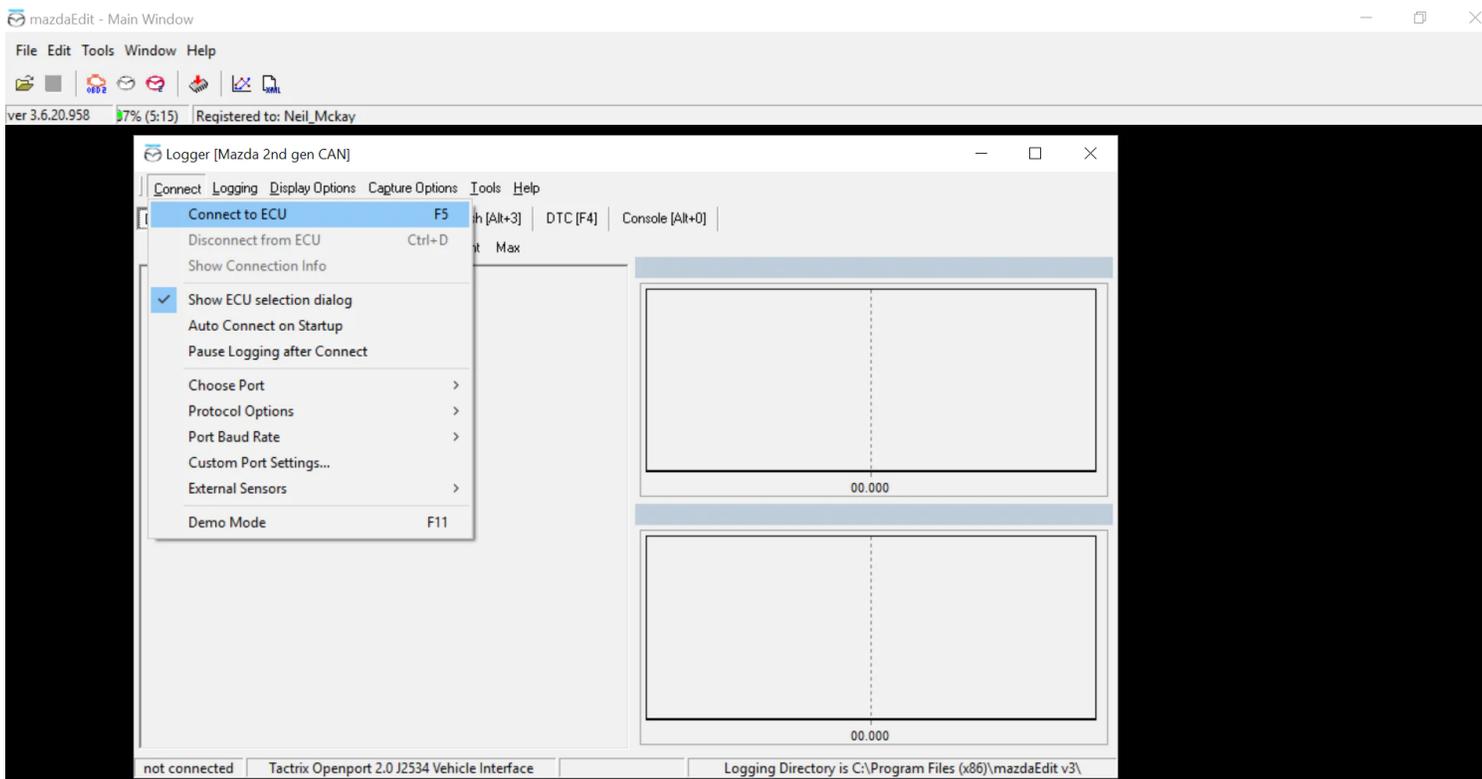
Please follow the instructions below and email your logs to me on the chain we currently have. This will allow me to compare all data.
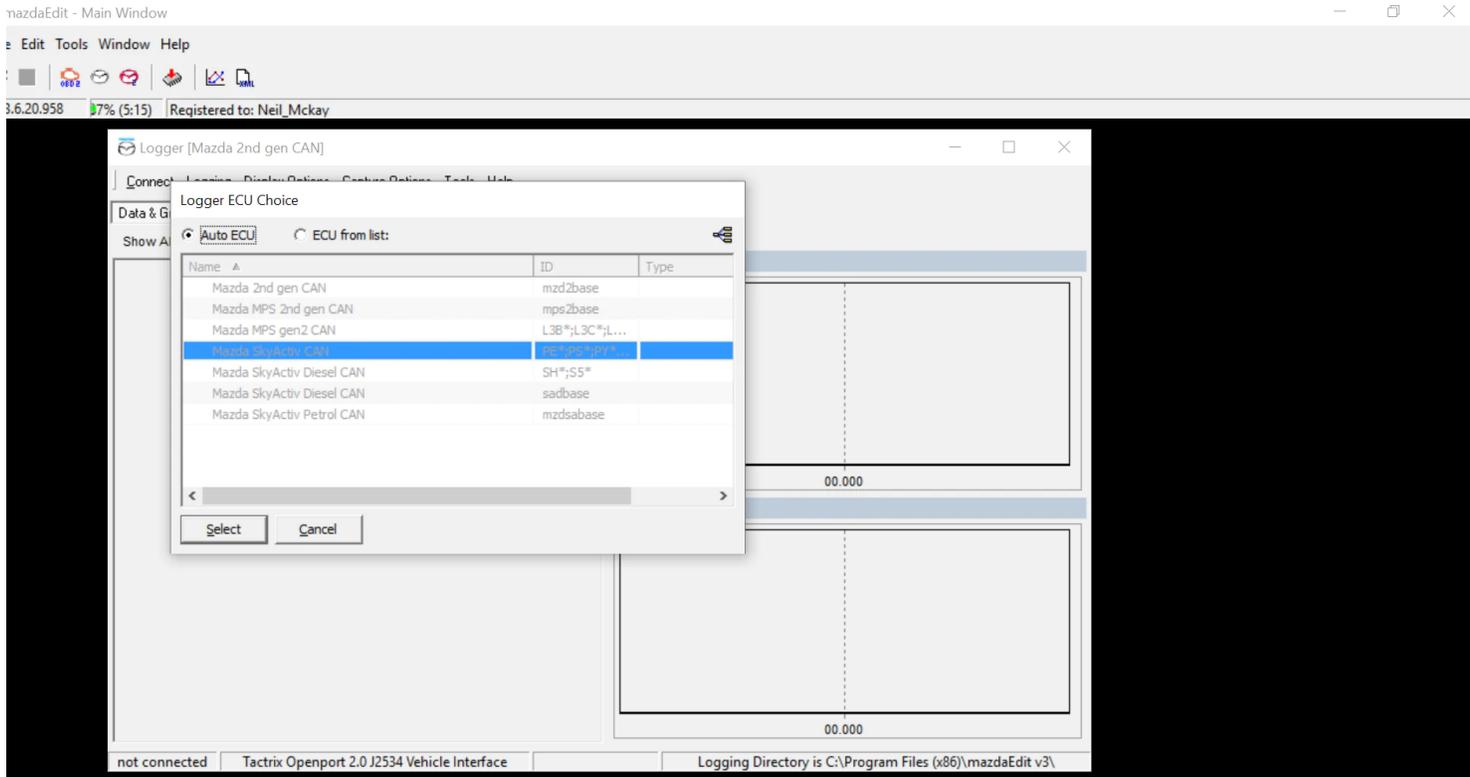
- Open Mazda 2nd gen CAN Logger from the main tool bar:
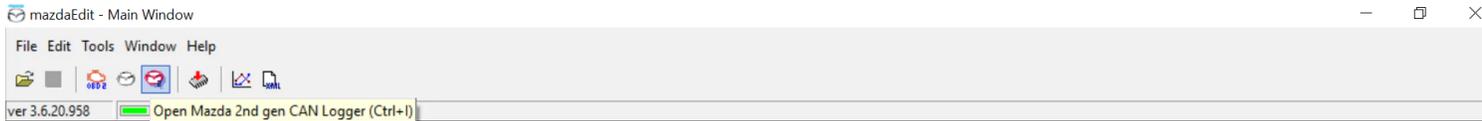
- **Connect to ECU** – Ensure OBD plug is connected and engine is running:

- **Auto ECU** – Select or choose Mazda 2nd gen CAN:

- **Logging** – Please ensure *(as well as the default parameters)* that Accelerator Angle (main) (%) and Throttle position 1 (%) are selected. To add additional parameters select show all and add a tick to any parameters required:
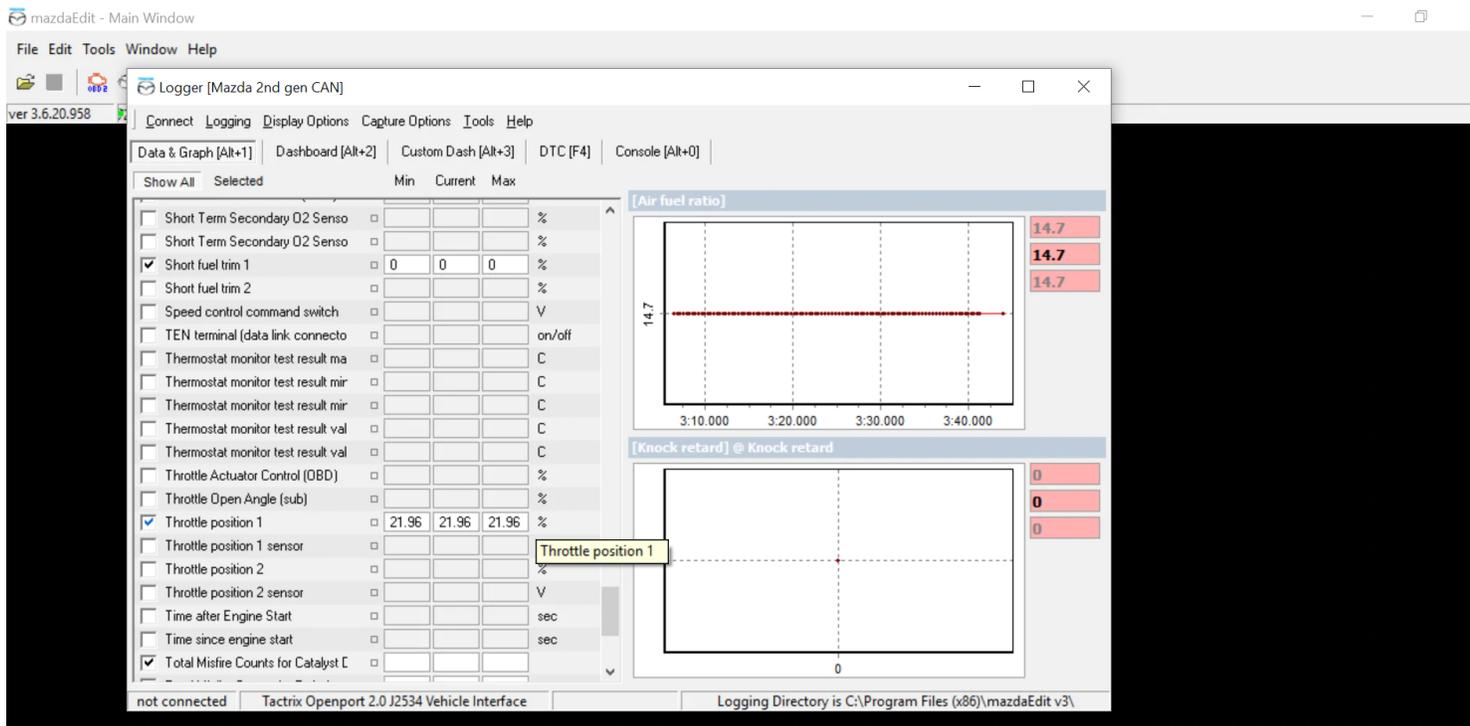

- **Log Data to File** – Click 'Log Data to File' to begin and stop logging. If you are an automatic car, please put it into manual and log as far as it lets you in the gear. I need a full throttle log in 3rd gear or 4th gear from
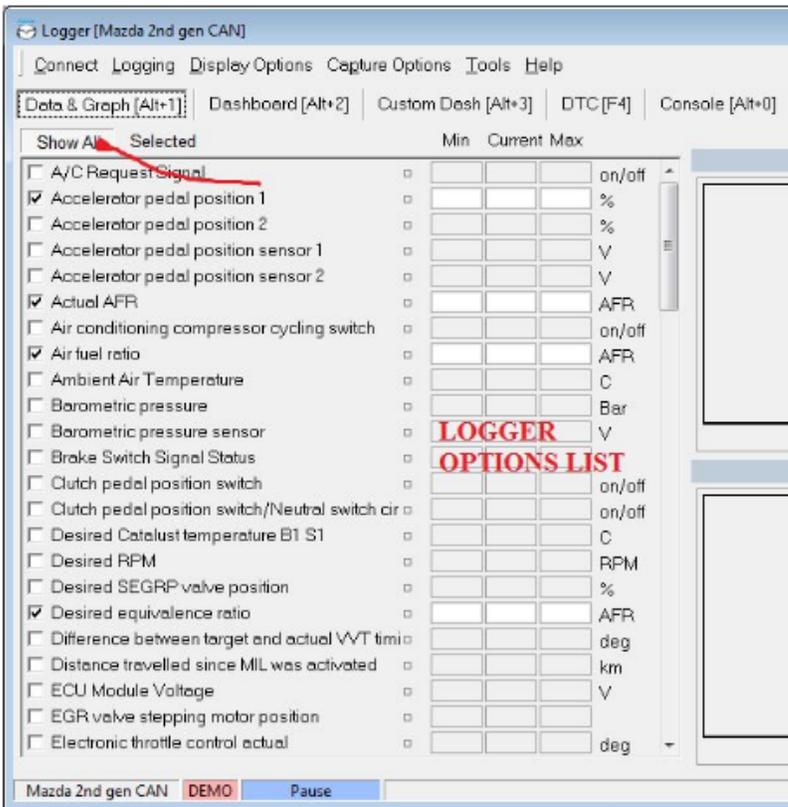
2000RPM to the rev limiter, a warm idle log for 30 seconds, and a log of you doing mixed driving for 2-3 minutes. Start logging right before each log I need, and stop right after you are done. You'll see it turn green on the bottom right if it's logging. Make sure you are not in demo mode. I should have all 3 files emailed to me for review. Do not log on the map until you have gotten 30+ miles on the last flash.
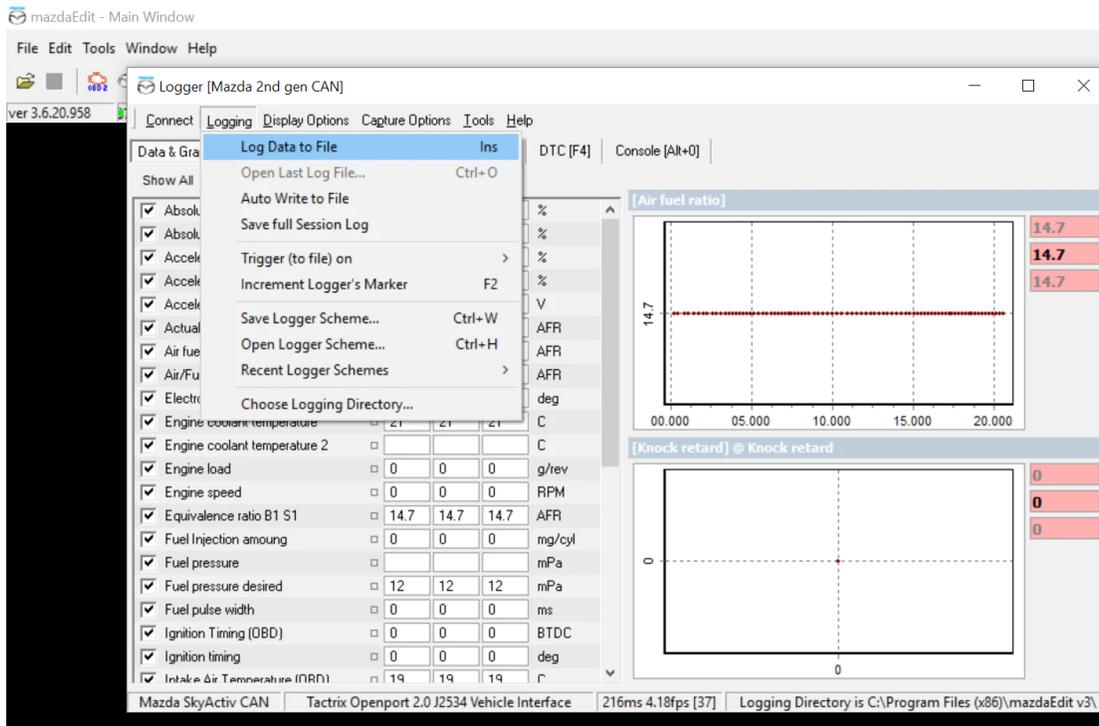
- Send me the file - all datalogs will be located in your Documents, under epifan software, mazdaedit and logs. I need the csv file, not the text file. Make sure you remember what order they are done in, and look at the date and time. Best practice is to click on the date modified so the logs are shown from newest to oldest.
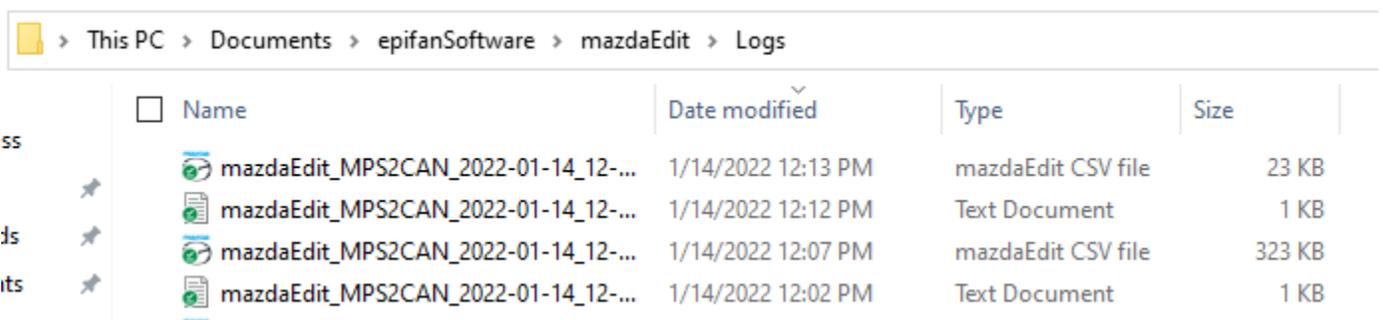
What i need logged. Please setup logger for these. Under the logged, click show all, and check off each one below.

Logger [Mazda 2nd gen CAN]

Connect   Logging   Display Options   Capture Options   Tools   Help

Data & Graph [Alt+1]   Dashboard [Alt+2]   Custom Dash [Alt+3]   DTC [F4]   Console [Alt+0]

Show All   Selected   Min Current Max

		Min	Current	Max	
☐ A/C Request Signal	☐				on/off
☑ Accelerator pedal position 1	☐				%
☐ Accelerator pedal position 2	☐				%
☐ Accelerator pedal position sensor 1	☐				V
☐ Accelerator pedal position sensor 2	☐				V
☑ Actual AFR	☐				AFR
☐ Air conditioning compressor cycling switch	☐				on/off
☑ Air fuel ratio	☐				AFR
☐ Ambient Air Temperature	☐				C
☐ Barometric pressure	☐				Bar
☐ Barometric pressure sensor	☐				V
☐ Brake Switch Signal Status	☐				
☐ Clutch pedal position switch	☐				on/off
☐ Clutch pedal position switch/Neutral switch cir	☐				on/off
☐ Desired Catalust temperature B1 S1	☐				C
☐ Desired RPM	☐				RPM
☐ Desired SEGRP valve position	☐				%
☑ Desired equivalence ratio	☐				AFR
☐ Difference between target and actual VVT timi	☐				deg
☐ Distance travelled since MIL was activated	☐				km
☐ ECU Module Voltage	☐				V
☐ EGR valve stepping motor position	☐				
☐ Electronic throttle control actual	☐				deg

LOGGER OPTIONS LIST

Mazda 2nd gen CAN   DEMO   Pause

		Min	Current	Max	
☑ Accelerator pedal position 1	☐				%
☑ Accelerator pedal position 2	☐				%
☑ Actual AFR	☐				AFR
☑ Air fuel ratio	☐				AFR
☑ Athmospheric Pressure	☐				Bar
☑ Barometric pressure	☐				Bar
☑ Battery Voltage	☐				V
☑ 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 Pressure	☐				kPa
☑ Fuel Rail Pressure (relative to manifold vacuum)	☐				kPa
☑ Fuel pressure	☐				mPa
☑ Fuel pressure desired	☐				mPa
☑ Fuel pulse width	☐				ms

Fuel pressure

☑ 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

ERRORS:

- Incorrect license / registration name. Fix: The license and registration name is created ONLY for that HARDWARE FINGERPRINT, whichisUNIQUE 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 epifan 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 epifan 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. Download fixed defs file: http://www.epifansoft.com/download/mep/mep.eed and copy it over old one (C:\Program Files\mazdaEdit Personal\) They will OVERWRITE an existing MEP file.

- 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 check sum 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 DURINGFLASHINGFix: First, attempt to reflash the same file again. 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. If the flash is successful and the vehicle does not start, attempt 1 more time to flash the same file again. If it still does not after, email me immediately for a resolved file AND / OR FLASH BACK TO YOUR STOCK FILE. NOTE: the ECU IS NOT DEAD IF THE FLASH FAILS / CAR DOES NOT START. THERE IS ALWAYS A FIX.