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

🔁 mazdaEdit - Main Window	_	D	\times
File Edit Tools Window Help			
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ver 3.6.20.958 Registered to: Neil_Mckay			
😇 Flash Utility – 🗆 🗡			
Dptions 🛛 😂 🔳 💽 🕹 🚸 🧄 Template Mazda SkyActivHI Denso 2Mb CAN ECU 💌			
Flash Log Read from ECU's flash memory (F3)			
[0.000] program version: 3.6.20.958 [731.563] Process was canceled by user			
New session started at 12/12/2016 12:54:24 : Read process with template Mazda SkyActiv-II Denso 2Mb CAN ECU			
<pre>[0.000] loading kernel from file C:\Program Files (x86)\mardaEdit v3\kernels\marda_sa2_pd.bin [0.000] 328 byte kernel read [0.078] found OpenDort 2.0 (J2534) cable [0.000] CAN init [0.000] CAN init [0.000] CAN i oxol [0.031] ECU SW: partnumber: PS6SEB000PD00600 [0.032] ECU VW: AVEN6460D10702 [0.287] requesting challenge [0.015] SecU VW: AVEN6460D10702 [0.287] requesting challenge [0.031] start reading [0.031] CAN read ram block addr: 1FFCF8 lan: 0008 [0.016] CAN read ram block addr: 1FFCF8 lan: 0008 [0.000] can: invalid cmd response (752331) [0.000] unable read command response</pre>			
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.

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File Edit Tools	Window Help					
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		Flash Log Open ECU ROM image file (Ctrl+O)				
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		Tactrix Openport 2.0 J2534 Vehicle Interface 0 bytes	11.			

• Using the same template for successful ROM reading above, Select "Write to ECU's flash memory" as shown

below follow instructions as directed.

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			D 1v3 BPM Limite A 1D	Level 0	

MazdaEdit logging:

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:

😇 mazdaEdit - Main Window	_	D)
File Edit Tools Window Help			
ver 3.6.20.958 Den Mazda 2nd gen CAN Logger (Ctrl+)			

• Connect to ECU – Ensure OBD plug is connected and engine is running:

🗑 mazdaEdit - Main Window				— D
File Edit Tools Window Help				
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ver 3.6.20.958 \$7% (5:15) Registered to: Neil_Mckay				
🔂 Logger [Mazda 2nd gen CAN]		- 0	\times	
Connect Logging Display Options Capture Options I	ools <u>H</u> elp			
Connect to ECU F5	[Alt+3] DTC [F4] Console [Alt-	•0]		
Disconnect from ECU Ctrl+D	Мах	1		
Show Connection Info				
Show ECU selection dialog				
Auto Connect on Startup				
Pause Logging after Connect				
Choose Port >				
Protocol Options >				
Custom Port Settings				
External Sensors >		00.000		
Demo Mode F11				
		00.000		
not connected Tactrix Openport 2.0 J2534 Vehicle	Interface	Logging Directory is C:\Program Files (x86)\mazdaEc	lit v3\	

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

mazdaEdit - Main Window						o x
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3.6.20.958 \$7% (5:15) R	Registered to: Neil_Mckay					
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Data & Gi	Logger ECU Choice					
Show Al	Auto ECU C ECU from list:		-			
	Name 🔺	ID	Туре			
	Mazda 2nd gen CAN	mzd2base				
	Mazda MPS 210 gen CAN Mazda MPS gen 2 CAN	L3B*;L3C*;L				
	Mazda SkyActiv CAN	PE*/PS*/PY*				
	Mazda SkyActiv Diesel CAN	SH*;S5*				
	Mazda SkyActiv Diesel CAN Mazda SkyActiv Petrol CAN	mzdsabase				
	<			00.000		
	Select Cancel					
		L		00.000		
not conne	ected Tactrix Openport 2.0 12534 Vehicle Interface		Log	aing Directory is C:\Program Files (x86)\mazdaEdit v3\		
			209	, generally is entrogrammes (nos) (mazabean vo)		

• 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:

dit - Main Window				-	Ō
Tools Window Help					
🔝 🤄 😇 Logger [Mazda 2nd gen CAN]				- 🗆 X	
8 2 Connect Logging Display Options	Capture Options	Tools Held	0		
		10000 <u>11</u> 00			
Data & Graph [Alt+1] Dashboard [Alt-		ash (Alt+3)		sole feit+n]	
Show All Selected	Min Cum	ent Max			
Short Term Secondary 02 Senso			%	Air fuel ratioj	
Short Term Secondary 02 Senso			%	14.7	
Short fuel trim 1	0 0	0	%	14.7	
Short fuel trim 2			%	14.7	
Speed control command switch			V		
TEN terminal (data link connecto			on/off	÷	
Thermostat monitor test result ma			С		
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Throttle Actuator Control (OBD)			%	0	
Throttle Open Angle (sub)			%	0	
Throttle position 1	21.96 21.9	96 21.96	%	0	
Throttle position 1 sensor			Throttle positio	1	
Throttle position 2			%		
Throttle position 2 sensor			V		
Time after Engine Start			sec		
Time since engine start			sec		
✓ Total Misfire Counts for Catalyst E					

• 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.

> This PC > Documents > epifanSoftware > mazdaEdit > Logs										
			Name	Date modified	Туре	Size				
SS			mazdaEdit_MPS2CAN_2022-01-14_12	1/14/2022 12:13 PM	mazdaEdit CSV file	23 KB				
			mazdaEdit_MPS2CAN_2022-01-14_12	1/14/2022 12:12 PM	Text Document	1 KB				
15	Я		mazdaEdit_MPS2CAN_2022-01-14_12	1/14/2022 12:07 PM	mazdaEdit CSV file	323 KB				
its	*		👼 mazdaEdit_MPS2CAN_2022-01-14_12	1/14/2022 12:02 PM	Text Document	1 KB				

What i need logged. Please setup logger for these. Under the logged, click show all, and check off each one below.

Connect Logging Display Options Capture C	ptions]	ools <u>H</u> elp		
Data & Graph [Alt+1] Dashboard [Alt+2] Cu:	stom Dasi	h [Alt+3] D	TC[F4]	Console [Alt+0
Show Ale Selected	Min	Current Me	IX.	
C A/C Request Signal	0		on/off	
Accelerator pedal position 1	0		%	
C Accelerator pedal position 2	0		%	
C Accelerator pedal position sensor 1	0		V	E
C Accelerator pedal position sensor 2	0		V	
Actual AFR	0		AFR	
F Air conditioning compressor cycling switch	0		on/off	
I Air fuel ratio	0		AFR	
I Ambient Air Temperature	0		С	
E Barometric pressure	0		Bar	
E Barometric pressure sensor	• LO	GGER	V	
E Brake Switch Signal Status	· OP	TIONS	IST	
Cutch pedal position switch	0	10100	on/off	
E Clutch pedal position switch/Neutral switch cir	D		on/off	
C Desired Catalust temperature B1 S1	0		C	
C Desired RPM	0		BPM	
Desired SEGRP valve position	0		%	
Desired equivalence ratio	0		AFR	
☐ Difference between target and actual VVT timi	0		dea	
Distance travelled since MIL was activated	0		km	
ECU Module Voltage	0		V	
EGR valve stepping motor position	0			
Electronic throttle control actual	0		dea	+

~	Accelerator pedal position 1	0	2 ^
~	Accelerator pedal position 2		
~	Actual AFR		AFR
7	Air fuel ratio		AFR
7	Athmospheric Pressure		Bar
₹	Barometric pressure		Bar
~	Battery Voltage		V
~	Commanded EGR		2
~	Desired equivalence ratio		AFR
₹	Difference between target and actual VVT timing		deg
7	ECU Module Voltage		V
~	Electronic throttle control actual		deg
7	Engine coolant Temperature		C
\mathbf{r}	Engine coolant temperature		C
~	Engine coolant temperature 2		C
~	Engine load		2 2
~	Engine speed		BPM
\mathbf{r}	Fuel Injection amoung		mg/cyl
~	Fuel Pressure		kPa
~	Fuel Rail Pressure (relative to manifold vacuum)		kPa
₹	Fuel pressure		mPa
4	Fuel pressure desired Fuel pressure		mPa
~	Fuel pulse width		ms

				_
~	Fuel pressure		mPa	•
~	Fuel pressure desired		mPa	
~	Fuel pulse width		ms	
~	Fuel system status (OL/CL)			
~	1-Stop Status			
~	Ignition timing		deg	
~	Intake air temperature		С	
~	Intake air temperature 2		С	
~	KCS Learning Value		deg	
~	Knock retard		deg	
~	Long fuel trim 1		%	
~	Long fuel trim 2		2	ŝ
~	Manifold Air temperature		С	l
~	Manifold absolute pressure		Bar	l
~	Mass air flow		g/s	l
~	Mass air flow sensor	·	v	l
~	Oil Temperature		С	l
~	Primary Wastegate Duty		%	l
~	Short fuel trim 1		%	l
~	Short fuel trim 2		%	l
~	Throttle position 1	Short fuel trim 2		2
~	Throttle position 2		%	T
~	WT Exhaust Actual Position		deg	l
~	WT Exhaust Desired		deg	
~	WT 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.