Hirschmann ® Koxha

Trionic 8 Cloning



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PREPARATION

Before using your OBDLink SX/EX for the first time, it is necessary that you install and setup the drivers correctly. Otherwise, reads and writes (flashing) can take significantly longer or even fail.

DRIVERS

First, download the following file: <u>https://ftdichip.com/wp-content/uploads/2020/07/CDM21228_Setup.zip</u> Unzip it to any location and run "*CDM21228_Setup.exe*". Just follow the installer.

Once the installation is complete, plug in your OBDLink SX/EX. If the driver has been installed correctly, the LED on the cable should light up green. Before we can start reading and writing, however, additional driver settings have to be made.

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To do this, open the "*Control Panel*". Select "*Hardware and Sound*". Then open the "*Device Manager*", which should be visible right under "*Devices and Printers*". Select it. A new window should open, which looks like this:

🛔 Device Manager	_	×
File Action View Help		
V 🗄 DESKTOP-D1F74N9		 ^
> 4 Audio inputs and outputs		
> 🍃 Batteries		
> 🚯 Bluetooth		
> 👰 Cameras		
> 🚽 CAN Hardware (Kvaser)		
> 🛄 Computer		
> 👝 Disk drives		
> 🔙 Display adapters		
> 📓 Firmware		
> 🐺 Human Interface Devices		
> 🔤 Keyboards		
> III Mice and other pointing devices		
> 🛄 Monitors		
> 🚽 Network adapters		
> 📮 Ports (COM & LPT)		
> 🖻 Print queues		
> 🚍 Printers		
> Processors		
> 🛐 Security devices		
> 📲 Software components		
> Software devices		
> 📢 Sound, video and game controllers		
> 🍇 Storage controllers		
> 🏣 System devices		
🔨 🧂 Universal Serial Rus controllers		¥

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Under the menu item *"Ports (COM & LPT)"*, a device named *"USB Serial Port (COM)"* should appear. Right click on it and choose *"Properties"*. A new window opens again. There, switch to the *"Port Settings"* tab and configure them as shown below:

USB Serial Port (COM4) Properties	\times
General Port Settings Driver Details Events	
Bits per second: 921600 ~ Data bits: 8 ~	
Parity: None ~	
Stop bits: 1 ~	
Flow control: None ~	
Advanced Restore Default	22
OK Cance	el

Click on *"OK"* and call up the properties again, switch back to the *"Port Settings"* tab and this time click on *"Advanced..."*.

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This window should appear:

Advanced Settings for COM4			?	×
COM Port Number: COM4 USB Transfer Sizes Select lower settings to correct perfor Select higher settings for faster perfo Receive (Bytes): Transmit (Bytes):	mance problems at low mance. 4096 ~ 4096 ~	v baud rates.	OK Cance Default	l ts
BM Options Select lower settings to correct respon	ise problems.	Miscellaneous Options Serial Enumerator		
Latency Timer (msec):	2 ~	Serial Printer Cancel If Power Off Event On Surprise Removal		
Timeouts Minimum Read Timeout (msec):	0 ~	Set RTS On Close Disable Modem Ctrl At Startup Enable Selective Suspend		
Minimum Write Timeout (msec):	0 ~	Selective Suspend Idle Timeout (secs): 5	\sim

Here you only change the "*Latency Timer (ms)*". We recommend to set this to **2**. Otherwise, data might get lost during the transfer with the TrionicCANFlasher - this will then abort the operation.

Check the settings one last time.

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TRIONICCANFLASHER

After you have successfully set up the interface, we now turn to the *"TrionicCANFlasher"*. You can obtain it via the following link: <u>https://txsuite.org/download/trionic-can-flasher/</u> or obtain a copy from our site <u>https://hirschmann-koxha.de/en/informations/downloads/</u>

Install the "*TrionicCANFlasher*" and open it. Select your corresponding control unit under "*ECU Type*", then it should look like this:



Now click on "*Settings*", under "*Adapter type*" select the "*OBDLink SX*". Under "*Adapter*" select the corresponding COM port.

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You can find this in the device manager. This is often noted behind the device name. You can set the *"Com speed"* to 1Mbit. The configuration should look somewhat like this:

Settings	×
Adapter type	Adapter
OBDLink SX \sim	COM3 \checkmark
	Com speed
Enable logging	1Mbit 🗸
Only P-Bus connection	✓ Use Legion bootloader
✓ Use flasher on device	Remember dimensions
Advanced features	Inter-frame delay
I know what I am doing	1200 (Default) \sim
Unlock system partitions	✓ Use last address pointer
Unlock boot partition	Skip certain delays
Auto update checksum	
Verify checksum before flash	
Cancel	Save

Then confirm your settings with the *"Save"* button, otherwise the settings will not be saved. The *"TrionicCANFlasher"* is thus also configured.

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READ

Go into your vehicle and connect the interface to the OBD socket in the driver's footwell.



Now turn the ignition key to the "*ON*" position and switch off all stuff such as the radio, headlights, seat heating, air conditioning, etc. Now plug the cable into your laptop and open the "*TrionicCANFlasher*".

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The following window should open:

Speichern unter					×
\leftrightarrow \rightarrow \checkmark \uparrow	> Dieser PC > Dokumente			ן" אַ	Ookumente" durchsuchen
Organisieren 🔻 Neuer	Ordner				目 - 🤫
Nextcloud - adm	Name	Änderungsdatum	Тур	Größe	^
	Adobe	27.03.2020 15:14	Dateiordner		
> 🥺 Nextcloud - rey@	AFRMaps	20.09.2020 22:34	Dateiordner		
🗸 💻 Dieser PC	🛅 Benutzerdefinierte Office-Vorlagen	10.02.2020 17:18	Dateiordner		
> 🔀 Bilder	🗖 DbgLogs	14.10.2020 22:44	Dateiordner		
> 🧾 Desktop	🗖 Downloads	03.07.2021 03:35	Dateiordner		
> 🗧 Dokumente	Tax Fax	22.02.2020 16:15	Dateiordner		
> 🚽 Downloads	🧰 Gescannte Dokumente	28.07.2020 15:02	Dateiordner		
· · · · · · · · · · · · · · · · · · ·	HeidiSOI	25 07 2020 22.24	Dateiordner		~
Dateiname:					~
Dateityp: Bin file	s (*.bin)				~
 Ordner ausblenden 				Speid	chern Abbrechen

Enter any file name and select a storage location. This is the file we are going to need for all future procedures. This process will take 3-8 minutes. Writing also works in this way (just click *"Flash ECU"* and select the file you want to flash).

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REPLACING THE ECU

As soon as this process is complete, switch the ignition off again and remove the key. Now open the hood and go to the engine compartment.

Remove the engine cover:



There are three Torx T30 screws.

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After the plastic cover is removed, the engine control unit should be in the following location:



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Then loosen the two connectors the following way:



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Then remove the four 10mm screws:



Now insert the new control unit in reverse order.

Note:

It is extremely important to connect the ground strap! Failure due to so will prevent any communication with the ECU.

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FLASH

Get back in your vehicle and prepare everything just as you did when you read it out.

Once you opened the *"TrionicCANFlasher"*, go to *"Settings"* and activate the option *"I know what I am doing*" and *"Unlock system partitions"* under *"Advanced features"*.

Settings	×
Adapter type	Adapter
OBDLink SX \sim	COM3 \checkmark
	Com speed
Enable logging	1Mbit \checkmark
Only P-Bus connection	Use Legion bootloader
✓ Use flasher on device	Remember dimensions
Advanced features	Inter-frame delay
✓ I know what I am doing	1200 (Default) \sim
Unlock system partitions	✓ Use last address pointer
Unlock boot partition	Skip certain delays
Auto update checksum	
Verify checksum before flash	
Cancel	Save

Confirm the new settings by clicking on "Save".

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Now click on "Flash ECU" and select your previously read out file.

During the procedure it can happen that the following error messages appear in the SID:





This is perfectly normal and nothing to worry about.

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As soon as the flash is completed, the following information is usually displayed:

		TrionicCANFlasher v0.1.68.0		//902210		
	T8Suit	15:50:36.607 - Starting bootloader 15:50:37.211 - Comparing md5 for s 15:50:39.950 - Partition 8: Tagged 15:50:39.987 - Patching mask accorr	elective erase for erase and write ing to current settings		Read ECU DTC	Past-EC.
LQAsync .	TTSI	15:50:40.168 - Eresing device 6 15:50:41.211 15:50:43.261 15:50:43.315	partitions for erase and flash		Edit Parameters	Gel BCAU rio
		15:50:48.408 - Erase completed afte 15:50:48.441 - Programming FLASH 15:51:44.512 - Verifying md5. 15:51:44.547 - Lower partitions. 15:51:45.182 - Done!	r 8 seconds	rechmo	nh	Recover ECU
Workshop ormation System	My LastP	15:51:45.215 - App data 15:51:46.428 - Done! 18:51:46.420 - Proposing to MCP 15:51:46.497 15:51:47.334 15:51:47.334	LTII 107	i sciilia k	Koxh	a
Electronic Parts	TeamVie	15:51:48:133 15:51:48:261 - Version string: R10 15:51:43.292 - FLASH upload complete 15:51:48:324 - Requesting Doctoader 15:51:48:300 - Session ended 15:51:48:303 - Operation done	2234 d and verified exit			
Catalogue	4	1555148.690 - Connection Recent and the	sys2.png			

Pay close attention to the *"MCP firmware information"* and the *"Version string"* below. If your vehicle is not a facelift (model years up to 2006), you must have the MCP R1.0 on it. For vehicles of model year 2007 and newer, the MCP R1.1 is required.

This can be flashed afterwards.

You can find the necessary files on our website. To flash the MCP, change under *"ECU Type"* to "*Trionic 8: MCP (Experimental)"*.

Then click on "*Flash ECU*" and select the correct file for your MCP.

This process should be completed within 30-60 seconds. Turn the ignition off again and remove the key. Plug it in again and start the vehicle. If everything went well, the vehicle starts.

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F.A.Q.

Q.: Is there also a video guide on how to replace the control unit? A.: <u>https://www.youtube.com/watch?v=MppFbolPUB0</u>

Q.: Can you help me with the setup and the procedure in general?A.: Of course. We can set up the interface with you via remote maintenance.Contact us beforehand and we will schedule an appointment. Please note, however, that an internet connection is required.

Q.: Is there anything I should consider to avoid a bad flash?A.: We generally recommend charging your car battery beforehand or at least checking for sufficient residual voltage.

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