



Manual

RexXer EVO „User“

Update: February 2018



Contents

Delivery of the RexXer EVO „User“	3
Precaution	4
Product overview	7
Operation of the RexXer EVO „User“	8
READOUT AND SAVE THE ORIGINAL-MAPPING	10
LOAD AND FLASH THE TUNING-MAPPING	11
RESET PARAMETER AFTER FLASHING PROCESS	14
Service- & Diagnostic functions	16
Installation and functions of the software	18
INSTALLATION	18
INSTALLING THE USB DRIVER	20
DELETE DATA / LICENSES	20
LANGUAGE SELECTION	21
AVAILABLE VEHICLES	22
LOG-File	23
ECU types	24
FAQ	25

Delivery of the RexXer EVO „User“

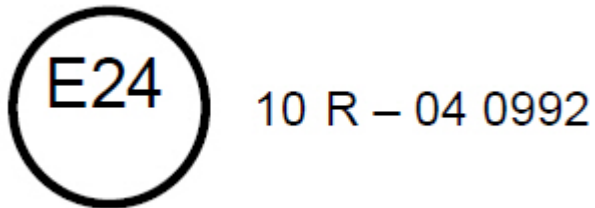
The following four positions are included with the RexXer EVO User:

- 1) The RexXer EVO User - the programmer, which allows communication with the ECU of your motorcycle.
- 2) USB 2.0 connection cable, type A-Mini B (5-pin) to connect the RexXer EVO User to your computer.
- 3) Serial interface cable for connecting the RexXer EVO User to your service plug on your bike in order to enable communication with the ECU.
- 4) USB-stick with software for communication between computer and RexXer EVO User, demo movies, manual and additional document's.



Precaution

Declaration of conformity



The product meets the essential requirements of Regulation N.10 ECE. The mark is located on the rear side of the tool. The product is in conformity with ECE standards only if used with cables and accessories supplied and according to what specified in the user guide.



The device complies with Part 15 of the FCC Rules (47 CFR). The mark is located on the rear side of the tool. The product is in conformity with FCC standards only if used with cables and accessories supplied and according to what specified in the user guide.

Safety

This product has been designed with the highest concern for safety. However, any electrical device, if used improperly, has the potential for causing fire, electrical shock or personal injury. To help ensure accident-free operation, follow these guidelines:

- Observe all warnings, precautions and instructions.
- Stop use, unplug the USB cable from the PC and disconnect any other cables immediately if the device functions in an abnormal manner, produces unusual sounds or smells, or becomes too hot to touch.
- Never disassemble the product or accessories. Use the RexXer EVO User and accessories according to the instructions and guidelines provided in the user guide. No authorization for the analysis or modification of the product, or the analysis or modification of the software, or the analysis of its circuit configuration, is provided. Disassembling will void the product warranty and may be dangerous.

Use and handling

- Do not use the tool near water.
- Use only cables/accessories supplied by RexXer ECU Tuning or their partner companies or by an authorized dealer.
- Do not expose the tool or accessories to high temperatures, high humidity, or direct sunlight.
- Do not leave the product or accessories in a car with the windows closed (particularly in summer)
- Do not expose the product or accessories to dust, smoke, or steam.
- Do not allow liquid or small particles to get into the product or accessories.
- Do not place the product or accessories on surfaces that are tilted, unstable or subject to vibration.
- Do not drop or step on the product or accessories, and do not subject the device to strong physical shock.
- Do not put heavy objects on the product or accessories.
- Do not touch or insert foreign objects into the connectors of the tool or accessories.

LCD Screen

- The LCD screen is made of glass and may crack if subjected to excessive force.
- Pixels that are not lit or are continuously lit may appear in certain locations on the LCD screen. The possible occurrence of such spots is a normal occurrence associated with LCD screens and is not a sign of a malfunction.
- Direct exposure to sunlight may damage the product's LCD screen.
- When using the product in a cold environment, you may notice shadows on the graphics or the screen may appear darker than usual. This is not a malfunction, and the screen will return to normal when the temperature goes up.

Cleaning

- **Cleaning the exterior surface excluding the LCD screen:** Wipe gently with a soft cloth. Do not use solvents or other chemicals to clear the exterior surface of the RexXer EVO.
- **Cleaning the LCD screen:** Wipe gently with a soft cloth.
- **Cleaning the connectors:** Do not use the product if the connectors are not clean. Remove the dirt with a dry cloth.

WEEE Directive

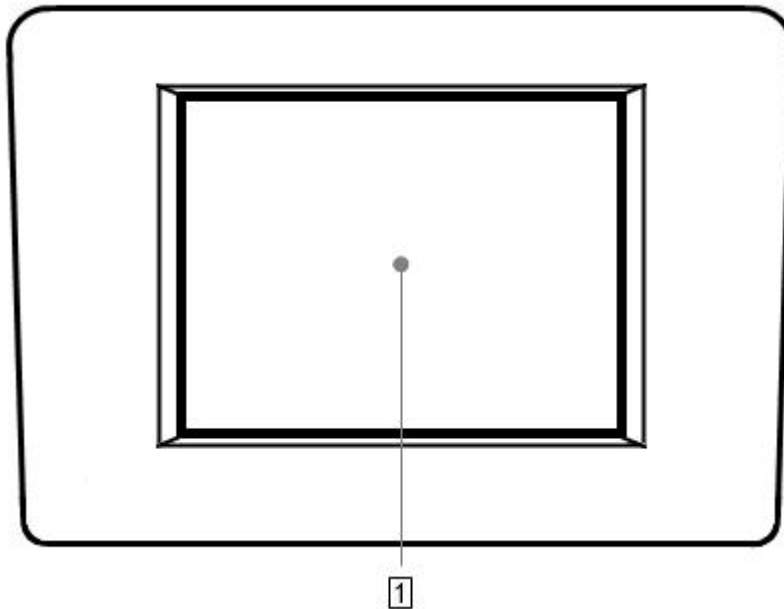


This symbol on the product or its packaging indicates that this product shall not be treated as household waste. In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

Note: Always keep the original packaging. In case of required servicing of the product, the tool must be returned with all accessories.

Product overview

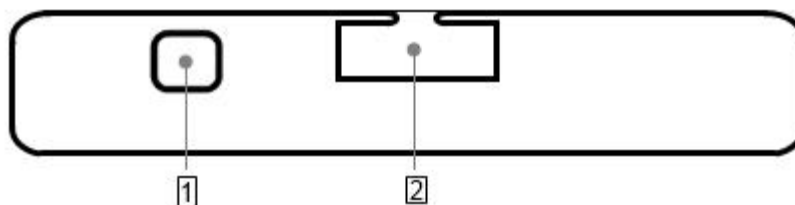
RexXer EVO User front side:



1) LCD Display

Touchscreen-Display to use the recorded device software.

RexXer EVO User surface:



1) USB Port

To connect the RexXer EVO User with the computer.

2) Serial Port

To connect the serial interface cable with the RexXer EVO User.

Operation of the RexXer EVO „User“

WARNING! Before using this product, first read this manual carefully and retain it for future reference. To avoid electrical shock, do not open the case when the tool is connected. Refer any required servicing of product to RexXer ECU Tuning only!

Makes sure that the battery of your motorcycle is fully loaded. In models where the light burns continuously during the programming process, you can optionally use a battery charger. But make absolutely sure that this is a linear charger, which never builds up voltage spikes. The RexXer EVO User could be damaged.

Note: When delivered the RexXer EVO User is ready for service and can be used immediately. The connection with the supplied software is in this step optional. If you want to connect the RexXer EVO User later, you need an active internet connection.

The RexXer EVO User can be delivered in 2 different variants:

- 1) **Pre-installed with the corresponding Tuning-Mapping(s)**
- 2) **Without the corresponding Tuning-Mapping(s)**

Please refer to your delivery note which variant applies to you.

In most cases the RexXer EVO User will be delivered empty, without pre-installed Tuning-Mapping. The reason is, that there is not every Tuning-Mapping compatible. We often need the readout Original-Mapping from motorcycle to create the Tuning-Mapping.

The following describes the procedure of both variants.

- 1) Connect the supplied serial interface cable to the RexXer EVO User.
Please not connect the USB cable in addition to the RexXer EVO User*!
- 2) Connect the other end of the serial interface cable to the diagnostic connector/service plug (OBD) of your motorcycle.
- 3) Now connect the positive terminal of the battery with the red-coded and the negative terminal with the black-coded alligator clip (not available/necessary for all interface cables).

Warning: If the polarity is wrong the device will be destroyed by overvoltage!!!

4) The display of the RexXer EVO User then automatically turns on and you can select from the menu the following 4 groups:



Figure 1: Main menu: By connection the RexXer EVO User with your motorcycle over OBD this main menu will be opened automatically.

- **Tuning** - This menu group shows you the Tuning menu to read (copy) the ECU and also to flash (write) later.

- **Setup** - This menu point grants you access to a further sub menu. If you choose “Calibration”, you can adjust the sensibility of the Touch display. Please follow the accompanying introductions of the device. Further you can change the language of the RexXer EVO User in the submenu “Language”. In the submenu “Features” you can rotate the display by 180 degrees and you can change the brightness of the device Display.

- **Diagnosis** - This menu group shows you the service functions of the RexXer EVO User.

- **Information** - This menu group shows you device specific information such as the serial number, currently loaded firmware etc. of your RexXer EVO User.

Readout and save the Original-Mapping

5) Press “Tuning” and select your brand and model in the menu. Follow the instruction of the device and read (copy) the original-mapping of the ECU**.

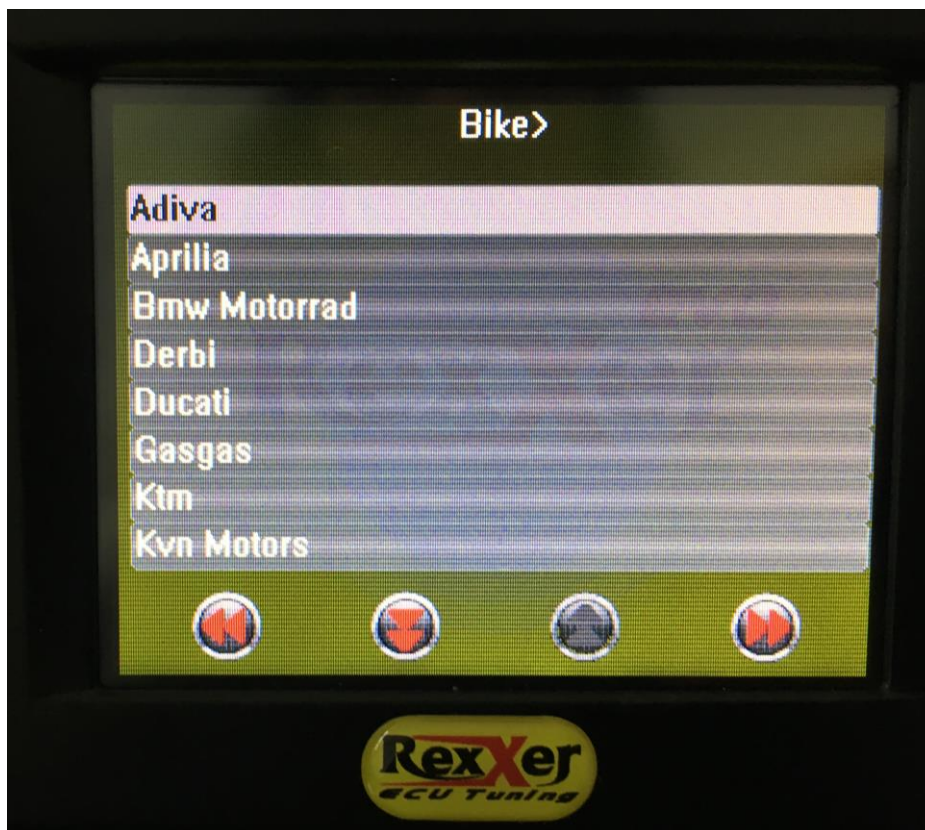


Figure 2: vehicle selection: In this window you have to choose your connected vehicle. Confirm your choice with the right pointing arrow. First select the brand and after that the model.

Notes:

***Do not take the RexXer EVO User via the USB cable of your computer /notebook and simultaneously connect over the serial interface cable with the bike, otherwise briefly flies too much tension in the device and there is damage!**

****The reading of the original mapping may take up to 45 minutes (K-Line), depending of the ECU type! The reading starts prompt automatically after the confirmation; you do not have to be present the entire time.**

Variant 1) pre-installed Tuning-Mapping:

6) After reading out successfully the Original-Mapping, display shows the function **write**. Here you can choose the shown Tuning-Mapping and flash the ECU.

Variant 2) no pre-installed Tuning-Mapping:

6) After reading out successfully the Original-Mapping, you have to install the software **RexXerEVOUser**. Now connect the RexXer EVO User to the computer and save the Original-Mapping with the function **Download Data**.

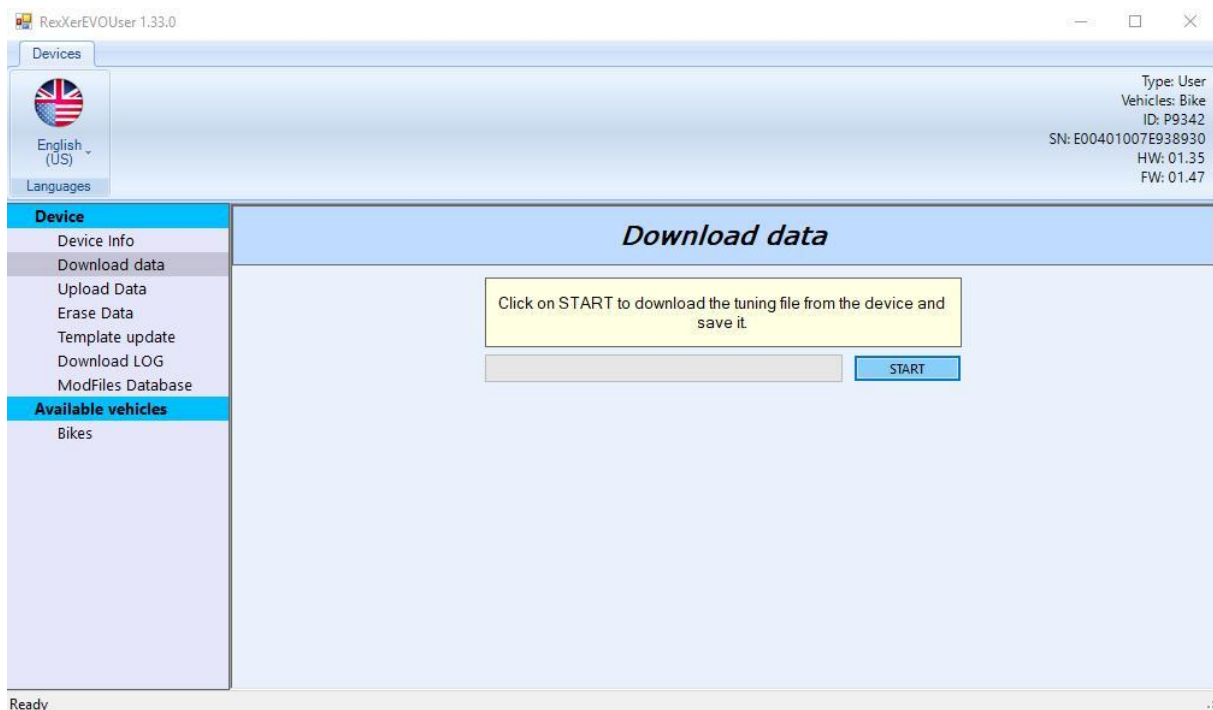


Figure 3: Download Data: After reading out the Original-Mapping with your RexXer EVO User, you can download it here and save it on your computer.

Load and flash the Tuning-Mapping

7) Now send this file with the extension ".usr" via E-mail to your dealer or directly to us. Please give full details of tuning changes! (exhaust changes, air filter, engine modifications...) Based on these information, we can create the corresponding Tuning-Mapping.

Note: The creation of the Tuning-Mapping may take 24 hours depending on order situation. Please notice, that on weekends and holidays the processing may take longer.

8) You will get the corresponding Tuning-file via E-mail back. This file contains the Original-Mapping and the Tuning-Mapping(s). Save this “.usr” file on your computer.

9) Now open the software and load the Tuning-file via the menu item **Upload Data** into your RexXer EVO User.

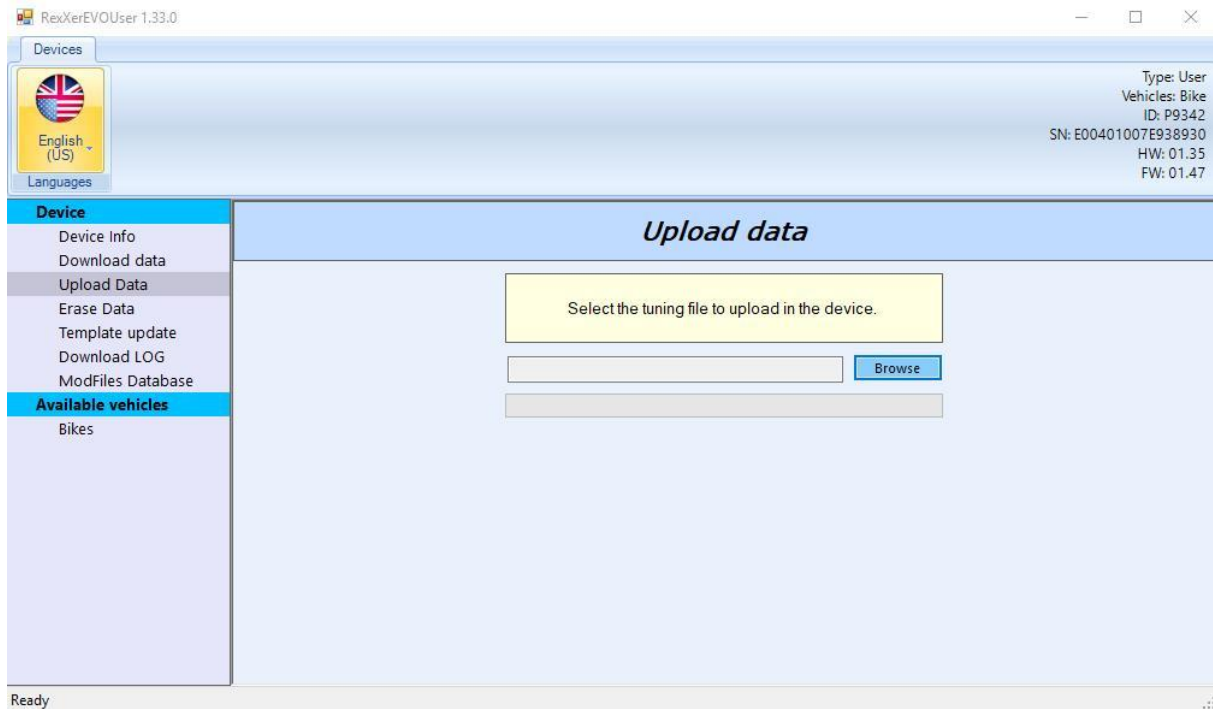


Figure 4: Upload Data: Here you can choose the new Tuning-file (.usr). After that you can load this file up on your RexXer EVO User.

10) After the transfer has been completed, the Original- and Tuning-Mapping are stored in the device memory of your RexXer EVO User. Now you can disconnect the Device from the USB-cable.

11) Finally connect the RexXer EVO User with the serial interface cable again and choose the menu item **Tuning**. On the display the following message appears: “Continue with writing of the file?” Confirm with “Yes”. After that you can select the Tuning-Mapping for flashing (write) the ECU.

At this point, the original mapping will be overwritten by the Tuning-Mapping!

Follow the further introductions of the RexXer EVO User to exit the programming. You have now the ability to switch between Original- and Tuning-Mapping as often you wish.

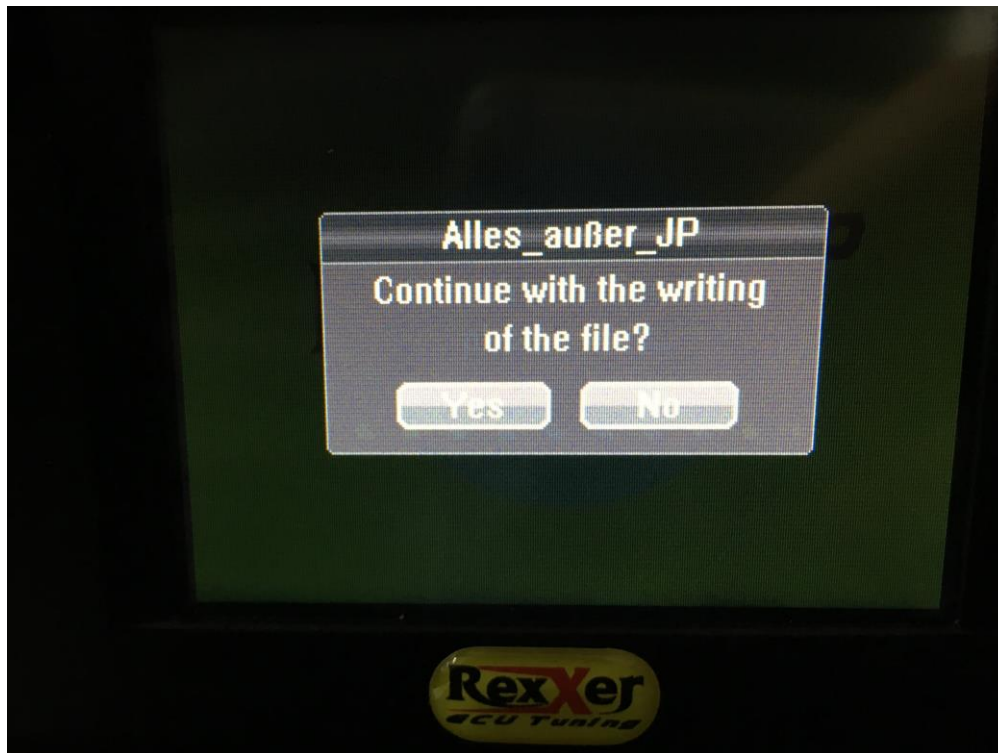


Figure 5: write procedure: After the new .usr-file is transferred into the RexXer EVO User connect the device and the vehicle with the serial interface cable. By using the menu item "Tuning" you can flash the ECU. Answer the following question "Continue with the writing of the file?" with "Yes".



Figure 6: Menu Tuning: Here is every Mapping listed which is stored in the device memory. The marked (*) Mapping is currently in the ECU.

IMPORATANT: The RexXer EVO User gets “married” with the vehicle identification number (VIN) stored in the engine control unit (ECU). This enables the device to communicate with the ECU also after an Update with a Workshop tester or another programming device. The Tuning-Mapping will be overwritten by an update, after that the Tuning-Mapping can be re-transferred with the RexXer EVO User at any time. (except ECU-Type Eldor EM 2.0!)

However, we recommend to reflash the Original-Mapping **before** each service/inspection.

By using a Mapping without lambda deactivation, we recommend to disconnect the lambda-plugs **after** the writing process!

Reset parameter after flashing process

At the end of each programming and after each reading of a mapping, it's necessary to make the TPS reset and the sensor parameters reset (not supported by all ECU types!). These functions can be found in the menu item **Diagnosis**. Select the menu item **My Vehicle**.

These service functions are not supported by all ECU types! For example, the ECU Siemens M3C, leads from the TPS reset automatically! KTM models just let run for 15 minutes while standing without throttle movement after programming. The TPS reset and the sensor parameters will be done automatically during this time.

Please contact your dealer for any questions.

Start the engine and enjoy the new driving experience!

PLEASE NOTE: The votes of available tunes for the RexXer EVO User were performed on a professional dyno. To ensure maximum performance, it should be noted that the tunes used with the constellation of the vehicle corresponds to the changes made. Furthermore, you should be noted that the climatic conditions of your region can play a role in the outcome to be achieved.

MAINTENANCE: No maintenance is required.

NOTE: When using RexXer products, the Vehicle Type Approval will expire and thereby the insurance cover. It's no longer permitted to use the vehicle on public roads!

CAUTION: It is prohibited to make any changes and/or improper interventions to the system. RexXer Tuning GmbH disclaims any responsibility that is due to incorrect, improper or fraudulent way of dealing with the system. With any kind of tampering, or improper use of the device will void the liability and the warranty expires.

Service- & Diagnostic functions

Select the menu group **Diagnostic** and press **my vehicle**, if you want to use the service functions of your RexXer EVO User. This will take you to the specific motorcycle choice, where you have to choose the right model to use the service-/diagnostic functions.

If you have not yet changed the mapping by using the RexXer EVO User, the device could not recognize your vehicle, in that case select the menu item **vehicle list**. In that menu point you can select your vehicle directly. Consequently, the RexXer EVO User is able to use the service-/diagnostic function without changing the mapping in the ECU before.

NOTE: The menu item *EOBD* is deactivated because it isn't provided for motorcycles.



Figure 7: Menu item Diagnostic: For using the service-/diagnostic function select the item “my vehicle”. If your vehicle is not recognized, select the item “vehicle list” and choose your vehicle directly.

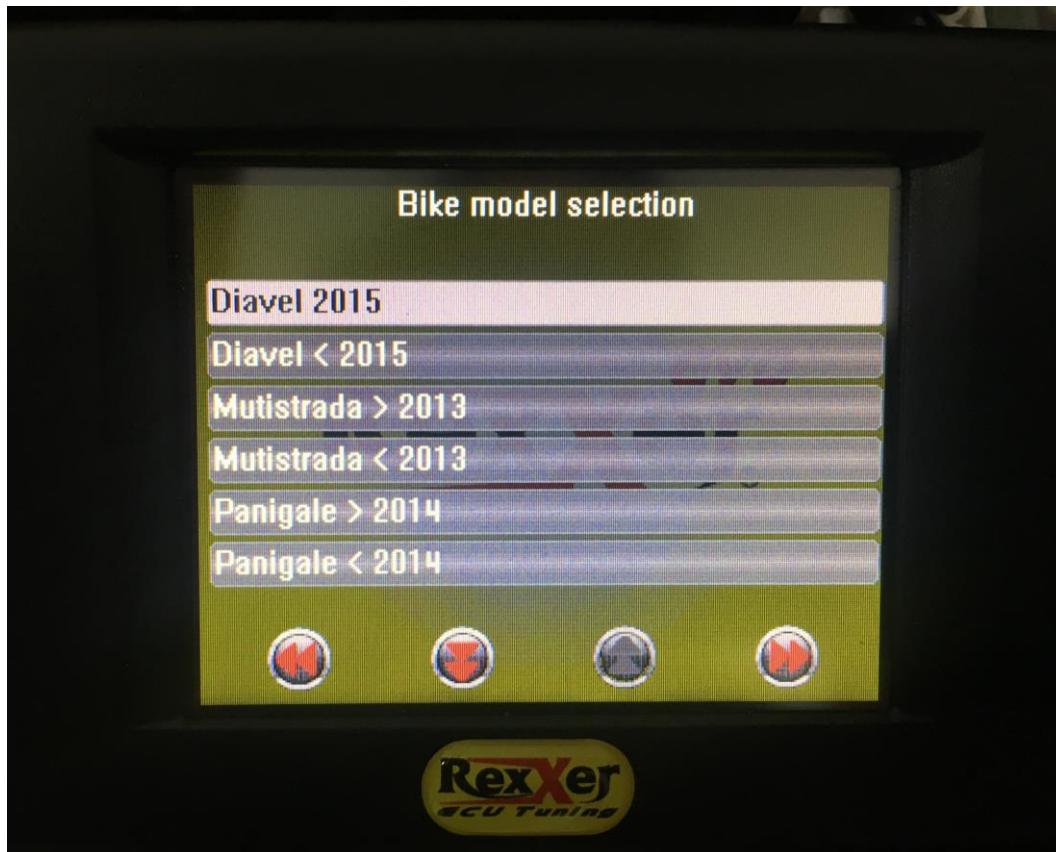


Figure 8: vehicle choice: Choose your specific motorcycle model for using the desired service-/diagnostic function.

Here is an overview about the current level of service-/diagnostic functions of the RexXer EVO support ECU types:

http://www.rexxer.eu/downloads/rexxer_ecu_functions.pdf

The RexXer EVO User can only be used on the vehicle, where the Original-Mapping was read out (copied)!

If you only want to use the device for service- or diagnostic functions, you can use it on different vehicles. This is only the case, if the serial interface cable and the ECU-type comply exactly with those of the processing vehicle.

Installation and functions of the software

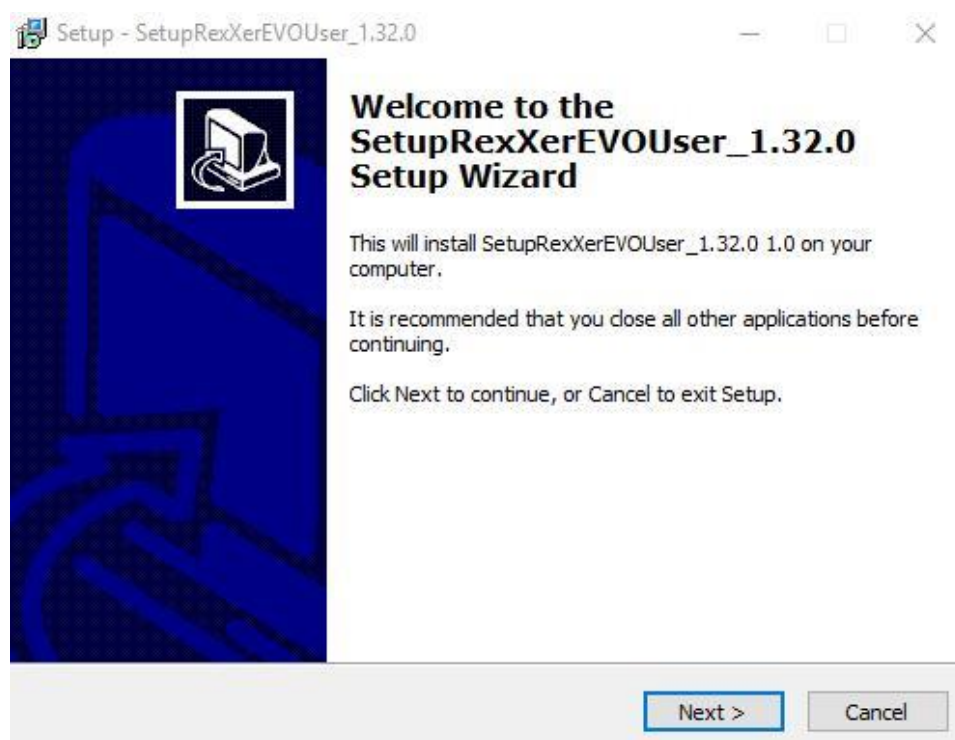
Installation

We describe how to install the software **RexXerEVOUser** from version 1.03 on a computer with the Windows 7® operating system, as is required for the use of RexXer EVO User.

Note: This applies not for Mac, Linux or something similar.

The software is only based on Windows.

1) To do this, insert the USB stick into the drive, open the folder **software** and install the software contained **SetupRexXerEVOUser.exe**. Follow the installation setup, which opens immediately after you run the exe-file.



Alternatively, you can also download the software **RexXerEVOUser** online in the download section of the RexXer website.

2) The setup selects the installation folder by its own.

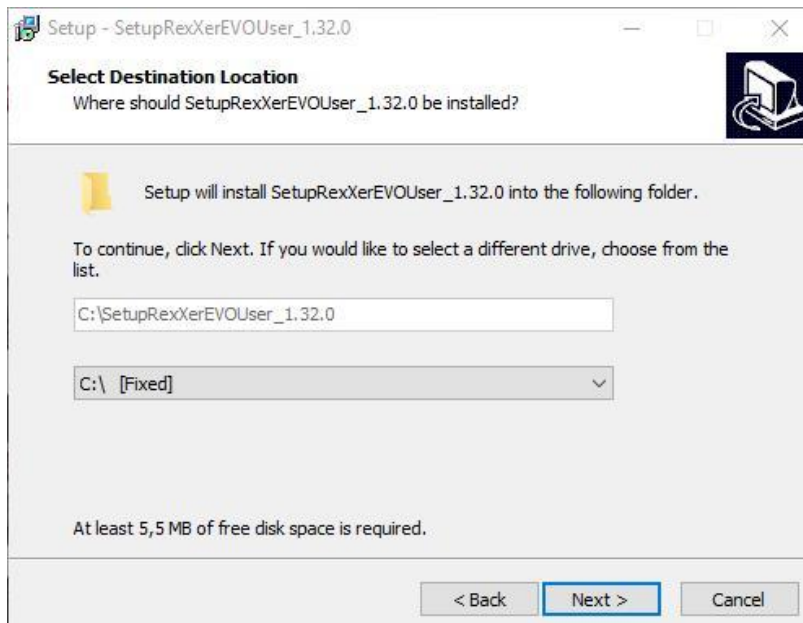


Figure 9: Installation folder: Is selecting by its own. To continue press "Next".

Please make sure that the RexXer EVO User is not yet connected at this time to the USB cable and your computer. If so, please disconnect it now and also all other devices/hardware which are connected via USB. After installation, you can connect all the equipment again.

3) Run the setup to finish. After completing the installation, the software *RexXerEVOUser* automatically starts. **Please connect now the RexXer EVO User with the USB cable.**

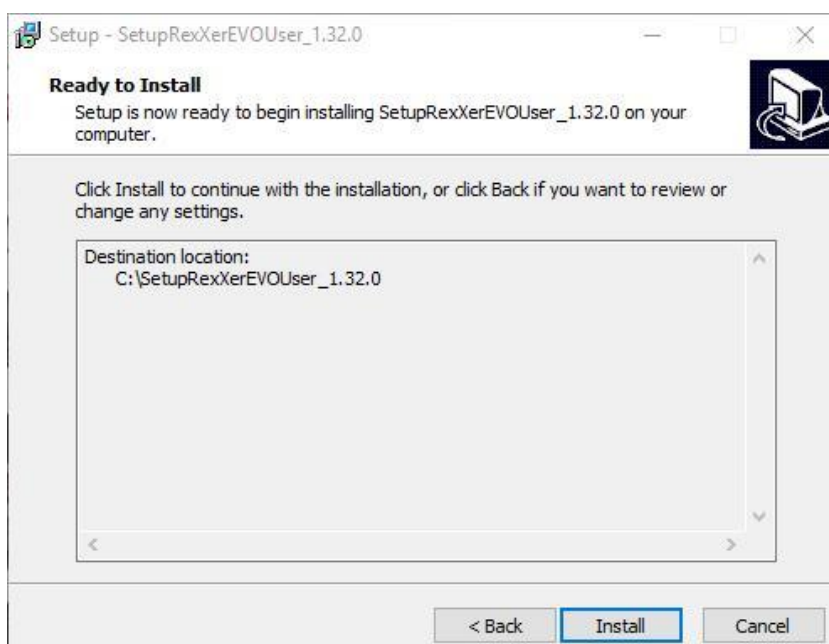


Figure 10: completion of setup: On pressing "Install", the software is installed and the setup is finished.

Installing the USB driver

The USB driver for the new RexXer EVO User is automatically installed by **installing the software!** A manually installation is no longer necessary. Once you connect the RexXer EVO User via the USB cable to your computer, Windows ® searches for the appropriate driver, and enables you to connect.

Delete Data / Licenses

The RexXer EVO User will be delivered with 2 license and can be deleted and re-used by changing or selling your vehicle for 1 time!

Before you can delete the device, you have to restore the Original-Mapping into the vehicle (ECU) it was read out. If this is not the case, the RexXer EVO User will be locked and the unlocking is chargeable!

After the device was deleted correctly over the software, you can use the second license for reading out the Original-mapping of your “new” motorcycle and send the new read out .usr file to your dealer or directly to us to get the new corresponding Tuning-Mapping (chargeable). Is the second license used, you have the possibility to recharge the RexXer EVO User with a new license (chargeable). In that case, please contact your dealer or us.

WARNING!: If you delete the device without any reason, like after you have read out just the Original-Mapping and before you have flashed the vehicle with the Tuning-Mapping, you'll loose your second license. In that case we are not able to repay the license for free.

Language selection

To select or change the language, click on the menu bar. Click the Language icon below of **Tools** and select the appropriate language. The new language is then stored permanently!

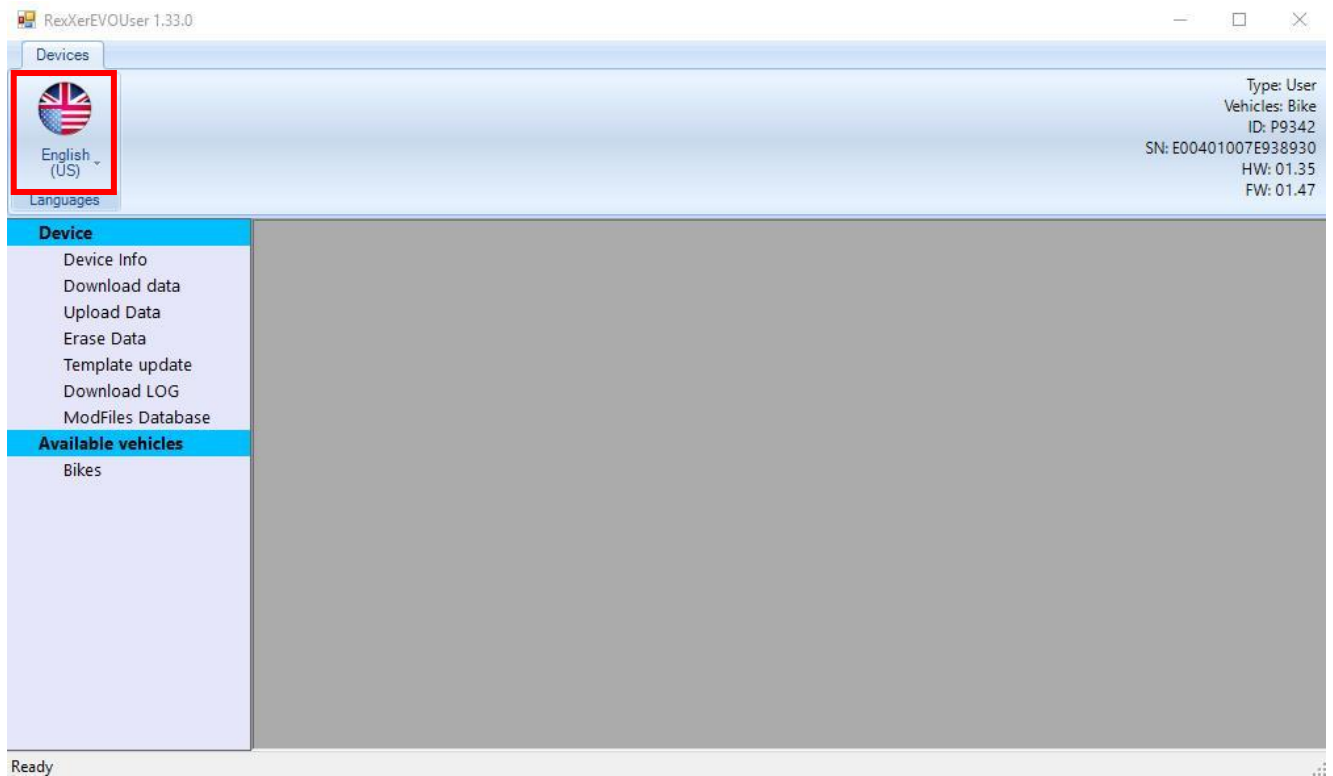
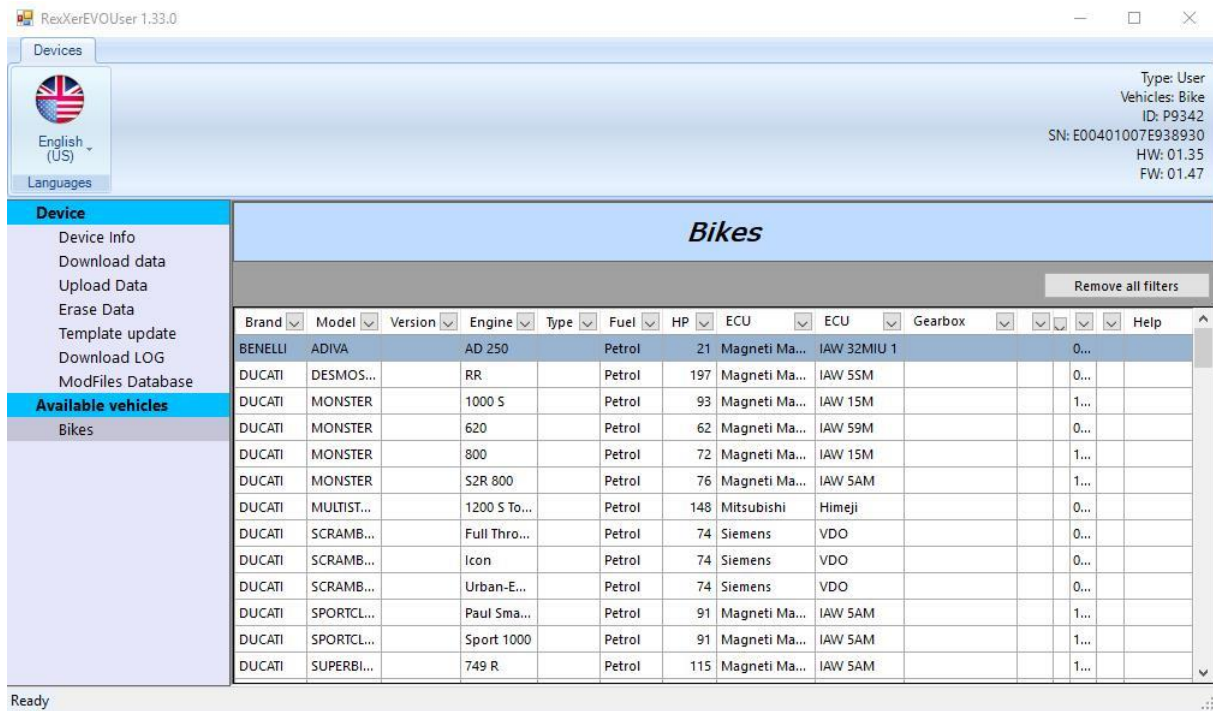


Figure 11: Language selection: When the software is launched it will connect with the RexXer EVO User after some seconds. After that you can choose the preferred language in the left corner of the window.

Available vehicles

Select the menu item **Bikes** of the menu groupe **Available vehicles**, to get an overview of the available vehicles of the RexXer EVO User. Here are every available vehicle brands and models listed. Furthermore you can find informations about the ECU-type which is installed in each model.



The screenshot shows the RexXerEVOUser 1.33.0 application window. The 'Available vehicles' menu is open, and the 'Bikes' sub-menu is selected. The main area displays a table of available motorcycles with columns for Brand, Model, Version, Engine, Type, Fuel, HP, ECU, ECU, Gearbox, and Help. The table lists various models from brands like BENELLI, DUCATI, and SCRAMB, along with their specifications and installed ECU types.

Brand	Model	Version	Engine	Type	Fuel	HP	ECU	ECU	Gearbox	Help
BENELLI	ADIVA		AD 250		Petrol	21	Magneti Ma...	IAW 32MIU 1		0...
DUCATI	DESMOS...		RR		Petrol	197	Magneti Ma...	IAW 55M		0...
DUCATI	MONSTER		1000 S		Petrol	93	Magneti Ma...	IAW 15M		1...
DUCATI	MONSTER		620		Petrol	62	Magneti Ma...	IAW 59M		0...
DUCATI	MONSTER		800		Petrol	72	Magneti Ma...	IAW 15M		1...
DUCATI	MONSTER		S2R 800		Petrol	76	Magneti Ma...	IAW 5AM		1...
DUCATI	MULTIST...		1200 S To...		Petrol	148	Mitsubishi	Himeji		0...
DUCATI	SCRAMB...		Full Thro...		Petrol	74	Siemens	VDO		0...
DUCATI	SCRAMB...		Icon		Petrol	74	Siemens	VDO		0...
DUCATI	SCRAMB...		Urban-E...		Petrol	74	Siemens	VDO		0...
DUCATI	SPORTCL...		Paul Sma...		Petrol	91	Magneti Ma...	IAW 5AM		1...
DUCATI	SPORTCL...		Sport 1000		Petrol	91	Magneti Ma...	IAW 5AM		1...
DUCATI	SUPERBI...		749 R		Petrol	115	Magneti Ma...	IAW 5AM		1...

Figure 12: Available vehicles: Bikes: Here you find a list of available motorcycles and their installed ECU-types.

LOG-File

If something does not work out as it should, then you have the ability to generate and save a log file by pressing the button **Download LOG**. It is the LOG-book of the RexXer EVO User, it demonstrating all the steps that were taken with the device.

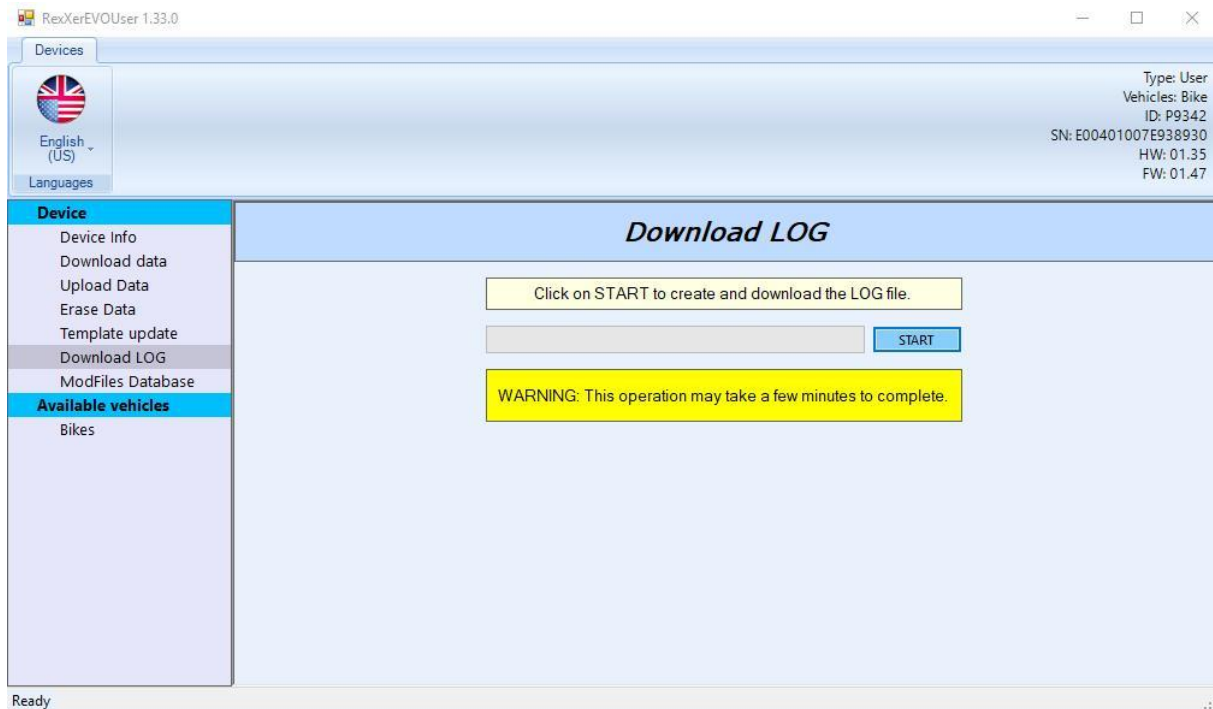


Figure 13: Download LOG: Press “START” to download the LOG-file and save this file on your computer. After that send this file to us.

This file you can send us together with the original mapping (if already available on this point). So we will get the opportunity to obtain us a picture of the situation to give you support. Please send us the file or the files as needed to info@rexxer.eu or to the E-Mail address of your importer.

Note: The log file must be regenerated after each operation!

ECU types

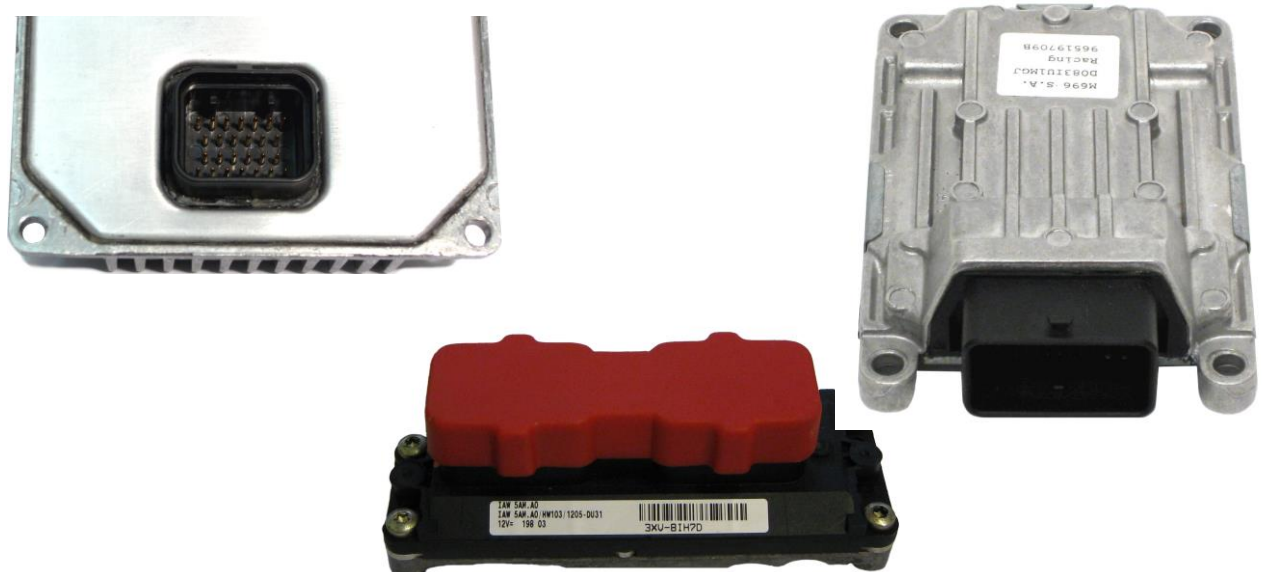
Here you will find an overview of the ECU types which are possible to flash and more descriptions of the function:

http://www.rexxer.eu/downloads/RexXerEVO_ecu_functions.pdf

For some ECU types it's not possible technically to read the original mapping by using the RexXer EVO. Currently, this affects the Ducati models with ECU Type Siemens VDO M3C and Mitsubishi MELCO for example.

For these types of ECU a dummy will create by reading the original mapping. This includes among others the serial number of the ECU.

But we found a way to read the original mappings of the affected types of ECU in the open state with a special process and so we are able to make it available as needed. The data such as firmware number, microprocessor type etc. of the already read Original-Mappings are stored in deploying the firmware on the vehicle selection in the RexXer EVO. The RexXer EVO then makes when reading the original mapping a check and reviews whether the data of the currently processed ECU already exist. If not, the RexXer EVO shows you then a warning message on the display. On most models, the existing mappings are compatible and can be used. **As we cannot generalize this, we ask you to contact us in this case and give us the data of the ECU, we will then give notice of the examination process what you have to do.** By confirmation in the display, the program will be continued and read the dummy. To cancel the programming, for safety reasons, please disconnect the connection to the diagnostic connector/inspection plug.



FAQ

Here you will find a small selection of frequently asked questions and their answers. In case you have a question that is not listed here and cannot even be answered by yourself, please contact us and we will help you.

- How many Tuning-mappings are included in the RexXer EVO User?

The purchase price of the device includes 1 Tuning-mapping which is consistent with your bike configuration. It is possible to get more Tuning-mappings, in return of a service charge.

- What could be the matter if the display of the RexXer EVO User stays dark after connection with serial interface cable (OBD) on the vehicle (page 3)

Probably the alligator clips of the serial interface cable are connected incorrectly or one of the flat-plug fuses for the diagnostic connector (OBD) from your bike is defective.

- Is it allowed to connect the RexXer EVO User at the same time with the USB-cable to the computer/notebook and the serial interface cable to the vehicle? (page 10)

NO! Never connect the RexXer EVO User to your computer/notebook and to the vehicle at the same time! The device can be damaged by overvoltage.

- Is my RexXer EVO User always preloaded with a Tuning-mapping? (page 7 and 8)

No, the RexXer Evo User is mostly delivered "empty" because it's not always possible, according to vehicle model and ECU-type, to install the corresponding Tuning-mapping in advance.

- After flashing the Tuning-mapping will my Original-mapping definitely be deleted? (page 14)

No! After reading process the Original-mapping is stored in the device memory of the RexXer EVO User. While writing process the Original-mapping will be just overwritten with the Tuning-mapping.

- Is it possible to re-use the RexXer EVO User on another vehicle (after vehicle sale)? (page 20)

The RexXer EVO User will be delivered with 2 licenses included. After the Original-mapping is restored into the ECU of the accompanying vehicle (on which the device was used firstly) you can delete the Rexxer for 1 time over the software.

- Can I use the RexXer EVO User even if all licenses are used? (page 20)

Yes, you can recharge the device with a new license (chargeable).

- What must be observed after an update of my RexXer EVO User? (page 14)

The RexXer EVO User gets “married” with the vehicle identification number (VIN) stored in the engine control unit (ECU). This enables the device to communicate with the ECU also after an Update with a Workshop tester or another programming device.

- Can the RexXer EVO User diagnostic functions be used concurrently on a different vehicle? (page 17)

Yes, if the serial interface cable of both vehicles is the same. Please note the compatibility of the possible diagnostic and service functions!

- What can I do if the display of the RexXer EVO User only reacts by high pressure? (page 9)

Connect the device to your vehicle and select the menu item “Tools”. Now Choose “Calibration”, here you can adjust the sensibility of the Touch display.