⚠ operation manual

MBIQ-P

Version: Shimano EP8 Edition: C

Dear Customer,

Please read the instructions carefully before using the device and keep them in a safe place.
If the device is passed on, these instructions must also be handed over. The manufacturer assumes no liability if the information in this manual is not observed.
As part of further development, we reserve the right to change the product, packaging or description documents at any time.

Intended Use

The purchased device is a tuning product that may only be used in private, closed areas. For example, for sports competitions and advertising purposes.
E-bike tuning is not permitted in the area of road traffic regulations.

The current speed profile is analyzed, processed and, when tuning is activated, manipulated values are output. If the tuning is active, speeds over 25 km/h are blocked for the motor firmware, which means that the displayed speed always remains ≤ 25 km/h!

All brands mentioned are used solely to identify the models of motors / e-bikes / pedelecs with which our devices are compatible. They are the property of their respective owners and are otherwise in no way related to the product!

Technical specifications

Motor / connector system:	Compatible with Shimano mid-drive motors: • EP8 (DU-EP800) ... • EP8 RS
Cable length:	approx. 150 mm
Operating modes:	• Permanently activated • Permanently deactivated • Activation according to switch-on condition
Power supply:	No separate supply necessary!
Display	Manipulated values from appr. 22 km/h (Display remains <25km/h until v-max)
max.support	programmable in steps

When delivered, the device is in the mode:
"Tuning permanently active"
With highest support speed limit.

Due to the operating principle, the displayed speed does not correspond to the actual speed when driving> 25 km/h. For this reason, the total kilometers displayed by your system will not correspond to the actual distance covered when you drive beyond that. Diagnoses / calculated values based on this will follow accordingly!

installation

⚠ Please remove the battery from the system before starting work!

To install the MBIQ-P, it must be integrated into the cable of the existing speed sensor.

The sensor is located on the rear frame or, if necessary, next to the quick-release axle and works in conjunction with the magnet attached to the rear wheel or brake disc. The sensor cable is often passed through the frame (depending on the manufacturer). The end of the connector is plugged into the engine compartment, which is usually covered by a plastic cover and must be made accessible.
The screws must be removed for this.

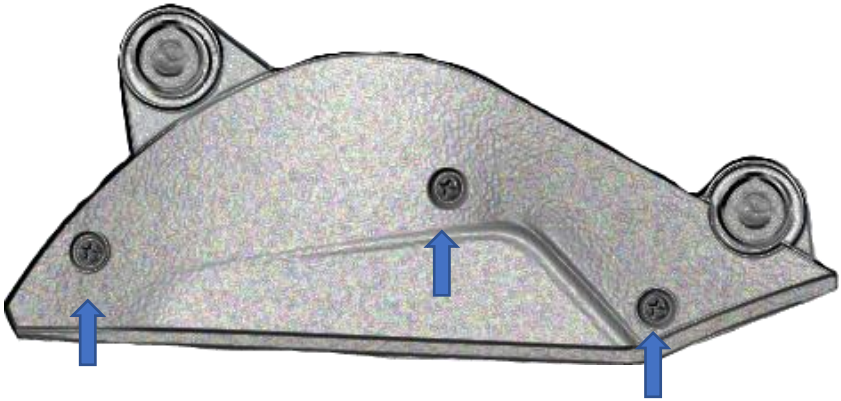


Fig. 1: Engine compartment cover of an EP8 engine

⚠ It is recommended a Pozidrive Size I screwdriver

If necessary, make sure that you have found the correct plug by following the sensor cable and then carefully pull it out of the socket.

⚠ You will find a connector assignment plan in the manual for your motor!

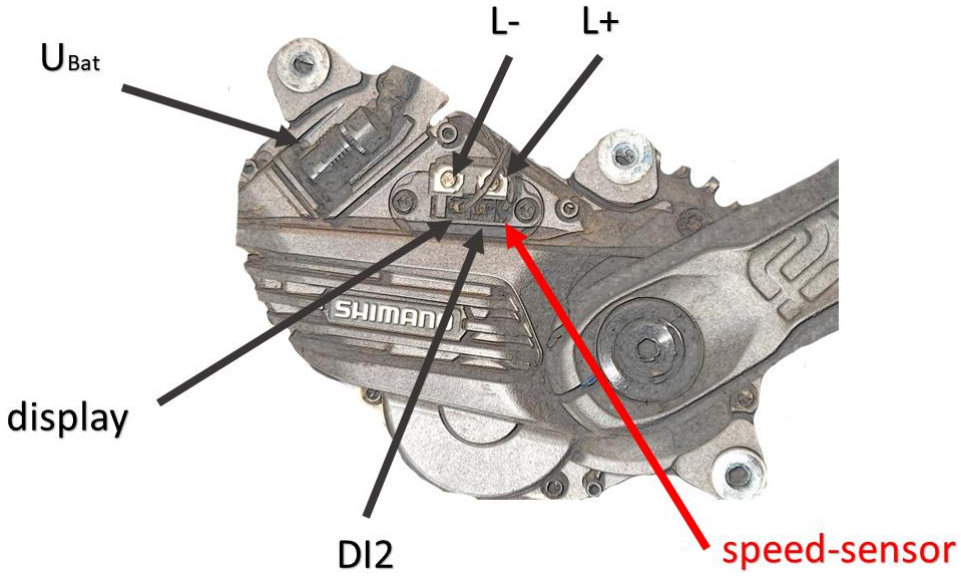


Fig. 2 Connector end of the speed sensor

The MBIQ-P must now be inserted between the plug and the motor connection. To do this, remove the sensor connector shown from the socket.

Installation of the MBIQ-P

The plug of the speed sensor must be plugged into the socket of the MBIQ-P.
The plug of the MBIQ-P goes into the previously used socket on motor connection.

⚠ The connector of the MBIQ-P does not have the guides shown, but fits into the motor socket.

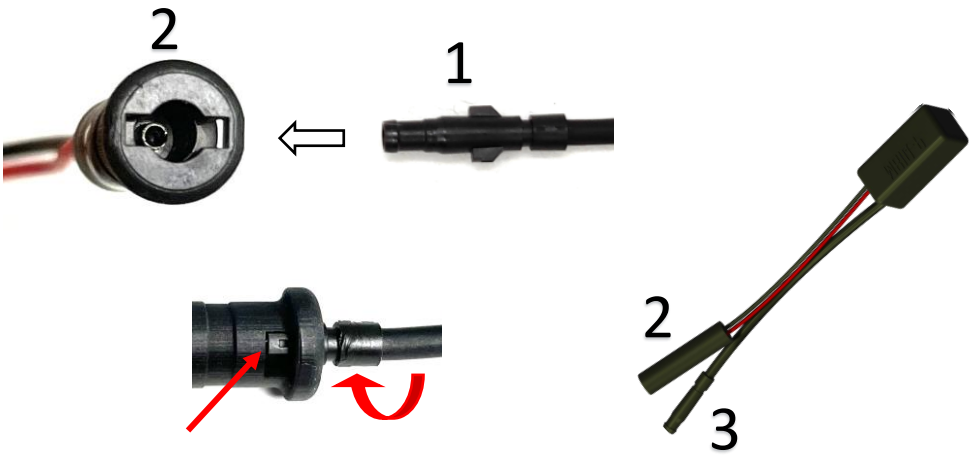


Fig. 3 Connections of the MBIQ-P

The plug end of the speed sensor (1) is plugged into the socket (2). To do this, the wings must be aligned accordingly.

IMPORTANT: Push the plug (1) into the socket (2) as far as the wings stop and then turn it as shown so that it is secured and cannot be removed!

The end of the cable (3) goes into the socket in the engine compartment.

⚠ A little pressure is required, the connectors usually snap into place with a "click"!

You can then close the engine compartment again and put the system into operation.

Modes of operation

You have the option of choosing between three operating modes:

- Tuning permanently activated
- Tuning permanently deactivated
- Tuning according to the switch-on condition

1. Permanent tuning activated

In this operating mode, the speed limit is permanently canceled. The speed actually driven no longer corresponds to the displayed speed from around 25 km/h. Manipulated values ≤25km/h are generated for the motor firmware.

2. Permanent tuning deactivated

No lifting of the speed limit. The actual speed driven corresponds to the displayed speed. Support up to 25km/h.

3. Tuning according to the switch-on condition

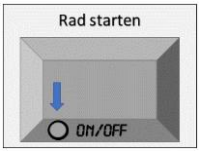
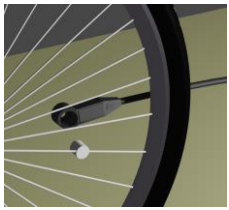
To activate the tuning, the magnet must be in front of the sensor for at least 4 seconds while it is starting up. Otherwise the tuning is deactivated.

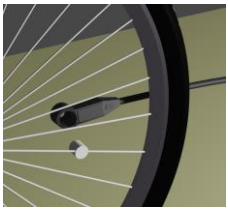
(The time is roughly the same as the time it takes for the display to be ready to go.)

Programming of the operating modes and v-max

To get into programming mode, you have to carry out the following sequence:

Before starting, turn off the bike and wait a moment …

Make sure that the spoke magnet is level with the sensor before switching on the system.	
Then turn on the system. **Important:** For the rest of the process, the start of the system counts (e.g. LED goes on), not the complete start-up of the display!	
Leave the magnet positioned in front of the sensor for approx. 3 seconds.	
Remove the magnet from the sensor for approx. 1 second	

Bring the magnet again for at least **3 seconds** in front of the sensor to access the operating mode menu. If you want to change the maximum speed up to which is supported, please wait at least. **8 seconds**!	
If the magnet is now removed, the tuning sensor jumps into programming mode.	

If the process has been carried out correctly, the display now shows the set operating mode or v-max by outputting different speeds (explanation follows on the next page) on the respective display of your bike.

To navigate through the different operating modes or to set speeds, it is sufficient to simply turn the wheel. Each revolution (moving the magnet past the sensor) jumps one point / step further.

Make sure that the magnet is not in front of the sensor after the rotation!

⚠ *The decisive factor for setting the operating mode is not the exact value (this varies depending on the wheel circumference), but the sequence!*

If your system has an immobilizer using a transponder, this must be deactivated for the duration of the programming.

Choice of operating modes through coded output

Tuning permanently activated (the speed actually displayed may vary slightly!)	
Tuning permanently deactivated (the speed actually displayed may vary slightly!)	
Tuning according to the switch-on condition (the speed actually displayed may vary slightly!)	

In case you no want to save changes, simply switch off your system, the last selected operating mode / v-max is then retained.

Would you like a change to save, bring the magnet in front of the sensor for at least 4 seconds.
After saving, the display shows 0 km/h and remains in this state.

Then restart the system!

Maximum assistance speed

The setting of the limit value up to which speed is to be supported is carried out using the same procedure as for setting the operating mode. The displayed values correspond to the limit speed.
The tuning will run the assistance up to approximately this displayed speed and increment the displayed speed.

Disclaimer of liability

I expressly point out that e-bike tuning products may only be used on so-called S-Pedelecs, i.e. motor vehicles in private, closed areas. For example, for sports competitions and advertising purposes.
E-bike tuning is not permitted in the area of road traffic regulations. Use at your own risk. No liability is accepted for any current or future damage to objects and / or people as a result of improper installation / attachment and / or use.
The guarantee of your e-bike is limited or completely voided by the use or application of the tuning, as the installation or use of the e-bike tuning represents a modification or manipulation of your e-bike.

If your e-bike has an operating permit, this will usually also expire. Please always drive carefully, use protective clothing such as helmets or protectors and do not put yourself or others in danger.

Please also note that some manufacturers use analysis software to detect manipulation of sensor data and, if necessary, save this data permanently and evaluate it later. Since the tuning products offered work according to the principle of speed manipulation, such logging cannot be ruled out even after firmware updates that may have been carried out later.

No liability is accepted for any resulting damage. Please only put the product into operation if you are aware of it! Operation in public road traffic is expressly prohibited by the StVO!

The existing components / materials of the wheel used may not be designed for permanent use with the tuning product.
Before using the system, please inquire about the current legal status and any consequences that may arise from the installation.

The consumer is aware that any tuning measure or optimization of his vehicle can have an impact on the service life and properties of a vehicle. The standard properties are changed in any case.

Disposal instructions

The device must not be disposed of with household waste. This device is labeled in accordance with the European Directive 2002/96 / EC on waste electrical and electronic equipment. The guideline provides the framework for the return and recycling of old devices, which is valid across the EU. To return your old device, please use the return and collection systems available to you.

You can also return the tuning kit to your specialist dealer after use.

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