

Instructions for the installation and description of the functions for **Yamaha** PW Powerdrive- Unit mid-motor design

from year 2014 up to 2018 with Yamaha LCD- or LED-
display



...for further information visit... www.BIKESPEED.DE



Product description

The bikespeed-RS is a simple and compact kit to bypass the speed limit of 25 km/h of Yamaha PW Powerdrive-Unit mid-design drives from year 2014 with Giant-display. The installation is completely invisible.

In contrast to other commercial tuning kits for pedelecs the bikespeed-RS displays the "real" speed on the tachometer instead of the half value. The data of the cycled distance, average/maximum speed, calculated range, ... are usable without any limitations. The levels of support as well as any special profile will be certainly maintained. Light activation is also unnecessary and you can use the tuning if you have an additional lighting system powered by the battery.

The tuning makes the final speed void, that means the terminal velocity is only limited by the power of the drive and the muscular strength invested.

We designed the installation as simple as we could. All the necessary connections are pluggable and consequently they can be removed without any traces.

Deactivation of the speed limit at 25 km/h is possible with the help of a key sequence on the actuator (see page 3, paragraph 'description of the functions').

The tuning will adapt to your pedelec when it is activated. During this process the drive, the display and the size of the tires will be recognized automatically. The tuning is thus universally applicable and you don't have to adjust anything.

Description of functions

After activating your pedelec the display will show an animation of the battery's capacity. If the capacity runs from empty (1 bar) to full (10 bars) your pedelec will support you with motor power even if you exceed 25 km/h. If the capacity runs from full to empty the support will end at 25 km/h.

In order to switch on or off the support above 25 km/h please change the level of support down, up, down, up. If the procedure was successful you will see the animation of the battery's capacity once more just like when you activate your pedelec and this way you are informed about the current setting.

Here is an example beginning on the 'Std' level:

Pushbutton down (new level: 'Eco')

Pushbutton up (neue Stufe: 'Std')

Pushbutton down (new level: 'Eco')

Pushbutton up (new level: 'Std')

If you have a bikespeed-RSc you use the combination you chose beforehand. (see page 4, paragraph 'Hint for the *custom*-variant')

Please enter the combination quickly within about 3 seconds. Repeat the procedure if necessary in order to obtain the desired setting.

Description of the *custom-variant* (bikespeed-RSc)

After many requests of our customers we offer a new feature of the bikespeed-RS additionally. The individual customer configuration gives you the opportunity with you selectable personal setting to protect your tuning for discovering.

With your individual key combination you can decide if the tuning should be displayed its status with an animation above the battery indicator or not. The tuning can be switched on/off at anytime and you can control the behavior (tuning on/off) after on switching your bike.

The configuration options can be found in the shop on our website. There all possibilities are described with many tips and videos.

If you are interested to upgrade your standard bikespeed RS on a custom version, you can feel free to contact us.

Hint for the odometer

Please note that after the deinstallation of the bikespeed-RS your odometer may show a lower value under certain circumstances like you're actually traveled with your bike. This behavior is caused by the design and not a fault.

Please note this primarily when selling your bike.

Product liability / exclusion of liability

We were not able to figure out whether running a pedelec with an installed but deactivated bikespeed-RS is permitted on public roads. That is why we expressly point out that the mere existence of the tuning on your pedelec may be an offence against Road Traffic Regulations or it violates §6 of the obligatory insurance law, driving without insurance.

Modified bicycles may only be used on private property. Running a modified pedelec on public roads is expressly prohibited by Road Traffic Regulations!

Installing and running a bikespeed-tuning is done in personal responsibility; liabilities for damages or subsequent damages as well as legal consequences for bikespeed are excluded in every case.

Please inquire about legal consequences that may result for you from installing and using the tuning before you use it.

We expressly point out that using the bikespeed-RS leads to a loss of warranty by the manufacturer. Furthermore there are no claims to product liability for your pedelec/e-bike viable for the manufacturer and bikespeed.

bikespeed especially cannot guarantee that brakes, frames, running gears, tires etc. are designed for the use of the tuning-component.

Help in case of problems

If your bikespeed-RS doesn't work correctly at any given time please check the following steps in order to help yourself.

Should you still have problems please write an email before sending back the bikespeed-RS.

Cause	Solution
- bicycle doesn't start or deactivates itself immediately	- Please check whether the display and battery are properly engaged in the bracket. - Please check the 4-pole connector from the tuning to the motor and to the display.
- no animation visible when starting the bicycle	- Please check if the service-mode is activated as by entering the combination. - Check the 3-pole connector from the tuning to the motor
- no support or rather only briefly when starting - no speed-indication (0 km/h)	- Please check the 3-pole connector from the tuning to the motor and to the speed-sensor - Check the magnet on the sensor and align it anew - Test the magnet by holding another magnet in front of the sensor for a second and take it away again several times.
- support only until up to 25 km/h are reached	- Check if the tuning is activated.
- bikespeed-RS (c) can not switched on or off	- Keep in mind you have to switch the stages to enter the combination. Please start in a sufficient high or low stage.

Continue on next page.

Help in case of problems

In our experience, the cause for problems most often are connectors which are not correctly plugged in. Therefore please always check if they are set correctly and plugged in the correct socket. Please insert the connectors as far as you cannot see the seals any more. If that is not possible please apply some Vaseline onto the seals for greasing. The plugs are coded and only fit in one direction. Please do not use force!

Example installation on a Haibike AllMtn RX

For the installation of the bikespeed-RS two of the three screws holding the motor have to be removed; the motor can easily be folded down and all of the connectors become accessible.

Required tools:

- Allen key (size 6)
- possibly further Allen key sizes for protective covers

The installation may only be carried out by an expert!

All statements without guarantee!

1. Please remove the battery before working on your bicycle!

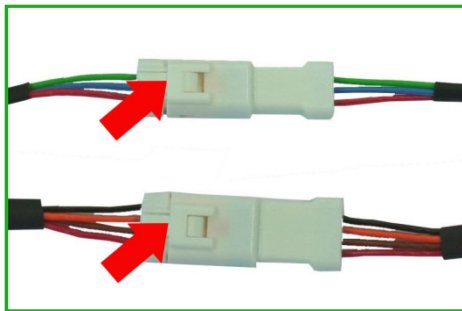
Remove the two front fastening screws (1+2) of the motor and slightly loosen the third one (3). This screw serves as a „hinge“ for folding down the motor.



2. It is possible that your motor is attached to more screws of further covers. These have to be removed as well. (see example, one screw on the left and right of each arrow):



- 3.** When the motor is folded down, expose the two connectors to the display (4-pole, white) and the speed sensor (3-pole, white) and unplug them. Therefore please press the retaining tabs at the arrow-marked sites.



- 4.** Connect the bikespeed-RS by plugging in between the two separated (step 3) connectors. Please make sure that all 4 connections are locked correctly.

Store your bikespeed-RS with the connectors into the frame tube upwards to the display. Make sure the cables and connectors stored properly so that they cannot be squeezed while lifting the motor.

Lift up the motor again and screw it in reverse order. Look to it while tightening the motor screws to the specified torque of the manufacturer. (usually 22 Nm)

Hints for water protection

The opening in the housing is by design, so that any water can quickly drain and dry. Of course the electronic is protected with a splash proof sealing.

For the succes of drying the opening should be placed downwards. If this is not possible, we recommend additional water protection. (e.g. finger of a one-way-glove)

Hints for disposal

Electric and electronic devices that have become waste are called old devices. Owners of such old devices have to bring these to recycling facilities, where these are handled and recorded separately from urban solid waste. Old devices must not end up in the household refuse. In fact they have to be collected in special collecting and recycling systems.

Owners of old devices from private households can dispose these at the public waste disposal authorities or bring them to producer or seller related disposal locations. You can find these disposal locations online:

<https://www.ear-system.de/ear-verzeichnis/sammel-und-ruecknahmestellen.jsf>

The labelled symbol showing the „crossed out waste container“ on electric and electronic equipment indicates that the concerning equipment has to be disposed separately from urban solid waste.



As a producer in terms of the German ElektroG we are registered with the German registration authority Stiftung Elektro-Altgeräte-Register (Benno-Strauß-Str. 1, 90763 Fürth), having been granted the following WEEE registration number: **DE 87104747**

EU declaration of conformity

The manufacturer bikespeed GmbH
 Winterhaeuser Str. 109b
 97084 Wuerzburg

hereby declares that the following product:

Name of the product: bikespeed-RS

Year of construction: 2014-2019

is in accordance with all appropriate regulations of the EMV-guideline (EMC) 2004/108/EU, the disposal-guideline 2012/19/EU as well as the RoHS-guideline 2011/65/EU.

Name of the documentation plenipotentiary: Matthias Braun

Address of the documentation plenipotentiary: see address of the manufacturer

Wuerzburg,

04/02/2019 Matthias Braun, manager

Date Signatory



Signature