

Instructions for the installation and description of the functions for **TQ** HPR 120S mid-motor design on Flyon bikes

from year 2019 to 2020 with Haibike HMI



...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 Haibike Flyon bikes with TQ HPR 120S mid-design drives with Haibike HMI 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 and up again. 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 'mid' level:

Pushbutton down (new level: 'low')

Pushbutton up (new level: 'mid')

Pushbutton down (new level: 'low')

Pushbutton up (new level: 'mid')

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 continuous with a pause from one to three seconds between two key strokes. Repeat the procedure if necessary in order to obtain the desired setting.

Hint: A switched off bikespeed-RS can not be switched on with the combination for service-mode (see on page 5)!

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.

Important hint when visiting the repair-shop or software-updates on your pedelec

If you have in mind to update your pedelec software or you wish to perform the TQ- or Haibike-system with a customer service, please ask our bikespeed customer service for compatibility or check on our website www.bikespeed.de, whether the tuning continues to work with a later software or not.

For a software-update to your TQ- or Haibike-system you have to uninstall the bikespeed-RS. Alternatively there is the service mode on the bikespeed-RS that needs to be activated at your retailer.

Therefore change the level of support 3x down and then 3x up. Please enter the combination quickly without a pause of 3 seconds between two keys. Begin on the highest level. In case of success the entire battery index will blink 3x and meanwhile the software state of the bikespeed-RS will be shown on the speed indicator. Now the tuning is in service mode and maintenance as well as software updating can be executed.

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

This state is maintained even after deactivating the system. That is why there will not be an animation of the battery's capacity informing about the state of the tuning.

For the deactivation of the service-mode please use the same key-combination as for the activation or the combination you chose for activating and deactivating the tuning. Please keep in mind that in service-mode the support of the drive ends at 25 km/h.

Hint: If you are not sure, whether the service-mode is activated, please uninstall the bikespeed-RS before you update!

After activating the service mode, we recommend to switch off the bike without moving it again. If a speed is displayed it could change the trip, avg- or max-speed.

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
- bicyce doesn't start or deactivates itself immediately	- Please check whether the battery is properly engaged in the bracket. - Please check the 6-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 2-pole connector from the tuning to the motor. You have to use the white connectors on the bike instead the red ones!
- no support or rather only briefly when starting - no speed-indication (0 km/h)	- Please check the 2-pole connector from the tuning to the motor and to the speed-sensor
- support only until up to 25 km/h are reached - miles are missing	- Check if the tuning is activated and service-mode is off.
- 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.

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 Flyon ADVENTR 5.0 (2019)

In order to access the connectors for connecting the bikespeed RS, the motor must be removed and cables pulled through the frame. Please follow the instructions on the following pages.

Required tools:

- Allen key size 4
- Torx T30
- Underlay blocks for the handlebars
(e. g. 2 squared timbers 10 x 10 cm)

The installation may only be carried out by an expert!

All statements without guarantee!

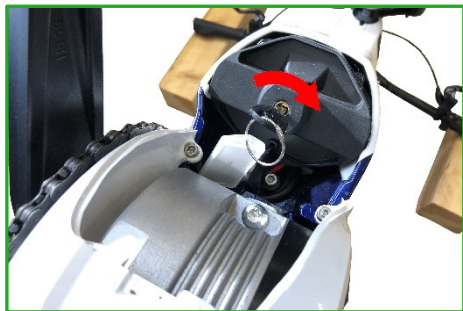
1. For the installation of the bikespeed-RS, it is best to turn the bike upside down. Please place under the handlebar grips spacer blocks before, so that the bike does not rest on the display, the brake or shift levers. In our example we use squared timbers measuring 10 x 10 cm.



2. First you have to remove the battery. Turn the bike upside down. It is best to have a second person help you to avoid damage to the display or the levers. Then open the battery cover according to the instructions on the clip fastener marked with the arrow.



- 3.** Open the lock of the battery, remove the lock cover and pull the battery out of the frame.



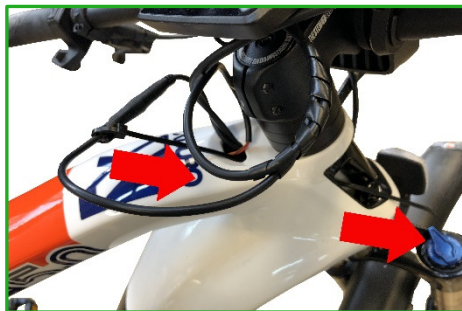
- 4.** Remove the cover of the cable inlet cover in front of the frame of the handlebar. Depending on the model, this is fixed with a screw or simply pushed in.



5. Remove the cover of the cable inlet cover for the cables of the display (1) on the top tube. Then locate the round black 6-pin connector to the display (2) in the top tube and pull it out of the opening. Then attach the supplied cable tie (3) as a retractionfeeder help aid.



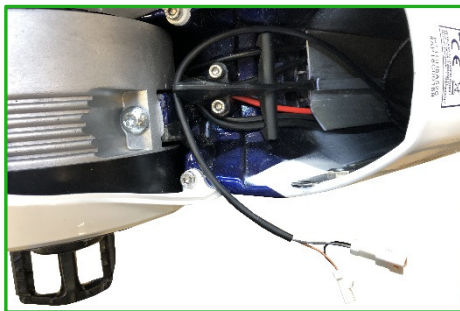
6. Thread the cable tie through the two cable openings opened in steps 4 and 5, and then pull it forward along with the connector.



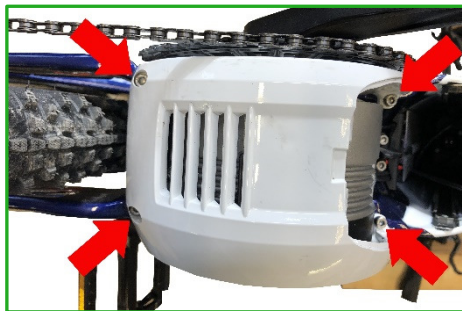
- 7.** When the plug connection to the display is pulled out of the front opening, disconnect it and connect the bikespeed RS to the corresponding counterparts. The cable tie can be removed afterwards.



- 8.** Pass the longer cable of the bikespeed-RS through the battery compartment down to the motor. Be careful not to pull too hard on the white connectors to prevent them from tearing off.



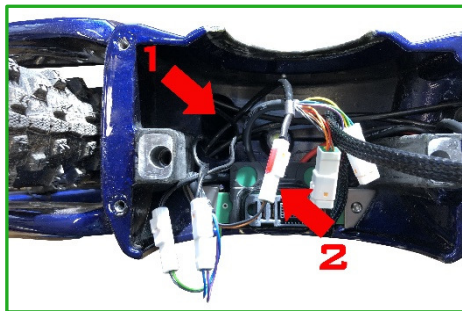
- 9.** Loosen the 4 screws of the motor cover with a size 4 Allen key. Then remove the cover and set it aside. Please note that the radio module is installed in the cover and connected to the bike with a cable.



- 10.** Take the chain off the front chainring. Then loosen the two motor screws with a Torx T30 and lift the motor vertically up out of the bike.



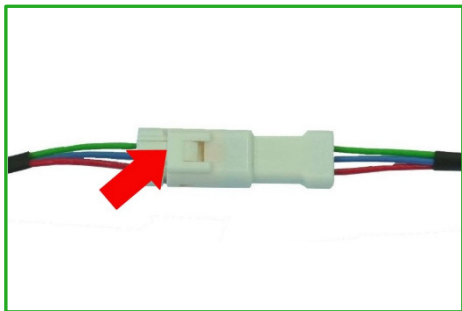
- 11.** Carefully pull all connectors out of the opening (1) and look for the 2-pin white connector to the speed sensor. Caution: There may be 2 more of these connectors to the lights.



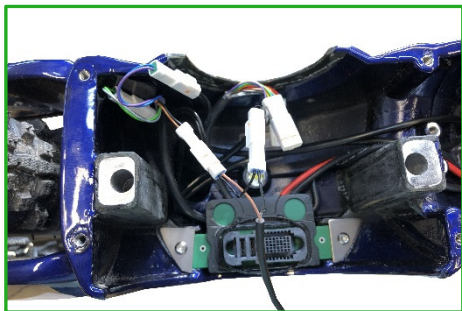
The cables to the lights usually have the core colors green and grey as well as blue and violet. After the connector, these change into a kind of black 2-pin speaker wire and go to the lamps. These two connectors are not required for the installation of bikespeed-RS.

The speed sensor connector is usually marked in red and has black and brown colored wires colors. After the connector, the cable changes to a round black one.

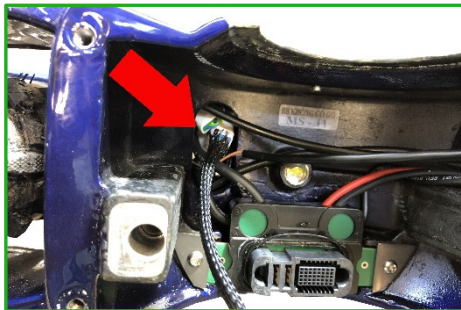
- 12.** Disconnect the just determined 2-pin connector for the speed sensor. To do this, press with a thin slotted screwdriver or with your fingernail on the unlocking part marked with the red arrow and pull the connectors apart.



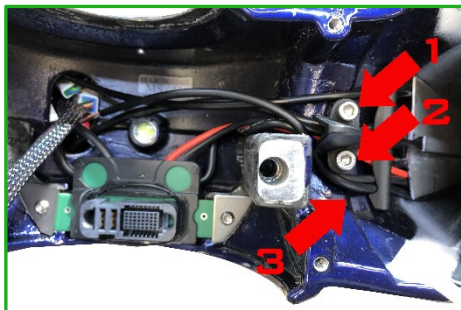
- 13.** Connect the just disconnected connectors to their corresponding counterparts of the long bikespeed RS cable.



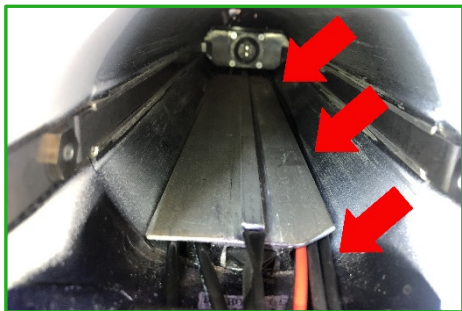
- 14.** Carefully stow all connectors into the hole marked with the red arrow shown in the image below.



- 15.** Loosen the two fixing screws of the cable holder (1 + 2) with a size 4 Allen key. Then insert the additional cable of the bikespeed-RS under the cable holder (3) and tighten it again.



- 16.** Guide the cable of the bikespeed-RS behind the shielding plate of the battery upwards. Make sure that the cable will not be in the way when inserting the battery.



- 17.** Store the bikespeed RS with all connectors and cables in the opening shown. The installation is complete and the bike must be reassembled in reverse order. You can use the following bullet list for this.



To re-assemble the wheel, proceed in the following order:

- Place the engine vertically. Please be careful and do not use force to avoid bending the pins of the motor connector.
- Tighten the motor with the two Torx T30 screws.
- Place the chain on the front chainring.
- Place the motor cover and screw tighten with the 4 Allen screws.
- Push the battery into the frame tube and fix it with the lock cover and lock it.
- Close the battery cover and lock it in place.
- Mount back the two removed the cable inlet covers on the display and on the front of the frame.

All statements without guarantee!

Hint 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)

Hint 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**

As well at the Elektro Recycling Austria (ERA) GmbH with contract number: **40624**

EU declaration of conformity

The manufacturer bikespeed GmbH
Huberstr. 17
97084 Wuerzburg

hereby declares that the following product:

Name of the product: bikespeed-RS
Year of construction: 2014-2020

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,

11/12/2019 Matthias Braun, manager

Date Signatory



Signature