



**e-motion your bike
with add-e**



add-e NEXT Installation Manual for Brompton Folding Bikes

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FOREWORD & IMPORTANT INFORMATION

Thank you for purchasing your add-e NEX**T** retrofit kit for Brompton folding bikes. This manual contains information for installation on Brompton folding bikes. Furthermore there are information for installation on Brompton P-Line.

Before you start, it is important that you familiarise yourself with the installation variants.

This manual should be kept in a safe place by the customer and given to the new owner if the conversion kit is eventually passed on.

Our add-e NEX**T** auxiliary drive unit is designed to be easily retrofitted to almost any bike. You do not need any particular prior knowledge for this. Nevertheless, we do recommend that you only carry out the initial installation yourself if you have already had some experience doing manual work on a bike. If you encounter difficulties or deviations from this user manual, our partners are at your disposal to help you. Use the store locator on our website at www.add-e.at/haendlersuche. You can also find more information, pictures and videos through our homepage at www.add-e.at.

All directions given in this manual refer to the normal direction of travel. The chainring is on the right-hand side in the direction of travel and the saddle is located above the bottom bracket.

We cannot rule out the possibility that highly different frame shapes and/or additional equipment may make it impossible to install the add-e NEX**T** retrofit kit. Further information on this subject can be found on www.add-e.at/faq.

In some cases, you may need special tools to work to a professional standard. These make the work a lot easier, do not cost much and can be ordered from our online shop at www.add-e.at/shop.

Although the graphics and text in this user manual have been produced with the greatest care, we cannot accept liability for any errors, inconsistencies and the consequences thereof.

We update this manual continuously. You can download the latest version from our website at www.add-e.at/montage.

LEGAL INFORMATION

According to pedelec standard EN 15194/2017, the max. assistance speed is 25 km/h with a nominal continuous power of 250W. The add-e NEX**T** Sport is equipped with mapping 2. This means that it has a max. assistance speed of 25 km/h and a max. power of 600W. This corresponds to the above standard, because the 600W indicates the peak power.

The add-e NEX**T** Sport Edition allows travel at an average higher speed (max. up to 45 km/h). In order to use the add-e NEX**T** Sport in the European Union in compliance with the law, it is factory delivered with mapping 2 (25 km/h, 600W peak power). These parameters can only be modified if a dongle is fitted to the drive unit. If you disconnect this dongle after modification, no risk of tampering exists, even if there is an accident, and the set maximum speed (25 km/h) also applies to add-e NEX**T** Sport as the maximum design speed in accordance with the registration-free pedelec standard EN 15194/2017.

The parameters can be changed by the user at own request with the dongle, both for the motor power and for the maximum speed, but this no longer complies with the EN 15194/2017 standard.

If the configuration chosen does not comply with the applicable legal regulations in the country of use, the add-e NEX**T** is only allowed to be used with a special license and/or for racing purposes and/or on private property.

Different countries have different regulations for the use of e-drive units on bikes. Generally, the overall bike is used for assessment. Whether other regulations also apply when an e-motor is retrofitted, e.g. for lighting, depends on the country in question and compliance is the responsibility of the user.

The user is responsible to inform himself about the legal regulations that apply in each case and for complying with them accordingly. Off-road restrictions regarding electrical power, maximum speed and pedal assistance also need to be complied with.

SAFETY INSTRUCTIONS

Before putting the unit into operation, the user should read through the complete manual, since it provides important information about correct operation and minimises the risks. If damage does occur due to failure to observe these instructions, the manufacturer accepts no liability, and the guarantee/warranty is void.

Proper functioning of the bike and the add-e NEXT retrofit kit is essential and reduces the risk of injury or accidents with potentially fatal consequences for the cyclist and others.

For your own safety, please ensure that you wear the proper protective clothing and a helmet. First, practice with care on a suitable track to get used to the new handling behaviour with the add-e.

Depending on the frequency of use, you should inspect and may need to clean the add-e NEXT retrofit kit and its parts on a regular basis. Before each journey, check the bike for the correct motor setting, tyre pressure/condition and the secure fit of the add-e, and adjust if necessary!

Ensure that no moving parts, e.g. cables of the drive unit or other objects, can get caught between the drive unit and the tyre, otherwise unexpected problems may ensue, including the rear wheel jamming.

The motor swing arm must always remain mobile, do not let objects get wedged in it. Otherwise, this may result in the motor no longer disengaging from the rear wheel and/or unwanted damage.

The motor of the drive unit can get very hot while travelling. Avoid touching it directly after use, as this could lead to burns and injuries.

WARRANTY/DISCLAIMER

In the area covered by EU law, the vendor is liable for material defects for at least the first two years after the date of purchase. For battery cells, this is limited to 6 months from the date of purchase.

This covers defects that already existed at the time of delivery. In the first six months, it is assumed that the defect already existed at the time of purchase. A requirement for the purchaser to make a claim is that all specified conditions were complied with during installation, use and maintenance.

These regulations only apply to states that are subject to EU law. In Switzerland and other non-EU countries, liability is limited to one year after the date of purchase.

Wearing parts, such as the battery casing (scratches, falls, impact, etc.), friction roller, scratches and damage attributable to the user's personal negligence are excluded from the warranty.

Any form of manipulation or modification not expressly permitted in the installation or operating manual, assembly video or by written permission from GP Motion GmbH invalidates the warranty.

Damage to the add-e NEXT battery caused by a complete discharge (e.g. due to prolonged lack of use) or by using a different charger is excluded from the warranty.

If the add-e NEXT battery is not used for a longer period of time, it should be removed from the battery holder.

In the case of a warranty claim, please contact the respective retailer. The manufacturer or specialist retailer will repair or replace the defective parts. For the purpose of processing the warranty claim, the customer is required to send in the defective parts or the add-e NEXT kit.

The "Repair Order" form is available online at www.add-e.at/montage or from support@add-e.at. This form needs to be filled in carefully and enclosed with the delivery. Warranty claims without a correctly completed form may result in higher costs and a delay in the repair. The customer is responsible for ensuring that the parts sent in are suitably wrapped to avoid damage in transit. The manufacturer is not liable for damage that occurs during transport.

Removing the serial number from the add-e NEXT battery or the add-e NEXT drive unit voids the warranty.

Spare parts are available from the retailer.

Failure to observe the information provided in this manual, improper use or use for purposes other than those the product is intended will result in GP Motion GmbH rejecting the claim for damage to and caused by the product. Liability for consequential damage to elements of any kind or persons is excluded.

The manufacturer accepts no responsibility for and will not refund any costs incurred as a result of improper use.

EXPLANATION OF SYMBOLS



PLEASE NOTE!

This symbol stands for special instructions which need to be followed during use or installation



TIP!

This symbol stands for special tips that make use or installation easier.



ATTENTION!

This symbol stands for IMPORTANT information and instructions for assembly or use. It is imperative that you observe these in order to avoid hazards.



CLEANLINESS!

Sections marked with this symbol indicate that special attention needs to be paid to cleanliness here.



This marking means that the parts are not allowed to be disposed of in household waste.

SCOPE OF DELIVERY



add-e NEXT drive unit



add-e NEXT charger



Battery holder



add-e NEXT battery



add-e NEXT sensors



Brompton
mounting plate



Docking station



1x M6 cap nut



size 6 Torx key
size 3 Allen key
size 4 Allen key



O-rings & rubbers



Button cell
CR 2032 3V



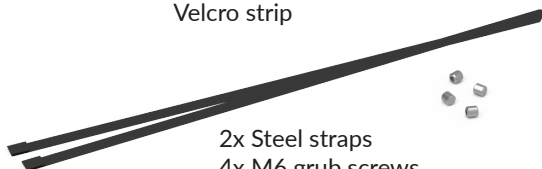
Dongle



Cable ties



Velcro strip



2x Steel straps
4x M6 grub screws



add-e NEXT remote control

INTRODUCTION

This part of the manual deals mainly with fitting the add-e NEXT retrofit kit on your **Brompton folding bike**. For models P und T Line (build from 2022) a standard installation such as with models build until 2021 ist not possible. These models are further elaborated upon here. A detailed description of the individual components, along with instructions for use, technical specifications, and functionality, can be found in the user manual.

The installation of the add-e NEXT retrofit kit for the Brompton folding bike does not require any special tools.

Before installation, the assembly and user manuals should be read carefully. The respective steps must be followed precisely in the given order. Only original parts from GP Motion GmbH or accessories recommended by them may be used.

THE INSTALLATION

For optimal use of the add-e NEXT retrofit drive, it must be ensured that only the original tyres or the original tyre dimensions—35-349 (ETRTO measurement)—are used.

Preparation



Turn the Brompton folding bike upside down

1. Turn the Brompton folding bike upside down and fold in the rear wheel.

Remove the pump, if present.

This applies to all Brompton models.



Replace the original stopper

- 2a. **For A & C Line models**, replace the original stopper with the supplied cap nut.

When attaching the cap nut, reuse the original washers.

This step is not necessary for T & P Line models.



For P & T Line models remove the reflector

2b. For P & T Line models, remove the reflector instead of the cap nut.

This step is not necessary for A & C Line models.



Remove or shorten the original mudguard

3. For all models:

Remove or shorten the original mudguard. When shortening, it is recommended to use sturdy scissors. Deflating the tyre will make this easier.



PLEASE NOTE!

When shortening, it is recommended to use sturdy scissors. Deflating the tyre makes this step easier.

Attaching the battery holder with steel straps

The Brompton folding bike does not have pre-drilled mounting points for a bottle holder. Therefore, the installation of the battery holder is done using the supplied steel straps.



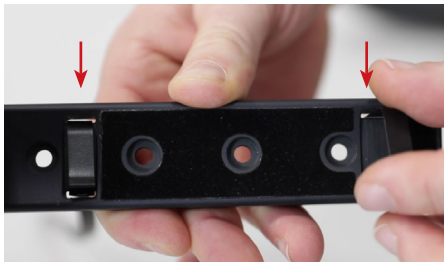
TIP!

As an additional help for attaching the battery holder with steel straps, the add-e NEXT installation video is available at www.add-e.at/montage.



PLEASE NOTE!

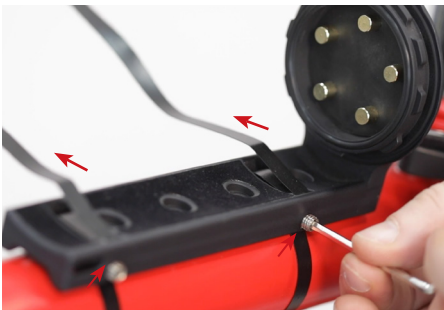
The steel straps are suitable for single installation only. If they are cut incorrectly, for example, if they are cut too short, or if the holder needs to be reinstalled, new steel straps must be used.



Insert the steel straps to the battery holder



Wrap the steel straps around the bicycle frame



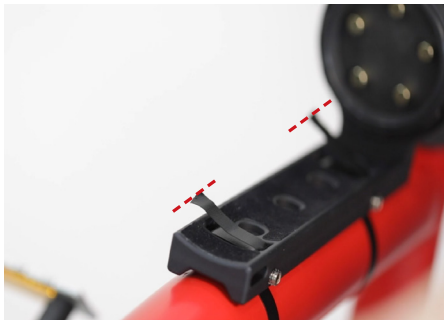
Tighten the steel straps

1. Bend the pre-formed tabs of the steel straps at a 90-degree angle.
2. Insert the steel straps with the flat end from the front through the battery holder and place the bent tabs into the second slot.
3. Press the steel straps flat against the battery holder and pull the long ends of the steel straps tight.
4. Wrap the open ends of the steel straps around the bicycle frame and guide them through the slot from the back.
5. Tighten the steel straps in the direction of the arrow and temporarily secure them with your thumb.
6. Secure the steel straps with an M6 grub screw and a 3mm Allen key until the steel strap begins to deform slightly.



PLEASE NOTE!

After cutting the steel straps create a sharp edge. To minimise the risk of injury, do not cut the steel straps too long and ensure that no sharp, frayed cut edges are left.



Cut the steel straps precisely

7. Align the steel straps up to the edge and cut them with a 5mm overlap (see illustration).

Use good metal shears or side cutters to shorten the steel straps.

If the cut ends are too short, the grub screws will not engage, and the steel straps cannot be tightened properly.



Tighten the steel straps

8. Bend the cut ends of the steel straps at a 90-degree angle and insert them into the slots.

Press the steel straps flat against the battery holder with your thumb, and secure them with the second set screw.



Tighten with the grub screws

9. Tighten the grub screws alternately until the steel straps fit **snugly** around the frame and the battery holder no longer moves.

It is important that the steel straps are not tightened too firmly, as this can cause damage, including the possibility of the steel straps breaking.

Attaching the add-e NEXT Sensors

The add-e NEXT sensors are used to measure cadence and speed and are attached to the pedal crank and the rear hub. The sensors are included in the set already paired with the drive unit.



PAS sensor attached at the inside of the pedal crank

Attach the PAS sensor (P) to the inside of the left-hand pedal crank with a suitable rubber mount, so that your foot cannot damage the rubber.

The crank should rotate freely at all times, unhindered by the sensor.



TIP!

The PAS sensor (P) can be additionally secured with adhesive tape or moved further towards the bottom bracket if space allows.



Speed sensor attached at rear wheel hub

Attach the speed sensor (S) to the rear wheel hub using a suitable O-ring.



For P & T Line models speed sensor with slight angle

For P & T Line models, the speed sensor can also be positioned at a slight angle.

Attaching the add-e NEXT Drive Unit

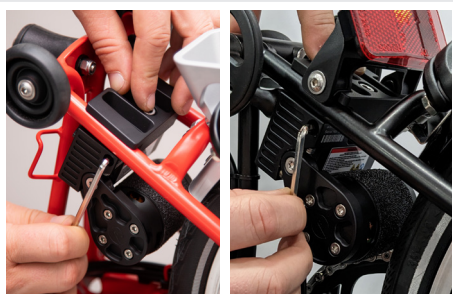
Proper installation of the drive unit and attaching the battery cable are essential for the correct functioning of the system and for the flawless folding of the Brompton folding bike.



Reattaching the mounting plate with the reflector

1a. **For P & T Line models**, place the mounting plate on the frame and reattach the reflector using the original screws. This step is necessary, as otherwise the reflector cannot be reattached.

1b. **For A & C Line models**, the mounting plate is secured together with the drive unit - see step 2.



A & C Line

P & T Line

2. Roughly secure the drive unit with the supplied Brompton mounting plate and the clamping screw (4) (see p. 15).

This is for all models.



Connect the battery cable to the drive unit

3. Connect the battery cable to the drive unit, ensuring that the sealing lip is pushed all the way in as it will go.

Only now the battery cable can be secured with the cable ties.



PLEASE NOTE!

Take care, that the plug with the sealing lip is completely plugged in as far as it will go!



Tightening the battery cable

Secure the battery cable to the bicycle frame with cable ties as shown in the illustration, and cut off the excess ends of the cable ties.



ATTENTION!

When securing the battery cable, as shown in the illustration, create a loop to ensure that the cable does not become taut or strained when folding.



The battery cable should not shift

Repeatedly fold and unfold the bike to check that the battery cable does not shift and does not come into contact with moving parts, such as the chain.



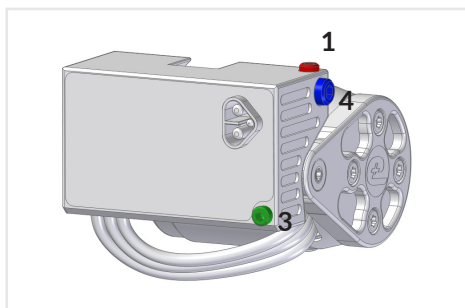
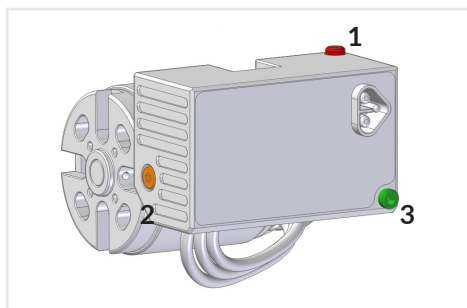
The battery cable is not pinched or kinked

Also check that the battery cable is not pinched or kinked during the folding and unfolding process.

DRIVE UNIT - MECHANICAL SETTING

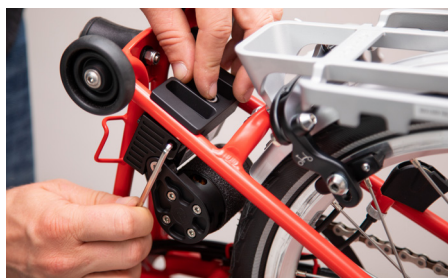
The heart of the system is the add-e NEXT drive unit.

The mechanical setting involves adapting the drive unit to the bike, and the ideal adjustment of the drive unit is important for the optimum function of the drive itself.



- 1** Setting screw for upper stop
- 2** Setting screw for freewheel
- 3** Setting screw for lower stop
- 4** Clamping screw

1a. Correct Position of the Drive Unit at A & C Line Model



Loosening the clamping screw (4)

Check the correct position of the drive unit by loosening the clamping screw (4) and sliding the drive unit towards the seat tube.

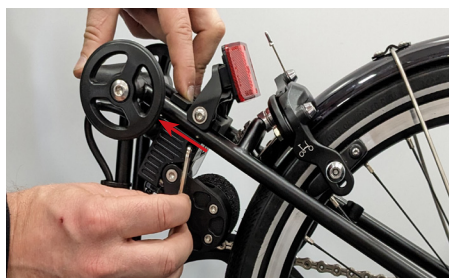


The electronics block rest gently against the frame

The electronics block should rest gently against the frame struts!

Tighten the clamping screw (4) in this position.

1b. Correct Position of the Drive Unit at P & T Line Model



Sliding the drive unit towards the seat tube

Check the correct position of the drive unit by loosening the clamping screw (4) and sliding the drive unit towards the seat tube. Tighten the clamping screw in this position.

2. Freewheel Setting (For All Models)

The freewheel setting screw (2) regulates the distance between the motor and the tyre in the Off position. There is no friction between rear tyre and the motor and therefore right engagement and disengagement of the motor is ensured.

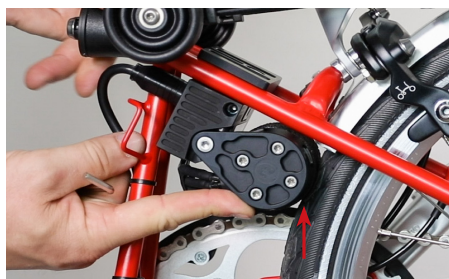


Loosen the freewheel setting screw

To adjust the freewheel setting, park the bike on a flat surface; never upside down!

Loosen the freewheel setting screw (2) by one turn so that the motor "drops down". It is not necessary to remove the screw completely.

The motor "drops" down. If this does not happen, gently tap on the adjustment screw.



Push the motor up, till it touches the tire

Push the motor up till it touches the tire and hand-tighten the setting screw (2) in this position.

When released, the motor swings into its final position. The distance between the motor and the tyre should be 1-3 mm.

3. Setting Upper Stop

The upper stop setting regulates how far the motor rises the tyre, to ensure optimum engagement and disengagement while the bike is in driving mode.



Imaginary line between the motor and the rear wheel

Push the motor t in the highest position till it touches the tire.

The setting should be such that an imaginary line can be drawn between the centre of the motor and the centre of the rear wheel.

Make any necessary adjustments to the upper setting screw (1).

Depending on the need, screw the upper setting screw in or out.

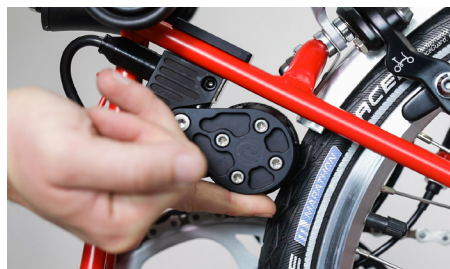
4. Setting Contact Pressure

Contact pressure is crucial to ensure consistent power transmission even in bad weather conditions. It needs to be adjusted, especially if the tyre pressure changes, in order to prevent increased wear. The contact pressure is regulated by the tyre pressure and the positioning of the drive unit.



ATTENTION!

Check the contact pressure at regular intervals to prevent the rear wheel from slipping and to avoid increased tyre wear. The motor must not slip under any circumstances!



The tire **MUST NOT** slip!

To check the setting, push the motor gently into the upper stop and hold the friction roller in this position.

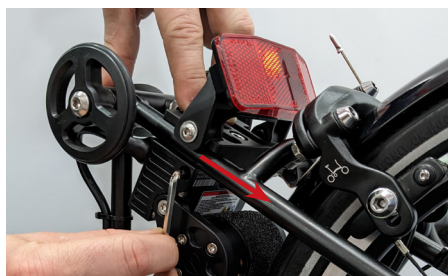
Simultaneously rotate the rear wheel backwards. The tyre **MUST NOT** slip!



Adjust the tyre pressure for A & C Line

If the tyre slips though, adjust the contact pressure as needed.

For A and C Line models, the contact pressure is primarily adjusted via tyre pressure.



Adjust the contact pressure P & T Line

For P and T Line models the contact pressure is regulated by adjusting the position of the drive unit along with the mounting plate. To increase the contact pressure, shift it towards the rear wheel.

For P and T Line models tyre pressure is **NOT** used to adjust the contact pressure!



ATTENTION!

The tyre pressure should not be lower or higher as permitted by the tyre producers!

5. Setting Lower Stop

The setting screw for the lower stop (3) prevents the motor from swinging back and forth unintentionally when riding over bumps.



Screw just does not touch the swingarm

Unscrew the setting screw for the lower stop (3) as far as possible without the screw touching the swing arm in a disengaged state.

6. Attaching the add-e NEXT Remote Control

The remote control provides an alternative to using the power setting knob on the battery to operate the add-e NEXT. This allows the battery to be installed in hard-to-reach places.



add-e NEXT remote control

The handlebar remote control can be attached optionally. For function and operation, see the user manual in the chapter: "add-e NEXT Remote Control".

CONGRATULATIONS!
THE ADD-E NEXT HAS BEEN INSTALLED
SUCCESSFULLY!

INSTRUCTIONS FOR USING ON BROMPTON FOLDING BIKE



Rubber bumper press against the motor, cable must not be squeezed!

During transport of the folded Brompton bike, the **rubber bumper** must press against the motor, as it ensures the locking of the folding mechanism. Depending on the length of the seat tube, this may alter the bike's folded dimensions.

The cables **MUST NOT** be squeezed!



PLEASE NOTE!

After the conversion, the drive unit takes over the locking of the folding mechanism. Minor production variations in individual rear frames may cause some Brompton folding bikes to reopen under sudden load. In such cases, additional securing with, for example a Velcro strap, is recommended.



ATTENTION!

The Brompton bike's frame geometry may vary slightly. When folding the Brompton bike, carefully slide in the seat tube, ensuring that the cables are NOT squeezed.

Note

All information regarding the function and operation of the respective components can be found in the "Operating Manual" section of the user manual.

Manufacturer:

GP Motion GmbH
Tiroler Straße 80
9500 Villach
Austria
Vers. 3.1/2023

Description and identification of the machine:

Function: Pedal-assisting electric bike drive (up to 25 km/h)
Type/modell: add-e
Series: NEX**T**

Responsible for the content and images:

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