



# Boost<sup>®</sup>

## User Guide

[boostbike.uk/projectlondon](https://boostbike.uk/projectlondon)

# Safety & compliance

Your safety is our primary concern so it is important you operate your Boost equipment safely.

The Boost e-bike system is designed and certified as compliant with EU & UK Electrically Power Assisted Cycle (EAPC) regulations as defined or superseded from EN15194 and ISO4210.

Users must be at least 18 years old. This product is strictly not for the use of anyone under 18 years of age.

The Boost battery and charging systems feature multiple levels of safety and are all CE marked by premium test houses. Battery CE certificates are available on request.

The National Fire Chiefs Council UK recommends the following for your safety while charging any high capacity lithium battery, such as your Boost battery.

- Do not charge your battery while sleeping
- Always unplug your charger once it has finished charging
- Plug the cable into a main socket rather than an extension lead
- Do not cover the battery with anything while charging
- Make sure you use the battery recommended by the manufacturer
- Always use the manufacturer-approved charger for the product
- Ensure you have working smoke alarms on every floor of your home and in the room where you charge the bike/scooter

# Welcome to Boost!

First, a huge personal thank you; we worked for over a year on this brand new system and crafted every piece of it to be the best possible upgrade for your Brompton companion.

I'm incredibly grateful to Cycling Plus, BikeRadar and others who think this might just be the best electric system for Bromptons!

Please search Facebook for 'Boost Bikes - In The Fold' to join me and over 100 Boost for Brompton owners worldwide enjoying our Boosted bikes.

Before starting your install, I recommend watching my installation video filmed at Eat, Sleep, Cycle in Girona - please head to [boostbike.uk/projectlondon](http://boostbike.uk/projectlondon) (video at bottom of page.)

We're here if you have any specific questions relating to your order - please drop us a line at [support@boostbike.uk](mailto:support@boostbike.uk).

With best wishes for many happy journeys,

*Nick*

Founder & Chief Engineer, Boost Bikes

## Contents

Safety & compliance

In the box

How Boost works

Range, care and charging

Display & phone / watch apps

Installing your Boost wheel

Installing your Boost battery

# In the box

## Included in your Boost Kit

- Fully assembled wheel with motor & sprockets
- Boost Battery Pack
- Boost charger & mains power cable
- TORX key & spare cable ties



## Optional extras

- Boost wireless display

## Technical specifications

- Battery is ten Samsung 35E cells, 3.5Ah / 36v ( 126Wh total )
- Motor is rated for maximum 250W continuous

# How Boost works

Boost makes your riding easier without having to fiddle with lots of assist settings. You can change the mode via our free app (iPhone, Android and Apple Watch) or using our Wireless Display. We've kept it super straightforward by design.

## **Eco**

A subtle level of assist at each speed band to make pedalling easier. It does not aim to accelerate you.

## **Boost**

Boost mode tends to accelerate you through the speed bands and will work even harder on hills.

## **Speed bands (automatic)**

You'll feel the motor add extra power as you move up through the speed bands - more speed means more power needed.

2.5 - 8mph

8 - 12mph

12 - 15.5mph

Above 15.5mph the motor is not legally allowed to help; you can still cycle as fast as you are able!

The motor does not add extra drag above 15.5mph (slow you down). We have designed a soft cut-off to the assist above 15.5mph to help you maintain a constant comfortable speed of around 15.5mph.

## **Super Boost**

Super Boost can help with a little extra push away from traffic lights. Click the right button on the optional wireless display, or the centre of the dashboard on the app.

(Boost mode automatically detects hills and add extra power so Super Boost mode will not provide extra benefit on hills.)



## Range and care

The Boost London system is designed for short hop journeys, such as around the city or from the train to the office. We want to keep your Brompton lightweight and nimble with the discreet benefit of electric assist.

In normal flat and undulating town conditions you can expect up to 30 kilometres of range. This is in ideal conditions and subject to many factors, not least how much effort the rider provides!

The battery is fully water resistant against rain and splashes. Hose pipes and pressure washers should not be used on the battery; a damp cloth is fine.

The battery pack is turned on via the push switch next to the non-drive-side pedal crank. It is deliberately recessed so that it cannot be accidentally turned on or off. Please do not prod the switch with anything sharp.

Turn off the battery when you're not using it. The battery pack will turn on when being charged.

## Charging your battery

Make sure to only use your Boost supplied charger with the battery. The charger and battery pack each feature multiple levels of safety. The charge socket on the battery is found underneath the rubber dust cover.

If you care for your battery it will last a long time. The best care regime is to charge it until full (2-3 hours from empty) and then unplug. Charge again once below 60% if convenient. Running the battery down to empty is bad for it and will reduce your total lifetime charge cycles. Keeping the battery reasonably topped up is best practice.

# Wireless Display (optional)

Your Boost system is designed to be automatic - put it in Eco or Boost and let it makes every journey easier.

Our phone & watch apps are free, and you can also order a wireless display for convenience. Wireless displays are available from our website and are compatible with all Boost systems.

[boostbike.uk/support/displayguide](http://boostbike.uk/support/displayguide)



	Left button	Right button
Click	Eco / Boost	10 second Super Boost
Hold 2 seconds	Backlight on / off	
Hold 2-4 seconds		Sleep motor
Hold 4+ seconds		Turn off display
Hold 4+ seconds	Turn off & forget bound controller.	

(This is for Version 3 firmware. Look for 03A when the display turns on.)

# Updating wheel size

Your wheel circumference is set up to a standard 1300mm so should work out the box. If you need to adjust the wheel size, you will need to download the app for Android, iPhone or Apple Watch. Please find the links in the 'Boost Phone Apps' section of this page.

[boostbike.uk/support](http://boostbike.uk/support)

# Installing your Boost wheel

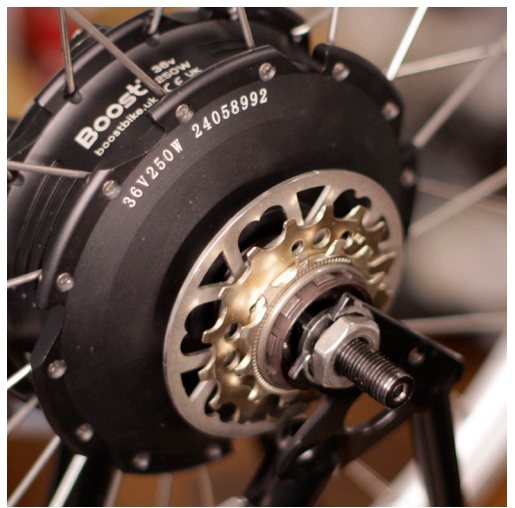
*This Boost system is designed for home installation or by a bike mechanic. If you are comfortable to adjust the brakes, chain tensioner and gear shifters on your Brompton then you will be able to install the Boost system. Always consult an experienced mechanic if in doubt.*

1. Unpack the system and check you have all the expected parts.
2. Remove the chain tensioner & wheel from your Brompton. Move the chain out of the way.
3. Being careful not to scratch your new wheel (and before you've put the tyre on), offer the wheel up to the bike and make sure it fits. You may need to hold the frame and spring it open slightly to fit the motor. This is normal and will not damage or alter the frame.
4. Check for any interference between the new wheel (including sprockets) and the frame. The wheel should rotate freely in the 'forwards' direction. Turning the wheel in reverse will have some friction as you are turning the motor via the internal one-way clutch.
5. Once you're comfortable of the fit, you can swap the tyre & inner tube onto the new wheel.
6. Secure the wheel with a full crown nut on the non-drive side of the axle, and the half nut on the drive side. **The half-nut requires only light/moderate torque** - too much will force the 2mm washer too far onto the axle and cause the magnet ring to bind. The chain tensioner goes over the half nut, and a full crown nut secures the tensioner.
7. You may need to replace your shifters or chain tensioner if you are moving to a 2-speed setup.

WARNING: Damage caused during installation is not covered by warranty. Please work methodically and carefully - nothing should require forcing.

Always pull (and wiggle) the CONNECTORS NOT THE CABLE if you need to unplug the motor. Pulling the cable will likely break it and this is not covered by warranty.

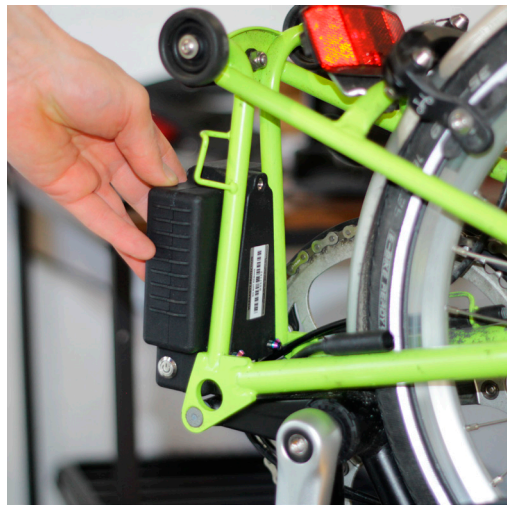




# Installing your Boost battery

1. The battery pack is held in place by three bolts. Remove the top single bolt and loosen the two lower bolts by two turns. The clamp panel (with a big B on it) will slide out of place.
2. Assemble your Brompton for riding and turn it upside down on the floor, resting on handlebars and saddle. Fully fold the Brompton rear frame at the main pivot into its folded position. This is the easiest way to access the front upright face of the Brompton rear triangle.
3. With the clamp panel removed, carefully put the Boost battery pack into place. It may require some wiggling but it should find a place to locate within the upright face of the triangle. Do not force it.
4. The battery cable can be routed above or below the non-drive-side chainstay. We have found good results by routing above - it may be more discreet below.
5. Slide the battery clamp panel into position, taking care of the gear & brake cables on the drive side. Put the top bolt back into place. Use the supplied T25 TORX key to turn each bolt until resistance is felt. Add another quarter turn to provide sufficient tension to hold the battery pack in place.
6. To connect the cable - when connecting or disconnecting the electrical cable between battery pack and motor, hold onto the connectors and NOT the cable. The cable would be damaged by pulling on it when attempting to separate the connectors.
7. Carefully, gently and incredibly slowly unfold the rear frame into the normal riding position. This is the most likely moment to damage something as if the frame drops it can crunch significant force into the battery pack. The battery pack should sit flush onto the rear frame.
8. If it all seems happy and in place, add cable ties to the wire (supplied).







Designed and made with pride in London, England