

Quantum Broadway Bike

User's Guide



About us

Quantum is a proudly Canadian company founded in Montreal, Quebec. Since 2015, we've prided ourselves in our expertise of contemporary technologies, while simultaneously developing products which hold up in future market trends. Our expertise lies in the design & manufacture of high quality eBikes, as our team works meticulously to develop an intuitive & enjoyable experience.

CONGRATULATIONS ON PURCHASING A BROADWAY ELECTRIC BIKE!

Day after day, your new *Quantum Broadway* will provide hours of pleasure riding country roads or city streets. Your Quantum bike has been designed to be practical and easy to use. The frame and most of the components are manufactured from lightweight, corrosion resistant aluminum. Components such as the stem and handlebars, seatpost and folding mechanism are designed so that they can be adjusted without tools. In order to get the most out of your new bike, it is important to maintain it properly and have it checked regularly by a qualified bike technician. Your bike should be serviced at least once a year, although you might need to visit your local bike shop more often if you're a regular rider! During this maintenance, the technical team will verify the hubs, crankset, headset, chain wear, gears and other components. If you notice anything abnormal while riding, we recommend that you quickly make an appointment with your Quantum Dealer in order to prevent further damage. If in doubt about the procedures, please contact your Quantum eBikes specialist.

Cleaning Instructions

- Refrain from using a high pressure washer to clean your bike. This can drive grease or lubricant from the components, accelerating wear. Due to the high pressure, the water could penetrate into the electrical components and introduce corrosion which will warrant replacing the affected components.
- Soap, oil and grease must not come into contact with the brake discs, as the oils will soil the surface of the rotor and drastically reduce the braking power.
- Avoid moisture around battery connections when the battery is removed from the frame.
- Like any bicycle, we strongly recommend that it be inspected after a period of prolonged storage.

When using:

- For your safety, it is strongly recommended that you wear a bicycle helmet, and respect the safety rules and regulations of your country.
- Do not use a phone or any other electronic device when riding a bicycle.
- Keep in mind that you are sharing the road with pedestrians, cyclists and vehicles that may underestimate the speed of an eBike.
- Ensure that loose clothing, scarves, laces, pants, etc. are tucked away and do not interfere with moving parts.
- These bikes are not designed for extreme loads such as those encountered when jumping sidewalks or stairs.
- The maximum load supported is 110kg. Overloading the bicycle could lead to irreversible damage and very possibly serious injury.

We wish you many years of enjoyment with your new electric bike!

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1. Spec Sheet

PRODUCT DESCRIPTION: One size fit all foldable e-bike

AVAILABLE COLORS: Pearl White, Gunmetal Grey, Rainforest Green, Red Gloss

WEIGHT: 20,41 kg (45 lb) without battery and 22,45 kg (49,5 lb) with battery

DIMENSIONS UNFOLDED: Height: 121cm (47.6in) - from ground to handlebar | Length: 160cm (63in) | Width: 66cm (26in) - handlebar end to end

DIMENSIONS FOLDED: Height: 73cm (28,74in) | Length: 76cm (29,92in) | Width: 42cm (16,54in)

TIRES DIMENSIONS: 20 "x 2.25"

TIRES: K-841 Puncture Proof with Reflective Band

RIM: 20 x 1.5 «, Silver

FRAME: Aluminum with integrated handle for easy transportation

FORK: Central Telescopic Suspension Fork

REAR RACK: Aluminum

MUDGUARDS: Steel, Black

STEM: Aluminum Alloy, Adjustable from 280 to 370 mm

HANDLEBAR: Aluminum Alloy

GRIPS: Synthetic Material, Ergonomic Fit

SADDLE: Ventilated with Integrated Handle

SEATPOST: Aluminum, Adjustable though 0-280mm (Radius of 33.9mm)

CRANKSET: Aluminum, 46 teeth, with Chain Guard

PEDALS: Wellgo Foldable; Plastic Chassis with Steel Spindle

REAR DERAILLEUR: Shimano Acera Grip Shift

DRIVETRAIN: 8 speeds

BRAKES: Disc Brake

KICKSTAND: Rear mounted

LIGHTS: Front and Rear Lights with Integrated Reflectors

ELECTRICAL SYSTEM

DISPLAY: LCD Display, Indicating Assistance Level, Trip & Total Odometer, and Speed.

ASSISTANCE LEVELS: 0 (no assist) to 5 (full assist)

BATTERY: 36V 13.6Ah (489.6Wh), positioned in the frame, removable with lock

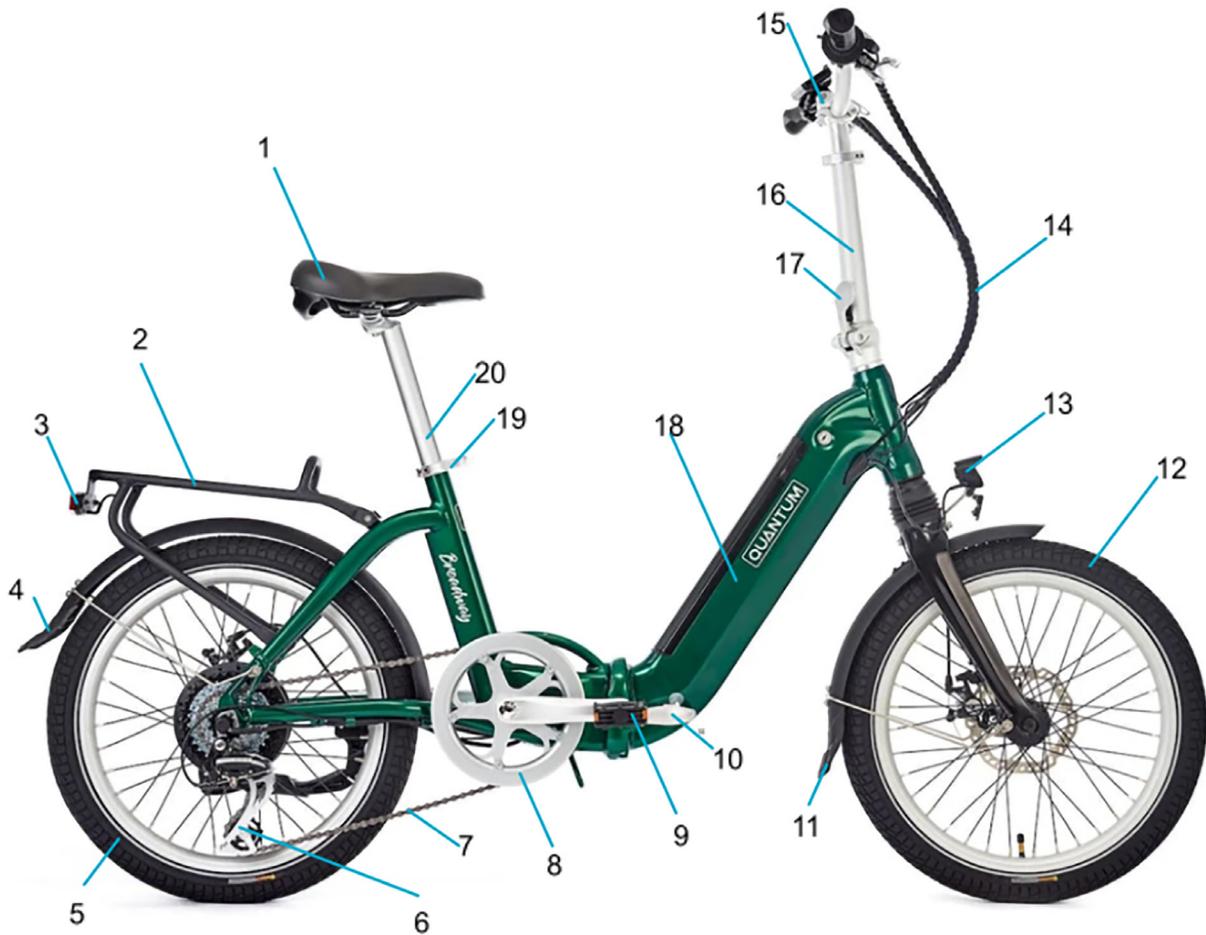
BATTERY TYPE: Li-ion

MOTOR: 350W Rear Motor

MAX SPEED: 32 KM / H (20 mph)

CHARGER: 2A, for 36V Li-ion batteries

2. Components



1. Saddle
2. Luggage rack
3. Rear light
4. Rear fender
5. Rear wheel
6. Derailleur
7. Chain
8. Crankset
9. Pedals
10. Folding frame quick release
11. Front mudguard
12. Front wheel
13. Front light
14. Control cables
15. Handlebars
16. Stem
17. Folding jib crane quick release
18. Frame
19. Seat post quick release
20. Seat post



- 21. Rear wheel electric motor
- 22. Kickstand
- 23. Transmission
- 24. Tire inflation
- 25. Bracket to hold folded bike
- 26. Disc brake caliper
- 27. Disc brake
- 28. Central suspension fork

- 29. Brake lever
- 30. Shift lever
- 31. Bell
- 32. On-board computer
- 33. Handle
- 34. Stem quick release
- 35. Battery key lock
- 36. Battery

3. Information on Operation and Maintenance

3.1 Positioning & *Quick Release Systems*

The height of the handlebars determines the pressure on your hands and posture, and therefore has a substantial impact on your riding comfort. For optimal balance of comfort & efficiency, 30% of weight on your should be on your bottom, 30% of weight on your hands, and 30% of weight on your feet. This leaves 10% of total pressure to be applied to your liking depending on the situation. Also note that for the health of your knees, your legs should have an approximate bend of *10 degrees* at the bottom of a pedal stroke. A shorter extension will create pains in your knees, and a longer extension will hyperextend ligaments in your ankle.

Quantum Broadway bikes are equipped with *Quick Release Lever* adjustments on the handlebars and seat post, allowing you to fine tune your riding fit without the need for tools or a technician. Your handlebars should be centered and the handles level. All of these *Quick Release Levers* must be folded in such a way as to produce a force of 5 to 8 Nm, or *very firm*. If you are unsure regarding the required pressure, please consult your Quantum dealer.

Before each ride, make sure your handles are firmly attached and not twist or budge. This is the main point of contact with the bike & ultimately how you remain in control.

To avoid accidents, DO NOT adjust any *Quick Release Systems* while riding!

3.2 Cockpit Maintenance

The headset bearings under the handlebars and the stem should be lubricated every 1-3 years. If you store your bicycle outside or frequently ride in the rain or snow, you will need to address lubrication of parts more frequently. If you notice that the headset is stiff, squeaks, or not functioning properly, you may need lubrication. You can go to your Quantum specialist for this.

If you dent, bend or damage the steering system, visit your Quantum dealer to have the stem & handlebars replaced. Attempting to return the handlebars to their original shape will create a weak spot at the fulcrum, which can turn into a crack or fail under pressure.

3.3 Lighting

When cycling, it is necessary to be visible by other users of the road. The front and rear of the Broadway are equipped with LED lights to ensure 360 degree visibility. The lights can be activated by pressing & holding the “+” button for 3 seconds. You can turn off the lights by following the same procedure. Be aware that if you don't hold “+” for 3 full seconds, the console will register the input as an increase in assistance. Always take note of the level of assistance displayed on the screen before using your eBike.

3.4 Brakes

Your Quantum Broadway is equipped with mechanical disc brake calipers and 160mm rotors. After ~1000 km, have the pads inspected by your Quantum dealer, as the pads may need to be replaced or cleaned. The left lever operates the front brake and the right lever operates the rear brake.

These can be reversed by your Quantum Specialist if you are used to riding a bicycle in countries where it is reversed, or for any other reason.

Your brakes have a longer stopping distance in wet conditions,
adapt accordingly.

3.5 Gears

Quantum Broadway bikes are equipped with a Shimano 8 speed shifter. Over time, the derailleur cable will stretch and it will be necessary to readjust it in order to ensure proper functioning of the derailleur. This is an expected occurrence, and can be addressed without a technician, by loosening the barrel-adjuster on the brake by approximately one rotation, where the cable meets the lever. If you require assistance, contact your Quantum dealer.

You must continue to pedal to change gears on a derailleur. For the smoothest shifting, alleviate pressure while changing gears. Avoid shifting gears under load, such as going uphill. This can damage the connecting pins and possibly break the chain, as well as damage the freewheel teeth.

3.6 Chain

It is important that the chain is cleaned and lubricated regularly. First, remove the battery to ensure power is disconnected, then turn the pedals backwards while spraying the chain on the rear sprockets with degreaser. After that, lubricate the chain with a thin layer of chain lube, available at your Quantum Dealer. Rotate the chain several times. Remove excess lubricant with a dry cloth.

Broadway chains can be checked with a wear indicator at your Quantum dealer. When a chain measures 0.75 on a wear indicator, it is advisable to replace it.

3.7 Wheelset

Components of the Wheel



1. Tire
2. Rim
3. Inner tube valve (inner tube is in the tire)
4. Spokes
5. Hub

To remove a wheel:

Front Wheel:

Unscrew the axle nuts by removing the quick release lever.

Rear Wheel:

The rear wheel axle nuts are bolted on with 18mm nuts. The axle has «anti-rotation» spacers with a tongue. They are used for proper hub spacing and to prevent the hub from rotating inside the frame. Make sure the tabs on the anti-rotation spacers align to fill the opening at the bottom of the axle in the frame. Removal & service of the rear wheel/motor assembly is strongly recommended to be carried out by a Quantum Technician.

Tires

Broadway tires should be inflated between 45 psi and 65 psi. Closer to 65 psi will provide a faster & firmer ride. Closer to 45 psi, you will lose some efficiency for additional comfort, as shock is absorbed in the softer tire. Where you sit in the range is personal preference.

Check your tire tread regularly. If the tread is almost gone, or you can see the canvas in some places, the tire will need to be replaced immediately. If you see small cracks in the tire or get multiple punctures, it means you need to change your tire.

3.8 Aesthetic Maintenance

Do not use alkaline cleaners such as ammonia, soda, or petroleum-based chemicals. It is best not to use products containing fluorides, chlorides or sulfates. These products can attack the varnish of the bike causing it to lose its shine. The best way to keep the paint clean is with a soft cloth and clean hot water. You can add a mild liquid soap if needed.

Avoid the use of a high pressure jet cleaner. The jet of steam or water can actually penetrate directly into the bearings or the suspension system where it will remove grease or essential oils for the proper functioning of your bike.

3.9 Battery Information

The Quantum Broadway uses a lithium ion battery complying with ISO13849, IEC62133 and UN38.3 certifications & regulations. To learn the battery charge level, refer to the on-board display, or press the battery power button and note the color:

Blue = battery 95-100% charged

Green = battery charged

Red = battery discharged

Charging the battery

Your bike is delivered with a charger for the 36V battery. To charge a battery, first plug the charger into any 120V wall outlet, then plug the plug into the battery. On the left side of the frame is a rubber plug that opens to show a window where the charger connects. DO NOT USE ANY CHARGER OTHER THAN THE ONE PROVIDED WITH THE BIKE. Never leave a charger in the battery unattended. Your charger has a light that will turn green when charging is complete. The charge amount is also visible on the screen. Do not use your bicycle while charging.

Battery charging

.....

Battery charged

Green light
flashes on
battery



Flashing
Red light
on the
charger

Light off
on battery



Green
light
flashes
on the
charger



Battery Safety Notes

- It must be recycled or disposed of properly.
- Do not throw it into a fire or short-circuit it directly.
- Never disassemble.
- Do not drop the battery or subject it to excessive shock.
- Do not place the battery in an environment above 60 degrees Celsius.
- The battery can be damaged if it is not charged for long periods of time.
- Be sure to charge the battery at least every 3 months to at least 65% capacity.



Port to charge the battery without having to remove it from the frame

3.10 Theft prevention

A unique serial number is assigned to each bike. You will find this number on the bike and on the purchase receipt sent to you by your Quantum dealer. The battery lock mechanism also has a unique key with a serial number. Please take the time to photograph the numbers, or write them down and keep them in a safe place. If you have lost your bike key, you can order a new one, quoting the key number.

If your bike is stolen then you can report it as such by providing the frame serial number when reporting to the police. To prevent theft, it is always wise to lock your bike with a high quality lock and store spare keys safely. We recommend that you use a chain with an additional U-Lock, in order to protect yourself as much as possible against theft.

4.1 Folding / Handlebars

To fold the stem, press the button on the quick release and simultaneously pull the lever down. (figure 1 & 2).

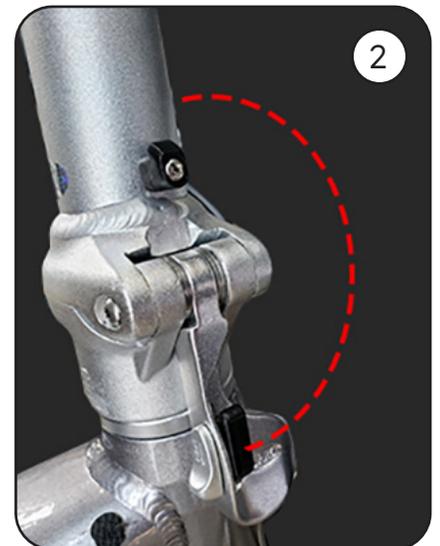
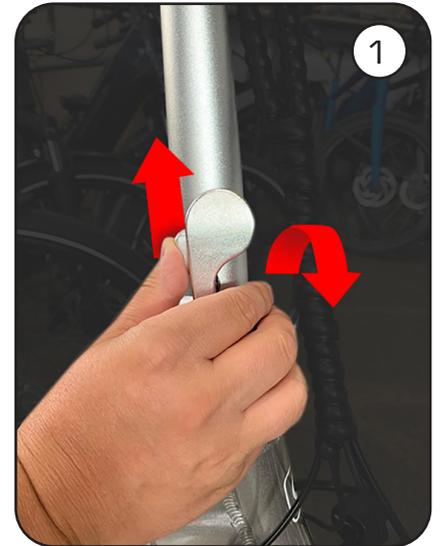
The stem is no longer fixed and you can fold it downwards (figure 3).

Note:

When you reposition the stem to the vertical, make sure the quick release is fully open before closing the mechanism (figure 2).

WARNING

Ensure that the stem quick release is closed when riding. Never open the stem quick release while riding ! Never insert your fingers inside the folding mechanism of the quick release!



4.2 Folding

Pedals

Press the inside of the pedal outwards (figure 1), and lower the pedal simultaneously (figure 2).

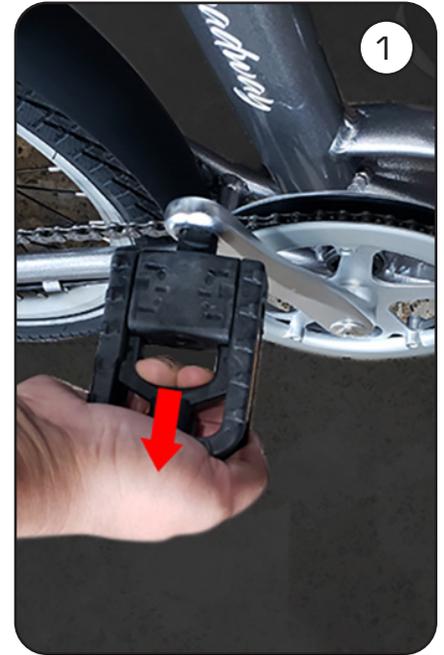
Note:

Make sure that the positioning of the pedals does not interfere with the folding of the bicycle frame!

WARNING 

Make sure the pedals are not folded up when riding!

Be cautious of your fingers as the pedals have a spring to help with the folding mechanism.



4.3 Folding

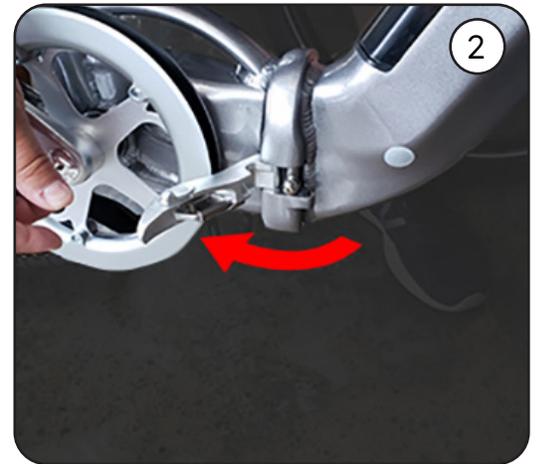
Frame

Push the button while pulling the quick release outward (figure 1 & 2).

Fold the bike in half, and rest it on the metal bar (below the pedals) to keep the bike in a stationary position (figure 3 & 4).

WARNING 

Beware of accidents: ensure that the frame safety closure is always closed before riding!



3



4



5.1 Adjustments

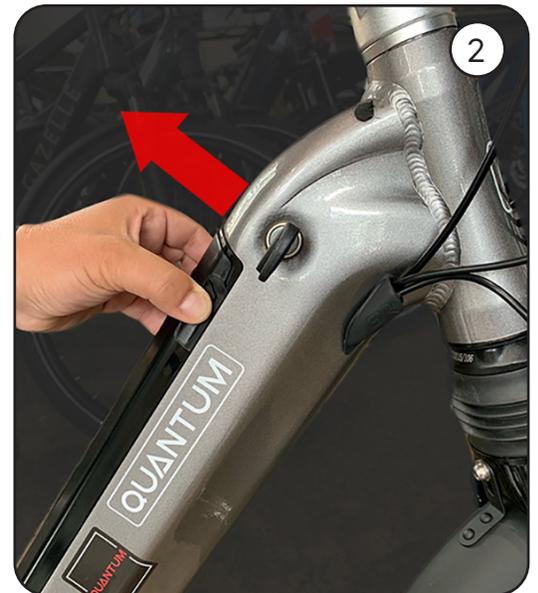
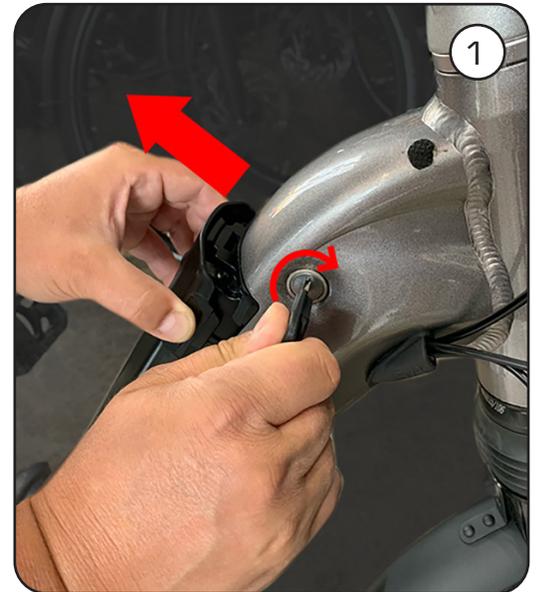
Battery

Pull the side ends of the battery and turn the key simultaneously to extract the battery (figure 1 & 2).

To reinstall the battery : insert the bottom part of the battery first and push the battery inside the frame with the key in «open» position (if the key is in the «closed» position the battery will not be able to be inserted!)

Note:

Removing the battery from the frame considerably reduces the weight of the bike when folding and transporting.



5.2 Adjustments

Handlebars & Saddle

Handlebars

Open the quick release located under the handlebars (figure 1).



Pull the handlebars up or down in order to adjust the Height. Do not forget to close the quick release (figure 2).

WARNING

For your security it is recommended that the MAX safety mark on the post is not visible ! If it is visible, the handlebars could become loose causing the rider to lose control of the bike.

Saddle

Open the quick release on the seat post (figure 3).



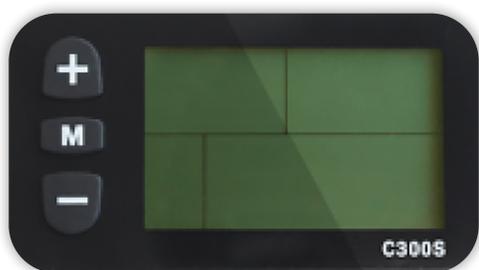
Adjust the seat to the desired height and close the lever (figure 4).



WARNING

For your security it is recommended that the MAX safety mark on the rod is not visible!

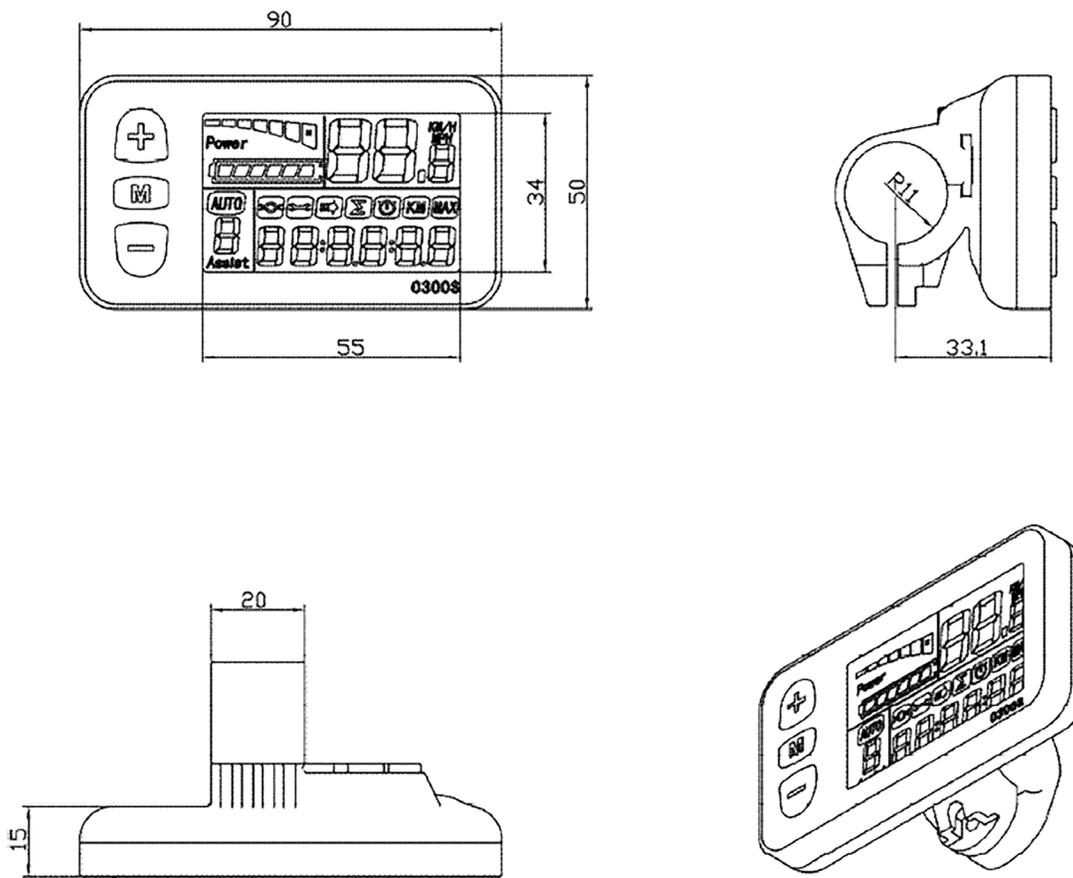
6. On-board computer



(C300S-LCD model)

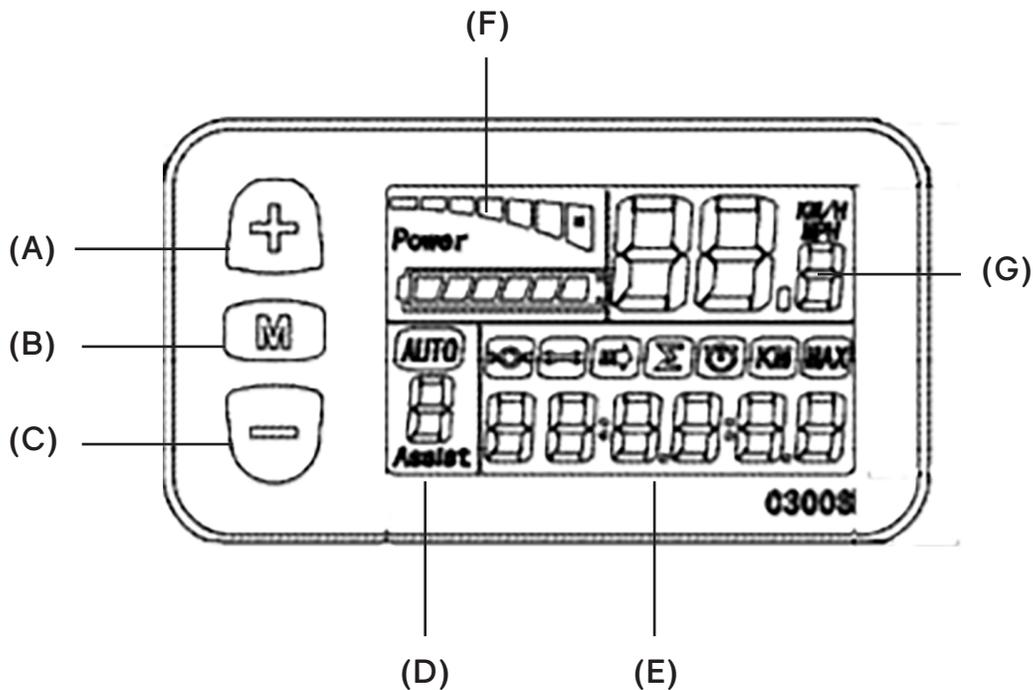


6.1 Dimensions



*(Unit: mm)

6.2 Summary of LCD Functions



Tactile Functions

- (+) Assistance Increase. Hold for 3 sec to turn lights on / off.
- (M) Mode button. Cycles the electrical system on / off when held; selects the different displays when quickly pressed.
- (-) Assistance Decreases. Hold to activate the walk assist.

Info Functions

- Display of the different levels of assistance (1 through 5). Use + and - to cycle levels.
- Display of odometer, distance traveled, travel time, maximum speed. Use M to cycle through the desired information.

Battery Measurement System

- When the battery capacity is > 90%, all six segments of the pictographic battery will be filled. When the battery is > 10%, the battery pictograph will flash, indicating the battery should be recharged at once.

**The panel goes to sleep when the speed is less than 2 km / h for 5 minutes.*

6.3 Data Reset

To reset trip time, distance traveled and speed maximum follow the steps below:

- a. Hold “+” and “-” for 2 seconds at the same time to enter the setting mode.
- b. Click “-” to erase the distance traveled, the duration of the trip and the Maximum speed.
- c. Click on “+” and “-” at the same time to exit the configuration.

Note: do not modify the other parameters in adjustment mode.



* Menu to reset data

6.4 Walk Assist

Press and hold “-” for 2 seconds to activate the walk assist mode. The electric bike will run at 6km / h.



*Walking assistance display

6.5 Auto Shutoff

When the driving speed is less than 2 km / h for 5 minutes, the system will automatically go to standby.

6.6 Error Codes



* Example: Error code 9

If you see one or more of these errors,
please contact your Quantum Dealer ASAP.

Error code	Error information
(21)	Electric current fault
(22)	Throttle fault
(23)	Motor phase fault
(24)	Engine signal fault
(25)	Brake fault
(9)	Anomaly in the panel communication

7. Warranty

Quantum guarantees that this bike was manufactured professionally & safely, under a rigorous quality control environment. During the production, various quality verifications have been made. If, despite all efforts, your Broadway bike is defective in material and/or ride quality (under normal use described in the manual), Quantum will honor the warranty of applicable service or part replacement. If you believe your warranty to be applied or if you require more detailed information about the application of your warranty, please contact Quantum eBikes.

The following warranty conditions apply to your Broadway bicycle. All conditions are applicable from the date of purchase.

- Five-year warranty on the frame.
- Two years warranty on the electric system.
- One year warranty on all other parts.

8. Responsibility

A claim honored by Quantum under these warranty conditions does not constitute an acknowledgment of liability on the part of Quantum for any loss or damage suffered by the owner or by third parties. Any liability on the part of Quantum for consequential damages is excluded. Quantum's liability is limited to what is stated in the warranty conditions, unless otherwise provided by mandatory legal provision.

9. Legal Notice

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