Zoomo 1 User Manual - Original Instructions

INTRODUCTION

Our brand stands for robust, repairable design and maximum utility / function. Please make sure you have read and understood this complete user manual before using your Zoomo E-Bike, as it contains a lot of information relevant to your personal safety. **Failure to follow the instructions and warnings can lead to serious incidents or accidents, resulting in personal injury, including death, or significant damage.**

Each person using, repairing, servicing or disposing of your Zoomo E-Bike, should fully acknowledge and understand the content of the user manual. If there still are any unanswered questions please contact your local Zoomo workshop or dealer, or contact Zoomo at hello@ridezoomo.com.

This user manual is part of the scope of delivery of your Zoomo E-Bike. It is only valid for the product shipped along with it. Please make sure to store this manual in a safe place. Please also make sure you understand your national guidelines before using your Zoomo E-Bike on public roads. The contents of this manual could be altered without prior public announcement. Updates can be found on our website www.ridezoomo.com

Zoomo Pty Ltd., Suite 1, 11-17 Buckingham Street, Surry Hills NSW 2010

1. IMPORTANT SAFETY WARNINGS:

Riding or using any bike, E-Bike, or other vehicle always involves some risk of serious injury or death. Your safety depends on many factors including your bike knowledge, your bike's maintenance, foreseeable riding conditions, and many others. There are also factors we cannot control or anticipate in every situation or condition. This manual makes no representations about the safe use or E-Bikes under all conditions. If you have any questions, contact us immediately.

In addition, E-Bikes use Lithium-Ion batteries, which, due to their composition, naturally present the risk of fire. Follow all warnings and guidelines in this User Manual to reduce the risk of a thermal event occurring.

⚠ indicates a hazardous situation that, if not avoided or followed, has a high risk of death, serious injury, or property damage.

⚠ **DO NOT alter or modify anything in your E-Bike's electrical system (including any wiring), the battery, digital controls, physical components, or drive train. Doing so may result in damage to your bike, or lead to**

electrical issues which could lead to a fire resulting in personal injury, including death, or serious property damage.

⚠ **This E-Bike should not be operated by anyone under the age of 18. Children under the age of 18 may lack the necessary judgment and skill to safely operate the E-Bike, potentially resulting in accidents causing serious injury or death.**

⚠ **This E-Bike is powered by a Lithium-Ion Battery. Lithium-Ion batteries pose a significant risk of fire if they are not used, handled, treated or charged properly.**

- **Damaged batteries may lead to the battery experiencing a thermal event or fire. Damaged batteries, even with minor damage, need to be inspected by professionals.**
- **Do not drop, puncture, crush, disassemble or repair the battery.**
- **Stop using the battery if the charge port cover is broken or missing.**
- **Stop using the battery if the battery has been dropped, or has any physical damage.**
- **If Storing the battery, do so in a cool, dry place between: -20°C and 45°C (-4°F and 113°F) for up to three months -20°C and 20°C (-4°F and 68°F)**
- **ONLY USE THE CHARGER THAT IS SPECIFIED FOR AND HAS BEEN SUPPLIED WITH YOUR BATTERY.**
- **DO NOT OVERCHARGE YOUR BATTERY.**
- **See page 24 for the full instructions and warnings surrounding your battery.**

⚠ **Turn the assistance off when you step off the bicycle. Never walk with enabled assistance.**

⚠ **Keep the left brake lever (brakes are supplied with brake circuit-breaker) pressed in when you are stationary with enabled power assistance.**

⚠ **Always wear suitable clothing and make yourself visible to drivers.**

⚠ **Check your local helmet standards and consider always wearing a helmet when using the bike. Zoomo recommends that you always wear a helmet while riding.**

⚠ **Don't use a high-pressure hose to clean the bicycle. A powerful beam of water can damage the electronics of the bike, voiding the warranty and potentially leading to a fire.**

⚠ If you detect a problem with the bike, book a repair / service before using the bike again.

⚠ Take the time to get used to your new bike. The powerful disk brakes do not need a strong pull on the lever to slow you down.

⚠ An electric bike behaves slightly differently to a normal bike, notably faster acceleration. A progressive riding approach will help you get used to it.

RIDING WARNINGS

⚠ The bike's components may become hot after heavy use. Do not touch the motor or brake components (calliper, disc rotor) as there is a burn risk.

⚠ Your E-Bike is designed for on-road use only. Do not ride off-road, off jumps, or down steep bumpy terrain. DO NOT ride the bike over jumps or in skate parks.

⚠ Do not exceed the luggage total loading of 40kg. The total payload of the bike should not exceed 180kg (rider + cargo)

⚠ Always check the brakes, tire pressure, steering function and rims and spokes prior to each use.

⚠ Increase stopping distances in wet weather / ice / snow and avoid heavy braking in these conditions.

⚠ The bike is fitted with lighting and reflectors. Always make sure that the lighting and reflectors are present.

⚠ As with all mechanical components, pedal assist cycles are subject to wear and high stress on certain components. These components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches or change of color in highly stressed areas indicate that the life of the component has been reached and it should be replaced.

⚠ Keep both hands on the grips on the handlebar and the brake levers within reach while riding, to be able to immediately respond to any circumstance. Failing to do so can cause you to lose control over the bicycle.

2. Vehicle Overview

1. Display 2. Brake Lever 3. Front Light 4. Stem 5. Headset 6. Front Fender 7. Fork 8. Rim 9. Brake Caliper Front 10. Rotor 11. Spokes 12. Tyre 13. Downtube 14. Saddle 15. Seat post 16. Battery 17. Rear light 18. Rear fender 19. Brake Caliper Rear 20. Rear Axle 21. Pedal 22. Crank Arm 23. Chainring 24. Kickstand

Recommended Torque Ratings (Table 1)

Component	Screws and bolts	Torque value		
Transmission				
Rear derailleur	Fixation screw Cable screw Tension screw	**8-10 Nm** **5-7 Nm** **3-4 Nm**		
Gear lever	Fixation screw	**5 Nm**		
Cassette	Tightening screw	**40 Nm**		
Crank	Fixation screw on motor axle	**45-50 Nm**		
Pedal	Pedal axle	**25 -30 Nm**		
Chain guide	Fixation screw	**5 Nm**		
Cockpit				
Saddle on seat post	Seat post with 1 fitting block Seat post with 2 fitting blocks	**22 Nm** **12 Nm**		
Seat post	Seat post clamp	**5 Nm**		
Stem	Screw on the handlebar Screw on the pivot Screw on the stem cover	**5 Nm** **6-8 Nm** **3 Nm**		
Grips	Fixation screw	**2-3 Nm**		
Accessories				
Mud guard	Fixation screw on the fork Fixation screw on the support Fixation screw on luggage rack/frame	**5 Nm** **3 Nm** **5 Nm**		
Kick-stand	Fixation screw	**6-8 Nm**		
Brakes		Formula	Shimano	Magura
Brake caliper	Fixation screw on the frame/fork	**5 Nm**		
Brake lever on handlebar	Fixation screw on the brake lever	**4 Nm**		
Disc brake	Fixation screw on the hub Shimano Center lock bolt	**4 Nm** **40 Nm**		

3. Riding Position & Bike Setup

⚠ **WARNING! Incorrect assembly, maintenance, or use of your E-Bike can cause component or performance failure, loss of control, serious injury, or death. Even if you are an experienced rider, you must read and understand this manual.**

a. Saddle Height

The first set up to carry out on your Zoomo is the saddle height. Once again, your local workshop can help you do this. You must not hesitate to adjust this if you do not find the correct height immediately. We have a good tip to help you find the correct setting quickly: position the crank in line with the seat tube, without being lopsided on the saddle and place your heel on the pedal with your leg almost straight. (Figure 3).

Figure 2. Ideal Post Height

To adjust the height you need to open the seat clamp's quick release or unscrew the screw on the seat clamp with a 4 or 5 mm allen key. Once the height is adjusted, close the quick release lever. If necessary adjust the tightness level on the opposite nut so that the lever tightens around midway through closing. In the case of a seat clamp with screw, tighten the screw to the recommended torque level which is 5-6nm. **Never go past the recommended torque level.**

Figure 3.Min insert level seatpost

⚠ **WARNING! NEVER GO OVER THE MAXIMUM HEIGHT LEVEL ON YOUR SEAT POST MARKED BY THE ENGRAVING « INSERT MIN » OR « STOP ». DOING SO MAY CAUSE THE SEATPOST TO SNAP OR BREAK OFF YOUR BIKE WHILE RIDING, WHICH WILL PUT YOU AT VERY HIGH RISK OF SERIOUS INJURY OR DEATH.**

b. Setting Saddle Position

We have equipped our bikes with ergonomic saddles, but a careful set up is required to ensure optimal comfort. In this section you will find advice for an angle and set back of your saddle, that's adjusted to the type of riding you do. It is generally advised to position the saddle horizontally for a mixed usage.

Figure 4. Intermediate saddle setback position

The saddle set back (position on the horizontal slides) should be adjusted for the length of the femur. In general an intermediate setback is adequate as shown in figure 4 above.

c. Setting Saddle Angle - One Bolt

This applies if you find a single bolt underneath your saddle. To adjust the angle of your saddle you need to carry out the following process:

1. Loosen the screw that holds the saddle and seat post using a 6mm allen key as in Figure 8 to obtain enough play to easily move the saddle.
2. Adjust the angle and setback of the saddle as suits you.
3. Tighten the screw, ensuring that it does not surpass the maximum torque level indicated next to the screw.
4. Check that the screw is correctly in place and that there is no play

Figure 5. Tightening / loosen single saddle bolt

d. Setting Saddle Angle - Two Bolts

If you have found two fitting bolts under your saddle.. To adjust the angle of your saddle you need to carry out the following process:

1. Loosen the two screws that hold the saddle and seat post using a 5mm allen key (see Figure 9) until the saddle can move easily.
2. Adjust the angle and setback of the saddle as suits you.
3. Tighten each screw a half-turn, alternating between the two, without going over the maximum torque level that is indicated next to them.
4. Check that the saddle is correctly in place and that there is no play.

Figure 6. Tightening / loosen single saddle bolt

e. Setting brake lever position

Our bikes are already set up to offer you optimal ergonomics. However, if you wish to adjust your cockpit, we advise you to proceed as follows:

1. To ensure a good lever position, loosen the screw(s) holding the lever onto the brake attachment, then adjust the angle so that it is in line with your forearms when you are in riding position (see Figure 7).
2. Adjust the distance of the brake lever from the grip in order to easily use the brake lever with two fingers (see Figure 8).
3. Retighten the screws on the brake attachments to 6 Nm. For any other adjustment, check the dedicated notice or consult your retailer.

Figure 7. Brake lever aligned with the forearm.

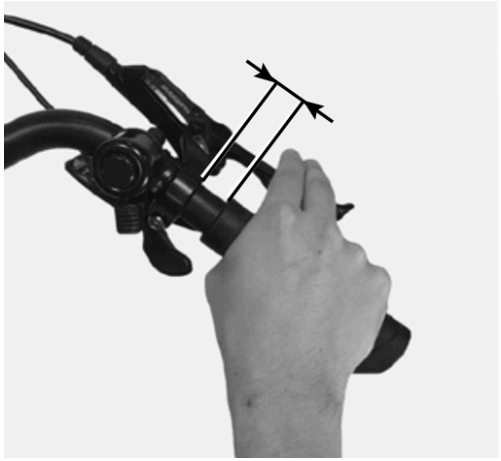


Figure 8. Distance between lever and grip

f. Headset

The headset is made up of two bearings and cups placed at each end of head tube. The 1 bike has an "A-head " head set: this is adjusted using the round hood which is found above the stem (as in Figure 9). During more intense rides, the headset is put under incredible stress. It is therefore possible that play will develop. Be careful, riding with any play in your head set can deteriorate your head set and even your frame. In order to check if your head set is in good shape, there are two simple tests that should be carried out before you ride:

TEST 1 - With the front brake on, try to move your bike forward and back. You will immediately notice if there is a high level of play or not.

TEST 2 - Make the front wheel of your bike bounce. You will hear a sharp loud noise only if there is significant play in the head set. Pay attention to other noises, such as those of the cables hitting against the frame, or even the spokes. Do not take these into account.

If you have found play in the head set, follow these steps:

1. Loosen the screw(s) on the stem as seen in figure 9.
2. Then progressively tighten, without forcing, the screw in the hood until play disappears as in stage 2 of Figure 12.
3. Check that play in the fork is no longer present. The fork should turn easily and you should not feel any friction or resistance when it turns.
4. Retighten the screw(s) on the stem following the recommended torque setting of 5nm. As seen in figure 10. Equally tighten multiple screws.

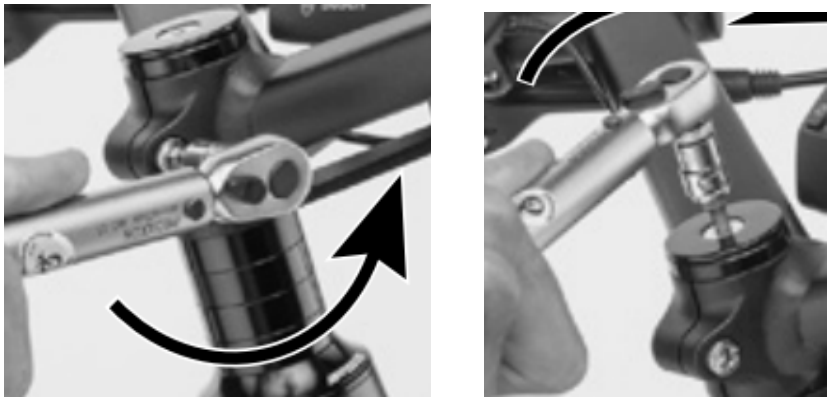


Figure 9. Headset tightening step one loosen stem screws F then tighten the top cap

Figure 10. Retighten the stem bolts to 5nm

g. Adjustable Stem

Your Zoomo 1 may be fitted with an adjustable stem. If this is the case the stem can be adjusted for height and reach. The stem can be adjusted between the angles of 0 to 60 degrees. In order to adjust the angle of the stem you will need a 5mm allen key. It is recommended that the stem is adjusted close to 60 if you are shorter and prefer a higher bar. It should be closer to 0 if you want to extend the reach and prefer a sportier riding position.

Figure 11. Loosen the M5 Bolt (center)

When the bolt is loosened you can adjust the handlebar stem to the desired position / angle. Once this is set re-tighten the bolt to 12-13nm

Figure 12. Adjusting the stem to position

4. Pedals

a. Fitting Pedals

To install your pedals, follow these steps:

1. Put a small amount of mounting grease (you can find this at your local bike retailer) on the thread of each pedal.
2. Tighten the right pedal (marked «R» on the pedal, see Figure 11) in a clockwise direction on the crank on the drive side.
3. Tighten the left pedal (marked «L» on the pedal, see Figure 11) in an anti-clockwise direction on the crank on the left side.
4. The recommended torque is 30 Nm

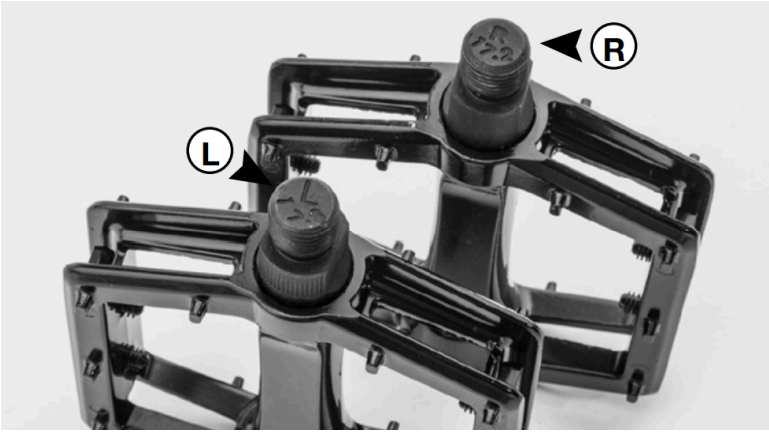


Figure 13. Pedal threads. Make sure you rotate the correct direction.

5. Wheel Axles and Tyres

> ⚠ **WARNING! Wheel axles are essential safety elements on your bike. Please respect the information below, otherwise you risk losing parts and falling.**

> ⚠ **WARNING! A WHEEL BADLY TIGHTENED OR BADLY CENTERED CAN CAUSE ACCIDENTS AND SERIOUS INJURY TO THE USER.**

a. Front Wheel Axles

The front wheel is secured in place using a bolt thru axle. It is important that this axle is tightened to 15Nm

Figure 14: Installing the front wheel axle

Figure 15: Tighten the axle to 15Nm

b. Tyre Pressure

The Zoomo 1 is fitted with puncture resistant tyres, however it is always recommended to keep pressure between 40 and 50 PSI to avoid pinch flats. The tubes in the bike are schrader valves so most pumps should work.

6. Adjusting the Gear Mechanism

a. DERAILLEUR (if fitted)

The adjustment of your derailleur was carried out before delivery of your bike and therefore, you should not need to do it yourself. If however, you feel you need to intervene with its settings, perhaps because of cable stretch, we advise you to consult your local approved retailer.

With a little bit of experience, you can also follow the stages below:

1. In order to adjust the low and high speed stop screws, it can be easiest to unscrew the cable tightener and set the derailleur in the highest gear. You can then push against the derailleur with your hand.

2. The upper tensioner should be aligned with the high or low cog when the derailleur is in high or low speed setting. If the tensioner is not aligned, you must tighten or untighten the stop screw to obtain the correct setting (see Figure 16).

3. Then you must adjust the indexing. Ensure that the gear changing lever is set to the highest gear, which corresponds to the smallest cog. Then tighten the cable by pulling on it and immobilize it by using the cable tightener on the derailleur.

To perfect the cable tension, use the dial on the derailleur or on the lever. When pressing on the lever to change up the gears, the derailleur should climb without delay onto the next cog without making any noise.

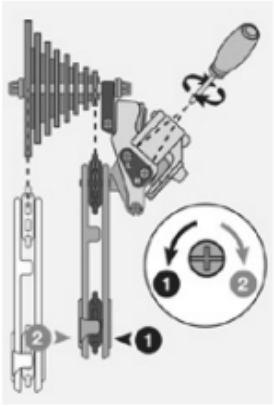


Figure 16: Derailleur stop screws setting

If the derailleur does not pull the chain onto the next cog, or if it makes noise from rubbing onto the lower cog, you need to tighten the cable by unscrewing the dial. Inversely if the derailleur takes the chain too far, climbing up two cogs or rubbing on the upper cog, you need to loosen the cable by tightening the dial.

The final adjustment to cut out all noise should be precise and the dial adjusted by a quarter turn between each check.

> ⚠ **WARNING! If despite these recommendations you are not able to correctly index your gears, see your local retailer so they can carry out the different steps of adjustment as well as checking the derailleur hanger.**

a. Cleaning and Lubrication

> ⚠ **WARNING! Never spray the bike with a high pressure hose. This can cause water to get into bearings and sealed spaces causing premature wear and tear.**

It is important to keep your chain and gear system free of major contaminants. This can be done with soapy water on a rag or a specialist chain cleaning machine.

Figure 17: Use a cloth to remove debris and dirt from the chain. Gently turn the pedal with the rear wheel elevated for cleaning. Soapy water is the best cleaning solution. Avoid heavy degreasers where possible.

Once the chain has been cleaned, we recommend a dry lubricant to protect the chain. Whilst rotating the cranks 4-5 drops of dry lubricant should be used on the chain. We recommend Finishline Dry Lubricant.

Figure 18: Applying lubricant to the chain

7. SUSPENSION

For optimal durability and functioning, check the specific notices of each manufacturer delivered with this manual in order to correctly carry out the settings and maintenance of components. Also ensure you adapt the settings to your size and your type of riding.

> ⚠ **WARNING! An improper setting can make you lose control of your Zoomo causing injury, or you can damage components. Ask your local retailer for advice. He/she has the necessary experience to help you find the correct settings. You can also refer to the manufacturer's notice.**

a. Fork lockout system

Some forks are equipped with a system to lockout the suspension. Each brand has its own type of lockout but the principle remains very similar from one brand to another. When the system is locked, the fork movements are blocked in order to guarantee better pedaling efficiency. However, the fork is not 100% blocked in order not to damage the suspension if the fork stays locked out on rough ground. The levers are on the right leg of the fork. The following figure presents different models of lockout systems.

Figure 19: Different systems of fork lockouts.

- To unlock a suspension fork turn the locking lever in the direction indicated by the arrow with the description «OPEN» until it stops. (See the example on Figure 18).
- To lock a suspension fork, turn the locking lever in the direction indicated by the arrow with the description «LOCK» or «FIRM» until it stops. (See the example on Figure 19).

Figure 20:
Locking lever in open position.

Figure 21:
Locking lever in close position.

b. Setting the pre-stress of the fork (SAG)

In order to fully profit from your bike's potential, the suspension should be set up for your weight. This is a technical procedure that can be carried out by your local retailer if you do not have the necessary knowledge or material.

This setting is commonly called «SAG», which corresponds to the compression of the suspension under the weight of the cyclist. The level of SAG varies according to the type of fork and the type of usage of the bike.

The SAG is a value expressed as a percentage, and defines the length of displacement of the stanchions in relation to the fork or shock body, caused by your body weight when you are sitting on the bike. Let's take an example:

My fork has 140 mm of travel (which means the stanchions are 140mm long). The recommended SAG is 25%. To convert this SAG value into millimeters you just need to use the following formula:

SAG [in mm] = SAG [en %] x Travel [in mm]

Which in this example case gives us: SAG [in mm] = 25% (0.25) x 140 mm = 35 mm

So, my body weight pushes the stanchions into the legs by 35 mm.

The SAG is calibrated by setting the pre-stress of the shock or the air pressure in the pneumatic cartridge depending on the type of fork. To set up fork SAG carry out the following steps:

For Coil spring with oil damping.

- Sit on the bike in a normal position and wear your usual riding kit (helmet, bag and accessories…). You can lean against a wall in order to avoid any brusque movements on the bike.
- Step off your bike gently to avoid a harsh movement and measure the "SAG". A SAG that is too weak indicates that the pre-stress of the spring is too high. You should therefore turn the adjustment lever towards the «-». Inversely, a too high level of SAG indicates that the spring's pre-stress is too weak, and

you should therefore turn the adjustment lever towards «+».
- Repeat these steps until you find the right level.

Hint: If your fork is not equipped with a rubber O-ring that you can use to see the SAG position, you can place a plastic zip tie on the fork stanchion which will carry out the same function.

Other settings can be carried out so you profit as much as possible from your suspension system. Refer to the dedicated notice or to your local bike retailer.

For suspension models with Air/Oil cartridge system

Before starting, ensure you have a high pressure pump and your usual riding gear.

- Place the rubber O-ring against the fork leg.

- Sit on the bike in a normal position and wear your usual riding kit (helmet, bag and accessories…). You can lean against a wall in order to avoid any brusque movements on the bike.

- Step off your bike gently to avoid a harsh movement and measure the “SAG”. A SAG that is too weak indicates that there Is too much pressure in your fork. You should therefore take out air from your suspension. Inversely, a too high SAG indicates that there is not enough, you should therefore, add air. To do this:

- Unscrew the valve cap to access the fork valve that enables you to adjust the air pressure as in the following figure:

Figure 22

- Using a high pressure pump, adjust the fork’s air pressure in order to get the desired SAG as in the figure above. Be careful to not pass the maximum air pressure that your fork can handle! This value can be found In the manufacturer’s notice.
- Sit on the bike as described previously and check the SAG. Repeat these steps until you find the right level.

Hint: If your fork is not equipped with a rubber O-ring that you can use to see the SAG position, you can place a plastic zip tie on the fork stanchion which will carry out the same function.

Other settings can be carried out so you profit as much as possible from your suspension system. Refer to the dedicated notice or go to your local bike retailer.

c. Cleaning

- Make sure you clean the stanchions after each usage, with a little soapy water and a soft sponge.
- Then wipe all the surfaces with a soft cloth.
- Carefully inspect all the seals, these guarantee the correct functioning of your forks and above all their reliability.

Some of the maintenance of your fork, such as lubrication and purging should be carried out following the specific recommendations of the manufacturer (for this you need to refer to the notice produced by the manufacturer). These operations should be entrusted to a specialist.

Figure 26: Apply 3-4 drops of dry lubricant to the chain

7. Brake Adjustment

⚠ **WARNING! Please ensure that your brakes are correctly setup for your region. Do not ride the bike until you have checked this. To check, hold on the right hand brake at full lock. Push the bike forward until you can identify the wheel which is not moving.**

⚠ **WARNING! Do not touch the brake rotor, which has sharp edges and can cause serious injury. Touching the brake rotor or brake pads with bare skin can also transfer natural oils to either component, which can decrease braking performance. When installing the front wheel, ensure that you don't touch the brake rotor or pads with bare hands.**

AUSTRALIA - Right Hand is Font Brake, Left Hand is Rear Brake
UK - Right Hand is Font Brake, Left Hand is Rear Brake
USA - Left Hand is Front Brake, Right Hand is Rear Brake
FRANCE - Left Hand is Front Brake, Right Hand is Rear Brake

a. Pad Replacement

The brake pads should be replaced every 3 months or 1800kms (whichever comes first). To start, undo the two x m5 bolts on the brake calliper mount.

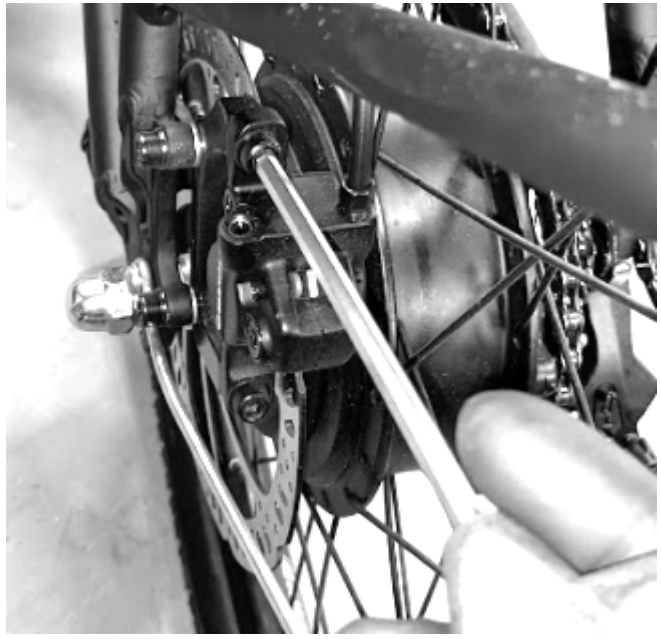


Figure 23: Undo the mount bolts to remove calliper

Undo the pad retaining bolt using a M3 hex tool

Figure 24: Undo pad retaining bolt

Gently push out the pad from the holder using your allen wrench. Once free of the calliper, the pads and the connecting spring can be separated.

Figure 25: Gently push at the top of the pads and the pads should slide out

The retaining clip can now be separated from the pads. Insert the new pads into the retaining clip and reinstall the pads.

Figure 26: Pads and Retaining Clips

8. Starting of the System

a. Switch on Press and hold 'on' button

Press and hold the display power key button until the display powers on.

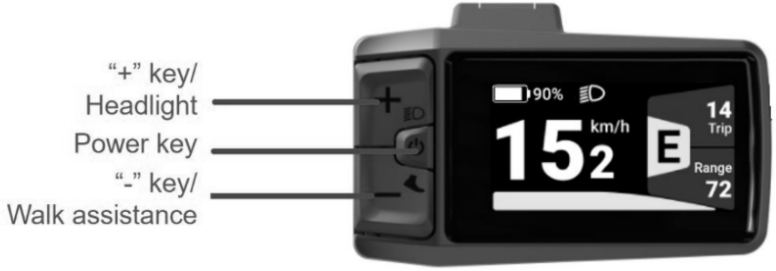


Figure 27: Press and hold button to turn on

b. Unlock the bike with passcode

To enter the provided passcode use the "+" and "–" keys on the display to select the code number 1-9. Once the desired number is selected press the power key to cycle to the next code. After the passcode is inserted press the power key to select "OK" and unlock the vehicle.

c. Charging an external USB device

Add a USB cable to charge a phone or device

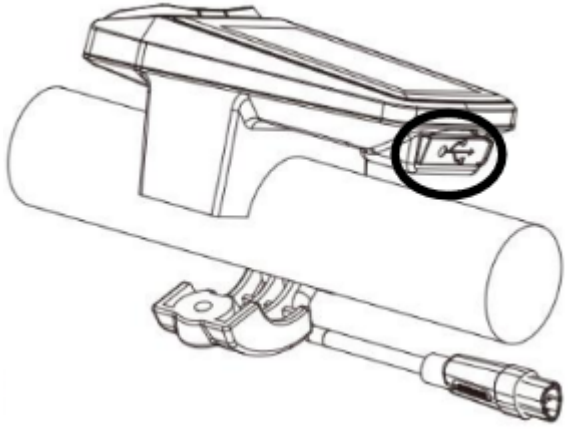


Figure 28: The USB device plug is under the screen

d. Operating Pedal Assist Modes

The One has five levels of pedal assist. Level 1 is the lowest level, and provides the least motor power, level 5 is the highest, and provides the most motor power. Battery drain is higher in the levels 4 and 5. You can select your pedal assist level by using the "+" and "-" keys.

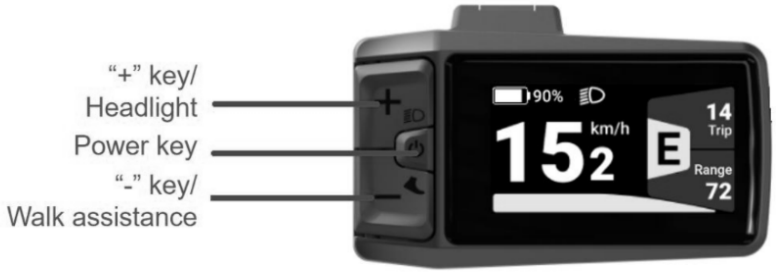


Figure 29: The control pad pedal assist up / down

9. Shutting Down The Bike

a. Shutdown with motor lock engaged

The bike is fitted with an electronic motor lock which is a strong anti theft feature. This is engaged by default when the bike is shut down using the display by pressing and holding the "power key" until the display powers off. The condition is removed when the system is restarted as per Step 1 using the pass code.

Note: The display will timeout after 10 minutes for security reasons

10. Zoomo Batteries

WARNINGS

⚠ This E-Bike is powered by a Lithium-Ion Battery. Lithium-Ion batteries pose a significant risk of fire if they are not used, handled, treated or charged properly.

⚠ Never open the battery housing, which will void the warranty and can result in battery damage. It can also expose you to caustic substances and electrical shock or it could create a fire hazard, which can lead to serious injury or death.

⚠ Use only the supplied charger. Using a charger that is not original equipment, or is not made for your battery can cause unseen electrical issues or damage which may lead to a fire. Use your charger only in dry, well ventilated places. The battery charger is not resistant against moisture and/or drop down shocks.

⚠ Disconnect the charger from the main power source after charging.

⚠ Using a damaged battery or charger can create additional bike damage or fire hazard. Stop using your battery or charger and contact Zoomo immediately if you notice any damage. Some examples include, but are not limited to: (1) Your charger's flexible power cord or output cable or any of the electrical cables on your bike is frayed, has broken insulation, or any other signs of damage , (2) Your battery or charger is physically damaged, non-functional, or performing abnormally, (3)Your battery or charger experienced a significant impact from a fall, crash, or shipping damage, with or without obvious signs of damage, or (4) Your charger becomes too hot to touch (it's designed to get warm with normal use),makes an unusual smell, or shows other signs of overheating. Store any damaged battery or charger in a safe fireproof location and, as soon as possible,recycle or otherwise dispose of it according to local rules.

⚠ Do not use a battery that has any external damage showing.

⚠ Do not use a battery that has been dropped or damaged in any fashion.

⚠ Do not expose or submerge the battery in water or other liquid substance under any circumstances. Likewise, do not expose the E-Bike's battery cradle to water or liquid. If the battery or cradle are exposed to

water, return the bike and battery to your nearest Zoomo store immediately.

⚠ **Using aftermarket battery accessories or products that have not been tested by Zoomo for safety or compatibility may void your warranty, create unsafe riding conditions, or result in bike, battery or property damage. These products may contain a substantial risk of altering the electrical components of the bike, which may affect the battery and could lead to a fire causing significant injury or death.**

⚠ **If Storing the battery, do so in a cool, dry place between: -10°C and 35°C (14°F and 95°F) for up to six months.**

⚠ **Only use the charger that is specified for and has been supplied with your battery. The charger should be directly plugged into a wall mounted outlet hardwired into the building's energy source.**

⚠ **Batteries drain energy slowly, even if the bicycle is not used. If the battery is connected to the bike it will run out of power faster than if it is taken out and stored inside.**

⚠ **The battery should not require any force to remove the battery from the frame. Hold the battery firmly when removing it, to make sure the battery does not slip from your hands when it suddenly comes loose. If the battery requires force to remove, or does not remove easily, please bring your battery in for an inspection as it may indicate that there is an issue with the battery or bike which could lead to a fire.**

⚠ **Remove the key after placing the battery. The key can be easily damaged if left in.**

⚠ **During maintenance, always remove the battery.**

⚠ **After charging, always disconnect the charger from the mains as well. This will increase the lifetime of the charger and prevent charging issues the next time you connect the battery.**

⚠ **Always store the battery with a 50-75% state of charge. Never store a flat battery.**

⚠ **Never leave a battery charging unattended. Doing so increases the risk that a charging problem will go undetected and lead to component damage or a fire hazard.**

⚠ **Never charge a battery, or place the charger (when in use) on soft materials that may catch on fire, such as pillows, cushions, blankets, etc.**

⚠ **Cold temperatures during winter can significantly reduce the capacity and performance of lithium-ion batteries, resulting in shorter usage times and decreased range. Pay extra attention to monitor your battery's performance during extreme cold temperatures, and if your battery is not operating properly, bring it in for inspection immediately.**

⚠ **If the Battery's charge level falls to 0%, you must plug it in. If you leave it unplugged for an extended period, it may not be possible to charge or use the Zoomo battery.**

⚠ **Your battery requires maintenance from time to time including firmware updates and inspection of physical state: Regularly inspect the battery for signs of damage, wear, or leakage. If you notice any issues, discontinue use and seek professional inspection and replacement if necessary.**

The bike's battery can be removed from the bike for storage and charging. To remove the battery, turn the key and the battery will pop out of position in the frame. Lift the battery using the lifting handle.

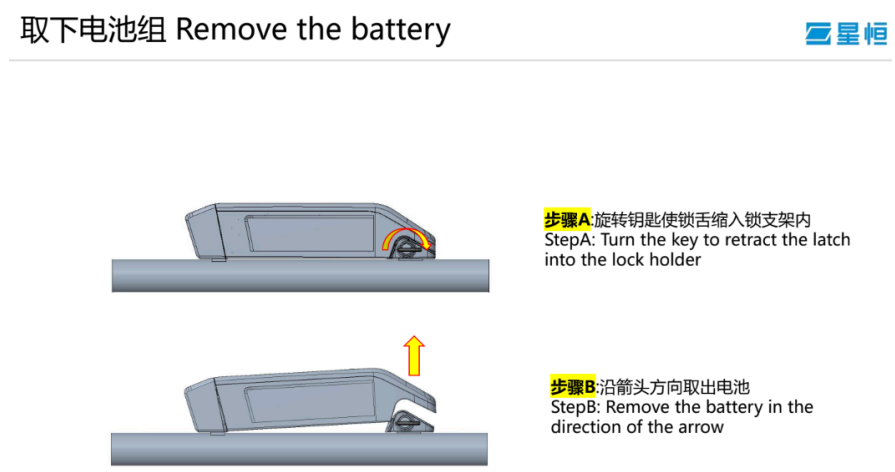


Figure 30: Removing the battery

Returning the battery into the cradle: Ensure the battery is pushed down into the cradle until you hear a ‘click’. The battery should be clearly locked in position with no movement. If the battery will not easily fit into the cradle, stop using the bike and battery and bring it in to a local store for inspection.

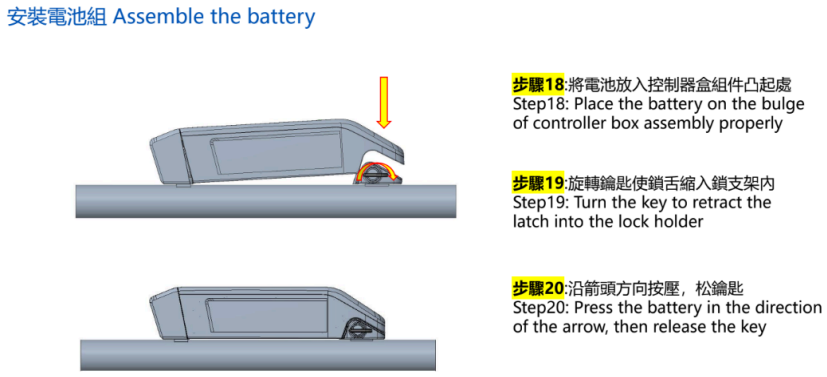


Figure 31: Inserting the battery

a. Charging the Bike

Plug the socket into the battery before plugging into the wall to initiate charging. The battery will charge to 100% in around 4-5 hours.

Figure 32: Charging the battery

b. Turning the battery on/off

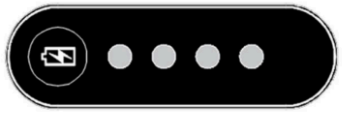
Your battery contains a power button which can be pressed to turn the battery on.

Figure 33: Power button and LED location on the battery

c. Battery state of charge indicator

Battery LED as shown in figure 42 displays battery state of charge (SOC). The LED also displays flashing lights for warnings detected by the battery. Batteries in this state will try to resolve the error state however if error persists, bring the battery for inspection by trained technicians.

指示灯说明 **Power indicator LED**



如图，从右至左：LED1，LED2，LED3，LED4，电池组的 SOC 与灯显关系如下 SOC 电量显示：

When the battery is switched on, the four LEDs of the charge-control indicator indicate the charge condition of the battery. Each LED indicates approx. 25 % capacity. When the battery is completely charged, all four LEDs light up.:

序号 Item	电量 Power (SOC)	LED1	LED2	LED3	LED4
1	0%	闪（周期0.2s） flash（cycle0.2s）	灭 off	灭 off	灭 off
2	1%~24%	亮 on	灭 off	灭 off	灭 off
3	25~49%	亮 on	亮 on	灭 off	灭 off
4	50~74%	亮 on	亮 on	亮 on	灭 off
5	75~100%	亮 on	亮 on	亮 on	亮 on

Figure 34: Battery LED status

11. Luggage Rack and Mudguards

a. Mudguard Clearance

Zoomo models are equipped with aluminium mudguards ensuring a high level of stiffness. Always respect a minimum gap of 6 mm at all points between the tyre and the mud guard (see Figure 43). This should be checked regularly and at each time that you change the tires on your bike. Keep to the size of tire equipped on your bike at sale in order to keep the right size gap. If the gap is less than 6mm contact your retailer so that he/she can adjust as necessary. Regularly

check that the fixation points on your mudguard are tight. (see Table 1 Recommended torque values).

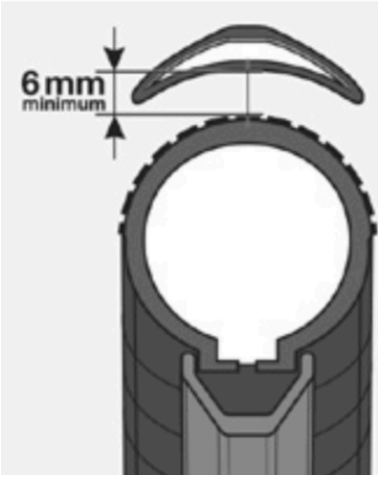


Figure 35: Mudguard / Fender Clearance

B. Luggage Rack & Payload

⚠ **WARNING! Do not exceed the luggage total loading of 40kg. The total payload of the bike should not exceed 180kg (rider + cargo).**

We have equipped Zoomo bikes with specific luggage racks. These luggage racks are designed for a maximum load of 40 Kg. This is tested in line with ISO11243 EPAC/CE.

Never attempt to modify your luggage racks, its fixation points, or to go over the maximum load limit as this can damage your bike and cause a fall and injury. Always use the supplied luggage strap to secure any items.

When your luggage rack is loaded, the behavior of your bike will be affected. Weight is added to the rear of the bike, and this will modify the handling and braking of your bike. In order to keep a good level of balance on the bike, divide the load as evenly as possible on both sides of the bike.

The luggage rack is designed to be equipped with a trailer hitch for towing a EPAC compliant trailer (see C below).

If a child seat is being fitted to the luggage rack ensure that all manufacturers instructions are followed and there are no loose straps that could be caught in the wheel.

Do not modify the wheel rim size or tyre size to larger as it may interfere with the rack. The maximum rim size is 20 inch and the maximum tyre size is 20 x 3.0 inch for safe clearance when using the rack.

When attaching luggage / bags to the rack always ensure that the rear lights and reflectors are not blocked by the load as this will be a safety issue. Always ensure straps and loose items are away from the wheel and chain.

c. Use of EPAC Approved Trailer

⚠ **Never carry passengers in attached trailers - even if they are within the weight limit. Doing so may result in an accident causing serious injury or death to both the rider and passenger.**

Certain trailers may be used with the Zoom 1 provided the total weight of the trailer including payload does not exceed 150kg. Refer to the trailer's attachment instructions when trying to connect to the bicycles.

12. Maintenance

The chain of your electric bike is subject to high stress, especially if you use the higher levels of assistance. Regularly check its wear and replace it often. Go to your local bike retailer for advice if you are in any doubt.

Take the time to regularly check that no link has become deformed or open as it could break while riding and case a fall. In order to prolong the lifespan of your bike, here is an example of a maintenance calendar, in the case of regular use.

a. Before and after each ride
   - Check the brakes.
   - Check the tire pressures and for any possible damage.
   - Check wheels are tight.
   - Check the stem and handlebar are tight.
   - Check the suspension fork is functioning correctly.
   - Check that the battery is correctly attached to the frame or the luggage rack.
   - Carefully store your bike in a clean dry area. • Recharge your battery.

b. Every month
   - Inspect for any possible play in the stem and the handlebar.
   - Check the front and rear sprockets, these can wear quicker in colder / muddy conditions.
   - Check the cables, hoses, levers.
   - Check the derailleurs, and lubricate if necessary.
   - Check the wear on brake pads, and replace if necessary.
   - Check the wheel for any buckles and the spoke tension.

c. Every six months (depending on the frequency and the type of usage)
    - Inspect the frame and check for the appearance of any cracks.
    - Check and grease the wheel hubs, headset, and any parts that have friction.

d. Beyond two years
    - Replace the handlebar, stem and fork.

For a more in depth diagnostic, we advise you to visit your retailer, in order to carry out a more detailed check.

13. Recommended Consumable Spare Parts

Tyres	Schwalbe Super Moto-X 20x2.8
Tubes	20x2.6-3.0 Schrader tube
Brake Pads	Tektro Part Number E10.11
Chain	KMC Z1
Grips	Velo VLG 1179
Saddle	Velo VLG 64950

14. Error Codes

Your bike and battery are designed to present an error code if they detect an issue or problem. The following lists display the meaning of various error codes, which help in the diagnosis of the issue. **If an error code is found in the system, immediately stop using your bike and battery, and bring it to your local repair shop for an inspection and repair.**

a. Controller Error Code List

Contact your dealer if these error messages are present. A troubleshooting guide in reference to these codes is available on request through Zoomo customer service.

Error	Definition	Troubleshooting
04	The throttle is faulty.	Check whether the connector of throttle is correctly connected.
05	The throttle is not back to correct position.	Check whether the connector of throttle is correctly connected.
06	Undervoltage protection	Check the voltage of battery.
07	Overvoltage protection	Check the voltage of battery.
08	Motor hall sensor is faulty.	Check the hall sensor cable of motor.
09	Motor phase is faulty.	Check the motor phase.
10	Motor temperature reached the max. protection value.	Stop riding and check the motor.
11	Motor temperature sensor is faulty.	Check the temperature detection line of motor.
12	Controller current sensor is faulty.	Check the controller.
14	Controller temperature reached the max. protection value.	Stop riding and check the controller.
15	Controller temperature sensor is faulty.	Stop riding and check the controller.
21	Speed sensor is faulty.	Check the installation position of speed
		sensor.
22	BMS communication is faulty.	Check the BMS.
23	Headlight is faulty.	Check the lights.
25	Torque sensor's torque signal is faulty.	Check the torque sensor.
26	Torque sensor's speed signal is faulty.	Check the torque sensor.
27	Overcurrent protection	Stop riding and check the controller.
28	Torque sensor's initialization is abnormal.	Stop riding and check the torque sensor.
30	Communication problem between the display and controller.	Check the display.
33	Brake detection is faulty.	Check the controller.
35	15V power supply detection is faulty.	Check the controller.
36	Key detection is faulty.	Check the controller.
37	WDT circuit is faulty.	Check the controller.

b. Battery Error Code List

Event showing LED explanation & Recommend action for event release.

LED light status	Cause	Duration	Recommended action	Blink period
⬚□□□□	Under voltage	5min	After 5 minutes of power off, it is recommended to plug in the charger to activate charging	Fast
⬚⬚□□□	Battery temperature protection	60sec	The battery is placed in a room temperature area to wait for the temperature to recover, and continue to be used after recovery	Normal
⬚⬚⬚□□	Short circuit protection or severe over current protection	60sec	Remove the battery from the vehicle. If the problem occurs again, contact the support department.	Normal
⬚⬚⬚⬚⬚	Hardware failure	60sec	Contact the support department	Fast

⬚ Flashing LED

15 Certifications:

Battery

UN3480 / UN38.3 For Transport
MSDS Available on request.

Bike

EN15194:2017+A1:2023
Made in China

Support

Please visit ridezoomo.com and choose your region to find your local support channels

16. Tampering Disclaimer

Do not tamper with your bicycle. Tampering is removing or replacing any original equipment or modifying your bicycle in any way that may change its design and/or operation.

Such changes may seriously impair the handling, stability and other aspects of the bicycle, making it unsafe to ride. Tampering can void the warranty and render your bike not in compliance with the applicable laws and regulations. To ensure safety, quality and reliability, use only original parts or Zoomo authorized replacements for repair.

Zoomo is not responsible for any direct, incidental or consequential damages, including, without limitation, damages for personal injury, property damage, or economic losses due to tampering.

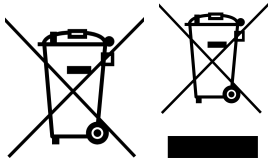
17. Emissions

NOTICE: The A-weighted emission sound pressure level at the rider's ears is less than 70 dB(A).

18. Environment Protection / Disposal

Waste electrical products should be disposed of in accordance with local waste disposal laws. Please recycle where facilities exist. Contact your local government for information regarding the collection systems available. Electronic waste disposed of in landfills can be hazardous. You should not keep or store your battery when you are permanently done using it, or when it has reached end of life, and should recycle it immediately.

If the product can no longer be used, every consumer is legally obliged to dis-pose of their end-of-life devices separately from domestic waste, e.g., at a col-lection point in their community/district. This ensures that end-of-life devices are expertly recycled and prevents a potential negative impact on the environ-ment. This is why electrical appliances are marked with the symbol shown here.



Batteries must not be disposed of as domestic waste!

As a consumer, you are legally obliged to take all batteries and rechargeable batteries, whether or not they contain harmful substances*, to a collection point in your community/district, or to a retailer, so that they can be disposed of in an environmentallyfriendly way.Used batteries containing lithium pose a high risk of fire. For this reason, particular attention must be paid to the compliant disposal of used batteries and rechargeable batteries containing lithium. Non-compliant disposal can also lead to internal and ex-ternal short circuits due to thermal effects (heat) or mechanical damage.A short-cir-cuit can cause a fire or an explosion with serious consequences for people and the environment. For this reason, apply adhesive tape to the terminals of batteries with lithium content and of rechargeable batteries before disposal to prevent an external short circuit.

* marked: Cd =cadmium, Hg= mercury, Pb= lead

19. Warranty

We offer a warranty for manufacturing defects in the frame or certain parts. Our warranty terms differ by country. For full details of the length of the warranty and which parts are covered by the warranty can be found at www.ridezoomo.com/policies/terms.

The warranty does not include:

A. Normal wear and tear;
B. Defects that are not manufacturing defects;
C. Damage because of an accident, neglect, inadequate maintenance or using the LEV improperly;
D. and modifications or alterations to the frame or parts.

In addition, the warranty, does not apply:

E. If there is evidence of salt, sand, or water damage to the LEV;
F. If the payment method used to buy the LEV is subject to a chargeback. The warranty will only apply once the chargeback has been resolved; and
G. If you are not the original owner of the LEV. Only the original owner may benefit from the warranty and must have retained constant ownership of the LEV since the date of purchase.

20. Declaration of Conformity

We Zoomo Pty Ltd.
Suite 1, 11-17 Buckingham Street, Surry Hills NSW 2010

declare that the machinery described:
Machine name : EPAC
Model : Zoomo 1

conform with the essential safety requirements of the relevant European Directive:
- Machinery Directive 2006/42/EC
- Electromagnetic Compatibility Directive 2014/30/EU

Mounting and connecting instructions defined in catalogues and technical construction files must be respected by the user.

They are based on the following standards:

- EN ISO 12100:2010 Safety of Machinery - General principles for design / Risk Assessment and Risk reduction.
- EN ISO 13849-1:2015 Safety of machinery – Safety-related parts of control systems Part 1:General principles for design
- EN 15194:2017+A1:2023 – Electrically power assisted cycles – EPAC Bicycles
- EN 61000-4-2:2009 Electromagnetic compatibility (EMC)–Part 4–2: Testing and measuring techniques– Electrostatic discharge immunity test