



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

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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 27kg. The total payload of the bike should not exceed 200kg (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.

CONTENTS

| | |
|--|-----------|
| 1. WARNINGS | 1 |
| 2. Vehicle Overview | 6 |
| 3. Riding Position and Setup | 8 |
| a. Saddle Height | 8 |
| b. Saddle Position | 8 |
| c. Setting Saddle Angle | 9 |
| d. Two bolt seat angle | 9 |
| e. Brake Lever Position | 10 |
| f. Headset | 12 |
| g. Adjustable Stem | 12 |
| 4. Pedals | 13 |
| 5. Wheel Axles | 14 |
| a. Front Wheel Axles | 14 |
| b. Rear IGH Axles | 14 |
| 6. Adjusting the rear shift mechanism | 15 |
| a. Removal of rear mech | 15 |
| b. Adjustment rear gear | 16 |
| c. Setting chain tension | 16 |
| d. Cleaning and Lubrication | 18 |
| 7. Break Adjustment | 19 |
| 8. Starting / Shutdown of System | 21 |
| a. Switch on battery | 21 |
| b. Activate display | 21 |
| c. Scan RFID | 21 |
| d. USB charging | 22 |
| e. Pedal assist modes | 22 |

| | |
|--|-----------|
| 9. Shutting Down the Bike | 22 |
| a. With motor lock | 23 |
| b. Without motor lock | 23 |
| 10. Zoomo Batteries | 24 |
| a. Removing the battery | 27 |
| b. Charging the battery | 27 |
| 11. Mudguards and Luggage Rack | 28 |
| a. Mudguard clearance | 28 |
| b. Luggage Rack and Payload | 28 |
| c. Use of trailer | 29 |
| 12. Maintenance | 28 |
| 13. Recommended Spare Parts | 29 |
| 14. Error Codes | 31 |
| a. Controller | 31 |
| b. Battery | 32 |
| 15. Certifications | 32 |
| 16. Tampering Disclaimer | 32 |
| 17. Emissions | 32 |
| 18. Environmental Protection / Disposal | 32 |

2. Vehicle Overview



1. Display 2. Brake Lever 3. Stem 4. Headset 5. Front Light 6. Fender 7. Fork 8. Rim 9. Brake Calliper Front 10. Front Motor 11. Rotor 12. Reflector 13. Spokes 14. Tyre 15. Downtube 16. Battery 17. Drink Bottle Holder 18. Saddle 19. Seatpost 20. Carrier 21. Rear Light 22. Rear Lock (optional) 23. Carrier Strap 24. Brake Calliper Rear 25. Rear Fender 26. Rear Axle 27. Kickstand 28. Chainring 29. Crank 30. Pedal

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 Zero 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.

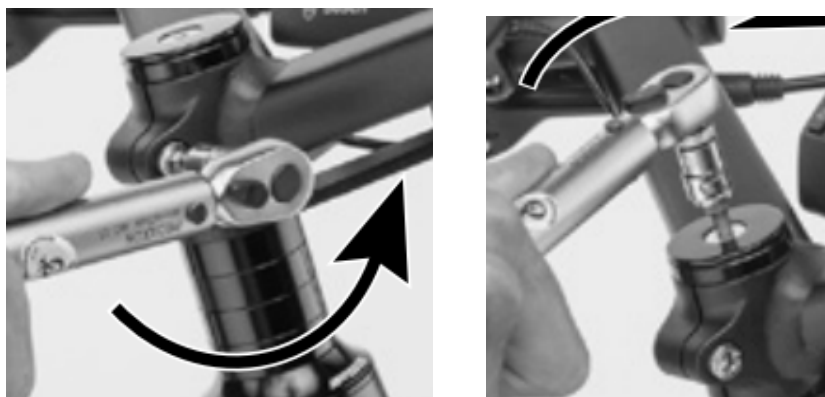


Figure 9. Headset tightening step one loosen stem screws F then tighten the top cap



Figure 10. Retighten the stem bolts to 5nm

g. Adjustable Stem

Your Zoomo Zero 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

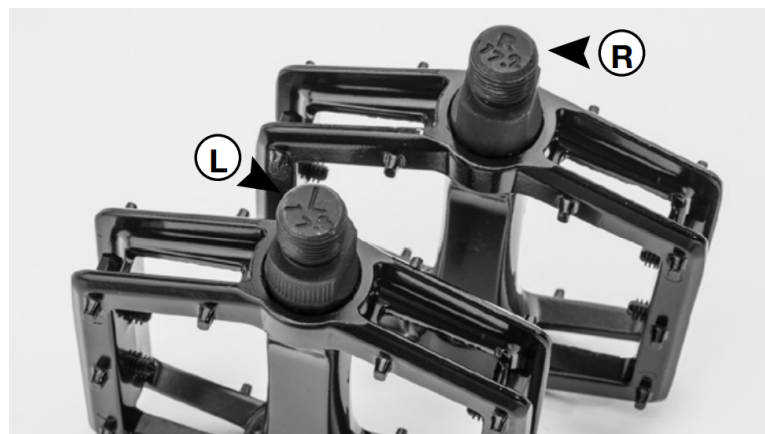


Figure 13. Pedal threads. Make sure you rotate the correct direction.

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 Motor Axles

The front motor axle is fitted with special torque washers which ensure that the wheel cannot spin in the dropout. It is important to ensure that these washers are locked in place before tightening. The front motor nuts are spanner size 19 mm, the torque rating is 35nm.

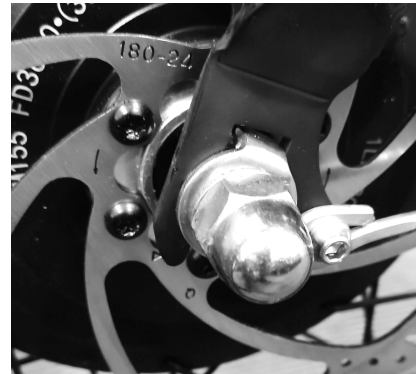


Figure 14: Locking torque washer



Figure 15: Tighten nut to 35nm

b. Rear IGH Gear Axles

The rear wheel is fitted with a Shimano Nexus 3 internal hub gear. You need to set the tension of the chain before tightening the axle nuts.

1. Set the chain tension by tightening the axle tension bolts. M5 hex key. The chain should have a slight amount of flex in it, but not so much flex that it adds tension to the wheel spinning.
2. Once the tension is set you can tighten the rear axle nuts. Note you will need to remove the Shimano Nexus shifter to tighten the RH side wheel nut. This should be set to 35nm.



Figure 16: Set axle tension by turning bolt clockwise. Ensure the bolt on the opposite side is also set.

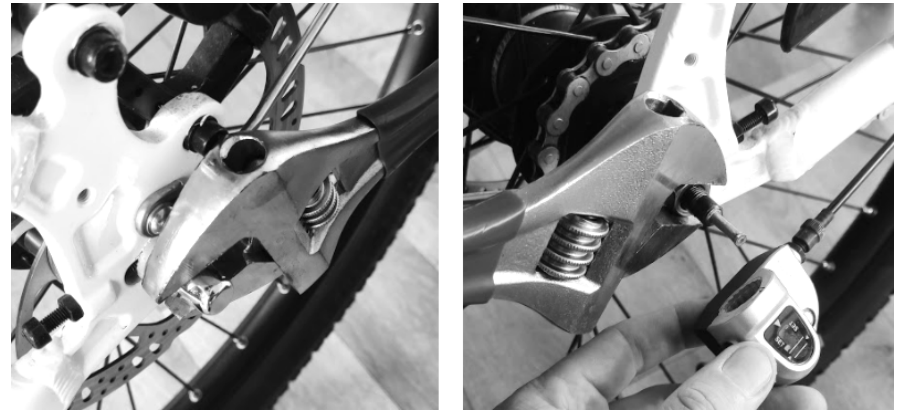


Figure 17: Tightening of axle nuts on the chain side (right) and opposite side (left).

C. Tyre Pressure

The Zoomo zero 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. Removal of the rear shift mechanism

You will need to remove the rear shift mechanism to lube the shifting rod, to change the gear cable or tighten the axle

nut. Loosen the rear shift assembly bolt until the shift mechanism can be pulled sideways exposing the RH side axle nut.



Figure 18: Turn the m5 shifter nut anti-clockwise. After a few rotations the mechanism pulls off



Figure 19: Adjustment of axle nut drive side

b. Adjustment of the shift barrel

If the bike is not shifting smoothly you will need to adjust the shift barrel. The yellow indicator should be set so it is between the two white lines as indicated below.



Figure 20: Correct alignment indication



Figure 21: Adjust the barrel by turning either way

If the indicator cannot be located between the two lines, or the barrel has been adjusted all the way out you will need to have the cable length checked or replaced by a qualified mechanic. Further detail on cable length adjustment, as well as servicing of the Shimano IGN components can be found in Shimano document number SM-IGH-INTER3-ENG

c. Adjustment of chain tension

The chain is tensioned using the rear horizontal sliding dropouts. Ideally the chain should have no greater than 2cm of deviation from its fixed position. Too tight and it will affect the shifting of the hub. Too loose and the chain will come off. See figure 22 below which shows the acceptable tolerance for the chain tension.



Figure 22: The chain should not have more than 1cm of flex either side of the resting position of the chain. If it can be pushed further the chain will need to be tightened.

To tighten the chain, turn the tension bolt clockwise until the desired tension is achieved. You need to also make sure the bolt on the non drive side is in a similar position.



Figure 23: Turn the hex bolt clockwise which will add tension to the chain



Figure 24: Ensure the retaining nut is tightened against the frame to stop axle movement.

d. 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 25: 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 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 Front Brake, Left Hand is Rear Brake

UK - Right Hand is Front 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 27: Undo the mount bolts to remove calliper

Undo the pad retaining bolt using a M3 hex tool



Figure 28: 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 29: 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 30: Pads and Retaining Clips

8. Starting / Shutdown of the System

a. Switch on Press and hold 'on' button

Press and hold the battery button until it displays a solid color (Red, Blue or Green). The color indicates the current battery state of charge.



Figure 31: Press and hold button to turn on

b. Activate the display

Press the display 'on button' which is on the handlebar control pad. This will activate the display which will start counting down from 30 seconds.



Figure 32: Press the display on button until screen lights up

c. Scan Key

Scan the RFID Key to Activate the System. Please only use the yellow tag to turn on the system. The blue tags are used for reprogramming only.



Figure 33: Scan the yellow RFID to enable system

d. Charging an external USB device

Add a USB cable to charge a phone or device



Figure 34: The USB device plug is under the screen

e. Operating Pedal Assist Modes

The Zero 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 up and down arrows.



Figure 35: 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. The condition is removed when the system is restarted as per Step 1 using the RFID key.

This can be used if the bike needs to be ridden by the owner as a regular bike without assistance.

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



Figure 36: Press and hold to turn off again

b. Shutdown without the motor lock engaged

There is an option (3b) which details shutting down the bike without the motor lock engaged. To do this, shut the battery down before you shut down the display. Press and hold the battery button with the display still on to shut down without motor lock.

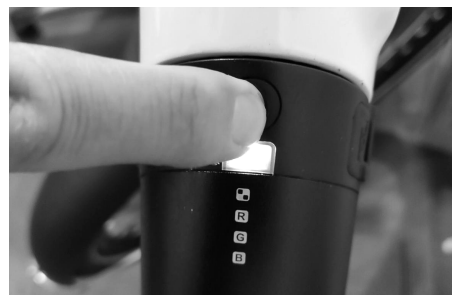





Figure 37: Press and hold the battery button until the light goes off

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: -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) for longer storage.**


 **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.



Figure 38: 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 39: 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 2.5 hours.



Figure 40: Charging the battery

c. Turning the battery on/off

Your battery contains a power button which can be pressed to turn the battery on or press and hold for 3 seconds to turn off the battery. The bike must be unlocked to turn off the battery. Battery will turn off automatically after 20 seconds if not connected to a bike.

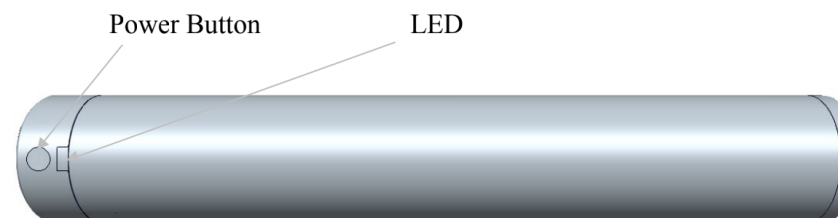


Figure 41: Power button and LED location on the battery

d. Battery state of charge indicator

Battery LED as shown in figure 41 displays battery state of charge (SOC). The LED also displays flashing lights for warnings detected by the battery (figure 42), batteries in this state will try to resolve the error state however if error persists, bring the battery for inspection by trained technicians.







| LED colour | LED Colour | Meaning |
|---|---------------------------|--------------------------|
|  | Solid Blue | 100 ~ 65% Charge |
|  | Solid Green | 64% ~ 25% Charge |
|  | Solid Red | 24% ~ 10% Charge |
|  | Slow Flashing Red | 9% ~ 0% Charge |
|  | Fast Flashing Green | Out of temperature range |
|  | Fast Flasing Red or White | Battery/Electrical Error |

Figure 42: 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).

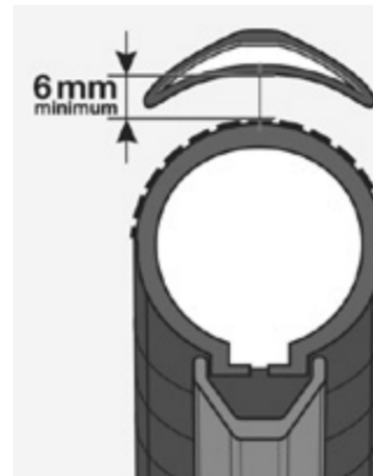


Figure 43: Mudguard / Fender Clearance

B. Luggage Rack & Payload



WARNING! Do not exceed the luggage total loading of 27kg. The total payload of the bike should not exceed 170kg (rider + cargo).

We have equipped Zoomo bikes with specific luggage racks. These luggage racks are designed for a maximum load of 27 Kg. This is 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 26 inch and the maximum tyre size is 26 x 2.25 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 Zero 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 cause 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 | Kenda Quick Drumlin 26x2.25 |
| Tubes | Kenda Tube TUBE932T |

| | |
|------------|---------------------------|
| 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 code | Definition |
|------------|-----------------------------|
| 01 | HW break |
| 02 | Batt Over Current |
| 03 | Iph Over Current |
| 04 | Batt Over Voltage |
| 05 | Hall Sensor Error |
| 06 | Turn Block Error |
| 07 | TS Over Limit |
| 08 | TS Under Limit |
| 09 | Throttle Over |
| 10 | Throttle Under |
| 11 | Mosfet Over Temperature |
| 12 | Motor Over Temperature |
| 13 | Under Voltage |
| 14 | Regeneration Error |
| 15 | Turn On While Drive |
| 17 | BMS Time Out |
| 18 | Found BMS |
| 19 | Battery full |
| 31 | Update FW Error |
| 33 | Display communication error |

b. Battery Error Code List

| Error code | Definition |
|------------|---|
| 01 | Over discharge current (BMSERR_OVER_DC) |
| 02 | Discharge short current (BMSERR_SHORT_DC) |
| 03 | Over Voltage (BMSERR_OVERVOLTAGE) |
| 04 | Under Voltage (BMSERR_UNDERVOLTAGE) |
| 05 | Over charge current (BMSERR_OVER_CC) |
| 06 | Over temperature (BMSERR_OT) |

15 Certifications:

Battery

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

Bike

EN15194:2017
Made in Taiwan

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.