

# MET Riders

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*espin*

User Manual



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1. DO NOT change or make any alterations to the electrical system, battery, digital controls, physical parts, or drive train of your e-bike. Making such modifications will invalidate your warranty. Any adjustments of this kind could lead to harm to your bike, other possessions, or cause injuries or fatalities to you or others.
2. Familiarity and comfort with conventional bicycle riding are prerequisites for operating an electric bike. While an electric bike offers a similar riding experience, it's crucial to dedicate some time to becoming accustomed to its specific characteristics.
3. Please refer to your local regulations regarding the minimum age for operating the ebike. Children who do not meet the required minimum age might not possess the needed judgment and proficiency to operate the ebike safely. This could lead to potential harm to the bike, other property, as well as the risk of significant injuries or even loss of life.

## **Welcome to MET Riders!**

At MET Riders, we take pride in crafting eBikes that blend quality, durability, and affordability. *To ensure your safety, it's crucial to read and adhere to the user and safety instructions provided below.*

### **Pedal-Powered Enjoyment:**

Your ebike operates as pedelecs, meaning they require pedaling for the electric motor to engage. This might take a little adjustment, but it's an integral part of the experience. For those seeking a more effortless ride, our ebikes are equipped with a thumb throttle, offering instant power when desired.

### **Efficient Electric Assistance:**

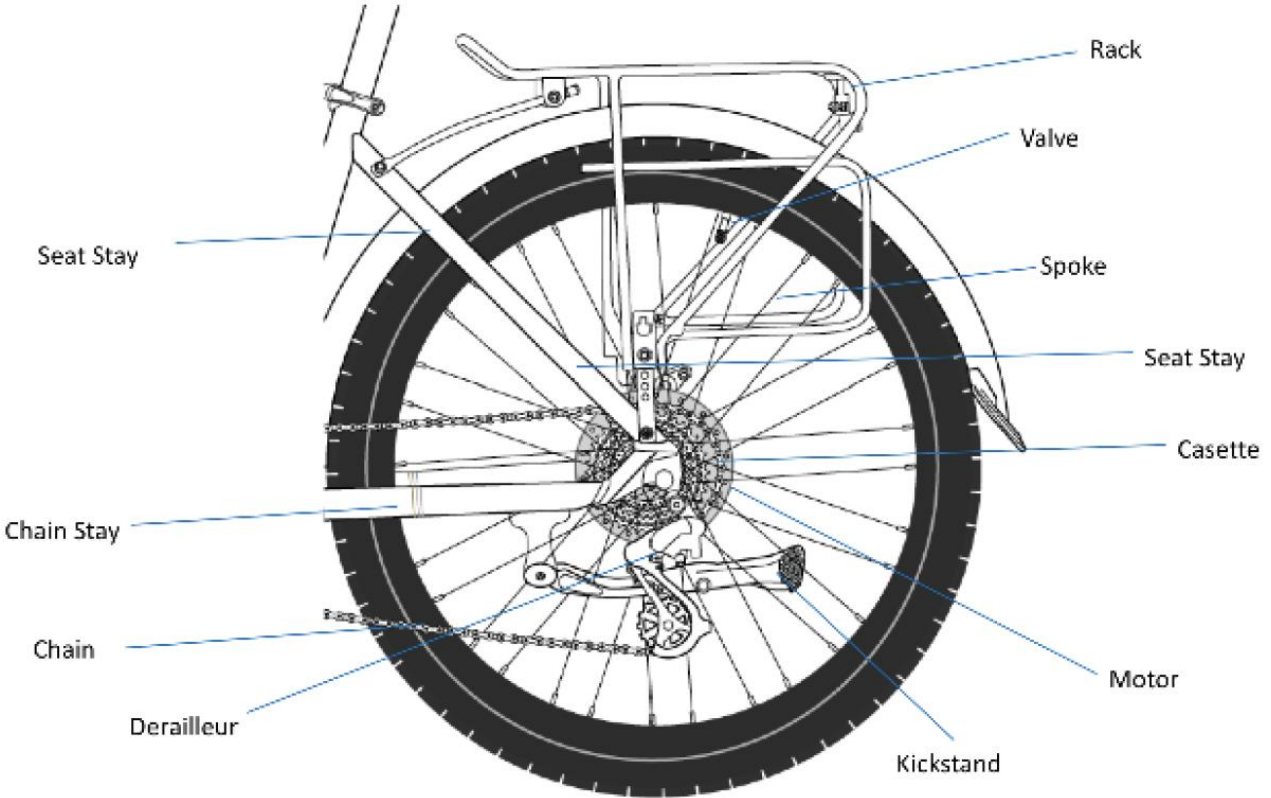
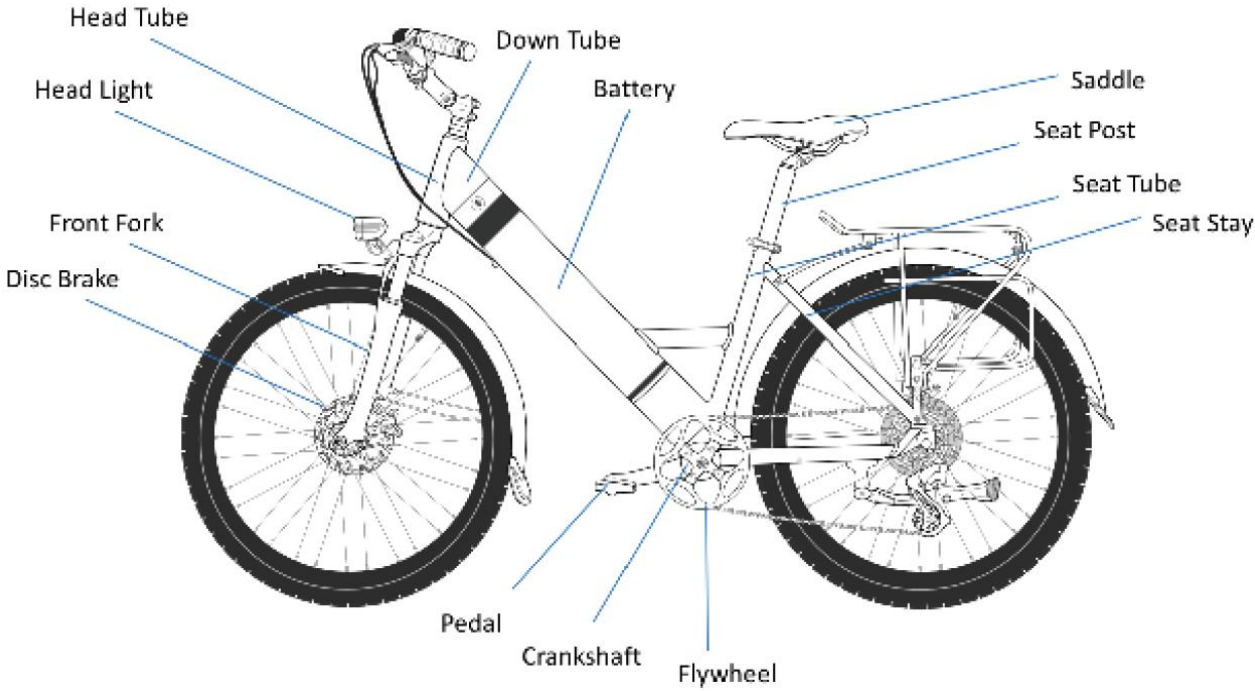
Powering by a 48 Volt, 14.5ah lithium-ion battery, impressively lightweight at just 8 lbs. This detachable battery can be conveniently charged at home, the office, or even in a classroom. Alternatively, you have the option to charge it directly on the bike. This battery fuels a high-torque 500 Watt electric hub motor, empowering you to effortlessly cruise uphill and surpass traffic, achieving speeds of up to 20 mph.

Your ebike is your gateway to a more convenient and exhilarating ride. *Please familiarize yourself with these instructions to ensure your utmost enjoyment and safety.*

Happy riding!

*Please remember that user safety and local regulations take precedence. Always adhere to local laws and guidelines while riding your ebike.*

# Explore Your ebike



## Assembly

1. **With the assistance of an individual capable of safely lifting a heavy item, carefully take out the e-bike from the box. Position the bike upright using the rear wheel and the front fork as support.**

Please check that the following pieces are included in the box and immediately contact us if anything is missing:

- Pedals (Left and Right)
- Front wheel and front fender and front light
- Front rack
- Saddle and seat post
- Charger
- eBike Keys
- multi-purpose tool kit



2. **Highly recommend to Look up "Espín Bikes Assembly" on YouTube first if possible and proceed by following the instructions provided in the video.** While the bike featured in the video might not match your specific model, the procedures remain consistent.

3. **Remove the protective packaging materials covering the bike frame and components.**

Retain these packaging materials and the box in the case of return. Alternatively, ensure responsible recycling of these materials, especially cardboard and foam, whenever feasible.

4. **Install the front wheel by threading the thru-axle through the front wheel and securing the front fork on both sides of the wheel.** Ensure correct alignment of the disc brake.



**5. Lock the handle bar with the hand grips and LCD Display facing the rider.**

Make sure the control pad is on the left side of the handlebar next to the grip.



**6. Affix the front headlight and front fender onto the bolt located above the front fork.**

Ensure the nut at the back of the bolt is fastened securely as you tighten the bolt using the 5mm Allen key and the provided wrench.



**7. Attach Pedals.** Note that the Left (L) pedal should be threaded by turning counterclockwise. The Right (R) pedal should be threaded by turning clockwise. Fully tighten each pedal using a wrench.



Left Pedal

Counterclockwise



Right Pedal

Clockwise

**8. Mount the seat post and adjust it to your preferred height.**

Once adjusted, firmly secure it using the quick-release lever.



**9. Installing the front rack.**

Begin by positioning the cables behind the front rack, then secure the front rack in place using screws.



**10. Inflate the tire pressure to the desired PSI.** The recommended range is between 20 and 30 PSI.

**11. Perform a brief inspection of all the bike's components** to ensure that no parts have become loose during the transit and shipping of the eBike.

**12. Completely charge the battery before your first ride.** Charging the battery on the ebike directly. Alternatively, unlock the battery using the key, detach it from the ebike, and proceed to charge it.

*This instruction manual is a general version, and as such, some installation steps may slightly differ from the e-bike you have purchased. To ensure the proper installation of accessories specific to your bike model, we recommend visiting our Youtube "[Espin Bikes Assembly](#)" and watching the installation video corresponding to your e-bike. This resource will provide you with more accurate and detailed installation guidance, ensuring a smooth assembly process and the best possible user experience.*

# Quick Start

## *Two electrical systems*

### Pedal assist system (PAS):

During pedaling, the option to engage the pedal assist system (PAS) is available. This prompts the motor to offer extra propulsion, enhancing forward movement. This system elevates the riding experience by delivering motorized assistance while pedaling.

There are five Pedal Assist Level are available.

PAS 1 – Low Assist

PAS 2 – Medium Low Assist

PAS 3 – Medium Assist

PAS 4 – Medium High Assist

PAS 5 – High Assist

You can freely switch different Pedal Assist Level based on your desired riding speed. Please note that PAS 0 means no PAS activation, indicating that there is no external assistance, and you need to pedal on your own.

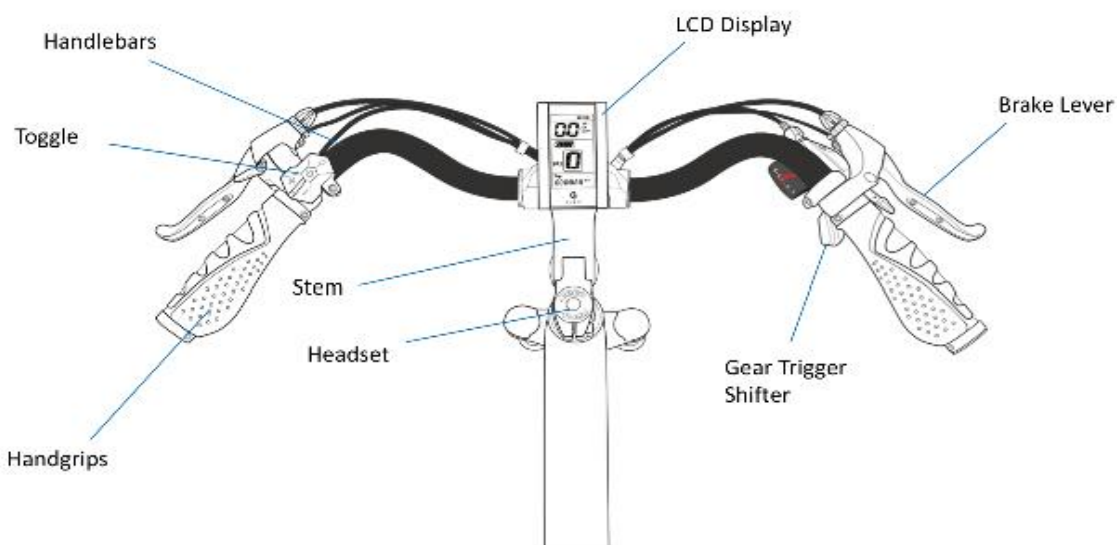
### Thumb Throttle System:

Pressing the throttle on the left side of the handlegrip propels the ebike forward without pedaling. To engage it during your ride, gently apply pressure on the thumb throttle.

The more you apply, the stronger the motor propels the ebike. Releasing the throttle or applying brakes stops the motor's assistance. Always have a hand on the brake lever to quickly disengage the throttle if needed, or turn off the bike to avoid accidental engagement.

Your ebike's throttle lets you use the motor's power without pedaling. Activate it in PAS1 to PAS5 mode and increase pressure for more speed.

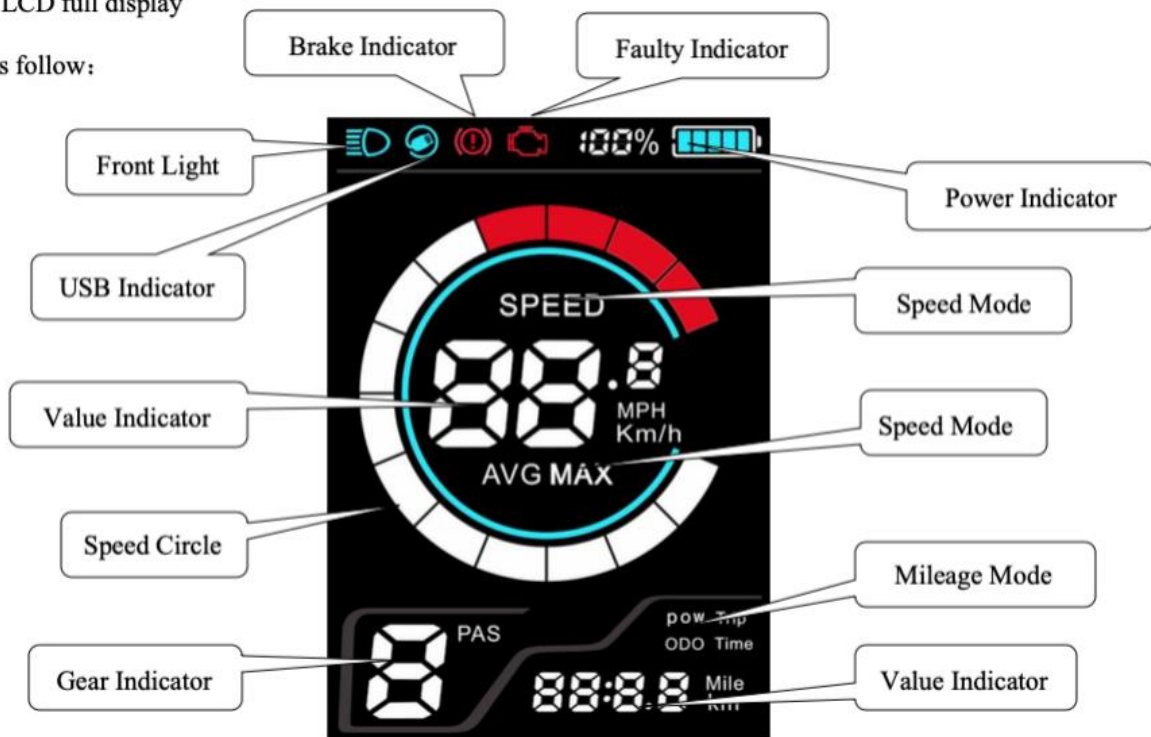
## *Handlebar*









## LCD Display

LCD full display  
as follow:












Front Light	Displays  when the headlights are on
USB Indicator	Displays  when the USB charging function is turned on
Brake Indicator	Displays  when brake powers off
Faulty Indicator	Displays  when a fault is detected
Power Indicator	Display accurate percentage of power
Speed mode	Average speed (AVG SPEED), Maximum speed (MAX SPEED), Real-time speed (RT SPEED)
Value Indicator	Display speed value: kilometers per hour (Km / h) OR miles per hour(MPH)
Speed Circle	Display current speed
Gear Indicator	Display the current power-assisted gears 0-9 0 : neutral and no power 1-9: power-assisted gears P: walk assist mode
Mileage Mode	Display mileage information or time information according to the set mode.

# Toggle

Button description as follow:



<p>Power Button</p> 	<p>Change the Speed/Mileage mode:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>ODO</p>  </div> <div style="text-align: center;"> <p>Ride Time</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Power Information</p> </div> <div style="text-align: center;">  <p>Single Mileage</p> </div> </div>	<p>Short press Power Button each time for one mode</p>
	<p>Turn ON/OFF the display</p>	<p>Press and hold the Power Button for 1 second or longer</p>

<p>Mode Button</p> 	<p>Change the Speed Mode:</p> <p>Ride time speed Average Speed Max Speed</p>	<p>Short press Mode Button</p>
<p>Plus &amp; Minus Button</p> 	<p>Change Assist Levels PAS 0 - 5 (zero assist to max assist)</p>	<p>Short press [+] or [-] button</p>
<p>Turn ON/OFF headlight Headlight icon will show on the display and the screen brightness will dim.</p> 	<p>Press and hold [+] button for one second to turn ON/OFF the headlight.</p>	
<p>Activate Push mode Achieve a speed of up to 3.7 MPH solely by motor power, which pushes the bike up steep hills.</p> 	<p>Press and hold the [-] button for two seconds or longer to turn ON</p> <p>Release the [-] button or apply the break lever for a short period of time to turn OFF</p>	

	<p>Cleanup Data</p> <p>Reset several temporary data points including:</p> <p>AVG Speed</p> <p>MAX speed</p> <p>Trip mode</p> <p>Time mode</p>	<p>Press and hold [+/-] buttons together for one second or longer</p>
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### *Parameter Settings*

Adjustments to the display can be made through parameter settings.

**Note: The default settings are pre-configured; altering them is not recommended.**

- Activate parameter settings: Double-press the [mode] button quickly (within 0.3 seconds).
- In parameter settings: Short press [+/-] buttons to modify values.
- Set the next parameter: Press [mode] button
- Save and switch: Press [power] button.
- Exit parameter settings: Double-press [mode] button swiftly (within 0.3 seconds).

If no action is taken within 10 seconds, the display will automatically revert to the default view.

### *Display Settings*

#### 1. Display Brightness Adjustment:

Press the [+/-] buttons to modify the display's brightness. Brightness levels range from 1 to 5.

#### 2. Automatic Shutdown Timer:

Press the [+/-] button to select a value from 1 to 9, representing the delay time (in minutes) before the display turns off automatically, where OFF represents the deactivated automatic shutdown function.

#### 3. Metric/Imperial:

Press the [+/-] button to switch between mph or km/h. 0 is for the metric system. 1 is for the Imperial system.

#### 4. Manual/Automatic Switch:

Press the [+/-] button to switch between manual and automatic. Set to 0 for manual gear and 1 for automatic.

#### 5. Password Input

Rest assured, we've configured all the advanced parameters to ensure your optimal experience. We've set the top speed to its maximum limit for you. Should you desire a speed adjustment, kindly get in touch with us.

To maintain the smooth operation and performance of your ebike, we kindly advise against accessing the advanced settings menu. Making changes there might inadvertently disrupt the settings.

In the event that you do need to access the advanced parameter settings, a password is required. Please feel free to contact us for assistance.

### *Before Riding*

1. Set the seat height to a level where your feet can comfortably reach the ground when you're not pedaling.
2. Test the disc brakes by firmly pulling on the two brake levers. Ensure that the levers don't make contact with the handlebars.
3. Verify that the tires are properly inflated. Insufficient tire pressure can lead to instability while cornering.
4. Ensure the battery is fully charged and activate the power switch to the "ON" position.

### *Your First Ride*

1. Ensure that the battery is securely locked in place.
2. Embark on a brief ride without electric assistance to assess balance, eBike weight, pedal ease, test gear shifting, and note the increased pedaling effort when shifting into higher gears.
3. Begin by feeling comfortable on the bike. Ensure that the battery switch is turned on. Pressing and holding the Power Button on toggle switch. Initiate with PAS 1 displayed on the electronic screen and start pedaling slowly. After about half a pedal rotation, observe the motor engaging to assist your movement; it will disengage once you stop pedaling. Your pedaling and gear selection determine the pace.
4. Elevate the power level by adjusting the toggle to a higher PAS setting, and observe the amplified electric assistance.
5. While riding on level ground, you'll promptly notice how the electric motor effortlessly propels you to higher speeds, requiring far less effort. Adjusting to this new dynamic might require a bit of time to get used to.
6. When encountering hills, you'll find ascending them to be notably less challenging compared to a conventional bicycle. However, due to the substantial assistance from the electric motor during climbs, you'll need to raise the power settings, even when using lower gears.
7. Operate the throttle, located next to the left handlebar grip, by gently and cautiously twisting it towards the rider. Only engage the throttle while you are on the bike, and please be aware that the throttle can be activated with a simple press whenever the bike is powered on.

# Battery and Charging

## *Charging Instruction*

1. Prior to charging your battery, be sure to inspect the battery, charger, and electrical cables for any indications of damage.
2. Lift the rubber cover for the charging port on the left side.
3. Insert the charger into the battery's charging port.
4. Connect the charger to a power socket.
5. When the charging is complete, disconnect the charger from the power socket first, followed by removing it from the charging port.



1. When the eBike is not in use, please charge it promptly. It is not recommended to wait until the battery level is low before charging. Regular charging helps maintain optimal battery performance.
2. Charging status light
  - Green light:** No battery connected or charge complete
  - Red light:** Charging

## *Charging Time*

It takes approximately 6-7 hours for the battery to go from empty to fully charged.



1. The duration it takes for the charger to completely charge the battery relies on factors such as the distance covered, riding style, terrain, weight carried, battery age, and additional considerations.
2. If you notice any abnormal charging behavior, a longer-than-anticipated charging time, or a significant decrease in the range, please cease usage and get in touch with us for assistance.

## *Battery Removal*

Rotate the key counterclockwise until the spring-loaded battery pops out from the frame.

## *Charger Feature*

The built-in safety features of the “smart” charger prevent the following:

- Reverse polarity
- Current flow reversal
- Current and voltage fluctuations while charging
- Over charging
- Short circuit



1. The frames are made with customized aluminum tubes tailored for the battery. Utilizing aftermarket battery accessories or products not vetted for safety and compatibility might lead to warranty invalidation, unsafe riding conditions, potential bike or property harm, or even severe injury or loss of life. This battery is available for purchase as an additional spare part, if need.

2. Never submerge the battery in water or any liquid, including within the battery mount, as this could result in harm, serious injury, or fatality. Make sure to always charge the battery indoors in a dry area, keeping it away from direct sunlight or rain.

3. The usage of a compromised battery or charger could lead to further bike damage or a fire hazard. Cease usage of the battery and charger immediately and reach out to us if any of the following scenarios arise:

- (1) The power cord, output cable, or any electrical cables on your bike associated with the charger exhibit fraying, broken insulation, or any form of damage.
- (2) The battery or charger bears physical damage, is non-operational, or displays unusual behavior
- (3) The battery or charger has sustained significant impact from a fall, collision, or shipping-related damage, whether visibly apparent or not.
- (4) The charger becomes excessively hot to the touch (normal warmth is expected during use), emits strange odors, or demonstrates signs of overheating. Store any impaired battery or charger in a secure location and, at the earliest opportunity, recycle or dispose of it according to local regulations. Reach out to us for queries or to acquire a compatible replacement battery or charger.

## Error Codes

Your ebike features an integrated error detection system in its display and controller. In the event of an electronic control issue, an error code will appear. These common error codes help with troubleshooting. If you see an error code, stop using the bike and contact us immediately. Refer to the error description and solution based on the code displayed. Only a technician with a password can make necessary adjustments. Please reach out to us for guidance on next steps.

Code display	Error description	Solution
21	Current error	Check wire connections
22	Throttle error	Check the wire connection for the throttle
23	Motor error	Check the wire connection for motor
24	Motor Hall error	Check the wire connection for motor
25	Brake error	Check the wire connection for brakes

## Maintenance

Regular maintenance is the key to ensuring maximum performance and longevity for your ebike. By following these maintenance guidelines, you'll keep your eBike running smoothly and enjoy a reliable and safe riding experience. Proper maintenance enhances your overall riding satisfaction and extends the lifespan of your eBike.

If you require a replacement part for your bike, please head to [www.metriders.com](http://www.metriders.com). Should you be searching for an item not found on the site, kindly get in touch with us. Exercise caution when considering components or accessories that have not undergone the safety and compatibility testing for your particular bike model.

1. Charge the lithium ion battery at least every 3 months. Leaving the battery uncharged for long periods of time will diminish the lifecycle of the battery.
2. This Lithium Ion battery charger is to be used only with the original rechargeable battery. Using it with other batteries may damage it or cause injury.
3. If the charger is damaged or does not function properly, please contact us at [support@metriders.com](mailto:support@metriders.com). Do not attempt to open or repair it.
4. The charger is designed for indoor use only. Do not expose it to high temperatures, high moisture, flammable liquids, or explosive substances.
5. Any use of the charger other than described herein may cause damage or injury and will void the warranty.
6. Try to keep your bike indoors whenever possible, and make sure to consistently monitor and upkeep the tire pressure.
7. Inspected your ebike by a certified expert at your nearby bike store every year.
8. Always refer to the Error code table to identify the error shown on the LCD display and make



sure all powerlines are properly connected.

9. Apart from the four electrical components, it functions just like a standard bicycle. This means you can have maintenance carried out at any bicycle shop.

10. Apart from the four electrical components, any bike shop can provide the necessary upkeep services.

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