EMERALD

BLAZE | CRUISE EBIKE

USER MANUAL

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1. INTRODUCTION

WELCOME TO THE EMERALD COMMUNITY

Ride with confidence. Ride EMERALD.

Congratulations on purchasing your new EMERALD Electric Bike. Where luxury and performance converge. Our REGAL Series, featuring the bold REGAL BLAZE and the refined REGAL CRUISE, represents the high quality and innovation in electric mobility. We are committed to ensuring that you have a safe and enjoyable riding experience for years to come.

Every component of our e-bikes is sourced from the world's most renowned manufacturers, ensuring unmatched performance, durability, and precision. Designed for those who value excellence, the REGAL Series delivers a riding experience that is both sophisticated and empowering.

Join the EMERALD Community and embrace sustainable, zero-emission mobility with a touch of royalty.

1.1. USE OF MANUAL

To ensure the safe and enjoyable use of all EMERALD products, please carefully read and follow the recommendations in this manual. It is essential to fully understand the general operation of all components of your e-bike.

Please pay extra attention to any information marked with a caution or warning symbol:

⚠WARNING **⚠CAUTION**

1.2. SERVICE & TECHNICAL SUPPORT

Please note that this manual is not an exhaustive service guide. For comprehensive or immediate assistance, we recommend reaching out to your local bike shop.

1.3. ILLUSTRATIONS

The illustrations in this manual are for instructional purposes only and may not perfectly represent your e-bike. Some components may vary between models.

2. PRODUCT DESCRIPTION

2.1 EMERALD REGAL BLAZE COMPONENTS

1	Display Unit	16	Disk Brake Caliper
2	Keypad	17	Front Fender Brace
3	Handlebars	18	Front Fender
4	Brakes	19	Controller
5	Handlebar Adjustment Bolt	20	Battery
6	Headset	21	Pedal
7	Top Cap	22	Crank Arm
8	Brake cables, shifter cables and electric wires	23	Chain
9	Headlight	24	Derailleur
10	Front Fork	25	Rear Wheel
11	Front Tire	26	Rear Fender
12	Wheel Rim	27	Taillight
13	Spokes	28	Rear Rack
14	Air Valve Stem	29	Seat Stem
15	Quick Release Lever	30	Saddle

2.2. EMERALD REGAL BLAZE SPECIFICATIONS

Model: EMERALD REGAL BLAZE-PRO-GT

Frame: Hydro-formed Alloy 6061 TIG welded with putty (3 joints) 27.5*17"

Fork: Alloy ED crown / Alloy ED leg, with crown lock

Headsets: KL411A, 25.4*44*44*30mm

Handlebars: DTS-950A,Alloy, 640*22.2*2.4T*31.8

Brake Set: Tektro Hydraulic Brake HD-E3520

Grip: XL-G68, 22.2*125, rubber, black

Crank Set: 38T*170, Alloy crank

Pedal: YH-37X, Alloy with CPSC standard reflector

Chain: PYC Z8 8sp-PYC Z7 7sp-PYC Z7 7sp

Gear Set: SHIMANO 8sp-7sp-7sp

Rim: 27.5 Alloy double wall rim HL-20DA

Tire: KENDA K1052 27.5*2.2

Saddle: BKS-5009 comfortable saddle

Front Light: JY-7149EL

Rear Light: Brake Light feature JY-556EL

Rear Carrier: Alloy Integrated rear rack

Fender: Steel fender

Motor: Brushless 36V/500W BAFANG-48V/500W BAFANG-48V/500W SUTTO Geared rear motor

Battery: 36V/17.5AH-48V/15AH-48V/15AH SAMSUNG Lithium battery

Charger: 54.6V/2A, DC 2.1

Controller: BLDC Sine-wave controller 36V/ 25A-48V/25A-48V/25A waterproof connectors

Sensor: PAS/thumb throttle, Torque sensor-Speed sensor-Speed sensor

Display: KDS LCD KD-1586

Kickstand: Alloy S-007B adjustable kickstand

Seat Post: Alloy. SP-A203 30.4*300

Weight: Gross.31 Kg- Net.26 Kg

2.3. EMERALD REGAL CRUISE COMPONENTS

1	Display Unit	16	Disk Brake Caliper
2	Keypad	17	Front Fender Brace
3	Handlebars	18	Front Fender
4	Brakes	19	Controller
5	Handlebar Adjustment Bolt	20	Battery
6	Headset	21	Pedal
7	Top Cap	22	Crank Arm
8	Brake cables, shifter cables and electric wires	23	Chain
9	Headlight	24	Derailleur
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11	Front Tire	26	Rear Fender
12	Wheel Rim	27	Taillight
13	Spokes	28	Rear Rack
14	Air Valve Stem	29	Seat Stem
15	Quick Release Lever	30	Saddle

2.4. EMERALD REGAL CRUISE SPECIFICATIONS

Model: EMERALD REGAL CRUISE

Frame: Hydro-formed Alloy 6061 TIG welded with putty (3 joints)

Fork: Alloy crown/ Steel leg, without lock

Headsets: KL411A, 25.4*44*44*30mm

Handlebars: DTS-950A,Alloy, 640*22.2*2.4T*31.8

Brake Set: Tektro Hydraulic Brake

Grip: XL-G68, 22.2*125, rubber, black

Crank Set: 38T*170, Alloy crank

Pedal: YH-15X, plastic

Chain: KMC 7sp

Gear Set: SHIMANO 7sp

Rim: 700C Alloy double wall rim

Tire: KENDA 700*45C

Saddle: vinyl top cover, padded with PU, with black ABS

Front Light: 100 Lux JY-7149EL

Rear Light: Brake Light feature JY-556EL

Rear Carrier: Alloy Integrated rear rack

Fender: Steel fender

Motor: Brushless 36V/250W BAFANG Geared rear motor

Battery: 36V/10AH 10000mAH SAMSUNG Lithium battery

Charger: 42V/2A, DC 2.1 240/120V ULc

Controller: BLDC Sine-wave controller 36V/ 25A waterproof connectors

Sensor: PAS/thumb throttle, Speed sensor KD-2PS-L

Display: Yonglin LCD

Kickstand: Alloy adjustable kickstand

Seat Post: Alloy. SP-A203 27.2*300

Weight: Gross.31 Kg- Net.26 Kg

2.5. PRODUCT FEATURES

2.5.1. ULTIMATE PERFORMANCE, YET STREET LEGAL

- With EMERALD REGAL BLAZE-PRO-GT/CRUISE you can easily switch between Class 1, Class2, e-bike modes, giving you the freedom to tune your e-Bike to the maximum performance allowed under the law. With Class 1 and Class 2, you can enjoy a whopping 150km of range at PAS 1, allowing you to travel further than ever before.

2.5.2. THE SUV OF EBIKES

- EMERALD REGAL BLAZE-PRO-GT/CRUISE is the ultimate powerhouse e-bike, combining versatility and strength to serve as both a reliable commuter and a capable cargo carrier. Built with a rugged, durable frame, the REGAL BLAZE is designed to handle any terrain- whether it's a smooth city street or a bumpy off-road trail. Powered by a robust 500W electric motor, this e-bike ensures a smooth, effortless ride, making daily commutes more enjoyable. And when it's time to run errands or transport cargo, The REGAL BLAZE is up to the task with unmatched ease and reliability.

2.5.3. SAFETY FIRST

- At EMERALD, we prioritize your safety and performance by using premium components, including SAMSUNG Li-ion cells, Shimano Transmission, and Hydraulic Brakes. These ensure exceptional performance and long-lasting reliability. Our bikes undergo industry leading fatigue testing to guarantee durability, and our rigorous Quality Assurance and Quality Control processes ensure every product is defect-free.

2.5.4. SMART DISPLAY

- EMERALD comes with Smart display allows you to run diagnosis analysis.

2.5.5. PROUDLY CANADIAN

- Discover the pinnacle of electric micro mobility with EMERALD, a proudly Canadian company. Specializing in locally designed products, we deliver convenience, affordability, and sustainability to meet all your mobility needs.

⚠WARNING

Secondary retention devices are not a substitute for correctly securing your front wheel. Failure to properly secure the wheel can cause the wheel to wobble or disengage, which could cause you to lose control and fall, resulting in serious injury or death.

3. ASSEMBLY INSTRUCTIONS

3.1. GENERAL REQUIREMENTS

Products listed in your order need to be installed professionally, as they require fine-tuning and adjustment after installation. It is highly recommended to get help from an experienced mechanic, refer to your local dealer. If you choose to do it yourself, with your own responsibility.

⚠CAUTION
Some Bicycle accessories may present a choking hazard and other hazards to small children. Keep any bike parts accessories, tools away from small children.

3.2. UNBOXING

- Open the box from the top side
- Please be careful when pulling the frame out, it is the heaviest part of the bike, and the handlebar is attached. You must be careful to protect the cables from getting tangled
- Two people are recommended for the unboxing procedure

3.3. UNPACKING

- Cut all the zip ties and separate the wheel
- Do not damage the battery as it is mounted on the bike frame
- Remove all packaging wrap

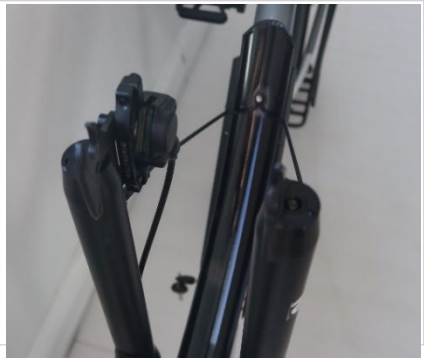
⚠CAUTION
While cutting zip ties be careful not to scratch or damage your bike, be extra cautious while cutting zip ties around wire connections and cable housings. Do not damage the battery when removing it the frame from the box.

3.4. TOOLS REQUIRED

- Allen key set (4mm, 5mm, 6mm), Wrench (8mm, 15mm), Grease

3.5. ASSEMBLY & INSTALLATION

Figure 3A



3.5.1. FRONT WHEEL MOUNTING

- Remove the stud provided between the fork (**Figure 3A**)
- Remove the pad spacer provided in the brake caliper **(Figure 3B)**
- Mount the front wheel in the direction where the disk brake lines up with the caliper

Figure 3B

- Insert the quick release making sure there is a spring on either side of the fork drop out. The narrow side of the spring should face towards the wheel **(Figure 3C**)
-

Figure 3C

> **⚠WARNING**
>
> **Improper assembly of the bike may result in serious injury** or even death. Make sure you seek the help of a qualified **mechanic in case of any doubt.**

-
- Tighten the quick release and lock it (**Figure 3D)**

Figure 3D

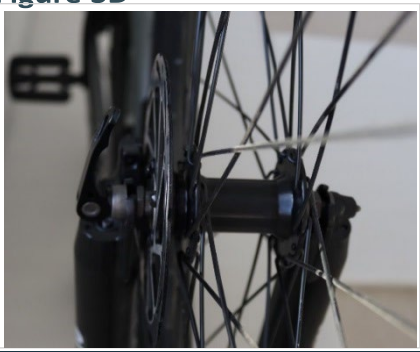


Figure 3E

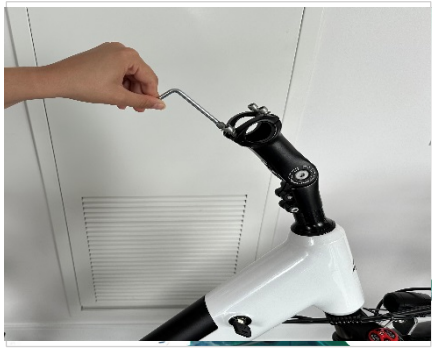


Figure 3F

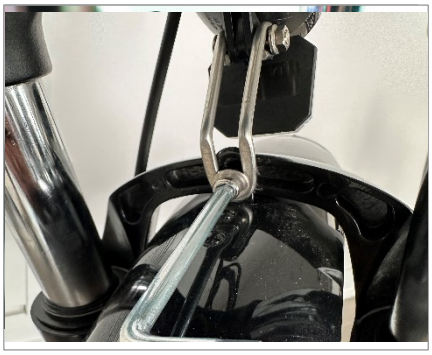
Figure 3G

Figure 3H

3.5.2. EMERALD HANDLEBAR ASSEMBLY

- Remove the four Allen bolts and remove the clamp (**Figure 3E)**
- Place the handlebar in the center of the clamp, such that the gear shifter is on the right side **(Figure 3F**)
- Reinstall the clamp and proceed to tighten the 4 screws. To make sure that torque is applied evenly, tighten one bolt, skip the next and tighten the third bolt on the opposite side. Then proceed to righten the remaining bolts
- Before securing the handlebar, adjust the angle to your desired position
- Make sure there is an equal gap between the clamp and the stem between all four bolts **(Figure 3G**)
- Torque the 4 bolts to 5Nm
- Adjust the handlebar height by loosening and or tightening the Allen bolt in the center of the stem. The recommended Torque is 7Nm **(Figure 3H**)
- Never adjust the handlebar height above the recommended mark or high enough to allow 4 inches of the stem to be left inside the headset tube
- Always check the stem is tight and cannot move
- Make sure the grips are tight enough that they do not move

Figure 3I



3.5.3. LAMP AND FRONT FENDER MOUNTING

- Remove the Allen bolt **(Figure 3I)**
- Place the fender behind the fork bridge, and screw it into place
- Align Fender stay mount to the fork, use an Allen key to fasten the screw (**Figure 3J**)
- Repeat steps for the other side

Figure 3J

3.5.4. FRONT LIGHT

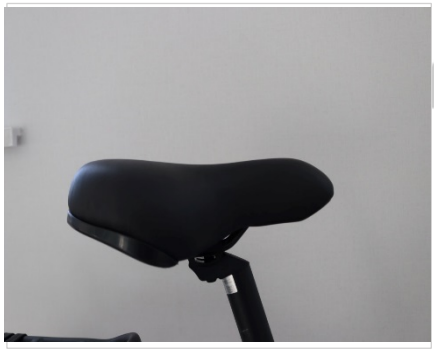
- The front light will come assembled on the handlebar, use the Allen key to fasten it to the handlebar as shown in (**Figure 3K)**

Figure 3K

Figure 3L

Figure 3M

Figure 3N



3.5.5. PEDAL INSTALLATION

- Take the pedals out of the box
- Apply a small amount of grease to the screw portion of the pedal
- Look for the letters displayed on the head of the screw
  "L" indicates left, and "R" indicates right **(Figure 3L)**
- Tighten the pedals using a size 15mm wrench
- Tighten the right pedal in a clockwise motion **(Figure 3M)**
- Tighten the left pedal in an anti-clockwise motion

3.5.6. SADDLE INSTALLATION

- Apply some grease to the seat tube
- Insert the seat post into the tube **(Figure 3N**)
- Adjust to preferred height
- Tighten the seat clamp

3.6. TORQUE CHART

COMPONENT	TORQUE
Front wheel Axle	Quick Release closed cam system
Rear Hub locking nut	15 Nm
Pedal	15 Nm
Kickstand	7 Nm
Clamps for fender	7 Nm
Stem bolt	7 Nm
Handlebar bolts	5 Nm

⚠WARNING

Fasteners must be tightened correctly. Fasteners are not secured if the torque is too little, and the fasteners can deform, stretch, or break if the torque is too much. Incorrect torque can lead to component failure resulting in serious injury or even death.

3.7. ASSEMBLY CHECKLIST

It is important to complete the following checklist before your first ride to ensure that bike is assembled correctly:

- Handlebar aligned correctly
- Pedals are correctly installed
- The seat post is installed and its height adjusted
- Front-wheel installed and aligning with handlebar correctly
- The front and Rear brakes working
- Tires are inflated and up to correct pressure
- Lights and Reflectors connected

4. OPERATING YOUR PRODUCT

4.1. OPERATION

- Your EMERALD Electric Bike LCD meter tracks essential information, including pedal assist level, speed, odometer, trip distance, riding time, and battery energy level. To turn on the meter, press and hold the Power button for 1 second. Ensure the battery is fully inserted, and the on/off switch is “ON”
- EMERALD batteries feature a five-minute sleep function to conserve power. If no activity is detected, the bike will go into “static” mode. To reactivate the battery, simply turn the bike off and on again
- With the display turned ON, you can select your Pedal Assist mode using the UP/DOWN button located on the left hand side of the handlebar controls
- EMERALD bikes are equipped with a Pedal Assist Sensor (PAS) installed on the bottom bracket which electronically detects pedal crank rotation
- Using the UP and DOWN arrows, you can adjust Pedal Assist from 0 (no assist) to 5 (maximum boost). Level 1 provides minimal assistance, while level 5 delivers the highest level of support
- In any non-zero Pedal Assist mode, the motor engages automatically as you begin pedaling, eliminating the need for throttle use. However, you can still increase your speed by applying the throttle. At level 5, the throttle provides no additional boost as it matches the system's maximum assist level.
- Note that it takes approximately a quarter pedal rotation for the Pedal Assist to activate and engage the motor
- To activate walking mode, press and hold the DOWN button for 2 seconds. The e-bike will move at walking speed until you release the button to exit the mode

⚠CAUTION

The acceleration provided by the electric motor may feel very uncomfortable at first. It is best **to start in PAS mode 1 and move up to the faster modes as you become more comfortable with the acceleration. If you start in the higher modes 3, 4, or 5, the motor kick might cause panic. In 0 mode, the pedal assist is NOT active.**

⚠CAUTION
Never sit on your e-bike when it is resting on its kickstand. This may cause the e-bike to tip over.
⚠CAUTION
Please make sure you keep the LCD Display in a safe place (in a closed environment) and away from children. The display has a small battery inside, which has to be charged fully. If by accident someone applies throttle, the motor may get activated. EMERALD will not be liable for any consequences.
⚠WARNING
Make sure you are seated on the bike and have both of your hands on the handle before turning on throttle control. Failure to do so may result in loss of control and may cause serious injury or even death.

4.2. ACTIVATING SYSTEM LIGHTS

- To turn the head and LCD lights ON and OFF, simply press and hold the UP arrow on the LCD display for about two seconds until you see the display light up

4.3. LCD METER

Your LCD Display comes pre-programmed with the ideal settings. If you accidentally change something, or something is not working correctly, or you would like to change something. The default settings are stated below **Figure 4A**

Short press MENU button can change the mode between trip distance, ODO, max speed, average speed, and trip time as show in **Figure 4B**

Figure 4A

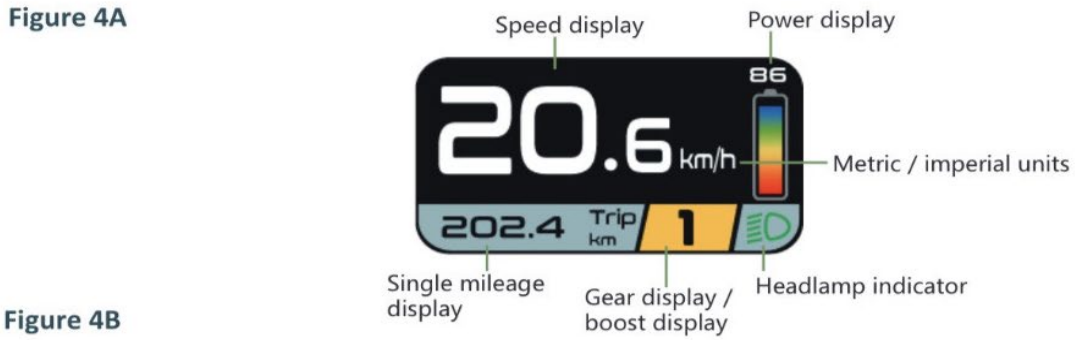


Figure 4B

Figure 4A

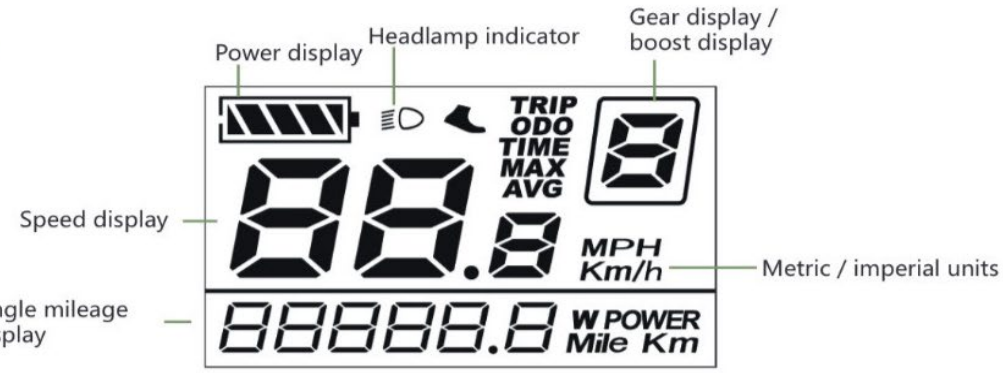


Figure 4B

4.4. HAND THROTTLE CONTROL

- EMERALD bikes are equipped with a thumb throttle located on the left side of the handlebar
- Similar to a motorcycle, the throttle allows the rider to control 0-100% of the motor's power at will. It can function independently or in conjunction with PAS (Pedal Assist System)
- To operate the throttle, press the thumb attachment. The farther the throttle is pushed from its resting position, the more power is delivered to the motor, accelerating the EMERALD Electric Bike
- To slow down, simply release the throttle, allowing it to return to its resting position, and apply the brakes simultaneously. EMERALD Electric Bike also feature a Throttle Override function, enabling the throttle to work while in pedal assist modes for enhanced control

4.5. BRAKES

- Your Electric Bike is equipped with Hydraulic disc brakes for maximum reliability. Applying pressure to the brake levers cause the brake pads to create friction against the rotors, slowing the wheels. The more pressure applied to the brake levers, the faster the Electric Bike will come to a stop
- EMERALD e-bikes brakes are equipped with microswitches that automatically cut off the motor power whenever the brake levers are engaged. To ensure proper operation, test the brake disconnect switch before every ride. In a controlled environment (such as your driveway), engage the motor and then squeeze each brake separately. The motor should immediately stop and remain off as long as a brake lever is pressed

⚠CAUTION

The cable switch can be disconnected, come loose, or malfunction – so always perform a check before you ride. Be sure to pull both brakes in an emergency or when you need the motor to disengage.

- Always apply both brakes simultaneously. Applying only the front brake to slow or stop at high speeds may result in the rider being ejected from the saddle and continuing forward over the handlebars. It is best to apply even pressure to both brake levers when slowing or stopping

- Ensure that the brake lever does not make contact with the handlebar, even when full hand pressure is applied. If it does, the brakes may need rebleeding
- You can adjust the lever reach by tuning the adjustment screw, as shown in (**Figure 4F)**

Figure 4F

- With Hydraulic Brakes is it vital they are bled properly and by a certified bike mechanic – please service and maintain your brakes every 1000 Kilometers or every 6 months or whenever necessary. Brakes are a critical part of the bike and it is essential that both are working 100%.

⚠CAUTION

Brakes need bedding in period before reaching max power. Before any serious riding, please bed in your brakes in a safe location

- To bed in your brakes, roll down a hill or pedal to about 15km/h, then apply the brakes to slow the bike down. Repeat this process about 15 times per lever. But avoid coming to a complete stop or locking the wheels
- Disc brake rotors can become extremely hot during use. Avoid touching or coming into contact with the disc rotor immediately after braking
- In wet condition, stopping distance will increase. Brake earlier and avoid sudden stops to maintain control and ensure safety

4.6. OPERATING RANGE

Expect a range of about 70 km with medium motor use, flat ground, light wind and for an average weight person.

The range on e-bikes can vary greatly and are heavily dependent on these factors:

- Battery age
- Rider and luggage weight
- Road conditions (gravel or smooth)
- Tire condition and PSI
- Wind speed and direction
- Bike usage (heavy acceleration and high speeds will drain the battery faster)
- Road slopes or hills
- Pedaling power and gear selection
- Weather and temperature

4.7. MAXIMIZE YOUR RANGE

- Fully charge your battery before each ride
- Ride in pedal-assist mode as much as you feel comfortable- the more you assist the motor, the longer it will assist you
- Service your bike periodically, ensuring bearings run smoothly and the brakes do not rub the rotors or rims
- Minimize the weight you carry
- Lubricate the chain every few rides, more so if riding in the rain
- Clean the drivetrain as often as you can and at least thoroughly clean it once a month
- Avoid sudden starts and stops
- Minimize use of the throttle
- Check and adjust tire pressure

4.8. PRE-RIDE CHECKLIST

- Ensure all the fasteners are properly tightened and not loose
- Verify that brakes are functioning correctly and that brake pads are properly positioned
- Check the alignment of the handlebar and wheel
- Confirm that the tires are inflated to the correct pressure (3-4 bars)
- Inspect the tires for adequate tread and check for excessive wear
- Check that wheel spokes are not damaged or loose
- Ensure the handlebar and stem are properly aligned
- Verify that bearings are lubricated and run smoothly without any grinding
- Make sure the pedals are securely tightened to the cranks
- Ensure the chain is clean, lubricated, and runs smoothly
- Check the frame for any bends or damage
- Inspect the hub motor to ensure it is functioning properly and in good condition
- Verify that battery has enough charge
- Lock the battery and remove the key
- Check the seat height for comfort and proper adjustment
- Ensure that lights and reflectors are working properly

5. MAINTENANCE & REPAIR

5.1. MAINTAINING PARTS

- Electric bikes like traditional bicycles, require regular maintenance. The drivetrain should be cleaned and lubricated, the brake pads replaced periodically, and hydraulic brake levers bled or cables replaced as needed
- This manual provides essential guidelines on bicycle maintenance and inspection, but it does not cover everything required for proper serving. For professional care, we strongly recommend taking your bike to qualified bike mechanic
- Ensure your tires are properly inflated by using a tire pressure gauge. Tires should also be replaced when the tread falls below the manufacturer's recommended depth
- Periodically clean your bike to maintain its performance and longevity
- It is crucial to understand the wheel securing mechanism of your bike, including how to secure the wheels correctly and apply the correct clamping force for safety. Seek instruction from bike mechanic on correct wheel removal, installation, and any available manufacturer's guidelines
- EMERALD bikes feature two wheel securing system: First the front wheel uses a hollow axle with a shaft (“skewer”) that includes an adjustable tension nut on one end and an over-center cam on the other. Second the rear wheel is secured with a hex nut and hex key bolts threaded onto the hub axle
- Always carry a spare inner tube during rides, and keep the contact information of an authorized mobile mechanic handy for emergencies
- Never inflate a tire beyond the maximum pressure marked on its sidewall. Over inflation may cause the tire to blow off the rim, resulting in potential damage to the bike and serious injury to the rider or bystanders
- Frequently inspect and tighten the kickstand bolt. The high stress caused by the spring mechanism can loosen the bolt over time, so regular checks are essential

5.2. IN CASE OF ACCIDENT

⚠WARNING

If you have an accident, drop your e-bike or your e-bike falls over, your e-bike is unsafe to ride until you follow the instructions included in this section. Failure to follow these instructions could lead to component or bike operation failure which could lead to serious injury or death.

1. Always remove the battery before performing any service, inspection, or maintenance on your electric bike. Failure to do so could result in the bike turning on unexpectedly, leading to potential damage or injury
2. Carefully read, understand, and comply with the drive system user manual. Do not disassemble or attempt to service components unless explicitly advised to do so in writing by the EMERALD
3. Inspect the wheels to ensure they are securely fixed in the dropouts and that the rims are centered relative to the frame or fork. Spin the wheels and observe the gaps between the frame and tire, as well as between the brake pads and the rim sides
4. If you noticed a significant changed in the gap width and cannot true the wheel at your location, release the rim brake pads without touching them. Be aware that this may reduce braking effectiveness
5. Check the handlebars and stems to ensure they are bent or broken and that they are level and upright. Verify that the stem is securely attached to the fork by attempting to turn the handlebars relative to the front wheel. Apply pressure to the brake levers briefly to confirm the handlebars are firmly fixed in the stem
6. Realign components if necessary and carefully tighten the bolts to ensure secure clamping. Refer to the maximum torque values printed on the components or specified in the operating instructions. If unavailable, contact EMERALD support for assistance
7. Confirm that the chain is properly seated on the chain rings and sprockets. If the bike has fallen on the chain side, test gear functionality. Have someone lift the bike by the saddle and gently shift through all the gears, Ensuring the rear derailleur does not come too close to the spokes as the chain moves onto larger sprockets

8. If the rear derailleur or the dropout/derailleur hanger is bent, the rear derailleur may collide with the spokes, causing potential damage to the rear derailleur, rear wheel or the frame. Inspect the rear derailleur and ensure it is properly aligned. Additionally, check the front derailleur's function, as a misaligned front derailleur can cause the chain to derail, abruptly interrupting the bike's motion and potentially leading to an accident, injury or death
9. Confirm the saddle is properly aligned, using the top tube or the bottom bracket shell as a reference
10. Gently bounce the bike on the ground from a low height. If you hear any rattling, identify its source. Inspect the bearings, bolts, battery and connectors to ensure they are secure and functioning correctly
11. Check the display to confirm that all values are displayed correctly. Do not use your bike if the display shows an error message or a warning. If necessary, turn off the system, wait at least 10 seconds, then turn it back on and recheck the display

⚠WARNING

Do not set off on your bike with drive assistance if the control element shows a warning. Doing so could lead to serious injury or death.

12. Inspect the entire bike thoroughly for any signs of deformation, color changes, cracks. If you notice anything unusual, ride back carefully or walk your bike to a professional mechanic for a full inspection and necessary repairs
13. If you have been in an accident and are unsure whether your bike is functioning properly, do not ride it. Instead, leave the bike to avoid risking further damage or endangering yourself and others
14. If you must ride your bike, avoid hard acceleration or sudden braking until it has been inspected by a professional mechanic
15. Deformed components, especially those made of aluminum, can break without previous warning. Such components should never be repaired, or straightened, as the risk of breakage remains high. This is particularly critical for parts like the fork, handlebars, stem, cranks, seat posts and pedals. When in doubt, replace the affected components
16. Never modify your e-bike's electrical systems unless such changes are explicitly approved in writing by the manufacturer
17. For repairs and replacement parts, always contact your dealer or EMERALD support to ensure compatibility and maintain safety standards

5.3. TROUBLESHOOTING TABLE

For any additional troubleshooting help, refer to **help center** or contact your local EMERALD Electric Bike dealer.

COMPONENT	ISSUE	CAUSE	SOLUTION
Charger	Charger gets hot	This is normal	Give the charger plenty of space in a well ventilated room
Battery	Power cuts and screen turns off	Low charge	Charge the battery
		LCD display connector is loose	Reconnect and check all other connections inside the controller housing
Battery	Mounting bracket is melted	Dust and dirt may cause loose connections between connection pins which can cause sparking that leads to melting	Make sure to frequently keep connections clean and secured. Order replacement parts
Battery	Battery does not charge up with standard charger	Battery is already fully charged	Read battery voltage when the system is on, on page 3 of screen, (double clicking middle screen button). Above 41V for 36V is considered full, and above 53V for 48V is considered full. Press the power button. 4 lights on then is 100%
		Charger does not function	Green LED may turn on when charger is plugged into battery but not connected to the wall. Check all connections are tight Try different plugs as well as different charger cables

Pedal Assist	System is on, Pedal Assist is not working, but the throttle is working	PAS sensor is disconnected	Check wires and connections or restore parameters to default
Throttle	System is on and the throttle not working but the Pedal Assist is working	Throttle has a connection issues	Check connections
		Throttle magnet can see interference from any nearby metal objects	Try moving metal objects further away from throttle
Motor	Motor making noise	This is normal when motor is under heavy load (hills, heavy cargo)	Try giving motor more assist under heavy loads
		Motor vibrations causing resonance on other bicycle components	Reposition parts and add vibration damping between parts, make sure motor is secured
Motor	System is on but motor has no power	Loose connections	Check connections and reconnect, make sure to align arrows
		Brake cut off sensor is malfunctioning	Disconnected the brake cut off sensor, check if motor is powering
		Battery not sufficiently charged	Check battery voltage, If below 34V the system will turn on but motor will not give power
Gear shifter	Gears skipping	Derailleur not in optimal position for gear	Adjust derailleur position with barrel adjuster located on the shifter

Brakes	Brakes making noise	Brake pads are rubbing on the rotor	Pads need to be adjusted. Losen the mounting bolts until the calipers are free to move, adjust the caliper such that rotor does not rub against the brake pads when the brake is not applied. Tighten the bolts to keep the caliper in its place.
		Brakes not bedded in properly, material buildup is causing noise	Lightly sand and clean rotors and pads. Bed in your brakes
Fenders	Front fender is making noise	Front fender is too close to the tire and is rubbing	Fender needs to be adjusted, try lifting it up and moving it away from the tire, may need some slight bending, make sure you have secured it in its highest position

5.4. RECOMMENDED SERVICE INTERVALS

It is important to inspect and service the electric bike to maintain optimal performance. The recommended service is only a guideline, every bike is used differently, and its wear and tear are accordingly.

INTERVAL	INSPECT/SERVICE
Every Week	• Check bolts and fasteners for proper torque value • Check chain, freewheel, and derailleur for proper alignment • Check if wheels are true • Check frame for any scratch or damage • Clean frame by wiping with a damp cloth • Use barrel adjuster to tension brakes and derailleur if needed
Every Month	• Check brake pad alignment • Check if gears are shifting properly • Check brake and gear cables for rust • Check spoke tension • Lubricate drivetrain • Check torque values of pedal and crankset • True the wheels • Check bearing adjustment • Check rim for wear • Lubricate forks
Every 6 Month	• Inspect chain, freewheel, and derailleur • Lubricate handlebar stem • Lubricate seat post • Grease bearings • Replace brake pads • Replace tires if necessary • Replace cables if necessary

- If you see a crack in any part of the bike, replace that part immediately as a crack and grow without any warning and may break the part during operation
- If you see any rust on the e-bike, make sure to clean the bike and lubricate it properly. If the rust is excessive, replace the part
- Make sure to avoid scratching or gouging any surface as these are stress concentration points that could lead to crack formation
- If there is any noise coming from the e-bike, investigate its cause and make sure to rectify the problem as soon as possible

5.5. CHANGING DISC PADS

Figure 5A

- Remove bolts securing calipers
- Remove pad retainer bolt
- Remove the disc pad pin
- Remove used disc pads and use flat screwdriver to push caliper pistons fully back
- Place new disc pads with disc pad spring in position, insert disc pad pin through the hose on caliper. Bend the open end of pin to keep the pin from moving out **(Figure 5A)**
- Spin the wheel and make sure it is clear between the rotor and disc pads **(Figure 5B)**

Figure 5B

5.6. CHANGING BRAKE FLUID

Figure 5C

The hydraulic disc brakes use mineral oil based braking oil. You can use mineral oil by other brands but make sure the oil used is rated for use in bike braking:

- Connect the syringes to plastic tubes and connect the adaptors to the other end of plastic tubes
- Remove the bleed screw on caliper (**Figure 5C)**
- Connect on of the syringe with adaptor to the bleed hole on caliper
- Remove bleed screw **(Figure 5D)**
- Use the syringe connected to caliper to draw out the used brake fluid, keep it in a container
- Draw fresh brake fluid into the syringe, make sure that there is no air bubble in the brake fluid and connect the adaptor to caliper

Figure 5D

Figure 5E

- Connect the other syringe with adaptor to brake master cylinder. Pump the syringe at caliper side to inject brake fluid into the system until fluid flows into the other syringe at the side and both syringes have roughly equal amount of brake fluid.
- Remove the syringe, push syringe to get air out and connect syringe back
- Pull brake lever fully back and use hand or a piece of string (cable tie etc.) to keep holding the brake lever
- Pump both syringes alternatively until no air comes out from the system
- Remove the adaptor on caliper side and resume the bleed screw
- Release brake lever pump the syringe at brake master cylinder side few times until no air comes out
- Remove the adaptor on the side and resume the bleed screw
- Pump brake lever 5~8 times to check bite point. If bite point is too low, redo bleeding procedures **(Figure 5E**)
- If bite point is correct, bleeding is completed
- Clean the system by using a clean cloth and cleaning naphtha

6. TRANSPORTATION & STORAGE

6.1. TRANSPORTATION

- Always remove the battery and turn off the bike before transporting it. As batteries are not designed to remain on the bike during transit
- Store the battery in a secure and safe location
- Improper use of vehicle racks can create hazardous situations that may lead to injury or even death
- Ensure the battery is removed before mounting the bike on a rack

6.2. STORAGE

- Fully charge the battery before storing it
- Switch off the battery before storage or when not in use
- For a long term storage, check and charge the battery every 2 months
- Store the bike in a location protected from rain, snow, and direct sunlight
- Keep the battery in a cool, well-ventilated room at room temperature
- Seal the terminals with tape to prevent potential short circuit
- Ensure the charging port is properly covered

7. GENERAL TERMS & WARRANTY

7.1. WARRANTY

- All products, including e-bikes and components such as motor, controller, display, battery, charger, throttle, PAS sensor, brake sensors, come with a 12-month FREE warranty unless otherwise specified.
- While the warranty ensures you receive a perfect product at the time of purchase, regular maintenance by the user is still required to keep the product in optimal condition

- Replacement mechanical parts such as chains, brakes, tires, gear adjustments, or loose screws and connectors are not covered under the warranty. The warranty applies only to intrinsic defects
- Bicycle service and tune-ups are not included as a part of warranty service
- The warranty covers intrinsic defects, such as a cracked frame weld seam or controller circuit failure, but does not include labor or delivery costs
- Customers are responsible for delivering defective products or parts to our service shop for repair or replacement
- E-bikes operate in real-world conditions and are subject to impacts, shocks, vibrations, temperature changes, accidents, water penetration, salt splash, and other environmental factors. Damages resulting from these conditions are not covered under the warranty
- If a defect is found within the warranty period, we will supply a free replacement part. However, delivery and installation fee may apply
- If the defect results from accidents, improper or careless installation by the customer, wire stretch, poor storage, or failure to follow the instruction manual, the customer will bear the cost of the part and replacement. Warranty eligibility and the cause of failure will be verified by the head of our technical department
- Warranty terms and conditions apply to all customers, including those purchasing our products through dealers, third parties, or second hand
- To claim a warranty, please fill the application form through our customer service at dealers

IMPORTANT NOTE:

EMERALD does not offer tune-up and bike mechanical services beyond limited installation or repairs of electrical system. Changing settings on the controller from the default manufacturer suggestion settings may cause damage the e-bike components. That will void the warranty.

7.2. REGISTERING YOUR PRODUCT WARRANTY

Please register your EMERALD product by filling out our product warranty registration form at **dealers**

IMPORTANT NOTE:

You must register your electric bike with EMERALD within 30 days of purchase for warranty to be valid.

7.3. EXCLUSIONS

EMERALD is not liable for any damages, injuries or claims resulting from neglect or improper maintenance. The owner is solely responsible for the upkeep and safety of all structural and mechanical components of their e-bike, including but not limited to brakes, headset, forks, and other critical parts.

7.4. SATISFACTION GUARANTEED

We are committed to ensuring your satisfaction with all our products and services. Our team provides comprehensive, free technical sales support to help you select the product that perfectly meets your needs.

7.5. CUSTOMER SERVICE

At EMERALD, our top priority is delivering exceptional customer service and fostering long-lasting relationships built on trust and respect. We take pride in engaging in meaningful, in depth conversations with our customers to address their specific needs or concerns. This personalized connection sets us apart from the generic, impersonal “No-Questions-Asked” service models often found with Amazon or department stores. At EMERALD we are a team of hardworking individuals dedicated to offering outstanding products and services in a way that no one else can.

7.6. TROUBLESHOOTING, REPAIRS & TECHNICAL SERVICE

At EMEREALD, we provide a comprehensive Help Center featuring troubleshooting guides and user manuals to assist customers in maintaining and resolving issues with their systems in the event of errors or failures. Customers are required to consult these resources first. If the issue persists, you can contact our customer service team through our dealers, ensuring that you include detailed observations to help our technicians diagnose the problem.

In 90% of cases, issues can be resolved at this stage without requiring replacement parts, as identifying the problem is often sufficient to implement a solution.

For issues that cannot be diagnosed through standard procedures, EMERALD e-bikes feature a modular electrical system with easy access for testing and replacement. If necessary, we can provide replacement parts, such as a controller, to help identify and resolve the problem. Customers may be required to initially purchase the replacement parts and cover shipping costs. Any unused parts can later be returned for a full refund.

It is essential for customers to possess a basic level of technical knowledge and tools to recover their system remotely and safely.

If diagnostics or part replacement confirms an intrinsic defect covered under warranty, the cost of the purchased component will be refunded upon validation by the head of our technical department.

8. SAFETY & GENERAL TIPS

8.1. STREET LEGALITY

- Electric bikes that comply with Canadian Electric Bike Regulations are classified as bicycles, not motorized vehicles. This means they do not require insurance, license plate, or driver's license. However, it is important to check your provincial and local laws to ensure that your e-bike meets all regulatory requirements.
- EMERALD e-bikes are pre-configured to comply with Canadian federal and provincial regulations, including a maximum assisted speed of 32km/h (20mph), 500W max mechanical power, brake cut-off switches, and adjustable assist power settings. However, some parks and other privately managed properties might have additional restrictions.
- Please note that "street legal" does not automatically permit electric bikes on pathways or trails that restrict electric assist bicycles.
- Certain components, such as throttles, may have varying legal definition depending on the province. To address this, our controller settings are adaptable to range of specifications
- EMERALD assumes no liability for the legality use of product usage in different locations. Please ensure compliance with all applicable laws and regulations.

⚠CAUTION

Your insurance policy may not provide coverage for accidents related to the e-bike usage.
Make sure to contact your insurance company to know about your coverage.

8.2. RULES OF THE ROAD

⚠WARNING

Failure to follow recommendations outlined in this section could result in property damage, injury, or even death.

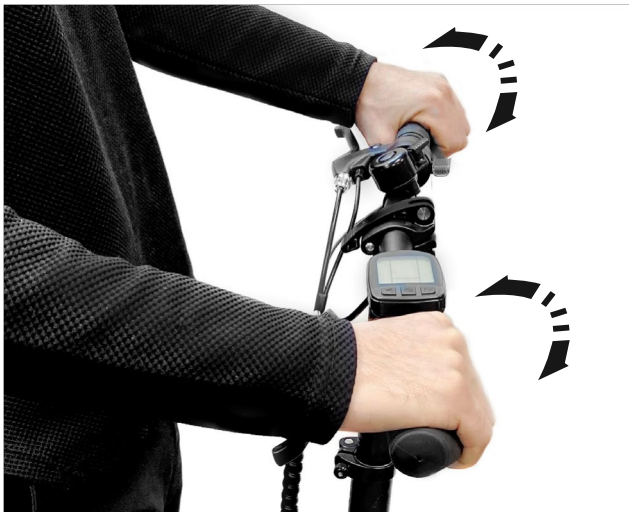
- Always obey all traffic rules, regulations, signs, and signals
- Wear a bicycle helmet that meets or exceeds safety standards at all times
- Ride in a single file on the right side of the road
- Avoid hazards such as drain grates, soft road edges, gravel, sand, potholes, and uneven pavement
- Exercise caution when crossing railroad tracks, as you may lose control
- Refrain from performing unsafe actions while riding the e-bike
- Do not carry a payload that could shift your balance, obstruct your vision, or impair your hearing
- Keep both hands on the handlebar at all times
- Do not tow or push the product
- Replace any broken parts immediately
- If any e-bike component is not functioning properly, stop riding immediately

8.3. BEFORE YOUR FIRST RIDE

- If you have any impairments or disabilities such as visual, hearing, physical, cognitive impairment, or a seizure disorder, consult your physician before using any EMERALD product
- Before your first e-bike ride, take time to familiarize yourself with your e-bike
- Ensure all components are secure and tight, the battery is locked, and there is no looseness in screws or bearings
- Check that you can turn the handlebar while holding the wheel is held in place (**Figure 8A)**
- Verify that the handlebar is securely attached to the stem by attempting to twist it forward and backward **(Figure 8B)**
- Ride in a quiet area at the lowest PAS (Pedal Assist LCD) setting to get accustomed to the brakes and settings
- Be sure to bed in the brakes (refer to Brakes, Section 5.5.). Skipping this step will result in suboptimal braking performance and may cause squealing
- Always handle the throttle with care, as it activates the motor whenever bike is powered on. Accident throttle engagement could lead to loss of control.

Figure 8A

Figure 8B



8.4. BATTERY & CHARGER SAFETY

- Keep the battery away from excessive heat, moisture, and do not spray with high pressure water. Do not store it outdoors in freezing temperatures below 0°C
- Always store the battery in a well ventilated, cool, dry room at room temperature
- Keep the battery out of reach of children and pets
- If you notice any SMOKING OR SPARKING while charging, immediately disconnect the battery
- Disconnect the battery from the charger once the charger light turns green, and unplug the charger from the wall outlet
- Always fully charge the battery before storage and recharge it every 2 months. Failure to do so may lead to capacity loss or permanent damage to the battery cells, which will void the warranty
- Always unplug the charger when not in use
- Handle the charging pins carefully. Be gentle when removing the charging pin to avoid causing irreversible damage to the pins or the battery
- Only use the charger provided by EMERALD for charging your EMERALD battery
- Always unplug the charger when not in use
- To minimize the risk of sparking, first gently plug the charger into the battery, then connect the charger to the wall outlet
- The charger may become hot during charging. Ensure it is in an open area to allow natural heat dissipation

⚠WARNING

NEVER disassemble the battery, there is significant risk of shock and damage to the battery. **Doing so will also void the warranty. DO NOT puncture or crush the battery, or expose to server vibrations and impacts.**

⚠WARNING

Do not puncture or crush the battery. Do not expose the battery to severe vibrations or impacts. Failure to properly use, charge, and store your battery as instructed will void the warranty and could cause a hazardous situation.

⚠CAUTION

Do not use the EMERALD battery charger for any purpose other than charging your e-bike. Do not use the EMERALD battery as a power source for any other devices than your EMERALD e-bike. If you do so the warranty will not be applicable, and EMERALD will not be liable for any damage to the system or injury to the persons.

8.5. FIRST CHARGE

- When you first receive your battery, it will have approximately 50-70% of charge
- Before your first ride, charge the battery for 7-9 hours, but no longer than that
- This may require keeping the battery on charge even after the charger light turns green. This step ensures that each cell reaches its full capacity
- The battery pack's full voltage should be slightly under 54V, and can be verified on the LCD display

⚠WARNING

Do not drop the battery. Damaged batteries can cause fire and may explode which may cause **to damaged property, injury or even death.**

8.6. BATTERY REMOVAL & INSTALLATION

Figure 8C

BATTERY REMOVAL

- Turn the key counterclockwise to gently unlock the battery
- The key is located on the right side of the bike (**Figure 8C)**
  Rotate the lock to unlock the battery
- Hold the battery securely and pull it upward. The battery should detach easily (**Figure 8D**)

Figure 8D

BATTERY INSTALLATION

- To reinstall the battery, align the pins at the back of the battery with the slots, ensuring proper alignment (**Figure 8D)**
- Gently push the battery towards the back, then press the front of indicating the battery is locked in place
- After hearing the click, use the key to lock the battery securely in place, this provides an additional layer of security by engaging both locks
- Ensure the battery is firmly locked before operating the e-bike

8.7. CHARGING YOUR BATTERY

- Never store the battery in a discharged state. After each ride, charge the battery as soon as it reaches room temperature to maintain optimal battery health
- You have two options to charging the battery: either charge the battery while it is on the bike or remove it to charge at home or office
- Your bike is equipped with an on-board charging system, allowing you to charge the battery while it remains on the bike. The charging port is located on the lower left side of downtube
- If you prefer to charge the battery separately, there is a charging port on the left side of the battery
- Always charge the battery in a well ventilated, cool room, and avoid leaving it unattended for extended period
- You can check the charge of the battery by pressing and holding the power button
- If all the light is green, you can be assured that the battery is charged above 75%
- Charging time is approximately 5-6 hours or until the charger light is green

⚠WARNING

The battery must not be left unattended when charging. Always charge the battery in front of your eyes.

⚠WARNING

Never place the charger or the battery near flammable materials. Place the battery and charger on a fireproof surface before charging.

⚠CAUTION

Please make sure you are gentle anytime you are inserting or removing the port's charging cable. Failure to do so can result in damaged pins and poor connections.

IMPORTANT NOTE:

As your battery ages, it will gradually lose capacity. With proper care and maintenance, your lithium ion battery will retain up to 70% of its capacity for about 500 full discharge/recharge cycles. As capacity diminishes, you will notice a gradual drop off in max range capability. When range falls to an unacceptable level, contact your local EMERALD dealer to purchase a new battery.

8.8. BATTERY TRANSPORT

- Lithium-ion batteries are subject to many regulations and are often considered dangerous or hazardous materials by carriers. Be sure to check for relevant laws and ask the carrier for approval prior to shipping a Lithium-ion battery or transporting it by air

8.9. BATTERY DISPOSAL

- Be a friend to the environment. Recycle your old batteries at a local battery recycle center
- Batteries should never be thrown in the garbage

⚠WARNING

Disposing of Lithium-Ion batteries incorrectly can allow moisture and oxygen to enter the battery. This can lead to the oxidation of lithium components and which can cause a heat reaction that may include fire or explosion. In an addition overcharging, overheating, shock from **dropping, or crushing can lead to a heat reaction. Batteries must always be recycled. They should not be thrown in the garbage.**

8.10. LOCAL REGULATIONS

In general, e-bike regulations across North America adhere to similar guidelines. However, local differences may exist, such as rules about where you can ride, minimum rider age, or required equipment and registration. Always follow the specific regulations governing e-bike use in your local municipality. It is the rider's responsibility to be aware of and comply with all applicable local laws and regulations.

8.11. GENERAL RIDING TIPS

⚠WARNING

Read, understand, and follow all of the instructions and safety precautions in this manual.

Electric Bikes can be dangerous to use. The user or consumer assumes all risk of personal injuries, damage, or failure of the bicycle or system and all other losses or damages to themselves and others and to any property, arising out of or as a result of using the bicycle.

As with all mechanical components, your bicycle is subjected to wear and high stresses. Different materials and 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 coloring in highly stressed areas indicate the life of the component has been reached and should be replaced.

⚠WARNING

The pedal assist is activated as soon as you spin the pedals or stimulate the throttle, make sure you are firmly seated on the bike and have at least one brake engaged prior to engaging **the motor. Failure to do so may result in injury or even death.**

⚠WARNING

Electric bikes, like any other vehicle, require regular maintenance by mechanically inclined persons to guarantee safety of use. Screws and nuts are subject to become loose due to road vibration, especially within the first few kilometers of use. Make sure you inspect your **bike often and have it serviced by a professional regularly.**

⚠WARNING

Failure to wear a helmet and other recommended safety gear when riding an e-bike can lead to serious injury or death.

RIDING SAFELY

1.SPEED AND CONDITIONS

- Always ride at a speed appropriate for the current conditions. Higher speeds increase risk

2.BRAKES

- Ensure both brakes and motor cut off switch are functioning properly before every ride
- Always cover your brakes and be prepared to stop in case of emergencies
- Apply both brakes simultaneously and smoothly for controlled stopping

3.HANDS AND FEET

- Keep both hands on the handlebars and both feet on the pedals at all times
- Avoid pedaling around corners to prevent excessive speed and loss of control

4.AWARENESS

- Assume other vehicles cannot see you. Wear bright colors, reflective gear, and use bright lights
- Notify pedestrians or wildlife of your presence by ringing a bell or speaking when passing

5.WEATHER CONDITIONS

- Wet weather reduces traction, braking ability, and visibility. Exercise extra caution during these conditions

6.VISIBILITY

- Reflectors are not substitutes for required lights, use adequate lighting systems when riding in low-visibility conditions like dawn, dusk, or nighttime

PRE-RIDE CHECKLIST

1.GENERAL INSPECTION

- Ensure all components (bolts, battery, wheels, pedals, and handlebars) are secured and nothing is loose

2.WHEEL ALIGNMENT

- Spin each wheel to check for side-to-side wobble or brake pad interference. If issues are detected, have the wheels trued by a professional bike shop

3.MOTOR FUNCTIONALITY

- Test the motor, and if speed noticeably drops on hills, assist by pedaling

GEAR AND CLOTHING

1.ATTIRE

- Wear bright, protective clothing and sturdy shoes
- Avoid loose or long clothing that could get caught in moving parts

2.HELMET

- Always wear an approved helmet that fits properly and meets the latest certification standards

3.ACCESSORIES

- Never wear headphones while riding to ensure full awareness of your surroundings

RIDING IN COLD WEATHER

1.LOW TEMPERATURES

- At temperatures below -10C, motor gears may stiffen. Warm up the motor with low-speed, low-power rides before using full power

GEAR SHIFTING

1.PROPER TECHNIQUE

- Avoid rapid changes from first to last gear or vice versa to prevent the chain from derailing
- Do not shift gears under heavy loads to avoid breaking the chain
- Never pedal backward while shifting to prevent jamming the chain

By following these guidelines, you can enhance safety, prolong the life of your e-bike, and ensure an enjoyable riding experience.

8.12. BIKE FIT

- It is important to ensure your e-bike is a suitable size for you. Not only for your safety but also for your comfort. Incorrect sizing, seat height, and reach can lead to various ailments, such as knee pain, back pain, and groin pain. We recommend seeking professional help when choosing and setting up the right bike for yourself
- This is a general sizing chart that you can use to know what sizes are suitable for you

8.12.1. EMERALD REGAL BLAZE

- Stand over Height is the basic element of bike fit; it is the distance from the ground to the top of the bicycle frame, or the level your pelvic area reaches when straddling the bike
- Your bike should have a minimum stand over height clearance of two inches (5cm)

- To check for correct stand over height, straddle the bike while wearing the shoes you plan to wear while riding, and bounce vigorously on your heels. If your pelvic area touches the frame, the bike is too big for you and is therefore unsafe to ride

8.12.2. EMERALD REGAL CRUISE

- Stand over Height does not apply. Instead, the limiting dimension is determined by the saddle height range. You must be able to adjust your saddle without exceeding the limits set by the height of the top of the seat tube and the “Minimum Insertion” or “Maximum Extension” mark on the seat post (if it is not demarcated, to be safe you should allow for at least 4 inches of clearance below the seat clamp)

8.13. SAFE OPERATING CONDITIONS

8.13.1. CARRYING CARGO

- Always ensure that any luggage or child seat is securely attached to the bike and there are no loose cables. Carrying a load requires getting accustomed to. Practice maneuvering and braking on a flat, hazard and traffic free street with and without a load before going out into the road. Carrying a seated passenger or heavy load involves risks, foremost of which can be decreased braking power and increased stopping distance. The maximum weight capacity is 160kg (350lbs) shared between the rider and cargo

8.13.2. WEIGHT CAPACITY

- EMERALD e-Bikes are designed with a maximum weight capacity of 160kg (350lbs). The standard rear rack maximum weight capacity of a is 20kg(45lbs). Exceeding the maximum weight capacity can result in damage to the bike, which can lead to serious injury or death

8.13.3. UNSAFE USE

- This bike is not designed for any purpose other than commuting and cruising in a relaxed, safe manner. Do not use this bike to jump over curbs, or mountain biking.