



# GYROCOPTERS

## FROST SMART ELECTRIC BIKE INSTRUCTION

### INSTALLATION

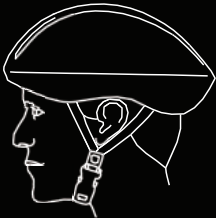
For optimal safety, it is crucial to ensure the proper installation of your electric bike. Please utilize the QR code provided to access a comprehensive video tutorial guiding you through the installation process.



Do not use this product without carefully reading this instruction manual  
and understanding the performance of electric bicycles  
Please keep the instruction manual properly

# HELMETS SAVE LIVES!

Always wear a properly fitted helmet that complies with CPSC or CE safety standards when you ride your E-bike.

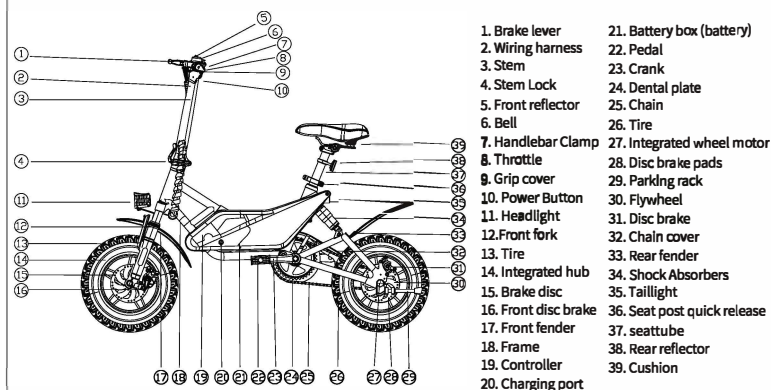


Correct Fitting:  
Make sure your helmet  
covers your forehead.



Incorrect Fitting:  
Forehead is exposed  
and vulnerable to  
serious injury.

## Parts & Components



**Note:** As we upgrade our E-Bikes, the one you own may be slightly different from the one shown above, but how you use it will be the same.

### IN THE PACKAGE



2× Pedals



1× Charger



1× Manual



1× Feedback card



1× Hex Key



1× 15mm Spanner

### Folding Your Frost E-Bike

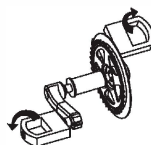


1. Open the handlebar quick release, Align the handlebars.



2. Release the folding riser handle, Fold the lower riser.

### Installing the Pedals



Screw in the right pedal clockwise, and the left counter-clockwise

# Getting Started

**1. Assembling:** Open the box and take out your Frost E-Bike. Straighten the stem and lock into place. Align the handlebar and tighten the clamp. Gently pull the brake levers for a couple of times to ensure both the front and rear brakes function normally. Walk the Frost E-Bike to ensure no abnormal sound from the turning wheels. Adjust the seat tube to desired height and lock the quick release. Install the pedals and tighten up.

**2. Charging:** Connect the DC jack of the charger to the charging port of your Frost E-Bike, and the AC plug to the mains. The charger light turns from red to green when charging is complete.

**3. Power on and off:** Press the power button on the left handle. Use the same switch and button to power off.

**4. Light on and off:** Locate the button below the display on the right handle, press and hold for 5-7 seconds to switch the headlight and rear light on and off.

**5. Cruise control:** Locate the button below the display on the right handle (the same button used for light), press the button while riding to start cruising. Release the throttle and the ride shall continue at the existing speed. To stop cruising, press the button again/ brake/ or twist the throttle to accelerate.

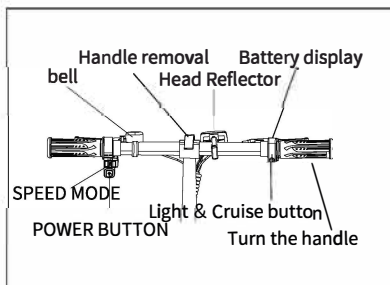
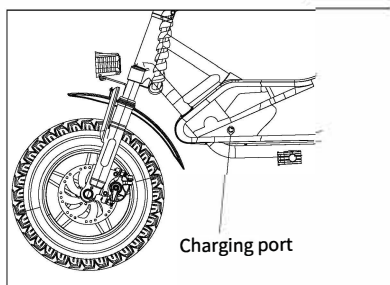
**6. Shifting mode:** On the left handle, push the switch left and right to shift the riding mode. Mode 1/2/3 corresponds to the pedal mode with a maximum speed of 15 km/h, Pedal Assist Mode at 20 km/h max, and Throttle Mode at 25 km/h max.

**7. Pedal Assist Mode:** While you are pedaling, the motor also provides power.

**8. Throttle Mode:** Twist the throttle to engage the motor for acceleration without pedaling.

**9. Battery indicator:** Four battery levels may be indicated on the display on the right handle, 100%-70%, 70%-50%, 50%-25%, or 25%-0. When the battery is too low, the indicator flashes to remind the owner of charging.

**10. Powercut-off/brakes:** When you pull the brake levers, the controller cuts off the motor output. The mechanical disc brakes are also engaged. As long as the brake levers are not completely released, Pedal Assist Mode or Throttle Mode remains disabled.



## Product Parameters

Appearance Size	Model	Frost
	Frame Material	Iron
	Foldable Size	1280*220*635mm
	Expanded size	1280*485*1050mm
	Package Size	1290*220*660mm
	Wheelbase	935 mm (or 33.94 inches)
	Pedals' Ground Clearance	110 mm (or 3.94 inches)
	Wheel Hub Size	14 inches
	Frame Color	White
Performance	Net Weight	22.8KG
	Max Loading	120 KG
	* Riding Speed	20 km/h
	* Max Speed	25 km/h
	* Speed Mode	15kph / 20kph /25kph
	Pure Electric Mode	25 km
	Assist Mode	30 km
	Uphill Grade	15 degrees
	Temperature	-10~45 degrees Celsius
	Waterproof Level	IP54

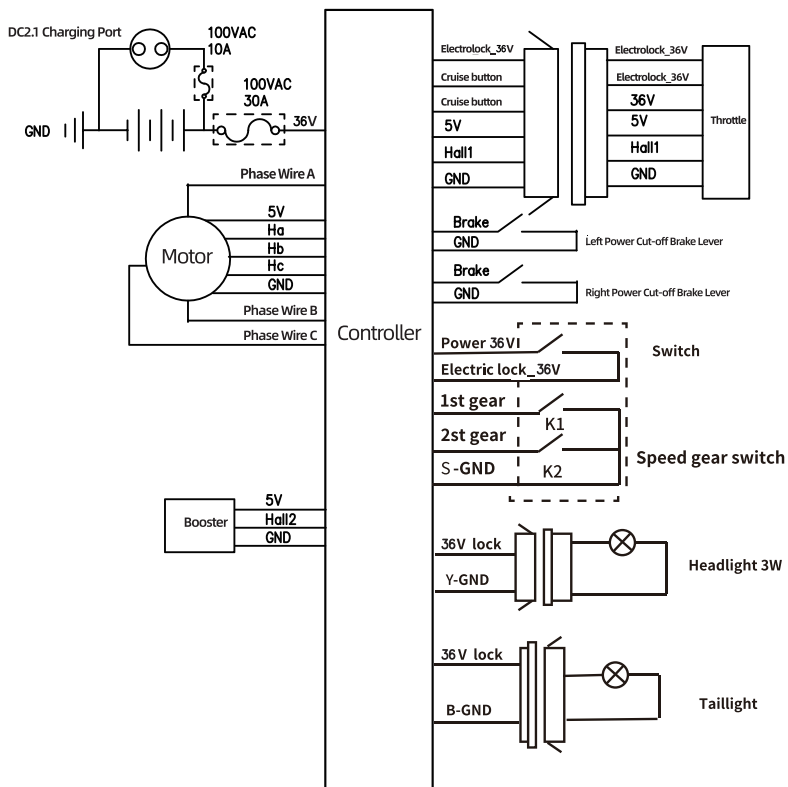
\* Note: Battery Power, load situation, tire pressure, road environment, chain and axle lubrication will affect the Max speed; The mileage is measured at 25 km, Load weight is 60kg, the speed is 15-20km/h, the leveling &hardening road surface, and the battery completely exhausted from full charge, uninterrupted test; Driving habits, temperature, loading, tire pressure, road environment and other factors will affect the cruiser mileage.

Product Parameters

Accessories Parameters	Model	Frost
	Battery Type	Lithium-ion
	Battery Capacity	6AH
	Battery Rated Voltage	DC36V
	Charging Voltage	DC42V
	Charger Input Voltage	AC100-240V
	Charging Time	3-4 hours
	Motor Type	High speed motor
	Motor Rated Power	350W
	Motor Rated Speed	330r/min
	Motor Rated Voltage	36V
	Controller Under-Voltage Value	31±1V
	Current Limit Value	15±1A
	Battery display	Yes
Product Features	Dual Shock Absorber	Yes
	Throttle	Yes
	Headlight	Yes
	Rear light	Yes
	Adjustable seat height	Yes
	Speed sensor	Yes
	Braking method	Front and rear dual disc brakes
	BMS	Yes

Note: Battery Power, load situation, tire pressure, road environment, chain and axle lubrication will affect the Max speed; The mileage is measured at 25 km, Load weight is 60kg, the speed is 15-20km/h, the leveling &hardening road surface, and the battery completely exhausted from full charge, uninterrupted test; Driving habits, temperature, loading, tire pressure, road environment and other factors will affect the cruiser mileage.

# Circuit Diagram



## ATTENTION

### Battery & Charging:

- Do not connect the positive to negative, or vice versa. Do not damage, disassemble, or short-circuit the battery. Avoid water, other liquid, or other foreign matter inside the battery to prevent short circuit.
- Instructions in this manual must be followed when charging the battery, otherwise the owner shall take sole responsibility for any consequences.
- Charge the battery only at the temperature between 0° and 45°, and discharge at -20°~ 60°. The charging current should not exceed 2A. Charge only in a wellventilated area, away from sun and heat.
- Use the original charger from the package to charge the battery. Connect the charger and battery before plugging the charger into the mains. Do not charge the battery for over 6 hours each time.
- When charging, if the charging indicator appears abnormal, a smell is released, or the charger overheats, stop charging immediately. Service or replace the charger.
- To stop charging, unplug from the mains before disconnecting the charger and battery.
- When the charging indicator turns green, stop charging.
- Do not leave the charger connected to any AC power source when not charging.
- When not in use, store the battery in a dry and cool place. Keep away from rain, fire, heat and high temperature. Do not put the battery in acid or alkaline liquid. Make sure to charge the battery for two hours each month.
- Before using the charger to charge a different battery, note the battery type and voltage that the charger may apply to.
- It is advisable not to carry the charger with your Frost E-Bike. If you must, place the charger in a toolbox upon shock absorption treatment.
- Do not disassemble the charger or replace the parts and components in the charger on your own.
- Waste battery is classified as hazardous. Do not disassemble the waste battery on your own. It should be collected and recycled properly.

### Riding your Frost E-Bike

1. Do not use the Frost E-Bike before reading this manual carefully and knowing your Frost E-Bike thoroughly.
2. This Frost E-Bike is designed for riders aged 16-45. Anyone aged below 16 is strictly forbidden to ride this Frost E-Bike.
3. Do not lend your Frost E-Bike to anyone who do not know how to use it, so as to avoid harm.
4. When adjusting the seat tube, do not expose the minimum insertion marks.
5. Before riding, check the tire pressure. It is advisable to maintain at 35-45 PSI.
6. Before riding, ensure the power, lights, handles, brakes, wheels, reflectors and others are in good condition.
7. Before carrying people or objects on your Frost E-Bike, learn the local laws and regulations, and abide by them.
8. Do not exceed the load capacity of 120 kg (or 264.60 lbs.).
9. Wear a helmet, and obey traffic rules.
10. Obey local traffic rules to keep to the right or left.
11. Do not ride one handed.
12. Do not ride on any motorized lane or in any pedestrian crowd.
13. It is advisable not to go over 15 km/h (or 9.32 mph) when riding on any nonmotorized lane, downhill, or paved road.
14. Slow down in rain or snow as required braking distances increase.
15. It is advisable not to ride in storms or any extreme weather.
16. Avoid impact on the motor.
17. Keep the bearings lubricated.
18. Do not park your Frost E-Bike in any lobby, walkway, evacuation stairway, or emergency entrance/exit.
19. Do not charge or park your Frost E-Bike inside any residential building. Keep away from combustibles when charging. Charging should not exceed 6 hours each time.



## Maintenance

1. The front and rear wheels should be aligned to the center of the front fork and frame.
2. Park away from direct sunlight and rain.
3. Do not rinse the eBike. Wipe with a damp cloth to clean.
4. Check the motor and brakes frequently. Do not oil the braking system.
5. Regularly check all screws and keep them fastened.
6. Recommended torque specs: handlebar screw 60-80 kgf.cm (or 52.08-69.44 lbf.in), steering stem screw 175-200 kgf.cm (or 151.90-173.60 lbf.in), saddle screw 175-250 kgf.cm (or 151.90-217.00 lbf.in), and wheel screw 320-450 kgf.cm (or 277.70-390.60 lbf.in).
7. Regularly check the tension of the chain, which can be adjusted via the chain regulator.
8. Frequently check the tires for scratches, cracks or excessive wear. The inner tube and valve should be perpendicular to the wheel hub. Punctured, damaged or excessively worn inner tube and tire must be replaced immediately. Please contact professional technicians.
9. It is forbidden to modify key structural parts including the frame, front fork and steering stem, and any electrical parts. If damaged, replace with identical parts from our factory. Otherwise, the warranty shall be void and the owner shall take sole responsibility for any consequence.

## Disclaimer

1. Our company reserves the right to modify and give final interpretation to the product model, specification, and other information contained in this manual.
2. The product model, specification, and other information contained in this manual is subject to any modification or change without notice.
3. The functions of the specific model referred to in this manual apply to this specific model only.
4. Without the prior written permission of the company, the contents of the manual may not be copied, modified, reprinted, disseminated or published in any form.
5. Please read this manual carefully before using the product, and operate in accordance with the manual. Otherwise, the company shall not be liable for any personal or property damage, including damage to the product, caused by misuse or abuse.
6. For more information, please visit our official website: [www.gyrocopters.ca](http://www.gyrocopters.ca) / [www.imgadgets.com](http://www.imgadgets.com)

# WEIGHT AND SPEED LIMITATIONS

Speed and weight limits are set for your own safety. Please do not exceed the limits listed in the "Performance" section of this manual.

## WARNING

Overweight exertion on the device may increase possibility of injury or product damage.

# OPERATING RANGE

The following are some of the major factors that will affect the operating range of your device.

- Terrain: Riding distance is highest when riding on a smooth, flat surface. Riding uphill and/or on rough terrain will reduce distance significantly.
- Weight: A lighter user will have further range than a heavier user.
- Ambient temperature: Please ride and store the device under recommended temperatures, which will increase driving distance; battery life, and overall performance of your device.
- Speed and Riding Style: Maintaining a moderate and consistent speed while riding produces maximum distance. Traveling at high speeds for extended periods, frequent starts and stops, idling and frequent acceleration or deceleration will decrease overall distance.

\*Do not attempt to stop suddenly as this may lead to injury or damage to your brake discs.

## WARNING

Proper use of your brake is vital to ensure safe, efficient stopping. To avoid misuse and potential injury, do not apply sudden or excessive force to your brake. Apply the brake gradually and give yourself enough room to come to a complete stop safely.

Please follow all local, state and federal laws in regards to recycling, handling and disposing of Lead-acid battery.

## **WARNING**

SEEK IMMEDIATE MEDICAL ASSISTANCE IF  
YOU ARE EXPOSED TO ANY SUBSTANCE  
THAT IS EMITTED FROM THE BATTERY.

## **SAFETY ALERTS**

While riding your E bike, if there is a system error or illegal operation performed the device will prompt the user in a variety of ways.

The following are common occurrences where you will see Safety Alerts. These notices should not be ignored, but appropriate action should be taken to correct any illegal operation, failure or errors.

- Prohibited riding surfaces (uneven, too steep, unsafe, etc.)
- Battery voltage is too low.
- The device is still charging.
- Overheating, or motor temperature is too high.
- When the battery is about to run out of power, the battery icon will flash.
- If any or both tires are blocked, the device will stop after 10 seconds.
- When the battery level has depleted below protection mode, the device motor will power off after 15 seconds.

While sustaining a high discharge current during use (such as riding up a steep slope for a long period of time), the device motor will power off after 15 seconds.

# WARRANTY

Manufacturer warranty does not cover any physical / accidental damage due to improper usage. The warranty does not cover normal wear and tear, wheel, fender, or any other physical damage or water / liquid damage to your parts and unit.

For warranty information, please visit us at [www.gyrocopters.ca](http://www.gyrocopters.ca) / [www.imgadgets.com](http://www.imgadgets.com) or

email us at [customercare@gyrocopters.ca](mailto:customercare@gyrocopters.ca) / [customercare@imgadgets.com](mailto:customercare@imgadgets.com)



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