

RAEV

BULLET X

User Manual of Electric Bicycle



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1. Basic Information

- 1.1 Unpacking Information**
- 1x Bicycle
- 1x Wheel
- 2x Pedal
- 1x Charger
- 2x Keys
- 5x Tools
- 1x User Manual



1x Bicycle



1x Wheel



2x Pedal



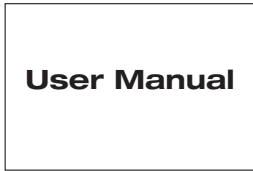
1x Charger



2x Keys



5x Tools



User Manual

1x User Manual

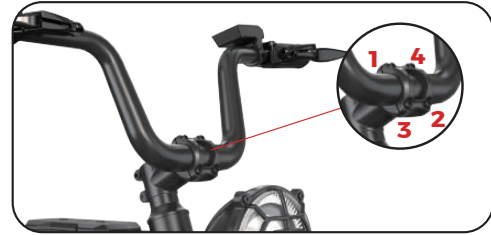
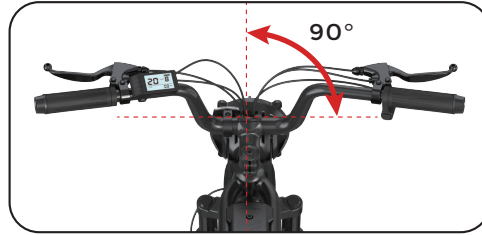
1.2 Parts Description



2. Installation Procedure

2.1 Handlebar Installation

- Remove the pre-tightened set screws of the handlebar end cover using 4mm socket head wrench
- Place the handlebar, adjust it to a suitable angle, close the end cover of the handlebar and pre-tighten 4 screws using 4mm socket head wrench
- Tighten set screws of the handlebar end cover in the order of 1, 2, 3 and 4



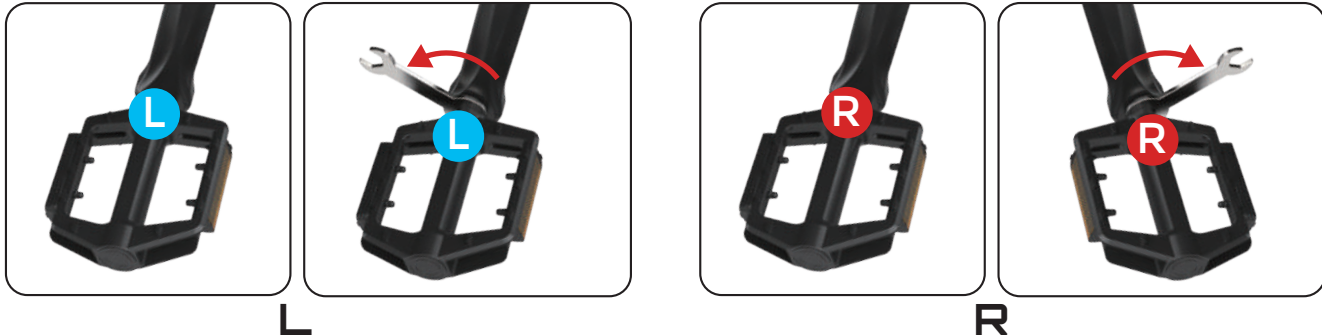
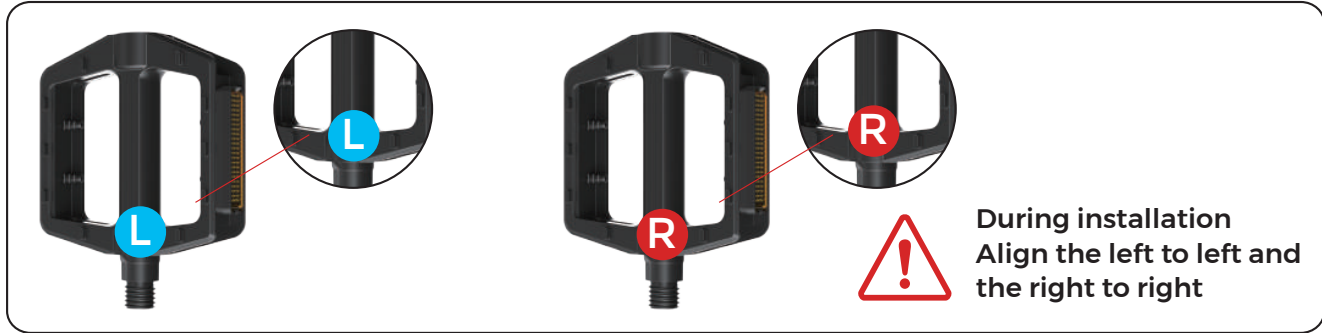
2.2 Front Wheel Installation

- Align the front disc at the space of the gateway lining, align the front axle at the front fork axle hole and insert it into the hole
- Install gaskets and cap nuts on both sides
- Tighten cap nuts on both sides using 15mm open spanner



2.3 Pedal Installation

- Differentiate the identifiers of left and right pedals, L means left pedal and R means right pedal
- When installing pedals, keep the pedal bolt end face vertical to the mounting hole of the crank and tighten and fix it using 15mm open spanner
(When installing the left pedal, rotate it anticlockwise; when installing the right pedal, rotate it clockwise)



2.4 Battery Installation and Removal

- Inset the key, rotate it to ON state and place the battery in the body preset position;
- Forcibly push the battery downward to the bottom
- Rotate the key to Lock state and pull it out



3. Battery Charging

- Open the soft cover on the battery side
- Insert the plug of the charger into the charging port of the battery and connect the other plug to the power supply
- The status light of the charger is red
- After the battery is fully charged, the status light of the charger is green
- Remove the charger, keep it properly and close the soft cover
- If the battery is charged on board, please power off the instrument



4. Riding Introduction

4.1 Riding mode

- In EV mode, press and hold ON. After power-off, adjust the gears (1-3) by Instrument ± Key, and pull the speed thumb shifter to enter EV mode
- In assistant mode, press and hold ON. After power-on, adjust the gears (1-3) by Instrument± Key, step on the pedal for more than half a cycle to enter assistant mode
- In manual riding mode-press and hold ON. After power-on, adjust the gear (0) by Instrument ± Key, and step on the pedal to enter manual riding mode
- The electric mode has a top speed of 12mph in first gear, 16mph in second gear and 20mph in third gear



4.2 Introduction to Instrument Key Functions

- ON/OFF: Press and hold ON for more than 2s to turn on the power; in startup state, press and hold ON for more than 2s to turn off the power
- M mode key: In startup state, the displayed information is switched among total distance (mileage/h), trip distance (mileage/h), riding time (h), total distance (mileage/h), maximum speed (mileage/h) and average speed (mileage/h)
- ± key: In startup state, press and hold + for 2s to turn on the instrument backlight and turn on the headlamp. When the headlamp is turned on, press and hold for 2s to turn off the headlamp. Short press ± to switch among assistance gears (0-3) of the electric bicycle. Gear 1 means that the instrument is turned on, and gear 0 means parking mode and no motor output

Headlight indication

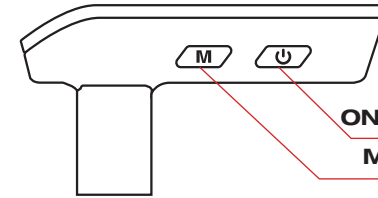
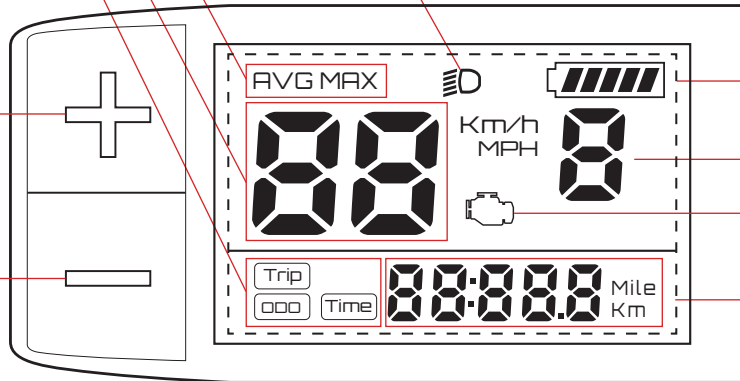
Speed mode

Speed display

Mileage mode

UP key

Down key



ON/OFF key

Mode key

Power indication

Gear indication

Fault prompt

Mileage indication

5. Precautions about Use

5.1 Compliance with Traffic Laws and Traffic Safety Tips

- Do not refit the electric bicycle without permission; with maximum load of 150kg, the electric bicycle must not be overloaded
- Do not lend the electric bicycle to people who cannot drive it to avoid injury
- The electric bicycle should carry personnel or articles according to laws and regulations
- The driver must wear a helmet and be cautious when driving an electric bicycle and must not hold the handlebar by no or one hand
- The brake distance will extend in rainy and snowy weather, slow down; in stormy weather and severe weather, try not to ride an electric bicycle
- When waiting for the traffic light for a long time, please adjust to gear 0, or hold the brake instead of stepping on the pedal to starting the electric bicycle

5.2 Safety Precautions about Electric Bicycle

- Do not park an electric bicycle in the lobby, escape stair, passage and emergency exit of buildings;
- Do not charge and park the electric bicycle in a residential building, keep far away from combustibles in the charging process and do not charge the electric bicycle for a long time
- Correctly use and maintain the batteries. Waste batteries should not be dismantled arbitrarily and should be recycled by related departments
- Understand safe use methods and warning signs of charger
- The charger should match the battery
- To avoid an accident potential caused by wetting of internal electronic parts and circuits, do not wash an electric bicycle with water
- When adjusting the handlebar or the saddle, safety signs of handlebar pipe and saddle pipe should not be exposed (if applicable)
- The electric bicycle should be regularly maintained: The electric bicycle should be maintained every 2 times and complex parts should be maintained by a repair shop

5.3 Preparation for Riding

- Check whether the power circuit and the light are normal
- Check whether the front and rear brakes work normally
- Check whether the handlebars and front and rear wheels are tightened
- Whether the tire pressure is normal (see the tire label)
- Check whether the reflector is damaged or polluted before driving

5.4 Code Position Diagram

XXXXXXXXXXXXXXXXXX



(Frame bottom bracket)

6. Battery

6.1 Precautions about Use of Lithium Battery

- Confirm battery model is original battery before use. Do not use batteries of other brands without permission
- Check whether the lithium battery is intact and has damage, leakage, heat emission, moisture, smoke and other obvious phenomena
- To ensure transportation safety, the battery quantity is about 30% upon delivery. Due to power consumption during transportation and storage, it is normal that the battery quantity is low or the battery has run out of power when used for the first time. Please do not worry
- Please charge the battery for 24h when it is used for the first time after purchased or stored for a long time

6.2 Operating Environment

- The optimal operating temperature is 10C-45C;
- The battery capacity may decrease in varying degrees at low temperature as follows:
The available capacity is about 70% at -10C, about 85% at 0C and about 100% at 25C; if the battery gives out peculiar smell, emits heat, deforms and has other abnormal conditions, please immediately stop using it, keep far away from it and contact the after-sales service department;

Warning

Battery is not a repairable part. In case of abnormalities, the battery may emit heat, give out smoke and cause a fire and explosion.

6.3 Charging Environment

- Charge the battery using original charger instead of charger of other brands or models
- Please charge the battery at 0°C -40°C in a well-ventilated place and keep off combustibles
- Charging time: Do not charge the battery for more than 12h; otherwise, the battery life will be affected and a potential safety hazard will be caused
- Hazard will be caused; the battery capacity will rise quickly in the early charging process and then slow down, which is a normal procedure to ensure safety
- Do not charge the battery outdoors in severe weather
- If the surface temperature of the battery box is very high (higher than 55°C) in the charging process, it indicates that the battery box breaks down and should be immediately powered off and sent to the designated repair station. It is normal that the charger box is slightly hot (no more than 60°C) in the charging process

6.4 Storage Environment

- After the battery is installed, the battery capacity will be slowly consumed when the electric bicycle runs. The fully charged battery can be placed for no more than two months and it is normal that the instrument displays a drop of battery capacity
- When the battery is left unused for a long time (more than a month), please be sure to remove it from the electric bicycle and charge the battery to half-saturated state (after fully discharged, charge the battery for 1.5-2h using charger). Then, store the battery in a cool and dry place (the optimal temperature is 5°C-25°C) and charge it for about 3h every two months
- The battery and the charger should be stored in clean, dry and well-ventilated place and far away from corrosive substances, ignition and heat sources (no less than 2m) and combustibles and they should be disconnected;
- The optimal battery capacity is 50%. If the battery is stored for a long time when the capacity is lower than 10% or higher than 90%, the capacity will decrease irreversibly
- Do not store the battery in a high place, since drop may cause uncontrollable internal damage, leakage, heat, smoke, fire or explosion to battery
- The electric vehicle and battery should be protected from rain, ice, snow and chemical substance when used and stored and must not be washed with water to avoid an accident potential caused by wetting of internal electronic parts and circuits

7. Technical Parameters

The endurance mileage is measured when the battery is fully charged, at load of 70kg, temperature of about 25°C, gear 1 and constant speed of 12mph, on flat road surface, in a windless environment. Actual endurance mileage may differ with load, temperature, wind speed, road surface, operating habit and other factors.

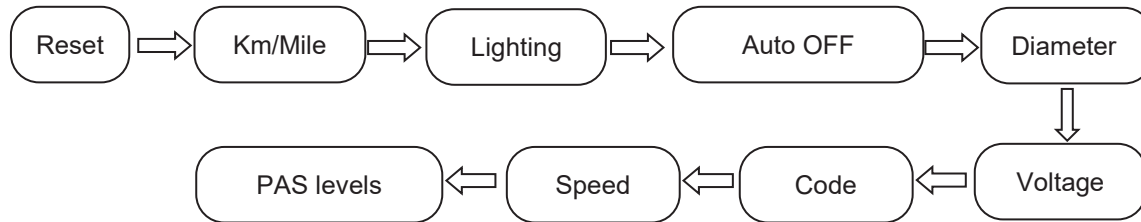
Product name	Bullet X
Net weight	36kg
Product size	1770*680*1080mm
Packaging box size	1540*375*880mm
Maximum gradient	12° (load 100kg)
Load capacity	330lb./150kg
Maximum speed	Electric mode 20mph/32km/h
Endurance mileage	25miles/40km
Motor	750W
Battery capacity	48V13Ah
Charging voltage	90-264V
Wheel diameter	20in.
Charging time	6.5hours
Waterproofing grade	IPX4
Storage temperature	20°C-25°C/68°F-77°F
Operating temperature	-4°F-140°F/ -20°C~60°C
Charging temperature	32°F-104°F/0°C-40°C
Warranty	1 Year Limited

8. Parameter settings

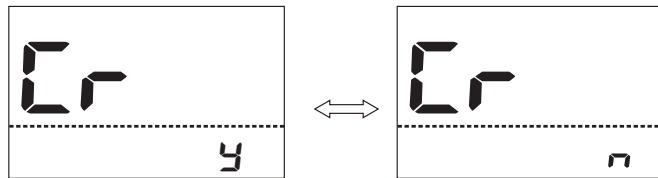
When power is on, long press **M** (2 secs), to enter the parameter settings mode, you can edit the settings in this mode, long press **M** to exit this mode.

*In this mode, if nothing is applied in 10 secs, the mode will be automatically exit. During riding (when the speed is above 0) this mode cannot be entered. The settings mode will automatically exit once start riding.

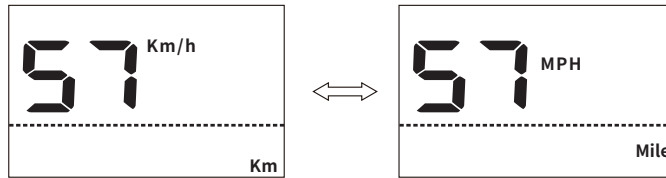
The parameter settings are:



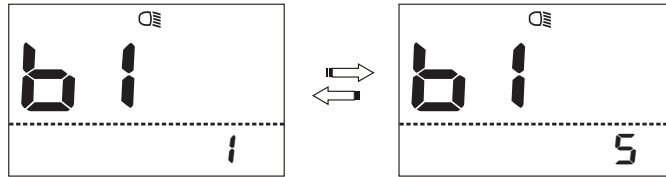
Reset: enter **Cr**, press **up/down** to choose between **n/y**, **y** means clearing temporary data, including max speed (MAX SPEED), average speed (AVG SPEED), S single mileage (TRIP), riding time (TIME).



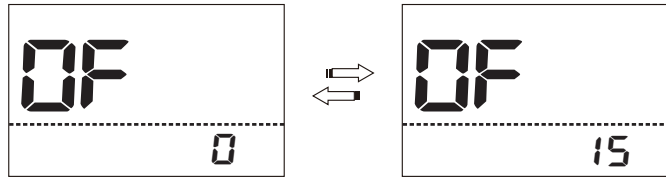
Km/Mile: enter **S7**, press **up/down** to choose between **km/h/MPH**.



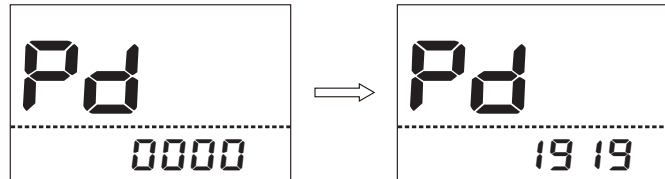
Backlit Lighting : enter **bl**, press **up/down** to choose between 1-5, 1 is the darkest, 5 is the brightest, default is 3.



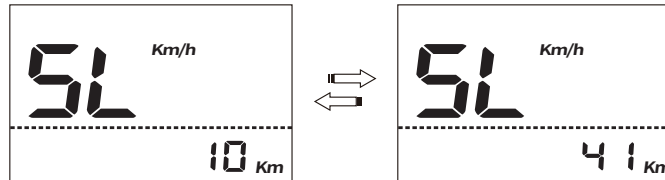
Auto OFF: enter **OF**, press **up/down** to choose between **0-15min**. Default is 5min, 0 means auto OFF is off.



Passcode: enter **Pd**, press **M** to switch, press **up/down** to change the number, default is “1919”, once the correct passcode is entered, it will enter the speed unlock settings.



Speed unlock: enter **SL**, press **up/down** to adjust, choose a number above **20 mile**, the speed is unlocked.



9. Error code and FAQs

When the control panel shows  and error code between 21H~25H:

Code	Definition	Solution
0x21	Current Malfunction	Check controller
0x22	Throttle Malfunction	Check throttle connection
0x23	Motor Malfunction	Check motor cable connection
0x24	Hall Signal Malfunction	Check motor cable connection
0x25	Brake Malfunction	Check brake levers and the brake cut off cable

9.1 Error code

Individual special examples:

- **Error code 21**

The current is abnormal, the controller is malfunctioning, replace the controller.

- **Error code 22**

Throttle malfunction, unplug and reconnect the throttle cable. If the issue persists, replace the throttle.

- **Error code 23/Error code 24**

Motor malfunction, unplug and reconnect the motor cable, if the problem persists, replace the motor.

- **Error code 25**

- Brake lever malfunction, unplug and reconnect the brake cable
- Check if the brake lever returns to position
- If the problem persists, replace the brake lever

- **Error code 30**

- Communication malfunction, unplug and reconnect the control panel cable, and the controller to main cable connector.
- Check if the pins in the connector are bent or damaged, If the issue persists, there could be a problem with the following components: control panel, main cable, or the controller.

9.2 FAQs

- **Battery is turned on, but no power supply**
 - Check if the display is properly plugged
 - The battery might be undercharged, charge the battery
- **The power is turned on, but the motor doesn't work when twisting the throttle**
 - Check if the brake lever is in the braking position
 - Release the parking mode if it is in Gear 0
- **Insufficient mileage**
 - Check if the charger is damaged
 - Before riding, always check the tire pressure
 - Check if the battery is damaged
- **The battery cannot be charged**
 - Check if the charger is damaged, if is, then need to replace the charger
 - Check if the battery is damaged
- **No display on the control panel**
 - The battery might be undercharged, charge the battery
 - Check if the plug is loose

RAEV

Company: E-LINK TECHNOLOGY CO.,LTD

Address: 4~5F/ B Block, Ding Bao Hong Green High-Tech
Park No.8 Industrial 2nd Road, ShiYan BaoAn District,
Shenzhen, China.

Email: support@raevbikes.com

Website: raevbikes.com

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