

Model No. EB17  
Original Instructions



Use Camera or QR Scanner to Scan  
Or Visit: <https://5thwheelebike.com/pages/contact-us>



The illustrations and function descriptions in this user manual are for illustration purposes and reference only, and the products are subject to the real product. The mentioned technical performance indicators are based on the specific experimental environment, and the actual indicators may vary depending on the setting and environment. Do not use this product for any illegal purpose. Some services are provided and supported by third parties, which may change at any time. Invanti does not provide any guarantee for third-party services. Please read the terms of the third-party service and privacy policy carefully before use.

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## User's Manual of 5TH WHEEL Electric Bicycle Mate

V1.0

The picture is for reference only.  
Before using the product, please read this manual.  
IMPORTANT! Read carefully and keep for future reference.

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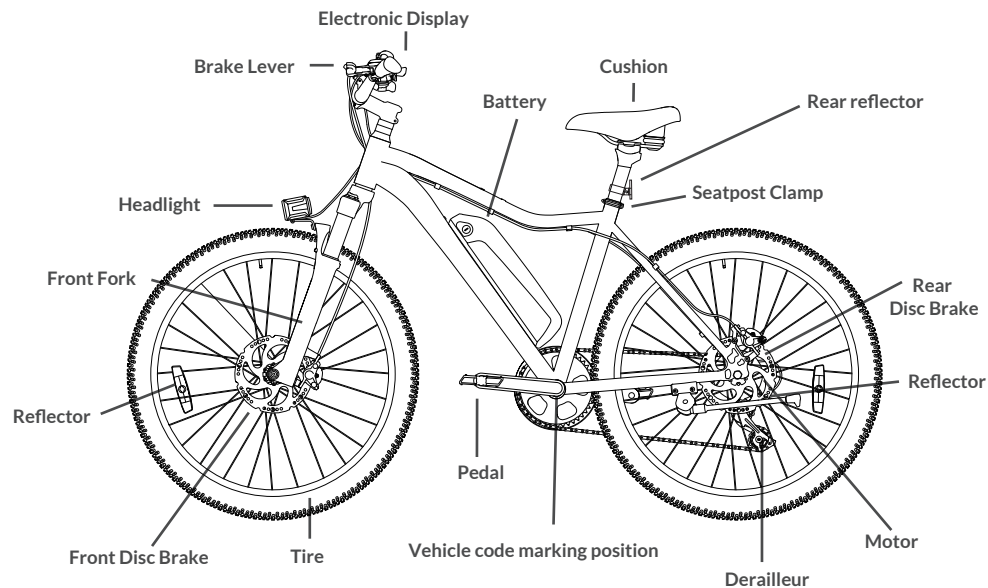
\* Please read and know the instructions described in the user manual carefully before using the electric bicycle and keep it for future reference.

Please do not dispose of this product casually, it needs to be disposed of in accordance with local recycling regulations.

## Welcome

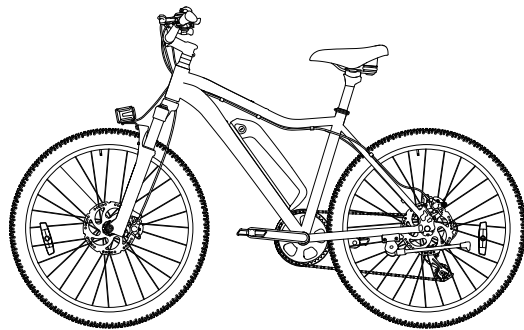
Thanks for choosing the INVANTI Electric Bicycle, and experiencing the pleasure brought to you by travel and fitness.

Shall ride legally in accordance with the local laws and regulations in case of any special local laws and regulations.



## 1. Products & Accessories

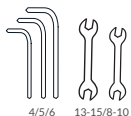
Product name: INVANTI Electric Bicycle  
Model: EB17  
Implementation standard: UL2849:2020



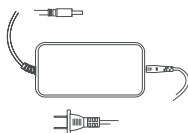
### Accessories



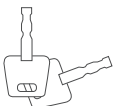
Instructions



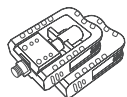
Tools



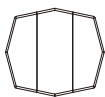
Power Adapter



Keys



Pedal



Reflector

Please carefully check whether all items in the box are complete and intact.

## 2. Precautions for Use



### Obey traffic regulations and traffic safety.

- Persons under the age of 16 are prohibited to ride E-bike on the road;
- Do not lend the E-bike to persons who cannot ride to avoid injury;
- Carry people or items with E-bike should in accordance with laws and regulations;
- It is recommended to wear a helmet when riding and pay attention to the traffic safety; It is strictly forbidden to hold the handlebar with one hand or ride with both hands away from the handlebar;
- Pay attention to slow down when riding in rain or snow, because the braking distance will be extended then; Try to avoid riding in severe weather, such as heavy rain, etc.

### Safety tips for the use of E-bike

- Do not park E-bike in building foyer, evacuation stair, walkway or safety exit;
- Do not charge and park E-bike in residential buildings; Keep away from combustibles when charging, and the charging time shall not be too long;
- Use and maintain the battery correctly; Used batteries shall not be dismantled without authorization, and shall be recycled by relevant professional department;
- Understand the safe use of charger and warning terms;
- Replace the charger with those matching the storage battery model;
- Do not rinse it with water to avoid the hidden danger of accidents caused by the soaking of internal electronic components and circuits;
- When adjusting the handlebar or seat, be careful not to expose the safety line marking of the handlebar stand tube and saddle tube (where applicable).
- The A-weighted emissionsound pressure level at the driver ears is less than 70dB(A).
- For your safety, do not tamper with other parts of the electric bicycle except the sprocket and non original parts. If any parts are damaged, the best way is to contact the local dealer for after-sales service.

Do not use the E-bike in the off-road or other extreme sports scenes since it is not a professional equipment for off-road and extreme sports.

Prolonged exposure to UV rays, rain and the elements may damage the enclosure materials. Please store Indoors when not in use.

### 3. Operation & Use

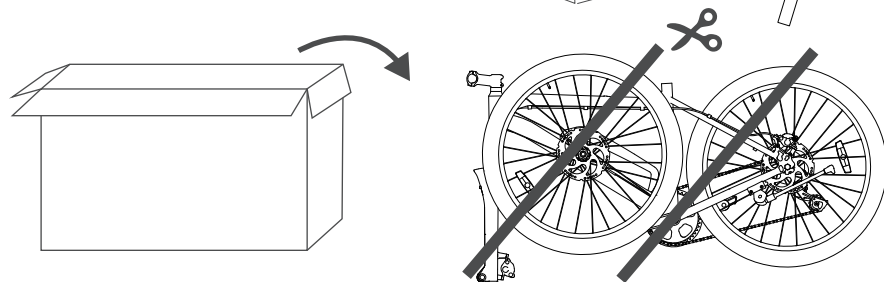
NOTICE: The following steps are only a general guide to assist in the assembly of your ebike and are not a complete or comprehensive manual of all aspects of assembly, maintenance, and repair. Consult a certified, reputable bike mechanic to assist with assembly, repair, and maintenance of your ebike.

#### Step 1: Unpack the e-bike

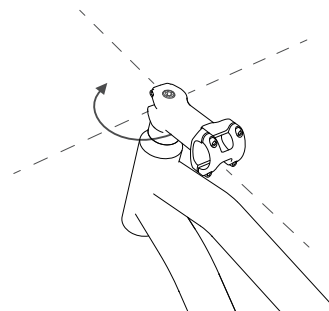
Open the bike box. Take out the seat and accessory box.

With the help of another person capable of safely lifting a heavy object, remove the ebike from the bike box. Carefully remove the packaging material protecting the bike frame and components.

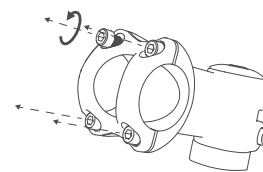
Please recycle packaging materials especially cardboard and foam whenever possible.



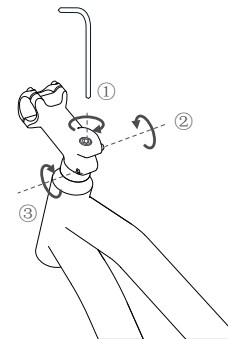
#### Step2: Install the handlebar



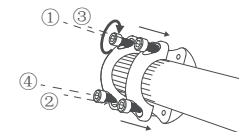
- Rotate the stem towards the front of the bike and adjust the angle of the riser and frame to the fork relatively perpendicular.



- Remove the 4 front cover screws with (4) allen key and take off the stem front cover

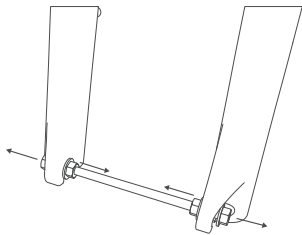


- Tighten the (1) screw with (5) allen key. Gradually and alternately Tighten the (3)(2) screws with (4) allen key.

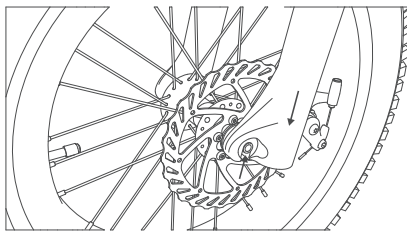


- Place the handlebar into the stem and centre the handlebar angle. Fasten the front cover and gradually tighten the 4 screws in the order of (1)(2)(3)(4) with the (4) Allen key.

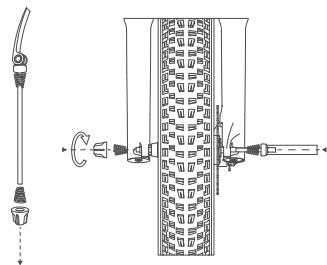
### Step 3 : Install the front wheel.



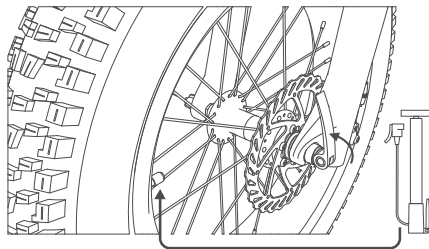
- Use a spanner to loosen the nut shown in the figure and remove the support shaft.



- Fit the front wheel into the forks. Take care to align the disc brake .



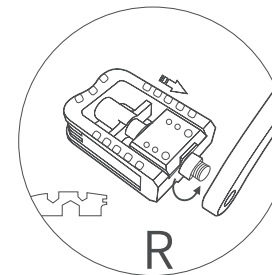
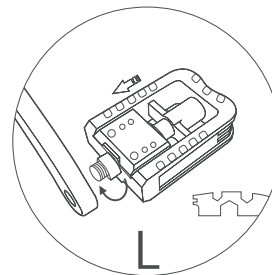
- Unscrew the quick release skewer nut and remove one spring. Insert the quick release skewer as shown and put back the spring and nut.



- Adjust the direction of the trigger handle, adjust the appropriate screw tightness and tighten the trigger handle upwards. Ensure that the front wheel is in the centre of the fork. Then use the pump to refill the bike tyres to the right pressure.

### Step 4 : Install the pedals.

Both ends of the left and right pedals are marked. First, install the right pedal by tightening the pedal clockwise. Tighten the left pedal by turning the pedal counterclockwise. Both pedals should be tightened with a torque wrench.

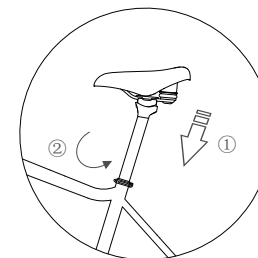


### Step 5 : Adjust the saddle height

Loosen the seat clamp, adjust the seatpost to a comfortable height, while ensuring the seatpost is inserted past the minimum insertion point, as indicated on the seat post. Close the seatpost clamp lever.



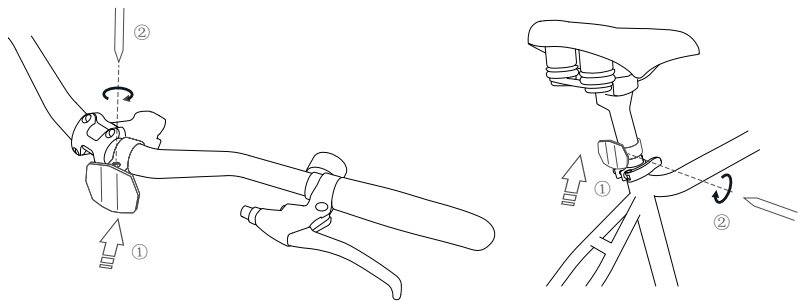
- Open the seatpost clamp



- Pull out the seatpost, or adjust to the appropriate height. The maximum height of adjustment shall not be higher than the safety line.

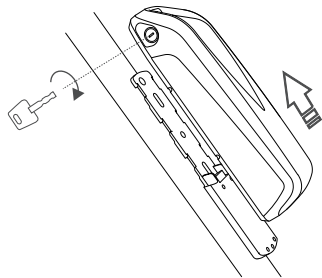
#### Step 6 : Install the reflector

Snap the reflector bracket onto the handlebar and tighten the screw with a cross screwdriver. Adjust the angle of the reflector so that it is perpendicular to the ground.



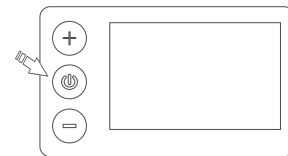
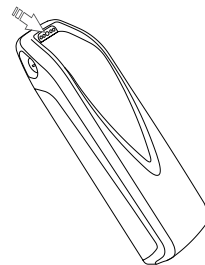
#### Step 7 : Replacement or installation of battery

Firstly make sure the battery is switched off. Using the key to open the battery lock, then remove or insert the battery along the slide.



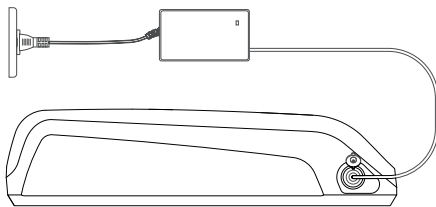
#### Step 8 : Start the e-bike

Press "O" to switch on the battery, then press and hold the "⏻" button on the display to start the E-bike. The display will start to work and the working power supply of the controller will be turned on.



## 4.About charging

Open the waterproof plug of the charging port on the upper right side of the battery and connect the charger to start charging. When the indicator light on the charger turns from red to green, it means the battery is fully charged.



Battery charging port

### Battery Safety Instructions

#### WARNING!

To prolong battery life, store the e-bike in an indoor space such as a garage to prevent exposure to low temperatures and negative affect the battery performance.

- 1) Do not dismantle or disperse the battery cells.
- 2) Keep the battery away from children.
- 3) Do not disconnect the cathode and anode of the charger during charging and discharge process. Do not use any conductor to connect both cathode and anode. This will cause a short circuit.
- 4) Do not expose the battery to Water.
- 5) It is prohibited to place the battery in the temperature over 60°C next to the high-temperature heat source, such as a furnace, fireplace, etc.
- 6) Do not hit, throw, or trample the batteries.
- 7) Do not use tools or nails to lacerate and cut through the battery.
- 8) If a leak occurs and electrolyte has come into contact with eyes, please do not rub. Wash immediately with plenty of water.
- 9) If the battery has a smell, heat, smoke, changed colors, distortion or any abnormal signs, stop using the battery and move away from it immediately.
- 10) The battery should be stord in a claan ,dry circumstance and charged 2h by the charger every two months when not used for long time.

### Protection

To extend the battery life and intelligent use of li-ion battery, here are the regulations for care:

Requirements on charging and discharging Please Only use the provided charger.

- A. Connect the power to the charger.
- B. Insert the charger's out-put connector to the battery's input connector.
- C. When the green signal light is on, please pull out the battery's input connector. The common single charging time is about 5.5-6 hours. If the battery is full, the charging or discharging must be stopped.Never charge a battery for more than 12 hours a time.
- D. Do not leave a charged battery unattended.
- E. Avoid over discharge: charge the battery timely after discharging, in order and avoid over-discharge.

### REMOVING THE BATTERY

To remove the battery from the bike, insert the key and turn to the unlocked position. When the battery is completely locked, you can feel resistant while turning the key.

DO NOT force the battery into the tray; slowly align and gently push the battery down into the tray. Then push the battery in (make sure you push hard enough) and hear the "CLICK" sound. Slightly turn the key to feel if there's resistance from the key. If you can feel the resistance, then the battery is completely locked.

- Make sure there is no space between battery and tray, confirm battery.
- Ensure the battery has been properly secured to the bike before each use.

### Storage Requirements

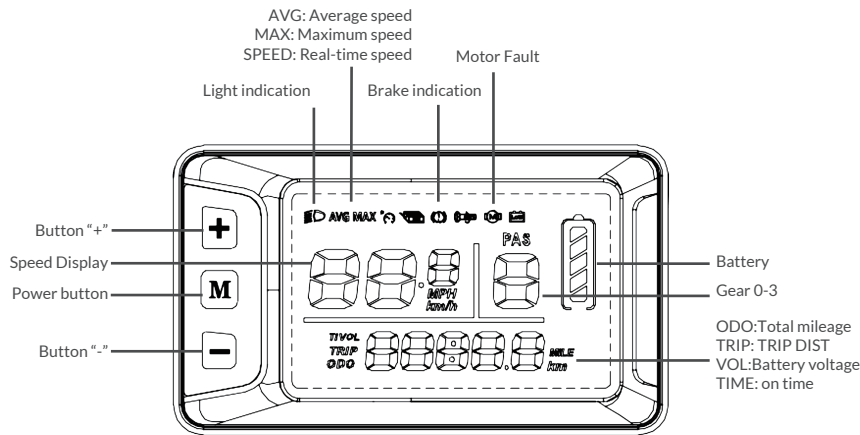
- A.The lithium-ion battery cannot be stored in hot and high humidity places. Therefore, the temperature of the storage should between 20 to 55 degrees Celsius.
- B.The bike must be kept in dry and clean area.
- C.The battery cannot be stored for a long time without charging. The battery should be charged once a month. The battery should be stored with fully charged status.

**WARNING - Risk of Fire and Electric Shock No User Serviceable Parts**

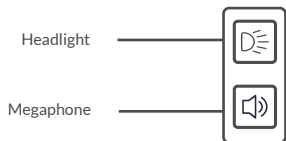
**WARNING - Risk of Fire - No User ServiceableParts**

# 5. Display Operation

## Functional area layout



## Control buttons



## Button Definition

| Buttons | Long press                       | Short press                          | Press in setting mode |
|---------|----------------------------------|--------------------------------------|-----------------------|
| +       |                                  | Gear up                              | Add value             |
| ⏻       | Power on/off                     | Switch display:<br>ODO/TRIP/VOL/TIME | Switch parameters     |
| -       | Push mode on/off<br>(By speed 0) | Gear down                            | Decrease value        |
| + ⏻     | Switch display:<br>AVG/MAX/SPEED |                                      |                       |
| + -     | Enter/Exit setting mode          |                                      |                       |

## General operation

### Power on/off

By pressing and holding the button "⏻", the display will start to work and the working power supply of the controller will be turned on. In the power-on state, by pressing and holding the button "⏻", your e-bike will be powered off. In the power-off state, the display will no longer use the battery power.

·If your e-bike is not used for more than 10 minutes, the display will be automatically powered off.

### Display interface

After the display is turned on, the display will show the real-time speed(SPEED) and the trip distance(TRIP) by default.By pressing the button "+" and "⏻" at the same time, the information displayed will be switched between the average speed(AVG), maximum speed(MAX) and real-time speed(SPEED).


By pressing the button "⏻", the information displayed will be switched between the total mileage(ODO), trip dist(TRIP), battery voltage(VOL) and on time(TIME).

### Push assistance

When the speed is 0mph, press and hold the button "—", the electric push assistance mode will be enabled. Your e-bike will run at the constant speed of 3.75mph. The instrument will display P(Push mode) indication. By using any brake , your e-bike will immediately stop power output and return to the state before push assistance.

·The push assistance function can only be used when you are pushing your e-bike. Please do not use it during riding.

Headlight and Taillight on/off

By pressing the button “

Assist level selection

By pressing the button“  ” / “  ” , the e-bike assist level will be switched to change the motor output power.

0-3 gear only controls Pedal Assist:

0 gear: motor will not output power;

1-3 gear: Motor power increases gradually;

Attention: Throttle will work in 0-3 gears.

Battery level indicator

The battery level indicator consists of five segments. When the battery is fully charged, the five segments will be all on. In case of undervoltage, the outline of the battery indicator will flash, which means the battery has to be charged immediately.



Full battery level indication



Segment indication







Undervoltage flashing

Battery remaining capacity indication

The remaining capacity of the battery can be known through the battery segment indication.

Setting mode

By pressing the button “  ” and “  ” at the same time to enter or exit the setting mode.In setup mode, 8 second without any operation will automatically save and exit this mode.

| Codes | Parameter description   | Default |
|-------|---|---------|
| P01   | Backlight Brightness: 1.dark<br>2.medium<br>3.bright  | 2       |
| P02   | Unit of mileage: 0. km<br>1. mile   | 1       |
| P03   | Speed limit: 0. 20mph<br>1. 25mph   | 0       |
| P04   | long press “  ”: Reset ODO<br>long press “  ”: Restore Factory Settings |         |

Error code indicator

When a fault occurs in the electronic control system of your e-bike, the display will automatically indicate the error code. Detailed definitions of error codes are shown in **Schedule 1**.

| Error code Definitions |                                  |
|------------------------|----------------------------------|
| Error codes            | Definition                       |
| E00                    | Normal state                     |
| E06                    | Low voltage protection           |
| E07                    | Motor fault                      |
| E08                    | Throttle fault                   |
| E09                    | Controller fault                 |
| E10                    | Communication reception fault    |
| E11                    | Communication transmission fault |

-When an error code appears on the display interface, please conduct troubleshooting in time. Otherwise, your e-bike will not work normally.

Attentions

- 1. Be sure to power off first before connecting and disconnecting the cable, or the display will be totally damaged ;
- 2. Do not put the display into water ;
- 3. The display can be wiped with wet and soft cloth, but DO NOT use any chemical liquid or spray on the display ;
- 4. When scrapping, disposing or recycling in an environmentally friendly manner, please observe local laws and regulations and do not dispose of the display or any accessories as residential garbage ;
- 5. The damage and failure of the display caused by improper installation or use are not covered by the after-sale warranty ;
- 6. We are not responsible for parts damage, malfunction or even personal safety accidents caused by improper parameter setting.

## 6. Check before Use

### Final Check Before Each Ride:

#### Handlebars

Check your handlebars are straight and secure. To check, grip the front wheel between your legs and try to turn the handlebars.

#### Wheels

Make sure the front and rear mudguard stays are tight. Ensure the quick release mechanism is properly gripping the front wheel.

#### Seat and post

The seat and post should be straight, fastened tightly and not exceed the max height indicator.

#### Pedals and chain

The pedals should be wound in and fully tightened. Gears should engage cleanly and change smoothly.

#### Brakes

Test front and rear brakes whilst rolling the bike forwards - both wheels should stop completely. Check there is more than one finger thickness between the grip and the brake lever when fully depressed.

#### Rack

Ensure that the rack is secure and that all bolts are tight.

#### Kickstand

The kickstand shouldn't wobble. Tighten if necessary.

#### Tires

Pump tires to very firm (impossible to deform with your thumb). Suggested tire pressure: 35~45 psi.

#### Electrics

Test both lights.

#### Battery

Fully charge the battery before use.

Make sure the battery is in place and locked. Turn on the battery switch.

### Adjusting the height of the seat

Unlock the lever (OPEN), adjust the seat height to the desired position without ever exceeding the mark carved onto the seat's tube, lock the lever (LOCK). The seat's height must be set so that your leg is stretched out when the corresponding pedal is in the lower position.

### Riding your e-bike

After the bike is installed, turn on the e-bike and the display light is on, indicating that the power is on. Loosen the bracket. Put one foot on the pedal to check if it is safe to continue and then set off. When you first start pedaling, you will feel the motor. As you ride the bike, the battery power will run out and the power indicator will go off in sequence. If the battery is depleted, turn off the main switch and use the pedals for riding only.

Use both brakes together when stopping.

When riding in wet conditions your brakes will be less effective and a greater stopping distance is needed. In dry conditions your stopping distance should be less than 4 meters; this can increase to 15 meters on wet or snowy roads.

Never ride through deep puddles or streams. Ensure that water never reaches the motor and controller level.

Avoid loose or uneven surfaces, up and down keeps and watch out for unexpected potholes.

Don't carry extra passengers or heavy loads, as this will damage the motor and battery.

Never ride under the influence of drugs or alcohol, or when feeling unwell. Always ride with lights at night.

If you are new to cycling or an inexperienced rider, find a quiet place to practice and gain confidence before trying to ride on busier roads.

### Precautions required prior to each use

- 1). Check all lights and displays are working.
- 2). Check regularly to ensure that the electrical connectors between the bike and battery are clean.
- 3). Check the brakes: this can be done by putting the front brake on and pushing forwards. Do the same with the back brakes. The bike should not move and the brake levers should not touch the handlebars. The brakes should work without having to press down too hard on the handles.
- 4). Make sure your clothing is suitable for riding. Long, loose or flowing garments may become caught in the wheels or chain.
- 5). Wear an approved safety helmet.

## 7. Technical Parameters

|                           |                    |
|---------------------------|--------------------|
| Product name              | Electric Bicycle   |
| Model                     | EB17               |
| Main technical parameters |                    |
| Dimensions (L × W × H)    | 1712mm×980mm×660mm |
| Tires                     | 26" × 1.95"        |
| Total weight              | 50lbs              |
| Max. design speed         | 20MPH              |
| Endurance mileage         | Up to 55miles      |
| Total payload capacity    | 265lbs             |
| Max Climbing angle        | 25°                |

This endurance mileage is measured at the mean speed of 9.3~20MPH the flat road without wind under the conditions of 60kg load, the temperature of about 23°C. However, the actual endurance mileage varies depending on many factors, such as road conditions, temperature, wind velocity, humidity, personal weight and operating habits and so on. The endurance mileage value in this parameter page and the specification certificate are for reference only.

|                                       |  |
|---------------------------------------|--|
| Type of battery                       | Lithium battery                        |
| capacity                              | 13Ah                                   |
| Nominal voltage                       | 36V                                    |
| Nominal power                         | 500W                                   |
| Shifter                               | Shimano 7                              |
| Charging time                         | 6.5h                                   |
| Brake lever                           | E-Bike brake lever with cutofffunction |
| Front fork                            | Suspension fork                        |
| Charger                               | US standard 2A smartcharger            |
| Charger input voltage                 | 100 - 240V                             |
| Cycling environment temperature range | -10 C -45 C                            |
| Charging ambient temperature range    | 0 C -45 C                              |
| Bike frame                            | Iron                                   |

## 8. Maintenance & Repair

### Regularly check the complete E-bike

- Check whether the fasteners are locked and whether the joints of various parts are normal;
- Check whether the pattern of the outer tire is worn or cracked, whether the front and rear tire pressure is appropriate (Suggested tire pressure: 35~45 psi) , and whether the drive system is smooth;
- Check whether the brake system is running properly;

### E-bike storage method

- In case of not using this product for a long time, do not store it outdoors, or under strong light or below zero temperature for a long time. Keep it from the heat source (e.g. heating equipment, etc.) not less than 2cm;
- Store in a dry, clean and well-ventilated indoor environment, with a temperature of 10°C - 45°C and a relative humidity of not more than 90%;
- In case of not using the E-bike for a long time, charge it regularly (usually once every two months) to maintain the battery performance;
- Keep the E-bike away from corrosive liquids, and prevent it from any mechanical shock and heavy object pressure.

### Transportation

- During transportation, prevent it from severe mechanical shock, exposure to sunlight, rain, chemical corrosive substances and harmful gas erosion;
- During loading and unloading, be careful to handle it gently to prevent dropping, rolling and heavy object pressure.

### Instructions of maintenance and cleaning

- It is forbidden to rinse the E-bike with water to avoid the hidden danger of accidents caused by the soaking of internal electronic components and circuits;
- Please gently wipe the stains on the surface of paint or plastic parts with neutral detergent and rag, and then clean it with a dry cloth;
- Please wipe the metal parts with lubricating oil for maintenance;
- It is strictly forbidden to inject oil into the brake part, so as to avoid danger caused by brake failure.

※ If you have any other questions you can contact us by email: [aftersales@invanti.com](mailto:aftersales@invanti.com)

## 9. Authentication



### The EU Compliance Statement is as follows:

WEEE needs to properly dispose of and recycle the product. This sign indicates that the product should not be disposed of together with other domestic waste throughout the EU. Therefore, in order to prevent possible harm of uncontrolled waste treatment to the natural environment or human health, it is necessary to recycle it and promote the sustainable reuse of material resources. To recycle the used product, use the return and collection system or contact the retailer who can use the product for environmentally safe recycling.



### EU Battery Recycling Information:

Batteries or battery compartments are marked in accordance with the European Directive 2006/66/EC and the amendment 2013/56/EU on batteries and accumulator cells and scrap batteries and accumulator cells. The directive applies to the recycling framework of waste batteries and accumulator cells throughout the EU. The label on the battery indicates that the battery should not be discarded, but recycled at the end of its service life according to the directive. According to the European Directive 2006/66/EC and the amendment 2013/56/EU, batteries and accumulator cells are labeled to indicate that they will be collected separately and recycled at the end of their service life. The label on the battery may also contain the chemical symbols of the relevant metals in the battery (Pb, Hg and Cd). Users should not dispose of batteries and accumulator cells as garbage, but use the collection framework available to customers to recycle and dispose of batteries and accumulator cells. With the engagement of users, it is important to minimize any potential impact of batteries and accumulator cells on the environment and human health due to the presence of potentially hazardous substances. Before placing electrical and electronic equipment (EEE) into a waste collection stream or waste collection facility, users of equipment containing batteries and/or accumulator cells must remove these batteries and accumulator cells for separate collection.



### Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive

The products and parts (cables, wires, etc.) of Invanti (Beijing) Technology Co., Ltd comply with the requirements of directive 2011/65/EU on restricting the use of certain hazardous substances in electrical and electronic equipment ("RoHS recasting" or "RoHS 2")

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