

***ANANDA***

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D13 and D13/U  
Manual

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## A. About the Manual

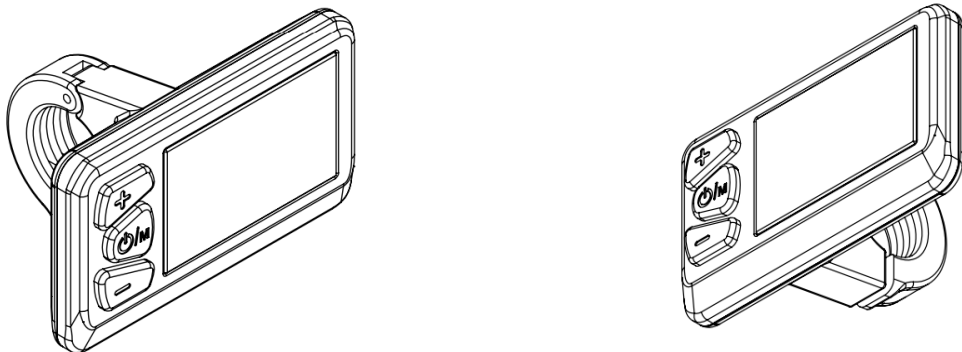
This Manual aims to help you to learn about installing and operating D13 and D13/U display.

## B. Appearance and size

### Material and Color

D13/U is 52.5mm\*33.3mm, has 3 buttons, compact size and simply UI. Including Double-layer PCB, nylon buckle inside, and ABS shell. The material of the shell allows normal using at temperatures between -20 °C and 60 °C, and can guarantee good mechanical properties.

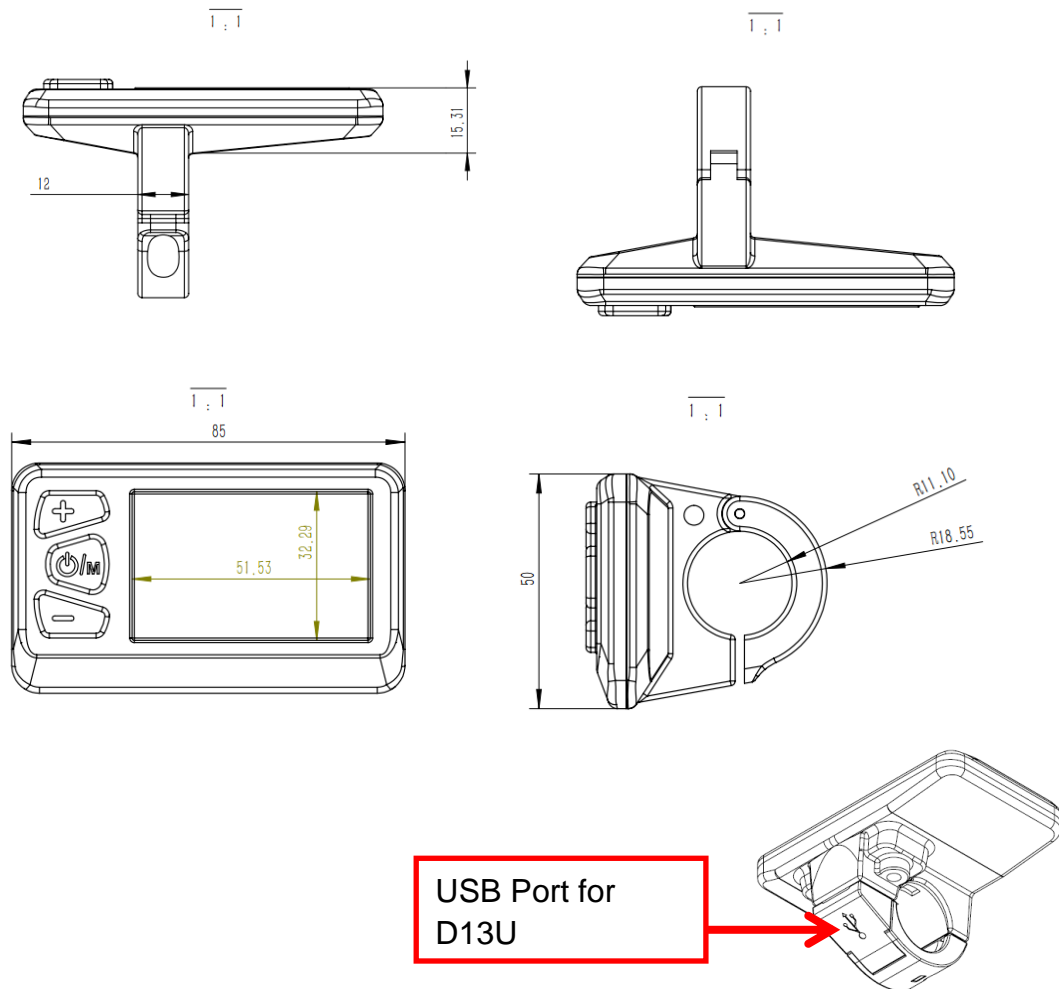
### Illustration



Pic 2-1

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## Diagram (mm)



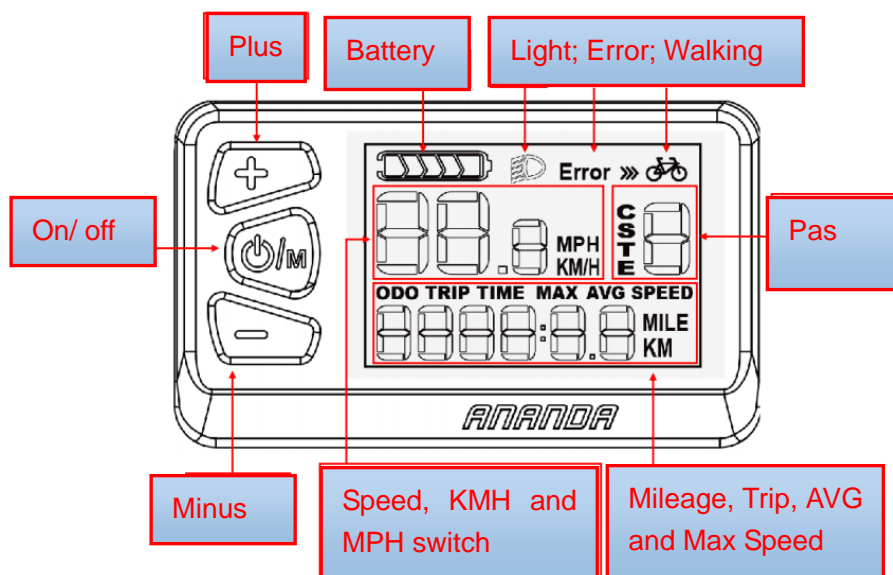
Pic 2-2

## C. Product Functions

D13/U LCD display integrates a 2.4" multi-function screen, which supports 24V / 36V / 48V battery. It also integrates the headlight switch function. The main functions of D13/ U are: (as shown in Pic 3-1 below)

- ◆ Total Mileage;
- ◆ Trip Mileage;

- ◆ Current Speed
- ◆ Light Status
- ◆ Pas Level
- ◆ Battery Capacity
- ◆ Error Code
- ◆ Mile/ Kilo Meter
- ◆ Wheel Size
- ◆ Riding Time
- ◆ Walking Assistant
- ◆ USB Current Limit:1A (D13U only)

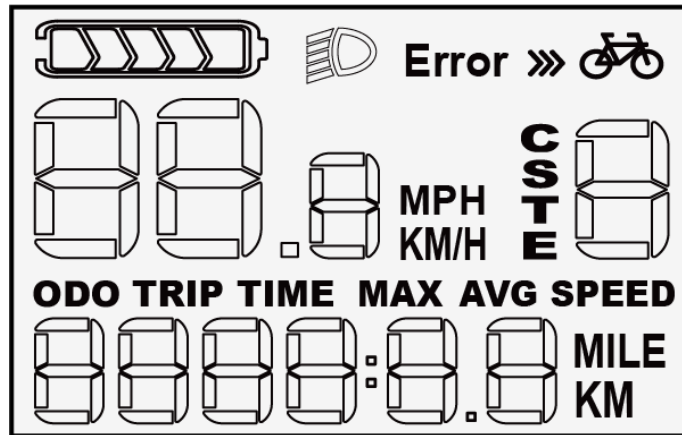


Pic 3-1

## Display Area

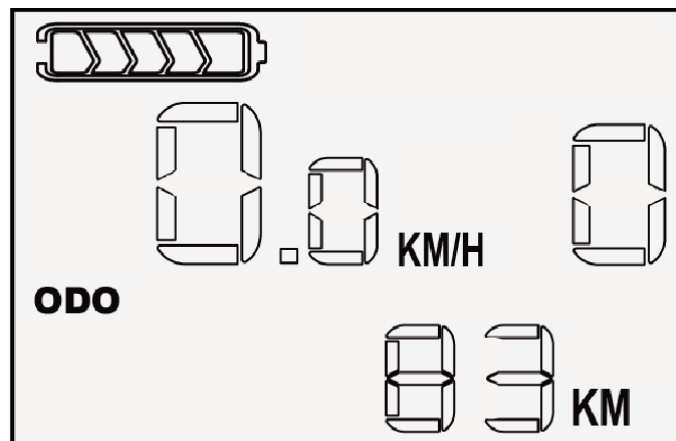
The entire area of the LCD screen is displayed when the meter is turned

on. The design of each module in the meter display area is very beautiful, convenient for customers to understand, the interface is simple and clear, and the customer can see at a glance. As shown in Pic 3-2 below:



Pic 3-2

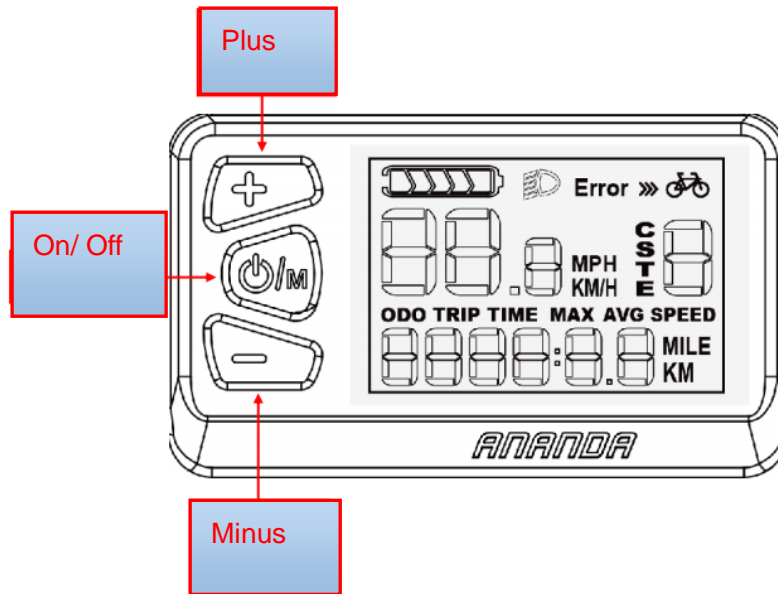
### Correct Display



Pic 3-3

## D. Bottom Definition

D13/U is equipped with 3 buttons. Including key, open key, minus key.



Pic 4-1

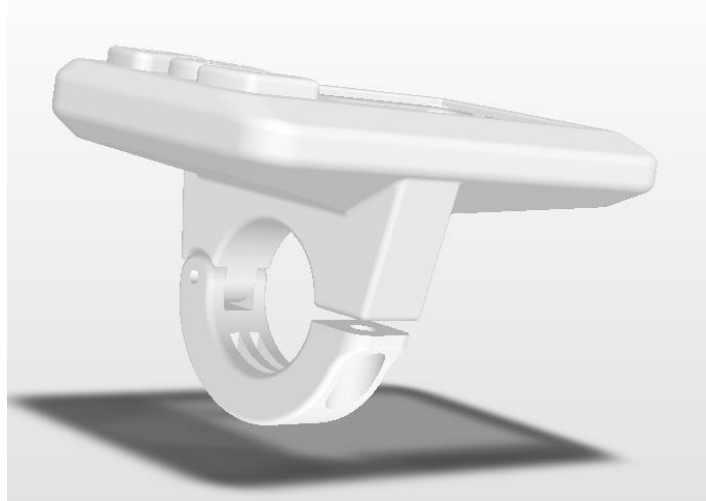
## E. Installation

Fix the display and bolt on the handlebar, adjust the proper angle of view, and screw on the bolt in an easy-to-manipulate position. Tighten the screws to complete the installation.



Insect bolt on the handlebar



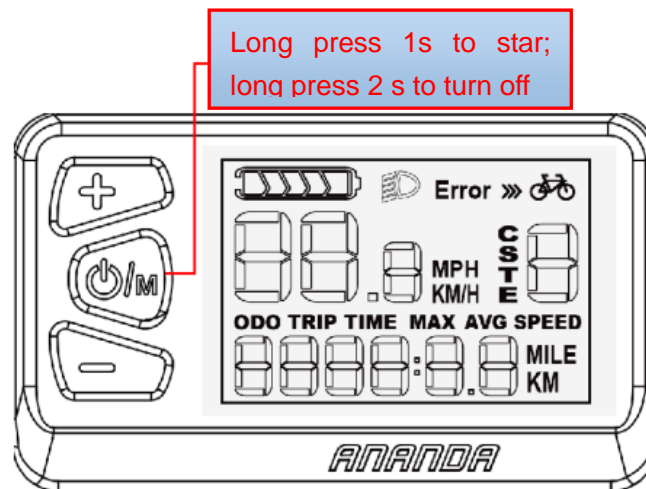


Tighten the screws to complete the installation

## F. Operation

### 1. Switch on/off

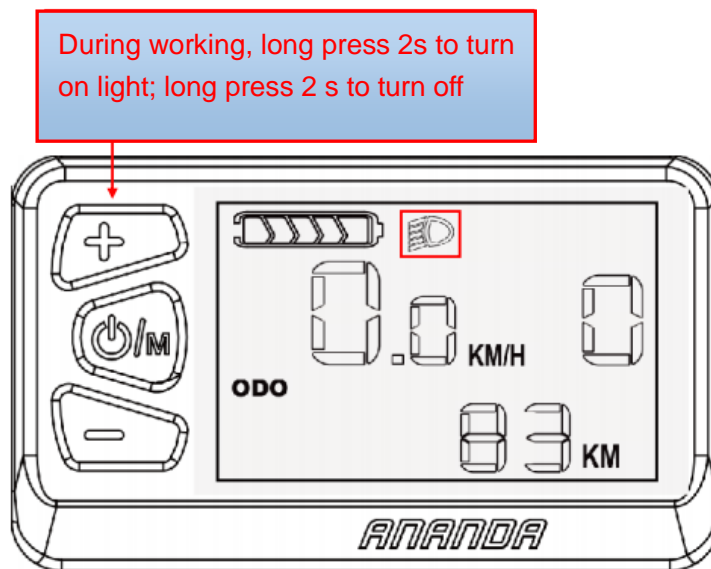
Press and hold the **Switch on/off** key for 1 second, turn on the display, and start the ebike system. In the working state, press and hold the **Switch on/off** key for 2 seconds to turn off the system. In the off state, the display no longer uses the battery's power supply, and the display's leakage current is less than  $2\mu\text{A}$ . The operation process is as shown in Pic 6-1:



Pic 6-1

## 2. Turning on/off the lights and backlights

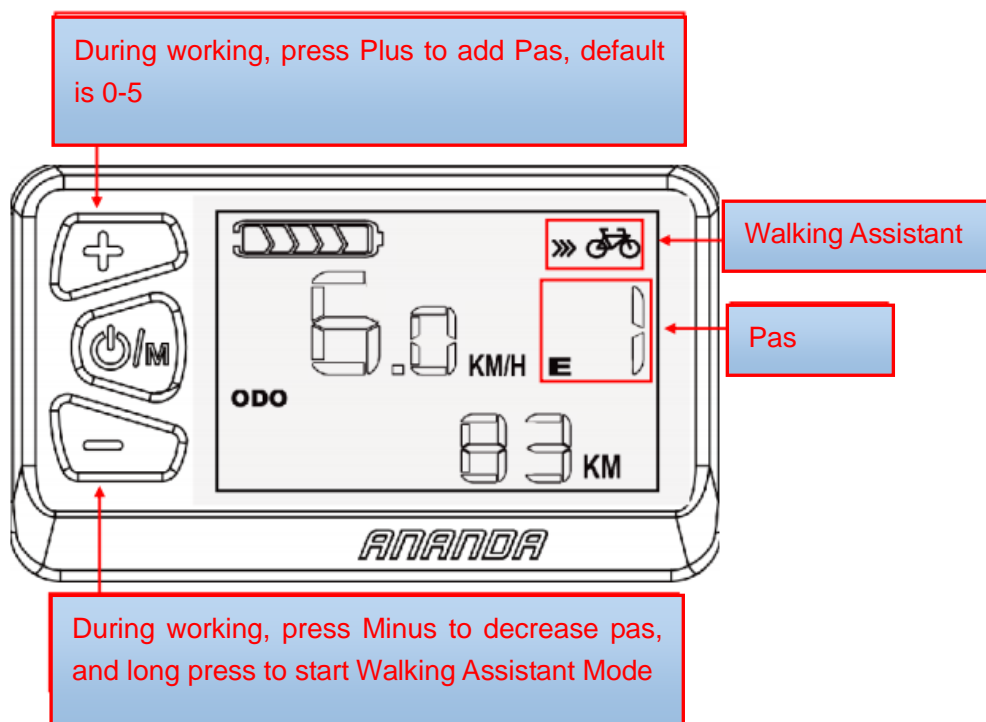
In the power-on state, long press the button for 2 seconds, the lamp will turn on, and the instrument backlight will be turned off; press and hold the button for 2 seconds, the lamp will be off and the instrument backlight will be turned on. The operation process is as shown in Pic 6-2: (lights on)



Pic 6-2

### 3. Pas level and Walking Assistant Mode

In the power-on state, click the plus or minus button to switch the electric vehicle power-assisted gear position and change the motor output power. The default output power range of the display is 0-5 pas or 0-9 pas (the pas range is adjustable). Press and hold the minus button to release, it will start Walking Assistant mode, and the pas level becomes 0. Release the minus button to exit the Walking Assistant mode. (return to previous pas) The Walking Assistant mode and pas level display are shown in Pic 6-3: (current pas 1 display and Walking Assistant mode).



Pic 6-3

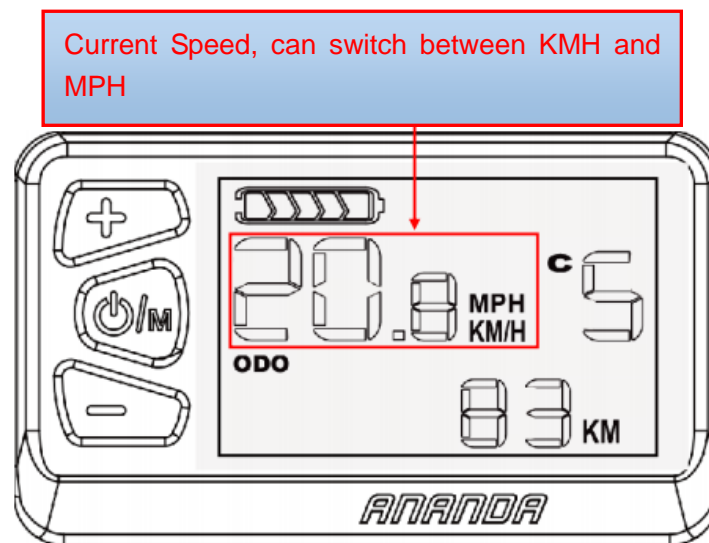
#### 4. Display UI

When the ebike starts, the circuit board transmits the speed value monitored by the vehicle speed monitoring device to the display for display. When the speed sensor is working, the speed sensor sends the speed signal to the controller, and the controller adjusts the motor speed and controls at the same time. The device will feed back the motor speed to the meter. Displayed by the display: real-time speed, total mileage (ODO), single-mile (Trip), riding time (Time), maximum speed (MAX SPEED), average speed (AVG SPEED), power-assisted gear, power, error code mode.

The current speed display, the speed display unit has two types of display:

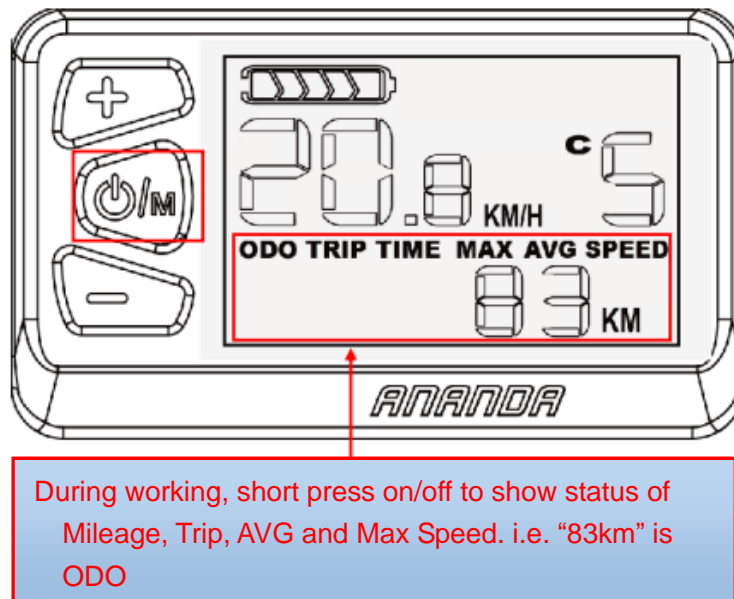
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mile display and kilometer display, which can be set in the settings. (See Chapter 7 for the setting method.) The actual instrument speed is displayed in only one unit. It is not possible to have two units at the same time. As shown in Pic 6-4: (Pic 6-4 is only for explanation)



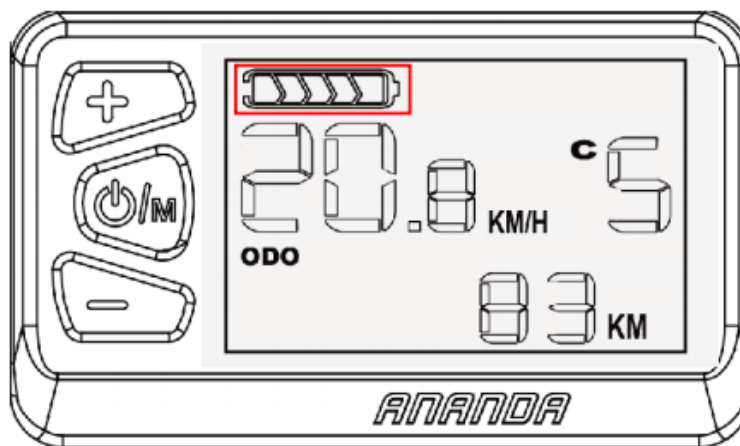
Pic 6-4

The total mileage, single mileage, riding time, maximum speed and average speed can be switched and displayed. In the power-on state, the above functions can be switched, and the display power-on defaults to the interface before the last shutdown. To switch, press the key for 0.5 seconds to enter the switch display selection of ODO->TRIP->TIME->MAX->AVG->ODO cycle. As shown in the following Pic 6-5 interface mode: (The current 83Km is the total mileage display, the other display is subject to actual.)



Pic 6-5

Battery Capacity (Full is 5 bar) as shown in Pic 6-6:



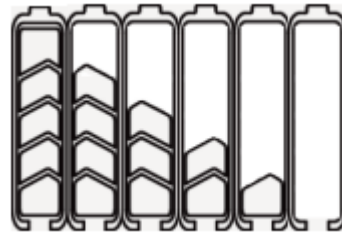
Pic 6-6

## 5. Battery Capacity

When the battery is fully charged, the 5 bar are fully illuminated; when the battery is under voltage, the last cell will flash and need to be charged

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immediately. As shown in Pic 6-7:



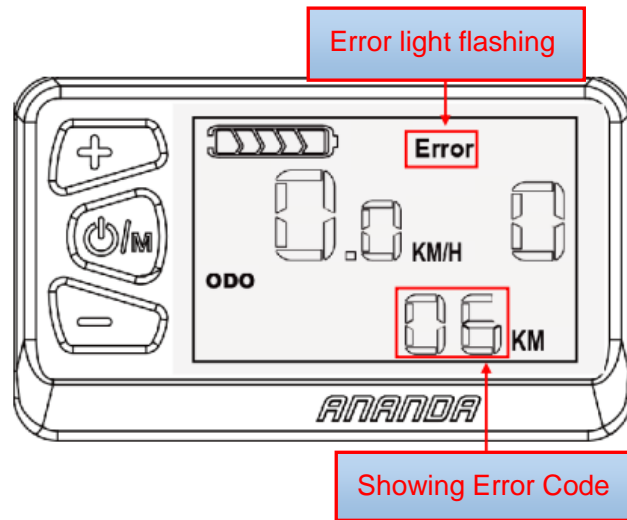
Pic 6-7

Battery Capacity:

- 5%—25% 1<sup>st</sup> Bar
- 25%—45% 2<sup>nd</sup> Bar
- 45%—65% 3<sup>rd</sup> Bar
- 65%—85% 4<sup>th</sup> Bar
- 85%—100% 5<sup>th</sup> Bar

## 6. Error Code

When the Ebike control system fails, the display will automatically show an error code and the error code will flash. And stop normal work, only when the fault is eliminated can exit the fault display interface (even if the display is turned off without troubleshooting, the display will not work normally after restarting the display), the error code list is detailed in the attached error code definition table. The error code is displayed as shown in Pic 6-8:



Pic 6-8

## 7. Reset

In the power-on state, press the plus and minus keys for more than 3 seconds on any interface, and the information in the TRIP, TIME, MAX, AVG interface will reset to zero.

## G. Default Set

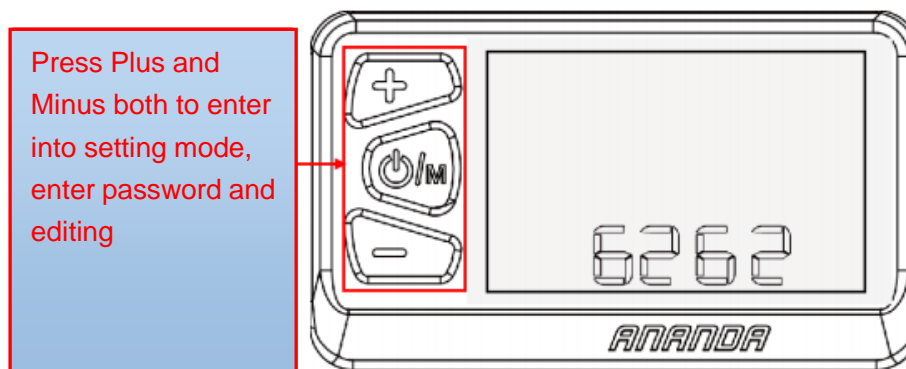
### 1. Password

In the main interface and the speed is 0, press and hold the key for 10 seconds to enter the password input interface of the setting mode. Short press the plus key to switch from 0->1->2->3->4->5->6->7->8->9->0 cycle; short press the down key to make the digits Left->Right->Left cycle switching selection, after setting the four-digit password (fixed password 6262), press the key for 0.5 seconds. If the password is correct, enter the menu selection interface immediately; if the password is incorrect, return to the main



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immediately. interface. After entering the correct password every time, the power is turned on, the next time you enter the password input interface, the meter will display the password that was correctly entered last time. Unless the password entered last time is incorrect or the power is turned off, you need to re-enter the correct password. The password input interface is shown in Pic 7-1 below:



Pic 7-1

After the password is entered correctly, it will enter the menu selection interface. Short press the key to select the following items in order: maximum gear setting → wheel diameter setting → km, mile unit switching → speed limit function adjustment → current program Version number →... ..→Maximum gear setting.

## 2. Set Max Pas

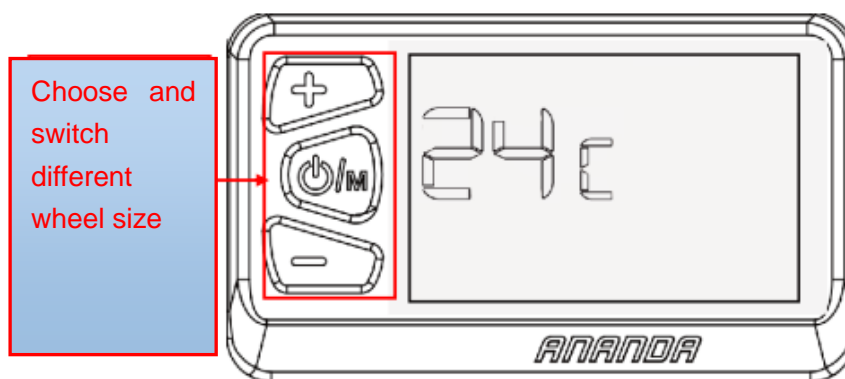
The maximum pas (5th or 9th gear) corresponding to the vehicle is selected by the down button. Short press the key for 0.5 seconds, save and

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exit the maximum gear setting interface. If no operations are performed for up to 10 seconds, the dashboard will automatically return to the main interface.

### 3. Wheel Size

First enter the wheel diameter setting interface, with the following wheel diameter selections 16, 18, 20, 22, 24, 26, 27.5, 28. The corresponding wheel diameter is selected by the plus and minus keys to ensure the accuracy of the meter speed display and mileage display. Short press the key for 0.5 seconds to save and exit the wheel diameter setting interface. If no operations are performed for up to 10 seconds, the dashboard will automatically return to the main interface. The wheel diameter setting is shown in Pic 7-2: (current wheel diameter value is 24)



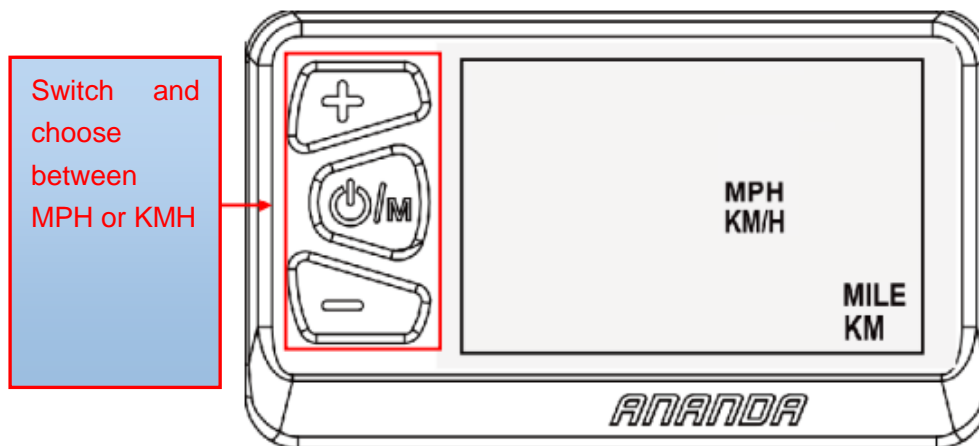
Pic 7-2

### 4. KM/ Mile Switching

Enter the unit switching interface of kilometers and miles, switch the unit

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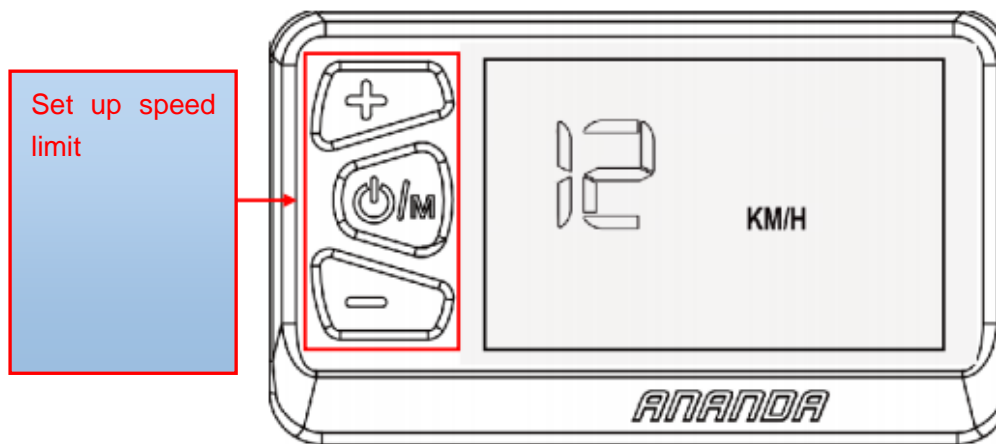
by the minus key, short press the key for 0.5 seconds, save and exit the unit switching setting interface of kilometers and miles. If no operation is performed within 10 seconds, the dashboard will automatically return to the main interface. The unit switching settings are shown in Pic 7-3:



Pic 7-3

## 5. Speed Limit

After entering the setting interface of the speed limit function, short press the plus and minus keys to adjust the limit speed. Press the key for 0.5 seconds to save and exit the setting interface of the speed limit function. If no operation is performed within 10 seconds, the dashboard will automatically return to the main interface. The first time the instrument is burned in, the speed limit display value is 25KM/H. As shown in Pic 7-4 below (currently 12Km/h speed limit):



Pic 7-4

## H. Wire harness

D13/U LCD display has a 5-pin cable that is powered by a 24V/36V/48V battery voltage, which in turn is the positive power supply, ground, weak electrical lock, communication R, and communication T.

## I. Q&A

Q: Cannot switch on

A: Please help to check the connection of the plugs

Q: How to understand the Error Code

A: Please check the error code list and contact with service

## J. Quality commitment and warranty coverage

### Warranty:

1. In the event of failure caused by the quality of the product

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under normal use, the company will be responsible for the limited warranty during the warranty period.

2. The warranty period of the product is calculated within 30 months from the production date

**Exception:**

The following conditions are not covered by the warranty

1. Unauthorized disassembly and modification.
2. Failure or damage caused by misuse or incorrect installation or commissioning by the user or a third party.
3. The outer casing is scratched or the outer casing is damaged.
4. The display lead wire is scratched or broken.
5. Failure or damage caused by irresistible (such as fire, earthquake, etc.) or natural disasters (such as lightning strikes).
6. The product is out of warranty.

## **Error Code**

21	Current abnormal
23	Motor phase error
24	Motor hall defect

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25	<b>Brake failed</b>
30	<b>Communication Error</b>
31	<b>Power bottom Error</b>
32	<b>Walking assistant Error</b>
33	<b>Microprocessor failure, voltage reference fault</b>
<p>If the 5-core cable connected to the controller and the controller fails:  The meter cannot be turned on, and the LCD screen is not displayed.  Possible cause: The main power cord is not connected / the controller is out of phase.</p> <p>The meter can be turned on, but it stops working after 3S. There may be a reason: any one of the green and yellow signal lines connected to the controller and the controller is open.</p>	