

# **CDC1** Specification

#### FABBRICA ITALIANA VEICOLI ELETTRICI

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# 1. About the user manual

Dear users,

To ensure better performance of your ebike, please read through the CDC1 inspection carefully before using it. We will inform you of all the details,

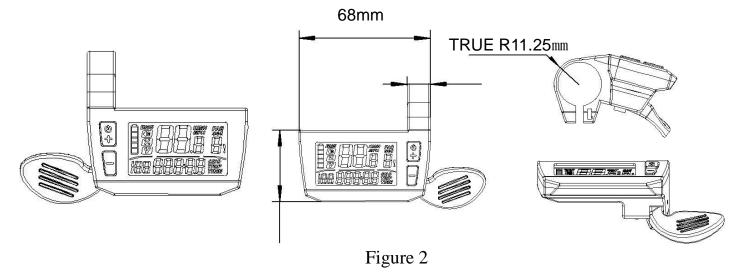
including the installation and setting of the hardware and normal use of the display with the most concise words. Meanwhile, the specification will also help you solve possible malfunction.

# 2. External Dimensions

#### **Material and Color**

CDC1 products use the LCD display, double PCB, nylon buckle, ABS material shell, dip plastic parts. Under the temperature ranging from -20°C to 60°C, the shell material can ensure normal usage and good mechanical performance of the products.

## **Real product and dimension figure :**(unit: mm)



# 3. Function Summary

CDC1 is a Multifunction display that integrated throttle function. The same display can match 24v,36v,48v battery. At the same time integrated 24V/36V/48V headlamps switch function. With another CDBL\_C product of our company will

greatly simplify the handlebar cable. CDC1 function Summary(Figure in 3

- ◆ Total distance indicator
- ◆ Riding distance indicator
- ◆ Current speed indicator
- ◆ Backlight indicator (switch backlight)
- ◆ PAS level selection
- ◆ Battery residual capacity indicator
- ◆ Error code definition
- ◆ Kilometres or miles
- ◆ Wheel diameter selection

# Display all

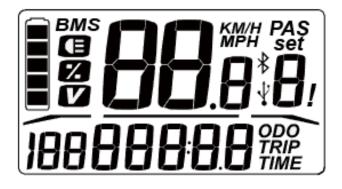


Figure 3-2

# **Normal Viewing Area(not backlight)**

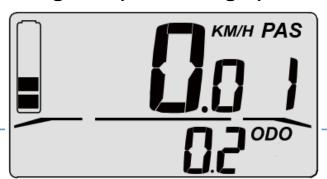


Figure 3-3

# **Normal Viewing Area(backlight)**

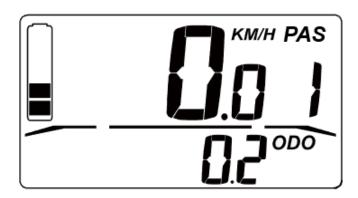
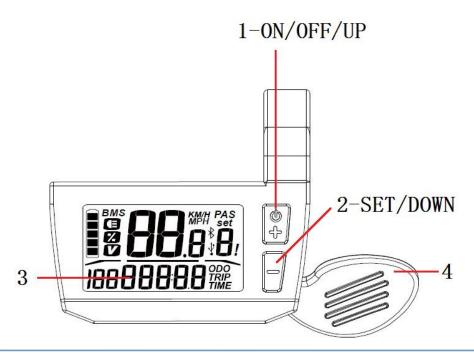


Figure 3-4

The product type of the left and right display that used to fit different models.Button Definition

## 4. Button Definition

CDC1 has four buttons including ON/OFF SET UP and DOWN .



#### Figure 4

## 5. Installation Instructions

Display will be fixed on the handlebar, and then adjust the angle of view, and will be installed in the position of the button is easy to control. Tighten the screws to complete the installation.



Insert the buckle into the vehicle



Tighten the screws to complete the installation.

## 6. Normal Operation

#### (1) Normal operation

#### a. on/off

By clicking on the button UP, the display starts to work and provides a circuit board analog circuit to operate the power supply. The operation process as shown in

figure 6-1.

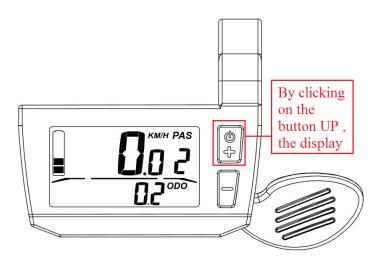


figure 6-1

Turn on power by holding the UP button for 3 seconds to turn off the system power.

The operation process as shown in figure 6-2.

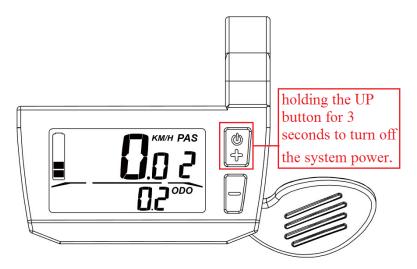


figure 6-2

In the off state, the display is no longer used batteries, the leakage current is less than  $2\mu A$ .

## **b.** Display Interface

\*The definitions of 3 and 4 mentioned in the paper are shown in Figure 4.

When the electric power assisted vehicle is in operation, the circuit board monitors the speed value of the speed monitoring device to the display 3. When trottle4 is pressed, throttle 4 sending control signals or brake control voltage to circuit board, circuit board according to the speed signal, Sending speed control signals to the governor. Display through the display 3: Current speed indicator, total distance indicator, riding distance indicator, PAS level indicator, battery indicator, Mode for riding.

Current speed indicator as shown in figure 6-3.

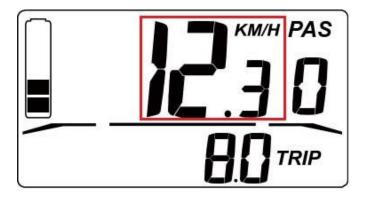


figure 6-3

Distance indicator as shown in figure 6-4.



figure 6-4

PAS level indicator as shown in figure 6-5.( The following figure is 2 stalls)

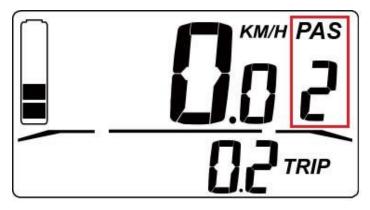


figure 6-5

Battery indicator as shown in figure 6-6.( The remaining power of 2)

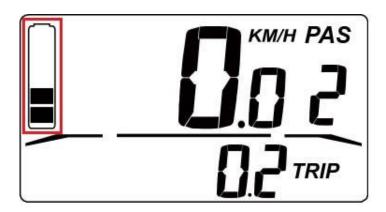


figure 6-6

## C.Turn on (off) backlight

Click on the button, wait for the display to initialize the 2S, the displaybegan to work. Turn on power by holding the DOWN button for 3 seconds and then release the button. Then the display's backlight open.

The operation process as shown in figure 6-7.

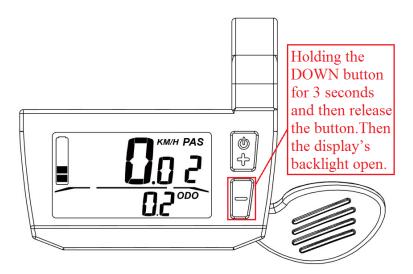


figure 6-7

The effect of turning on the backlight is shown in Figure 6-8.

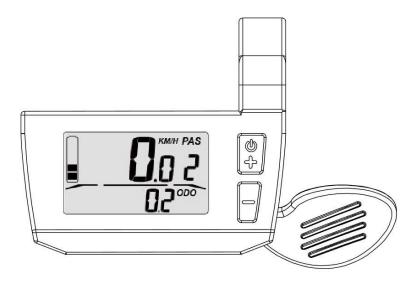


figure 6-8

When the display is turned on the backlight, if you want to turn off the backlight, long press the DOWN button and then release the button, the backlight off.

\*\* Please be sure to press the button in the hold 3 seconds -10 seconds, otherwise when the length of up to ten seconds, the display will enter the wheel diameter settings. You will not be able to set the backlight (switch backlight). At this

point, please wait for 2 seconds to exit the wheel diameter settings and then set the backlight (switch backlight).

#### d. PAS level selection

In the display on state, click the UP and the DOWN button, switch PAS level, then change the motor output power. The default output power of the display is 0-5, and the current position is saved when the display is off. The operation process as shown in figure 6-9.

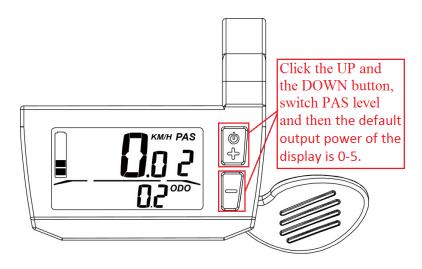


figure 6-9

#### e. Battery indicator

When the battery is full of electricity, the icon of five full light. When the battery voltage, the last frame icon flashes. You need for immediate charging. As shown in figure 6-10.



#### figure 6-10

#### f.Error code definition

When the electric control system of the electric bike is out of order, the display will automatically display the error code and stop working properly. Only when the fault is excluded ,you can exit the fault display interface (even if the display is closed without removing the fault, restart the instrument can not work). The reason for the error is shown in the attachment error code definition table.

Display error code as shown in Figure 6-11.

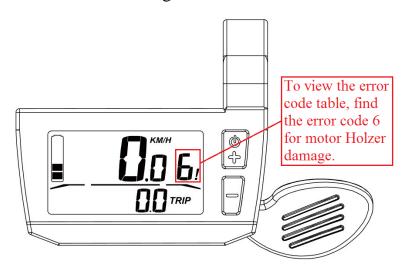


Figure 6-11

## 7. General Setting

#### (1) Wheel diameter selection

Hold the UP button for 10 seconds and enter the wheel diameter selection interface. Alternative wheel diameter parameters are shown in figure 7-1.

WHEEL DIAM		
12	(957mm)	
16	(1272mm)	
18	(1350mm)	
20	(1590mm)	
22	(1770mm)	
24	(1948mm)	
26	(2072mm)	
27	(2210mm)	
28	(2260mm)	
29	(2313mm)	

figure 7-1

The operation process as shown in figure 7-2.

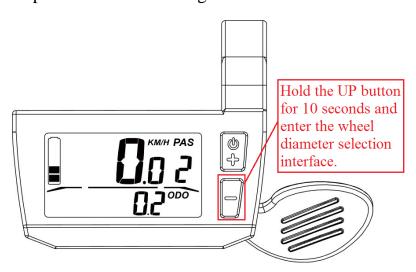


figure 7-2

By UP or DOWN button to select the corresponding wheel diameter, to ensure that the display speed indicator and mileage indicator accuracy. If there is no operation for up to 2 seconds, the display will automatically exit wheel diameter.

Instrument factory default wheel diameter value is 12.

Set wheel diameter parameter operation as shown in Figure 7-3.

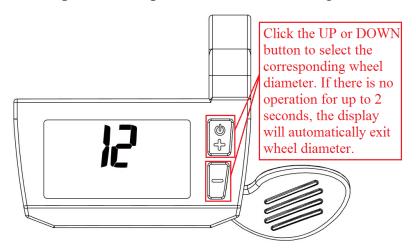


Figure 7-3

The numerical value of the wheel diameter is shown in Figure 7-4 .(the diameter of the wheel is 12)

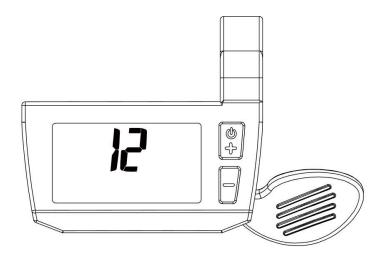


Figure 7-4

#### (2)PAS level selection

When the click the UP button, the display starts to work. Wait for 2 seconds, after the display is initialized to set PAS level. Display default output power range of 0-5

files. Display shutdown to save the current position. If you do not use trottle, you can click on the UP or DOWN buttonto help the PAS level selection. Then change the gear to 1-5 gear. Every time you press the UP button plus 1, the upper limit of the 5 gear, press the DOWN button to reduce the number of gear minus 1, the lower limit of the gear 0.

The operation process is shown in figure 7-5.

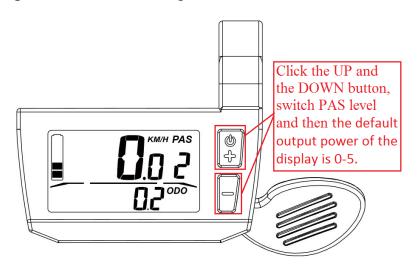


figure 7-5

※ 0 gear for the acceleration of the rotation angle through the trottle, 1-5 gear for PAS level. You need to ride a distance to speed up。

#### 8. Cable outlet define

CDC1 multi-function LCD display for the 8 pin Cable outlet define, the use of 24V/36V/48V battery voltage supply, followed by the power of the positive, ground, weak lock, turn the signal cable, communications R, communications T, 5V, light cable.

Cloud drive intelligent system wiring diagram: CDC1+ CDBL\_C+ CDD1+

# CDV12L\_B. As shown in the Figure 8:

# Display

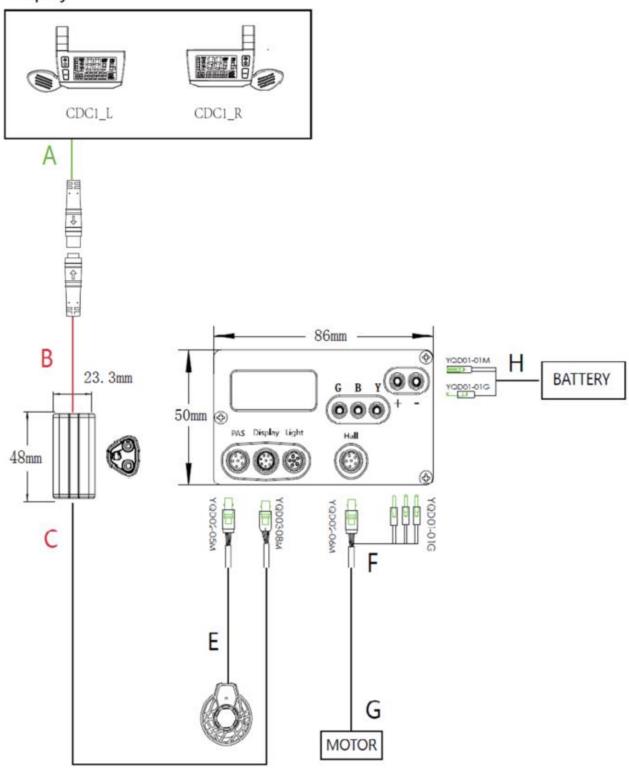


Figure 8

## 9. Q&A

Q: Why the display is not able to start up?

A: Checking the connector that between display and controller.

Q: How to deal with the error code?

A: Fix it to the maintenance place immediately. If cannot be resolved, you can go to the electric vehicle repair points repair it in a timely manner.

## Schedule: error code definition table

error code	definition
2	Overcurrent protection / motor Hall signal anomaly / controller internal power device / motor phase missing
3	Motor Hall signal abnormal / motor turn off stop protection / power supply terminal bad contact / control damage / motor damage
4	undervoltage protection
5	Brake abnormal (boot detection)
6	Abnormal motor Hall signal / motor damage
7	trottle abnormal (boot detection)
9	Abnormal voltage /trottle, sensor cable order wrong / 36V system
	assembly 48V battery
A/10	Display and controller communication yellow fault
F/15	Display and controller communication green fault

If the display and controller connected to the 5 pin cable failure:

Display can not boot, the screen is not displayed. Possible cause: the main power

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supply cable is not connected well/ Controller phasemissing.

Display can be turned on, but after working 3 seconds stop working. Possible reasons: the display and the controller connected to the green, yellow cable of any 1 cables open.