

Version No.: CD/J SMS CDC1/20220110-02



CloudDrive

MANUAL

For CDC1 Display

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PREFACE

Dear users:

In order to make you have better operation experience of the e-bike, please read the CDC1 MANUAL carefully before using. We will guide you to learn the detailed operation steps of CDC1 display, including the mounting steps and functions. Meanwhile, this MANUAL will help you find the solutions to the possible malfunctions.

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1. Product Introduction

CDC1 display adopts LCD screen, double-layers printed circuit board(PCB), nylon bracket, and ABS shell (The ABS material is allowed for normal use at temperature ranging from -20°C to 60°C, meanwhile, it can also guarantee excellent mechanical properties.)

CDC1 is a multifunctional display with an integrated throttle, the same display can widely match the battery of voltage 24V/36V/48V, meanwhile, integrated 24V/36V/48V headlight ON/OFF function.



Figure1-1 Product appearance

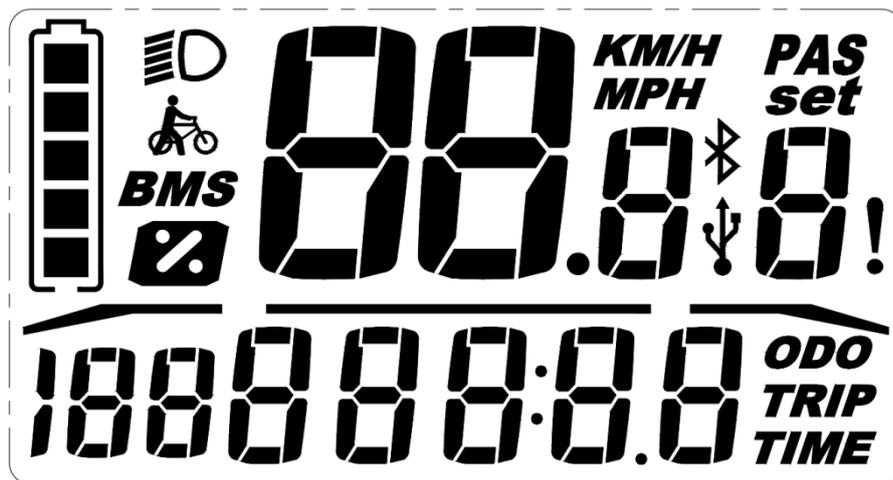


Figure1-2 All functions indication interface

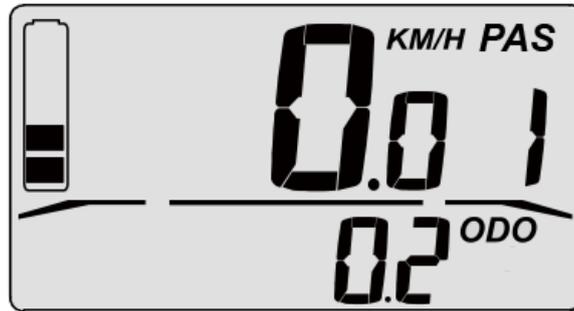


Figure1-3 Normal indicated area(Without backlight)

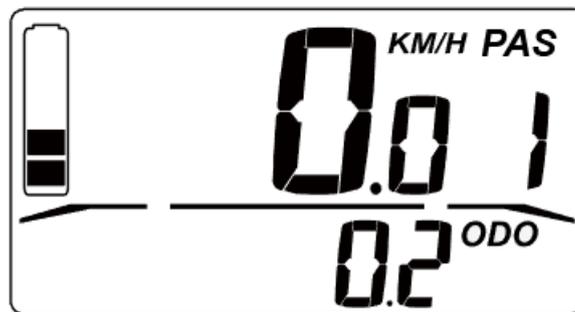


Figure1-4 Normal indicated area(With backlight)

CDC1 has two types that left mounting and right mounting to meet different eBike mounting demands.

2. Technical Parameter

Name	Technical Parameter
Rated Voltage	24V/36V/48V
Rated Current	24V/35mA, 36V/27mA, 48V/24mA
Ambient Temperature	-20°C ~ +60°C
Ambient Humidity	0 ~ 100%RH
Protection Level	IP65
Visible Angel of Screen	Horizontal 160°, Vertical 160°

Table1 - Technical Parameter Sheet

3. Appearance & Dimensions



Figure3-1 Product Appearance

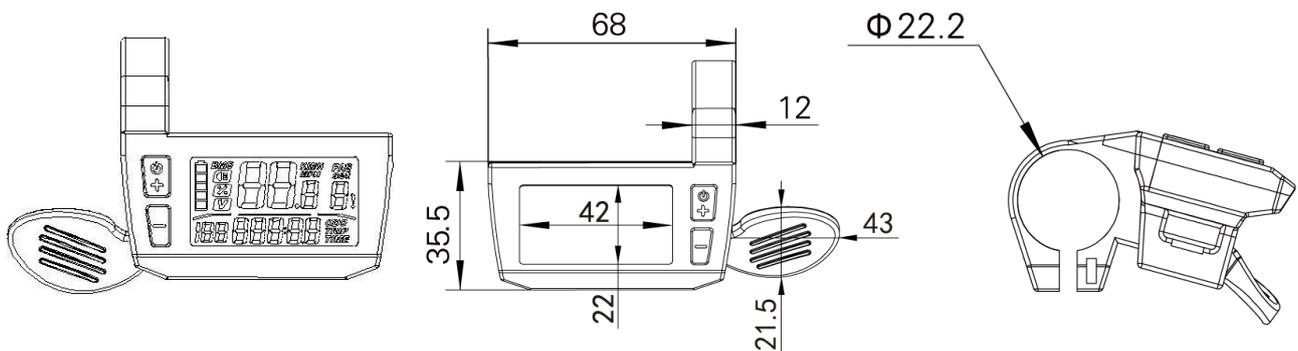


Figure3-2 Product dimensions

4. Button Definition

CDC1 display has two buttons, including POWER button, UP and DOWN button

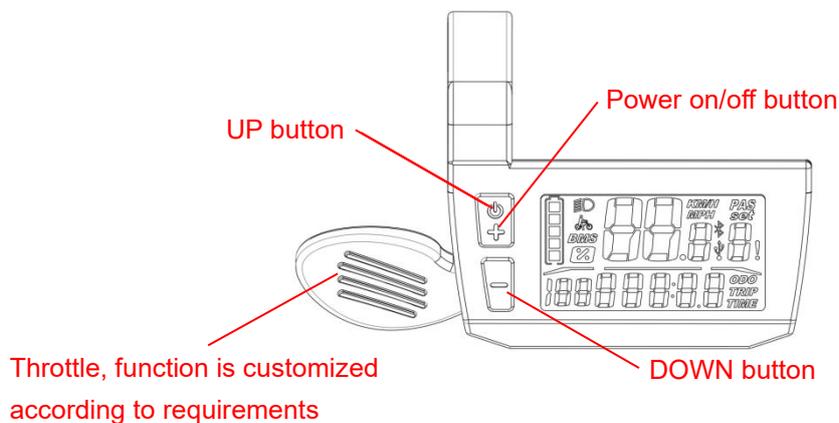


Figure4-1 Button definition

5. Installation Instruction

Fix CDC1 display on the eBike handlebar, adjust to a suitable view angle, tighten the screws, then the installation is finished.



Figure5-1 Actual installation images

6. Operating Instruction

6.1. Display power on/off

Click  button to power on the display and the display start to work, under power on condition, long press  button for 3s to power off the display. Under power off condition, the display no longer uses the battery power, the display electric leakage current is less than 2μA. Please check following operation process:

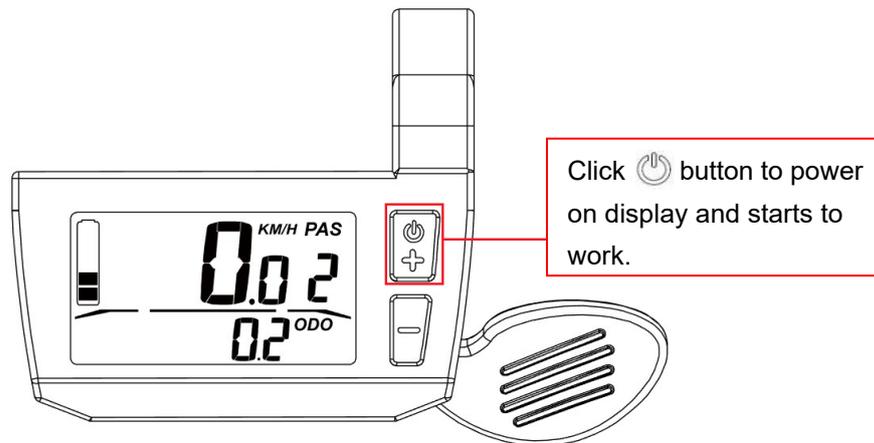


Figure6-1 Power on operation

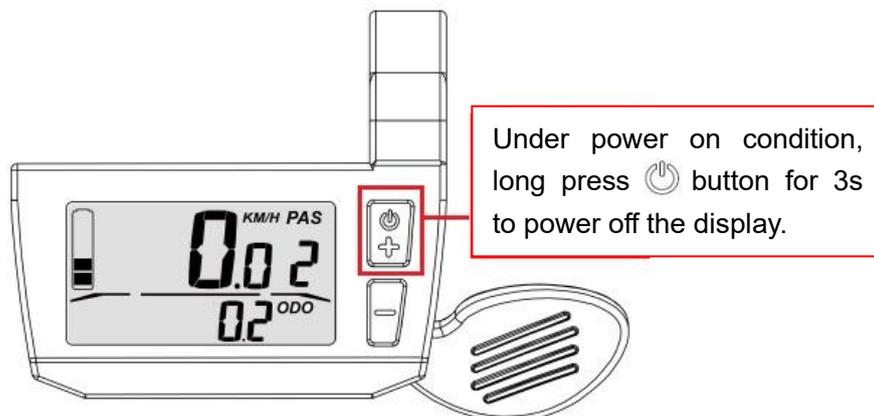


Figure6-2 Power off operation

6.2. Indication interface

When the eBike is running, the circuit board transmits the speed value monitored by the speed monitoring device to the display screen for indication. When the throttle is turned, it will send speed

regulating signal or braking signal to the circuit board, the circuit board sends speed control signals to the speed regulating device according to the speed regulating signal. The display will indicate: real time speed, total mileage, single time mileage, PAS level, battery capacity, mode.

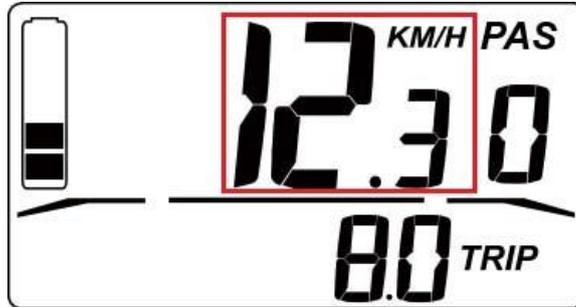


Figure6-3 Real-time speed indication



Figure6-4 TRIP/ODO indication



Figure6-5 PAS level indication



Figure6-6 Battery capacity indication

6.3. Backlight and Headlight on/off

Click button and wait for the display to initialize for 2s, then the display starts to work. Under power on condition, click both button and button at the same time, the display backlight and headlight will light on at the same time.

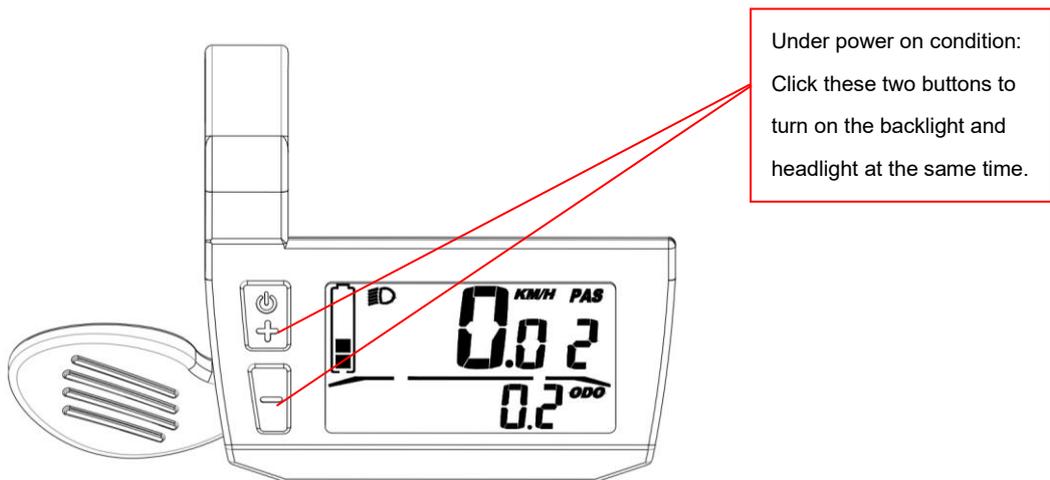


Figure6-7 Backlight &Headlight ON operation

When the backlight and headlight are on, click both button and button at the same time to turn off the display backlight and headlight



Figure6-8 Backlight &Headlight OFF operation

6.4. PAS level selection

Under power on condition, click  button or  button to switch the PAS level, change the motor output power, the default output power is Level 0 to Level 5, save the current PAS level when display power off. Long press  button to enter 6km/h assistance function.

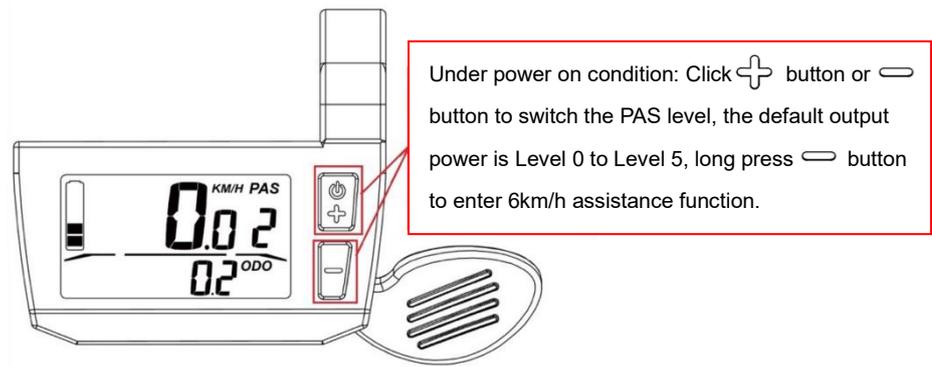


Figure6-9 PAS level selection

6.5. Battery capacity indication

When the battery is fully charged, all five capacity indicators light up. When the battery is voltage shortage, the last battery capacity indicator will flash, and the battery needs to be charged immediately.

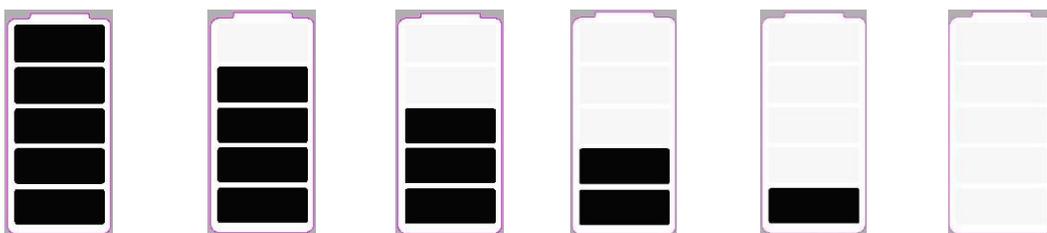


Figure6-10 Battery capacity indication

6.6. Error code indication

When there is malfunction on the electronic control system of eBike, the display will automatically indicates the error codes. The error icon will flash and the electronic control system of e-bike will stop working. The display will exit the error interface only when the malfunction is fixed.(The display won't work properly until malfunction fixed even if the display restarted). Please check attached Error Code Definition Table for the error reasons.

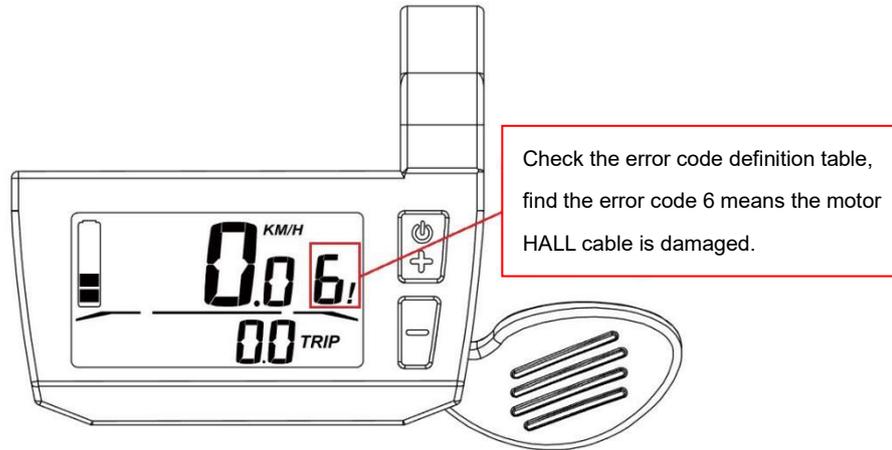


Figure6-11 Report error code

7. General Setting

7.1. Speed unit setting

Under power on condition, long press both \oplus button and \ominus button at the same time for 5s to enter the speed unit setting interface, click \oplus or \ominus button to switch the speed unit(KM/h or MPH). If no operation within 8s, return to the main interface automatically.

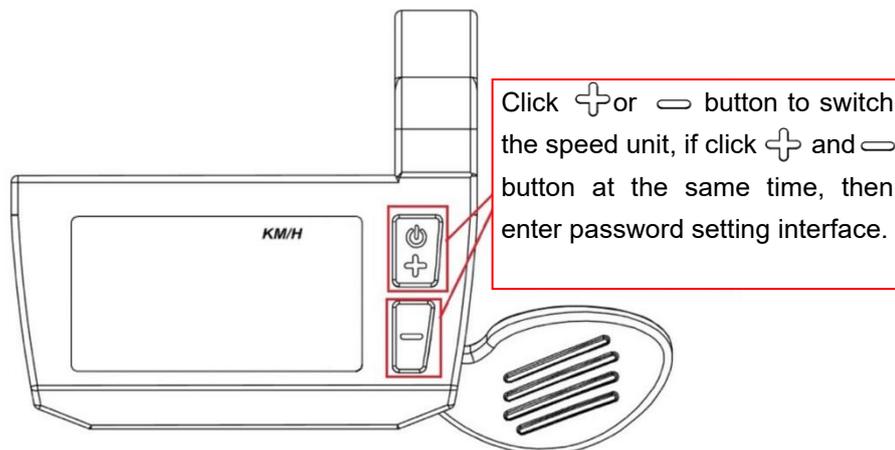


Figure7-1 Speed unit setting interface

7.2. Password setting interface

The default password is **0000**, while choose the default password, there is no need to input the

password and the display will enter the operation interface directly.

While set new password and it is not 0000, user needs to input the correct password in following way to enter the operation interface.

Under power on condition, click  button and the display starts to work, firstly enter the wheel diameter setting interface and finish the setting, then enter the password setting interface.

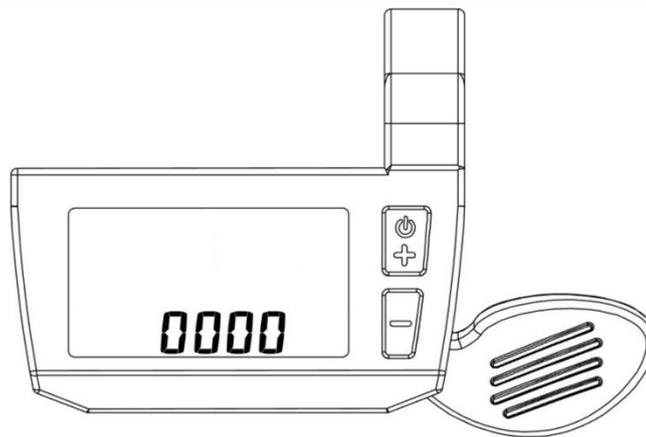


Figure7-2 Password setting interface

Click  button to set the password number in the first password digit, every time you click the  button, the number will change from 0 to 9.

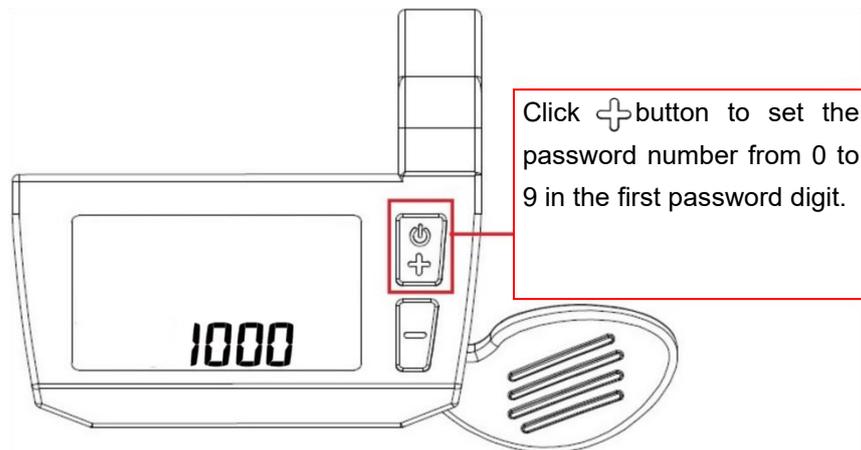


Figure7-3 Password number setting in 1st digit

Click  button to confirm the first password number setting and enter the password number setting in the second password digit, the operation method is same to the first password number setting.

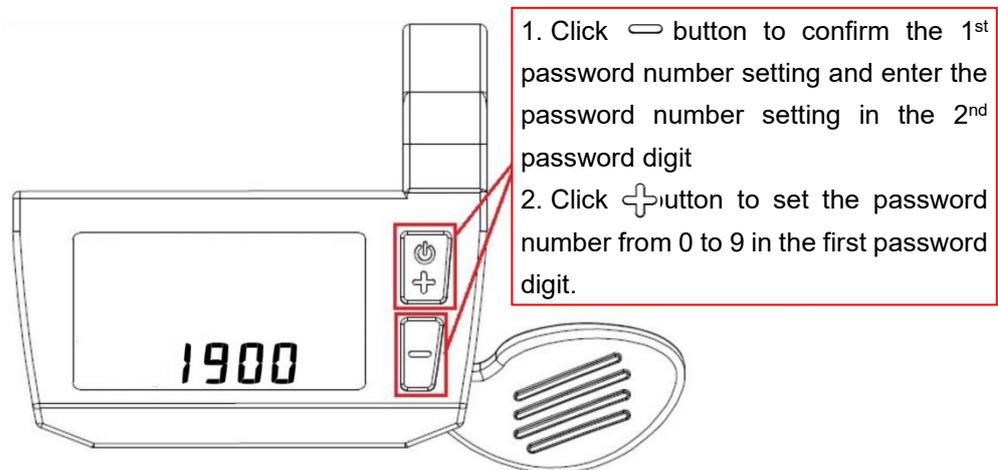


Figure7-4 Password number setting in 2nd digit

Click ⇐ button to confirm the second password number setting and enter the password number setting in the third password digit, the operation method is same to previous password number setting.

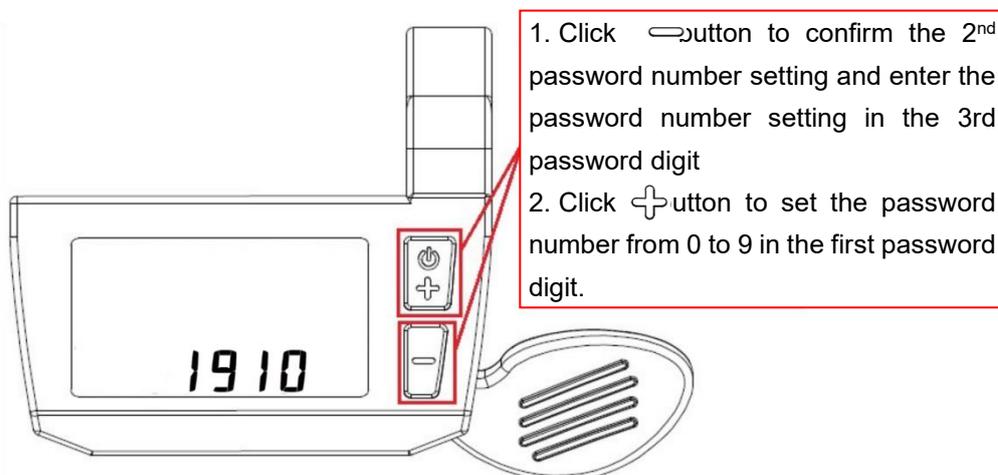


Figure7-5 Password number setting in 3rd digit

Click ⇐ button to confirm the third password number setting and enter the password number setting in the fourth password digit, the operation method is same to previous password number setting.

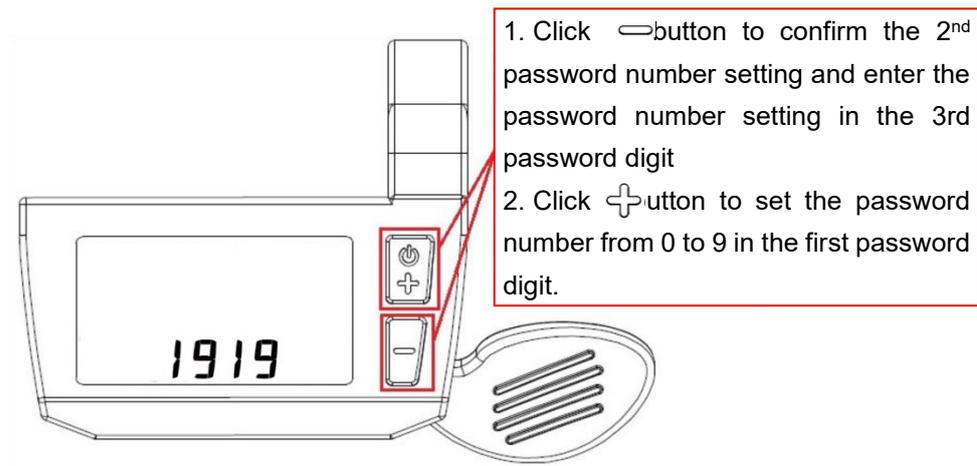


Figure7-6 Password number setting in 4th digit

Click ⇐ button to confirm the fourth password number setting, after inputting the correct password, the display will enter the normal working interface.

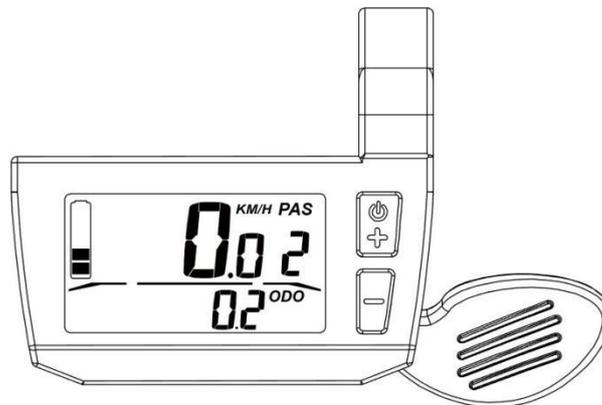


Figure7-7 Display working interface after inputting correct password

7.3. Speed limit setting

After entering the password interface, click both ⊕ button and ⇐ button at the same time to enter the speed limit setting interface. Set the limited speed value by clicking the ⊕ or ⇐ button. If no operation within 8s, return to the main interface automatically.

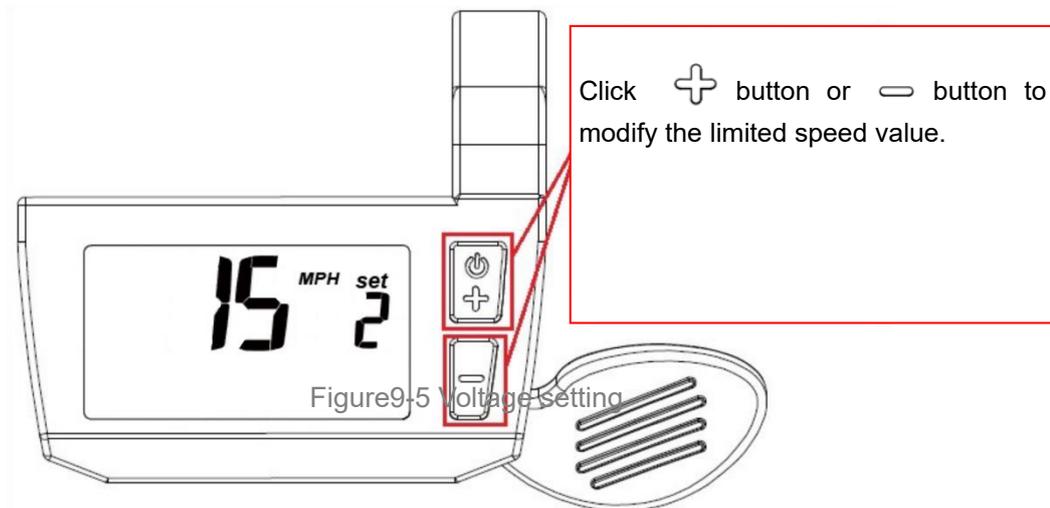


Figure7-8 Speed limit setting interface

7.4. Version information

After finish the speed limit setting, click both $+$ button and $-$ button to enter the version information interface. If no operation within 6s, the version information interface will automatically exit.

We can judge if upgrade the system version by checking the version number which indicated in the version information interface(The version number in figure7-9 is J1.0). The display software version used in some eBike may be different from this manual, if you find any difference, please contact the manufacturer.

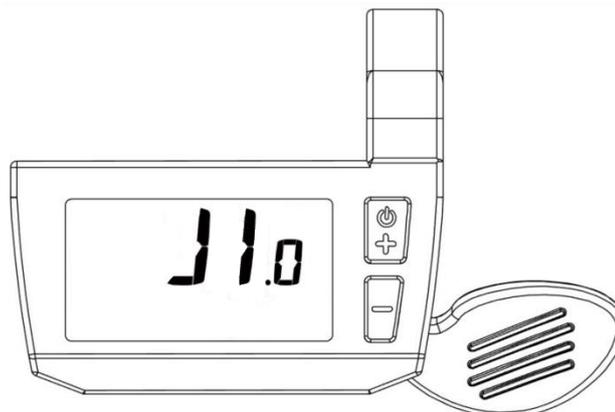


Figure7-9 Version information interface

8. Connectors Definition

CDC1 multi-functional LCD display equip with 5 cores connection cable, they're separately power positive pole, ground wire, weak current lock, communicate R and communicate T. CDC1 display can widely match the battery of 24V/36V/48V voltage.

Please check the wiring diagram of CloudDrive intelligent system in following Figure8-1:

Display(CDC1) + Brake&concentrator(CDBL_C) + Controller(CDD1) + PAS sensor(CDV12_B)

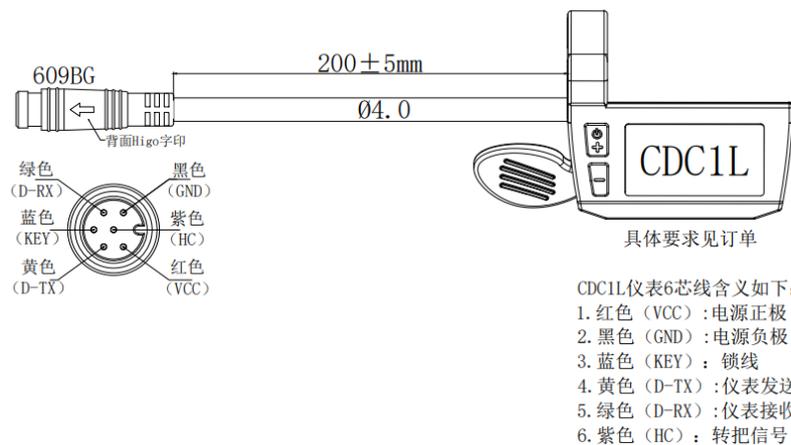


Figure8-1 Connector definition

9. FAQ

Q: Why power on failed?

A: Check if the display's cables have been reliably connected with the controllers.

Q: How to deal with the indicated error code on display?

A: Firstly, find the corresponding error description according to the indicated error code, if user can't solve it by themselves, please go to the ebike maintenance point and seek for professional maintenance support.

10. Quality Assurance & Warranty Scope

Warranty:

10.1. Within warranty period, our company will shoulder the responsibility to provide limited warranty to any faults caused by the quality of the product under normal use.

12.2. The warranty period lasts for 18 months since the date of production.

Other Terms:

The following items does not belong to warranty scope

12.3. Disassembly or modification without authorization.

12.4. Malfunction or damage caused by the misuse or improper installation and debugging by the users or the third party.

12.5. Products scratched after leaving the factory.

12.6. Cable broken.

12.7. Malfunction or damage caused by the force majored (fire, earthquake etc.) or natural disasters (lightning etc.)

12.8. Beyond warranty period.

Annex.: Error Code Definition Table

Error Code	Definition	Solutions
2	Excessive current protection is detected inside the controller	1. Check if the connectors of motor 3-phases cable and HALL cable are connected well; 2. Plug out and re-plug in the cables, if this error code still indicate, the controller or motor is damaged; 3. Replace the controller or motor.
3	Controller cannot start the motor	1. Check if the connectors of motor 3-phases cable and HALL cable are connected well; 2. Check if the loading is so heavy that cause the system startup time exceeds 2S, e.g. climbing or wheel stuck; 3. Plug out and re-plug in the cables, if this error code still indicate, the controller or motor is damaged; 4. Replace the controller or motor.
4	Battery low voltage/voltage shortage protection	1. Check the battery indicators if there is power; 2. Reconnect the battery; 3. Remove the battery and measure it by multimeter, to check if there is power in the battery; 4. Recharge the battery.



5	Brake malfunction	<ol style="list-style-type: none"> 1. Check if the brake is working properly after the system power on; 2. If the brake signal is less than 0.75V for a long period of time, the brake is broken, replace a new one.
6	Motor HALL malfunction	<ol style="list-style-type: none"> 1. Check if the HALL change signal of the motor is faulty; 2. Check if the HALL connector is connected well; 3. Plug out and re-plug in the cables, if this error code still indicate, the motor HALL is damaged; 4. Repair the motor HALL or replace the motor.
7	Throttle malfunction	<ol style="list-style-type: none"> 1. Check if the throttle is out of control or throttle signal is lower than 0.75V after the system power on; 2. Check if the user turn the throttle before system starts working; 3. This fault can be removed after the reset.
8	Controller malfunction	<ol style="list-style-type: none"> 1. Replace a new controller.
A/10	Communication malfunction, yellow cable is not connected	<ol style="list-style-type: none"> 1. Check if the cables connected to display are loose, or if the connectors are broken; 2. Check if the cables connected to controller are loose, or if the connectors are broken; 3. Check if the cable jacket is broken; 4. Reconnect the display cables; 5. Replace the controller or display.
D/13	Controller program or 5V error	<ol style="list-style-type: none"> 1. Check if the braking signal is 5V short circuit or not.
15/F/30	Communication malfunction, green cable is not connected, or the communication protocol don't match	<ol style="list-style-type: none"> 1. Check if the cables connected to display are loose, or if the connectors are broken; 2. Check if the cables connected to controller are loose, or if the connectors are broken; 3. Check if the cable jacket is broken; 4. Reconnect the display cables; 5. Replace the controller or display.

Different protocols may cause different error code definition list, please check with the eBike factory.

If there is something wrong with the 5-cores cable between the controller and display:

A. The display can't power on and the screen is dark, the reason might be:

The power supply connector between controller and battery is not connected well or there is something wrong with any one cable of the red /black /blue cables that between the display and controller.

B. The display can power on, but stop working after 3 seconds, the reason might be:

One of the connection cables (green or yellow cable) between the display and the controller is open circuit.

Above error code explanation is based on the correct system from

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If you still have queries after reading this manual, please contact us for technical support.

Support@clouddrive.tech

If you have business cooperation intention, welcome to contact us.

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