

# MANUAL

For CDC27-PRO Display



# PREFACE

Dear users:

In order to make you have better operation experience of the e-bike, please read the CDC27-PRO MANUAL carefully before using. We will guide you to learn the detailed operation steps of CDC27-PRO 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

CDC27-PRO display adopts 3.5" LCD screen and exquisite appearance with matte black. The display interface frame is clear, 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.)

The same display can widely match the battery of voltage 24V/36V/48V, meanwhile, integrated 24V/36V/48V headlight ON/OFF function.



Figure1: Product appearance

The main interface of CDC27-PRO display provides two type theme background, white and black. Display can automatically switch two theme background by the light sensing sensor, to make the display indicated clearly while under different outdoor light intensity condition.



Figure2-1: White background



Figure2-2: Black background



# 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

The standard bracket diameter is Ø31.8mm, we can provide the reduction sleeve of Ø22.2mm and Ø25.4mm, to adapt to different handlebar size.



Figure3: Product appearance & Size



# 4. Button Definition

The equipped CDButton2-B has four buttons, including M(setting) button, UP button, DOWN button and POWER button.





Figure4: Button definition

| Button        | Operation                              | Functions   |
|---------------|--|---|
| Click         |  | - While in setting interface, it is OK and interface switch function; |
|               | - While in main interface, sound horn; |   |
|               | Click                                  | - While in main interface, increase the PAS levels;                   |
| (+)           |  | - While in menu interface, switch options;                            |
|               |  | - While in password interface, increase the password number.          |
| Long press 3s | Long press 3s                          | - While in main interface on level 0, start walk assistance function  |
|               |  | (release the button to cancel this function).                         |
|               | Click                                  | - While in main interface, decrease the PAS levels;                   |
|               |  | - While in menu interface, switch options;                            |
|               |  | - While in password interface, decrease the password number.          |
|               | Long press 3s                          | - Power off when in any interface.                                    |
| O             | Click                                  | - While under power-off condition, power on display;                  |
|               |  | - While in main interface, turn on/off headlight;                     |
|               |  | - While in password input interface, switch password number.          |
|               | Long press 3s                          | - While in main interface, enter the menu interface;                  |
|               |  | - While in menu interface, exit menu and back to main interface;      |

Table2- Button functions definition



# 5. Installation Instruction

Fix the CDC27-PRO display and button on the eBike handlebar, adjust to a suitable view angle, make the button installed in a position easy to operate, tighten screws and finish the installation work.



Figure5: Actual installation images



## 6. Main Interface Instruction

| If user enables the power-on password function, the input password interface will come out after      |
|---|
| power on. While in input password interface, click is or button to set the number in                  |
| selected password digit, click 🕐 button to switch the password digit you wanna set. If input the      |
| correct password, enter the main interface and the system is running normally. If input the incorrect |
| password, then need to re-input the password, the default password is: 0000.                          |

**Attention:** Please remember the new password if user change the power-on password, in case the display can't power on anymore.

Once if forget the power-on password, user can long press in and buttons together while in power-on password interface for 3 seconds to enter the main interface.

Following is the CDC11 main interface(White theme is same with the black theme)



| No. | Definition                               |
|-----|--|
| 1.  | Headlight                                |
| 2.  | PAS level                                |
| 3.  | Speed unit                               |
| 4.  | Speed loading bar indication             |
| 5.  | USB charging                             |
| 6.  | Total distance/Trip distance             |
|     | (Switching indication)                   |
| 7.  | Walk assistance function                 |
| 8.  | Error codes                              |
| 9.  | Real time eBike speed                    |
| 10. | Percentage of battery remaining capacity |
| 11. | Battery capacity cells                   |
| 12. | Maximum speed/Average speed              |
|     | (Switching indication)                   |

Figure6-1: Icons definition in main interface

While in main interface, the operation of each function(switch pas level, start walk assistance function, turn on/off headlight, USB charging etc.) as shown in the following figure.





Figure6-2: Functions instruction

## 7. Setting Interface Instruction

While in main interface, long press (M) and (P) button for 3 seconds to enter the setting interface(Same operation will back to the main interface). Click (P) or (P) button to switch the setting options. Click (M) button to enter the setting options. If no operations within 3s, automatically exit setting interface and back to main interface.

#### 7.1 Basic Setting Interface



Figure7-1: Basic setting interface



While in basic setting interface, click and button to switch the options, click ot enter the related setting item.

### E-bike speed unit :

Click button to enter the speed unit switching interface, click or button to switch the Km/h or MPH, click button to confirm and return to the basic setting interface.



Figure7-2: Speed unit switching interface

#### Power-on password on/off setting

After finish the speed unit setting, select power-on password setting interface, click is button to enter it, click is or is button to select if turn on the power-on password function. If choose ON, click is button to set the password you want. Click is or is button to select password number from 0 to 9, click is button to switch the password digit. After finish the password setting, click is button to save password and back to basic setting interface.



Figure7-3: Power-on password On/Off setting



🗥 If forget the power-on password, you can long press ⊡ and 回 button together for 3s in the

password input interface to enter the main interface, then you can turn off the power-on password.

#### **Backlight brightness adjustment**

After finish the power-on password setting, select backlight brightness adjustment interface, click button to enter it, click or button to adjust the brightness, click button to save setting and back to the basic setting interface.



Figure7-4: Backlight brightness adjustment

#### How to enter the system set interface?

After finish the backlight brightness adjustment, select system set interface, click button to enter its password input interface, click for button to select password number from 0 to 9, click button to switch the password digit, click button to verify the password. If incorrect, it will skip to the basic setting interface. If password is correct, enter the system setting interface.







Attention: The default password of system set is 1919.

Do not let the final riding user know the system setting password, in case of system error which caused by user's misoperation, and the display can't be running normally.

#### 7.2 System Setting Interface



Figure7-6: System setting interface

The system setting include: voltage setting, wheel size setting, speed limit setting, software version number checking. Click or button to switch the setting item, and click button to enter the related setting item.

## Battery voltage setting



Figure7-7: Battery voltage setting interface

Click 🕞 or 📄 buttons to switch the battery voltage, click Ш button to save setting

and return to the system setting menu interface. The optional battery voltage is: 24V, 36V, 48V(default).



## Wheel size setting



Figure 7-8: Wheel size setting interface

| Wheel    | Wheel     |
|----------|-----------|
| Diameter | Perimeter |
| 12C      | 957 mm    |
| 16C      | 1272 mm   |
| 18C      | 1350 mm   |
| 20C      | 1590 mm   |
| 22C      | 1770 mm   |
| 24C      | 1948 mm   |
| 26C      | 2072 mm   |
| 27C      | 2210 mm   |
| 28C      | 2260 mm   |
| 29C      | 2313 mm   |
|          |           |

Table3: Wheel size table

Click 🕞 or 📄 button to switch the optional wheel size, click 🌰 button to save setting

and return to the system setting menu interface.

## Speed limit setting\*



Figure7-9: Speed limit setting interface

Click or button to select if turn on speed limit function or not, click button to save setting and return to the system setting menu interface, the speed limit value depends on the communicate protocol. (Due to regulatory requirements, speed limit does not allow for cancellation)



## Software/Hardware version info



Figure7-10: Software version info



Figure7-11: Hardware version info

This display's manual adopts general software version(CDC27-PRO version) from Cloud drive intelligent technology Co.,Ltd. The display software version used in some ebike may be different from this manual, if you find any difference, please contact the manufacturer.

## 8. Connectors Definition





## 10. 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.

## 11. Quality Assurance & Warranty Scope

#### Warranty:

11.1. 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.

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

#### Other Terms:

The following items does not belong to warranty scope

11.3. Disassembly or modification without authorization.

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

11.5. Products scratched after leaving the factory.

11.6. Cable broken.

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

11.8. Beyond warranty period.



## Annex.: Error Code Definition Table

| Error<br>Code | Definition  | Solutions  |
|---------------|---|--|
| 1             | Abnormal communication  | Blue tooth module is malfunction   |
| 2             | Controller inner components<br>malfunction error  | Power on again, if the error still exists, need to replace the controller. |
| 3             | Abnormal 3-phases power   | Check if motor cables are loosed, re-connect cables.                       |
|               |   | 1. Check the battery indicators if there is power;                         |
|               |   | 2. Reconnect the battery;  |
| 4             | Battery voltage shortage protection   | 3. Remove the battery and measure it by multimeter, to check if            |
|               |   | there is power in the battery;   |
|               |   | 4. Recharge the battery.   |
|               |   | 1. Don't use the throttle/brake before power on;                           |
| 5             | Brake malfunction   | 2. Please check if the cable connected to throttle /brake is loose, if     |
| 5             | Brake manufactori   | the connectors connected to display or controller is broken;               |
|               |   | 3. Replace a new brake.  |
|               |   | 1. Check if the motor is blocked, unable to rotate properly;               |
| 6             | Matar blocking protoction   | 2. Check if the motor cables are loose and reconnect the motor             |
| Ū             | Motor blocking protection   | cables, and turn the motor again to make it roll smoothly;                 |
|               |   | 3. Replace the motor.  |
|               |   | 1. Don't use the throttle before power on;                                 |
| 7             | Throttle malfunction  | 2. Please check if the cable connected to throttle is loose, if the        |
| ,             |   | connectors connected to display or controller is broken;                   |
|               |   | 3. Replace a new throttle.   |
| 8             | Controller malfunction  | Replace a new controller.  |
| Q             | Over-voltage protection   | 1. Check if battery voltage exceeds the display limit;                     |
| 3             |   | 2. Replace a matching battery.   |
|               | Communication malfunction   | 1. Check if the cables connected to display are loose, or if the           |
|               |   | connectors are broken;   |
| 10/A          |   | 2. Check if the cables connected to controller are loose, or if the        |
|               | vellow cable is not connected   | connectors are broken;   |
|               |   | 3. Check if the cable jacket is broken;                                    |
|               |   | 4. Reconnect the display cables;   |
|               |   | 5. Replace the controller or display.                                      |
| 13/D          | Controller program error or 5V error  | Check if the braking signal is 5V short circuit.                           |
|               |   | 1. Check if the cables connected to display are loose, or if the           |
|               | Communication malfunction,<br>green cable is not connected,<br>or the communication protocol<br>don't match | connectors are broken;   |
|               |   | 2. Check if the cables connected to controller are loose, or if the        |
| 15/F/30       |   | 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.