

Product name and model

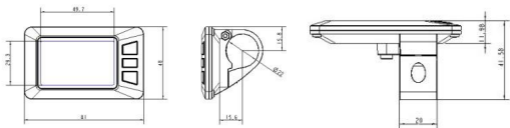
Intelligent LCD display of E-bike; model: KD21C.

Specifications

- 24V/36V/48V Power Supply
- Rated working current: 10mA
- The maximum working current: 30mA
- Off leakage current: <1uA
- The supply controller working current: 50mA
- Working temperature:-20℃~ 60℃
- Storage temperature: -30℃~ 70℃

Appearance and Size

Display appearance and dimension figure (unit: mm)



◆Color categories

The cover of the display has two color options, black and white, and down shell of the display is only one black.

Function Summary and Button Definition

◆Function Summary

KD21C can provide a lot of functions to meet the users' needs. The

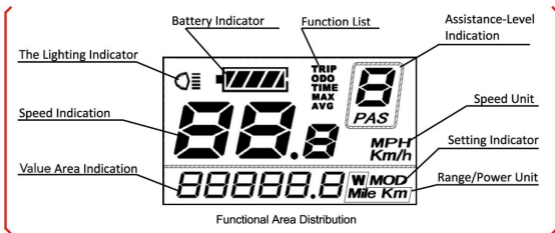
indicating contents are as follows,

- Battery level indicator
- Motor output indication
- Assistance level indication
- Speed indication (incl. current speed, Max. speed and Avg. speed)
- Trip distance and ODO
- The push-assistance function
- Trip time
- Error code indication
- Various Parameters Settings (e.g. wheel diameter, speed limit, battery level bar, assistance level, current limit, maximum speed, password enable, etc.)
- Recover Default Settings

Assembly

The KD21C display should be mounted on the left handlebar of the E-bike at a comfortable angle. Cut off the power supply before connecting the display to the controller.

◆ Functional Area Distribution



◆ Button Definition

There are three buttons (**M** , **+** , **-**) on the KD21C display that represented by the following functions respectively: **MODE**, **UP**, **DOWN**.

General Operation

◆ Switching the E-bike System On/Off

To switch on the E-bike system, hold the **MODE** button for 2s.

In the same way to hold the **MODE** button for 2s again, the E-bike system will be switched off.

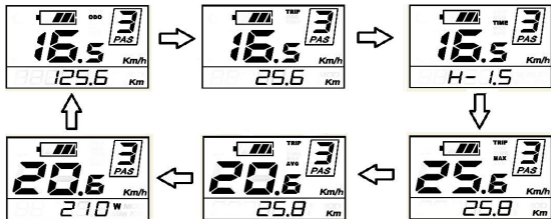
When switching off the E-bike system the leakage current is less than 1 μ A.

■ When parking the E-bike for more than 10 minutes, the E-bike system switches off automatically.

◆ Display Interface

After switching on the E-bike system, the display shows current speed and total distance except battery indicator and assistance level.

To change the indicated information, press the **MODE** button to show in turn as follows: Current Speed (Km/h) → Trip Distance (Km) → Trip Time (Hour) → Max. Speed (Km/h) → Avg. Speed (Km/h) → Motor-output (W) → Current Speed (Km/h).



◆ Switching Push-assistance mode On/Off

To access the push-assistance mode, hold the **DOWN** button always, the E-bike will go on at a uniform speed of 6 Km/h, "P" is showed on the screen at the same time. The push-assistance function switches off as soon as you release the **DOWN** button.



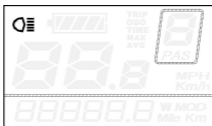
Push-assistance Mode

■ **Push-assistance function may only be used when pushing the E-bike. Danger of injury when the wheels of the E-bike do not have ground contact while using the push-assistance function.**

◆ **Switching the Lighting On/Off**

To switch on the display backlight and headlight of the E-bike, hold the **UP** button for 2s.

In the same way to hold the **UP** button for 2s again, the backlight and the headlight will be switched off.



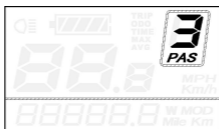
Switch On/Off the Lighting

◆ **Assistance Level Selection**

Assistance levels indicate the output power of the motor. The default value is level “1”.

The default power ranges from level “0” to level “5”. The output power is zero on Level “0”. Level “1” is the Min. power. Level “5” is the Max. power. Gear to level “5” and then press the **UP** button, the interface shows “5” still and “5” flashing prompts top. Gear to level “0” and then press the **DOWN** button, the interface shows “0” still and “0” flashing prompts low.

To change assistance level, press the **UP/DOWN** to increase or decrease until the desired assistance level is displayed.



Assistance Level “3”

◆ Manual Clearance Function

Among of all functions, Trip Distance, Trip Time, Max. Speed and Avg. Speed, can only be cleared manually.

If the above functions need to be cleared, After switching on the E-bike system and parking the E-bike, please to hold the **MODE** button and the **DOWN** button for 2 s, the above functions can be cleared at the same time.

◆ Battery Indicator

The five battery bars represent the capacity of the battery. When the battery is in low voltage, battery frame will flash to notice that the battery needs to be recharged immediately.

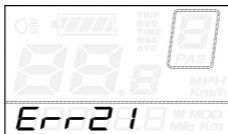


Low Voltage Flash
Battery Indicator

◆ Error Code Indication

If there are errors about the electronic control system, the error code will appear automatically.

The messages of the error code are in **Attached list 1**.



Error Code Indication

■ When an error code appears, please refer to an authorized E-bike dealer .

Recover default settings

DEF represents recover default settings. The default value is N.

To access recover default settings, hold both the **UP** and **MODE** button for 2s and then access selecting interface, to press the **UP/DOWN** button to choose Y or N again. N means that do not recover default settings. Y means that recovers default settings.

When it is Y, hold the **MODE** button for 2s to recover default settings, the display shows DEF-00 at the same time, and then return to general display state.



Recover Default Settings Interface

Operation Cautions

Be careful of safe use. Don't attempt to release the connector when battery is on power.

- ◆ Try to avoid hitting.
- ◆ Make the display repaired when error code appears.

Quality assurance and warranty scope

I Warranty

1) The warranty will be valid only for products used in normal usage and conditions.

2) The warranty is valid for 24 months after the shipment or delivery to the customer.

II Other items

The following items do not belong to warranty scope:

1) The display is demolished.

2) The damage of the display is caused by wrong installation or operation.

3) The shell of the display is broken after the display is out of the factory.

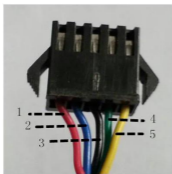
4) The cable of the display is broken.

5) Beyond warranty period.

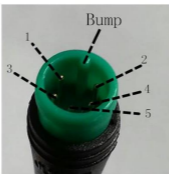
6) The fault or damage of the display is caused by the force majeure (e.g., fire, earthquake, etc.).

Connection layout

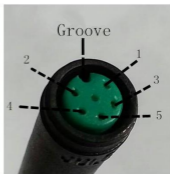
Connector line sequence



Display-side connector



Display-side adapter



Switch cable

Line sequence table

Line sequence	Color	Function
1	Red(VCC)	+
2	Blue(K)	Lock
3	Black(GND)	-
4	Green(RX)	RX

5	Yellow(TX)	TX
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■Some cable use the water-proof connector, users can not see the inside color.

Attached list 1: Error code definition

Error Code	Definition
21	Current Abnormality
22	Throttle Abnormality
23	Motor Abnormality
24	Motor Hall Signal Abnormality
25	Brake Abnormality
30	Communication Abnormality