



## Product name and model

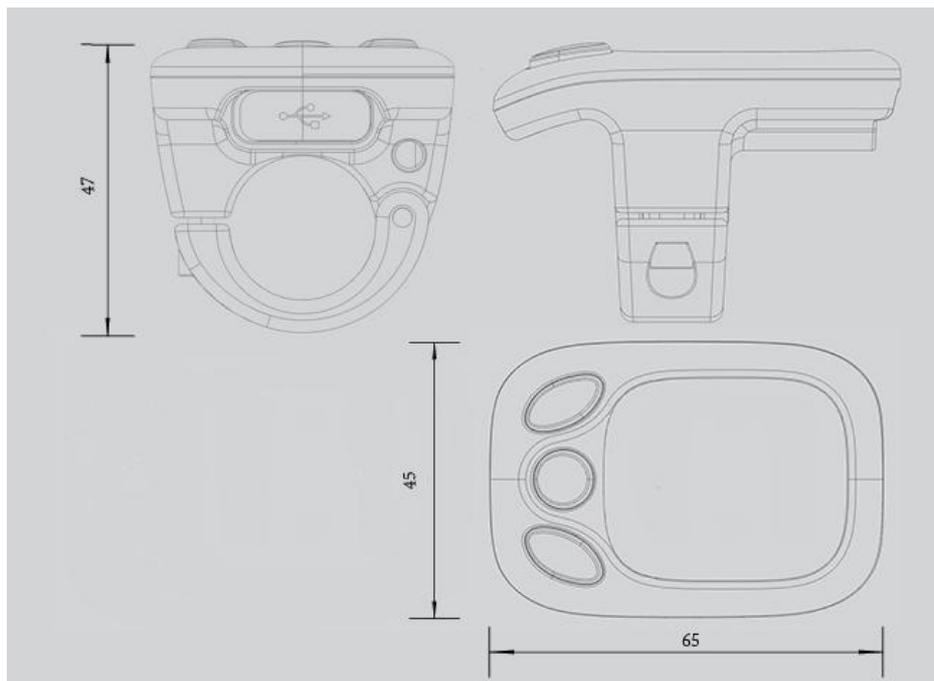
Electric bicycle intelligent LED instrument, model: KD59E.

## Specifications

- 24V/36V/48V Power Supply
- Rated working current: 10mA
- The maximum working current: 30mA
- Off leakage current: <math><1\mu\text{A}</math>
- The supply controller working current: 50mA
- Working temperature:  $-20^{\circ}\text{C}\sim 60^{\circ}\text{C}$
- Storage temperature:  $-30^{\circ}\text{C}\sim 70^{\circ}\text{C}$

## Appearance and Size

Display appearance and dimension figure (unit: mm)



## Function Summary and Button Definition

### ◆ Function Summary

KD59E can provide a lot of functions to fit the users' need. The indicating contents are as following:

- Smart battery indicator
- Assistance-level indicator
- The push-assistance function
- The Lighting On/Off (optional)

### ◆ Button Definition

There are three buttons (, , ) on the KD59E display that represented by the following functions respectively **MODE**, **UP** and **DOWN**.

## General Operation

### ◆ Switching the eBike System On/Off

To switch on the eBike system, hold the **MODE** button for 2s.

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

When switching off the eBike system the leakage current is less than 1 uA.

■ **When parking the eBike for more than 10 minutes, the eBike system will switches off automatically.**

### ◆ Switching the Lighting On/Off

To switch on the display headlight of the eBike, hold the **UP** button for 2s. The battery indicator light and power assistant level indicator light became faint at the same time.

In the same way to hold the **UP** button for 2s again, the headlight will be switched off. The battery indicator light and power assistant level indicator light recover at the same time.

### ◆ Switching Push-assistance mode On/Off

To access the push-assistance mode, hold the **DOWN** button always, the eBike will go on at a uniform speed of 6 Km/h. Five power-assistance level indicator lights cyclic display.

The push-assistance function switches off as soon as you release the **DOWN** button.

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

### ◆ PAS Level Selection

Assistance level indicates the output power of the motor. The default value is level "1".

Press the **UP/DOWN** button to select power assistant level, the default power ranges from level "0" to level "5". The output power is zero on Level "0". Level "1" is the minimum power. Level "5" is the maximum power.

### ◆ Battery Indicator

The five battery bars represent the capacity of the battery. The five red lamps are lighting when the battery is in high voltage. When the battery is in low voltage, the under lamps will light flash to notice that the battery needs to be recharged immediately.

### ◆ Error code Indication

If there are errors about the electronic control system, the lamps will light flash. Here is the message of the error code in **Attached list 1**.

## Operation Cautions

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

- Avoid the risk of collision.
- Don't modify system parameters to avoid parameters disorder.
- 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.

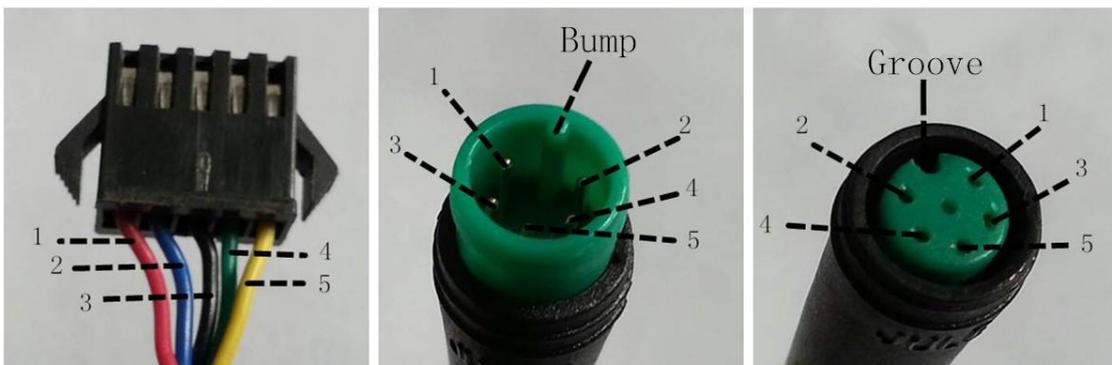
### II Other items

The following items do not belong to our warranty scope.

- 1) The display is demolished.
- 2) The damage is caused by wrong installation or operation.
- 3) Shell of the display is broken when the display is out of the factory.
- 4) Wire of the display is broken.
- 5) Beyond warranty period.
- 6) The fault or damage is caused by the force majeure (such as fire, earthquake, etc.) or natural disasters like lighting, etc.

## Connection layout

Connector line sequence:



Display-side connector

Display-side adapter

Switch wiring

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       |

■ Some wire use the water-proof connector, users are not able to see the inside color.

### Attached list 1: Error code definition

| Definition of error code      | Indicate light                     |
|-------------------------------|------------------------------------|
| Current Abnormality           | Indicator light flash at level 1   |
| Throttle Abnormality          | Indicator light flash at level 3   |
| Motor Abnormality             | Indicator light flash at level 1&3 |
| Motor Hall Signal Abnormality | Indicator light flash at level 5   |
| Brake Abnormality             | Indicator light flash at level 3&5 |
| Low voltage alarm             | Indicator light flash at battery 1 |
| Communication Abnormality     | Indicator light flash at All level |