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# LD903GUB Display Instruction

## Manual

V1.0

2017/9/11



The instrument-LD903GUB is simple and beautiful with the unique design of scientific ergonomic curve. The LED is not only clearly visible in the sunlight but also displayed with soft light under the night mode that makes riding safety.

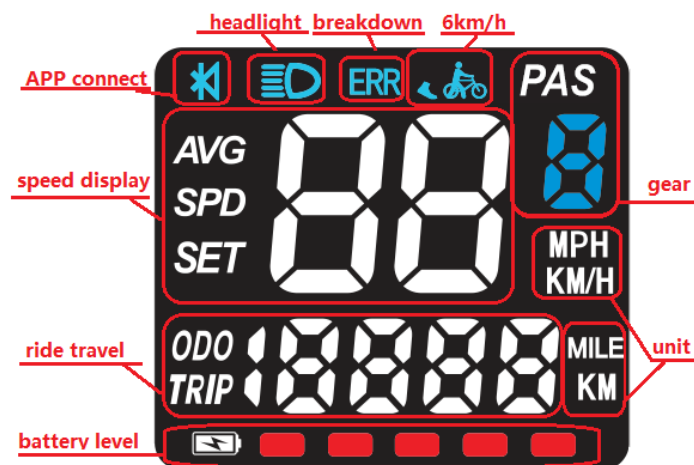
## About our Manual

Please read the manual of LD903GUB carefully before taking a ride for a better performance.

## Size



## Instruction to display interface



## Model and parameter

### LD903GUB

Five assisted power display

Nine assisted digital display

Standard USB to charge your phone

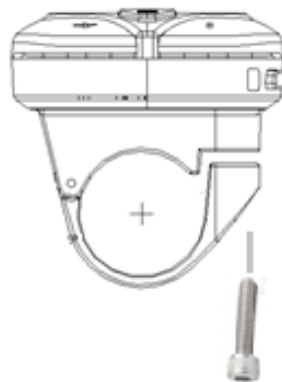
Bluetooth 4.0 connects the APP (Fore Rider) in your phone

RS232

Support 24V,36V,48V

## Installment guide

- 1、 Fix the instrument on the handlebar and adjust a appropriate angel.**
- 2、 Install the set screw from the bottom of instrument fixed on the handlebar. It is advised to install the screw manually.**



- 3、 Please insert the connectors of instrument and the connector of controller on the occasion of power off.**

## Definition of button

There are 4 buttons on the instrument, including the power/mode (M), up (+), down (-) and headlight switch (B).

## Routine operation

### turn on/ off

**ON:** press the button of M for a long while on the occasion of power off, and enter the password if any, then the instrument starts working, offering the power to controller and working well with controller after 3 seconds.

**OFF:** press the button of M for a long while on the occasion of on, you can turn off without wasting the power. At this time, the current is less than 1uA.

### Assisted Power Select

Press the button of + or - for a short while, you can change the output power of motor. The default power ranges from level 0 to level 5, 1 the lowest, 5 the highest. When the instrument is on, the default level is 1 just like the red box in picture below. You can set to 9 via APP in your phone.



1st gear



9th gear

## Power Assisted Walk

After holding the button of DOWN for 2 seconds, electric bicycle will come into the mode of power assist walk, keeping an even speed at 6 kilometers per hour. The gear position displays the speed per hour. Release the button to stop the mode immediately.



**Notes:**

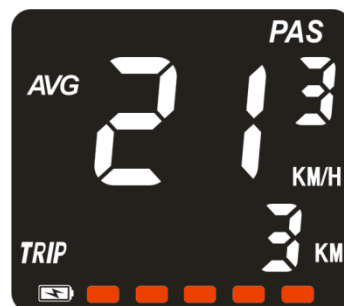
The function works out at the situation of pushing electric bicycles. Do not use it when riding.

## Turn on/off headlight

Press the key (B) on the side to turn on the headlight, press the key again to turn off it and the screen is dimmed.

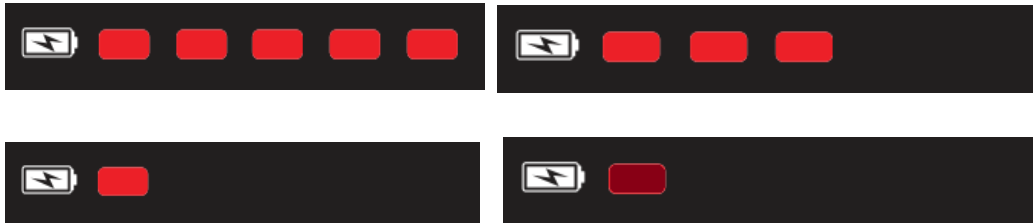
## Display of handover

The instrument will display the current speed and ODO on the occasion of normal work without breakdown. When pressing M, you can switch to AVG and TRIP, with the corresponding indicator light on.



## Capacity display

**When voltage is high, 5 battery segments will be alight; when only 1 battery segment is alight , it means low power and needs to be charged.**



## Error code display

**When something is wrong with the electric control system, the ERR light will be alight and speed position will show the error code with the details in APP.**

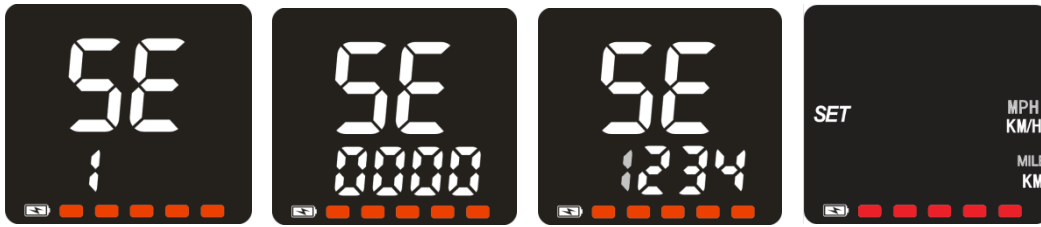


**Only when the fault is excluded can it exit the interface. If the fault happens, the bicycle cannot be ridden.**

## Parameter setting

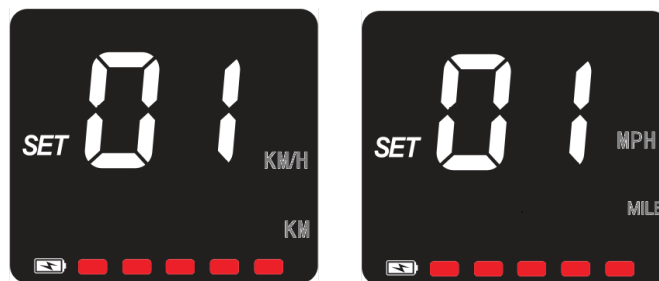
**In setting menu: You can do settings when pressing + and -, and entering the password 1234 on the occasion of power on and normal work of the parking instrument. (Please note that some types do not have password) You can set the number password by press + and - for a short while. You can set the next number password by pressing M for a short while. Do the same work till entering the correct password and coming into the**

interface of setting items, just like SE and number 1 in the picture below.

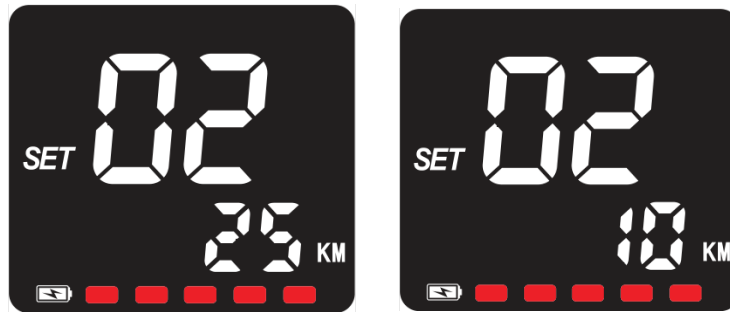


**EXIT Menu:** You can exit the setting menu by pressing M for a long while in any setting menu. Besides, you can exit the setting menu automatically by pressing M for a short while and switching all the setting items.

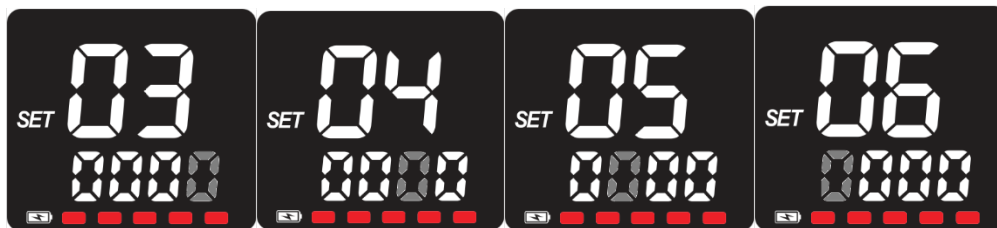
**SET1(unit setting):** When entering the setting menu, the default setting is SET1. You can switch the mile and kilometer by pressing +/-, with the switching of speed and trip at the same time and corresponding indicator light on. You can quit the interface by pressing M to set the next item for a short while or pressing M for a long while.



**SET2(speed limited):** When in SET2, the factory default limited speed of the instrument is 25km/h. The effective limited speed ranges from 10 km/h to 41 km/h by pressing +/- . It doesn't work if over the range. You can quit the interface by pressing M for a short while to set the next item or pressing M for a long while.



**SET3-6(password setting ):** There is no password when the instrument is out factory. If you want to change SET3-6 items, you need to enter password or connect APP. Only in that way can it work well. SET3-6 means the password of 1-9,10-99, 100-999,1000-9999. The corresponding number will flicker when you press +/- to set. The effective password ranges from 0001 to 9999.



**Just forget the password:** There is no password when the instrument is out factory. If the user has set password or forgot the password, please log in the APP and connects the instrument to unlock automatically.And then come into the menu to set the password as 0000, then you can cancel the password.





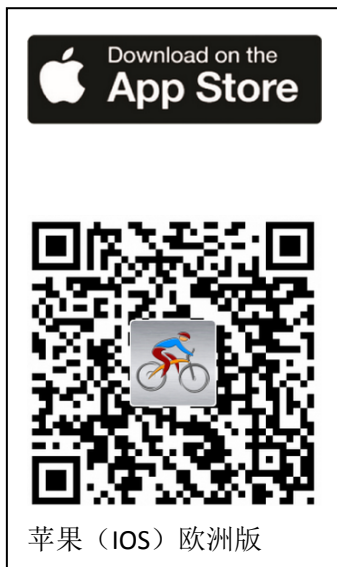
## APP Connection

LD808UB can connect with mobile phone through Bluetooth, and can work with Fore Rider APP of Lishui, and it can be fitted seamlessly with the controllers made by Nanjing Lishui Electronics Research Institute Co., Ltd.

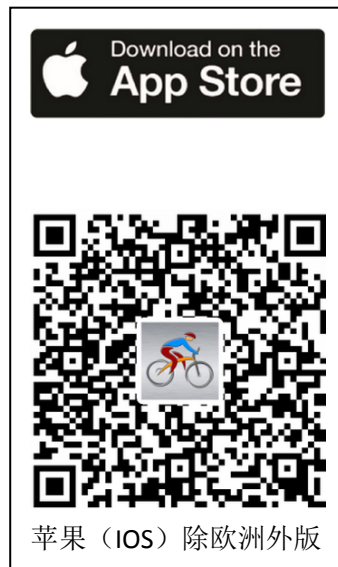
The user can install the corresponding Fore Rider application according to the style of mobile phone and the area of users.

The apple (IOS) system is divided into 2 versions, including European one and other regional ones.

Android version



The European version



The other regional version



Android version

3 UI interfaces of APP to select



crystal LED interface



Metal pointer interface



The pink interface

LD903GUB goes with bluetooth and the name and password of APP (Fore Rider)

When clicking the corresponding bluetooth equipment in the interface of searching bluetooth in the APP (Fore Rider) , you will enter the page of password as the picture below:



After connected successfully, the bluetooth light of LD903GUB will be alight for a long time.

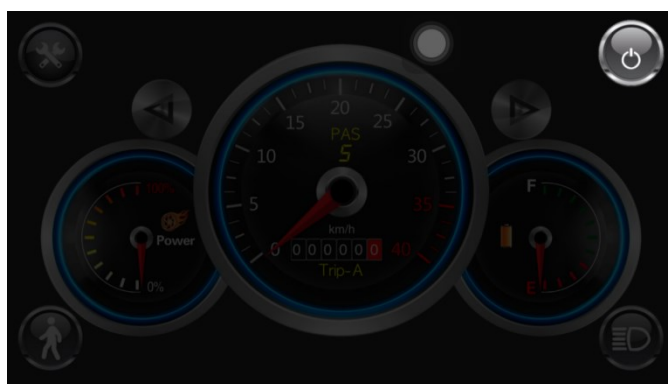


Glittering without connecting app                      alight for long time after connecting app successfully

The main interface display of APP (Fore Rider) with power off



LED interface



Metal pointer interface

If connected successfully, you will come into the Metal pointer interface, just like the picture below. If not pressing the power button on the top right corner, all the controller cannot be clicked.

When clicking power button, please first check whether the instrument is connected and works well. If yes, the note that please first turn off the instrument will pop up. If the instrument is off, the power light of APP can be alighted , otherwise, the light cannot be alight.

When the users touch the speed button(0-9), the current digital gear of LD903GUB will go accordingly. If holding the button of pushing for 6km for over 2seconds, you will enter the mode of pushing for 6km with the yellow man glittering and the e-bike will come into the situation of 6km/h. You can exit 6km if loosening the button.

When the users touch the headlight button, the headlight icon will turn red and the headlight is on. If touched again, the icon will return the colour before opening and the headlight is off.

The trip is showed at the middle and bottom of the speed dial plate. Once touched, the display will changed from Trip A Trip B to ODO. TripA and TripB can be set as 0 in the setting while ODO cannot.

APP Setting Interface (after connecting successfully)

Click the tool icon in the metal pointer interface or the LED crystal interface to enter the Settings page just like the picture below:



In the setting interface, they are in sequence:

Brightness Interface

Clear Single Mileage

bluetooth connection

E-bike setting

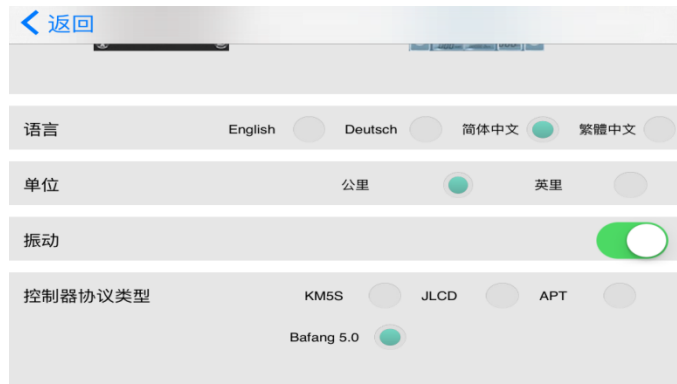
E-bike Malfunction Diagnosis

BMS information

program updating

Click on the corresponding cell and enter the corresponding Settings interface.

Brightness Interface



They are in sequence:

Screen brightness: cell phone brightness adjustment

Style: A choice of display interface style, (choose the metal pointer interface, then the back home page is the metal pointer interface; If enter the settings interface through the metal pointer page - > brightness and the interface, the radio button selects the metal pointer interface by default. The LED crystal interface Settings goes similarly) ;

KM5S, JLCD, APT, Bafang5.0

Controller protocol type: KM5S, JLCD, APT, Bafang5.0;

Note: LD808UB only supports the KM5S protocol, and other protocols need to be customized.

Language: four language selections, English, Deutsch, simplified Chinese and traditional Chinese;

Unit: km and mile (1mile=1.61km) ;

Vibration: The choice of whether the button (such as shift up, headlight, power assist walk) on the interface needs to be vibratory;

The options button of the interface style, controller protocol type, language and unit on the corresponding settings interface needs to be selected by pressing the corresponding icon or word.

Clear Single Mileage



When you click the “clear single mileage”, the user will get two options: Reset the Trip - A or Trip - B;

Trip - A or Trip - B means the distance from place A to place B only (Single mileage in two different locations and different time periods) ; You can set the number to zero when you set off from place A, and the number shown until you arrive to place B is the distance between them, both of them can set the reset timing and timing conditions respectively;

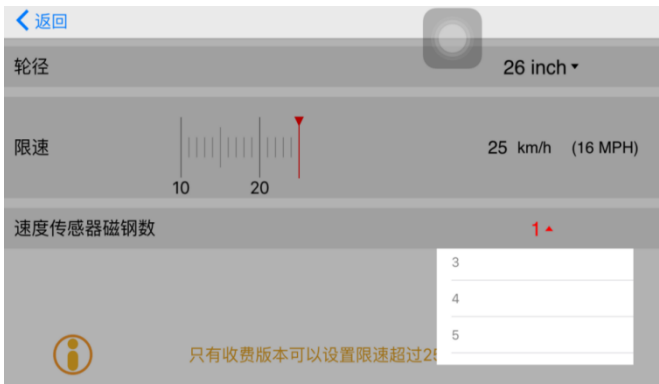
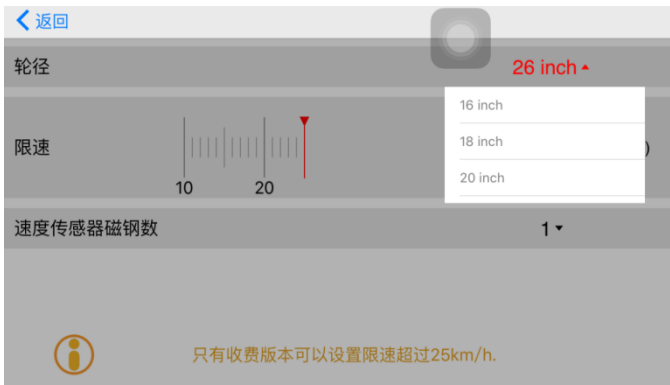
E-bike Settings Interface

Click the “e-bike settings” to enter the corresponding interface as below:



Speed Limit Setting

Click the “speed limit” to enter the corresponding interface as below:



you can go back to the last category

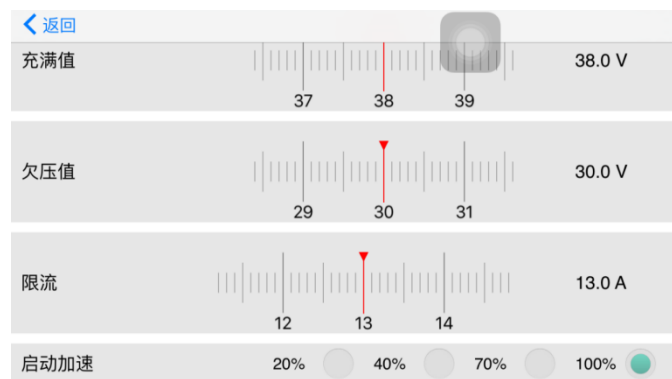
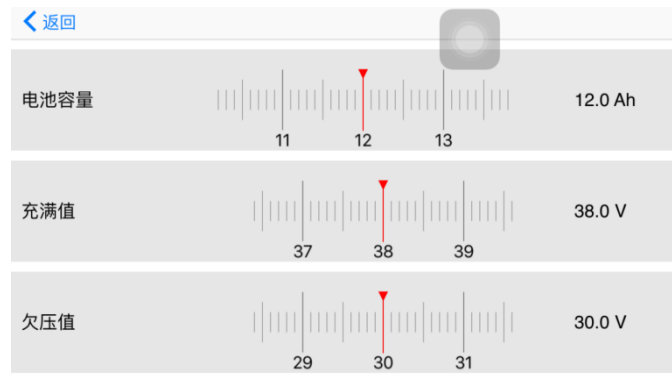
The wheel diameter can be selected through the drop-down box , you can choose 16inch,18inch,20inch,22inch,24inch,26inch,700cc,28inch, the default wheel diameter is 26inch. The current maximum speed limit is 25Km/h and the default speed limit is 25 Km/h, If you have set the unit : Mile, here shows the mile, but the data can be converted to km, You can slide the speed box to select a reasonable speed limit.

The default speed magnet number is 1, The user can select it according to the actual situation by

the drop-down box.

#### Current and Voltage Settings

Click the “current and voltage” to enter the corresponding interface as below:



The default of the battery capacity is 12Ah, users can select the battery capacity according to the actual demand, slide left or right to reduce or increase the capacity of the battery;

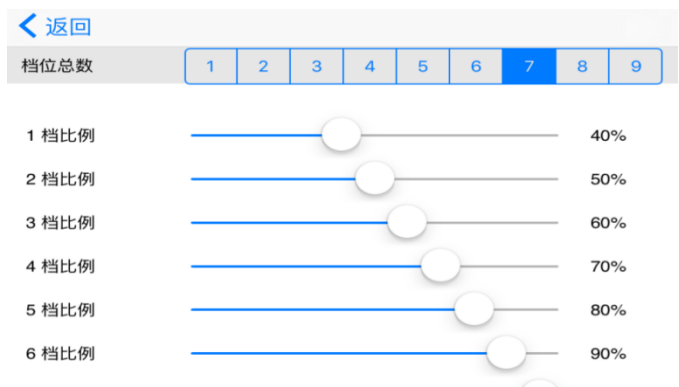
The default of the full voltage is 36V; the user can choose the battery capacity according to the actual demand, slide left or right to reduce or increase the full voltage v( \*LD808UB does not support);

The default of the low voltage is 31V; the user can choose the battery capacity according to the actual demand, slide left or right to reduce or increase the low voltage, but low voltage must be less than the full voltage;

Limited current, means the maximum discharge current of the battery, its default is 12A, the user can select the maximum discharge current of the battery according to the actual demand, slide left or right to reduce or increase the current limit;

The default of acceleration is 100%, the user can choose the acceleration value according to actual demand, slide left or right to reduce or increase the acceleration value;(Bafang protocol does not support)

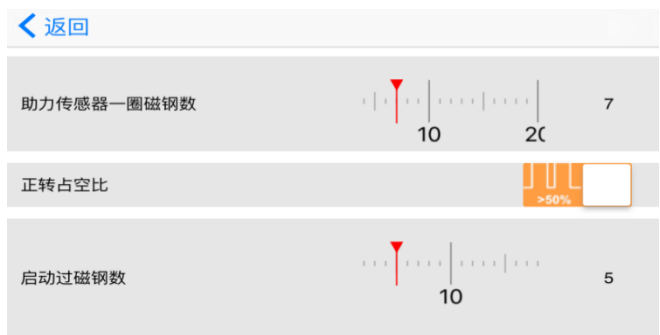
The total number of assisted power setting ( Bafang protocol does not support the power ratio)



The total number of assisted power is 5 by default, the user can choose it according to actual demand, the below shows the corresponding assisted power percentage. Slide up or down to check all the percentage values of the assisted power. The latter percentage must be greater than or equal to the previous one. The total number should be adjusted to the default value of each assisted power.

1 <sup>st</sup>	100%								
Second	50 %	100%							
Third	40%	70%	100%						
4 <sup>th</sup>	40%	60%	80%	100%					
5 <sup>th</sup>	40%	55%	70%	85%	100%				
6 <sup>th</sup>	40%	52%	64%	76%	88%	100%			
7 <sup>th</sup>	40%	50%	60%	70%	80%	90%	100%		
8 <sup>th</sup>	40%	48%	57%	65%	74%	82%	91%	100%	
9 <sup>th</sup>	40%	48%	55 %	63%	70%	78%	85%	93%	100%

PAS setting interface (Bafang protocol does not support)



PAS, magnet per circle means pluses per circle, the default is 12;

Forward pulse duty cycle, choose >50%, the wheel will get the assisted power when it inverts; choose <50%, the wheel will get the assisted power when it forwards; Slide the Forward pulse duty cycle button to choose.

The default of start after magnet number is 2, the user can set it according to actual demand.

Throttle setting interface (Bafang protocol does not support)





Open the [6 km/h speed limit for the throttle] function, then in the process of driving, no matter what level by the throttle do you select, the speed will be limited less than 6 km/h.

Open the [throttle level select] function, the corresponding speed and power will change accordingly when adjusting the level in metal pointer or crystal LED page. On the contrary, it won't change.

#### E-bike Malfunction Diagnosis



By testing the brake, controller, and other components, to ensure that the problem can be detected in advance, and not affect the normal use of e-bike

### Refund and resetting of password

**Refund and resetting of password: if users just forget their password, they can refund or reset their password via offered APP.**

**Appealing of password: if users lost and cannot find their password via APP, they can appeal to the manufacturer to refund their password based on their invoice. Please contact the manufacturer if any.**

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## **Quality Warranty**

### **一、warranty coverage:**

**1、When the malfunction is caused by the quality of the product itself under regular use condition, our company will be responsible for it under guarantee.**

**2、24 months from the delivery time of the display out of the factory.**

### **二、The following conditions are not covered by the warranty.**

**1、The shell is open.**

**2、The connectors are broken.**

**3、The shell is scratched or damaged after out of factory.**

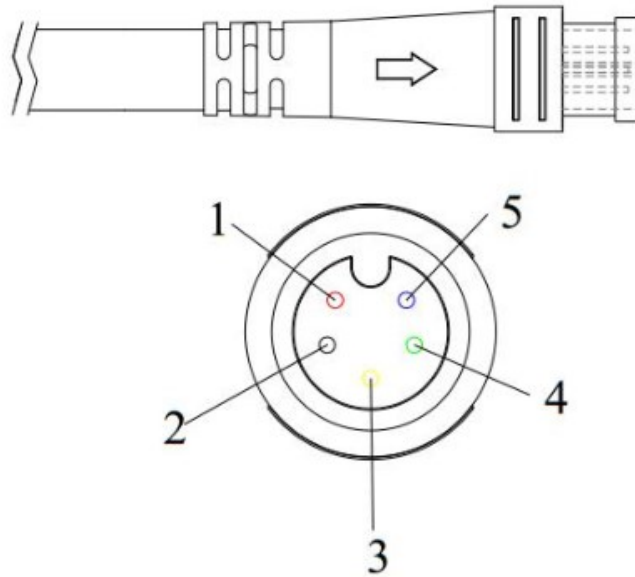
**4、The lead wires from the display are scratched or broken.**

**5、Damages are caused by irresistible (e.g. fire, earthquake, etc) or natural disasters (such as lightning, etc.);**

**6、The product exceeds the warranty period.**

## Wiring Diagram

The display is matched with 5-waterproof wire and the wire definitions are as below.



number	colour	function
<b>1</b>	<b>red(VCC)</b>	Power B+
<b>2</b>	<b>black(GND)</b>	Power B-
<b>3</b>	<b>yellow(TX)</b>	Gorge line: sending message
<b>4</b>	<b>green(RX)</b>	Gorge line: receiving message
<b>5</b>	<b>blue(K)</b>	Electric door look offer weak power to other equipment

**Note:** Users cannot see the color of the internal wiring because of the water proof connector.