

LD606G TFT Color LCD meter Manual

V1.2

2021/7/31

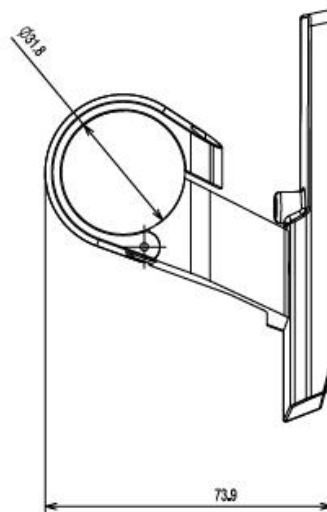
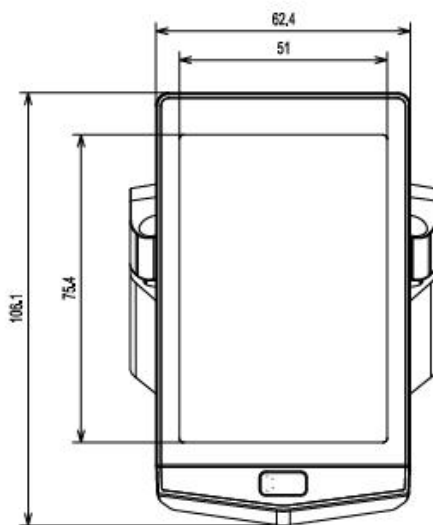
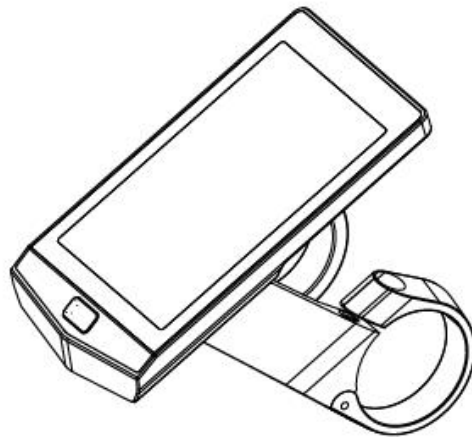
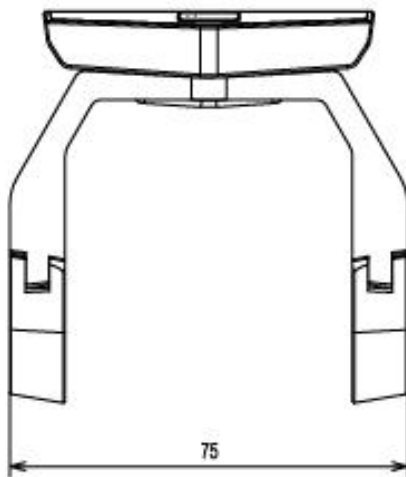


The meter - LD606G adopts ultra-thin fashion unique design, simple and beautiful. True color highlight TFT screen 360 wide angle sunlight visible high-end quality. It is flexible in night mode, screen brightness adjustable, screen automatically prevent flying, so riding safe. Floating style interface is very unique, can set multiple display interface style.

About our Manua

Please read the manual of LD606G meter before taking a ride for a better performance.

Size

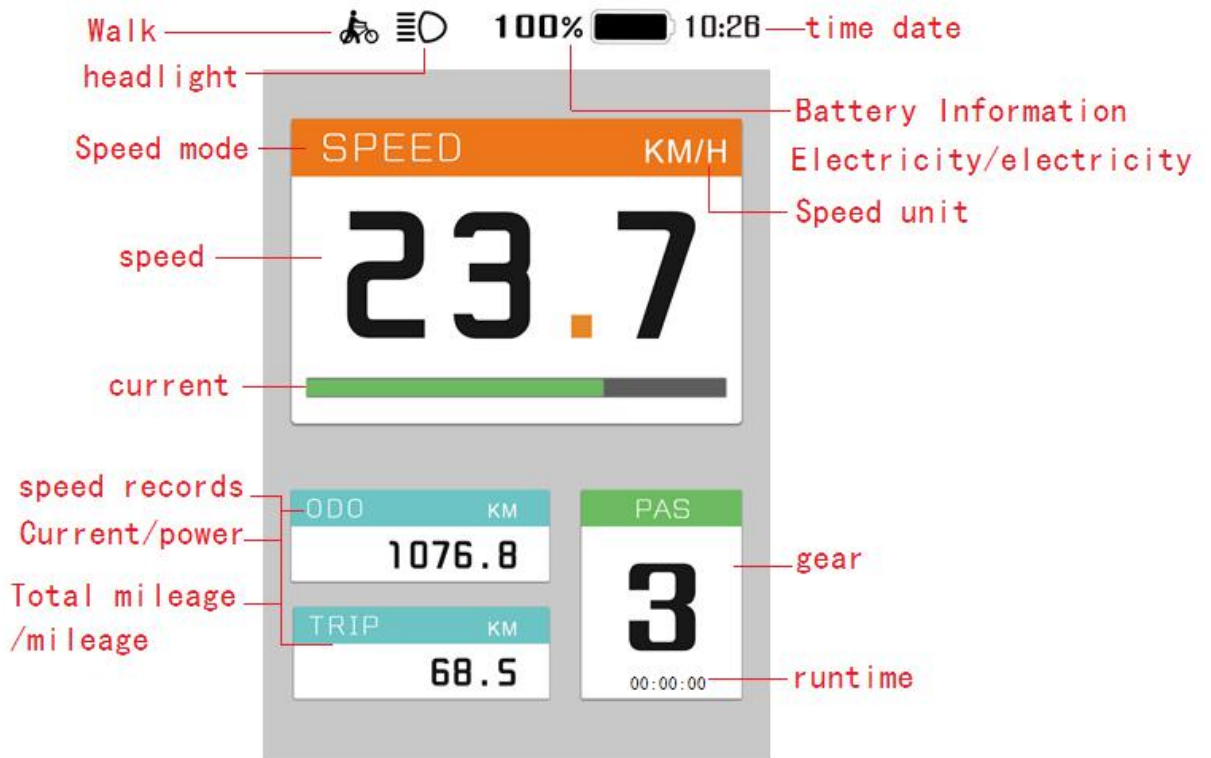


Instruction to display interface

Interface 1



Interface 2



Model and parameter

LD606G

Percentage showing battery power. Adjustable display voltage/electricity

5 assisted power display

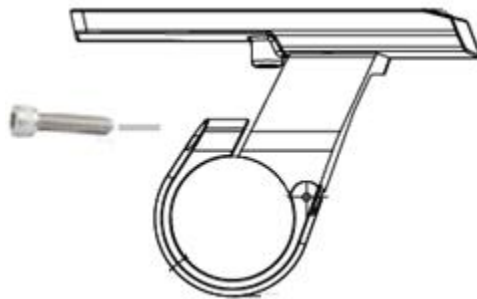
RS232

24 v、 36v、 48v、 60v operating voltage adjustable

Bluetooth (optional LD606GB)

Installment guide

- 1. Fix the meter to the handlebar and adjust the appropriate angle of view.**
- 2. Install the meter fixed to the handlebar from the bottom into the matching screw. (Manual screw is recommended)**



- 3. The case of electric bicycle power failure, the meter connector and the controller corresponding connector can be installed.**

LD606G operating instructions

Definition of button

There are 4 buttons on the meter, including the power/mode (M), up(+), down(-), home key on Meter panel (H).



turn on/ off

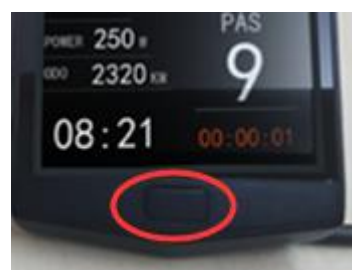
ON: press the button of H(Home) for a long while on the occasion of power off, and enter the password if any, then the meter starts working, offering the power to controller and working well with controller after 3 seconds.

If the long press h key is not turned on, loosen it and try again after 10 seconds.

OFF: press the button of H(Home) 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 0.1mA.

Waiting screen: Short press home key screen standby, press any key again to wake up.

When the screen automatically turns off the output to prevent accidental flying E-bicycle. Automatically switch normal operation after bright screen.



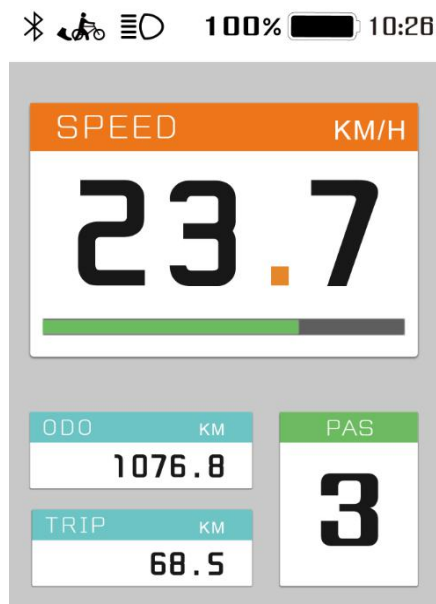
The rest screen does not affect the continued output of the ride, and automatically turns off the output when stopping. Automatically switch normal operation after bright screen.



Change interface : At the main interface, double-click the M key to switch interface 2. Double-click the M key again to switch to interface 1.



interface 1



interface 2

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 9, 1 the lowest, 9 the highest.

Set the adjustable total gear in the interface.



Power Assisted Walk

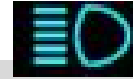
After holding the button of “down” for 2 seconds, electric bicycle will come into the mode of power assist walk, keeping an even speed at 6 kilometers per hour. The gear position displays the speed per hour. Release the button to stop the mode immediately.



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

Turn on/off headlight

Press the **up(+)** button to turn on the head, press the key again to turn off it and the screen is dimmed.



Display of handover

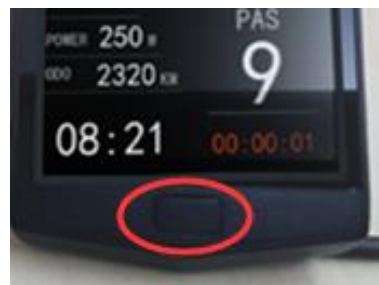
The meter will display the current speed and ODO on the occasion of normal work without breakdown. When pressing **M**, you can switch to **AVG** and **TRIP**, with the corresponding indicator light on.



The default display content can be adjusted in the settings.

Enter the Settings menu: At the normal state of boot, the main interface long press the **M** key to enter the setting.

EXIT the Settings menu: Under the settings interface, click the **HOME** key to exit the settings menu, or press the **M** key to exit the settings menu.



Capacity display

When voltage is high, 100 battery segments will be alight; when only 5 battery segment is alight, it means low power and needs to be charged.



Adjustable display of voltage value/percentage/not shown in setup interface

Time display

The meter shows off-line time, because the clock is off-line date, there will be deviation after long-term use, it is recommended that the user manually adjust the time every 3 months.

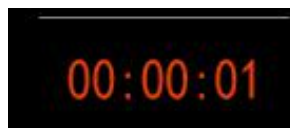
When the battery undervoltage is completely out of output, the meter will enable the internal backup battery to maintain the operation for a short period of time. Please charge the electric vehicle in time within a week. Otherwise, the backup battery will be used up and the date will be reset.



08:21

Runtime

The meter displays the current boot time and will clear 0 after entering the setup interface.



00:00:01

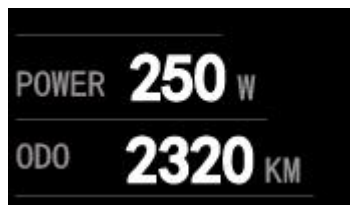
mileage, power display

The meter displays the current output current or output power, and one of them can be displayed by default in the setting interface.

The meter displays the current cycling mileage TRIP or the total mileage of the factory ODO, which can be displayed by

default in the setting interface.

Switching Display: At the main interface, press the M key to temporarily switch to display another item. Automatically return the default display state after 3 seconds without operation.



Dynamic Power Indicator

The current output progress bar of the current electric vehicle is displayed in the middle of the meter screen. When the electric vehicle starts, the electric energy fast output current bar increases obviously, when the output power decreases, the current bar decreases.



The user can master the riding mode according to the dynamic change of the current bar, and the small current can prolong the maximum riding mileage.

Biking Dynamic Display

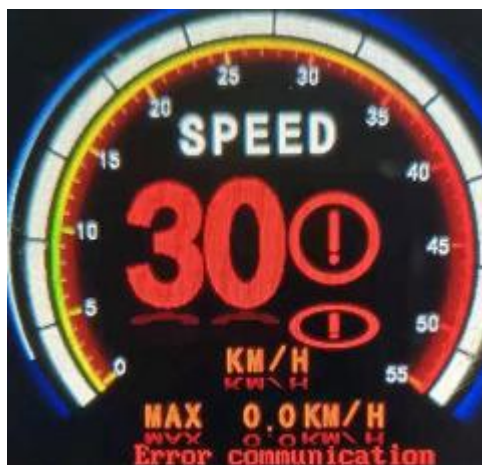
The dynamic change of riding is displayed around the speed of the dashboard. When the speed changes quickly and the comprehensive score of the output power and efficiency conversion is high, the dashboard circle shows the dynamic change. The faster the speed, the higher the sports comprehensive score.



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.



Fault code list and meaning:

Failure/state table
01 err currents fault
02 err undervoltage fault
03 err Overrun fault
04 err Blocking protection
05 err Driving mos Pipe Bridge Failure
06 err Driving mos Pipe Down Bridge Fault
07 err Hall fault
08 err Overtemperature inside controller
09 err Throttle failure (Meter decision display)
10 err Brake failure (Meter decision display)
12 err Communications fault (Meter testing)
50 Enter the brake (Meter decision display)
52 Enter cruise (Meter decision display)
53 Entry into force (Meter decision display)
21 err Currents anomalies
22 err Throttle failure
23 err Motor missing phase
24 err Hall fault
25 err Brake anomaly
26: Battery undervoltage, please charge
30 err: Communications fault

The Settings menu

The Settings interface for some meter models may be slightly different, but the specific Settings items are the same. Because some electric manufacturers do not open the setting content, so the following setting content is not open for all models of meters. Some Settings may be removed for security reasons.

Enter the Settings menu: In the startup state and the parking meter works normally, long press the M key to enter the setting menu. As shown below, users can choose system Settings/General Settings/product information/battery management.



If no operation is performed for 10 seconds in the Settings screen, the Settings will be automatically logged out.

System Parameter Setting

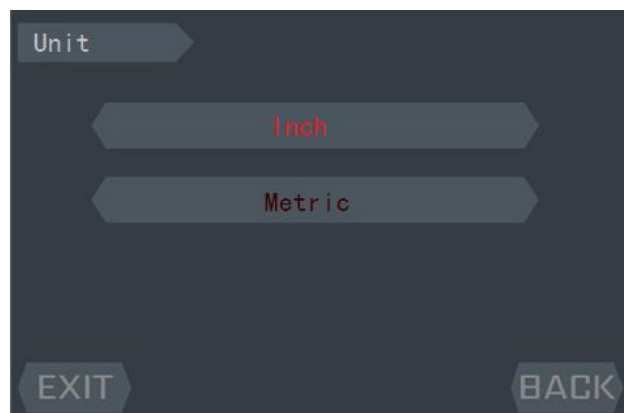
Press the +/- key to select the "System" option, and click the M key to enter the System parameter setting. Press the +/- key to select the selection to be set, and press the M key to select.



Unit Setting: Press the +/- button to switch between mile and kilometer, speed and mileage simultaneously.

The corresponding unit indicator is highlighted.

Press M to complete the setting.

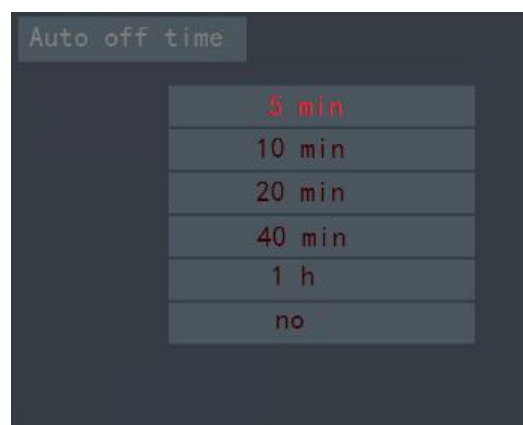


Backlit Settings: Press the +/- button to adjust the backlight brightness. The backlight brightness will change from time to time, which is only effective for the daytime mode. When the headlight is turned on, the brightness will automatically

be 5% for the night mode to prevent the screen from being too bright to affect the riding safety. Press M to complete the setting.



Automatic shutdown time setting: Press the +/- key to select the automatic shutdown time. When the electric E-bicycle is in the parking state and there is no operation button or Bluetooth APP operation, it will automatically shut down after a period of time to prevent the user from forgetting to turn off the E-bicycle. If you select No, the automatic shutdown function is unavailable. Press M to complete the setting.



When the E-bicycle with Bluetooth is equipped with the lock function, the E-bicycle will be automatically locked after the lock function is opened. When the E-bicycle is locked, the meter and controller will be in the state of power failure. When the E-bicycle is manually started, the E-bicycle will be locked. Unlock the E-bicycle after bluetooth on Bluetooth. If there is no lock E-bicycle function of the model, after the automatic shutdown is no lock state.

Power display Settings: Press the +/- key to select the power display mode. Press M to complete the setting.

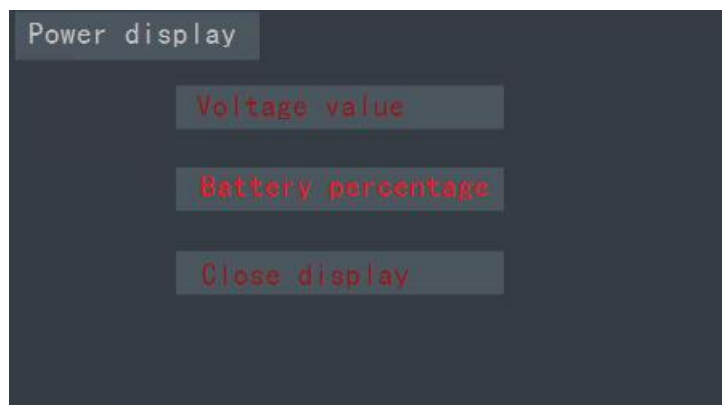
Voltage mode: Displays the current battery voltage.



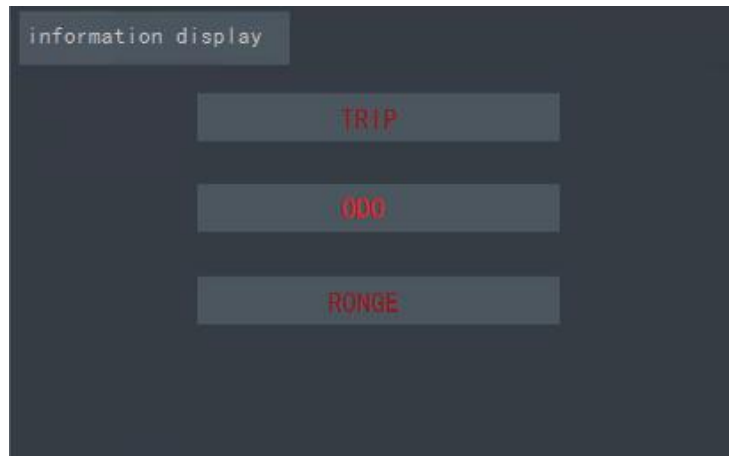
Percentage mode: Displays the percentage of the battery from undervoltage to full voltage.



None: The power reference mode is not displayed.



Cycling information display Settings: Press the +/- key to select the cycling display mode. The default display mode on the main interface is ODO, which is the total cycling mileage of the factory electric vehicle (the data will be lost after the setting is restored to the factory), and TRIP, which is the single cycling mileage. Press the M key to complete the setting.

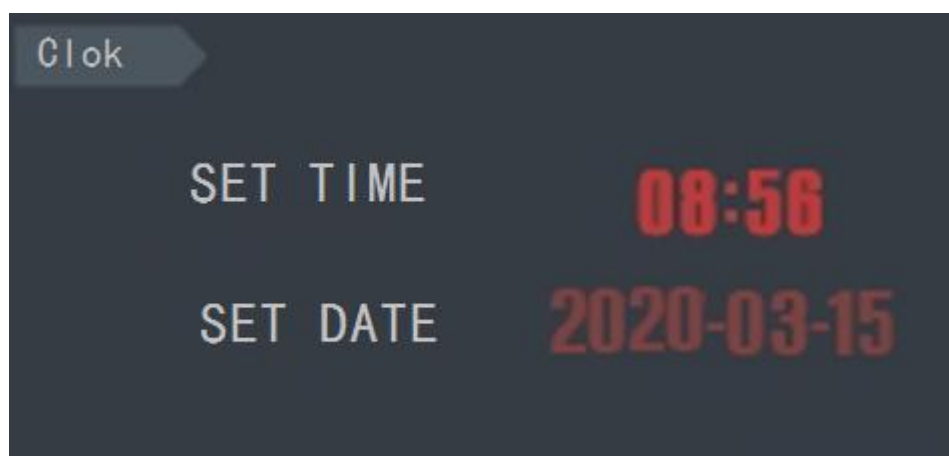


Some models do not support this parameter. If the ODO mode is fixed, you can click M on the home screen to view the TRIP value. After 5 seconds, the TRIP value is automatically returned to the default value.

Time setting: Press the +/- key to select the bit of time to be set, and press the M key to set the bit. Press the +/- key to adjust the time and date. After the adjustment, press the M key to confirm that this value is set completely.

Repeat the preceding steps to set the time and date values for the other bits. When the value is not on the correct date, the meter judgment cannot be adjusted. For example, if the date is set to day 32, the value of "3" in the tens place cannot be set to "3". You need to set the value of "3" in the ones place to "1" or "0" before adjusting the value of "3".

After setting the time, hold down the M key to exit the setting. We suggest that after setting the time, please shut down and restart. Prevents confusion over the run time, which is timed against the RTC time.



Since RTC time is the internal timing time of the meter, the accuracy is not high. We suggest users to manually calibrate once every three months. RTC time is powered by the internal capacitor of the meter, so the user does not use it for a long time when using a new

E-bicycle or electric vehicle after undervoltage, it may reset due to the lack of internal capacitor power, please manually adjust the time after starting up.

The inaccurate RTC time will not affect the function and safety performance of the electric vehicle. Therefore, we do not guarantee for the inaccurate RTC time.

Boot password setting: **Some meters do not have passwords and do not support password setting.** Press the +/- key to select the number of digits to be set. Press the M key to set the number of digits. Press the +/- key to adjust the value. After the adjustment, press the M key to confirm that this value is set completely. Repeat the previous steps to set the other bits.

The default startup password of the meter is "1001", and it is off. The password set by the user cannot be 1001. Otherwise, the system considers that there is no startup password.

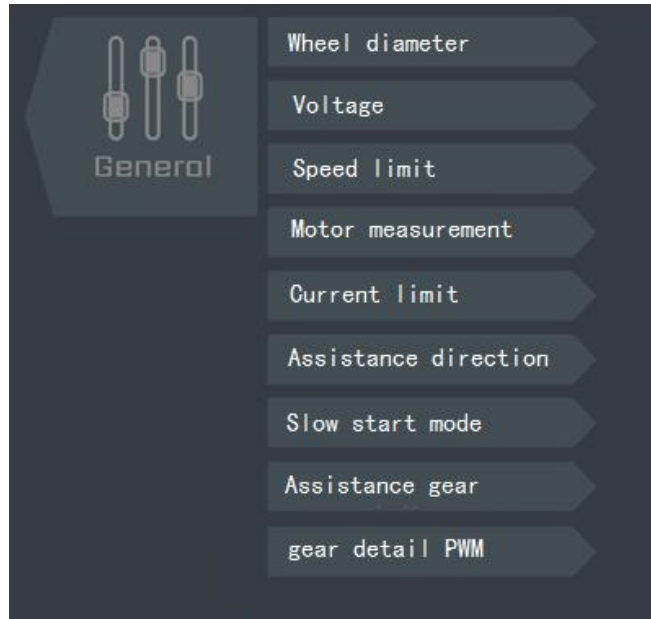
After startup, the main interface will run directly.



Electric vehicle parameter setting

Press the +/- key to select the "General" option, and click the M key to enter the ev parameter setting. Press the +/-

key to select the selection to be set, and press the M key to enter the selection.



Do not modify this option for non-professionals.

After modification, the cycling function will be affected.

If you modify the Settings by mistake, go to the product options and set factory data restoration. Meters will return to factory data.

If the meter firmware is upgraded, please go to the product options to set factory data recovery before using.

Wheel diameter setting: Press the +/- key to select. To set the tire value, press the M key to confirm. Sets the tire diameter of the wheel with the motor on the electric vehicle.

For example, a E-bicycle with a 20-inch hub and a 26-inch tire diameter should be set to a 26-inch value.



Meter supports small tire diameter setting, when the setting is less than 16 inches, the meter automatically switches to THE ES protocol. The range of tire diameters can be set (in inches) :6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30. Contact us if you have a special size, the ES protocol supports any tire up to 30 inches. Select only the following tires (in inches) for some meters :16, 18, 20, 22, 24, 26, 700C and 28. 5S protocol is used by default.

The speed limit is set: Press the +/- key to select to set the speed limit value, press the M key to confirm. Speed limit range: 0 km /H to 70KM/H some meters support only 10 km /H to 41KM/H speed limit setting.



Speed measuring magnetic steel setting: Press the +/- key to select to set the number of magnetic steel for velocity measurement, press the M key to confirm. The value ranges from 1 to 7. The number of speed magnetic steel should be selected in accordance with the electric vehicle. If the external hall magnetic steel of the motor is used, 1 or 6 are generally selected. Select 7 (ES protocol) when using internal hall speed measurement.



Current limit set: Press the +/- key to select. To set the current, press the M key to confirm. The value ranges from 3 to 31A.

The current value should be set in line with the controller, setting too much will affect the battery and controller, and even burn the controller and affect the battery life and the range of the electric vehicle, this non-professional guidance do not operate. In case of misoperation, go to the product Settings page to restore factory data.



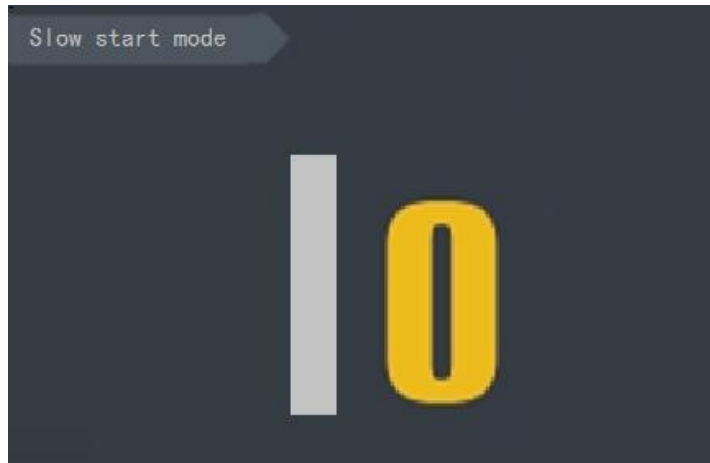
Power assist direction setting: Press the +/- key to select to set the direction of the power sensor, press the M key to confirm. Assist direction is related to vehicle type. After setting, it may lead to no power output, or stepping back with power output. When the user replaces other power sensor by himself, the direction can be adjusted through this setting when the direction is opposite to the original E-bicycle.

In case of misoperation, go to the product Settings page to restore factory data.



Soft start Settings: Press +/- to set the soft start mode, press M to confirm. Default is 0 mode:

0 is the strongest, 1 is soft start, and 2 is very slow start.



Master gear setting: Press the +/- key to select. To set the total gear position, press the M key to confirm. The maximum is 9 and the minimum is 1.

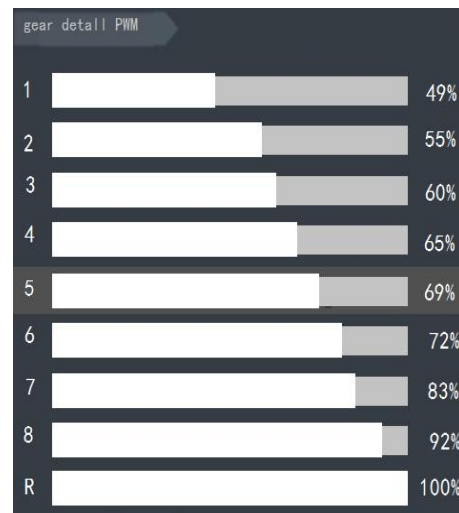
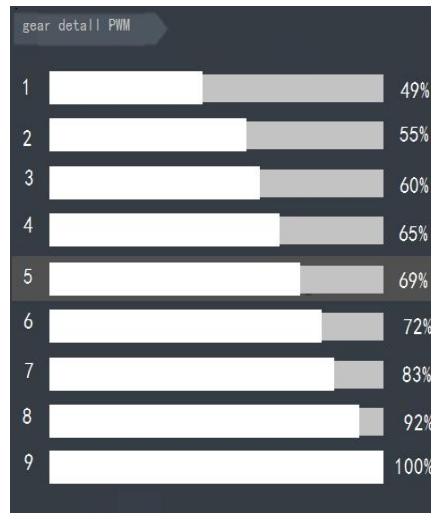
Some models support a maximum total of 8 gears in reverse.



Gear PWM setting: Press the +/- key to select the gear to be set, and press the M key to select the gear to be set. Press the +/- key to adjust the PWM value. The minimum value is 0, and the maximum value is 100%. The CORRESPONDING PWM value from 0 to 100 is 0 to 255.

Press the M key to determine the adjustment value. Hold down the M key to exit the PWM setting.

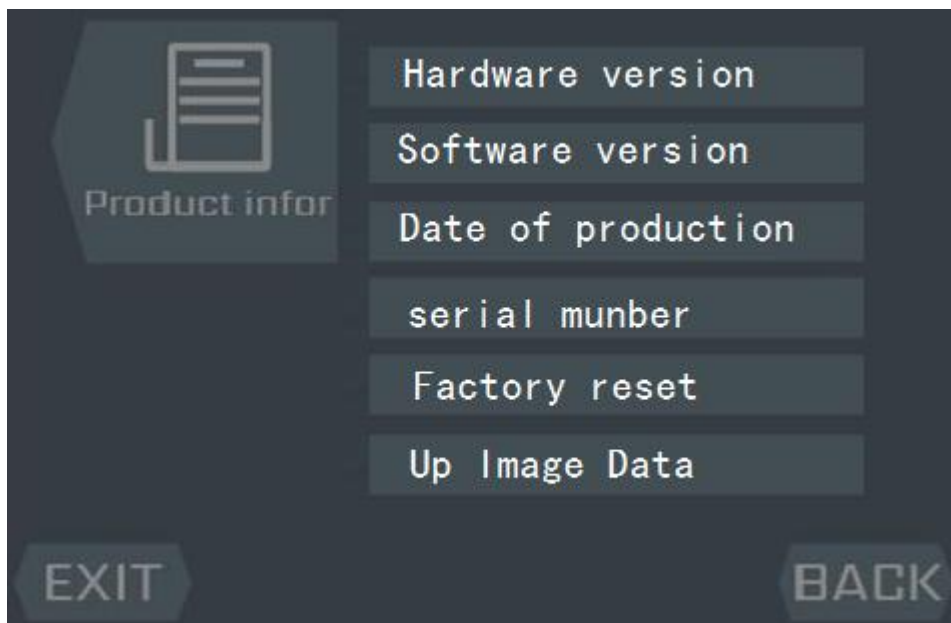
When there is reverse gear, display the PWM value of R in reverse gear.



Product Information

Press the +/- key to select the "Product infor" option and click the M key to enter the Product information setting.

Press the +/- key to select the selection you want to operate, and press the M key to enter the selection.

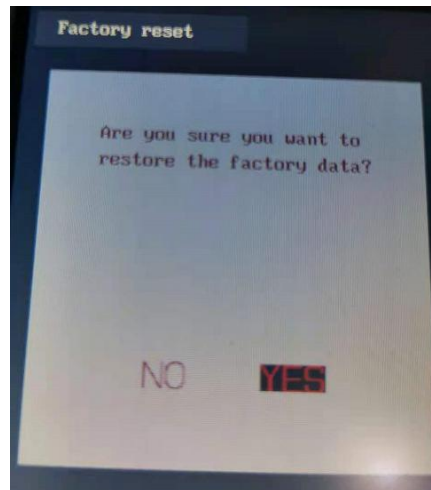


Product information Each item corresponds to the following information: version number, factory date, etc.

Restore factory Settings: Press the +/- key to restore factory Settings, and press the M key to select OK. A pop-up window will appear on the screen. Press the +/- key to select OK or cancel factory restoration, and press the M key to select OK.

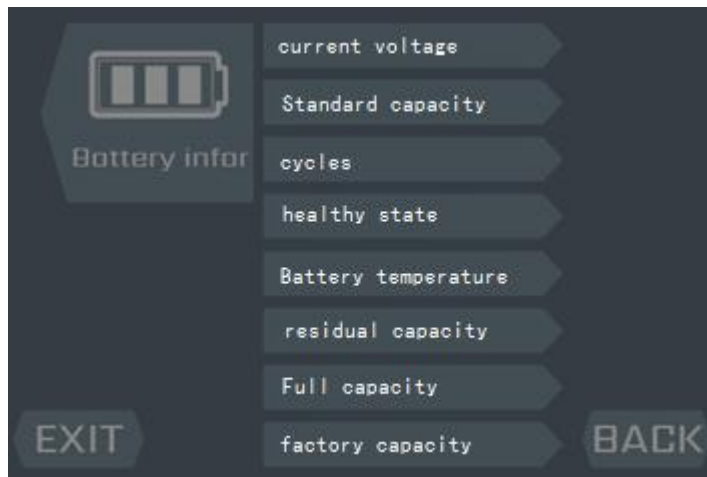
The meter will automatically shut down after factory restoration. Restore factory Settings successfully, press the power button to start.

After factory restoration, all data of the meter is restored to factory value, except RTC continues to run.



The battery information

Press +/- to select Battery Infor, and click M to go to the Battery information screen. Press the +/- key to select the selection you want to operate, and press the M key to enter the selection. **Only some models with BMS can support viewing battery information.**



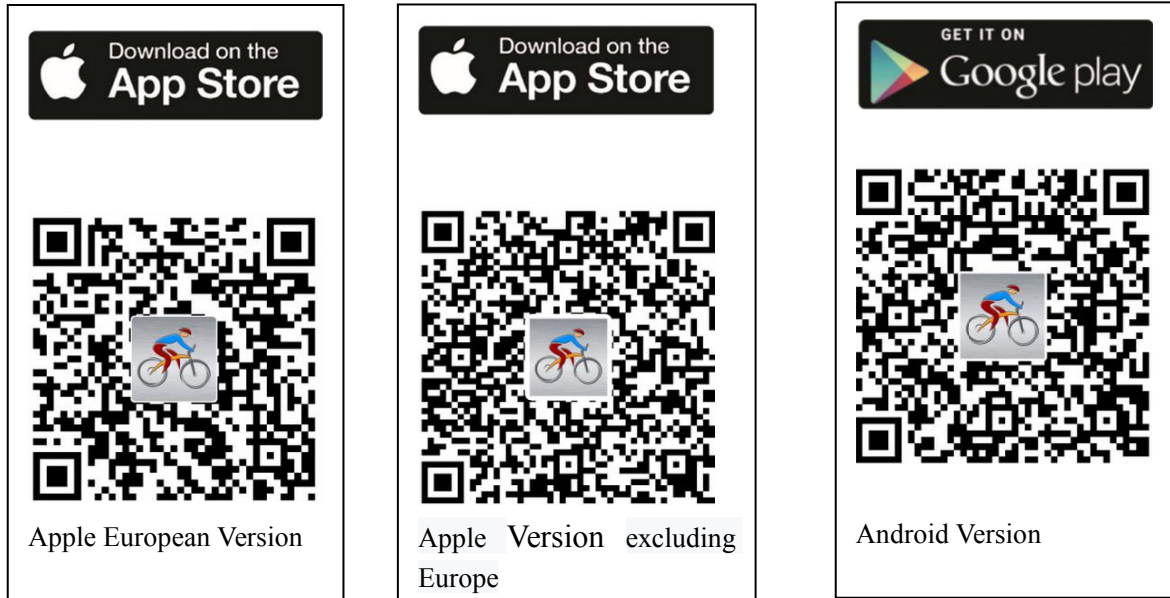
APP Connection

LD606GB uses Bluetooth to connect with mobile phone APP (Entity Rider), which seamlessly adapts to the series controllers of Nanjing Lishui Electronics Research Institute.

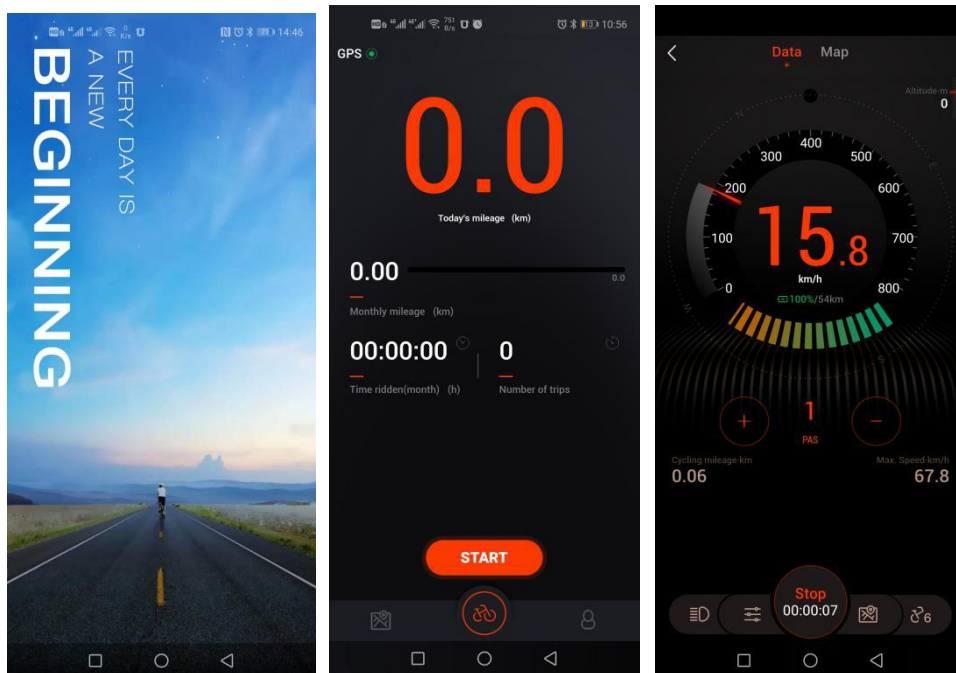
Users can choose to install the corresponding Entity Rider application version according to the mobile phone and different areas of use.

The Apple (IOS) system is divided into European and other regional versions.

Android System Version



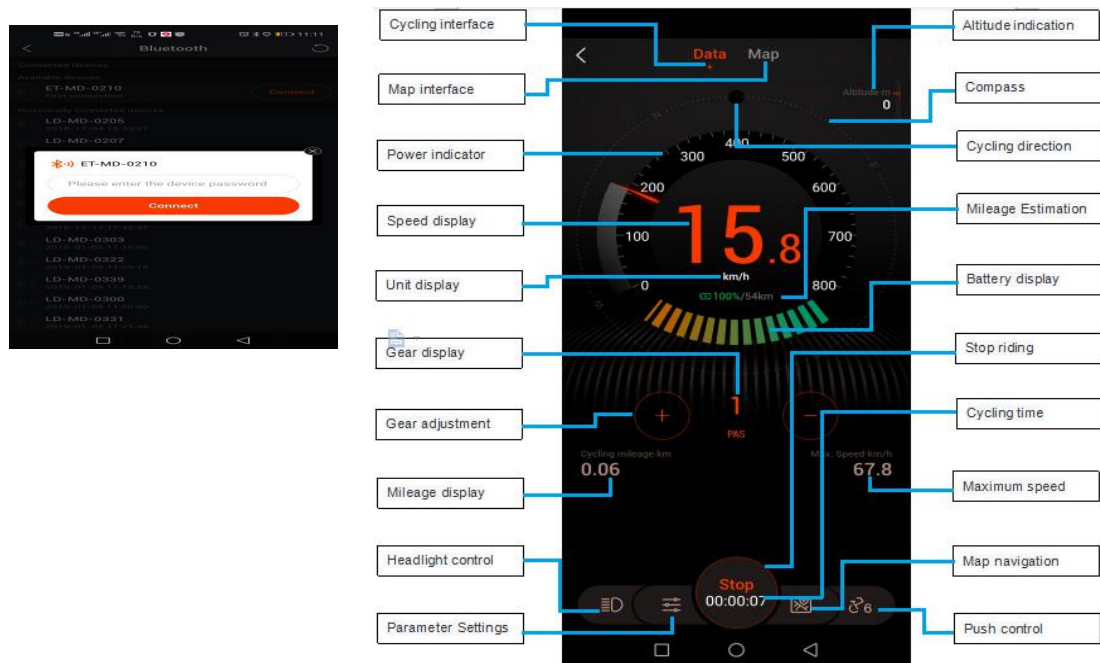
The startup interface, offline interface and main interface of APP are as follows:



Connection and Control

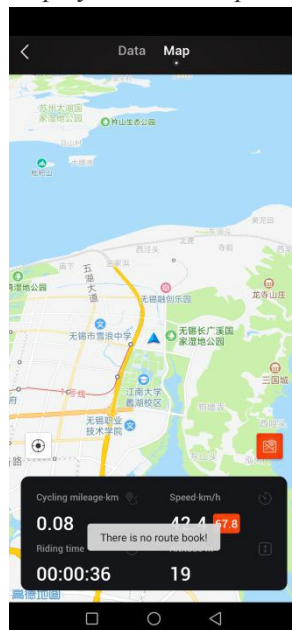
LD606GB meter comes with bluetooth and Entity Rider login device name and password,It is suggested that users apply for an account to log in the APP and then use password to connect the meter with APP.

Click the corresponding bluetooth device in "bluetooth search interface" in APP (Entity Rider) to enter the password input page, as shown in the picture:



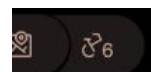
The bluetooth light on the LD606GB meter interface is long on. If the connection is unsuccessful, please make sure that APP opens Bluetooth and exits to reopen APP.

Map interface: click the map button, and cycling speed, path, mileage, cycling time, altitude and other information will be displayed on the map interface.



Gear control: when the user adds or subtracted (0~5), the current digital gear of LD606G meter changes digitally synchronously.

Push control: the user holds down the 6km push button for more than 2 seconds and enters the 6km push mode. The push icon is bright, Release your finger to exit push mode.

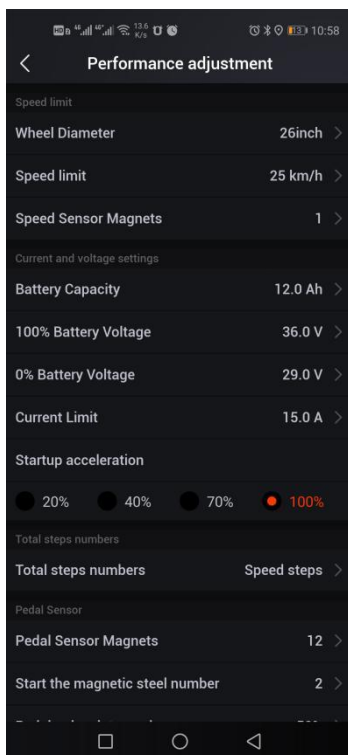


Headlight control: the user touches the headlight button, the headlight turns to red icon, and the headlight turns on. Touch the headlight button again, the headlight icon is restored to its previous color, and the headlight is off.



Setting interface (invalid setting of fixed vehicle type, used for display parameters)

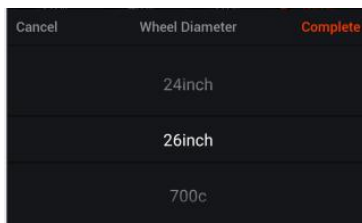
Press the setting button icon to enter the setting page. The contents in the setting are only open to electric vehicle manufacturers, and the user setting is invalid. If user setting is needed, please contact the manufacturer to obtain the Open version of the meter.



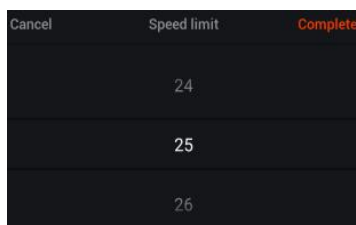
Setting Interface, The cells are, in order:

Wheel diameter display: modified model wheel diameter size is 16 18 20 22 24 26

700C 28 inches



Speed limit display: speed limit value is 10~41KM



Speed sensor: default 1, no modification is recommended.

Battery capacity: the total capacity of the battery, used to estimate the remaining mileage and other functions.

Battery full voltage value: the voltage after the battery is fully charged.

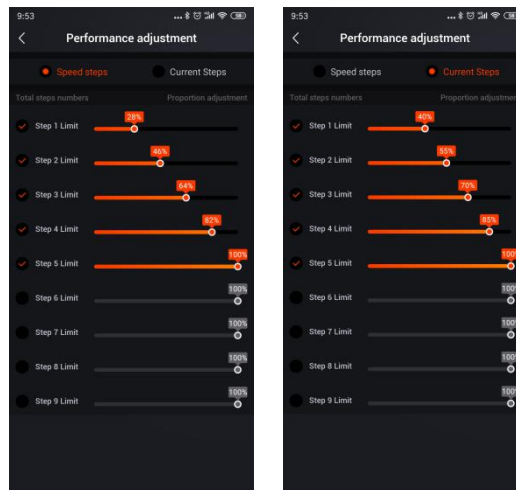
Battery undervoltage value: battery undervoltage voltage.

Current limiting value: the current limiting value of the controller which is recommended not to exceed the standard value of the controller. The default value is 15A.

Acceleration intensity: starting intensity.

Total gear: Total gear control, default 5, maximum 9. The speed gear is selected as the speed control classification, and the current gear is selected as the current control classification.

Select the effective gear sliding scale bar to modify the parameters.



The total number of boost gears, default 5, users choose the total number of gears through actual needs, the following shows the corresponding percentage of gears, The user swipes up and down to see all the gear percentage values. The percentage of the latter must be greater than or equal to the former.

The total number of gears	The default values of each gear									
	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10
One gear	100%									
Two gears	50 %	100%								
Three gears	40%	70%	100%							
Four gears	40%	60%	80%	100%						
Five gears	40%	55%	70%	85%	100%					
Six gears	40%	52%	64%	76%	88%	100%				
Seven gears	40%	50%	60%	70%	80%	90%	100%			
Eight gears	40%	48%	57%	65%	74%	82%	91%	100%		
Nine gears	40%	48%	55 %	63%	70%	78%	85%	93%	100%	

assistanceSensor specification: default 12 magnetic steel.

Start magnet number: default 2 magnets, modify variable assist delay angle.

Positive duty cycle: Default < 50% is positive, and > 50 is reverse power.

Turn 6KM/H speed limit: it is not turned on by default. When turned on, turn to 6KM/H speed limit, indicating that in the driving process, no matter how many gears are turned, the speed will only be limited within 6KM/H. This function does not affect power assist

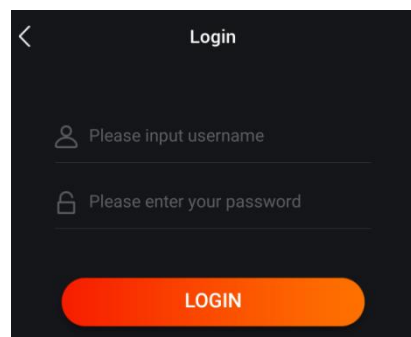
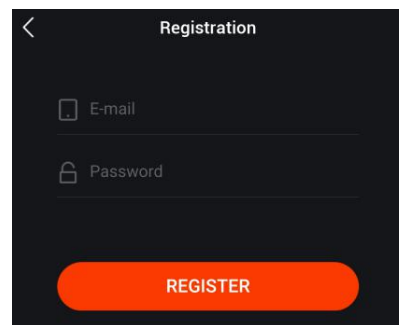
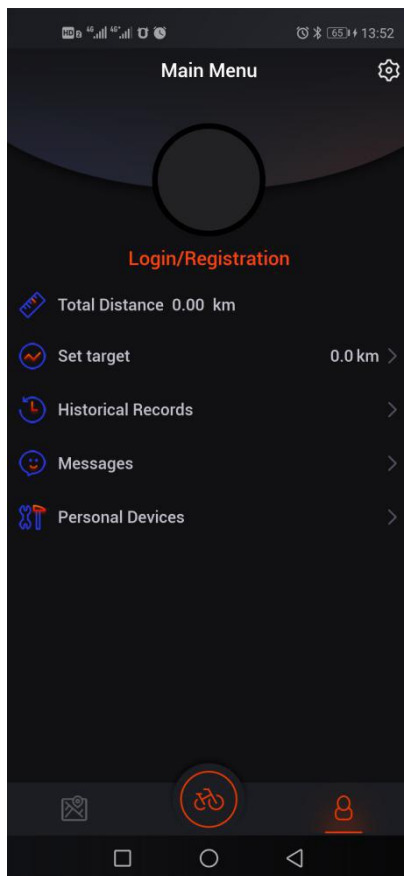
Shift gears: by default, the shift gears are not shifted. After opening, the shift gears will be the same as the power gear

Controller protocol: default is KM5S, it is recommended not to modify, otherwise the meter will not be connected.

Refund and resetting of password

Refund and resetting of password: if users just forget their password, they can refind 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 refind their password based on their invoice. Please contact the manufacturer if any.



Quality Warranty

A. 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.

B. The following conditions are not covered by the warranty.

1. The pcb or display screen was scratched or damaged after leaving the factory.

2. The connectors are broken. Other components on the circuit board are missing and damaged.

3. The pcb was scratched or damaged after leaving the factory.

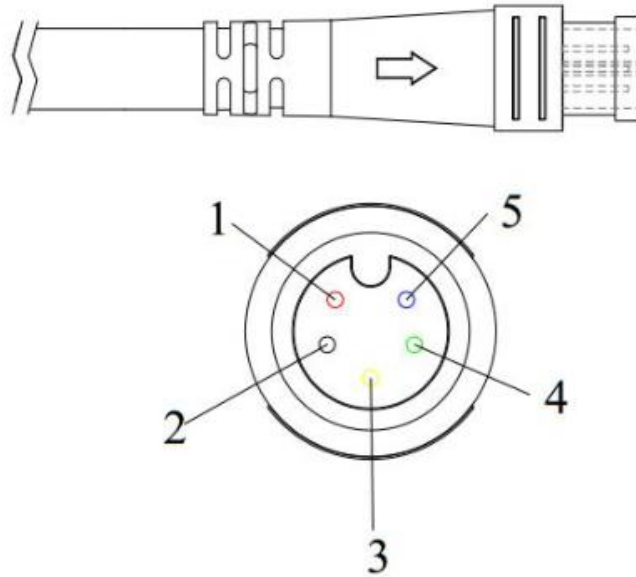
4. The lead wires from the display are scratched or broken.

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 matches the 5pin line and the wire is defined as follows.



Number	Colour	Function
1	Red (VCC)	Power B+
2	Black (GND)	Power B-
3	Yellow (TX)	Gorge line: sending message
4	Green (RX)	Gorge line: receiving message
5	Blue (K)	Electric door look offer weak power to other equipment

Note: The product's lead is waterproof connector. The user can't see the color of the lead in the wire.