

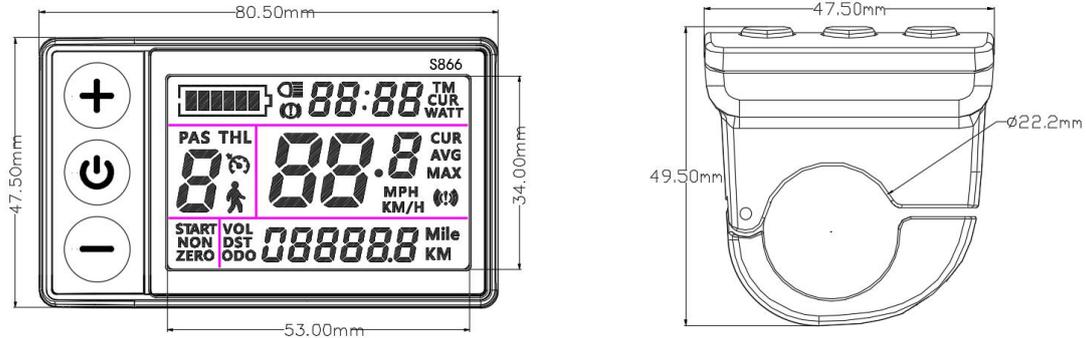
# LCD-S866

2018 V1.0



## Appearance size and material

The outer shell of the product is ABS, the transparent window of liquid crystal is imported high-hardness acrylic, and the hardness value is equivalent to tempered glass.



## Working voltage and wiring method

1. Operating voltage: DC24V, 36V, 48V, 60V compatible, Other voltages can be customized.
2. Wiring



| Cable serial number | Cable color |                                     |
|---------------------|-------------|-------------------------------------|
| 1                   | Red(VCC)    | Instrument power cord               |
| 2                   | Blue(K)     | Controller power's control line     |
| 3                   | Black(GND)  | Instrument ground                   |
| 4                   | Green(RX)   | Instrument's data receiving line    |
| 5                   | Yellow(TX)  | Instrument's data transmission line |

Features:

1, display function

Speed display, battery indicator, fault prompt, total mileage, single mileage

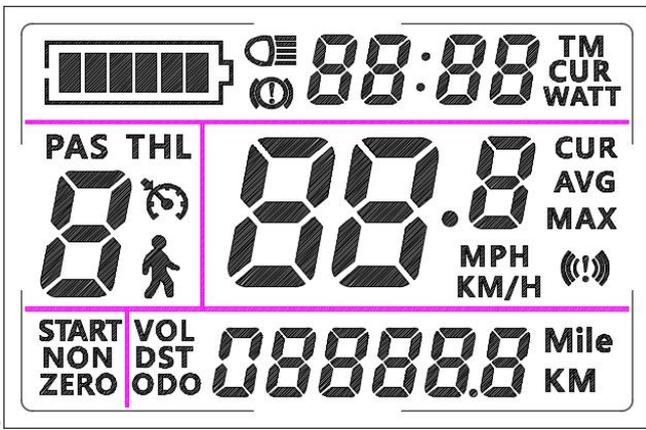
2. Control, setting function

Power switch control, wheel diameter setting, idle automatic sleep time setting, backlight brightness setting,

Start mode setting, drive mode setting, voltage level setting, controller current limit value setting,

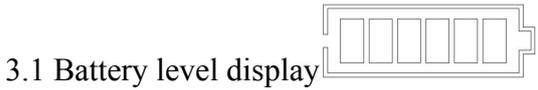
3. Communication protocol: UART

The entire content of the display (full display in the boot

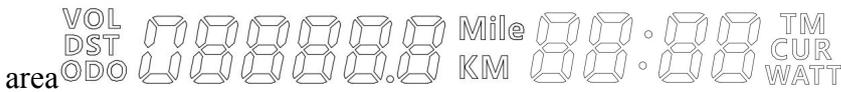


1S)

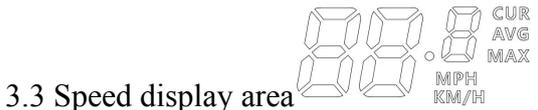
Display content



3.2 Multi-function display

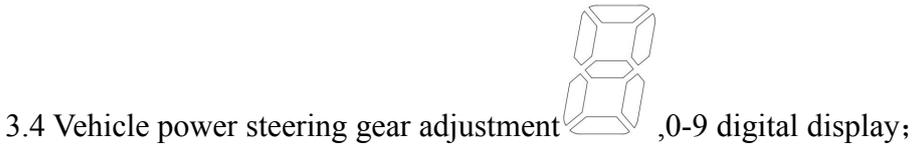


Total mileage ODO, single mileage DST (unit: mile, km), battery voltage VOL, single power-on time TM, CUR operating current, WATT instantaneous power, fault code (see Table 1);

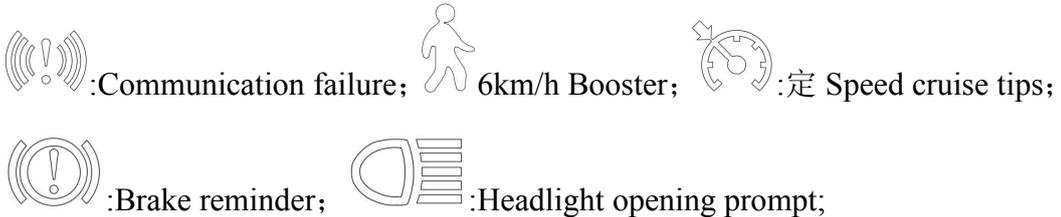


AVG: average speed, MAX: maximum speed, CUR: current speed; unit Mp/h, km/h

The speed signal is taken from the Hall signal in the motor and sent to the meter via the controller. (The time of a single Hall cycle, unit: 1MS) The meter will calculate according to the wheel diameter and signal data (the motor Hall also needs to set the number of magnets) The true speed.



3.5 Vehicle status display area



**Table 1:** Fault code and meaning

| Fault code (decimal) | Fault status  | Remarks |
|----------------------|---------------|---------|
| 0                    | normal status |         |
| 1                    | Reserved      |         |

|    |                                  |                      |
|----|----------------------------------|----------------------|
| 2  | brake                            |                      |
| 3  | Power sensor failure (ride sign) | Not implemented here |
| 4  | 6KM/H cruise                     |                      |
| 5  | Real-time cruise                 |                      |
| 6  | Battery undervoltage             |                      |
| 7  | Motor failure                    |                      |
| 8  | Turn fault                       |                      |
| 9  | Controller failure               |                      |
| 10 | Communication reception failure  |                      |
| 11 | Communication failure            |                      |
| 12 | BMS communication failure        |                      |
| 13 | Headlight failure                |                      |
|    |                                  |                      |

#### 4. Setting

P01: backlight brightness, level 1 is the darkest, level 3 is the brightest;

P02: mileage unit, 0: KM; 1: MILE;

P03: Voltage level: 24V, 36V, 48V, 60V, 64V Default 36V;

P04: Sleep time: 0, no sleep; other numbers are sleep time, range: 1-60; unit minutes;

P05: Power assist position: 0, 3 file mode:

1, 5 file mode:

P06: Wheel diameter: unit, inch; accuracy: 0.1;

This parameter is related to the display speed of the meter and needs to be entered correctly.

P07: Number of speed magnets: Range: 1-100;

This parameter is related to the display speed of the meter and needs to be entered correctly.

If it is a normal hub motor, directly input the number of magnetic steel;

If it is a high speed motor, it is also necessary to calculate the reduction ratio, input data = number of magnets  $\times$  reduction ratio;

For example: motor magnet steel number 20, reduction ratio 4.3: input data:

$$86=20 \times 4.3$$

P08: Speed limit: the range is 0-100km/h, 100 means unlimited speed.

The input data here indicates the maximum running speed of the vehicle: for example, input 25, indicating that the maximum running speed of the vehicle does not exceed 25km/h; the driving speed is maintained at the set value.

Error:  $\pm 1$ km/h; (both assist and speed limit)

Note: The value here is based on kilometers. When the unit setting is converted from kilometer to mile, the speed value of the display interface will be automatically converted to the correct mileage value, but the speed limit value data set at this menu under the mile interface. No conversion, inconsistent with the actual display mile speed limit value;

**Note: The P09-P15 menu is only valid in the communication state.**

P09: zero start, non-zero start setting, 0: zero start; 1: non-zero start;

P10: Drive mode setting 0 : Power drive (the booster position determines how much power is output, and the switch is invalid).

1 : Electric drive (driven by the rotary handle, the power assist position is invalid at this time).

2 : Power assist drive and electric drive coexist simultaneously

P11: Boost sensitivity setting Range: 1-24;

P12: Boost start strength setting Range: 0-5;

P13: Power magnetic steel disc type setting 5,8,12 magnetic steel three types

P14: Controller current limit value setting Default 12A Range: 1-20A

P15: Controller undervoltage value

P16: ODO clear setting Long press the up button for 5 seconds ODO clear

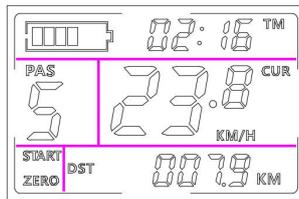
P17:0: cruise is not enabled, 1: cruise is enabled; auto cruise is optional (only valid for protocol 2)

P18: Display speed ratio adjustment range: 50%~150%,

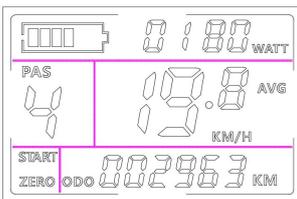
P19: 0 gear enable bit, 0: 0 gear, 1: 0 gear

P20:0: Protocol No. 2 1: 5S Protocol 2: Alternate 3: Alternate

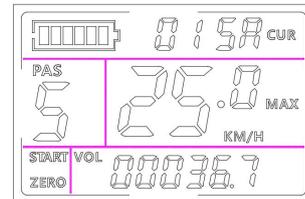
四、 Introduction to buttons and display interface:



Interface 1



Interface 2



Interface 3

1、 In the off state, long press  Bond to boot; After booting, display interface 1,

Short press  bond , switch to display interface 2, Short press again  Bond to

Switch to display interface 3. Short press again  Bond to Return to display interface 1;

2、 In the power on state, long press  Bond to shut down , Short

press  Bond, Power-assisted gear +1, Short press  Bond , Power-assisted gear -1;

3、 long press  +  Bond to Enter mode setting

Parameter value modification: under a certain parameter state, Short press  Bond to switching parameters. Short press  Bond to increase the value,

Short press  Bond to decrease the value , After the modification, Short

press  Bond to switch to the next parameter , And save the previous parameter

value. Long press after the parameter is modified  +  Bond to exit the settings interface. If not, wait for 8 seconds to automatically exit and save the parameters.

4、 long press  +  Bond to enter mode setting

In a certain parameter state, long press and hold at the same time  +  to Enter

the password setting interface, Short press  to switch password digits. Short

press  and  to Modify current value. After the password is modified, long

press and hold at the same time  +  to exit the password setting interface to the menu interface. Save the last set password at the same time (Note: You will need to

**enter this password for the next boot**). Long press again  +  to Exit the settings interface to the normal interface. If you do not press, wait for 8 seconds to automatically exit to the normal interface and save the parameters.

5、 the operation of the alternate "3745" password

If you forget the password when you turn it on, enter the “ 3745 ” alternate password, press and hold the button for 10 seconds to enter the normal interface.