

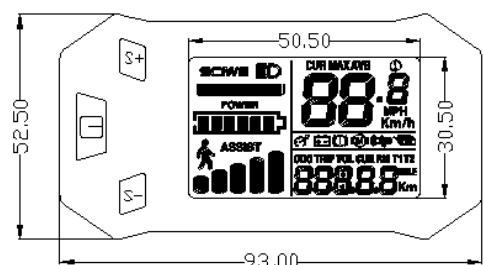
## LCD 850-A User manual

2014version

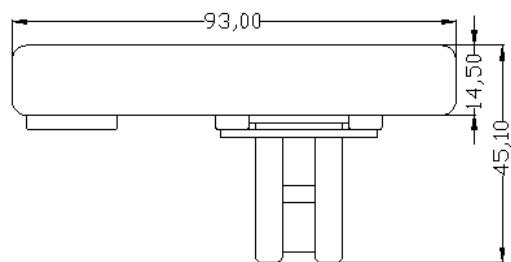


### I. Shape, Size and Material

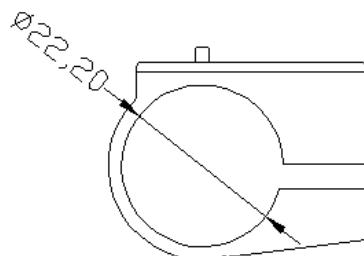
The shell of this product is ABS , The transparent LCD window is imported high hardness Acrylic. It is as harder as the toughened glass.



Front view



Side view



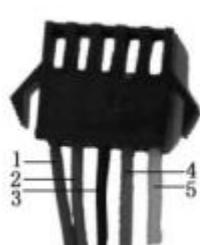
bracket side view

### II. Working voltage and wiring

1、 working voltage : DC24V /36V compatible、 36/48V compatible ( set on LCD ) , Other voltage can be customized.

2、 Wiring :

Standard connector wiring



Connector to the controller



LCD outlet terminal



abutment terminal

Standard connector wiring turns

wiring turns	color	function
1	Red ( VCC )	Power wire
2	Blue ( K )	Controller and power controlling wire
3	Black ( GND )	Earth wire
4	Green ( RX )	Data receiving wire
5	Yellow ( TX )	Data sending wire

EXTENTION FUNCTION :

Headlight : Brown ( DD ): headlight positive pole ,

White ( GND ) : headlight negative pole。

P WM Voltage type assistance controlling,out independence speed sensor,Order new function for different color of wire.

**Marks : Some products are using water-proof connector , User cannot see the color inside.**

### **III.Functions :**

#### **1、Display function**

Speed display、Assistance display、Battery power display、Fault display、

Total range display、current range display、fix-speed cruise、brake display、

headlight display

#### **2 . Control and set function**

Power control 、headlight control 、6Km/h control 、fix-speed cruise

control、rim size set、5 levels assistance set、max speed set、Automatic

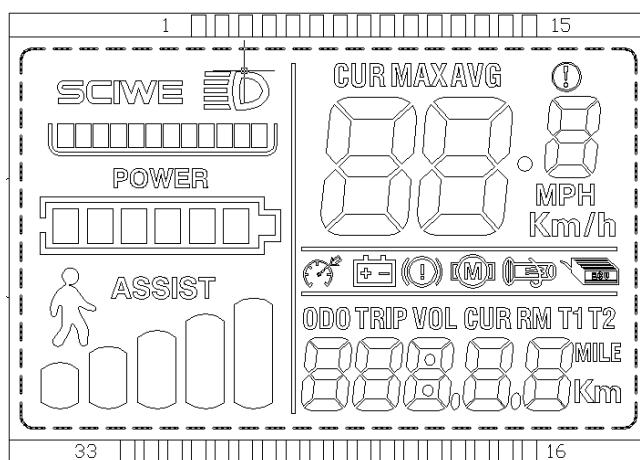
dormancy set、back light brightness set、Starting method set、driving

method set、assistance sensibility set、assistance magnet disc type set、

voltage set、current-limit of controller set ,

#### **3.communication protocol : UART**

#### **ALL ON DISPLAY ( power on within 1S )**

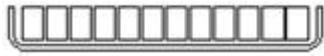


#### **Display introduction**

1 Headlight



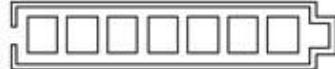
2. Current levels



This function needs a software support in

controller.

#### POWER



3. Voltage levels POWER

ODO TRIP VOL CUR RM T1 T2

4. Multifunction display area

Total range ODO、Current range TRIP、Voltage VOLT、Current CURRENT、Rest of range RM ( a software support in BMS needed ), working time TIME



5. Speed display area

Current speed CUR、Max speed MAX、Average speed AVG

Unit MPH, KM/H

The display will calculate the speed according to the rim size and signal data (Motor hall need to set the magnet quantity ).

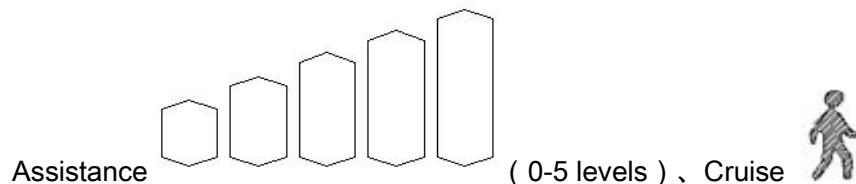


6. Fault display area

Motor fault , Throttle fault , controller fault , brake lever fault , protecting of under voltage



7 . Assistance display area



8. Setting

P01 : Brightness of the backlight , 1 is the lowest level , 3 is the highest level ;

P02 : Unit of the range , 0 : KM ; 1 : MILE ;

P03 : Voltage : 24V , 36V , 48V , Default 36V ;

P04 : Dormancy time : 0 , no dormancy ; Other numbers is the dormancy time , unit is 0-60 minutes ;

P05 : Assistance level : 0-3levels : 1 level 2V , 2 level , 3V , 3 level , 4V ;

1-5levels: 1 level 2V , 2 level , 2.5V , 3 level , 3V ,

4 level , 3.5V , 5 level,4V;

P06: Rim size : Unit , inch ; precision : 0.1 ;

P07: Number of magnet steel : Range : 1-100 ;

P08: Speed limit : Range 0-50km/h , 50 means no speed limit ,

1. No signal communication condition ( Display controlling ) :When the actual speed larger than setting speed , Turn off the PWM output ; When the actual speed less than the setting speed , Turn on the PWM output automatically ,Driving speed is the current speed  $\pm 1\text{km/h}$  ;( Only limited to PAS not Throttle )

2. Signal communication condition ( Controller controlling ) :Driving speed will be kept to the setting speed.

Tolerance :  $\pm 1\text{km/h}$  ;( Limited to both PAS and throttle )

Mark: The data here is based on KM. When the unit setting is Mile, The speed on the display is correct Mile. But the data setting in this manu will not be changed. So it is different to the actual speed.

P09 : Zero starting、Unzero starting setting , 0 : Zero starting ; 1 : Unzero starting ;

P10 : Driving method setting

0 : Assistance driving(Throttle is unusable).

1 : Throttle driving(PAS is unusable).

2 : Both Assistance and throttle driving(The Zero starting is

unusable when under throttle driving)。

P11 : Sensitivity of PAS Range : 1-24 ;

P12 : Strength of PAS starting Range : 0-5 ;

P13 : Magnet types of PAS setting 5 , 8 , 12 three types

P14 : Current limit of controller Default 12A Range : 1-20A

P15 : This function has not developed

P16: ODO set to 0. Long press the top button for 5s.

#### IV. Button introduction :

Buttons will be like this



#### Button using introduction

Button operations are short press, long press and combination long press.

Short press is used for convenient and frequent operations. For example:



1. When riding , If you need to change the assistance or speed ,

short press.



2. Change to multifunction area when riding, short press.

Single button long press is used for mode and switch.

Combination press(long press) is used for parameter setting.

Operation details :

1. Modify assistance levels



1 ) Short press [button], Assistance + 1



2 ) Short press [button], Assistance - 1

2.Change to speed display



3.set/clear 6KM/H cruise, headlight turn on/off



Stop vehicle ,long press [button] ,will be 6KM/h cruise ;Long press [button] when riding ,

it will be fix speed cruise , If it is under fix speed cruise currently , it will release cruise ;



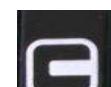
Long press [button] turn on/off headlight.

4.Turn on/off display



Long press [button]

5.Change to multifunction display area



Short press [button]

6.Setting parameter



Long press + will be into parameter setting page , the parameter setting can be including ,

Rim size(inch),number of magnet steel , brightness of the display, under voltage point and etc. ( setting : P01-P14 );



In the page of parameter setting , short press +parameter , or short press



-parameter , parameter will be shining after setting , after choose the parameter ,



1. a.Long press to save, shining will be stop.



b.short press to change to next parameter and save the last parameter at the same time.



2. Press + , quit setting and save , If you do not press , it will quit and save automatic after 10S.

**Marks : Because of the updating of the products, there may be some difference between the product you get and the manual. But it will not affect your using.**