

LCD Display S830

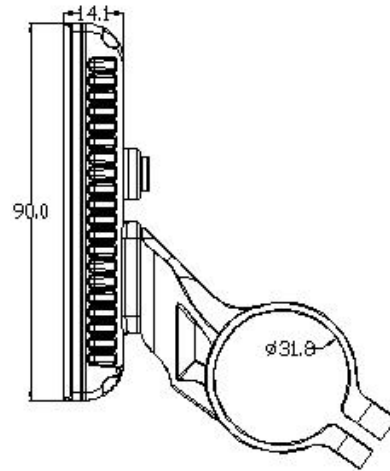
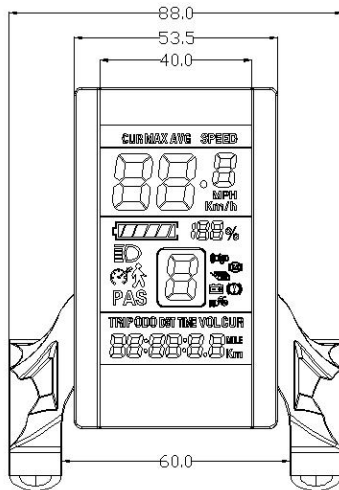
User Manual V.2014

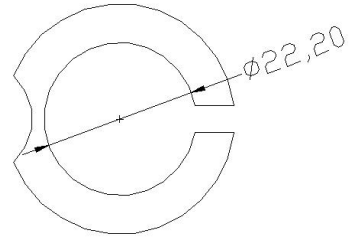
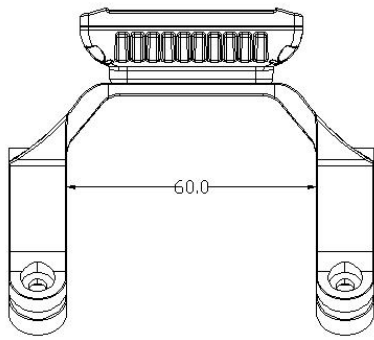


1. Exterior Parameters

Casing Material: ABS

Display Material: High Hardness Acrylic (the same hardness value as tempered glass).

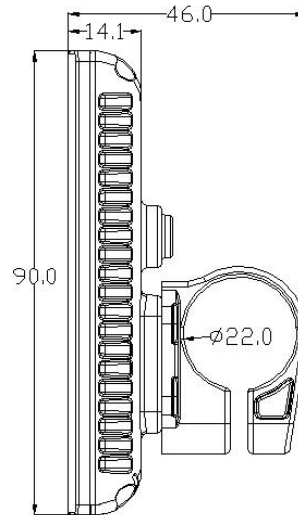
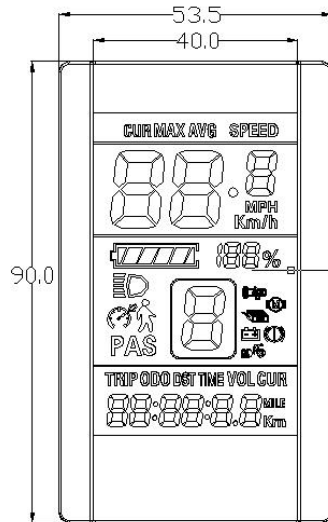




Optional: Converter Ring

$\phi 22.2\text{mm} / 25.4\text{mm} / 28.6\text{mm}$

2. Single Supporter

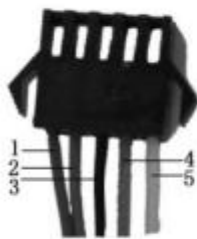


2. Operating Voltage and Connections

a. Operating Voltage: DC24V / 36V Compatible, 36/48V Compatible (set by the control panel). Other operating voltage can be customized.

b. Connectors:

Standard Connector Type



Controller Connector

Display Output Connector

Coupling Input Connector

Standard Connector Arrangement

Sequence No.	Wire Colour	Functions
1	Red (VCC)	Display Power Cable
2	Blue (K)	Controller Power On/Off Cable
3	Black (GND)	Display Ground Cable
4	Green (RX)	Display Data Receiving Wire
5	Yellow (TX)	Display Data Sending Wire

Extended Functions

Light: Brown (DD): The positive electrode of the light

White (GND): The negative electrode of the light.

The wire colours of the PWM Voltage Motor Power Controller and the independent speed sensor will be defined otherwise.

Note: Some products are equipped with waterproof connectors, whose internal wire colors cannot be determined from outside.

3. Functions

a. Display

Speed Display

PAS Level Display

Battery Level Display

Error Indication

Total Mileage

Single Mileage

Light Indication

Single Trip Time

b. Control and Settings

Power Switch

Front Light Control

6km/h Cruise Control

Real-time Cruise Control

Wheel Diameter Setting

Top Speed Setting

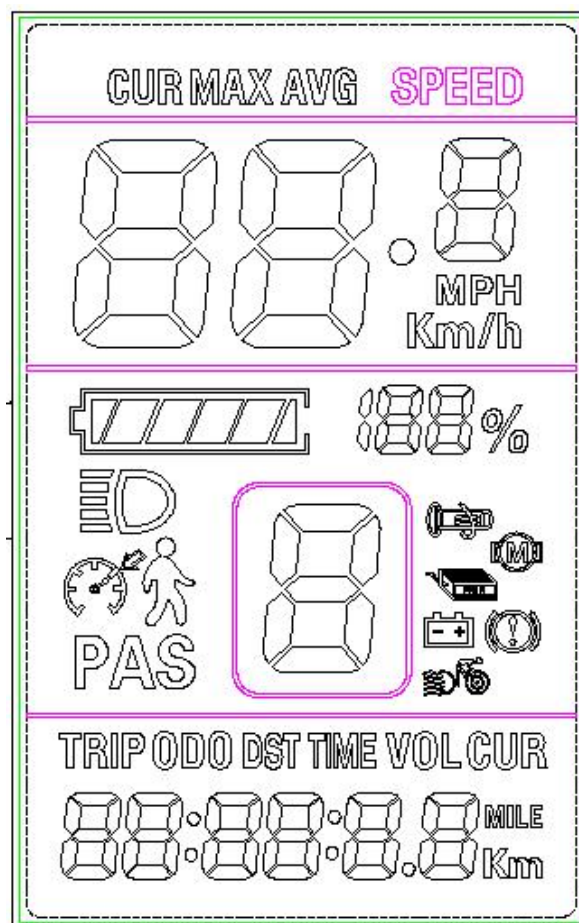
Sleep Interval Setting

Backlight Brightness Setting

Voltage Level Setting

c. Communications Protocol: UART

Display Readings (displayed at start for 1 second)



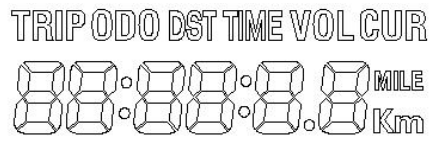
Display Interface

3.1 Light

3.2 Battery Level



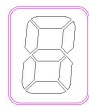
3.3 Multi-Functions Display



- Total Mileage: ODO
- Single Mileage: TRIP
- Single Running Time: Time
- Current Voltage VOL
- Operating Current: CUR
- DST: Unspecified

3.4 Vehicle Power Gear

PAS



Gear 0-9 adjustable;

Normally 3 / 5 / 9-gear mode available.

3.5 Speed Display



- Maximum Speed: MAX
- Average Speed: AVG
- Measuring Unit: MPH or KM/H

The display will calculate the actual travelling speed based on the wheel diameter and signal data (number of magnetic steel is needed for Hall motors).

3.6 Vehicle Status



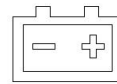
6km/h Walk Boost



Real-Time Cruise



Powered Ride;



Low Battery



Brake Signal



Controller Failure



Motor Failure



Handlebar Failure

3.7 Settings

P01: Backlight Brightness (1: darkest; 3: brightest)

P02: Mileage Unit (0: KM; 1: MILE)

P03: Voltage Class 24V / 36V / 48V

P04: Sleep Interval

(0: never, other value means display sleep interval) Unit: minute

P05: Power Assist Gear

0/3 Gear Mode: Gear 1: 2V Gear 2: 3V Gear 3: 4V

1/5 Gear Mode: Gear 1: 2V Gear 2: 2.5V Gear 3: 4V Gear 4: 3.5V Gear 5: 4V

P06: Wheel Diameter Unit: inch Precision: 0.1

P07: Magnet Steel Number (for Speed Test) Range: 1-100

P08: Speed Limit

Range: 0-50km/h, parameter 50 indicates no speed limit.

1. Non-communications status (panel-controlled)

When the current speed exceeds the speed limit, the PWM output will be shut down; when the current speed falls to lower than the speed limit, the PWM output will be activated and the driving speed will be set as the current speed ± 1 km/h (only applies to assist power speed, not applicable to the handlebar speed).

2. Communications status (controller-controlled)

The driving speed will be kept constant as the limited value.

Error Value: ± 1 km/h (applicable to both the assist power/handlebar speed)

Note: The above-mentioned values are measured by metric unit (kilometers).

When the measuring unit is switched to imperial unit (mile), the speed value displayed on the panel will be automatically switched to corresponding imperial unit, however the speed limit value in the imperial unit interface won't change accordingly.

P09: Direct Start / Kick-to-Start Setting

0: Direct Start

1: Kick-to-Start

P10: Drive Mode Setting

0: Power Assist – The specific gear of the assist drive decides the assist power value. In this status the handlebar does not work.

1: Electric Drive – The vehicle is driven by the handlebar. In this status the power gear does not work.

2: Power Assist + Electric Drive – Electric drive does not work in zero-start status.

P11: Power Assist Sensitivity Range: 1-24

P12: Power Assist Starting Intensity Range: 0-5

P13: Power Magnet Steel Number 5 / 8 / 12pcs

P14: Current Limit Value: 12A by default; Range: 1-20A

P15: Unspecified

P16: ODO Zero-Out

Long press the up key for 5 seconds and ODO value will be erased.

4. Operations

Arrangement of Keys



Introduction of Keys

Key operations involve short press, long press and long press of combination keys.

Short press is used for short/frequent operations as:

1. Short press the two keys   to change assist power/speed during riding.

2. Short press this key  to switch the readings in the multi-function display section.

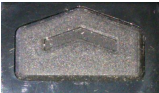
Long press on a single key is used to switch mode/on/off status.

Long press on combination keys to set parameters, which can avoid mis-operations (short press on combination keys is disabled to avoid mis-operation).

Instructions of Keys

1. Change PAS Level / Throttle Level

In PAS mode

- a. Short press , PAS +1.


- b. Short press , PAS -1.


2. Switch Speed Display

Long press  +  to switch speed display type.

3. Enable/Disable 6km/h walk boost mode, set real-time cruise and turn on/off the lights

When the vehicle is parked, long press  to enter 6km/h walk boost

mode. When the vehicle is travelling, long press  to enter real-time cruise mode.


Long press  to exit the cruise mode when the vehicle is in cruise mode.

Long press  to turn on/off the lights.

4. Turn on/off the LCD Panel

When the display is in operation, long press  and it will be turned off, otherwise it will be turned on.

5. Switch Displayed Readings in Multi-Function Section

Short press  to switch readings shown in the multi-function section.

6. Set Parameters

Long press  +  to enter the setting interface.



Customizable parameters include:


Wheel Diameter (unit: inch);


Magnetic Steel Number;



Backlight Brightness;

Low Voltage Threshold (refer to setting P01-P14)

In the setting interface, short press  or  to turn up/down value to the parameter, which will blink after modified. After selecting the parameter that needs to be set,

I. a. Long press  to save the current value, and the parameter will stop blinking;

b. Short press  to switch to the next parameter and the previously set value will be saved at the same time.

II. Press  +  to exit the setting and save the parameters.

Without this operation, the system will automatically exit and save the modified parameters after 10 seconds.

Note: Due to product upgrade, the product you purchased may be slightly different from the descriptions in this user manual, and this won't affect normal usage.