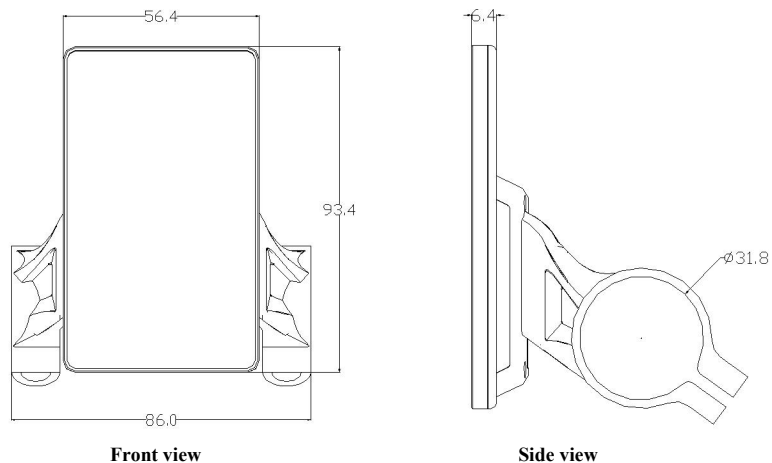


LCD-M5 Hand Control Panel Operation Instruction

一、Out shell Size and Material

Out shell material is ABS, Liquid crystal transparent window material is high hardness acrylic.



二、Work Voltage and connection mode

1、Work voltage: DC24V 、36V、48V、60V 、64V(which you can choose on the meter),the others you can customized.

2、Connection mode :

Line sequence of the label connector

标配接插件线序



Red Line (D+): Power Positive

Black Line (GND): Power Negative

Blue Line (DS): Controller's electric door lock

Green Line (RX): Receiving communication

Yellow Line (TX): Sending communication

Table: Line sequence of the label connector table

Order of line	Color of line	Function
1	Brown (VCC)	Instrument power cord
2	Green (RX)	Meter data receiving line
3	Black (GND)	Meter earth wire
4	Orange (K)	Controller power line
5	White (TX)	Data transmission line of instrument

Notes: Part of the products lead wire use waterproof connection. User cannot see the color of lead line.

三、Function description

1、Display function

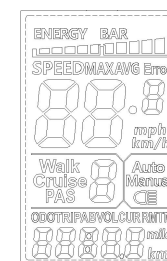
Speed display, power level display, power indicator, failure warning, total mileage, single mileage, headlight display, single driving time display

2. Control, setting up functions

Power switch control, headlight switch control, 6Km/h point control, wheel diameter setting, maximum speed setting, idle automatic hibernation time setting, backlight brightness setting, voltage level setting

3.Communication protocol: UART

All the contents of the display screen(full display in boot 1S)



Show content introduction



3.1 Headlight The instrument can be manually turned on and the brightness of the sensing environment is automatically turned on(light sensitivity support is required).

3.2 Battery power display BATTERY

3.3 Multifunctional display area

Total mileage ODO, single mileage TRIP A, single mileage TRIP B, battery current voltage VOL, current operating current CUR, remaining mileage RM; Instrument boot time TM



3.4 Vehicle mode

Walk boost mode; Cruise: constant speed cruise mode; PAS: Power file position: 0 ~ 9 adjustable;

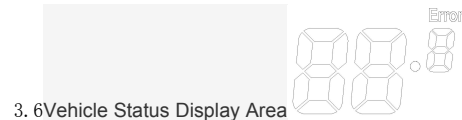


3.5 Speed display area

Maximum speed MAX, average speed AVG

Unit MPH, KM/H

The meter will calculate the true speed based on the wheel diameter and signal data



3.6 Vehicle Status Display Area

Meaning of Error Code:

Error Code	Error Status	Notes	Error Code	Error Status	Notes
0	Normal Status		7	Motor's problem	
1	Save		8	Throttle's problem	
2	Brakes		9	Controller's problem	
3	PAS problem(a riding mark)	not implemented	10	Communication Receiving problem	
4	6KM/H cruising		11	Communication Sending problem	
5	Real-time cruising		12	BMS Communication problem	
6	Battery is undervoltage		13	Headlight problem	

- P01 Background luminance. 1 is the darkest, 3 is the brightest
P02 Unit of the mileage. 0 is KM, 1 is MILE
P03 Voltage grades. 24V, 36V, 48V. The original voltage is 36V.
P04 Sleep time. 0 is without sleep, other numbers stand for the sleep time (1-60 min).
P05 PAS grades: 0, 3 grades mode: 1 grade 2V, 2 grade 3V, 3 grade 4V; 1, 5 grades mode: 1 grade 2V, 2 grade 2.5V, 3 grade 3V, 4 grade 3.5V, 5 grade 4V
P06 Wheel size. Unit: inch. Precision: 0.1
P07 Speed measuring magnet. Range: 1-100
P08 Speed limit. Range: 0-50km/h, 50 means without limit.
No-Communication Status (controlled by the meter): when the real speed is over the ones we set, the meter would shut off PWM output; when less than the speed we set, the meter would turn on PWM output automatically, the driving speed would be $\pm 1\text{km/h}$; (Speed limit is for PAS, not for Throttle)
Communication Status (controlled by the controller): The driving speed keeps same with the ones we set. Random error: $\pm 1\text{km/h}$. (Speed limit is for both PAS and Throttle)
Notes: These data are based on KM. When changing KM to Mile, the speed value on the screen would convert to correct Miles automatically, but if you do not change the setting of speed limit from KM to Mile, it would be different from the real speed limit in Mile.
P09 Zero start & Non-zero Start. 0 is Zero Start, 1 is Non-zero Start
P10 Driving mode: 0 is driven by PAS. Throttle is useless at this time. 1 is driven by Throttle. PAS is useless at this time. 2 is driven by PAS & Throttle. Throttle is useless at Zero Start status.

- P11 PAS sensitivity. Range: 1-24
P12 PAS start strength. Range: 0-5
P13 PAS magnet type. There are 3 types: 5, 8, and 12.
P14 The Current-limiting of Controller. The original Current is 12A. Range: 1-20A
P15 Not implemented now.

- P16 Reset ODO. Long press for 5s, ODO could be reset.
P17: 0: not enable cruising, 1: enable cruising; automatic cruising optional (valid for protocol 2 only)
P18: show speed proportional range :50%~150%,
P19: 0 Enables 0:0, 1:0
P20: 0: 2 Agreement 1:5 S Agreement 2: Standby 3: Standby

1. Button Introductions



2. 4.1 During riding, need change PAS/Speed grades, shortly press or ;

- 4.2 During riding, need change data in Multi-function Area, shortly press ;

Long press , could switch status between MODE and ON/OFF;

Long press as a compound button, is mainly used for parameter setting, which could reduce misoperation due to complicated operation.
(No compound button with short-time press, because it's difficult to operate.)

4.3 Specific operation explanations

- 4.3.1 Change PAS grade
Suppose it's PAS mode now, shortly press , PAS grade +1; Shortly press , PAS grade -1.

- 4.3.2 Shift the speed display

Long press + , to shift the way of speed display.

- 4.3.3 ON/OFF 6KM/H cruising, ON/OFF Headlight, Reset ODO

When e-bike stops, long press to enter 6KM/H cruising mode. Stop pressing to exit the cruise mode;

Long press to turn ON/OFF Headlight;

At P16, long press for 5s to reset ODO.

- 4.3.4 ON/OFF the screen

Long press to turn ON/OFF the screen.

- 4.3.5 Change data in multi-function Area

Shortly press to change data.

- 4.3.6 Parameters setting

Long press + to start setting parameters, such as wheel size(inch), background luminance... (Refer to P01-P16)

On the setting interface, shortly press , or to plus/minus value. Parameters would be shining after modifying, choose the ones you prefer,

- Long press to save the value, the shining would stop.
- Shortly press to shift to the next parameter, and to save current values at the same time.
- Press + to exit setting parameters and to save values. If not press these buttons, it would exit and save parameters modified automatically 10s later.