B06 Display Instructions

Version information

version	Reviser	Date of revision	Modifications	remark
V1.1	Mohauch	2023.8.21	Added P4 (voltage setting) menu and applicable protocol description; Modify wheel diameter and speed limit setting range; Added hot-swap operation alerts.	
V1.2	Wen Yao	2023.8.29	Added auto-shutdown menu description	
V1.3	Wen Yao	2023.9.1	Adjust the menu order and increase the number of magnets menu description	
V1.4	Wen Yao	2023.10.25	Added P7 factory reset menu description	
V1.5	Wen Yao	2023.10.28	Added fault descriptions for LD2, KM5S, and BF	

directory

Note:

    1. Due to the upgrade of the company's products, the display content of the product you get may be different from that in the manual, but it will not affect your normal use.

    2. Do not plug and unplug with electricity, plugging and unplugging with electricity may damage the electronic control accessories.

Product Introduction
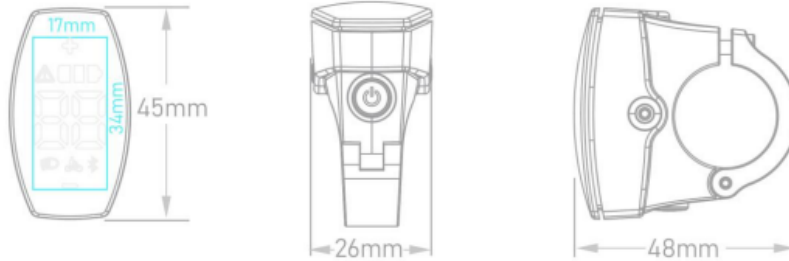
1. Name

Smart Display Controller

2. Product model

B06

3. Product appearance

B06

General Parameters

Dimensions	Length*Width*Height	26*45*48 (mm)
	Screen Size	17*34 (mm)
	Holder Diameter	22.2 (mm)
Connector	Type	M5 Waterproof Connector
	Length	20 cm
General Feature	Voltage	12V/24V/36V/48V/60V
	Working Temperature	-20 ℃ - +70 ℃
	Ingress Protection Rating	IP67
	Weight	28g
	Communication Protocol	UART/CAN
Other Feature	Bluetooth	5.2 + BLE (Optional)
Certification	RoHS/CE/FCC	Support Customization

Display Items

Current Speed

Error Code

Battery Capacity

Power-aided Shoving

Light

Bluetooth

Parameters Setup

Gear setting

Unit Switch

Speed limit

Wheel Diameter

Battery Voltage Switch

Sleep Mode Timing

Data Reset

Password Setting

4. The main interface is displayed

Maintenance tips		Battery level indication
Headlight display		Real-time speed display
		Bluetooth icon
		Boost icon

① Maintenance Reminder: Displays the maintenance reminder flag.

② Headlight display: shows the headlight on/off status, and displays the logo when the system headlight is on.

③ Power Prompt: Prompts real-time power level.

④ Real-time speed display: Displays the real-time speed value.

⑤ Bluetooth icon: Bluetooth on/off, status display, display logo after successfully connecting to the meter Bluetooth.

⑥ Boost Icon: The boost icon is displayed.

5. Button definition

The B06U meter has 3 buttons. Including "power on and off key", ⏻ "plus key +", "minus key -". The key definitions are shown in the figure below.

6. Routine operations

① Power on/off

After long press the "power on and off button", the instrument will work on the power on, and⏻ in the power on state, long press the "power on and off button"⏻ to power off the system.

② Headlight switch

Turn on the light: Press and hold the "+" button when the light is off, the headlight logo on the screen will brighten, and the controller will be notified to turn on the light.

Turn off the lights: Press and hold the "+" button when the lights are on, the screen headlight logo will not disappear, but will be dimmed, and the controller will be notified to turn off the lights at the same time.

③ Boost mode

Press and hold the "-" button when the car body is stationary, and the dynamic booster logo will be displayed, indicating that it will enter the booster, release the "-" button, and exit the booster mode.

In the push-up mode, the booster logo is displayed dynamically, and the vehicle speed is less than 6km/h, and the push-up state stops when the button "-" is released.

④ Unit settings

Double-click the power button to enter the settings, "plus and minus buttons" to switch to select the P1 unit menu, short press the power to enter the unit menu, you can switch U1, U2. U1 is metric and U2 is imperial. Short press the power button to select the settings and return to the previous menu, and then double-click the power button to return to the main interface

⑤ Auto-shutdown settings

Double-click the power button to enter the settings, "plus or minus button" to switch to select P2 auto-shutdown menu, short press the power to enter the auto-shutdown menu, the default time is 5min, setThe option is adjustable from 0 to 10, and when set to 0, it means that it will not automatically shut down. Short press the power button to select the settings and return to the previous menu, and then double-click the power button to return to the main interface.

⑥ Speed limit settings

Double-click the power button to enter the setting, "plus and minus buttons" to switch to select the P3 speed limit menu, short press the power to enter the speed limit menu, the speed limit setting range is 0-99. Short press the power button to select the settings and return to the previous menu, and then double-click the power button to return to the main interface

⑦ Wheel diameter setting

Double-click the power button to enter the setting, "plus and minus key" to switch to select the P4 wheel diameter menu, short press the power to enter the wheel diameter menu, the wheel diameter setting range is 0-30. Short press the power supply to select the settings and return to the previous menu, and then double-click the power source button to return to the main interface

⑧ Number of magnets set

Double-click the power button to enter the settings, "plus and minus buttons" to switch to select the P5 voltage menu, short press the power supply to enter the magnet number menu, and the setting options are 1 or 6。 Short press the power button to select the settings and return to the previous menu, and then double-click the power button to return to the main interface.

⑨ Voltage value setting

Double-click the power button to enter the settings, "plus and minus keys" to switch to select the P6 voltage menu, short press the power supply to enter the voltage menu, the voltage defaults to 48v, settingsThe options are 24V-36V-48V-52V-60V. Short press the power button to select the settings and return to the previous menu, and then double-click the power button to return to the main interface.

⑩ Factory reset

Double-click the power button to enter the settings, "plus and minus buttons" to switch to select P7 factory reset menu, short press the power to enter the factory reset menu, select 01 short press the power button to restore factory settings, all parameters are restored to default, select 00 to exit the menu, no factory reset.

Note: The voltage menu is only applicable to Li-Ion No. 2, KM5S, KDS protocol, and Bafang protocol does not support voltage setting

7. Fault codes

serial number	Fault information	Display the code	remark
Lithium battery No. 2 protocol fault code			
1	Hall failure status	Error 08	
2	Turnaround failure status	Error 05	
3	Controller fault status	Error 16	
4	Undervoltage protection status	Error 06	
5	The motor is out of phase	Error 09	
6	Faulty brake handlebar	Error 02	
7	The controller communication is faulty	Error 29	Unable to receive data from the meter
8	Instrument communication failure	Error 30	Unable to receive data from the controller

serial number	Fault information	Display the code	remark
KM5S fault code			
1	Undervoltage protection status	Error 06	
2	The current is abnormal	Error 12	
3	Handlebar abnormality	Error 05	
4	The motor is out of phase	Error 09	
5	Motor Hall abnormality	Error 08	
6	Abnormal braking	Error 17	
7	Instrument	Error 30	Unable to receive data from the controller

	communication failure		

BF Fault Code			
serial number	Number of states occupy	Error code	meaning
1	0X01	Not shown	Normal state
2	0X03	Not shown	Braked
3	0X04	Error 04	The signal level of the controller power-on detection turnbar is greater than the start-up level
4	0X05	Error 05	The knob signal is shorted to the knob GND, the knob signal is shorted to the knob +5V, and the knob GND is broken
5	0X06	Not shown	The battery voltage is lower than the controller's low-voltage protection threshold
6	0X07	Error 07	The battery voltage is higher than the controller's low-voltage protection threshold
7	0X08	Error 08	The motor Hall signal is abnormal
8	0X09	Error 09	The phase line of the motor is short-circuited or open-circuited
9	0X10	Error 10	The temperature of the motor reaches the protection threshold
10	0X11	Error 11	The motor temperature sensor is abnormal
11	0X12	Error 12	The current sensor is abnormal
12	0X13	Not shown	The temperature sensor inside the battery is abnormal
13	0X14	Error 14	The controller temperature reaches the protection threshold
14	0X15	Error 15	The temperature sensor in the controller is faulty
15	0X21	Error 21	The internal & external speed sensor of the battery is abnormal
16	0X22	Not displayed (--shown when reading	The controller is unable to receive the battery pack BMS data

		battery information).	
17	0X23	Not shown	The headlights are abnormal
18	0X24	Not shown	The headlight sensor is abnormal
19	0X25	Error 25	The torque signal of the torque sensor is abnormal
20	0X26	Error 26	The torque sensor has an abnormal speed signal
21	0X30	Error 30	The meter does not receive controller data

FCC Caution.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.