HS01 Smart display instrument manual

Version history

version	Reviser	Date of revision	Modifications	remark
V1.0	Wen Yao	2024.03.12	first edition	

catalogue

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note:

1、Due to the upgrade of the company's products，The product display you get may differ from the one in the manual，However, it will not affect your normal use。

2、Do not plug or unplug with power，Plugging and unplugging with electricity may damage the electronic control accessories.

1. name

Intelligent display instrument

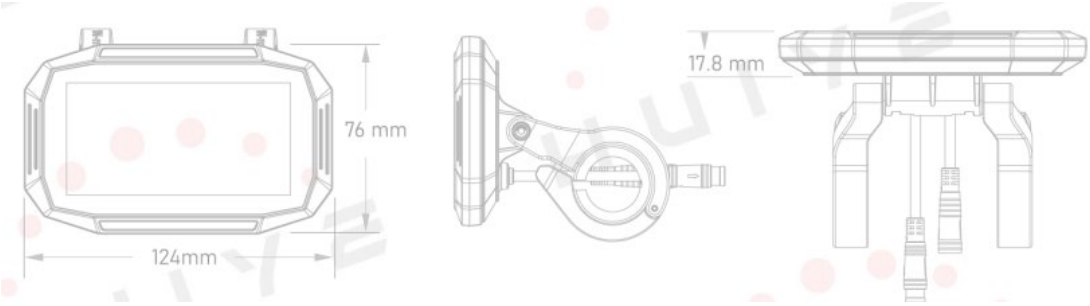
2. Product model

HS01

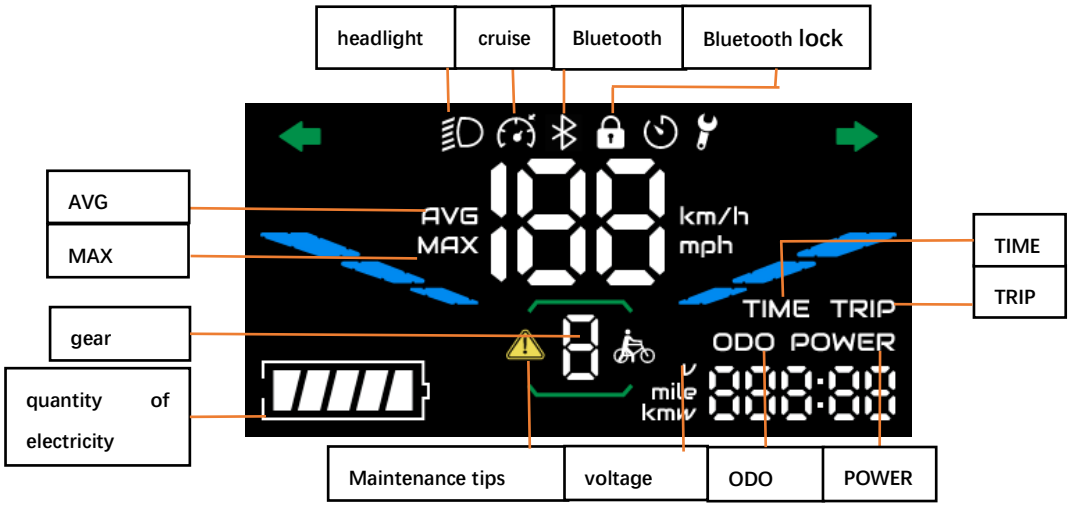
3. Product appearance

4. Product Specifications:

General Parameters		
Dimensions	Length*width*height	124*76*17.8 (mm)
	Screen Size	4"
	Holder Diameter	22.2/25.4/31.8 (mm)
Screen	Type	LED
	Color	Yellow/Green/White/Blue
Connector	Type	M5 Waterproof Connector
	Length	22 cm
General Feature	Operating Voltage	12V~60V
	Operating Temperature	-20 ℃ - +70 ℃
	Ingress Protection Rating	IP67
	Weight	TBD
	Communication Protocol	UART/CAN/SIF
Other Feature	Bluetooth	5.2 + BLE (Optional)
Certification	RoHS/CE/FCC/ISO13849	Support Customization



5. Main interface



① Headlights：The headlight indicator graphic will illuminate when the headlight is on;

② cruise：Once you are on cruise, the icon will light up;

③ Bluetooth：After the [bikego] app is connected to the instrument, the icon will up;

④ Maintenance tips：Electronic systems have some ability to self-diagnose and report limited faults. The failure will be reported as an error code displayed on the screen。

⑤ Electricity：The battery level graph is a graphical representation of the amount of power remaining in the battery 。After the battery is charged，More bars will appear in the graph。When the battery is depleted，Fewer bars will appear。

⑥ AVG：Displays the average speed at which the e-bike travels

⑦ Maximum speed：Displays the maximum speed at which the e-bike travels

⑧ Voltage display：Displays the current voltage of the e-bike

⑨ gears：Displays the current power assist gear of the e-bike

⑩ Ride time：Displays the time that has been ridden so far

⑪ TRIP：Mileage for a single trip

⑫ POWER：Displays the current operating power of the vehicle

⑬ Total mileage：The total mileage traveled by the vehicle

⑭ Bluetooth lock：The icon will light up after the vehicle triggers the Bluetooth lock

6. Button definition

The HS01 meter has Two types of buttons. Each button includes "Power button", "plus button +", "minus sign button-". As shown in the figure below：

7. Routine operations

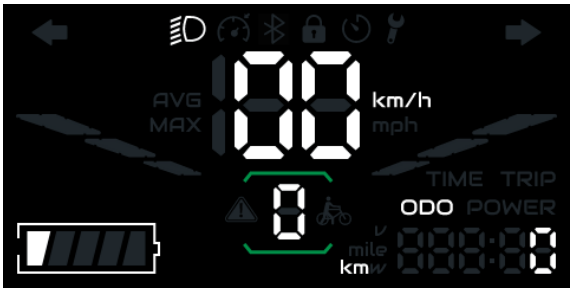
① **Power on/off**

After long pressing the "Power Button", The meter works on power, In the power-on state, long pressing the "Power Button", In the power-on state。

② Headlight switch

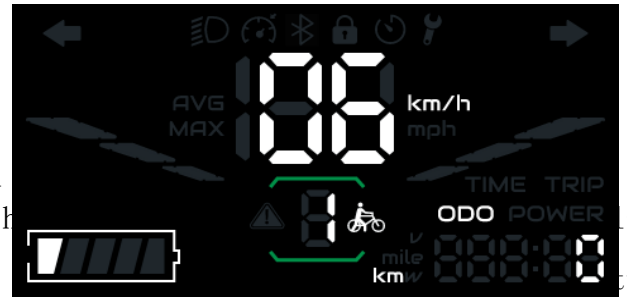
Turn on the lights: Press and hold the "+" button when the lights are off, The screen headlight logo is brightened, At the same time, the controller is notified to turn on the light。

Turn off the lights: Press and hold the "+" button when the light is on, The screen headlight logo does not disappear, Just dim while notifying the controller to turn off the lights。As shown in the figure below:



③ Boost mode

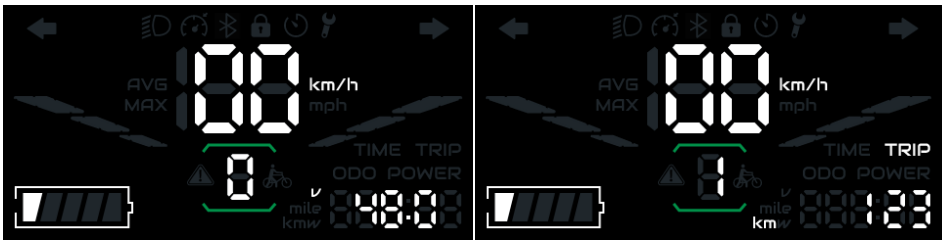
Press and hold the "-" button while the vehicle body is stationary, Display the dynamic boost marker , Indicates entry boost, Release the "-" key, Exit Boost Mode。Boost mode, Dynamic display of booster logos, The vehicle speed is less than 6km/h, Release the button "-" to stop in the booster state。As shown in the figure below:



④ The main -time speed
Boot into th urn:
by default,

avg ,max ,ODO,

Power ,V(voltage) ,time ,trip。As shown in the figure below:



⑤ Power display

Five-segment display of battery level,

power 11%-30% in one grid;

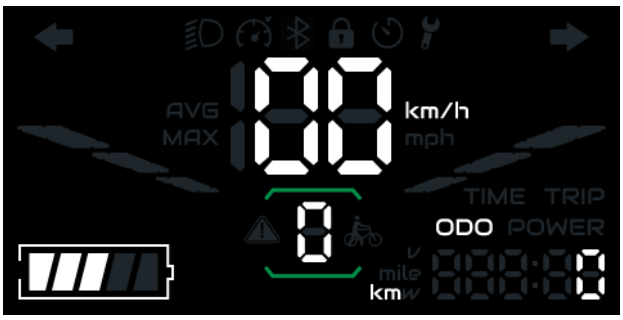
power 31%-50% in two grid;

power 51%-70% in three grid;

power 71%-90% in four grid;

power 91%-100% in five grid.

When the battery level is below 10%, the power icon flashes, it is required to be charged immediately.



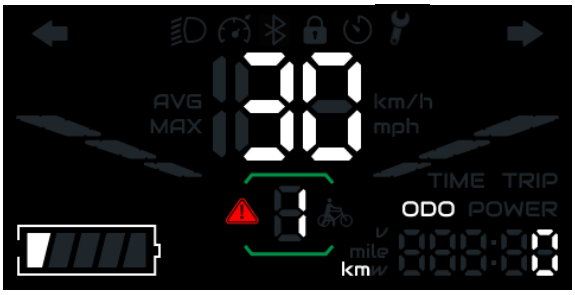
⑥ Fault display

When the electronic control system of the electric vehicle fails,

The meter will automatically display an error code, As shown in

the figure below:

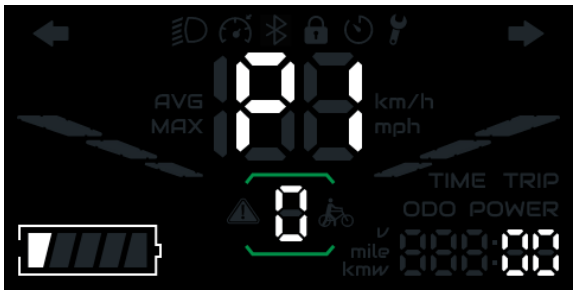
Detailed error codes are defined in Schedule 1。



8. Menu Settings

① Unit settings

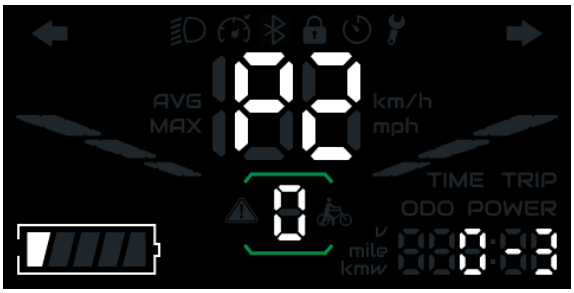
Double-click the power button to enter the settings, "Plus and minus keys" toggle to select the P1 unit menu, Short press the power to enter the unit menu, You can switch between 00 and 01. 00 is metric and 01 is imperial。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:



② Gear setting

Double-click the power button to enter the settings, "Add or subtract keys" toggle to select the P2 gear setting menu, Short press the power supply to enter the gear setting menu, There are several setting options: 0-3,1-3,0-5,1-5,0-9,1-9 adjustable。Press the

power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:



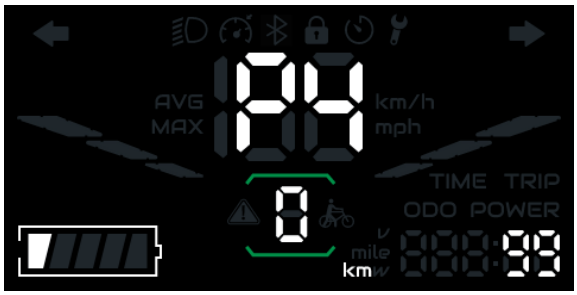
③ Wheel diameter setting

Double-click the power button to enter the settings, "Add or subtract keys" toggle to select the P3 wheel path menu, Short press the power supply to enter the wheel diameter menu, The wheel diameter setting range is 8-30inch。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:

④ Speed limit setting

Double-click the power button to enter the settings,"Plus and minus keys" toggle to select the P4 speed limit menu,short press the power to enter the speed limit menu.The metric speed limit setting range is 10-99km, and the imperial speed limit setting range is 6-62mile.Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to

the main interface。The menu interface is shown below:



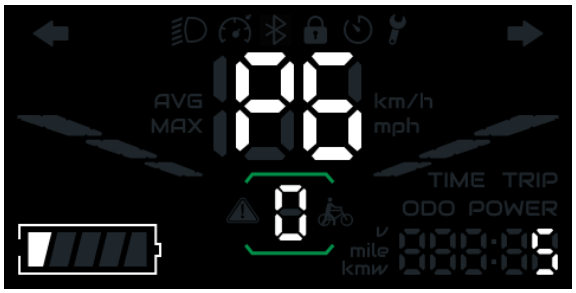
⑤ Start password settings

Double-click the power button to enter the settings, "Plus and minus keys" toggle to select the P5 boot password menu, Short press the power to enter the power on password menu, Setting options are Y (to turn on password) or N (to turn off password)。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:

⑥ Auto shutdown setting

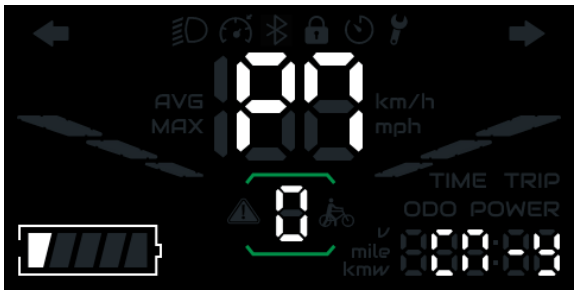
Double-click the power button to enter the settings, "Plus and minus keys" toggle to select the P6 auto-shutdown menu, Short press the power to enter the auto shutdown menu, The setting options are adjustable from 0-10, 30, 60, If it is set to 0, it will not automatically shut down。Press the power button to select the

settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:



⑦ Cruise switch settings

Double-click the power button to enter the settings, ″Plus and minus keys″ toggle to select the P7 cruise switch menu, Short press the power to enter the cruise switch menu, Setting options are Y (cruise on) or N (cruise off)。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:



⑧ Bluetooth lock settings

Double-click the power button to enter the settings, ″Plus and minus keys″ toggle to select BT Bluetooth lock switch menu, Short press the power supply to enter the Bluetooth lock switch menu, The

setting options are Y (to turn on the Bluetooth lock) or N (to turn off the Bluetooth lock)。Press the power button to select the settings and return to the previous menu.Double-click the power button again to return to the main interface。The menu interface is shown below:

⑨ Bluetooth unlocking distance level setting

Double-click the power button to enter the settings, "Plus and minus keys" toggle to select BU Bluetooth unlock distance level menu, Short press the power to enter the Bluetooth unlock distance level menu, There are 1-5 setting options。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:

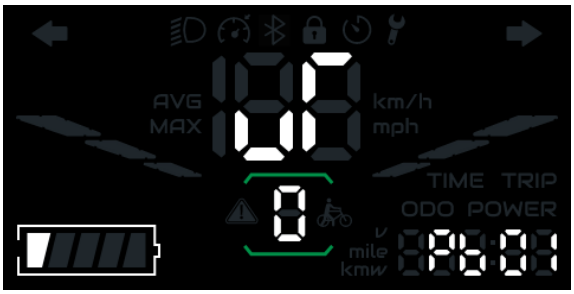
⑩ Bluetooth version number menu

Double-click the power button to enter the settings, "Plus and subtract keys" toggle to select the BV Bluetooth version number menu, Short press the power to enter the Bluetooth version number

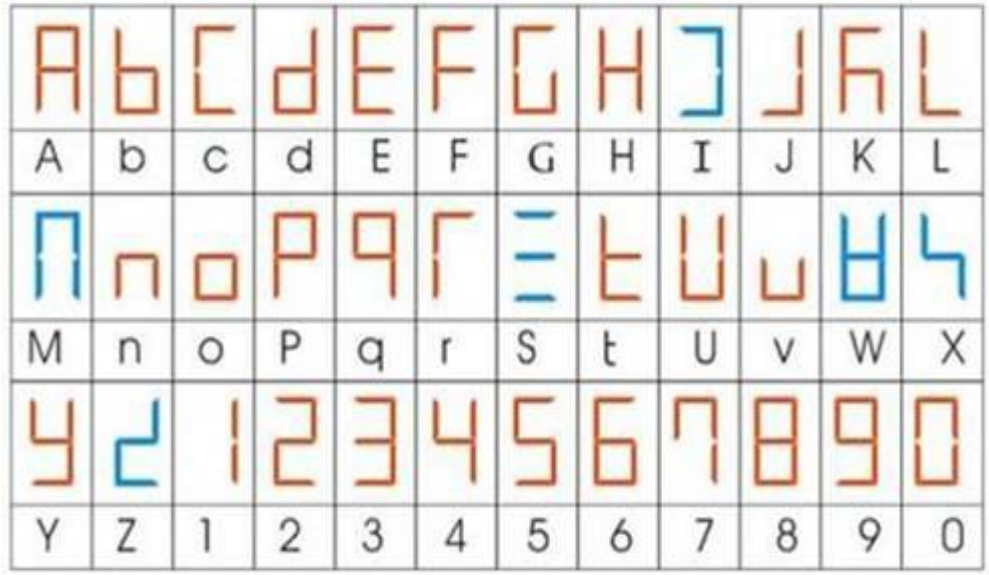
menu, Displays the current Bluetooth version number。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:

⑪ Instrument version number menu

Double-click the power button to enter the settings, Toggle the "plus or minus keys" to select the VR meter version number menu, Short press the power supply to enter the meter version number menu, Displays the current gauge version number。Press the power button to select the settings and return to the previous menu, Double-click the power button again to return to the main interface。The menu interface is shown below:



9. Character comparison table



10. Fault codes

BF Fault codes			
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 shown(Displayed when reading battery information--)	The controller is unable to receive the battery pack BMS data
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

11. FCC regulatory conformance：

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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

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

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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

RF Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.