Manual – control unit

WATT Bikes 2022

1 About the user manual

Dear users, in order to better operate your electric bicycle, please read the M100 display instruction carefully before using. We will tell you every step of the display in the simplest language, from hardware installation and setup to normal use of the display. At the same time help you solve the confusion and obstacles.
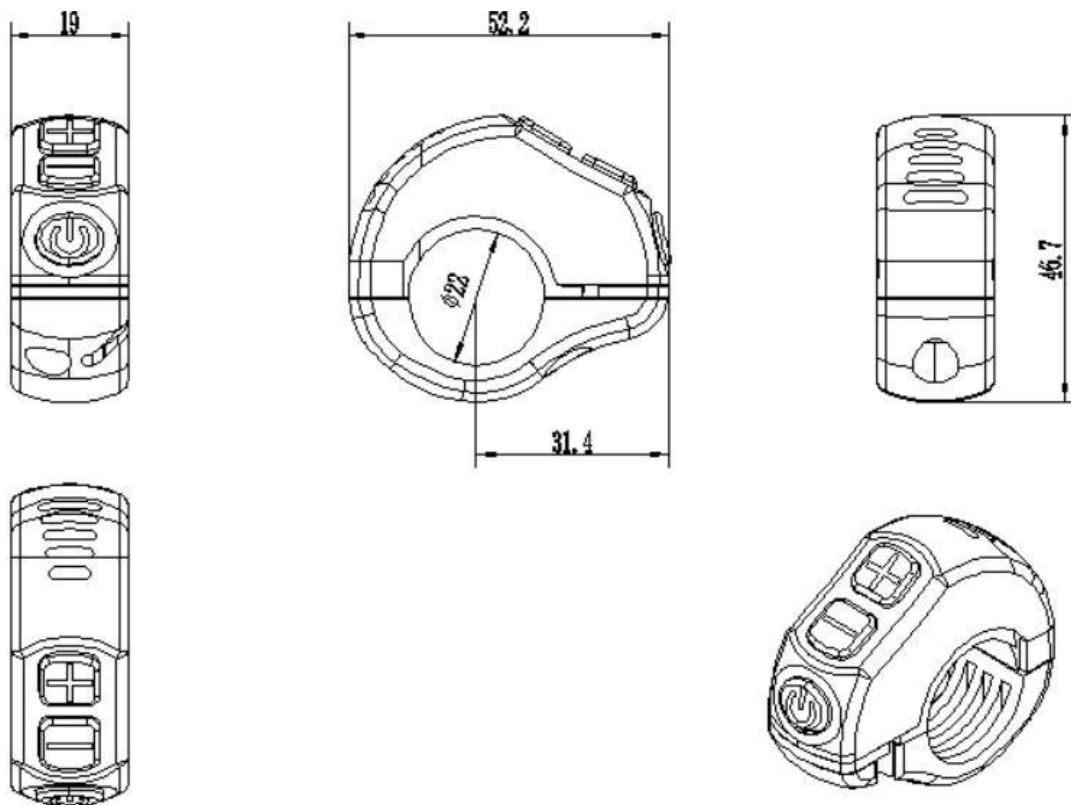
Content

2 Outlook and size

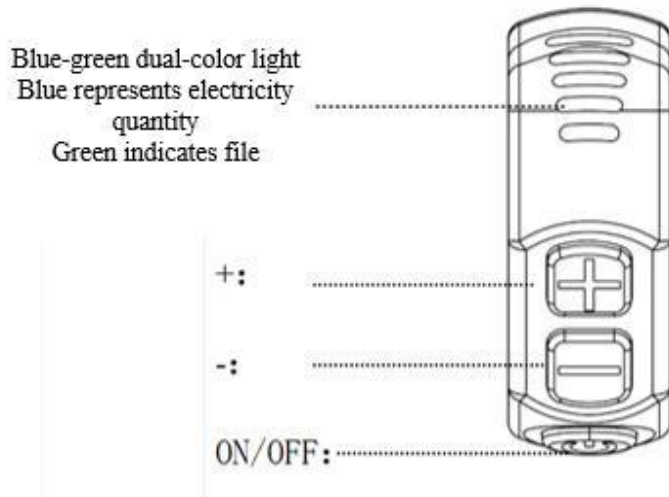### 2.1 Material and color

The M100 product is made of PC and ABS material. Under the temperature of -20 to 60°C, the shell material allows normal use and ensures good performance.

Dimension figure (unit: mm).

2.2 Button definition

M100 has three buttons including "ON/OFF", "+" and "-".

Blue-green dual-color light
Blue represents electricity quantity
Green indicates file

+:

-:

ON/OFF:

3   Function summary

M100 provides a wide range of functions and indicators to fit the users' needs. The indicated contents are as below.

3.1   The basic display functions

- The display area is indicated by blue-green dual-color light;
- When the blue indicator lights are on, they indicate the battery capacity;
- When the green indicator lights are on, as the represent the PAS level.

3.2   Turn on/off

When the display is turned off, press the " ON/OFF"; Power on the system, the indicator lights show the battery capacity; In the power-on state of 7/12. The display, hold the power button "ON/OFF" up to 2 seconds to shut down the system.

3.3   Switch Light

In the power-on state of the display, hold the "+" button up to 2 seconds then turn on the front light; hold the "+" button again then turn off the front light.

3.4   Adjust PAS level

In the power-on state of the display, press the "+" or "-" button to increase or decrease the PAS level correspondingly, and return to the battery capacity display after display show the PAS level for 3 seconds. The default PAS level is level 1 and the maximum is level 5.

3.4.1   Error information

In the condition of a fault, the blue indicator lights of the instrument are all on and flashed quickly the corresponding times, and the number of flashes is the error number.

Error code	Definition	Content	Processing methods
Fast flicker twice	Motor error	Motor blocking or hall signal loosening	Check motor wiring or wheel reopening
Fast flicker third	Controller error	Controller overcurrent or damage	Check controller wiring or replace controller
Fast flicker fourth	Throttle error	Before starting, the throttle was not put in place	Turn back and start again
Fast flicker sixth	Torque error	The signal of torque sensor loosening	Check torque sensor wiring
Fast flicker eighth	Under voltage	Low battery power	Charging battery
Fast flicker ninth	Communication error	Display cannot receive data correctly	Check wiring between display and controller

3.5 Battery capacity indicator

- The battery capacity is divided into 5 levels, each level represents 20%, after the battery is fully charged, all five levels are displayed;
- When the battery voltage is low, the last level is displayed as a flashing state, indicating that the battery is about to run out and needs to be charged as soon as possible.
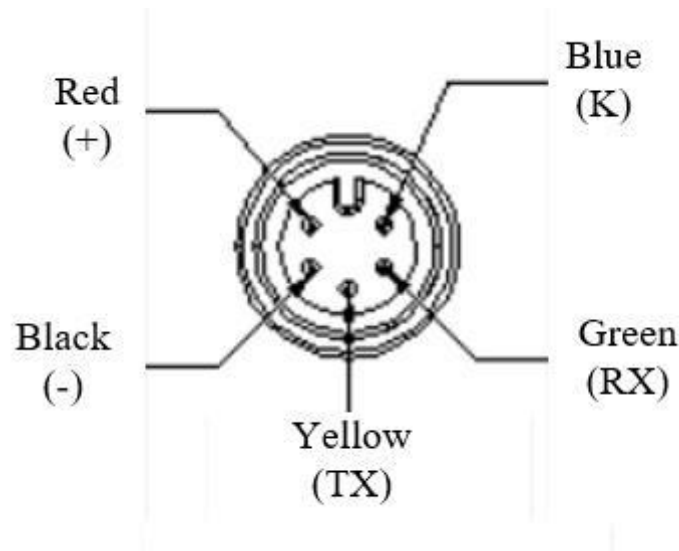
3.6 Walk assistance

Hold the ' - ' button more than 2 seconds, starting walk assistant until the button is released and the walk assistant stops.

3.7 Auto power off in 5 minutes

Speed keeps up to 0KM / H and have no any operator, system will turn off automatically in five minutes.

4 Wire map definition

Wires color	Function
Red	Battery**+**
Blue	Weak lock
Black	Battery **-**
Green	UART – Receive (RXD)
Yellow	UART – Transmit (TXD)

4.1 Performance parameters

- Operating voltage is DC 36V, standard RS232 communication, baud rate 9600BPS.
- With IP65 waterproof ability, suitable for outdoor use.

Disclaimer

Needless to say, WATT Mobility has prepared this manual with the utmost care. Any liability as a result of printing and typesetting errors is hereby ruled out.