B04N intelligent display instrument manual

Contents

Note: Due to the upgrade of the company's products, the display contents of the products you get may be different from those in the manual, but will not affect your normal use.

1. the product introduction

1. Name

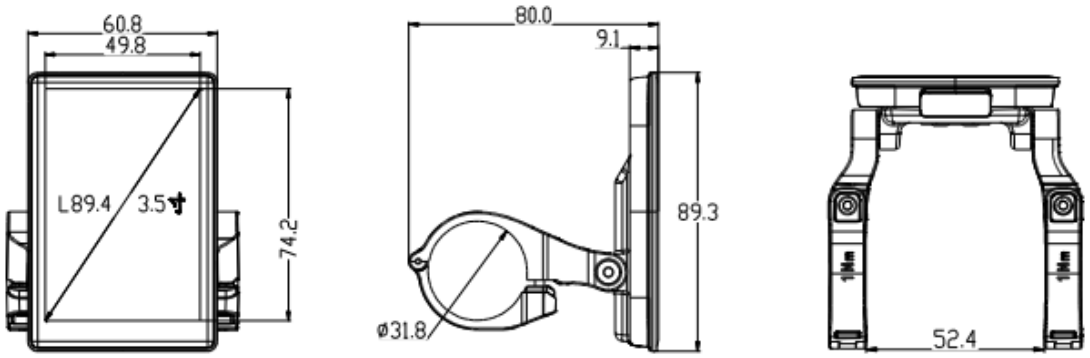
Intelligent display instrument.

2. Product model

B04N.

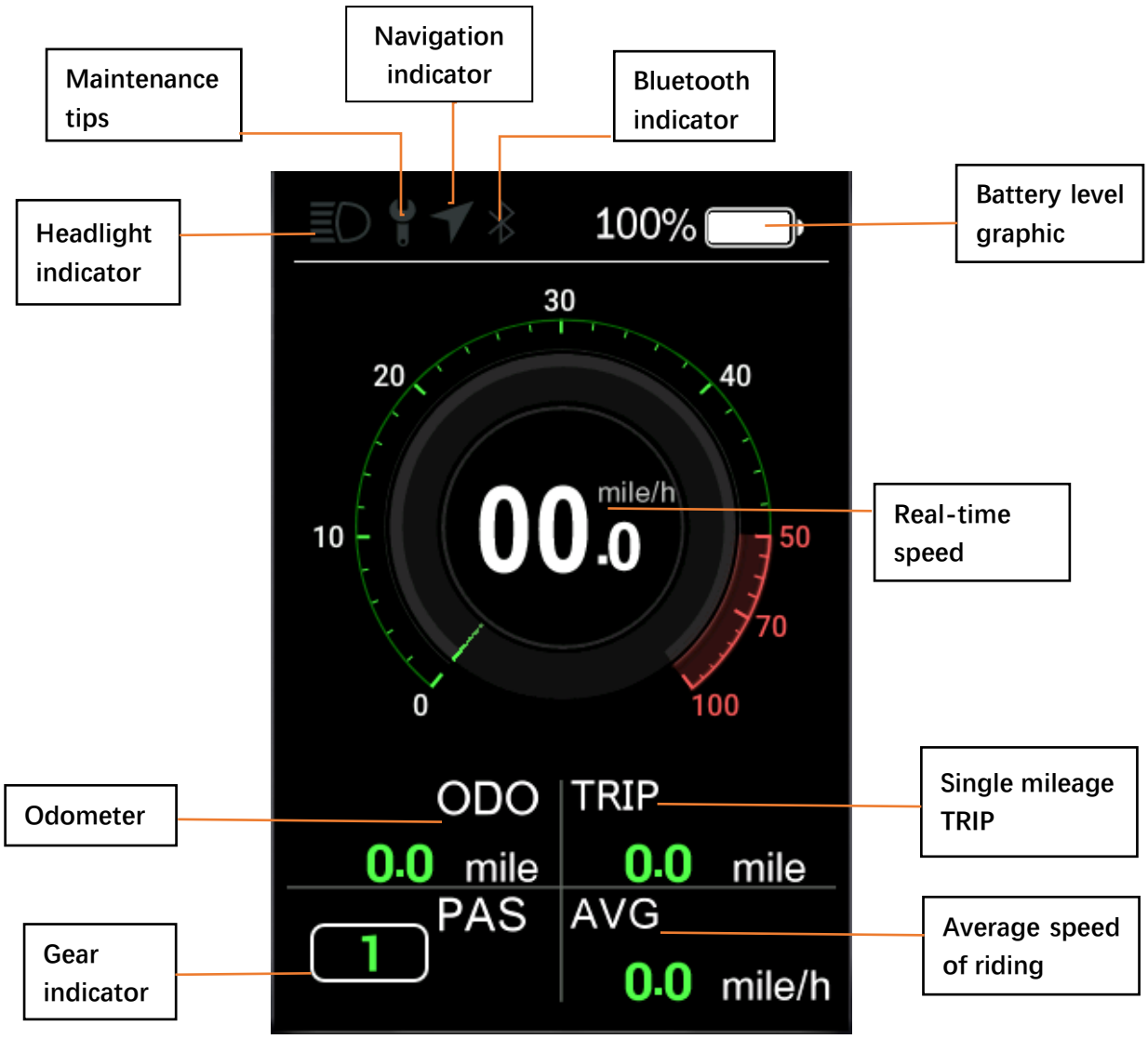
3. Product appearance

4. Product specification



General parameters		
size	Length * Width * Height	89.3*60.8*80（mm）
	Screen Dimension	3.5''
	Handlebar Adaption	22.2/25.4/31.8(mm)
screen	Type	IPS
	Color	RGB
	Resolution	320*480
connector	Type	M5 Waterproof Connector
	Length	20cm
General features	Operating Voltage	12v-60v
	Operating Temperature	-20℃-+70℃
	Waterproof Rating	IP67
	Total Weight	115 g (with handle).
	Protocol	UART/CAN
Other features	Bluetooth	4.0+BLE
	Light sense	Optional
	Type-C	Support
Certification	CE/ROHS/FCC	Customizable

5. The main display screen



① Headlight indicator: The headlight Indicator graphic will light up when the headlight is turned on.

② Navigation indicator: If the “BIKEGO” app is connected to the instrument, the symbol will light up when navigation starts. (real-time navigation requires payment)

③ Maintenance tips: The electronics system has some ability to self-diagnose and report a limited set of faults. The faults will be reported as error codes displayed on the screen.

④ Cruise indicator: The symbol will light up when the vehicle enters constant speed cruise.

⑤ Bluetooth indicator: After the app is successfully connected to the instrument, the symbol will light up.

⑥ Battery level graphic: The battery level graphic is a graphical representation of how much charge remains in the battery. More bars will appear in the graphic when the battery is charged. Less bars will appear when the battery is depleted.

⑦ Real-time speed: The number shows the current speed that the e-bike is traveling.

⑧ Gear indicator: This indicator shows which gear the bike is currently engaged.

⑨ Single mileage: Mileage for this ride.

⑩ Odometer: The total number of miles the vehicle has traveled.

⑪ Average speed: The average speed of this trip.

When the mobile phone app connects the Bluetooth of the display, selects the destination to start navigation after entering the navigation interface, the main display screen changes as follows (real-time navigation requires payment):

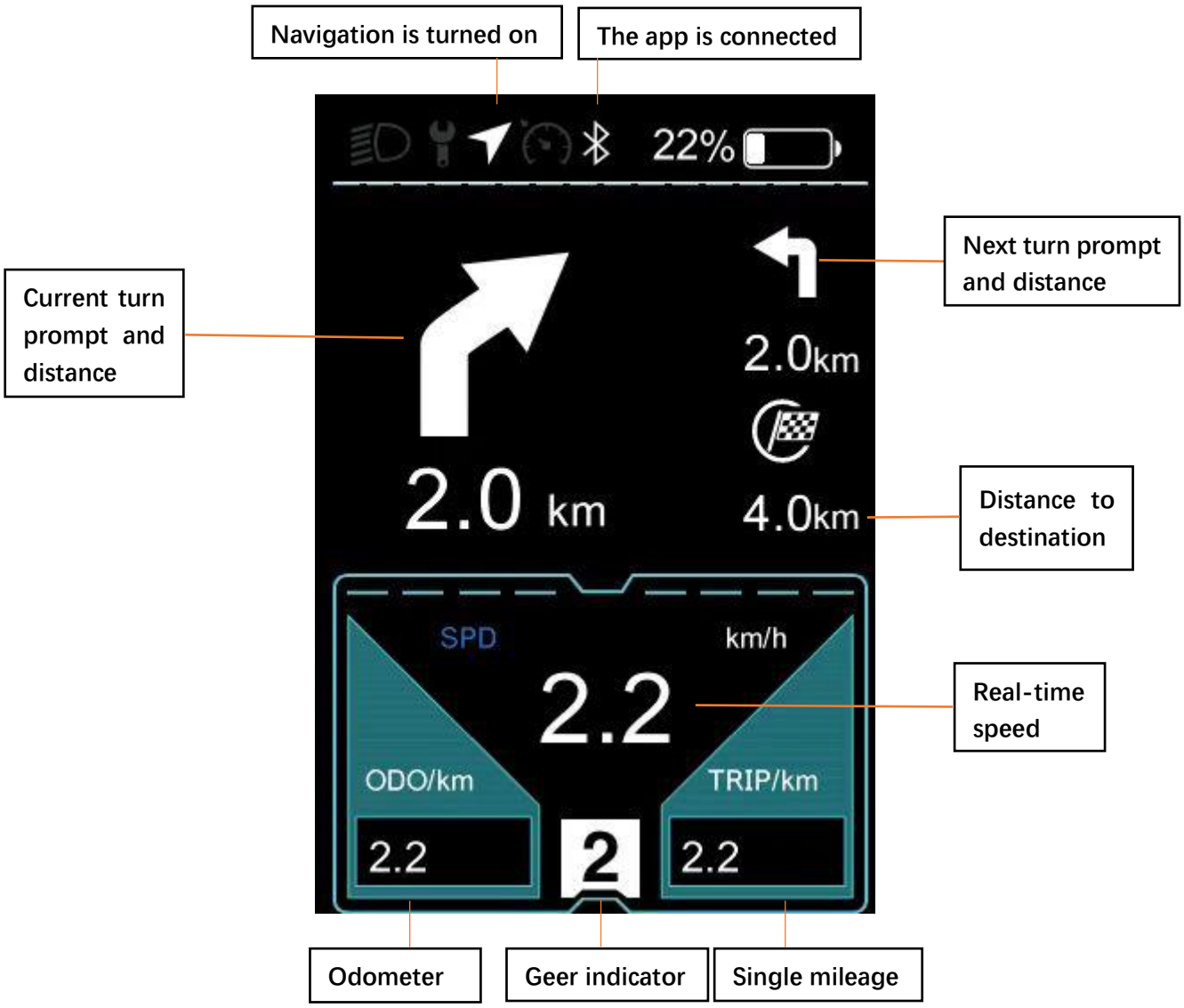
Navigation indicator: The symbol lights up to indicate that it is now in the navigation interface.

Bluetooth indicator: The symbol lights up to indicate that the mobile phone app is now connected to the instrument.

Current turn prompt and distance: Turn prompt and distance during current driving.

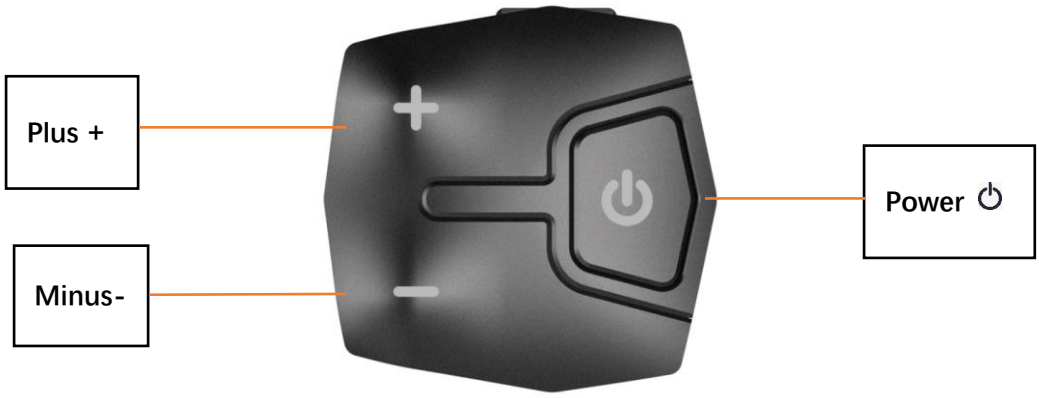
Next turn prompt and distance: Next turn prompt and distance during driving.

Distance to destination: Prompt of the total distance from the current location to the destination.



6. button definition

B04N has 3 buttons. Includes “Power key ⏻”, "Plus key +", "Minus key -". The key definition is shown in the following figure:



7. General operation

B04N provides 4 themes and 3 languages for users to set, this manual takes Theme1(English version) as examples.

"Press and hold key>2.5s" is replaced by "long press", and "press and hold key<0.5s" is replaced by "click".

① On/off

Long press the "⏻" to power on/off the display. In the shutdown state, the leakage current of the display is less than 1uA. The boot interface is shown in the following figure. (You need to enter the password before entering the main screen, the default password is 0000).

② Assist level selection

After entering the main display screen, click the "+" or "-" to increase or decrease the assist level and change the motor output power, the default gears of the instrument are 0--5 (support customization); no power output at 0 gear, 1 gear is the lowest power and 5 gear is the highest power. When the display is powered on, the default setting is gear 0. The assist level selection interface is shown in the following figure:

③ Headlight/backlight switch

Turn on the light: Long press the "+" when the light is off, the headlight indicator lights up, and the brightness of the display becomes dim.

Turn off the light: Long press the "+" key when the light is on, the headlight Indicator darkens.

The headlight switch interface is shown in the following figure:

④ Boost mode

Click "-" button to shift to gear 0 when the vehicle is stationary, click the "-" button again to light the boost indicator "", and then long press the "-" button to enter the boost mode. The interface is shown in the following figure:

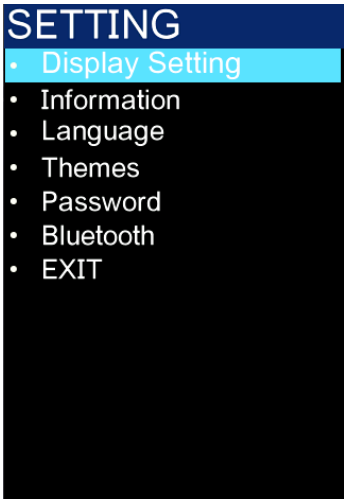
In the boost mode, the indicator is displayed dynamically. When the vehicle speed is less than 6km/h, release the "-" to stop the boost status. If no operation within 5s under static boost, it will be automatically jump to gear 0.

2. Information viewing and setting

1. Display settings

Click " " to enter the setting menu, use "+" or "-" to move the cursor up and down, select "Display Setting", "Information", "Language", "Themes",

"Password", "Bluetooth", "Reset Factory" and "Exit", and click " ⏻" to enter. The interface is shown in the following figure:



① Imperial and metric unit conversion

Enter the "Display Setting" menu, select "Unit", click "⏻" to enter the setting, use "+" or "-" to move the cursor up and down after entering the setting, select "Metric"/"Imperial", click "⏻" to save and exit to "Unit", and exit to the main interface through "Back" → "Exit". (The entry and exit procedures for other settings are similar, and will not be repeated.)

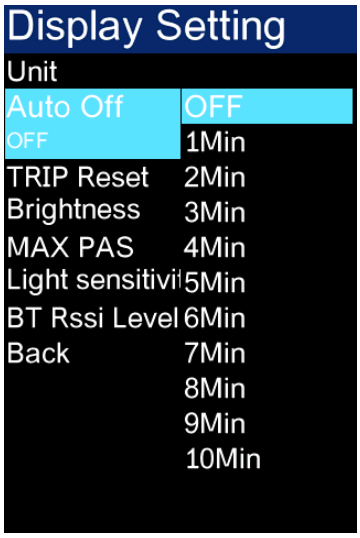
Unit conversion is shown in the following figure.

Note: The default unit is imperial.

② Auto Off

Enter the "Auto Off" menu, select "OFF", "1min", "2min", "3min", "4min", "5min", "6min", "7min", "8min", "9min", "10min" ("OFF" means to turn off the function, and "1min-10min" means to turn off the auto off time respectively.)

Note: Any operation during the auto off time will be timed again, and the shutdown will not occur until the non-operating time reaches the auto off time.

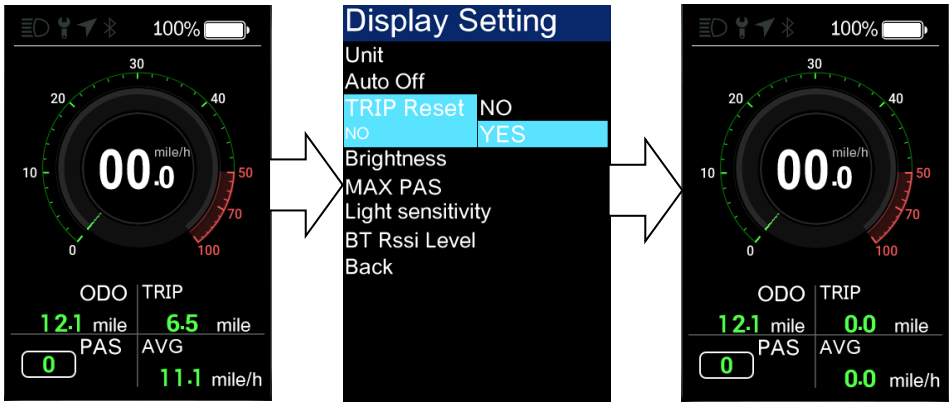


③ TRIP Reset

Enter the "TRIP Reset" menu, select "NO"/"YES".

When the single mileage reaches the maximum value(655km), it will be reset automatically, (the maximum values are different by the protocols, and the average speed will be set synchronously with the single mileage.)

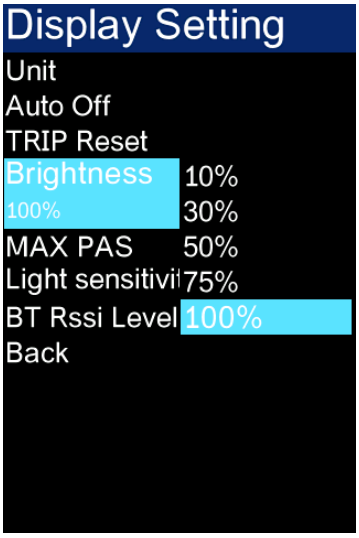
The interface is shown in the following figure:



④ Backlight brightness setting

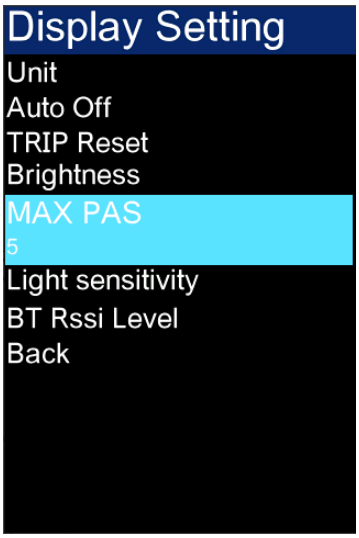
Enter the "Brightness" menu, select "30%"/"50%"/"75%"/"100%".

The interface is shown in the following figure:



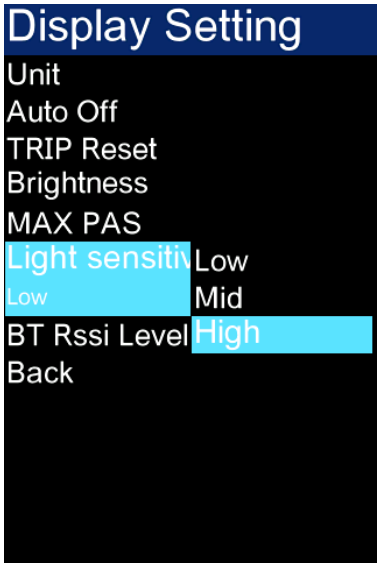
⑤ Max Pas – Maximum gear setting

Enter the "MAX PAS" menu, and it is not adjustable.

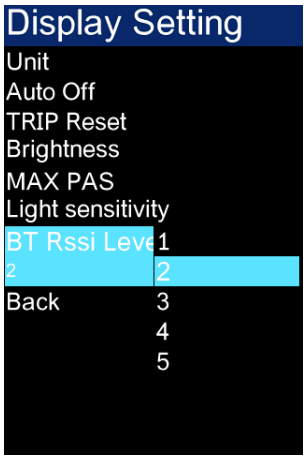


⑥ Enter "Light sensitive" menu, select "Low/Mid/High".

The interface is shown in the following figure:



⑦ BT Rssi Level – Bluetooth distance level setting, level 1 is near, 5 is far.

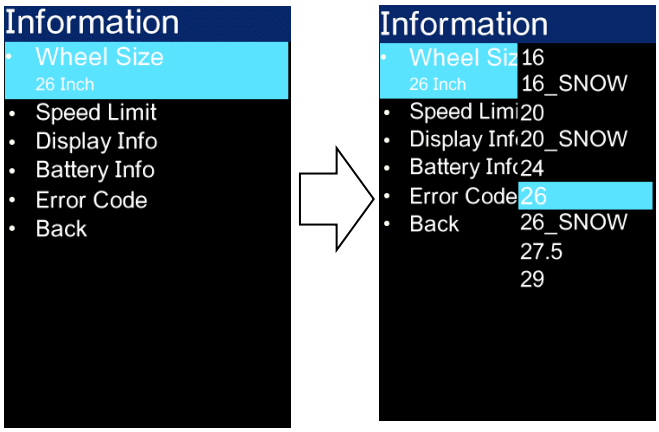


Note: Different mobile phones have slight differences.

2. Information viewing

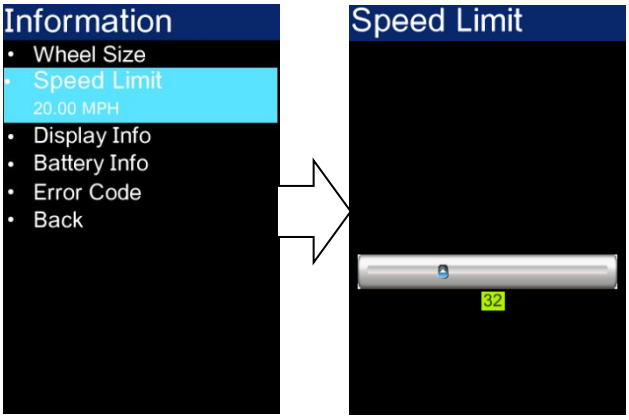
① Wheel Size information - Enter "Wheel Size" menu, the default wheel diameter is 26Inch (660mm), and the setting range is 16Inch (410mm) - 29Inch (740mm).

As shown in the figure below:



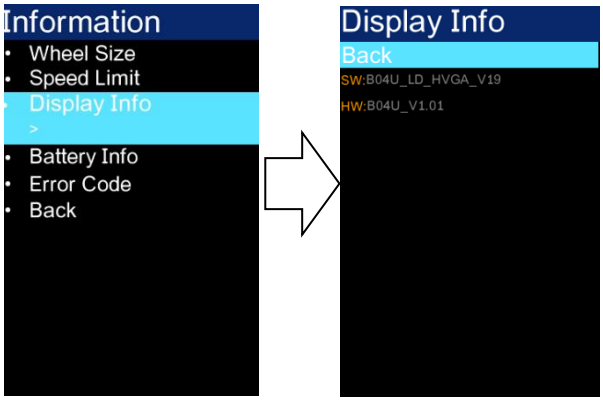
② Speed limit information - Enter the "Speed Limit" menu. When the unit is km (metric), the default speed limit is 36km/h; When the unit is Imperial, the default speed limit is 22.50MPH. 0~100km/h is optional.

As shown in the figure below:

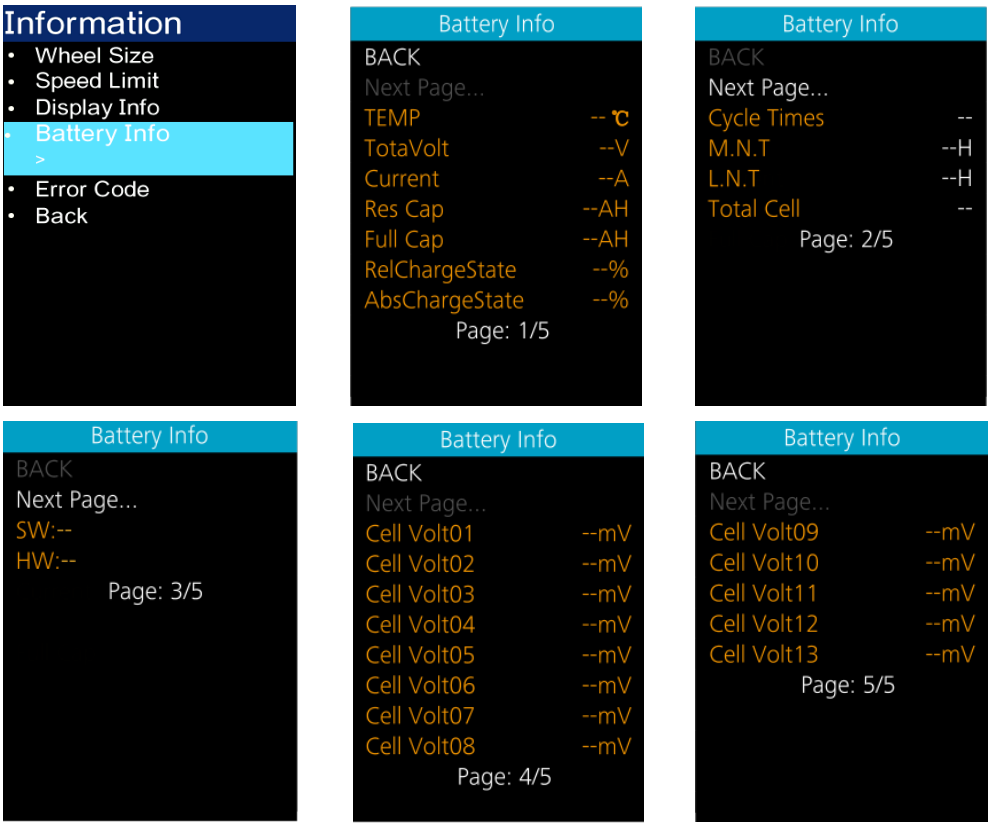


③ Display information–Enter the "Display Info" menu, the software and hardware version number (different by products) are displayed.

As shown in the figure below:

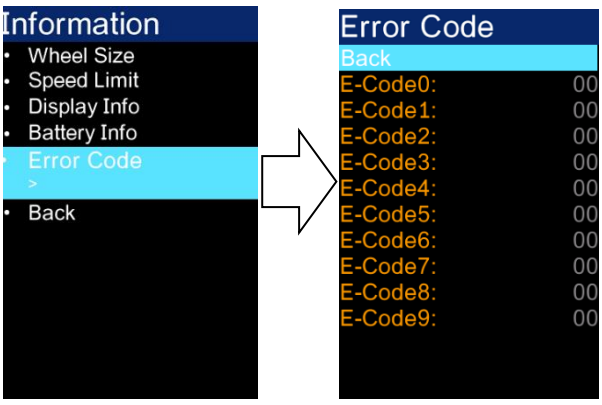


④ Battery information-Enter the " Battery Info" menu, the battery information is not adjustable. (The software and hardware version number may change due to different batches of products, so it is indicated by "--".)



⑤ Error code –Enter the "Error Code" menu, "E-CODE 0" refers to the last error message, while "E-CODE 9" refers to the tenth error message. Record can be up to ten. Press "+" or "-" to switch. The error code "00" refers to no error. Please refer to the error code definition table for the meaning of other codes.

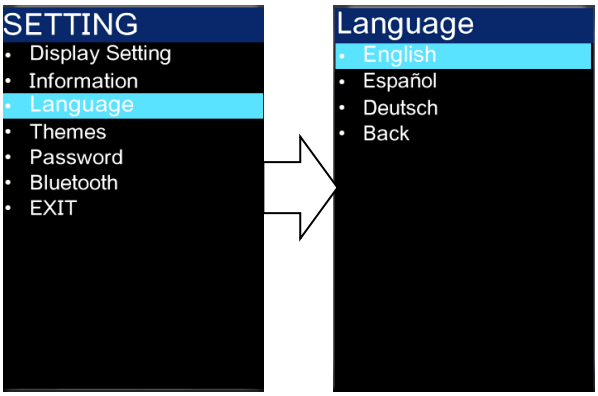
As shown in the figure below:



3. Language selection

B02 provides 3 languages for users to choose. Enter the "Language" menu, switch "English", "Deutsch" or "Español".

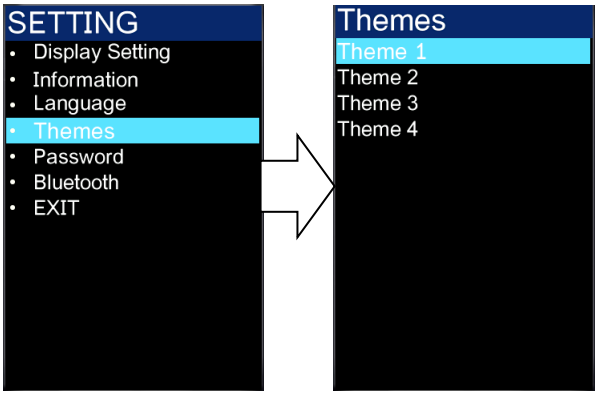
The interface is shown in the following figure:



4. Theme menu

B02 provides 4 different themes for users to choose. Enter the "Themes" menu, switch between "Theme1" - "Theme2" - "Theme3" - "Theme4".

The interface is shown in the following figure:

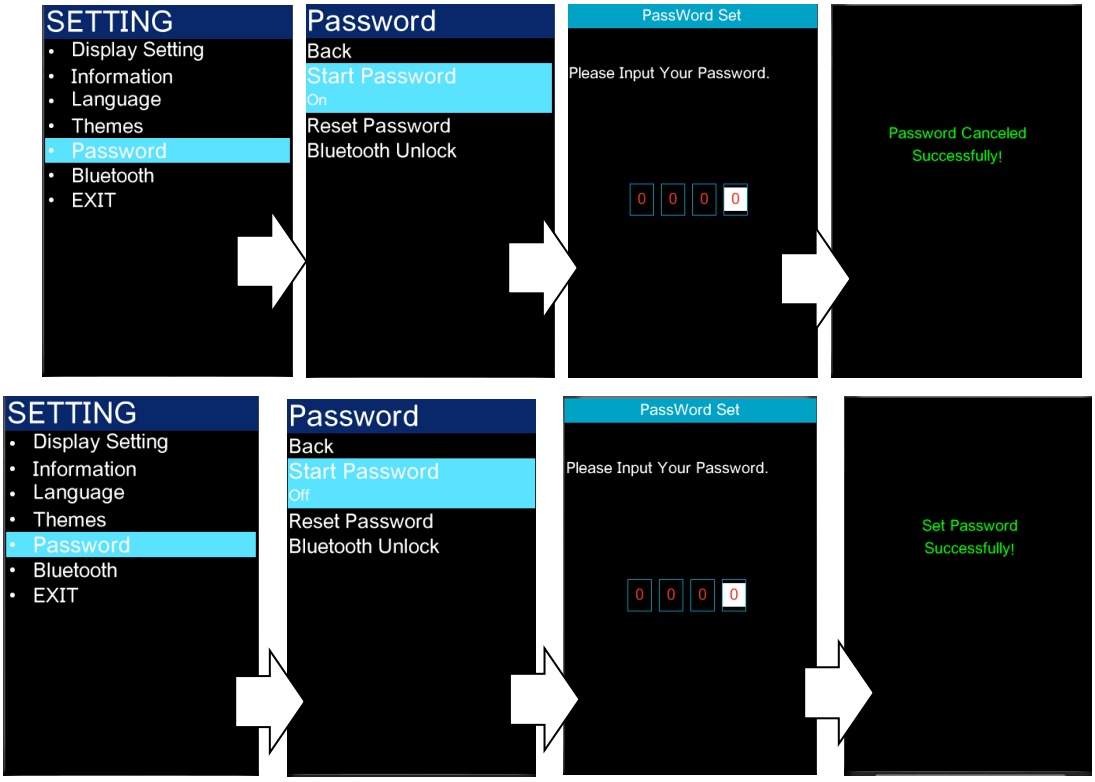


5. Password settings

① Start password off/on- Enter the "Password" menu, select and enter the

"Start Password" (Status is on/off) menu, and the interface prompts you to enter the password. At this time, use the "+" or "-" keys to switch the numbers "0-9", click "⏻" to enter digits. After entering, the system will prompt to close/open the password function. Then the interface will automatically jump to the original menu.

The procedure is shown in the figure below:



② Reset password – Enter the "Reset Password" menu.

1. The interface prompts "Please enter your old password". At this time, use the "+" or "-" key to switch the number "0-9", and click "⏻" to enter the number,

2. After entering, the interface prompts "Please enter your password". Repeat the above operation once to enter new password.

3. After entering, the interface prompts "Please confirm your password".

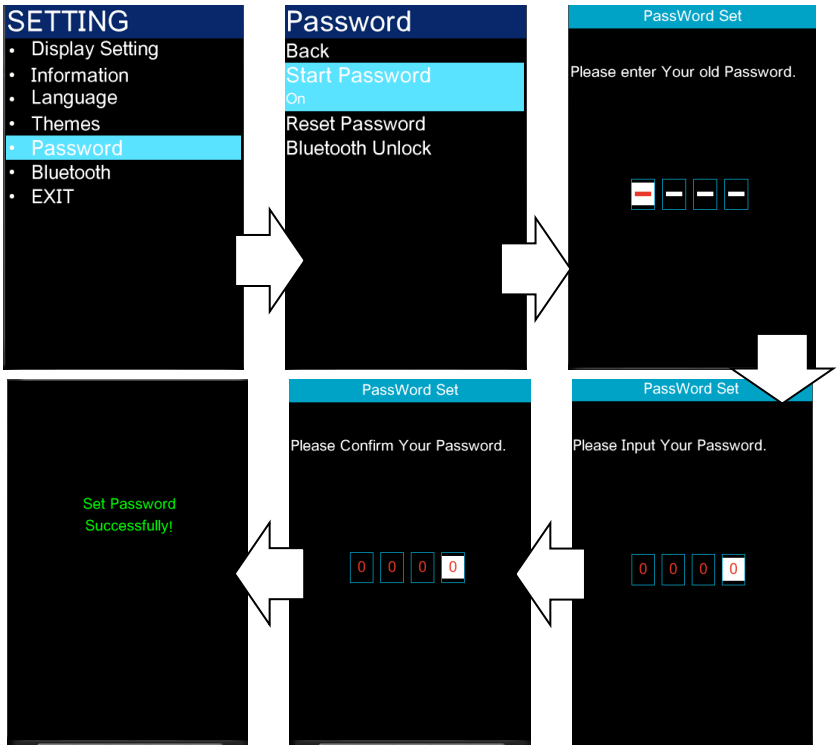
Repeat the above operation once.

Note: If you want to enable the password function, you need to enter the new password after modification.

Do not change the initial password unnecessarily.

The interface will automatically jump to the original menu after modification.

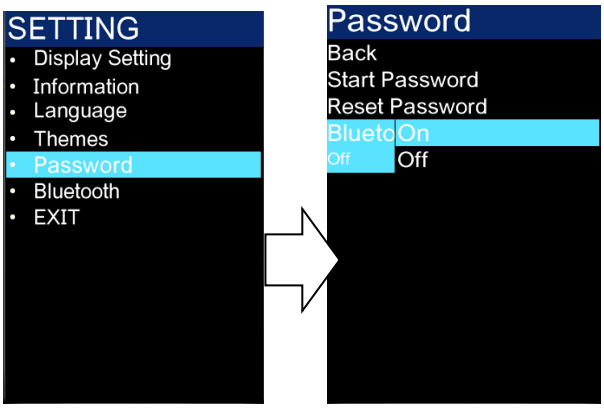
The procedure is shown in the figure below:



③ Bluetooth unlock setting (Enabled by default)

Enter "Bluetooth Unlock" menu, click "+" or "-" to select "On"/"Off" ("On" means to enable it, "Off" means to disable it). If the Bluetooth unlock is enabled when the mobile application is not connected, the Bluetooth QR code interface will pop up for you to bind. It will be back to "Password" menu after binding.

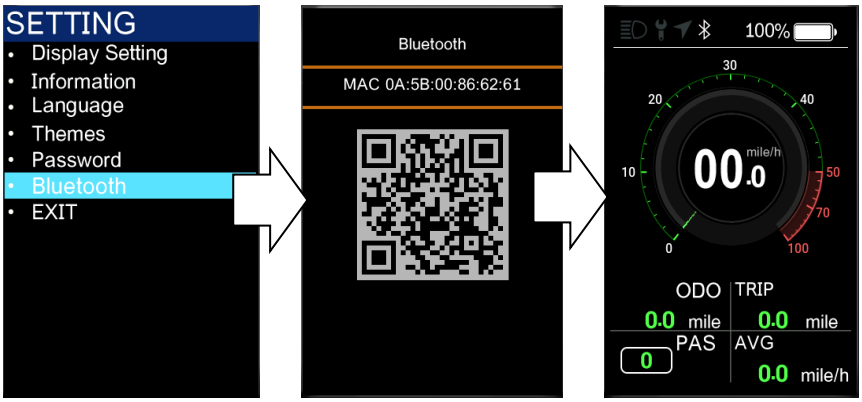
The procedure is shown as below:



6. Bluetooth connection

Enter the "Bluetooth" menu, click "⏻" to enter the Bluetooth QR code interface. You can scan the QR code to bind the device through the mobile phone app. After binding, it jumps to the main screen automatically, and the Bluetooth indicator lights up.

The procedure is shown as below:



Error code comparison table

The error code	Fault description	Troubleshooting methods
“02”	Brake handle failure	Stop riding and check whether the brake returns and is damaged
“04”	The speed control put does not returned	Check whether the speed control is in place
“05”	Speed regulation put fault	Check the speed gauge
“06”	Undervoltage protection status	Check the battery voltage
“07”	Overvoltage protection	Check the battery voltage
“08”	Hall signal line fault of motor	Check the motor module
“09”	Motor phase line fault	Check the motor module
“10”	The temperature inside the motor is too high	Check the motor
“11”	Motor temperature sensor failure	Stop riding
“12”	Current sensor failure	Check the controller
“13”	Failure of temperature inside the battery	Check the battery
“14”	The temperature inside the controller is too high	Check the controller
“15”	Controller temperature sensor failure	Stop riding
“16”	Controller failure	Stop riding
“17”	Abnormal braking	Stop riding and check whether the brake returns and is damaged
“21”	Bafang: Speed sensor failure KM5S: Abnormal current	Bafang: Check the installation position of speed sensor KM5S: Check the controller plug-in
“22”	KM5S: Abnormal handle	Check the speed regulating handle
“23”	KM5S: Motor phase loss	Check the motor
“24”	KM5S: Abnormal Hall of motor	Check the motor

“25”	Bafang: Torque signal fault of torque sensor KM5S: Abnormal braking	Bafang: Check the torque KM5S: Stop riding
“26”	Speed signal fault of torque sensor	Check the torque
“27”	Controller overcurrent	Check the controller
“29”	Controller communication failure	Check the controller connector
“30”	Communication failure	Check the controller connector
“33”	Brake detection circuit fault	Check the controller
“35”	15V power supply detection fault	Check the controller
“36”	Key detection circuit failure	Check the controller
“37”	Watchdog fault	Check the controller
“41”	The total voltage is too high	Check the battery
“42”	The total voltage is too low	Check the battery
“43”	The total current is too large	Check the battery
“44”	The monomer voltage is too high	Check the battery
“45”	Temperature too high (battery)	Check the battery
“46”	Temperature too low (battery)	Check the battery
“47”	SOC is too high (battery).	Check the battery
“48”	SOC is too low (battery).	Check the battery
“61”	The transmission is stuck	Check the transmission
“62”	The transmission cannot be reset	Check the transmission
“71”	The electronic lock is stuck	Check the electronic lock
“81”	Bluetooth module failure	Check Bluetooth

Menu descriptions are not commonly used		
Menu function		Function description
drive mode	shifter	Throttle assist
	assistance	Power assisted drive
	s&a	Throttle assist drive
boost magnetic	2--63	Number of boost magnets
speed magnetic	0--15	Number of speed magnets
boost ratio	0--255	Boost speed following adjustment (0-255)
boost function	off	Throttle 6km function (0-normal, 1-6Km)
	on	
soft start	0	Boost starting strength (0-3)
	1	
	2	
	3	
gear step	off	Whether the throttle shift with the gear (0-no, 1-yes)
	on	
current limit	0--63	Current-limit value
boost signal	positive	Power assist signal polarity
	negative	
PWM set	1--255	Maximum gear and PWM change corresponding to each gear

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.