

## 5. Product introduction

5.1 Screen size: colorful 3.5-inch TFT screen.

5.2 Rotatable screen: Can be switched vertically and horizontally.

5.3 Speed display: real-time speed RT SPEED, maximum speed MAX SPEED and average speed AVG SPEED.

5.4 Km / mile selection: km / mile display can be set according to customers' habits.

5.5 Intelligent electric quantity indication: provide stable electric quantity indication through optimization algorithm, and the electric quantity is not affected by the fluctuation of start and stop of motor.

5.6 5 level backlight brightness adjustment: set the backlight brightness according to the customer's usage habits. Level 1 is the darkest, level 5 is the brightest.

5.7 9 gears control: the number of gears can be set to 3 / 5 / 9 / 6 according to the user's requirements.

5.8 Mileage display: display the accumulated mileage ODO, single mileage TRIP, riding time TIME and continuous mileage RANGE (with battery communication function).

5.9 Clock display: built in battery.

5.10 Output power indication: output power (battery output power) can be displayed in real time.

5.11 Fault prompt: provide text description.

5.12 Speed limit adjustment function: set speed limit.

5.13 Current limiting regulation function: set current limiting.

5.14 Battery information display (battery support communication is required).

5.15 Range indication (battery support communication required).

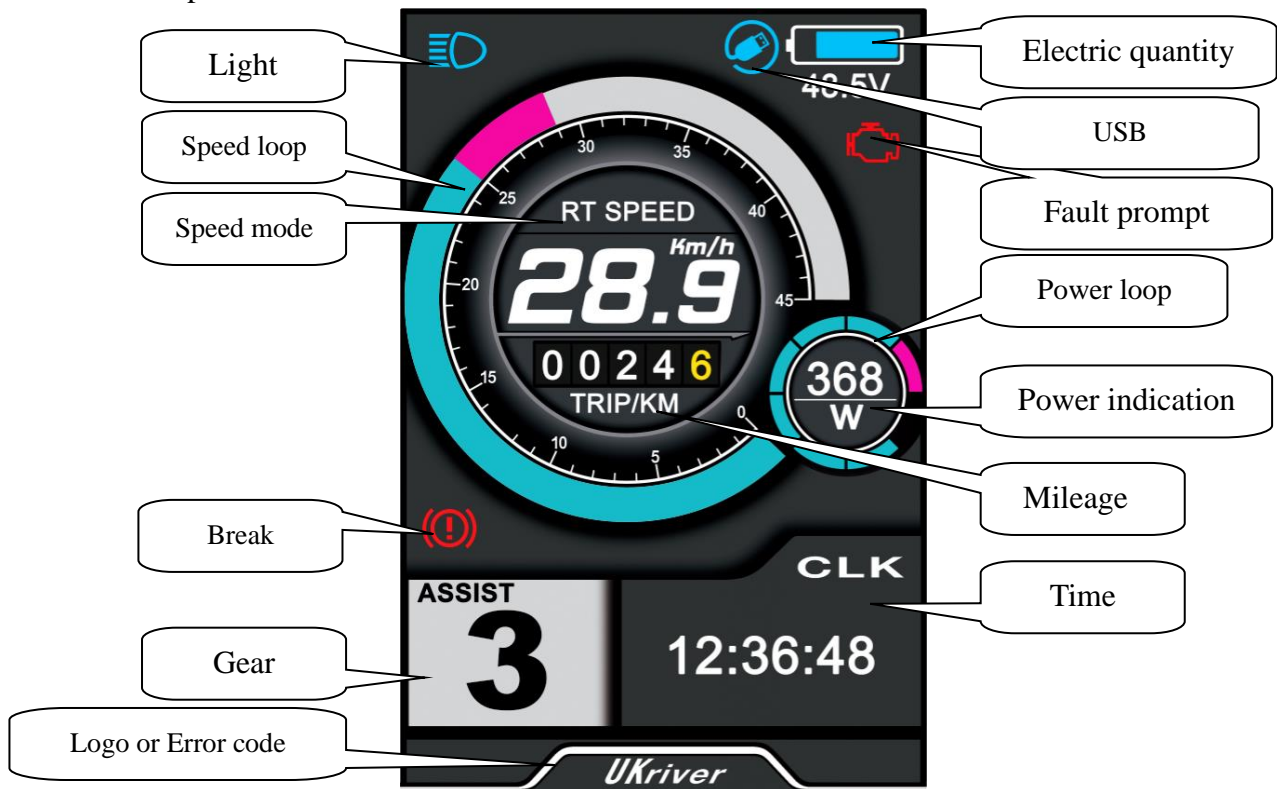
5.16 USB charging port: can provide rated charging for mobile devices, with current of 500mA / 5V.

5.17 Program upgrade: the program can be upgraded through the serial port.

5.18 Adjustment function for speed measuring magnetic steel: set the number of speed measuring magnetic steel.

5.19 Adjustment function for booster magnet: set the number of booster magnet.


## 6 LCD description



6.1 speed mode: AVG speed, max speed, RT speed

6.2 speed display: display speed value, km / h or MPH

6.3 electric quantity indication: the optional display modes: graphic mode, graphic + voltage mode and graphic + current mode

6.4 headlight indication: the interface displays  when the headlight is on

6.5 brake prompt: display  when the brake is powered off

6.6 gear indication: the current power assisted gear, 0-9. 0 is neutral gear without power assisted, and 1-9 corresponds to power assisted gear. Display "P" in 6km push mode

6.7 fault prompt: display  when fault is detected

6.8 power indication: display real-time power

6.9 mileage indication: single mileage "TRIP", accumulated mileage "ODO" and riding time "TIME"

6.10 TIME: display TIME

6.11 USB display: interface display  when USB charging function is turned on

## 7. Function description

See figure for key description



### 7.1 Switch machine

When the instrument is shut down, press and hold the ON key for a long time, the instrument will display and start to work; when the instrument is turned on, press and hold the ON key for a long time (1 second), the instrument power will be turned off. If you ride for 5 minutes (the time can be set by the user) without operating the instrument, the instrument will automatically turn off .

\* If the instrument is set Password on, After entering the password, the instrument will display and start to work.

### 7.2 Power assisted gear selection

In the manual shift mode \*, press + key or - key to switch the power assisted gear. The lowest gear is 1 and the highest gear is 9. The default gear is 1 when the instrument is turned on. 0 gear is neutral without power assisted.



Power assisted gear selection

### 7.3 mileage mode switching

Press the on key to switch the mileage display mode under the power on state, and the following information will be displayed circularly: motor revolution (m-rpm) → single mileage (trip) → accumulated mileage (ODO) → riding time (time).

#### Mileage mode switching display interface

### 7.4 speed mode switching

Press the M key in the power on state to switch the speed display mode, and the following information will be displayed circularly: RT speed → Avg Speed → max speed.

- No operation within 5 seconds will return to real time speed.

### 7.5 headlight switch / display mode switch

Press and hold the key for more than 1 second, the instrument will turn on the lights (supported by the controller) and switch to the day / night mode. Press and hold the key for more than 1 second again, the instrument will turn off the lights and switch the display mode at the same time.

Day mode

night mode

\*The backlight brightness of the instrument can be adjusted in 5 levels, and the user can set it according to the demand. For details, see 8.1 - backlight brightness

## 7.6 walking mode (6km Implementation)

Press and hold the button for more than 1 second, the electric vehicle will enter the state of power assisted implementation, the speed will display the real-time speed, the gear will display P, release the button for reducing, the electric vehicle will exit the walking mode

Display interface of travel mode switching

\*Some controllers may not support this feature

## 7.7 USB function

Long press the M key for more than 1 second to turn on the USB function. The user can use the USB function. Long press the M key for more than 1 second again to turn off the USB function. The charging parameter is DC 5V 500mA.

USB off / on interface

## 7.8 data clearing

At the same time, press the plus button and the minus button for one second to clear the temporary data, including the maximum speed, AVG speed, trip and time.

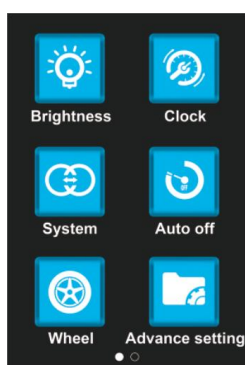
\*The above data will not be cleared when the instrument is powered off or the vehicle is powered off.

## 8 MENU Parameter setting

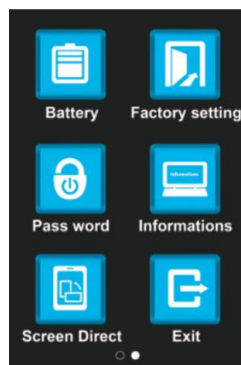
Power on, press the M key twice continuously (the interval between two presses is less than 0.3s), the system will be in the menu parameter setting state, in which the instrument parameters can be set, and then press the M key twice continuously to exit the setting state (the interval between two presses is less than 0.3s).

In the menu setting state, M key is for confirmation and Power on key is for cancellation; press the plus / minus key to select the item to be adjusted, press the M key to flash the parameter to be set, press the plus / minus key to adjust the parameter setting value, and press the M key to save the setting; press the ON key or the EXIT option to return to the main menu, and press the M key or select exit twice in the function selection interface to exit the MENU state.

\*In the parameter setting state, if the key operation is not carried out for 30 seconds, the instrument will automatically exit the menu state. For safety reasons, it is not allowed to enter the menu interface when riding (speed indication is greater than 6km), and it can enter the menu for setting when walking (speed indication is less than 6km). In the menu interface, if you start riding (the speed display is greater than 6km), you will automatically exit the menu. In the advanced setting interface, press the M key twice continuously, and you cannot exit menu.



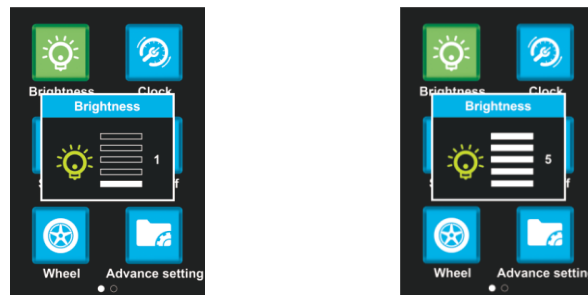
First page of menu



second page of menu

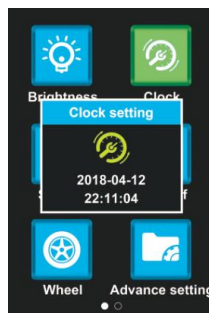
Function selection menu

8.1 brightness screen brightness: press the M key to enter the setting interface, press the increase / decrease key to adjust the brightness 1-5, 1 is the darkest backlight, 5 is the brightest, press the M key to confirm after setting and return to the main menu.



Screen brightness adjustment interface

8.2 clock setting: press the M key to enter the clock setting interface, press the plus / minus key to select and adjust the year / month / day / hour / minute / second, press the M key to set the current value, press the power on key to cancel the current setting, press the M key to confirm and return to the main menu after setting.



Time adjustment interface

8.3 system system settings: press the add / subtract key to switch the function options, press the M key to enter the options, continue to press the add / subtract key to switch the option contents, press the M key to determine the current settings, press the power on key to cancel the current settings and return to the main menu; the options and functions are as follows:

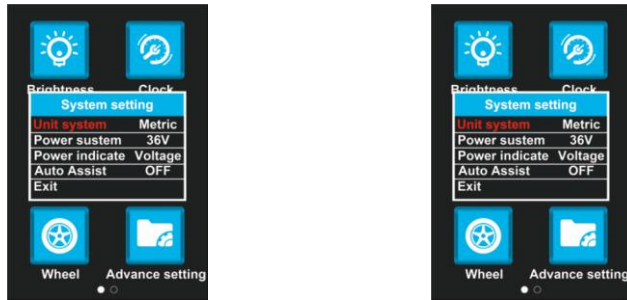
Unit system → metric / imperial: speed unit → metric / imperial

Power system → 24V / 36V / 48V / 52V / 60V / 72V / Ube: voltage selection → 24V / 36V / 48V / 52V / 60V / 72V / Ube, Ube is user-defined

Power indicator → percentage / voltage: power indication → percentage / voltage

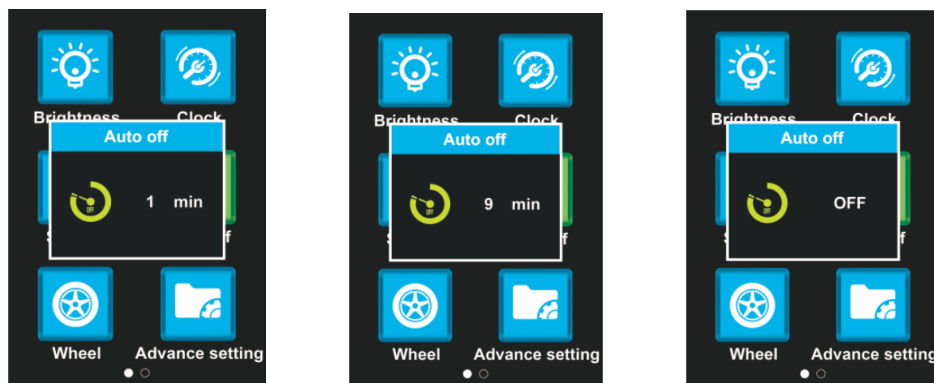
Auto assist → on / off: auto shift → on / off

After setting, select exit or press the power on key to exit and return to the main menu.



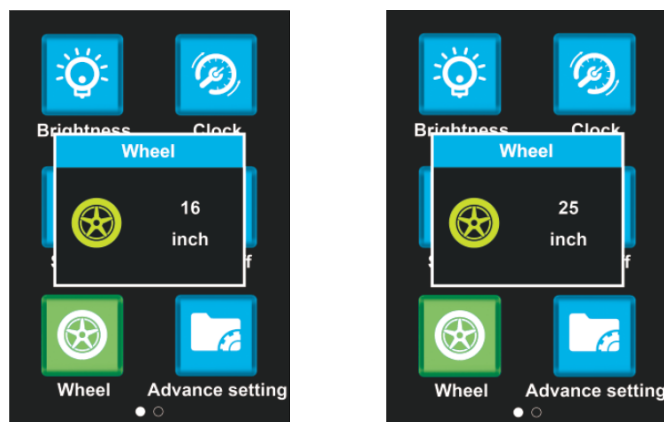
System option setting interface

8.4 auto Off automatic shutdown time: press the plus / minus button to adjust the shutdown time for 1-9min, which means the automatic shutdown minute, and off means the automatic shutdown function is turned off, which is 5min by default. Press the M key to confirm the current setting or press the power on key to cancel the current setting after the setting.



Automatic shutdown time setting interface

8.5 wheel diameter selection: press the increase / decrease button to switch the wheel diameter size: 16 / 18 / 20 / 22 / 24 / 26 / 27 / 27.5/28/29/30/31/32; wrong wheel diameter selection will cause abnormal speed; press the M key to confirm the current setting after setting or press the start key to cancel the current setting.



Wheel diameter selection interface



8.6 advance setting advanced setting: press the M key to enter the advance setting interface, press the plus / minus key to adjust the display password value to enter the advanced setting interface, if the password is entered correctly, enter the advance setting submenu interface, the password is 4 digits, the default password is "1801", the old version of the missing password is "0000", the options and functions are as follows:

Speed limit → \* \* km / h: speed limit setting → \* \* km / h

Current limit → \* \* A: current limit setting → \* \* a

Assist levels → 1-4: gear setting → 1 for 3rd gear system; 2 for 5th gear system; 3 for 6th gear system; 4 for 9th gear system

Poles in motor → 1-15: quantity of speed measuring magnetic steel → 1-15

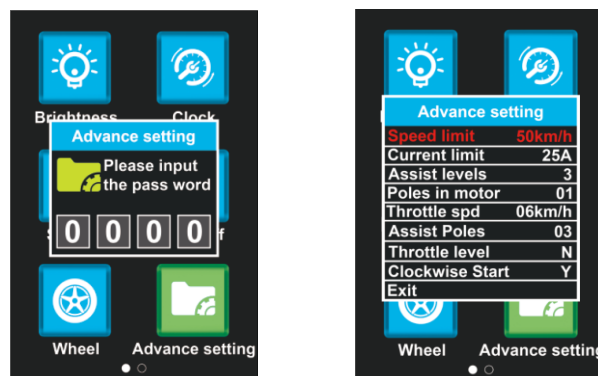
Throttle 6km → Y / N: 6km push → on / off

Assist poles → 3-15: number of booster magnets → 3-15

Throttle level → Y / N: turn handle and shift → yes / no

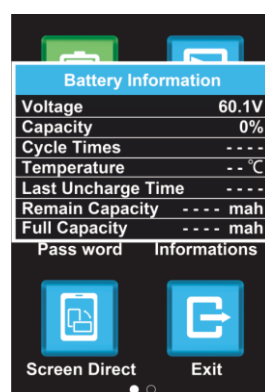
Clockwise start → Y / N: direction of boost sensor → yes / no

After setting, select exit or press the power on key to exit and return to the main menu



Enter password to enter advanced setting interface

8.7 battery information display: press the M key to enter the battery information interface and display the actual battery voltage, battery capacity percentage, cycle times, battery internal temperature, last uncharged time, remaining capacity and full capacity Capacity) press the M key or the power on key to exit and return to the main menu.



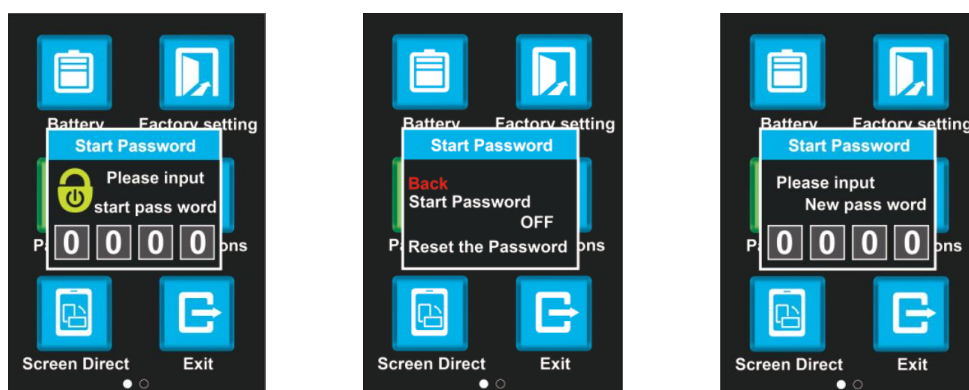
**\*Battery information display requires battery to support three-way communication**

8.8 factory setting. restore factory settings: press M key to enter factory settings interface, select Yes to restore factory settings, and other parameters except total mileage will be restored to factory status after setting; select back or press power on key to return to main menu.



Restore factory setting interface

8.9 password startup password opening and setting: press the M key to enter the startup password setting interface, press the plus / minus key to adjust the value input password to enter the setting interface, select the start password item to select on / off, that is, turn on or off the password startup; select the reset the password item to enter the new password setting interface, select back or press the startup key to return to the main menu; the default password is "0000".



Enter password

select options

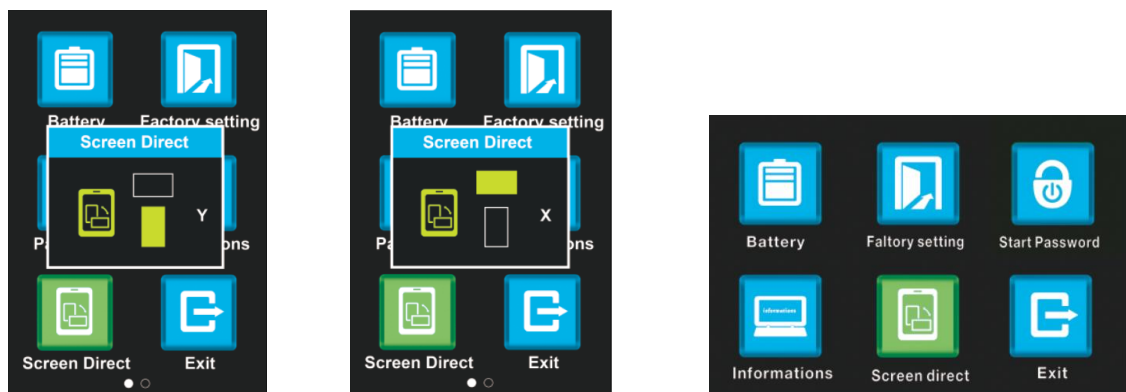
enter new password

8.10 information information display: press M key to select information to enter information interface, display speed mode and mileage mode value information, press M key or power on key to return to main menu.



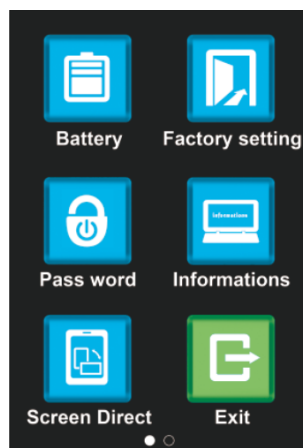
Information display interface

8.11 Screen direct. Screen display mode: press M key to select screen direct option to enter menu, press plus / minus key to switch display mode Y / x, y is vertical screen mode, X is horizontal screen mode, operation and setting method in horizontal mode refer to vertical mode.




Screen display mode interface

8.12 Exit menu: select exit and press m to confirm or press M key twice in any option of the main menu to return to the main interface.



Exit the menu interface

9. Error code definition

UKC1 可以对整车故障提供错误指示，在检测到存在故障时，液晶屏显示  图标，在屏幕最上显示错误码和错误说明：请参考仪表右下方时间显示区域内错误描述。

Error code	definition
0x40	Hall fault
0x20	Handle failure
0x10	Controller failure
0x08	Undervoltage protection
0x02	Brake handle failure
0x01	Motor phase loss



Fault warning display interface