



Tianjin Ukriver Science & Technology Co., Ltd

## Product Specification

Model: UKC2

### 1. Product Name

- TFT LCD display;model:UKC2

### 2. Suppliers

TIANJIN UKRIVER SCIENCE & TECHNOLOGY CO.,LTD

### 3. Electrical Parameters

- ✧ 3.5 inch IPS screen
- ✧ 24V/36V/48V/52v/60v/72v battery supply
- ✧ Rated operating current : 40mA
- ✧ Max operating current : 100mA (36V battery ,charging state when using external USB equipment )
- ✧ USB charging port : 5V 500mA
- ✧ Off leakage current < 1uA
- ✧ Max output current to controller : 100mA
- ✧ Operating temperature : -20~70℃, Storage temperature : -30~80℃

### 4. Dimensions & Material

- ABS product shell ,LCD transparent window is made of high strength Acrylic which is imported, Product holder material is glass fiber mixed with nylon.

## 5. Features



5.1 High-contrast 3.5inch IPS colorful matrix screen.

5.2 Suitable for low temperature, Max -20°C.

**5.3 Screen display:** the display interface can be freely switched between full display mode and minimalist mode.

**5.4 Speed display :** AVG SPEED, MAX SPEED, SPEED(Real-time).

**5.5 Kilometer / Mile :** Can be set according to customers' habits.

**5.6 Intelligent power indicator contains below :** It can Provide a stable power indication through the optimization algorithm. The power is not affected by the start-stop fluctuation of the motor. If the system supports battery communication, the accurate percentage of power will be displayed.

**5.7 Adjusting 5 levels backlight brightness:** 1<sup>st</sup> level is the darkest, 5<sup>th</sup> is the lightest

**5.8 9-level Assist :** 3-level/5-level/6-level/9-level is optional.

**5.9 Mileage indicator :** Odometer/Trip distance/ Clock/ Riding time.

**5.10 Clock display:**inner small battery,keep time when the display is closed

**5.11 Power indicator:** real time power indicator, digital or analog.

**5.12 Error code indicator.**

**5.13 Speed limited from 1-100.**

**5.14 Bicycle self-checking function**

**5.15 Battery information display** (battery communication is required) .

**5.16 Endurance Mileage showing** (battery communication is required) .

**5.17 USB charging port,** 500mA/5V.

**5.18 Software upgraded :** Software can be upgraded through UART.

## 6. TFT screen instructions





**6.1 display interface:** in the riding state, the display is in the minimalist mode. Click the mode key or on key to switch to the full display mode. The next setting operation can be carried out according to the instructions. If there is no operation within 5 seconds, it will return to the minimalist mode.

**6.2 Speed model:** AVG SPEED/MAX SPEED/RT SPEED

**6.3 Speed display:** Km/h or MPH

**6.4 Battery display:** Voltage date and display model is optional

**6.5 Headlight display:** when the headlight is working, showing 

**6.6 Brake display:** when the brake is working, showing 


**6.7 Level display:** 0-9 levels, P means 6km/h

**6.8 Fault indication** 

**6.9 Power display:** showing the true power (showing both date and graph )

**6.10 Trip date:** TRIP/ODO/TIME

**6.11 Clock display:** showing the clock information

**6.12 USB display:** USB function is off by default , If you want to charge, long press the M button, when the screen shows  , that means charging function is activated successfully

## 7 Functional Description



### 7.1 Power On/Off

Press and hold **Power** button for 1 second, it can turn on/off the display. The Display will automatically shut down when there is no operate & ride for X minutes (X could be 0~9) .

**\*If the display has been set power-on password , you need to input the right password when starting.**

### 7.2 Assist level operating

Short press UP/DOWN button can change the assist level. Top assist level is 5, 0 for neutral. Level quantities can be adjusted according to the customer's requirements.



The screen display of the PAS level adjust

### 7.3 Mileage mode switch

In the state of power on, Short pressing **POWER** button can change the mileage mode ,TRIP→ODO→TIME.



The screen display of the Mileage mode switch

### 7.4 Speed mode switch

In the state of power on, Short pressing **POWER** button can change the speed mode:RT SPEED→AVG SPEED→MAX SPEED.

\*\*If there is no operation for 5 seconds, display will return to Speed (Real-Time) display



### 7.5 headlight/display model change

Press and hold **UP** button for 1 second ,the headlight will be open(controller support is needed) and change the daytime/night model.Press and hold **UP** button for 1 second again, lighting will be closed and change the display model.



aytime model



Night model

### 7.6 Walking mode (6km)

Pressing and holding **DOWN** button for 2 seconds can get into walking mode,then the display will show P, when release the button,it will be out of the mode.



The display of the walking mode

\*This feature needs to be supported by controller.

### 7.7 Data cleanup

Pressing and holding **UP** & **DOWN** buttons together for 1 second can reset several temporary data, temporary data includes **AVG Speed / MAX Speed / Trip / Time**.

\*These temporary data will not be erased by power off.

### 7.8 USB charger

Close or open of USB charger is optional.Charging parameters: DC 5V 500mA.

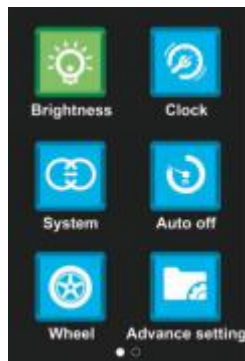


USB close or open mode

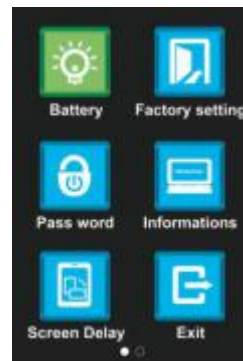
## 8 MENU Parameter setting

In the state of power on, press the M button twice (time interval must be within 0.3S), the system will enter the menu parameter setting state, in this state, users can set the parameters, press M button twice again to quit setting state (time interval must be within 0.3S).

\* Display will quit the menu automatically when there is no operation for 30 seconds. In the riding state (speed is more than 0), entering setting state is not allowed. When riding in the menu state (speed is not 0), it will quit menu setting state. In the advanced setup interface, when you press M switch, it's not able to quit menu.

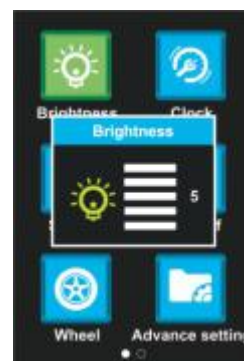


First page menu



Second page menu

**8.1 Brightness:** Press M button to enter the setting menu, adjusting the brightness 1-5 by pressing up/down button, 1 is the darkness, 5 is the brightness



adjusting the brightness interface

**8.2 Clock:**press M button to get into the clock setting menu, press UP/DOWN button to set Year/Month/Day/Hour/Min/Sec.when finish setting, press M button and return to previous menu.



Adjusting time interface

**8.3 System:** Press up/down button can change different function,entry into default by pressing M button,press up/down button again will change content,Pressing M button returns to previous menu.

Default and functions:

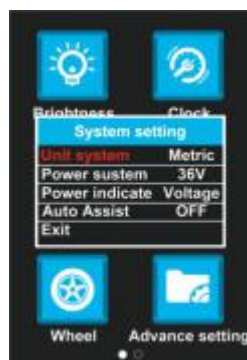
Unit system→Metric/Imperial

Power system→24V/36V/48V/52V/60V/72V/UBE

Power indicate→Percent /Voltage

Auto assist→ON/OFF

After finish setting,choose Exit,returns to previous menu.

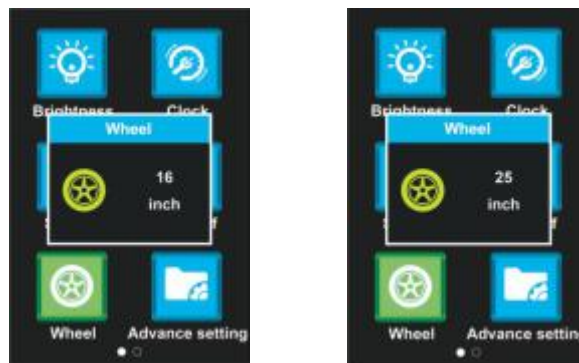


**8.4 Auto Off:** Press UP/DOWN button to change the auto power off time, from 1 to 9, the number represent time (minutes) to shutdown, default value is 5 minutes.

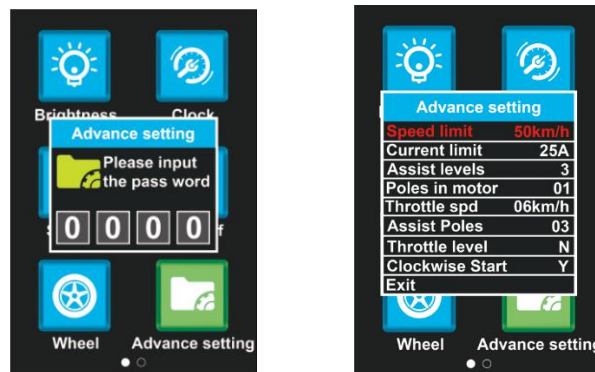




**8.5 Wheel :** Press UP/DOWN can change the wheel setting, optional wheel diameter is 16/18/20/22/24/26/27/27.5/28/29/30/31/32 inch, 51cm~255cm represent wheel circumference (this needs protocol support).



**8.6 Advance setting:** Press M button to enter advance setting menu, adjusting password by pressing up/down button, if the password is right, you can enter the Sub menu of advance setting, password has 4 numbers, default password is '1801'.



Defaults and functions:

Speed limit → \*\*km/h

Current limit → \*\*A

Assist levels → 1~4: 1 means 3 levels; 2 means 5 levels; 3 means 6 levels; 4 means 9 levels

Poles in motor → 1~15

Throttle 6km → Y/N

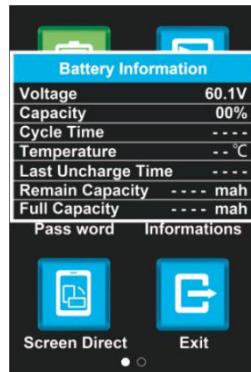
Assist Poles→3~15

Throttle Level→Y/N

Clockwise Start→Y/N

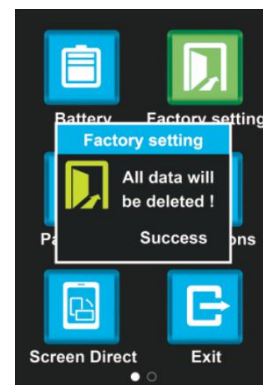
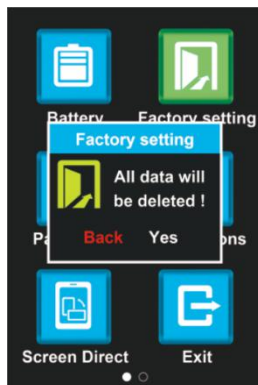
After finish setting,choose Exit,Previous Menu

**8.7 Battery:** entry into Battery information menu, showing:Voltage、 Capacity、 Cycle times、 Health、 Temperature、 Remaining Capacity、 Full Charge Capacity、 Initial Capacity、 Max Charge Times

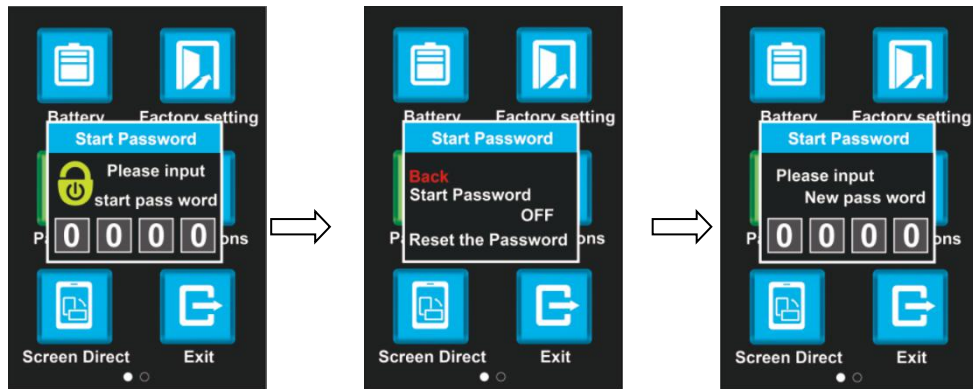


**\*If want to show the battery information ,the battery must support tripartite communication**

**8.8 Factory setting:** Enter Factory settings menu, set YES will restore all parameter to factory settings.



**8.9 Password:** Press M button to enter the password setting menu. press up/down button to adjust the password number and get into setting menu,choose Start Password and choose ON/OFF,it means open/close password;choose Reset the Password menu, it will get into the new password setting menu.default password is '0000'.



Input password

choose

Input new password

**8.10 Information:** Press M button and choose Information, get into information menu, it will shows speed mode and mileage mode date information, After finish setting, choose Exit and return to previous menu.



information menu

**8.11 delay time of screen delay screen return to simplified interface:** press mode key to select screen delay option to enter the menu, press add / subtract button to adjust screen return to simplified interface. Delay time 1 ~ 29 min represents delay time minutes, off represents turn off delay time function, default is 5 minutes. After setting, press mode key to confirm current setting or press start key to cancel current setting




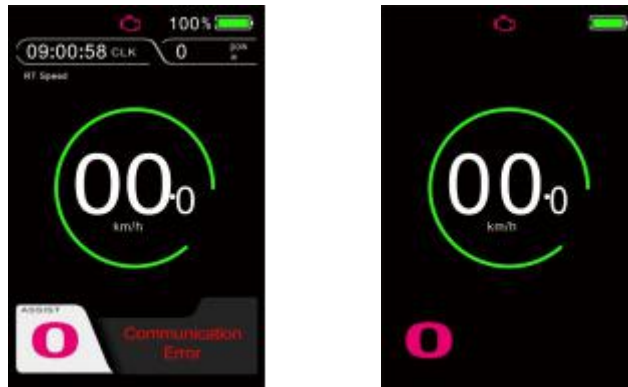
Screen back to simplified interface delay time interface

8.12 Exit



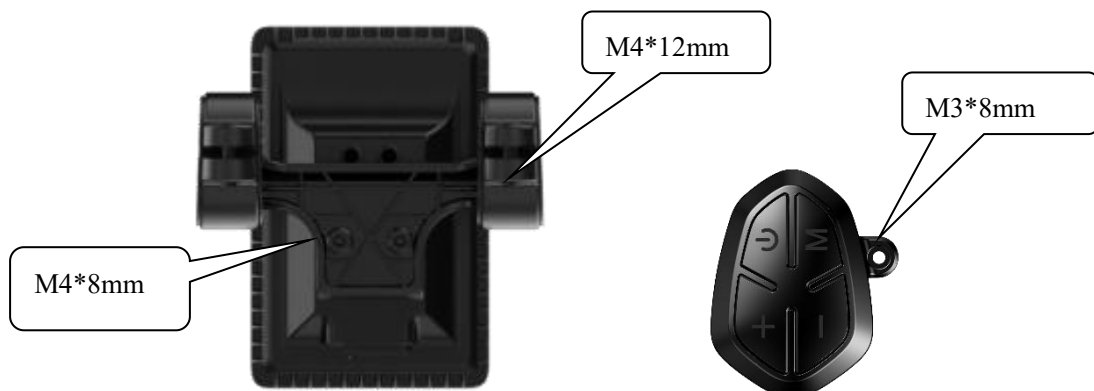
9.Error Code define

UKC1 can provide error indication for fault , when the fault is detected ,  icon will show on the screen, also shows error code at the bottom of the screen, Please refer to the error description of the time display area in the lower right corner of the meter:



10 Assembly instructions

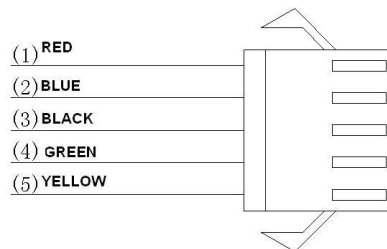
Please pay attention to the screw's torque value, damages caused by excessive torque are not within the scope of the warranty.



Clamps suit for 3 sizes of handlebar, 31.8mm, 25.4mm, 22.2mm, there are transfer rings for 25.4mm and 22.2mm, transfer ring must be assembled with the special directions, pay attention to the green arrow below.



## 11 Connector descriptions



- 1、 Red wire : Anode(24v/36v/48V)
- 2、 Blue wire : Power cord to the controller
- 3、 Black wire : GND
- 4、 Green wire : RXD (controller -> display)
- 5、 Yellow wire : TXD (display -> controller)