Tianjin UKriver Science & Technology Co., Ltd

Product Specification

Customer Name: _____

Customer Audit: _____

Product Name: Centrally Installed LCD

Product Model: UKS4

Data of Issue: _____

Approval: _____

1. Product Name

Centrally Installed LCD

Model: UKS4

2. Supplier

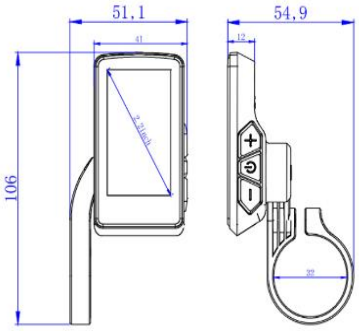
Tianjin UKriver Science and Technology Co., Ltd

3. Specifications

- ✧ Power Supply: 24V/36V/48V/52V
- ✧ Rated Power: 1W
- ✧ Leakage current when turning off the display: Less than 1uA
- ✧ Working current supported to the controller: 100mA~300mA
- ✧ Operating temperature : -20～70℃
- ✧ Storage temperature : -30～80℃

4. Appearance, Size and Material

- ✧ ABS product shell
- ✧ Liquid crystal transparent window is made of imported high hardness acrylic
- ✧ Product holder is made from glass fiber mixed with nylon.

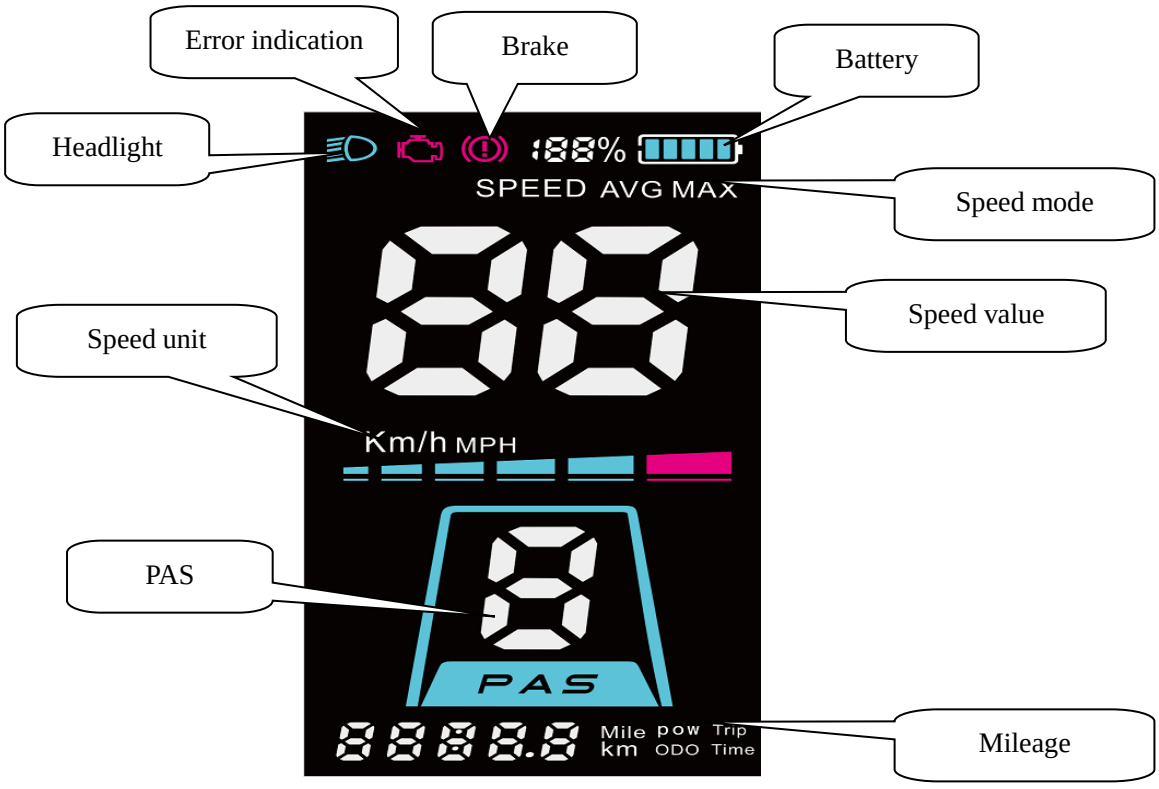


5. Introduction to the Product

- ✧ Speed display: AVG SPEED, MAX SPEED, and Real-time SPEED.
- ✧ Kilometer/Mile: Can be set according to customers' habits.
- ✧ Intelligent power indicator: 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.
- ✧ Adjusting 5 levels backlight brightness： 1st level is the darkest, 5th is the lightest
- ✧ 9 Assist levels : 3/5 /6 /9 is optional.

- ✧ Mileage indicator: Odometer/Trip distance/ Riding time.
- ✧ Output Power indicator: Real-time output power can be displayed.
- ✧ Error code indicator
- ✧ Walking mode (6km)
- ✧ Speed measurement magnetic steel is settable
- ✧ Power magnetic steel is settable
- ✧ Endurance mileage indicator:（battery communication is required）
- ✧ Battery information display（battery communication is required）
- ✧ Software can be upgraded through UART. For details, please refer to the supporting document.
- ✧ Various parameters can be set, including assist level, wheel diameter, voltage, speed limit and current limit, etc. For details, please refer to the supporting document.

6. Screen Instructions



- ✧ Speed Mode: AVG SPEED, MAX SPEED and RT SPEED
- ✧ Speed Display: Km/h or MPH
- ✧ Battery Display: 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.

✧ When the headlight is working, it shows the icon on the screen

✧ When the brake is working, it shows the icon on the screen

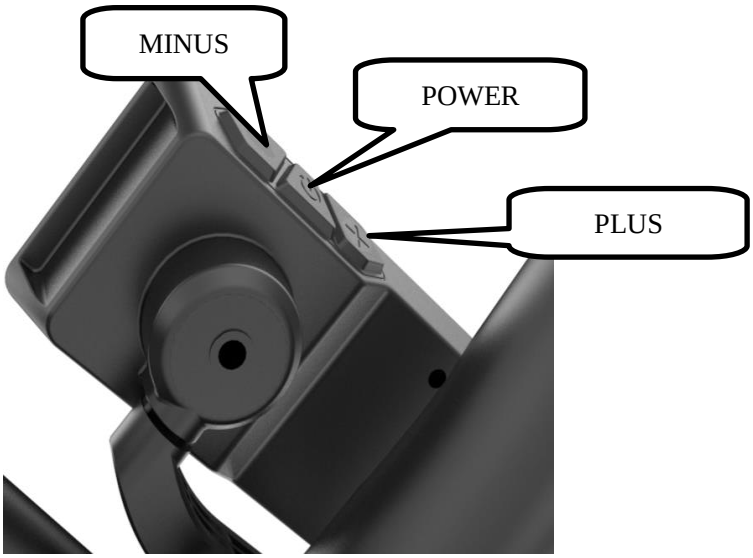
✧ It shows the current assist levels ranging from 0 to 9. 0 means neutral position. 1 to 9 indicates the corresponding assist levels. In the 6km/h walking mode, it will shows P.

✧ Error Indication

✧ Mileage Mode: TRIP/ODO/TIME

✧ Mileage Indication: Mileage or time information can be displayed according to the given mode.

7. **Functions**



7.1 Power On/Off

Press and hold POWER button for 1 second to start the display. Press and hold POWER button for 1 second again to turn off the display. The display will automatically shut down when there is no operation & ride for 5 minutes.（Time to automatically shut down the display can be set by users)

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

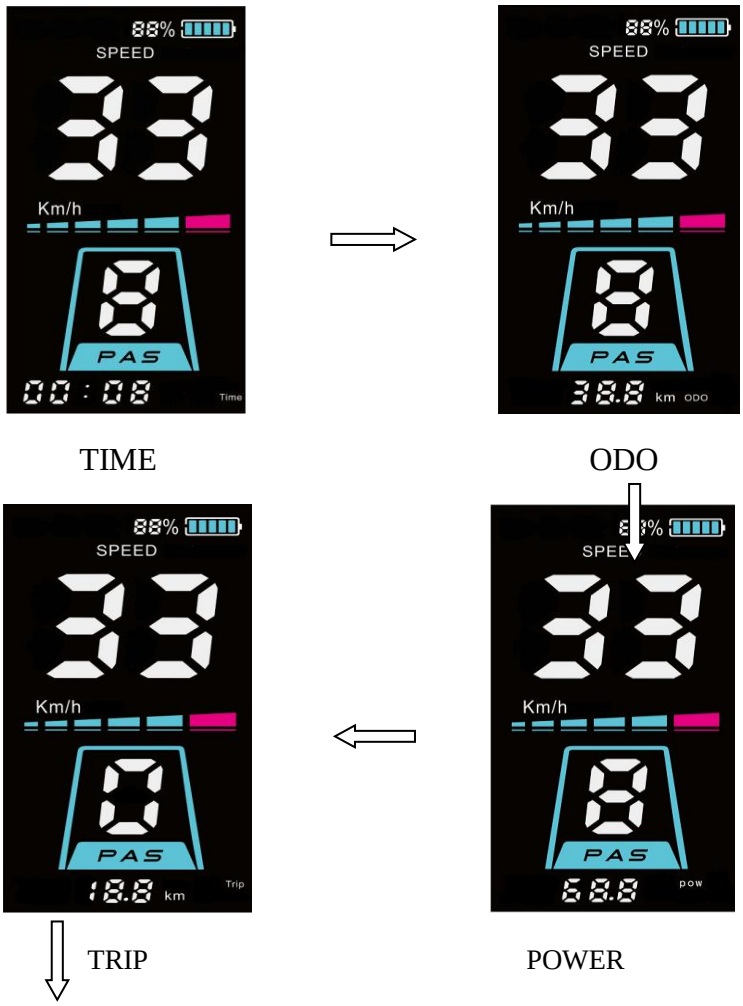
7.2 Assist Level Operating

Short press PLUS/MINUS button can change the assist level. Top assist level is 9 and 1 is the lowest. The default value is 1 when the display is turned on. 0 for neutral.

0 3 9

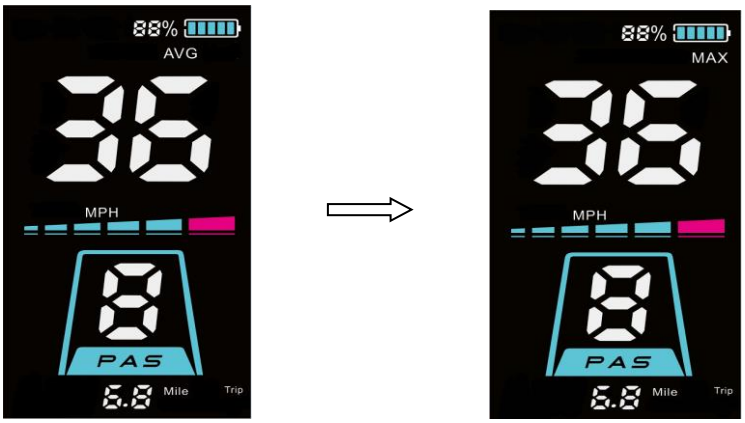
7.3 Mileage and speed mode switch

In the state of power on, short press POWER button can change the mileage mode. TIME, ODO, POW, TRIP, RT SPEED, AGE SPEED and MAX SPEED can be displayed.



TIME ODO

TRIP POWER

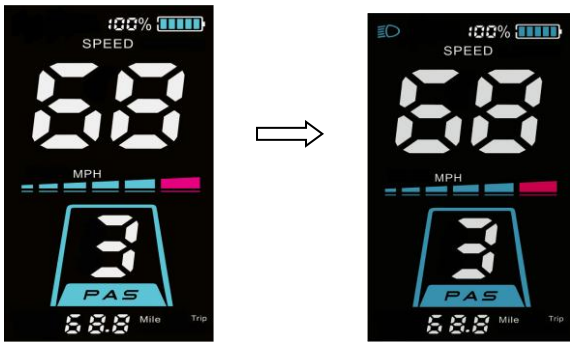


AVG SPEED MAX SPEED

**If there is no operation for 5 seconds, it will return to RT SPEED mode automatically.

7.4 Headlight and Backlight ON/OFF

Press and hold PLUS button for 1 second, the backlight brightness will be lowered and headlight will be on (controller support is needed).Press and hold PLUS button for 1 second again to change backlight brightness and turn off the headlight.

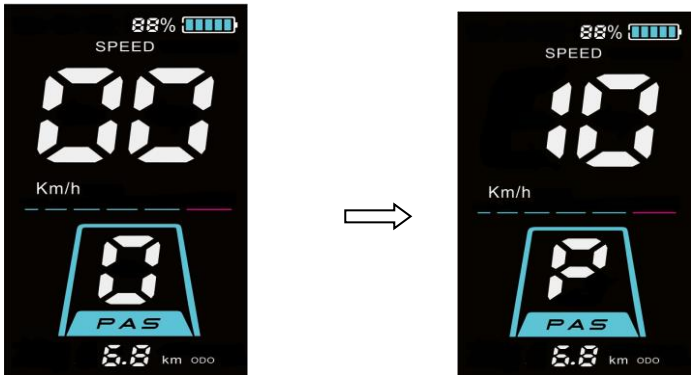


Headlight off Headlight on

*****The backlight brightness has 5 levels and users can adjust it according to their demands.

7.5 Walking mode (6km)

Press and hold MINUS button longer than 1 second to enter walking mode. And the display will show the real-time speed and P. Release the button, it will be out of the mode.



Walking mode off Walking mode on

*Some controllers may not support this function.

7.6 Data zero out

Press and hold UP and DOWN buttons concurrently for 1 second to zero out temporary data, including **AVG Speed / MAX Speed / Trip / Time**.

*These temporary data will not be erased when power of the display or bicycle is off.

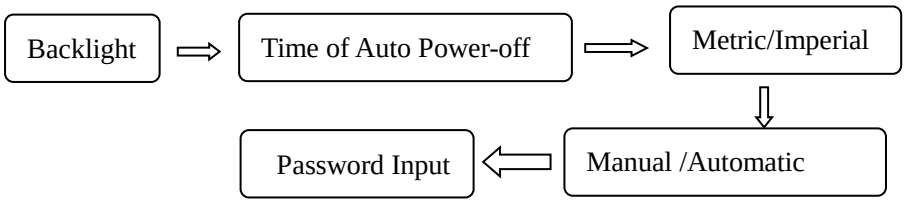
8. MENU Parameter Setting

In the state of power on, press the POWER button twice and time interval must be within 0.3 seconds, the system will enter the parameter setting menu. Press POWER button twice again to exist setting state (time interval must be within 0.3S).

In the MENU setting interface, press POWER button to confirm. Press PLUS or MINUS to select the adjusting items. If you want to adjust related parameters, please press PLUS or MINUS. Then press POWER to save the setting. In the function selection interface, press POWER button twice consecutively to exit menu (time interval must be within 0.3S).

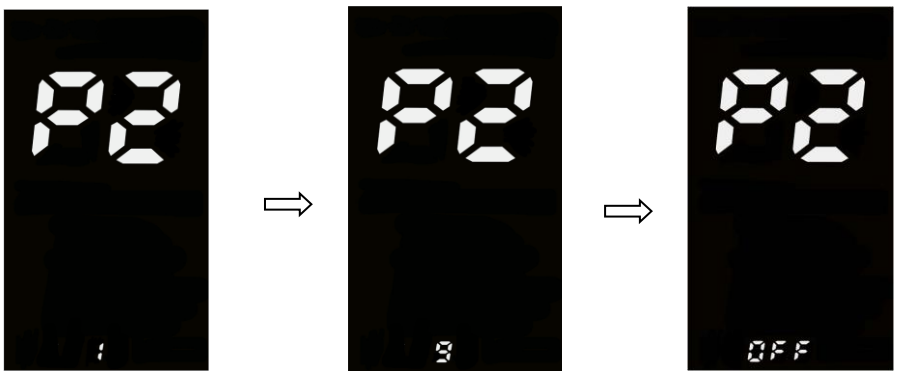
* In parameter setting interface, display will quit the menu automatically if no operation is performed for 30 seconds. When riding in the menu state (speed is not 0), you cannot enter the setting interface. When riding in the setting interface (speed is not 0), it will exit the setting mode automatically.

8.1 Items Setting is Shown as Follows



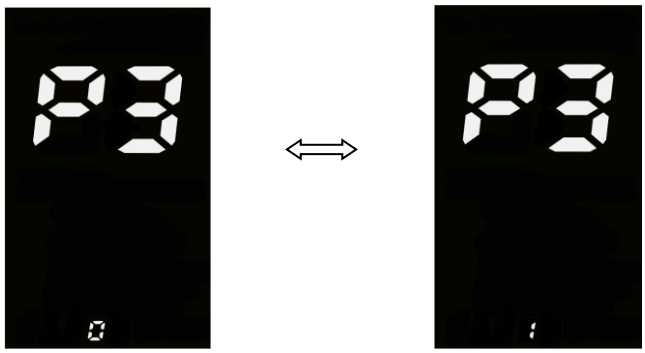
Backlight: P1. Press PLUS/MINUS to switch assist level from 1 to 5. 1 means the darkest and 5 means the brightest.

Time of Auto Power-off: P2. Press PLUS/MINUS to modify the time of auto power-off and you can select from 1 to 9. Press OFF to cancel the function of auto power-off.



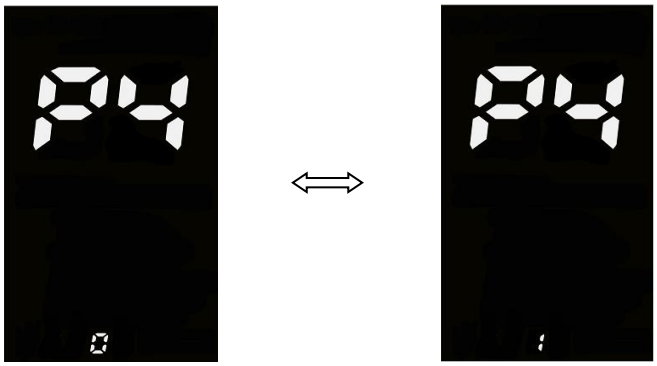
Auto power-off setting

Metric/Imperial: P3. Press PLUS/MINUS to switch km/h or MPH. 0 means metric and 1 represents imperial.



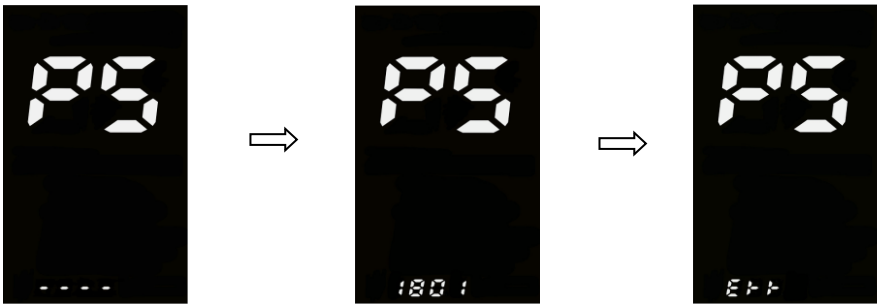
Metric or Imperial

Manual/ Auto Gear Switch: P4. Press PLUS/MINUS to switch manual/ auto assist level. 0 means manual and 1 means auto.



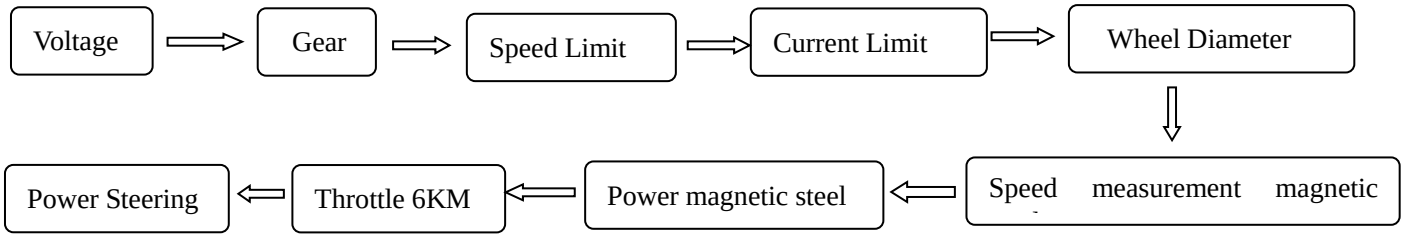
Manual/ Auto Mode

Password Input: Enter P5 advanced setting interface. When the screen shows P5, you can input password and enter advanced setting. Short press POWER button to enter the state of password input. Press PLUS/MINUS button to set the password and press POWER button to switch the four-digit PIN. The default value is 1801. After setting the password, press POWER button to enter. If the password is wrong, ERR will shows up on the screen. And it will return to the RT SPEED interface. Inputting correct password to enter advanced setting interface.

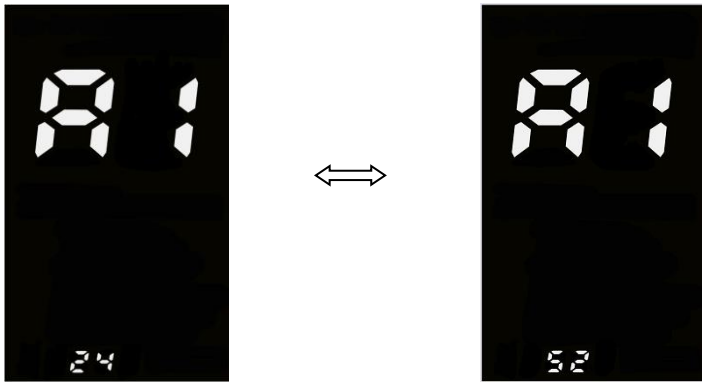


Password Input

8.2 Advanced Setting Items

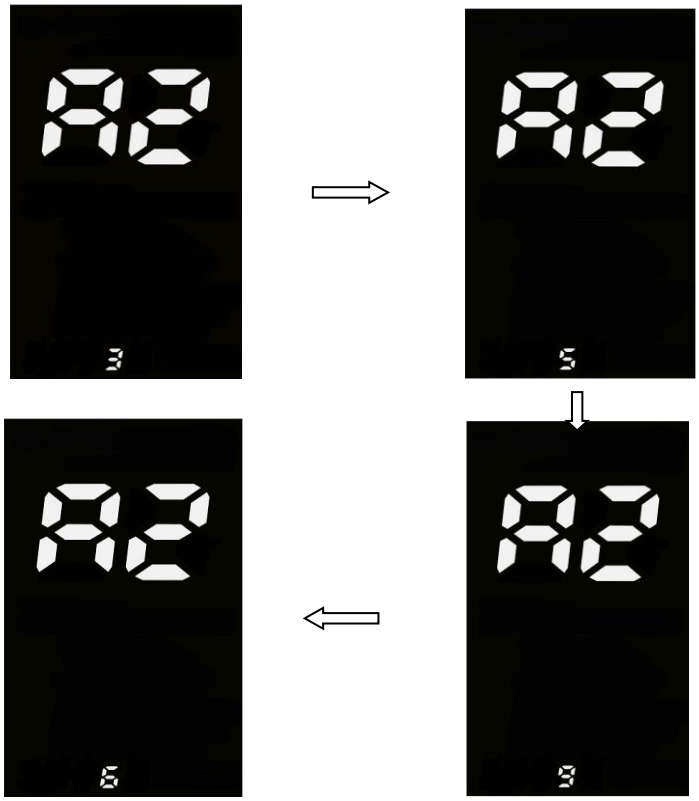


Voltage: A1. Press PLUS/MINUS to switch voltage, 24V/36V/48V/52V



Voltage

Assist Levels: A2. Press PLUS/MINUS to switch 3, 5, 6 and 9 level. 3 means 3 level. 5 means 5level. 6 means 6level. 9 means 9level.



Assist Levels

Speed Limit Adjustment: A3. Press PLUS/MINUS to adjust the limited speed. The default

value is 25Km/h. Users can set the value according to their demands and press POWER to exit.

Speed Limit Adjustment

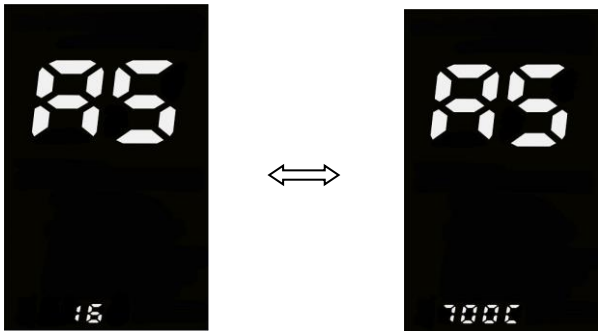
Current Limit Adjustment: A4. Press PLUS/MINUS to adjust the limited current. The default value is 15A. Users can set the value according to their demands and press POWER to exit.

Current Limit Adjustment

*Speed limit and current limit are controlled by the motor and controller. Users may not able to get the expected setting results.

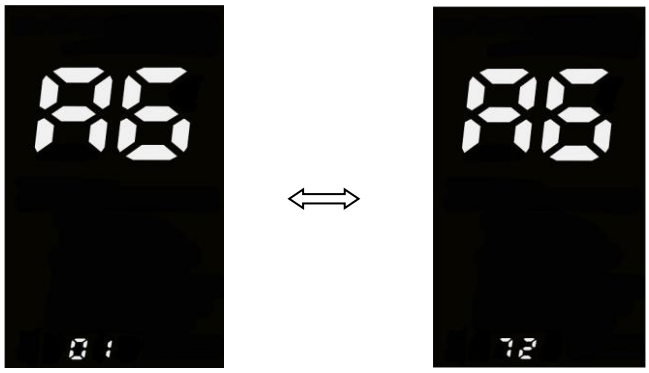
Wheel Diameter: A5.

Press PLUS/MINUS to modify the wheel diameter setting. Optional wheel diameter: 16/18/20/22/24/26/27/27.5/28/29/30/31/32inch. Wrong diameter selection will lead to abnormal speed.



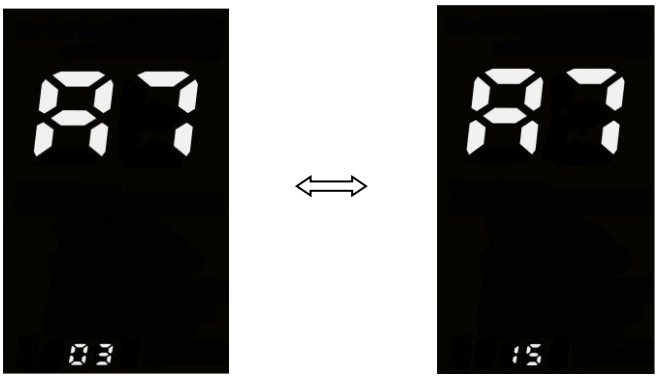
Wheel Diameter Modification

Speed Measurement Magnetic Steel: A6. Press PLUS/MINUS to modify the speed measurement magnetic steels. Numbers range from 1 to 72. Users can adjust according to their own demands. After adjusting it, press POWER to exit.



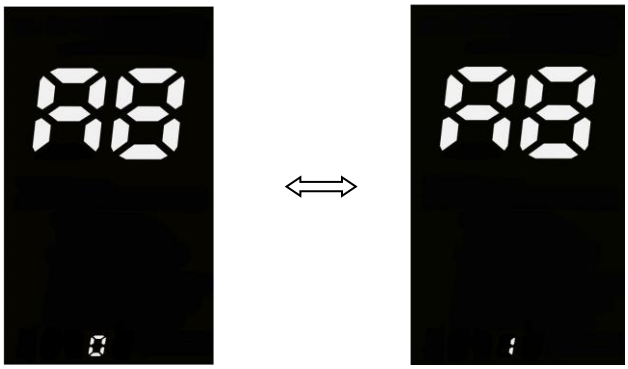
Speed Measurement Magnetic Steel Adjustment

Power Magnetic Steel: A7. Press PLUS/MINUS to modify power magnetic steel. Numbers range from 3 to 15. Users can adjust according to their own demands. After adjusting it, press POWER to exit.



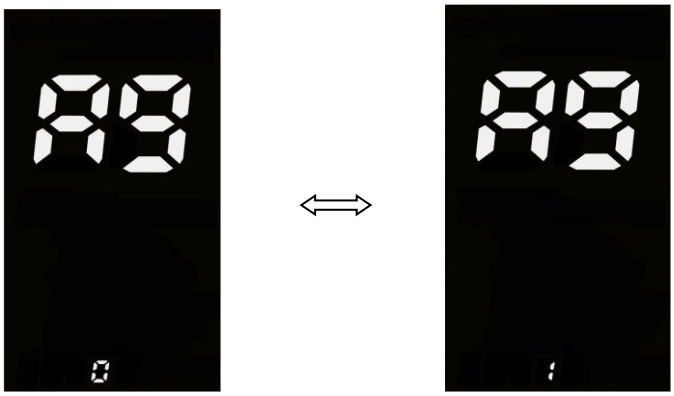
Power Magnetic Steel Adjustment

Throttle 6Km: A8. Press PLUS/MINUS to modify the mode. Users can change it from 0 to 3. 0 means throttle 6Km off and 1 means it is on. Under the two modes, even you turn the handlebar, there is no gear difference. Switch to 2, throttle 6Km is off. Switch to 3, throttle 6Km is on. Under the two modes, when you turn the handlebar, there is gear difference.



Throttle 6Km

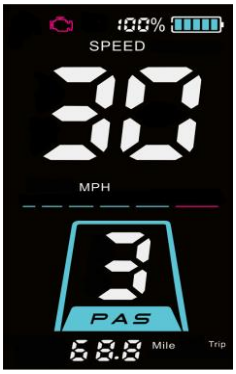
Power Steering Sensor: A9. Press PLUS/MINUS to modify the direction. 0 is positive and 1 is negative.



Power Steering Sensor Direction

9. Error Code Definition

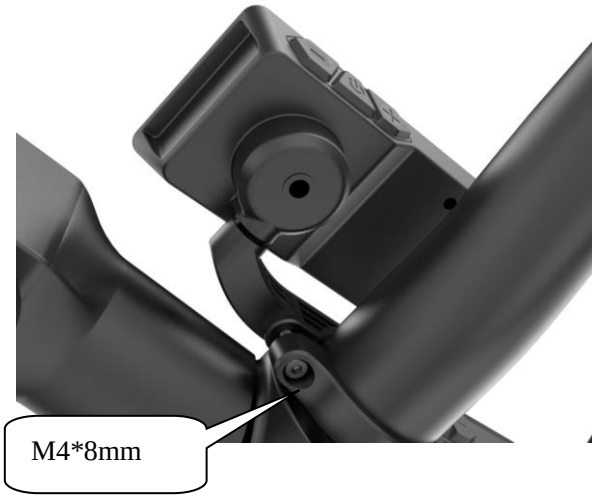
UKS4 can provide error indication for fault. When the fault is detected, icon will show on the screen. Please refer to the error description for more details.



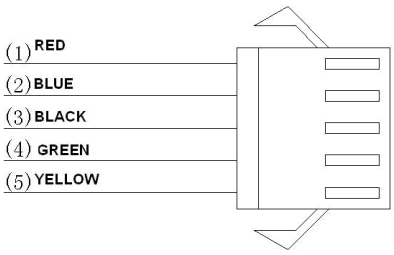
Error indication

10. Assembly Instructions

For the screw assembly, please refer to the picture below. Please pay attention to the screw's torque value. Damages caused by excessive torque are not covered by the warranty.



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)