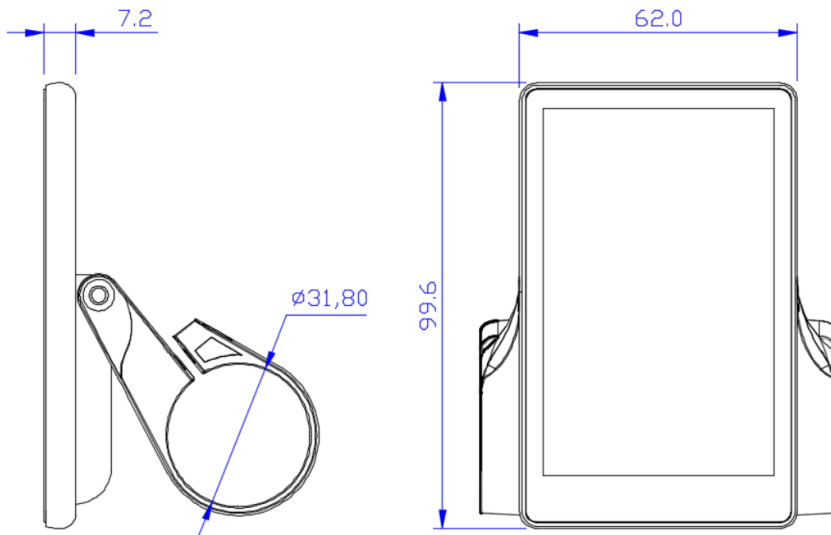# retrospec®

Black and White Display

Introduction

Dear users, in order to better operate your e-bike, please carefully read this manual for the K5304 LCD display equipped on your bike before use.

1.Dimensions

1.1 Material and color

K5304 product housing is made of white and black PC materials.

Figure and dimension drawing (unit: mm)

2. Function and button definition

2.1 Function description

K5304 provides you with a variety of functions and displays to meet your riding needs. K5304 displays:

    Battery capacity
    Speed (including real-time speed display, maximum speed display and average speed
    display),
    Distance (including trip and ODO),
    6KM/H
    Backlight turn on
    Error code,
     Multiple setting parameters. Such as: wheel diameter, speed limit, battery capacity setting,
    Various PAS level and power assisted parameter setting, power on password setting, controller current limit setting, etc.

2.2 Display area
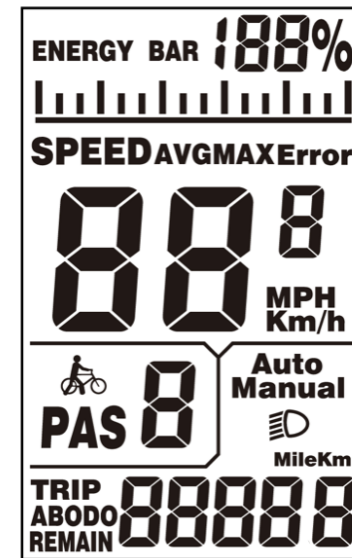
K5304 display

2.3 Button definition

The main body of the remote button cluster is made of PC material, and the buttons are made from soft silicone material. There are three buttons on the K5304 display.
1. Power on/Mode button
2. Plus button
3. Minus button

For the remainder of this manual, the button will be represented by the text MODE. The button will be represented by the text UP and the button is replaced by the text DOWN.

3.User Reminder

Pay attention to safety during use.
1. Do not plug and unplug the display when it is powered on.
2. Avoid bumping the display as much as possible.
3. Avoid looking at buttons or display for long periods while riding.
4. When the display cannot be used normally, it shall be sent for repair as soon as possible.

4.Installation instructions

This display will come fixed to the handlebars. With the bike off, you can adjust the angle of the display to allow for the best viewing angle while riding.

## 5. Operation introduction

5.1 Power on/off

First make sure the battery is powered up. If it is not, simply press the power button by the charge indicator lights. This will wake the battery out of deep sleep mode. (You only need to press this button again if you want to put the battery back into deep sleep mode. This would be for storage over 2 week).

Now hold down the MODE button, this will turn the bike on. Hold the MODE button down again to turn off bike.

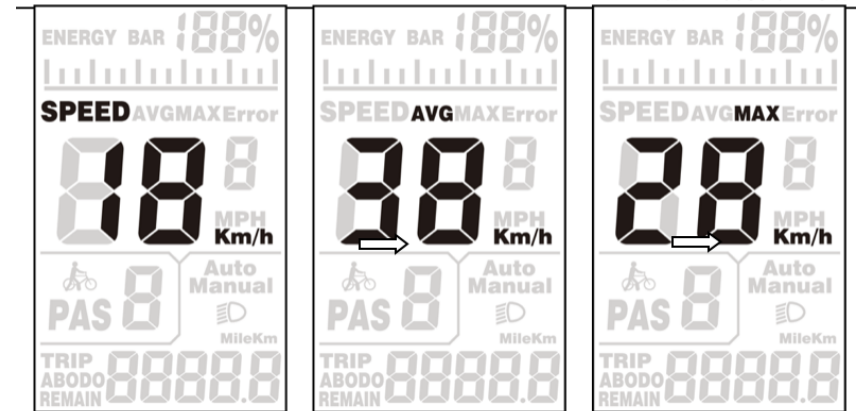If the e-bike is not used for more than 10 minutes, the display will power off automatically.

5.2 User interface
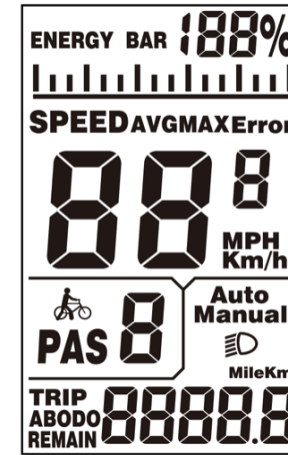
K5304 User interface

5.3 Speed

Long press the [mode] button and the [UP] button to enter the speed switching interface, and speed (real-time speed), AVG (average speed) and max (maximum speed) are displayed respectively, as shown in the figure:
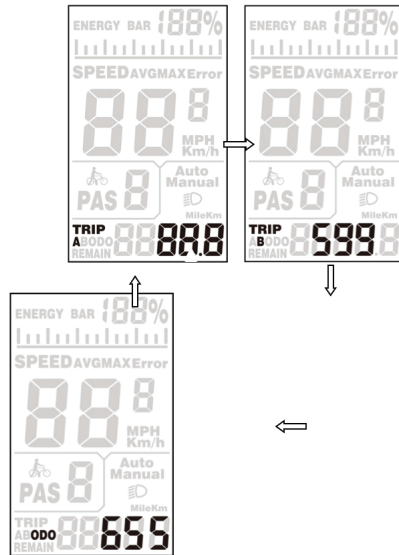

Real time speed   Average speed   Max speed

5.4 Trip/ODO

Press the [mode] key to switch the mileage information, and the indicate is: TRIP A (single trip) → TRIP B (single trip)→ ODO (cumulative mileage),as shown in the figure:

Resetting the Trip Distance

To reset the trip distance for the selected trip, follow these steps:
1. Press and hold the plus (+) and minus (-) buttons simultaneously. This will bring up a menu displaying SE 1, CL-n.
2. Press the plus (+) button to change "n" to "y".
3. Press the mode (M) button, and the trip distance will reset to zero.
4. Press the mode (M) button again to exit the menu.

5.5 Walk Assist Mode

When the display is turn on, hold the [DOWN] button for 3 seconds, the e-bike will enter the state of walk assist mode. The e-bike travels at a constant speed of 6km/h. The screen will flash "WALK". The walk assist mode function can only be used when the user pushes the e-bike. Do not use it when riding.
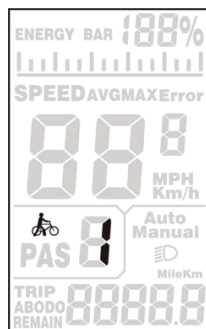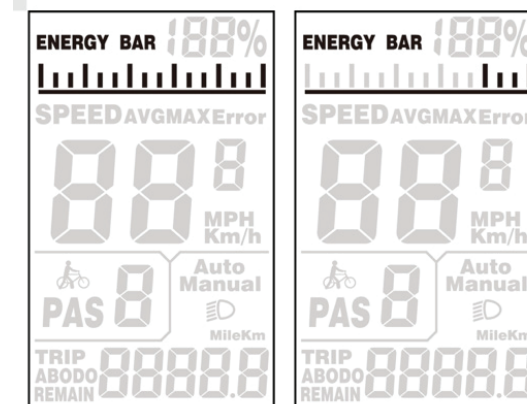
Walk interface

5.6 Lights On/Off

Hold the [UP] button to turn the bikes lights on. The icon appears, indicating that the lights have been turned on. Long press the [UP] button again to turn the lights off.
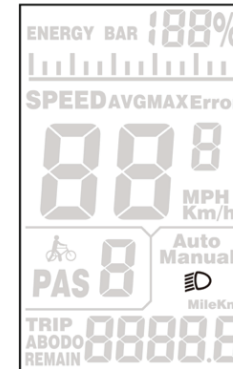
Headlight on interface

5.7 Battery indicator

When the battery power is displayed as shown in the picture on the right, it indicates that the battery is under voltage. Please charge it in time!

6. Error Code

When the e-bike electronic control system fails, the display will automatically display ERROR code. For the definition of the detailed error code, see the list below. Only when the fault is eliminated, can exit the fault display interface, the e-bike will not continue to run after the fault occurs. **See Appendix 1**
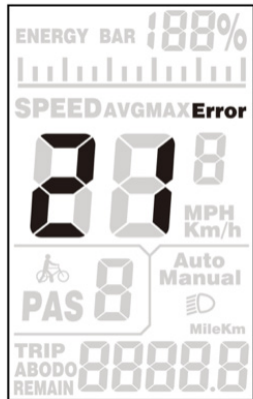
Error code interface

7.User setting

### 7.1 Preparation before startup
Ensure that the connectors are firmly connected and turn on the power supply of the e-bike.

7.2 General setting
Press and hold the [mode] button to power on display. In the power on state, press and hold the [up] and [down] buttons for 2 seconds at the same time, and the display enters the setting state.

7.2.1 Metric and imperial setting
Enter the setting state, ST^1 means imperial system selection, short press the [UP]/[DOWN] button to switch between metric units (Km) and imperial units (Mph). Short press [MODE] button to confirm the setting, and then enter the ST^2 setting interface.
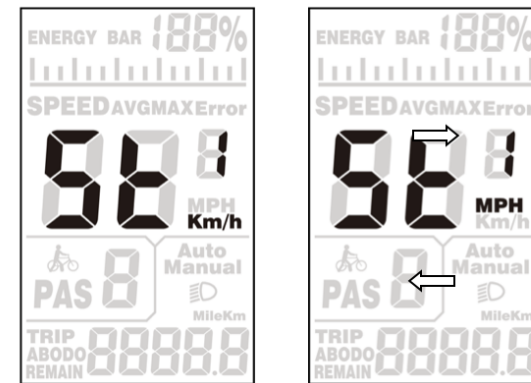
Metric/Imperial conversion setting interface

7.2.2 Wheel size setting
Your bike will come with the display programmed to the correct size. Should you need to reset it, this is how. Short press [UP]/[DOWN] button to select the wheel diameter corresponding to the bike wheel to ensure the accuracy of the speed display and distance display. The settable values are: 16, 18, 20, 22, 24, 26, 28, 700C, 28. Short press〔MODE〕button to confirm and enter the real-time speed display.
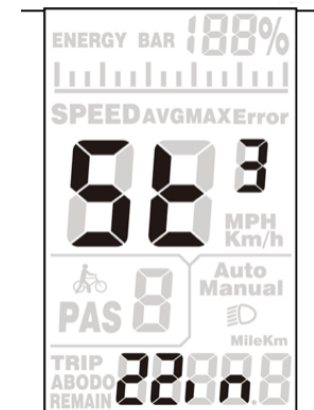
Wheel size setting interface

7.2.3 Exit settings
In the setting state, long press 【MODE】button (more than 2 seconds) to confirm to save the current setting and exit the current setting state.

If no operation is performed within one minute, the display will automatically exit the setting state.

8. Class 2/Class 3 Selection
NOTICE—Before selecting 28MPH Class 3 E-Bike settings, check local regulations regarding the use of Class 3 E-bikes. They are usually different from Class 2 E-Bike laws. It is also important to check with your insurance provider regarding the use and coverage of Class 3 E-Bikes.

Press and hold [UP] and [DOWN] button at the same time for 2 seconds to enter the general setting interface. Then simultaneously press [MODE] and [UP] button for 2 seconds to enter the class selection interface.

"C 2" is shown identifying Class 2 (20MPH top speed) parameters are in use. Use [UP] to select C 3 (Class 3 parameters of 28MPH top speed and 20MPH throttle speed). Use the [DOWN]to go back to C2 parameters. After entering the 4-digit password 2453, short press [MODE] button to confirm. Long press [MODE] to exit.
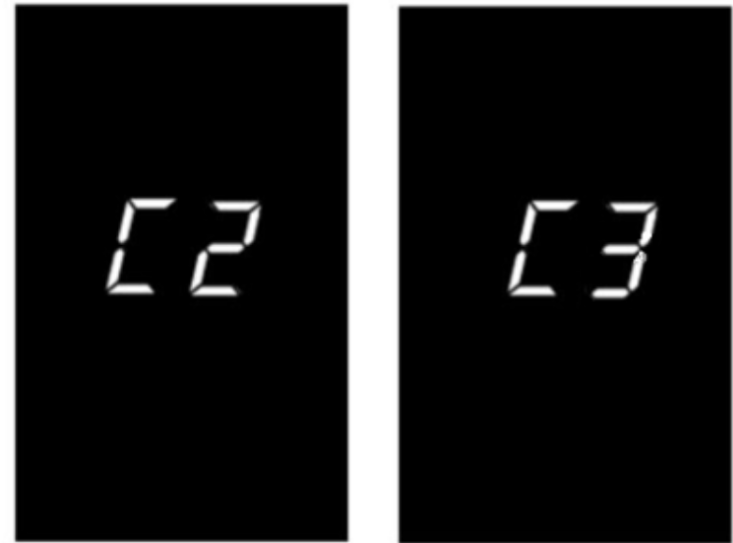

Class 2/3 Interface

Version
This user manual is for a general-purpose UART-5S protocol software (version V1.0). Some version of the e-bike LCD may have slightly difference, which should depend on the actual use version.

10--Over Voltage –Check battery, Controller and All connections
11--Under Voltage—Check battery, Controller and All connections
12--Speed Feedback Fault—Check motor connection and Controller
13—Overtemperature--Controller or Motor—Let system cool and Check connections
14--Voltage Fault—Check battery and Connections
15--Abnormal Output—Check all connections
16--CPU Fault CPU—Check controller and All connections
17--Runaway Protection—Check battery and All connections
18--Assistance sensor Fault—Check PAS or Torque sensor and connections
19--Speed sensor Fault—Check motor and connections
20--Communication Fault—Check all connections, Display and Controller
21--Over current or MOSFET Fault (Controller)—Check Controller and All Connections
22--Throttle Fault—Check Throttle connections
23--Phase Fault (motor)—Check motor and Connection
24--Hall Fault—Check motor and Connection
25--Brake error—Check brake lever sensor connection and lever movement. Willalso display if holding brake while turning bike on (let go of brake if this happens and it should go away).
30--Controller communication fault—Check Controller and All connections
31--Battery communication fault—Check battery, Controller and Connections
32--Controller and battery communication fault Check battery, Controller and Connections
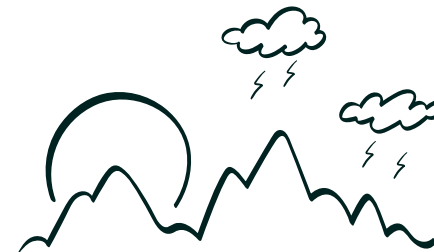
retrospec®

# Manuel D'affichage Couleur

Introduction

Chers utilisateurs, afin d'améliorer le fonctionnement de votre vélo électrique, veuillez lire attentivement ce manuel pour l'écran LCD K5304 installé sur votre vélo avant de l'utiliser.

1.Dimensions

1.1 Matériel et couleur

Le boîtier du produit K5304 est fabriqué en polycarbonate (PC) blanc et noir.

Schéma et dimensions (unité : mm)
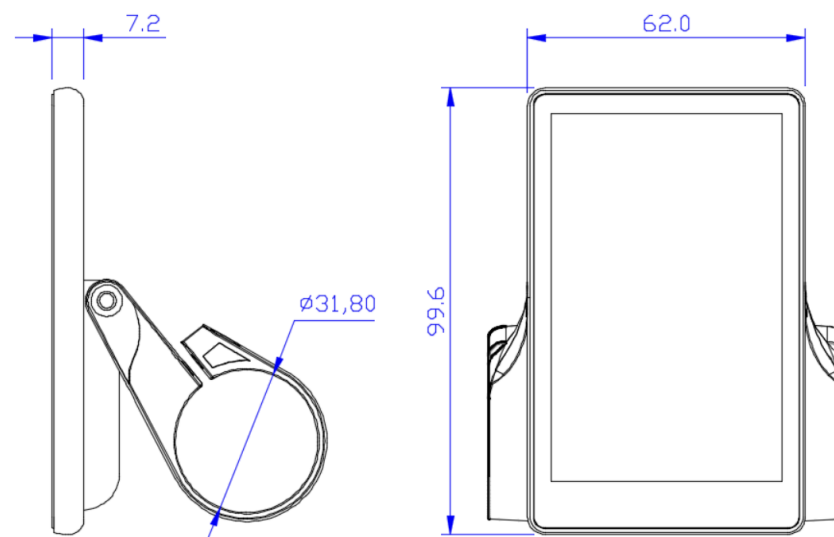
2. Définition des fonctions et des boutons

2.1 Description des fonctions

Le K5304 vous offre une variété de fonctions et d'affichages pour répondre à vos besoins de conduite. Le K5304 affiche :

Capacité de la batterie

La vitesse (y compris l'affichage de la vitesse en temps réel, l'affichage de la vitesse maximale et l'affichage de la vitesse moyenne)

Distance (y compris le trajet et l'ODO),

6KM/H

Rétro-éclairage allumé,

Code d'erreur,

Paramètres de réglage multiples. Par exemple : diamètre des roues, limite de vitesse, réglage de la capacité de la batterie, le réglage de divers paramètres de niveau PAS et de puissance assistée, le réglage du mot de passe de mise sous tension, le réglage de la limite de courant du contrôleur, etc.

2.2 Zone d'affichage
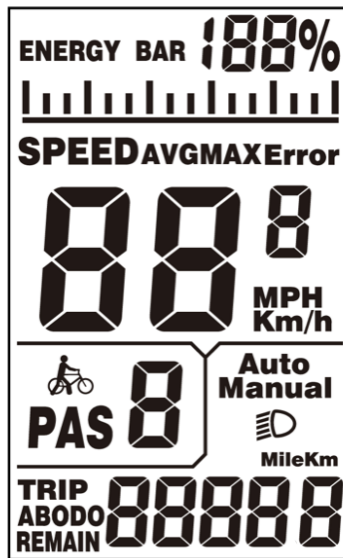
K5304 display

2.3 Définition des boutons

Le corps principal du groupe de boutons de la télécommande est en PC et les boutons sont en silicone souple. L'écran du K5304 comporte trois boutons.

1. Bouton Marche/Mode
2. Bouton Plus
3. Bouton Moins .

Dans la suite de ce manuel, le bouton sera représenté par le texte MODE. Le bouton sera représenté par le texte UP et le bouton est remplacé par le texte DOWN.

3.Rappel pour l'utilisateur

Veillez à la sécurité pendant l'utilisation.

1. Ne pas brancher et débrancher l'écran lorsqu'il est sous tension.
2. Évitez autant que possible de heurter l'écran.
3. Évitez de regarder les boutons ou l'écran pendant de longues périodes lorsque vous roulez.
4. Lorsque l'écran ne peut être utilisé normalement, il doit être envoyé en

4.Instructions d'installation

Cet écran est fixé au guidon. Lorsque le vélo est arrêté, vous pouvez régler l'angle de l'écran afin d'obtenir le meilleur angle de vue possible pendant que vous roulez.

5. Introduction au fonctionnement

5.1 Mise sous tension/hors tension

Assurez-vous d'abord que la batterie est sous tension. Si ce n'est pas le cas, il suffit d'appuyer sur le bouton d'alimentation lorsque le témoin de charge s'allume. Cela sortira la batterie du mode de veille profonde. (Vous ne devez appuyer à nouveau sur ce bouton que si vous souhaitez remettre la batterie en mode de veille profonde. C'est le cas pour un stockage de plus de 2 semaines).

Maintenez le bouton MODE enfoncé pour allumer le vélo. Maintenez à nouveau le bouton MODE enfoncé pour éteindre le vélo.

Si le vélo électrique n'est pas utilisé pendant plus de 10 minutes, l'écran s'éteint automatiquement.