

# KD218 Colour LCD Display User Manual



English

## **Details**

#### E-bike LCD Display, Model KD218

- 36V/48V Power supply

- Rated working current: 10mA

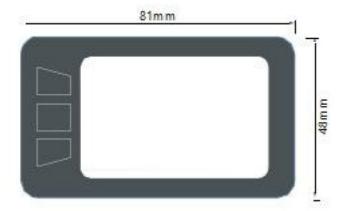
- Maximum working current: 30mA

- Off leakage current: <1uA

- Working temperature: -20°C~ 60°C

- Storage temperature: -30°C~ 70°C

## **Dimensions**



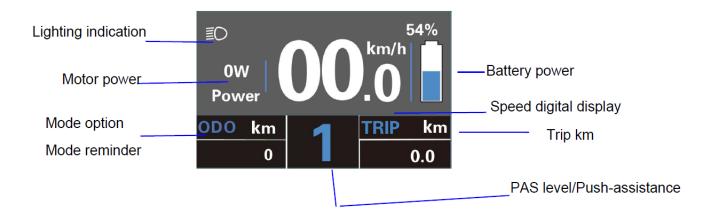


## **Functions**

- Speed indication, including real-time speed, max speed, and average speed
- Metric or imperial readout
- Battery level indicator, providing a more stable battery level using an optimisation algorithm
- Brightness adjusment, choice of 5 levels
- Trip meter and odometer
- Walk assist mode
- PAS levels, choice of 8 different settings (0-3, 1-3, 0-5, 1-5, 0-7, 1-7, 0-9, 1-9)
- Real-time display readout, including motor output, speed, and trip distance
- Password protection option
- Parameter settings, including speed limit and wheel diameter

## Home screen

This is the main screen that you will see when you turn on the display and while using your e-bike.



## General operation

- Switching the display on/off
   Press and hold down the power button for a few seconds, until the display turns on. To turn the display off, press and hold down that same button for a few seconds.
   When the e-bike isn't in use for 10 minutes the display will switch off automatically.
- Turning on connected lights
   If there are compatible lights connected to your controller these can be turned on/off by pressing and holding down the + button for a few seconds. The display will show the light symbol in the top left corner:



- Turning on the walk assist
To turn on the walk assist, press and keep holding down the - button. While the walk assist is activated the motor will run at 6km/h and the display will show the walk assist symbol:



Accessing the parameter settings
 To access the parameter settings, press and hold down the + and - buttons at the same time for a few seconds. The parameter settings are described in more detail further in this manual.



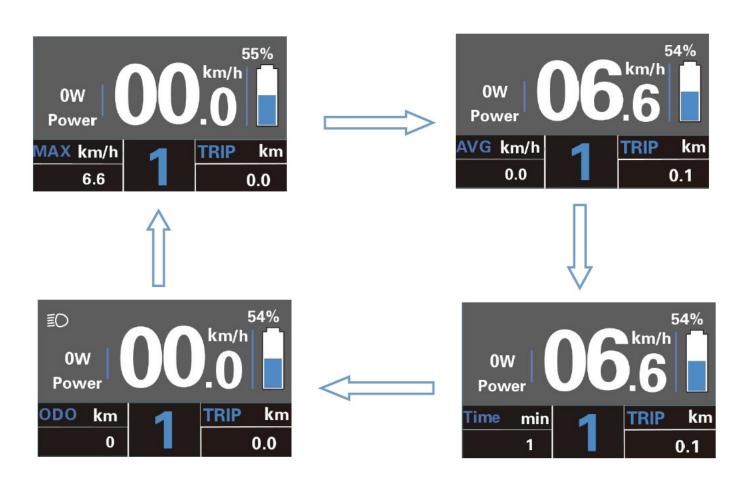
## Display interface

When the display is turned on, it shows the current speed, the trip meter, the odometer, power output, and battery level indicator.

To change between the different interfaces, press the on/off button shortly to cycle through the interfaces below. The other readouts that will show are:

- maximum speed
- average speed
- trip time

These readouts will show on the bottom left of the display.



#### Pedal assist levels

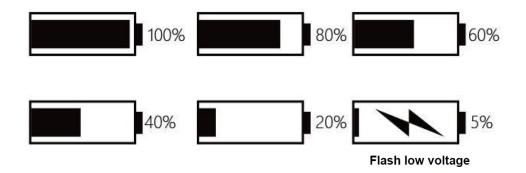
Use the + and - buttons to adjust the level of the pedal assist (PAS) while you're riding. There are different PAS level ranges to choose from, and the default PAS level range is 0-9.

The higher the PAS level you select on the display, the more power assist you get from the motor while you are pedaling. When the PAS level is set to 0 the PAS is deactivated and the motor will not assist you while you're pedaling.



## Battery level indicator

The battery icon on the display represents an indication of the charge level of the e-bike battery. When the battery icon is full and solid blue, it means that the battery is (close to) full. The blue indicator in the battery icon will go down as the battery depletes, and will start flashing empty when the battery is close to being depleted.



### Error codes

The components of the e-bike are continuously and automatically monitored. When an error is detected, the respective error code is indicated on the display as shown below. Please refer to the error code table further in the manual for more information on the error codes.



## Parameter settings

There are various parameters that can be adjusted to personalise your display, which are divided into Display Settings and Advanced Settings.

Examples of these parameters are things like rim size, number of PAS levels, trip meter clearing, etc. More details on each of these settings are explained in this manual.

To access the parameter settings press and hold down the + and - buttons at the same time, while the bike is not in use. You will see the screen shown below and you can select the Display settings or Advanced settings.

To toggle between the different options, use the + and - buttons by shortly pressing them. To select an option, shortly press the on/off button.



## Display settings



- TRIP Reset

You can use this setting to clear the trip meter. Please note that you can only reset the trip meter, not the odometer.

To reset the trip meter, change this setting from NO to YES! and the trip meter will be reset.

- Toggle Unit

With this setting you can change the speed and distance readout of the display from kilometers to miles. The default setting is metric.

## Display settings continued

#### - Wheel

You can change the wheel size setting to match the wheel size on your bike, so that you get accurate speed and distance readouts. The default setting is 26".

#### Speed Limit

The default value of the speed limit setting depends on the kit or bike you have, but you can change the speed limit setting to suit your needs using this parameter setting.

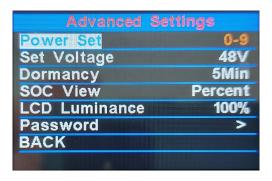
#### - Battery info

This display can give more detailled information about the battery, but this is only applicable if the controller in your e-bike or conversion kit conveys this information to the display. Not all controllers are able to convey this kind of information, so this setting might not be useable on your setup.

#### - Error Code

This option shows a history of the error codes that the display has reported, which can be used for diagnostics and fault finding.

## Advanced settings



#### Power Set

With this setting you can choose the number of PAS levels you would like to use. The default value is 0-9, but you can choose from: 0-3, 1-3, 0-5, 1-5, 0-7, 1-7, 0-9, 1-9

#### Set Voltage

To get an accurate battery level indication you can change the voltage setting here to match the voltage of the battery on your bike.

## Advanced settings continued

#### - Dormancy

This setting determines after how much time the display will switch off automatically if it's not been in use. The default setting is 5 minutes.

#### - SOC View

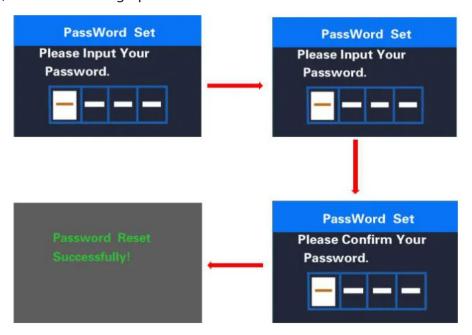
With this setting you can choose the way the battery level indication is represented. The default value is percentage, but you can also change it to a bar representation.

#### - LCD Luminance

This adjusts the brightness of the LCD display. The default setting is 100%, but you can turn the brightness down using this setting.

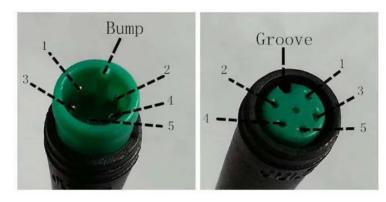
#### Password set

You can use this to set a password for the display. The set password will have to be put in each time the display turns on, and without the correct password the display will not be operable. To set a password, change Start PassWord to "ON" and the display will prompt you to set a password consisting of 4 digits. You use the + and - buttons to select each number, and shortly press the on/off button to move onto the next number. The password then has to be confirmed for it to be activated, as shown in the graphic below:



If you do choose to use a password it is very important to take note of it, as the display is inoperable without the correct password. For this reason it's generally not recommended to set a password, and doing so is at your own risk

# Wiring diagram



| Wire | Color       | Function |
|------|-------------|----------|
| 1    | Red (VCC)   | +        |
| 2    | Blue (K)    | Lock     |
| 3    | Black (GND) | -        |
| 4    | Green (RX)  | RX       |
| 5    | Yellow (TX) | TX       |

## Error codes

| Error Code | Definition                        |  |
|------------|-----------------------------------|--|
| 21         | Current Abnormality               |  |
| 22         | Throttle Abnormality              |  |
| 23         | Motor Phase Abnormality           |  |
| 24         | Motor Hall Signal Abnormali<br>ty |  |
| 25         | Brake Abnormality                 |  |
| 30         | Communication Abnormalit          |  |