

Product name and Model

E-bike Intelligent LCD display
Model: KD218

Specifications

- 36V/48V Power Supply
- Rated working current: 10mA
- The maximum working current: 30mA
- Off-state leakage current: <math><1\mu\text{A}</math>
- Operating temperature: $-20^{\circ}\text{C}\sim 60^{\circ}\text{C}$
- Storage temperature: $-30^{\circ}\text{C}\sim 70^{\circ}\text{C}$

Appearance and Size

Product appearance and dimensional drawing (unit: mm)



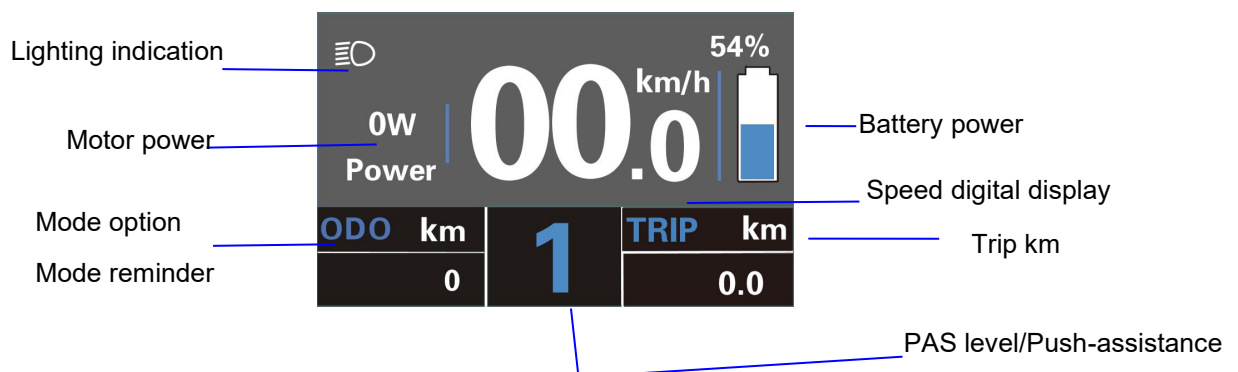
Functions and Button Definition

◆Function Summary


KD218 has many functions to meet riders' needs. A number of highlights are as follows:

- Bidirectional serial communication protocol.
- Speed indication including RT speed, Max.speed, AVG speed
- KM/MILE unit toggling as per user's preference.
- Intelligent battery SOC indicator: Stable SOC indication by optimization algorithm solves the problem of SOC indication fluctuating with start-stop of the motor.
- Brightness adjustment of 5 levels: users can set the brightness as per their habits. 10% is lowest brightness. 100% is highest.
- Mileage: the max. mileage can be displayed up to 99999 with Trip distance and ODO. The error code is automatically indicated.
- Push-assistance mode
- 8 optional max PAS level: 0~3/1~3/0~5/1~5/0~7/1~7/0~9/1~9
- Intelligent display: incl. Motor output W, speed Km/h and Trip distance
- Power-on password: users can set power-on passwords as per their preferences.
- Wheel diameter, speed limit can be set at display end.
- Recover Default Settings

◆Function Area Distribution:



Descriptions:

- ◆ Advanced Setting-LCD Luminance adjustment
- ◆ Lighting indicator- when turn on the E-bike lights
- ◆ Mode selection: ODO→ MAX. Speed → AVG.Speed →Ride Time
- ◆ Battery SOC display by percentage info-graphic
- ◆ Digital readout of current speed. Speed unit can be toggled
- ◆ Digital readout of motor power
- ◆ Assist level/Push-assistance- an indication of current assist level which can be increased and decreased by short pressing “+” or “-” buttons. The push-assistance function can be activated by long pressing “-” button for more than 2 seconds and symbol  is shown on the screen.

General Operations

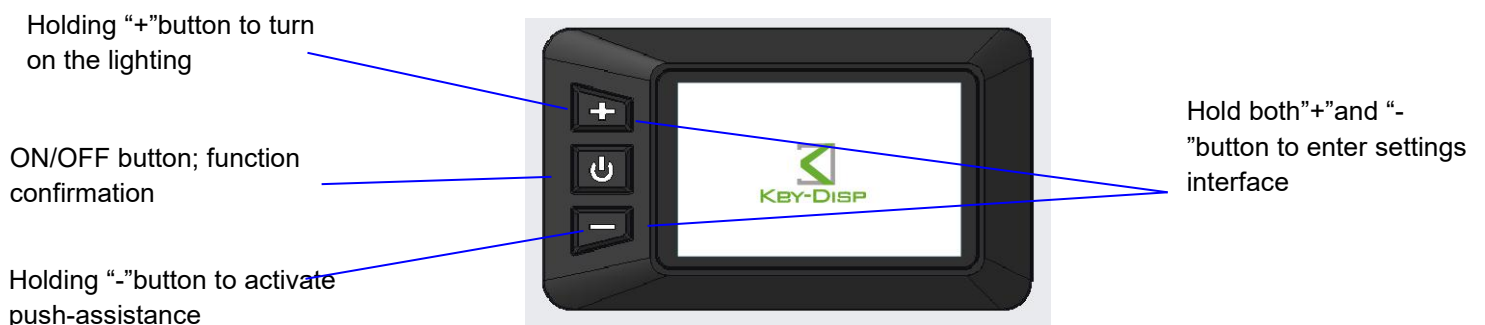
◆ Switching the E-bike System On/Off

To switch on the E-bike system and provide the power supply to the controller, hold the On/Off button for 3s.

To switch off E-bike system, hold the On/Off button for 2s. The E-bike system no longer uses the battery power.

When E-bike system is switched off, the leakage current is less than 1 μ A.

■ **When the E-bike is parked for approx. 10 minutes, the E-bike system switches off automatically.**



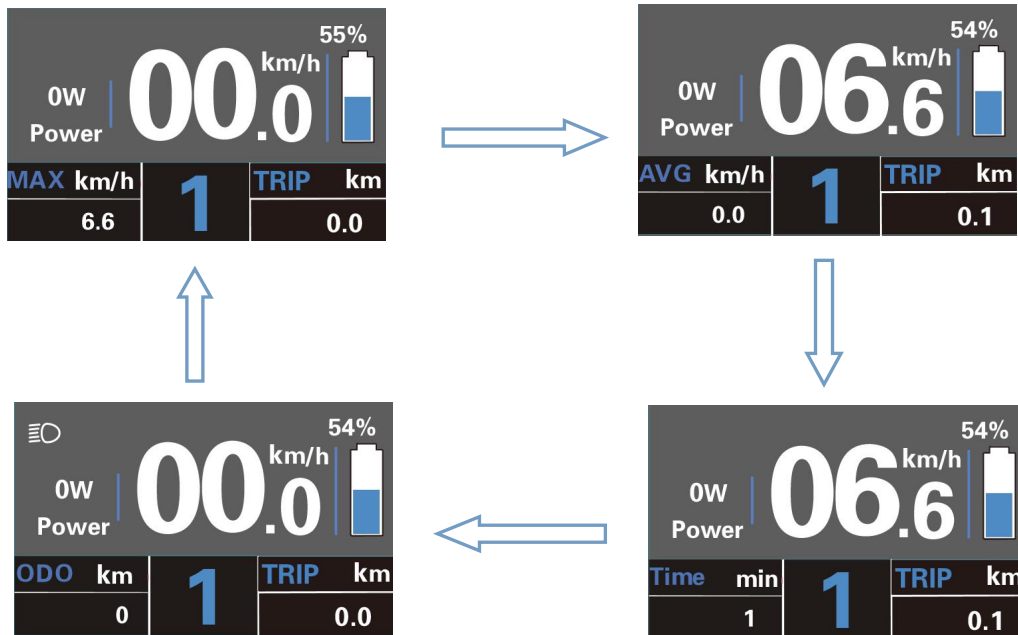
◆ Display Interface

After switching on the E-bike system, the display shows Current Speed, Trip Distance, ODO, Power output and Battery SOC by default.

Press the “ON/OFF” button to switch between indication functions below:


Max. Speed (Km/h) → Avg. Speed (Km/h) → Trip Time (Min.) → ODO (km) → Max. Speed (Km/h).

*It cycles back to Max.Speed again.

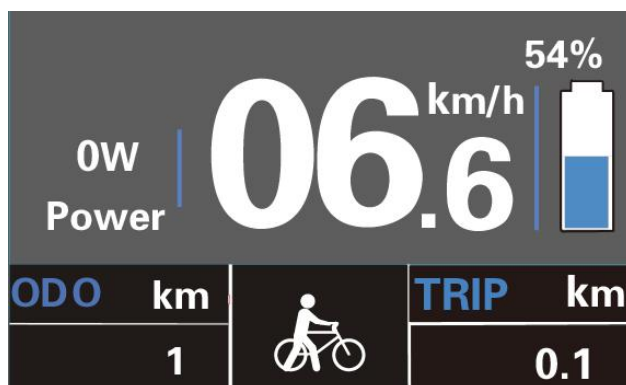


Display indication cycle interface

◆ Switching Push-assistance mode ON/OFF

To activate the push-assistance function, press and hold the “-” button. After 2 seconds, E-bike is activated to go at a uniform speed of 6 Km/h while the screen displays 


The push-assistance function will be switched off as soon as you release the “-” button.



Push-assistance mode

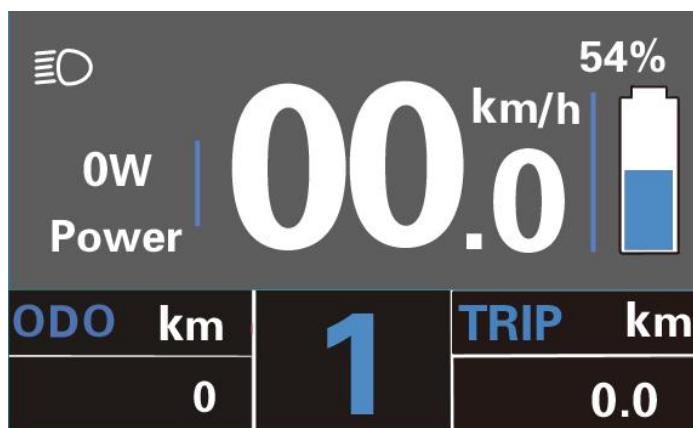
■ Push-assistance function may only be used when pushing the E-bike. Be aware of danger of injury when bike wheels do not have ground contact while using the push-assistance function.

◆ Switching the Lighting On/Off

To switch on E-bike lights, press the “+” button for 2s. The display backlight brightness is automatically reduced while the screen displays .

Likewise, press the “+” button for 2s again, the bike lights can be switched off and display backlight recover its brightness.

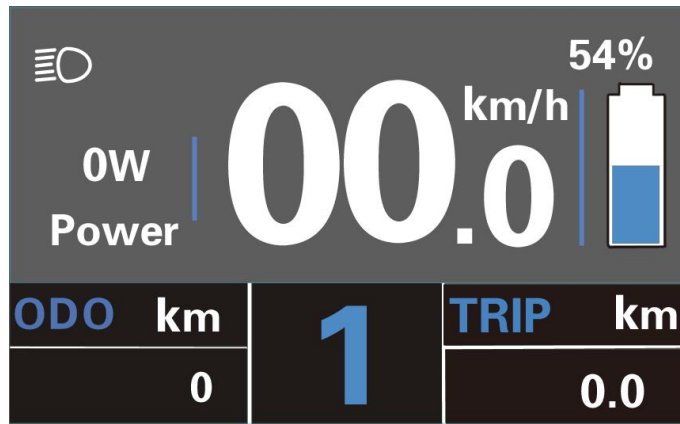
*If E-bike front light or rear light is independent of “+” button, the “+” button can only be used to switch on/off the display backlight.



Switching the Lighting On/Off Interface

◆ Assist Level Options

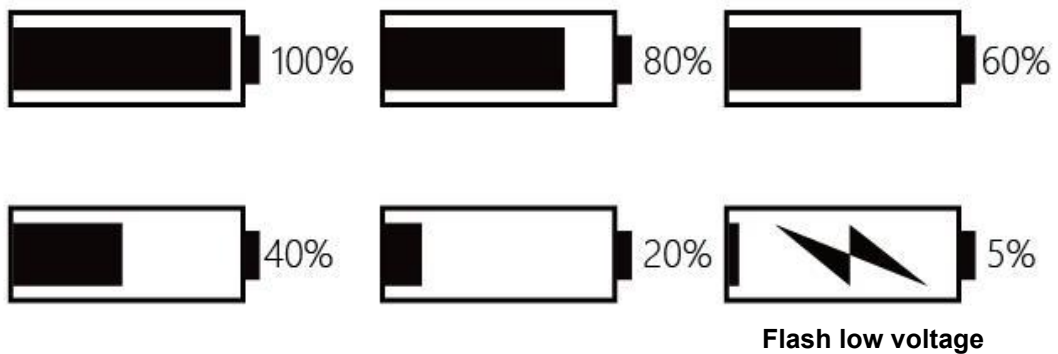
Press "+" or "-" button to change the E-bike system assist level and change the motor output power. The default assist level ranges from level "0" to level "5", The output power is zero on Level "0". Level "1" is the minimum output power. Level "5" is the maximum output power. When you reach "5", press the "+" button again, the interface still shows "5", and blinks at "5" to indicate the power maximum. When you are in level "0", press the "-" button again, the interface still shows "0" and blinks at "0" to indicate the power minimum. The default value is level "1".



Assist Level "1"

◆ Battery Power Indicator

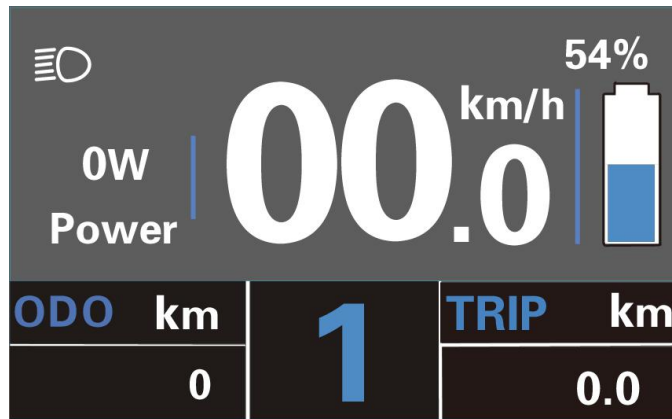
The battery percentage info-graphic indicates battery SOC. The battery frame is full of blue color when the battery is in high voltage. When the battery is in low voltage, battery frame will flash at the frequency of 1HZ to give a notice that the battery needs to be recharged immediately.



Battery Power Indicator

◆ **Motor Power Indicator**

The power of the motor can be read via interface below:



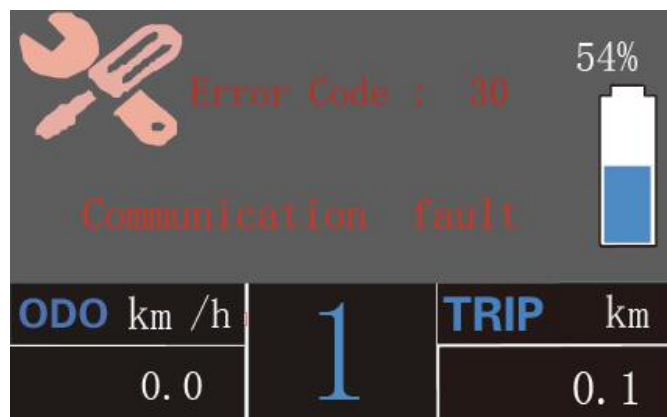
Motor Power Indication Interface

◆ **Error Code Indication**

The components of the E-bike system are continuously and automatically monitored.

When an error is detected, the respective error code is indicated in text indication area.

Refer to detailed definition of the error codes in Attached list 1.



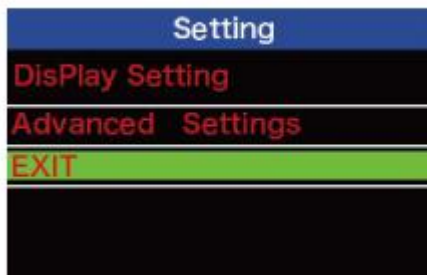
Error Code Indication

■ **Have the display inspected and repaired when an error code appears. Or else, you will not be able to ride the bike normally. Please always refer to an authorized bicycle dealer.**

DisPlay Setting

Press the **ON/OFF** button to switch on the display.

To access DisPlay Setting, hold both the "+" button and the "-" button simultaneously for 2s.



Setting interface

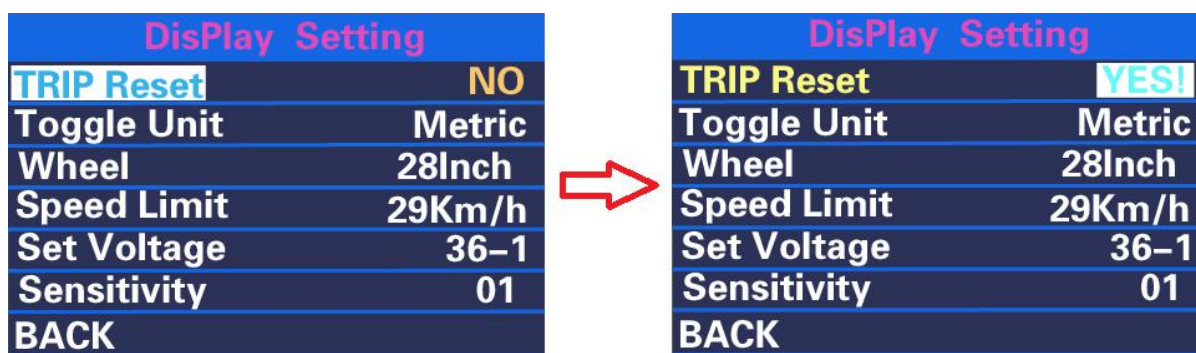
■ All the Settings are operated in the case of a parked E-bike.

◆ Trip Distance Clearance

Trip Reset represents trip distance clearance setting.

To clear trip distance, press "+" button or "-" button to select Yes or No. Yes represents clearing a single ride distance. No represents not clearing a single ride distance.

To store a changed setting, press "ON/OFF" button.



Trip Distance Clearance Settings Interface

◆ **Toggle Unit km/mile**

Toggle Unit represents unit settings. The default value is “Metric (km)”.

To toggle the unit, press the “+” button or the “-” button to choose the desired setting item.

To store a changed setting, press the "ON/OFF" button.

DisPlay Setting		
TRIP Reset	NO	
Toggle Unit	Metric	➔
Wheel	28Inch	
Speed Limit	29Km/h	
Set Voltage	36-1	
Sensitivity	01	
BACK		
TRIP Reset	NO	
Toggle Unit	Imperial	
Wheel	28Inch	
Speed Limit	29Km/h	
Set Voltage	36-1	
Sensitivity	01	
BACK		

Mile and Km Conversion Settings Interface

◆ **Wheel Diameter Settings**

Wheel represents wheel diameter settings. The default value is 26 inch.

To change basic settings, press the “+” or the “-” button to increase or decrease until the desired value is displayed.

To store a changed setting, press the "ON/OFF" button.

DisPlay Setting		
TRIP Reset	NO	➔
Toggle Unit	Metric	
Wheel	18Inch	
Speed Limit	29Km/h	
Set Voltage	36-1	
Sensitivity	01	
BACK		
TRIP Reset	NO	
Toggle Unit	Metric	
Wheel	28Inch	
Speed Limit	29Km/h	
Set Voltage	36-1	
Sensitivity	01	
BACK		

Wheel diameter settings interface

◆ **Speed-limit Settings**

Speed Limit represents the limit speed settings. When the current speed is faster than speed limit, the E-bike system will be switched off automatically. Speed limit range is 12Km/h to 40Km/h. The default value is 25Km/h.

To change basic settings, press the “+” or the “-” button to increase or decrease until the desired value is displayed. Press the "ON/OFF" button to save a changed setting.

DisPlay Setting		
TRIP Reset	NO	➔
Toggle Unit	Metric	
Wheel	28Inch	
Speed Limit	29Km/h	
Set Voltage	36-1	
Sensitivity	01	
BACK		
TRIP Reset	NO	
Toggle Unit	Metric	
Wheel	28Inch	
Speed Limit	30Km/h	
Set Voltage	36-1	
Sensitivity	01	
BACK		

Speed limit settings interface

◆Backlight Brightness Settings

LCD Luminance represents backlight brightness. 100% is the highest brightness. The less the percentage, the lower the backlight brightness.

To change the backlight brightness, press the “+” button or the “-” button to choose the desired percentage.

To store a changed setting, press the "ON/OFF" button.

Advanced Settings		Advanced Settings	
Power Set	0-5	Power Set	0-5
Current Limit	7A	Current Limit	7A
Assistant Num	12	Assistant Num	12
Speed sensor	01	Speed sensor	01
Slow Start	-0-	Slow Start	-0-
LCD Luminance	50%	LCD Luminance	100%
Password	>	Password	>
BACK		BACK	

Backlight Brightness Settings Interface

◆Power-on password settings:

Press + or - button to choose ‘Password’ and press **ON/OFF** to confirm. Meanwhile press +/- button to choose ‘Start Password’ and press **ON/OFF** to confirm. Press + or - to shift from ‘OFF’ to ‘ON’.

PassWord Set	PassWord Set
BACK	BACK
Start PassWord OFF	Start PassWord ON
	Reset PassWord

Power-on password settings interface

◆Power-on password enable/disable

In “Start PassWord” interface, choose ‘ON’ and short press(less than 0.5S) **ON/OFF** to confirm. Meanwhile, display interface prompts for a password. Press + or - button to shift numbers from 0 to 9 and press ON/OFF to confirm and input the next digit. After the input is done, the interface will prompt for entering the password again. If two inputs are consistent, the system prompts that the password is set successfully. If two inputs are inconsistent, the first input is to be repeated and confirm the new password again. The interface will be redirected to original settings page 2 seconds after the password is set successfully. Hold **ON/OFF** button for more