

KING-METER

USERS GUIDE

JK-LCD



CONTENT

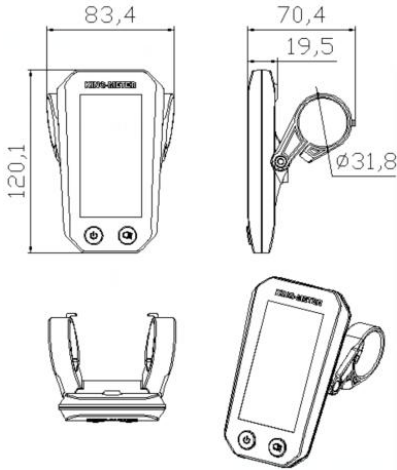
1.	Preface.....	1
2.	Appearance and dimensions	2
3.	Product summary.....	3
4.	Display content.....	4
5.	Precautions.....	4
6.	Installation.....	5
7.	Operation.....	5
	7.1 Power on/off.....	5
	7.2 Selecting speed mode (current/average/speed)..	6
	7.3 Distance (Trip/ODO/Trip time).....	6
	7.4 Toggle headlight.....	7
	7.5 Push assistance 6km/h.....	7
	7.6 PAS Level.....	8
	7.7 Battery capacity and power.....	8
	7.8 Error code.....	9
8.	Setting.....	10
	8.1 Wheel size.....	10
	8.2 Speed limit.....	11
	8.3 Backlight brightness.....	12
	8.4 Units.....	13
9.	Wire sequence.....	14
10.	About the product code.....	15
11.	FAQ.....	15
12.	Warranty and coverage.....	16
13.	Version.....	16

1. Preface

Dear User,

To ensure the best performance of your e-bike, please read through the JK-LCD product introduction carefully before use. This user manual covers: Hardware installation, set up and normal operation. It will also help to limit any confusion and assist in you to resolve any malfunctions.

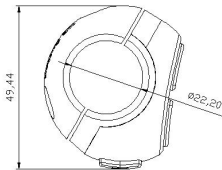
2. Appearance and Dimensions







JK-LCD housing material is made from PC plastic with a working temperature range: -20°C to 60°C . This material ensures good mechanical performance of the product.

Display Dimensions and

Installation (Unit: mm)



The N3-button is connected to the bottom of the JK-LCD via a cable.

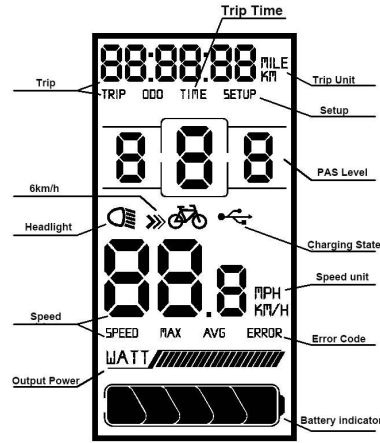
In the following introduction,  is “M”,  is “UP”,  is “DOWN” and  is “P”.

3. Functions Summary

Functions:

- ◆ Battery indication
- ◆ Speed indication (Real time, Max and Average);
- ◆ Distance indication (Current trip and Total distance);
- ◆ PAS level
- ◆ Backlight
- ◆ Headlight toggle
- ◆ Push assistance [6km/h]
- ◆ Power indicator
- ◆ Error codes
- ◆ Customisable parameters such as: Wheel diameter, Speed limit, Backlight, Units

4. Display Content



JK-LCD interface

5. Precautions

Take care when using the display and do not connect/disconnect it with power on



Avoid striking or knocking the display



Do not remove the waterproof film attached to the display as this may impair its waterproofing.



In the case of errors or malfunctions the display should be returned to your local supplier for repairs/replacements.

6. Installation

Fix the display and N3-button unit on the handlebar and adjust to an appropriate visual angle. Ensuring the power is off, match display connector with controller connector.

7. Operation

7.1 Power On/Off

Press and hold P for several seconds to toggle the power on or off to both the display and controller. While the power is off, the display will no longer consume power with a leakage current is less than 1uA.

The bike will be shut down automatically if it is left idle for 10 minutes.

7.2 Selecting Speed Mode (Current/Average/Max)

On turning on the display the default speed mode is current speed. Pressing and holding M for 3 seconds will cycle through the other speed modes in the order of: current speed→max speed→average speed.



Current speed



Max speed



Average speed

7.3 Distance (Trip/ODO/Trip Time)

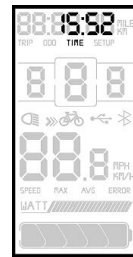
On turning on the display the default distance mode is Trip Distance. Pressing and holding M for 3 seconds will cycle through the other distance modes in the order of: Trip Distance→ODO→Trip Time
Reset either the Trip Distance or Time by pressing both M + D while it is displayed.



Trip (TRIP)




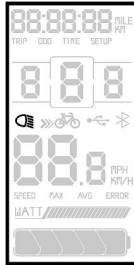
(ODO)



Trip Time (TIME)

7.4 Toggle Headlight

Press and hold  for short time to toggle on/off the headlight.



Illustration

7.5 Push Assistance 6km/h

Press and hold **D** to enable the push assistance mode. The motor will cause the bike to travel at 6km/h.

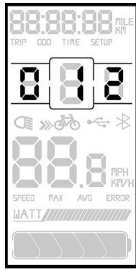


6km/h illustration

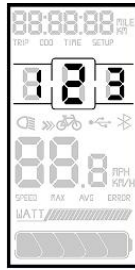
7.6 PAS Level

Press **U** and **D** to alter the PAS level, changing the output power of the motor. The range of PAS levels is 1-5.

Level 1 is being the lowest and level 5 the highest. The default level is level 1.



Level 1



level 2



level 5

7.7 Battery Capacity and Power

When the battery is full, all five segments of the battery will be illuminated. When the battery is critically low, the battery will have no segments and will flash. The WATT bar will progressively fill as the motor power usage increases.



Full capacity



low capacity



under voltage



Power showing

7.8 Error code

When the system encounters an error, the display would show the relevant error code. Only once the problem/s has been resolved will the display return to normal functionality. The e-Bike will cease functioning so long as an error code is shown.



Error code showing

Error code	meaning	solutions
21	Abnormal Current	Check if the phase of motor is short circuiting
22	Abnormal Throttle	Check that the throttle is not in it' s active state
23	No-phase state	Check if the phase wire is normal Check if the cable is firmly connected with controllers
24	Abnormal Hall signal	Controllers without hall sensors: Check that the phase wire is normal Controller with hall sensors: check if the hall wire is normal
25	Abnormal Brake	Check that the brake is not being applied
30	Abnormal Communication	Check if the display and controller are connected properly

8. Setting

While powered on, press and hold **U** and **D** for 2 seconds to enter into the settings menu.

8.1 Wheel Size

The range of optional wheel sizes is: 16' , 18' , 20' , 22' , 24' , 26' , 700C and 28' . The default wheel size is 26 inches. Pressing **U** and **D** to choose the wheel size and then press **M** to confirm the wheel size and to enter into the next setting.



Wheel size interface

8.2 Speed Limit

Using the Speed Limit setting the max speed at which the motor will work to can be set. When the bike's speed increases past the max speed the controller will cut down the output power of the motor to protect rider. The speed limit range is from 12km/h to 40km/h. The default of speed limit is 25km/h. Pressing **U** and **D** to alter the value and then press **M** to confirm to enter into next setting.



Speed limited interface

8.3 Backlight Brightness

The backlight is always on but is different depending on whether or not:

- A. the Headlight is on
- B. the Headlight is off

There are 3 options for brightness, level 1 being the lowest and level 3 being the highest. The default value is level 1. Pressing **U** and **D** will alter the brightness and pressing **M** will confirm.



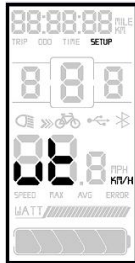
A. light is on



B. light is off

8.4 Units

Press **U** or **D** to change the units from Mile and MPH into km and km/h. Press **M** to save.



9. Wire sequences



Terminals

Make connector

Female Connector

Wire sequence of standard connectors

No.	Wire Colours	Function
1	Red (VCC)	Power cable of display
2	Blue (K)	Power cable of controller
3	Black (GND)	GND
4	Green (RX)	Data In
5	Yellow (TX)	Data Out

Remarks: Display may use waterproof connector; in this case the wires cannot be seen.

10. About the Product code

The Product code is displayed in two rows.

Row 1: 500101201.

5001 indicates the customer code,

012 indicates the item code of JK-LCD

01 indicates the version number for the current customer

Row 2: 2016-07-1301

2016-07 indicates the production date

1301 indicates the default software version of the display

11. FAQ

Q: Why can't I turn on the display?

A: Please check if the display cable is well connected with the controller.

Q: How do I deal with the error codes?

A: Contact your local e-bike dealer for maintenance.

12. Warranty and Coverage

1. Any fault with the product as a direct result of the quality will be replaced.
2. Warranty period: 24 months from the delivery time of the display from the factory.

The following circumstances are not covered by the Warranty.

1. Opened case
2. Damaged connector
3. Scratched or damaged case after delivery
4. Scratched or damaged cables
5. Malfunctions or damage caused by force majeure or natural disasters
6. outside the warranty period

13. Version

This manual has been based on the general-purpose software (version V1.0) by Tianjin KING-METER Electronic Co., Ltd. Some versions of the LCD may appear and behave slightly different depending on the hardware and software versions.