

LEADER FOX



Instructions for use of the e-bike

The seller is legally obliged to include the instruction manual for the LEADER FOX electric bicycle with each product.



E – BIKE

POWER RIDE

Cody



Foreword

Dear users,

To ensure the optimal functioning of your e-bike, please read the E-LF product information carefully before using it. By means of a conscientious description, we inform you in the following text about all details (including device installation, settings and normal use of the display) related to the use of our display. This manual will also help you to resolve any uncertainties and faults.

What is an e-bike?

An electric bicycle is a classic bicycle with an electric drive to assist in riding. The motor function is activated by pedalling, which is sensed by a special sensor located in the pedalling centre. So you have to pedal all the time on the electric bike, the motor only helps you. You can also set the e-bike in motion using the control button or the accelerator, but only up to the maximum permitted speed, i.e. 6 km/h (e.g. for walking assistance). The maximum speed of a motor-assisted e-bike is 25 km/h with a tolerance of 10 % (when you reach this speed, the motor switches off and you continue pedalling as on a normal bicycle). When the battery runs out or the motor is switched off, you can ride the e-bike like a normal bicycle without any resistance.

An electric bicycle that complies with the European standard EN 15194-1 is treated as a normal bicycle in terms of road traffic law, i.e. you can ride on cycle paths, you do not need a driving licence and a helmet is only compulsory up to the age of 18.

Description



Electric bike range factors

1. The range of an e-bike cannot be accurately determined because it is influenced by many factors.
2. **Tyre rolling resistance.** LEADER FOX electric bikes use tyres with low rolling resistance and increased puncture resistance. It is also important that the tyres are properly inflated. So if you have under-inflated tyres on your e-bike, for example, your range will be reduced.
3. **Weight of the electric bike.** The lower the weight of the e-bike, the more range it has.
4. **Battery status.** It depends on whether the battery was fully charged before the ride. You should also take into account that the higher the number of discharge cycles the battery has had, the lower its capacity. Profile and surface of the route. The higher the elevation, the worse the surface and the steeper the hills, the shorter the range.
6. **Driving mode.** It depends on which of the driving modes you have set when driving.

7. Air resistance. It depends if you are riding a low-frame bike in an upright position or if you are riding a sportier bike and have the saddle set at the same height as the handlebars.

7. Wind strength. The stronger the wind at our backs, the longer the range and vice versa.

8. Weight of rider and load. The greater the weight, the shorter the range.

9.External temperature The lower the temperature, the lower the battery capacity.

Safety recommendations

Batteries:

Do not throw the battery into the fire. Do not use the battery with other devices. Do not disassemble or modify the battery.

Do not connect the positive and negative poles of the battery with a metal object. Do not immerse the battery in water.

The charger:

Do not disassemble or modify the charger Do not use to charge other batteries. Avoid impact and contact with water. Do not touch the charger with wet hands. Keep the charger out of reach of children and pets.

Do not cover the charger or place other things on top of it.

When disconnecting the charger, do not pull the cable but the plug. Do not use the charger if it is obviously damaged.





Batteries

Battery charging and maintenance:

Charge the battery in a dry environment to prevent damage from short circuits.

Charge the battery at least once every 3 months, even when the bike is not in use, to at least 60 % capacity. Do not cover the battery or the charger.

Do not leave the battery connected to electricity at all times.

Do not use the battery for other appliances. It is made specifically for this model. Do not disassemble or modify the battery case.

Do not throw into fire or expose to extreme temperatures. The time to charge the battery from zero to 100 % is 1-5 hours.

Warranty for the drive:

The warranty covers those parts of the drive that are not susceptible to rough handling (packaging, electronics, charger, etc.), these parts are covered by a 24-month warranty.

The warranty does not cover the chemical parts of the battery and the reduction in capacity caused by normal use (39 % after a period of two years), these parts are covered by a warranty of 12 months.

Charging:

The battery is the most expensive part of an electric bike, so pay extra attention when handling, charging and storing it. The battery is sensitive to accurate charging, so for Li-ion batteries it is necessary to use only the charger we supply. Plug the charger into a 220/240 V mains supply, a 5 A fused circuit is sufficient. The charger itself will stop charging when all cells have reached full capacity.

We recommend that you always fully charge the battery after each journey to ensure that you always have a full battery capacity for your next journey. Charging the battery can take from 1 to 5 hours depending on the state of the battery cells.

It should be carried out in a covered, dry area (moisture and water can damage the charger) at a temperature of 5 to 40°C.

The charging process is indicated by a red LED on the charger. When the battery is charged and the charging process is complete, it will light up green. The battery contains a charge indicator light (the charge indicator light comes on when the charge indicator button is pressed).

Switch off the battery after riding.

Normal battery behaviour:

If the engine stops running smoothly and starts running "jerkily", the battery may be too low. In this case, switch off the electric drive system and continue without motor assistance as on a normal bicycle.

Battery overheating is a common occurrence and is not a fault. The battery is protected by a temperature sensor and will automatically switch off in the event of excessive overheating. Wait for the battery to cool down to normal operating temperature and continue riding.

If you feel that the overall battery capacity has dropped, this could be due to charging or operation in non-ideal weather conditions. Perform 3 full recharge cycles. Fully discharge the battery by driving and

then recharge to full capacity at room temperature.

If the status indicator shows that the battery is discharged, there is still a minimum voltage in the battery to protect it from damage, but it is not sufficient to power the e-bike. Recharge the battery as soon as possible. Never leave the battery completely discharged, as it could be damaged.

If the battery has been switched on for 30 minutes and the bike is not in use, it will switch off automatically.

Proper care of the battery extends its life.

LCD display



KEY-DISP

KD686

Product Name and Model

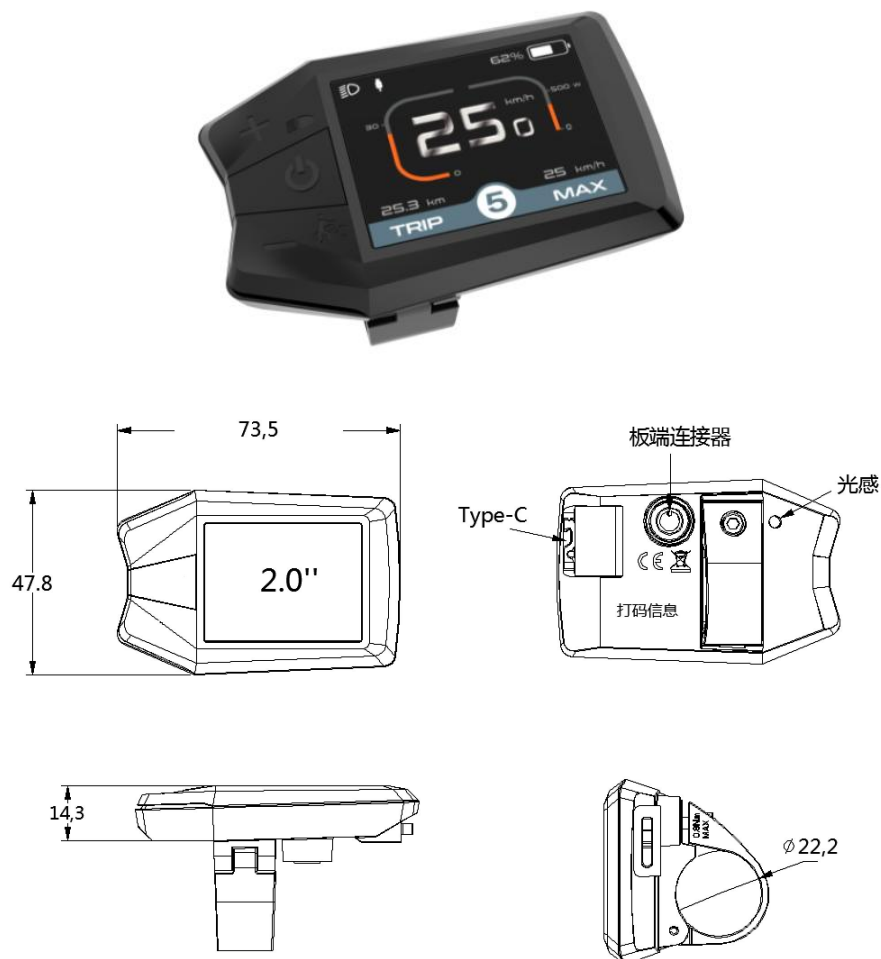
Intelligent ebike color display; Model: **KD686 (UART)**

Specification

- 2.0" IPS color screen
- 36V/48V/52V power supply power supply
- Meter rated operating current: 22mA
- Shutdown leakage current: <1uA
- Operating temperature: -10~ 60°C
- Storage temperature: -20 to 70°C

Exterior Dimensions

Physical drawing and dimensional drawing of the display (unit: mm)



The KD686 model gauges offer a variety of features to meet your riding needs, including:

- Intelligent power indication: real-time voltage/power percentage
- Intelligent display: single mileage TRIP, total mileage ODO, real-time

speed SPEED, maximum speed MAX, average speed AVG, riding time Time

- Motor output power display
- Assisted gear adjustment and display
- Backlight control and headlight display
- walk assistance
- Error code display.
- Type-C charging function
- Light-sensitive function
- Multiple parameter settings (e.g. single mileage clearing, backlighting, metric/imperial system, power setting, gear setting, wheel diameter speed limit setting, power-on password setting, etc.)
- Restore factory default settings
- Error code display
- Bluetooth function (optional)

display area



◆ Button Definition

The KD686 display has three buttons: ON/OFF, UP/HEADLIGHT, and DOWN/BUZZER; in subsequent instructions, ON/OFF is replaced by the words "**ON/OFF**", UP/HEADLIGHT is replaced by the word "**UP**", and DOWN/BOOSTER is replaced by the word "**DOWN**". The word "**DOWN**" is used instead of "**ON/OFF**" for **ON/OFF**, "**UP**" for UP/HEADLIGHT, and "**DOWN**" for DOWN/WALK BOOST.

General operation

◆ Power on/off

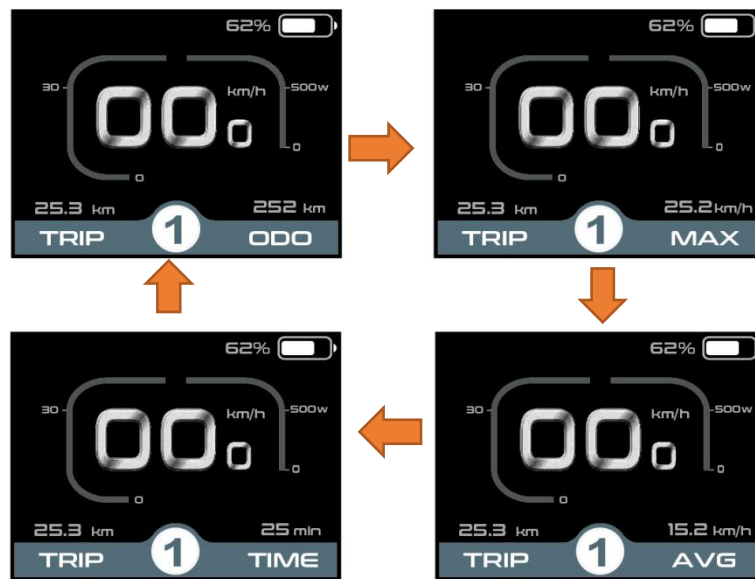
After long pressing the power button, the meter starts to work and provides the working power for the controller. In the power-on state, long press the power button to turn off the power of the EV. In the off state, the meter no longer uses the power from the battery and the leakage current of the meter is less than 1uA.

■ **The meter will automatically turn off if the electric vehicle is not used for more than 5 minutes.**

◆ Display Interface


After the meter is turned on, the meter defaults to display real-time speed, single mileage, total mileage, power, charge, and gear.

Short press "ON/OFF" button can switch between single mileage total mileage ODO (km), maximum speed MAX (km/h), average speed AVG (km/h), time (min).



Display interface switching

◆ Walk mode

Press and hold the "DOWN" button, after 2 seconds, the electric vehicle enters the state of electrically assisted driving. The electric vehicle is traveling at a constant speed of not more than 6Km/h. At the same time, the screen displays "  ". Release the "DOWN" button, the electric vehicle will stop power output immediately and return to the state before walk mode is engaged.

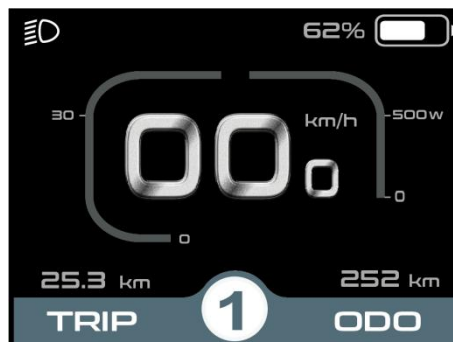


Walk mode

◆ Light-sensitive function and manual on/off backlighting

The display has a light-sensitive function, which can sense the light and darkness of external light and turn on/off the headlights automatically. When the external light is not enough or when driving at night, the backlight of the display **will be dimmed**, and at the same time notify the controller to turn on the headlights; when the external light is enough, the backlight of the display **will be brightened**, and at the same time notify the controller to turn off the headlights.

Press and hold the **UP** button manually for more than 2 seconds, the display performs the on/off headlight function, and the light sensing function is disabled at the same time.



Turn on the backlit display interface

◆ assist level selection

Short press the **"UP"** or **"DOWN"** button to switch the assist levels, change the motor output power. The default output power range of the meter is 0-5, 0 is stop power output, 1 is the lowest power, 5 is the highest power.



Assist level Interface

◆ Battery SOC

Display battery voltage 36V; 36V voltage segments: 31.5V-34.5V-35.6V-37.4V-39.2V



Battery SOC interface

◆ Motor power indication

The meter displays a progress bar of motor output power. The display is shown below.



Motor power display interface

◆ Error Code Display

When there is a malfunction in the electric control system of the electric vehicle, the meter will display an error code, refer to **Exhibit 1** for detailed error code definitions.

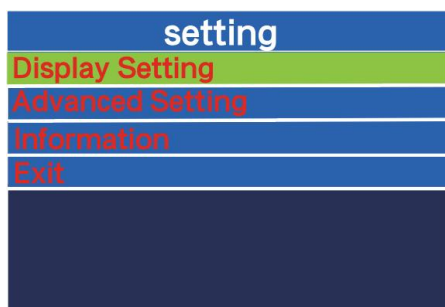


Error Code Display Screen

■ When an error code is displayed, please troubleshoot the problem in time, the electric car will not be able to run normally after a malfunction.

General Parameter Settings

In the power-on state, the vehicle is stationary, press and hold the "UP" and "DOWN" buttons at the same time for more than 2 seconds, the display will enter the setting interface.




● Display Setting

◆ TRIP RESET

Short press "ON/OFF" to confirm, short press "UP" or "DOWN" to toggle "NO (not clear)" and "YES (clear)"; (Clear data including maximum speed (MAX), average speed (AVG), single mileage (TRIP), riding time (T). " and "YES (clear)"; (clear data including maximum speed (MAX), average speed (AVG), single mileage (TRIP), riding time (Time)), after confirming, press "ON/OFF" again briefly to save and exit to "ON/OFF", then press "UP" or "DOWN" to save and exit to "ON/OFF". After confirming, press "ON/OFF" briefly again to save and exit to "Trip reset", the display defaults to "Trip reset-NO".

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>




Display Setting	
Trip reset	YES
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>

Single Mileage Zero Setting

◆ units

Short press "UP" or "DOWN" to select "Unit", short press "ON/OFF" to enter the Setting, press "UP" or "DOWN" to select "Metric" (kilometer)/"Imperial (mile)", press "ON/OFF" to enter the setting. Select "Metric"/"Imperial" by pressing "UP" or "DOWN", press "ON/OFF" to save and exit to "Unit".

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>




Display Setting	
Trip reset	No
Unit	Imperial
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>

English and Metric Unit Conversion Setting Screen

◆ Backlight Brightness Setting

Short press "UP" or "DOWN" to select "Brightness", short press "ON/OFF" to enter the setting, by short press "UP" or "DOWN", the backlight brightness range is "100%-75%-50%-30%-15%". Enter the setting, by short press "UP" or "DOWN", the backlight brightness range is "100%-75%-50%-30%-15%" 5 levels of brightness, short press "UP" or "DOWN", the backlight brightness range is "100%-75%-50%-30%-15%". The brightness range of backlight is "100%-75%-50%-30%-15%", 100% corresponds to the highest brightness, 15% corresponds to the lowest brightness; short press "ON/OFF" to save and exit to "Brightness". The default backlight brightness of the display is "100%".

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>




Display Setting	
Trip reset	No
Unit	Metric
Brightness	75%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>

Backlight brightness setting interface

◆ Battery percentage and voltage display

Short press "UP" or "DOWN" to select "SOC View", short press "ON/OFF" to enter the setting. "Enter the setting, short press "UP" or "DOWN" to switch to: "Voltage (Voltage Display)"; the default meter is "Percent", press "ON/OFF" to save and exit to "SOC View".

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>



Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	Voltage
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>

Power percentage/voltage display setting screen

◆ Auto Power Off Time Setting

"Auto Off" indicates the setting of automatic shutdown time. Short press "i" to enter the setting, by short press "UP" or "DOWN" to select the automatic shutdown time, the range is "OFF, 1-9 (Min)", short press "i" to save and exit to "Auto Off". The range is "OFF, 1-9 (Min)", short press "i" to save and exit to "Auto Off". The default auto off time of the meter is 5Min.

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>




Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	8Min
AL Sensitivity	5
Set Voltage	36V
Password	>

Auto Power Off Time Setting Screen

◆ Light Sensor Sensitivity Setting

"AL Sensitivity" indicates the sensitivity setting of light sensor. Short press "i" to enter the setting, and short press "UP" or "DOWN" to select the sensitivity value of the light sensor. The range is "5-4-3-2-1-OFF", press "i" to save and exit to "AL Sensitivity". The default sensitivity of the meter is 5.

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>



Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	3
Set Voltage	36V
Password	>


Light Sense Sensitivity Setting Interface

◆ Battery voltage setting

Short press "UP" or "DOWN" to select "Set Voltage", the meter defaults to 36V

and cannot be changed.

Press and hold **"ON/OFF"** to return to the main screen or **"BACK"** to return to the main screen.




Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	36V
Password	>

Display Setting	
Trip reset	No
Unit	Metric
Brightness	100%
SOC View	percent
Auto Off	5Min
AL Sensitivity	5
Set Voltage	48V
Password	>

Battery voltage setting interface

◆ Power-on password setting

Short press **"UP"** or **"DOWN"** to select **"Password"**, short press **"ON/OFF"** to enter setting. Enter setting, select Start PassWord by short press **"UP"** or **"DOWN"**, short press **"ON/OFF"** to switch between **"PassWord"** and **"Password"**. Short press **"ON/OFF"** to switch **"OFF"/"ON"**, the following is the specific switching method. There is no power-on password by default.



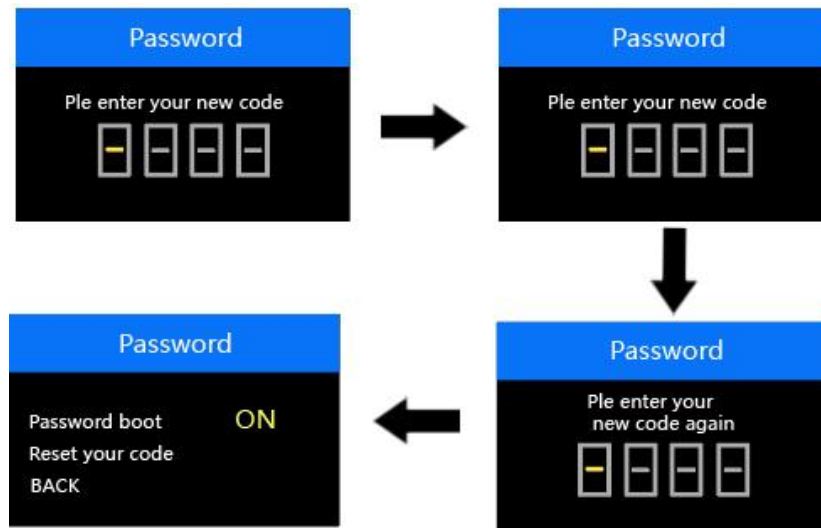
Password	
Password boot	OFF
BACK	

Password	
Password boot	ON
BACK	

Power-on password setting screen

◆ Power-on password enable

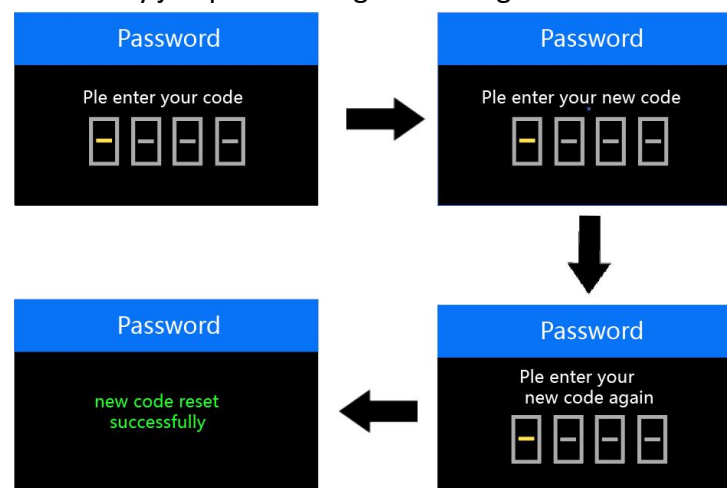
In the **"PassWord boot"** interface, select **"ON"**, press **"ON/OFF"** to confirm, the interface prompts to enter the password, press **"UP"** or **"DOWN"** to increase/decrease the input value, press **"ON/OFF"** to shift the value, after the 4-digit password input, press **"ON/OFF"** to shift the value. **"UP"** or **"DOWN"** key to add/subtract the input value, short press **"ON/OFF"** key to shift the value, after 4-digit password input, short press **"ON/OFF"**. **"ON/OFF"** to confirm; the interface prompts to enter the password again, after the two inputs are the same, the system prompts the password set successfully, if the two inputs are not the same, then you need to repeat the first step to enter a new password and then confirm that the password is set successfully, the 2S interface automatically jumps to the original setup interface.



Password Enable Confirmation Screen

◆ Power-on password change

After opening the password, "**Pass word**" interface will add "**Reset your code**" option, short press "**UP**" or "**DOWN**" to select "Reset Password", short press "**ON/OFF**" again to make sure. Short press "**UP**" or "**DOWN**" to select "**Reset Password**", short press "**ON/OFF**" again to make sure, at this time, the interface prompts you to enter the current password, the password is entered correctly, the interface prompts you to enter the new password. The interface prompts you to input the new password after the password is input correctly, and the operation will be the same as the new password, after the password is modified successfully, the 2S interface will automatically jump to the original setting interface.



Password change screen

◆ Disable Password

After selecting "**OFF**" in the "**PassWord**" interface, press "**ON/OFF**" briefly to make sure, at this time, the interface prompts you to input the password, after the

password is correctly input, the interface prompts you that the password function is successfully turned off. After the password is correctly entered, the interface prompts that the password function is closed successfully, and the interface automatically jumps to the original setting interface after 2S.

Long press "ON/OFF" to exit to the main interface or "BACK" to exit to the setting interface, short press "ON/OFF" to select EXIT to return to the main interface.

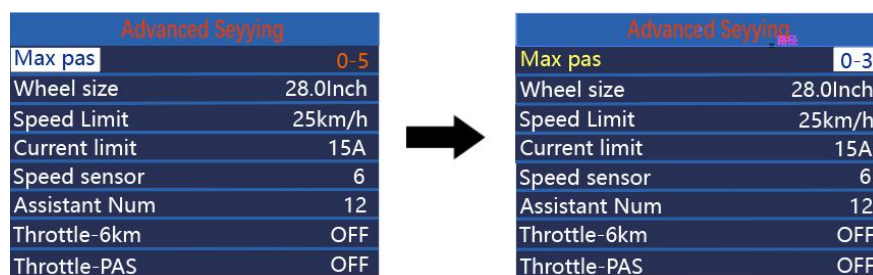


●Advanced Setting

In the **DisPlay Setting** menu, select **EXIT**, press **ON/OFF** to return to the main interface, press **UP** or **DOWN** to select "**Advanced Setting**", press **ON/OFF** to enter the **Advanced Setting** menu. Select "**Advanced Setting**" by short press "**UP**" or "**DOWN**", then short press "**ON/OFF**" to enter **Advanced Settings** setting menu;

◆Max pas modes

Short press "ON/OFF" to confirm, short press "UP" or "DOWN" to switch gear "0-3, 1-3, 0-5, 1-5, 0-7, 1-7, 0-9, 1-9" 8 modes, short press "ON/OFF" to save the setting, and return to the setting item selection interface. 5, 0-7, 1-7, 0-9, 1-9" 8 modes, short press "ON/OFF" to save the setting and return to the setting item selection interface.




◆Wheel size

Short press "UP" or "DOWN" to select "**Wheel**", short press "ON/OFF". Enter the setting, short press "UP" or "DOWN" to switch the wheel diameter, the optional wheel diameter range is: "18-29Inch". Short press "ON/OFF" to save and exit to "Wheel".

Press and hold "ON/OFF" to return to the main screen or "BACK" to return to

the main screen.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF




Advanced Seeying	
Max pas	0-5
Wheel size	26.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Wheel diameter setting interface

◆Speed Limit

Short press **"UP"** or **"DOWN"** to select **"Speed Limit"** to see the speed limit value, default 25km/h, not adjustable. Press and hold **"ON/OFF"** to return to the main interface or **"BACK"** to return to the main interface.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF




Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Speed limit interface

◆current limit

Short press **"UP"** or **"DOWN"** to select **"Current Limit"** to view the current limit value, the default current limit value is **"15A"**. The default current limit value is **"15A"**, which is not adjustable. Press and hold **"ON/OFF"** to return to the main interface or **"BACK"** to return to the main interface.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF



Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Current limit interface

◆Speed Sensor

Short press **"UP"** or **"DOWN"** to select **"Speed Sensor"** to check the number of magnets of speed sensor, the default value is **"6"**. The default value is **"6"** which is not adjustable. Press and hold **"ON/OFF"** to exit to the main interface or **"BACK"**→to exit to the main interface.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF



Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Speed Sensor

◆ Assistant Num

Short press **"UP"** or **"DOWN"** to select **"Assistant Num"** to check the number of assistant magnets, the default value is **"12"**, **not adjustable**. The default value is "12", not adjustable. Press and hold **"ON/OFF"** to return to the main interface or **"BACK"** to return to the main interface.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF



Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Assistant Num

◆ Throttle-6km

"Throttle-6km" is OFF by default and non-adjustable. long press **"ON/OFF"** to exit to the main interface or exit to **"BACK"** to set interface. Setting interface.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Throttle - 6km

◆ Throttle-PAS

"Throttle-PAS" is OFF by default. Non-adjustable.

long press **"ON/OFF"** to exit to main interface or **"BACK"** to exit to setting interface.

Advanced Seeying	
Max pas	0-5
Wheel size	28.0Inch
Speed Limit	25km/h
Current limit	15A
Speed sensor	6
Assistant Num	12
Throttle-6km	OFF
Throttle-PAS	OFF

Throttle-PAS

◆ Language Selection

Language" stands for language setting, short press **"UP"** or **"DOWN"** to select

"Czech", "French", "German", "English". Short press "UP" or "DOWN" to select "Czech", "French", "German", "English", short press "ON/OFF" to confirm, the default is English, long press "ON/OFF" to confirm, long press "ON/OFF" to confirm, the default is English. "Long press "ON/OFF" to exit to the main interface or "BACK" to exit to the setting interface.

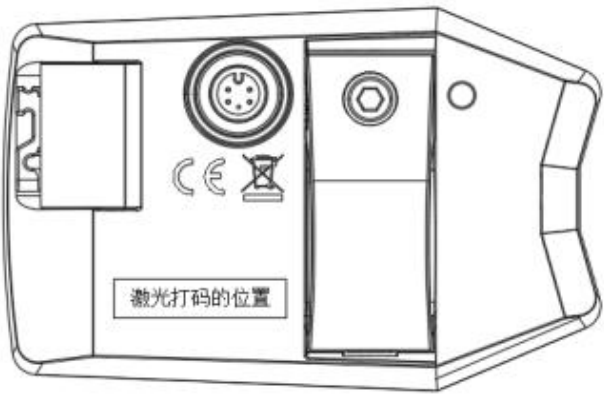
Advanced Setting		Advanced Setting	
Speed Limit	25km/h	Speed Limit	25km/h
Current limit	15A	Current limit	15A
Speed sensor	6	Speed sensor	6
Assistant Num	12	Assistant Num	12
Throttle-6km	OFF	Throttle-6km	OFF
Throttle-PAS	OFF	Throttle-PAS	OFF
Language	English	Language	Deutsche
BACK		BACK	

Language Selection Setting Screen

■ The display automatically exits the setup state if no operation is performed within 1 minute.

◆ Connector pinout.

7-pin 5 pin male, Model No. JL-F39-Z508JG



Pinout table

serial number	names	functionality
1	VCC	display Power Cord
2	KP	Power control cable for controller
3	GND	GND
4	RX	Data receiving line of the display
5	TX	Data transmission line of the display

Exhibit 1: Error Code Definition Table

error code	define
21	current fault
22	Throttle fault
23	Motor phase is absent
24	Motor Hall signal abnormality
25	Brake abnormality
30	Communication fault between display and controller

Quality Commitment and Warranty Coverage

I. Warranty information:

1、Where the normal use of the product itself due to quality problems caused by the failure, in the warranty period the company will be responsible for giving limited warranty.

2、The warranty period of the product is within 24 months from the meter's factory.

II. The following are not covered by the warranty

1. Shell is opened
- 2、Connector is damaged
- 3、Meter factory, shell scratches or shell damage
- 4、Meter lead wire scratched or broken
5. Failure or damage due to irresistible (e.g., fire, earthquake, etc.) or natural disasters (e.g., lightning strikes, etc.)
6. Product out of warranty

Warnings

Pay attention to the safety of use in the process, do not plug and unplug the meter under power.

- ◆ Avoid bumping the meter as much as possible.
- ◆ Regarding the background parameter settings of the meter, please do not change them arbitrarily, otherwise normal riding cannot be guaranteed.
- ◆ When the meter is not working properly it should be sent for repair as soon as possible.

Maintenance

Regular maintenance:

keep all components of the e-bike clean

use only recommended and tested cleaning materials

regularly lubricate the chain with suitable oils

in winter, clean the e-bike, especially the battery contacts and other connectors of salt after each ride

take care not to damage the cables of the electrical system when handling the e-bike in any way. Damaged cables pose a risk of electric shock

regularly check that all connections are tightened correctly and that the brakes are working. Also check individual parts of the electric bike for damage. For example: cracks on the frame, fork, handlebars, stem, damaged cables, damaged battery cover, etc.

Always remove the battery before transporting the e-bike on or in the car

Transportation of the battery:

The requirements of the Dangerous Goods Regulations apply to the transport of batteries. Undamaged batteries can be transported by private users on the road without complying with other conditions.

Special packaging and labelling requirements (e.g. ADR regulations) must be observed when transported by commercial users or third parties.

Only ship batteries if they do not have a damaged cover. Seal loose contacts and pack the battery so that it does not move in the packaging. Notify the delivery service that this is dangerous goods.

Battery storage:

Store the battery in a dry and ventilated place out of direct sunlight and other heat sources. In case of cold storage, the battery must first be allowed to warm up to normal room temperature (20 °C) before being put into operation.

Never leave the battery fully discharged. It could be permanently damaged. Keep the battery fully charged during long-term storage. However, do not store it permanently connected to the charger or placed in the electric bike.

Li-ion batteries are fully recyclable. At the end of the battery's life, you can dispose of it at any collection point or at your dealer.

If the bike is used under heavy loads (prolonged use of maximum assistance), for extended periods of riding in hot temperatures (30 °C or more), in direct sunlight, or with a partially discharged battery, and a combination of these situations, the e-bike may shut down. This is a fuse to protect the control unit from burning. The bike should be allowed to cool down for a while and then you can continue riding. This is not a defect.

Warranty electrosets:

Always file a claim with your dealer.

When making a claim, please present the proof of purchase, the warranty card with the serial number of the battery and the reason for the claim and a description of the fault.

Warranty conditions:

24 months for the components of the electric bike – covers manufacturing and material defects beyond normal wear and tear caused by use.

12 months for battery life – the rated capacity of the battery will not fall below 70 % of its total capacity within 12 months of the sale of the e-bike.

Warranty Terms:

The battery must be used solely for the purpose for which it is intended.

The electric battery must be used, stored, and maintained in accordance with this user manual.

The warranty is void:

If the product is found to have been damaged by the user (by accident, improper handling beyond the scope of this user manual, improper tampering with the design of the electric bike or the wiring of the electrical system, improper storage, etc.).

Expiry of the warranty period.

The warranty applies only to the first owner

Notice

If you do not understand any point in these instructions, please contact your dealer for clarification. Read the whole manual!

Do not lend an electric bicycle to persons who have not been instructed in its use. Claims arising from improper handling will not be accepted.

The LF energy electric bicycle is in no way intended for children under 15 years of age. The electric bicycle may also not be used by persons who are unable to pedal or handle it independently. The manufacturer is not responsible for any injury or damage to the e-bike!

The ideal weather conditions for operating the e-bike are dry days when the outside temperature is above 10°C. In case of operation in lower temperatures, physical phenomena cause the battery to discharge faster. It is not recommended to operate the e-bike in outdoor temperatures below 0 °C.

Do not expose the bike to direct sunlight, the bike has a thermal protection sensor for the electric drive. Never immerse the battery, charger or other electrical components in water or other liquids.

Never pressure wash an e-bike (WAP) and always remove the battery before washing.

It is forbidden to interfere with the wiring of the electric motor, control unit or battery. Violation of this point may result in the goods not being covered under warranty or irreparable damage to the electric bike.

DO NOT use any chargers or components other than those supplied with the e-bike. We are not liable for damages caused by the use of other, non-homologated, products.

LEADER FOX



We wish you many pleasant and safe miles on your new electric bike.

Your team Leader Fox



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