

# Smart EV/Moped User Manual

(Model: VT4)

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## **User Manual**

## 1. Battery and Charging

- Charge the battery within 0°C to 45°C, and discharge between -20°C to 60°C.
- Keep the battery dry and away from acidic or alkaline liquids, rain, fire, heat, and high temperatures.
- Do not reverse connect the battery poles or damage, insert, or short-circuit the battery. Use the original special charger, limiting charging to 6 hours and current to 2A.
- For long-term storage, store in a cool, dry place and charge monthly for five hours. Users must follow instructions; any consequences of non-compliance are the user's responsibility.
- Ensure battery type and charger voltage compatibility, and do not mix different types.
- Charge in a ventilated environment, avoiding confined or excessively hot spaces. Connect the battery to the charger, then to the power supply; reverse this order when disconnecting. If the charger's indicator light is abnormal, has a peculiar smell, or overheats, stop charging and seek repair or replacement.
- Avoid foreign objects, especially liquids, entering the charger. If transported by bicycle, place in a shock-absorbent toolbox. Do not disassemble or modify the charger.

## 2. Riding

Read and understand the instructions and product performance before use. Do not lend the bicycle to those unable to operate it.

Before riding, check the brakes and tighten them if needed. Applicable for riders aged 16 to 65. Always wear a safety helmet, follow traffic rules, and avoid motorized lanes and pedestrian-heavy areas. Check tire pressure before each ride, maintaining 40 to 65 PSI. Limit speed to 15KM/h on downhill and non-paved roads. Avoid strong impacts on the motor and keep the rotating shaft lubricated. Do not exceed the maximum load of 120KG.

Do not park the bicycle in building halls, evacuation stairs, or safety exits. Store it in a place protected from sunlight and rain, not in residential buildings. One-handed riding is prohibited.

#### 3. Maintenance and Care

- After riding, store the bike away from sunlight and rain, not in residential buildings.
- Regularly check and tighten screws with the recommended torque values: handlebar screw 60-80 kgf.cm, handle screw 175-200 kgf.cm, seat cushion screw 175-200 kgf.cm, wheel screw 320-450 kgf.cm.
- Ensure front and rear wheels are centered in the fork or frame. Check tires for damage or wear and replace immediately if necessary.
- Contact a professional technician for tire replacement or repair.

#### 4.Disclaimer

The company reserves the right to modify and interpret this User Manual. Functions described are specific to the mentioned model. The company is not liable for damages or injuries resulting from improper use or errors. This User Manual should not be copied, modified, reproduced, transmitted, or published without the company's written permission. Users must operate the product according to the Manual.

## Product function illustration (Model: VT4)



Figure 1 (Bicycle Diagram)



Figure 2 (Left side of the frame)

- 1) Brake Lever
- ② Standpipe folding quick release
- ③ Stem
- 4 Quick-release handle
- ⑤ Headlight
- 6 Tire
- 7 Rim
- 8 Spoke
- (9) Reflector
- 10 Brake Disc
- (11) Front Fork
- 12) Brake
- (13) Frame folding quick release

- (14) Chainwheel
- 15) Pedal
- 16 Chain
- (17) Rear Derailleur
- (18) Motor
- 19 Rear light
- 20 Rear hanger
- ② Seat Tube Adjustment Quick Release
- 22 Seat Tube
- 23 Saddle
- **24** Lithium Battery
- 25 Battery Lock Key Hole
- 26 Handle of battery
- 27 Battery Charging Hole



Figure 3 (Handlebar)

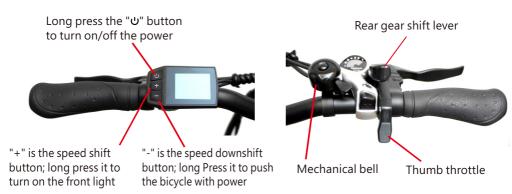


Figure 4 (Left Handlebar)

Figure 5 (Right Handlebar)

#### **Function introduction:**

- 1. Charging: Refer to item 27 of Figure 2, the charging hole can be seen on the left side of the frame, and it can be charged by connecting the charger.
- When the battery is full and the charger indicator turns from red to yellow-green, it means it is fully charged.
- 2. Turn on/off: refer to Figure 4 and press and hold the "  $\mbox{\bf 0}$  " button to turn on/off the power of the display.
- 3. Display: The display screen lights up after power on, displaying information such as power, speed, motor speed, mileage, etc. The power speed is initially 0. Press the "+" and "-" buttons to increase and decrease the power speed of electric drive mode.
- 4. Front light: Refer to Figure 4, long press the "+" button to turn on/off the front light.
- 5. Power-assisted mode: power-assisted riding, step on the pedals of the bicycle, and automatically start electric power after a certain speed. If you don't need assistance, you can turn off the power of the display.
- 6. Speed transmission: Refer to Figures 5, when the bicycle is running, you can change the mechanical speed by flipping the shift levers.
- 7. Electric mode: Refer to Figure 5, press the thumb throttle, and the bicycle can accelerate forward. The greater the pressing range, the faster the bicycle will run. For safety reason, please press the thumb throttle lightly and accelerate slowly.

# **Folding Operation Illustration**

- 1: Unscrew the plastic safety buckle on the standpipe quick release, and then release the quick release, and the riser can be folded to the left
- 2: The standpipe upper and lower adjustable 4: Release the upper and lower quick releases can adjust the height of the standpipe.
  - adjustable quick releases of the seat tube to adjust the seat tube to the lowest position.





3: The handlebar adjustable quick release can adjust the handlebar direction

5: First, turn the safety buckle of the folding device all the way to the right









7: Press the pedal inward with hand, and then flip it up to fold

State of Frame After Folding

Note: The pedals are not installed at the factory and can be installed by using the special wrench coming with the vehicle.

Note when installing the pedals: The pedal with "R" symbol is the right pedal, and that with the "L" symbol is the left pedal.



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# How to remove the battery

1: Insert the key into the hole and rotate it to the right to unlock



2: Rotate the battery handle while pulling outward to remove the battery





This is the state of the battery after it is removed, which can be taken out separately for charging

# **Product parameter**

	Parameter	Standard Edition
Dimensions	Main material	Aluminum alloy
	Size	1480*610*1100mm
	Pedal distance from the ground	100mm
	Tire size	20 inches
	Package Size	152*28*72cm
	Weight	26.5kg
	Maximum load	120kg
Performance	Best riding speed	20km/h
	Maximum speed	25km/h
parameter	Range	30~45km
	Maximum climbing angle	30 degrees
	Operating temperature	-10~45 degrees
	Waterproof level	IP54
	Battery Type	18650 lithium ion power battery
	Battery capacity	13 AH
	Rated battery voltage	36V
	Motor line type	Power
Electrical	Motor rated voltage	36V
Chacifications	Motor rated power	250W
Specifications	Charging voltage	DC42V/2A
	Input voltage	AC220V
	Undervoltage protection value	31V
	Overcurrent protection value	1.5A
	Charging time	6∼8 hours
Features	Display	Multi-function LCD screen
	Front light	Yes
	Braking method	Front and rear disc brakes
	Speed transmission	7 speed

Remarks: Electricity, load, tire pressure, road environment, chain and wheel axle lubrication, etc. will affect the maximum speed; the range refers to the data obtained from continuous testing from fully charged to completely exhausted with a riding speed of 15-25km/h and a load of 60kg on a flat hardened road; driving habits, temperature, load, tire pressure, road environment and other factors will affect the range.

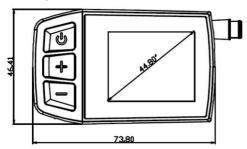


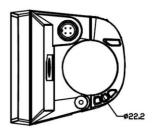
# **Appearance and Size**

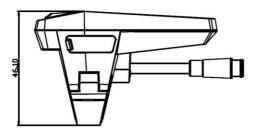


**Appearance Drawing** 

## **Size Specification**







Size Specification



## **Features Introduction**

**Features & Parameter** 

L182 supports common riding parameters and statistical data, as well as some practical functions.

Current Speed, Max Speed, Average Speed

**Current MotorPower** 

**BattervLevel** 

**Assist Gears** 

TotalRange, Trip Range

**Trip Time** 

**Energy Consumption** 

LightIndicator

Metric(km/h)/British(mph)

**Error Code** 

BacklightAdjustment

**Auto Power Off** 

USB Port (5V/500mA)

In addition, the Bluetooth version also supports the following functions:

**APP Connection** 

**Data Synchronization** 

**Riding Ranking** 

**Riding Track Records** 

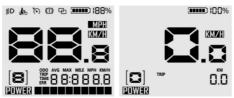
## **Buttons Description**

Button	Name	Function
(Power)	[ Dowers	1、Power on/off
	[ Power ]	2. Confirmation
+	[+]	1. Parameters Adjustment
		2、Lighton/off
		3、Menu Operations
_	[-]	1 Parameters Adjustment
		2 Push Assist Starts/Shuts
		3、Menu Operations

## **Operation**

Power on/off

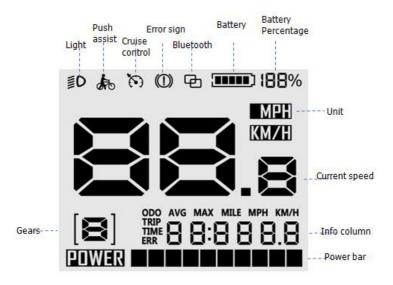
Press and hold 【Power】 for 2s to poweron, and the logo interface will be shown for 1s before entering the cycling interface



In any workingmode, press and hold [Power] to poweroff.

## Cycling Interface

The ridinginterfacesupportsmultipleparametersdisplay:



#### **Gears Shift**

Click on [+]/[-] buttonto shiftgears:

Press and hold [-] for 2s to start 6km/hpush assist mode and release [-] to exit.



Light turns on/off

Press and hold [+] for 2s to turnon/offthe light

## **Clear Trip Distance**

Press and hold [Power] and [+] togetherto clear the trip distance



Note: For the Bluetoothversion, the max speed, average speed, the total triptime and calories can be also cleared.

## **Error Display**



#### **Common Error Codes:**

KM5S Protocol Error Code:

Minds Trotocol Error couc.		
Error Code	Meaning	
(hexadecimal)		
21	Overcurrentor MOS broken	
22	ThrottleError	
23	MotorPhase Error	
24	MotorHall Error	
25	Brake Error	
26	Low VoltageWarning	
30	CommunicationError	

Lithium Battery No.2 Protocol Error Code

	•
Error Code	Meaning
(hexadecimal)	
02	Brake Error
06	Low Voltage Warning
07	MotorPhase Error
08	ThrottleError
09	Overcurrentor MOS broken
14	MotorHall Error
30	CommunicationError

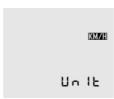
#### User Menu

Press and hold [+] and [-] for 1s together to enter the user menuinterface. The speed limit, data unit, auto power-offtime and backlightbrightness can be set up. The Bluetooth connection can be also set in menu with Bluetooth version.

If there is no operation for 60s, it will return to the Cycling interfaceautomatically.

#### 1、Unit

In this mode, the speed unitwillbe flashing. Click [+]/[-] to change the unit and click [+]/[-] to confirm and switch over to the next menu.



## 2. Limited speed adjustment

When the digits area is flashing, the limited Speed can be adjusted. Click on [+]/[-] to adjust the and click [Power] to save and switch over to the next menu.



#### 3. Auto Power-off Time

In this mode, the data of auto-power-offtime (in minute) will be flashing, click [+]/[-] to adjust it in the range of 0-99(0 means no auto-power-off).

Click [Power] to save and switch over to the next menu.



## 4、Backlight Brightness

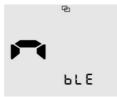
In this mode, the data of backlightbrightness will be flashing click (+)/(-) to adjust it in the range of 1-5.

Click [Power] to save and switch over to the next menu.



## 5 Bluetooth Connection (Bluetooth version only)

In this mode, the Bluetoothicon will be flashing for 1s, it means the display can be searched and connected by APP.





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**SUCCESS COURIER SL** 

CALLE RIO TORMES NUM.1,PLANTA 1,DERECHA, OFICINA 3,Fuenlabrada, Madrid, 28947 Spain

OST EU 20230901000022 successservice2@hotmail.com

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