

USER MANUAL



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1. About Manual

1.1User notify

Welcome to join Ecooter family! Please follow us to use all the functions of this manual correctly and safely. In order to drive safely, please use our scooter according to your local regulations, requirements and make sure to read this manual carefully before driving, and check the knowledge as below,

Fully understand all information of this manual, including all operation and notification and warning label.

For personal modify, use unofficial component, Ecooter has no responsibility. For any question and help, please call your local dealer!

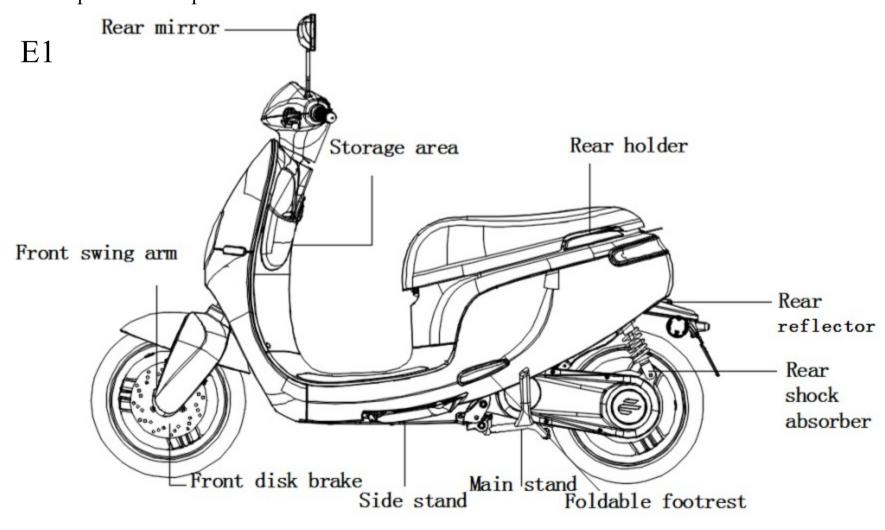
1.2 Safety notify

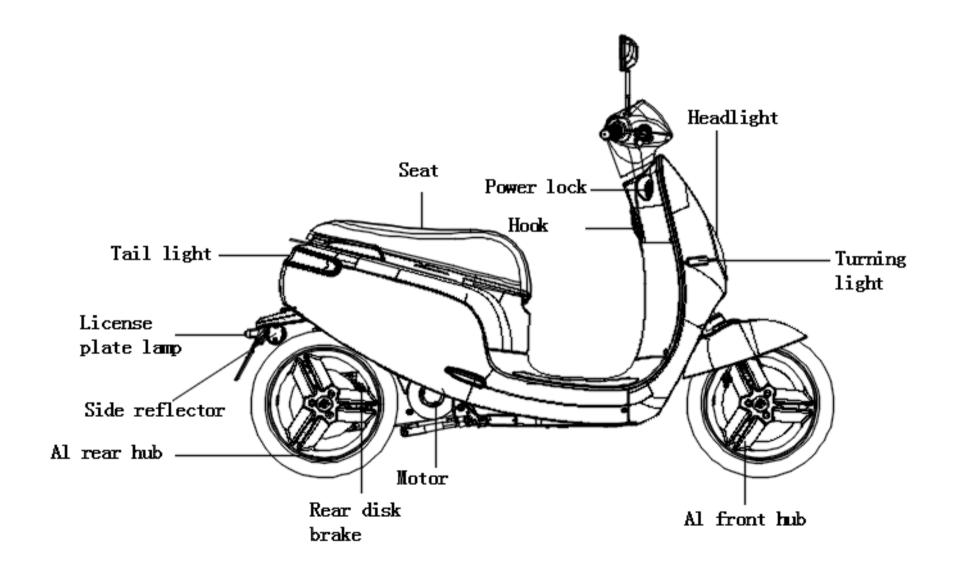
In order to protect yourself and other people, please abide by the rules as below,

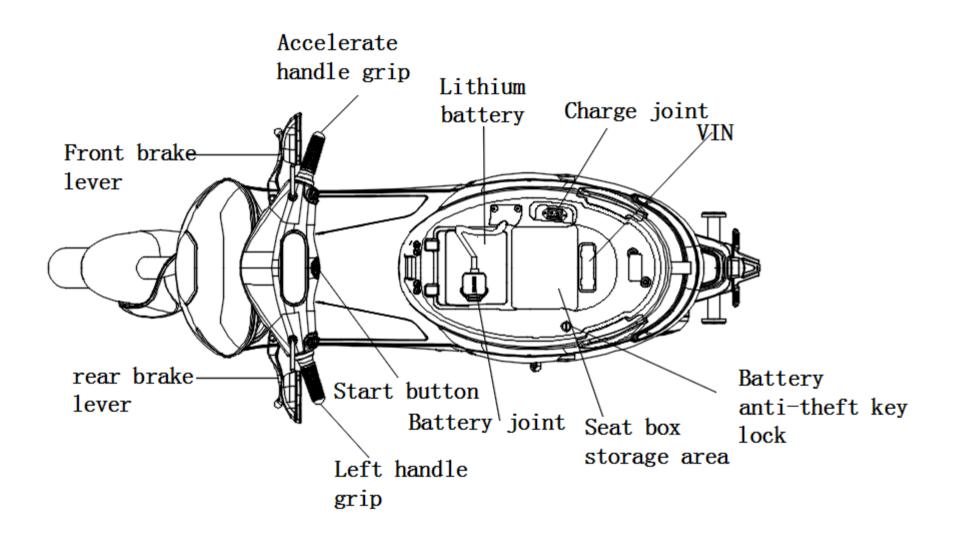
- 1)If you take medicines which is possible to effect drive capacity, drink, feel uncomfortable, please do not ride the scooters on the road.
- 2)Please abide by the traffic rules and road sings, always check the road traffic and scooter, to avoid the dangers.
- 3)Please take necessary safety equipment, such as helmet, clothes, glove, boots.
- 4)Please make basic inspection before riding on the road,make sure the light,brake,treys can good work,correct trey pressure,without loose and noise,and make regular maintenance at service center.
- 5)In order to make you and others safety, please do not use high beams light on the good lighting condition.
- 6)Please do not use mobile phone when riding on the road.

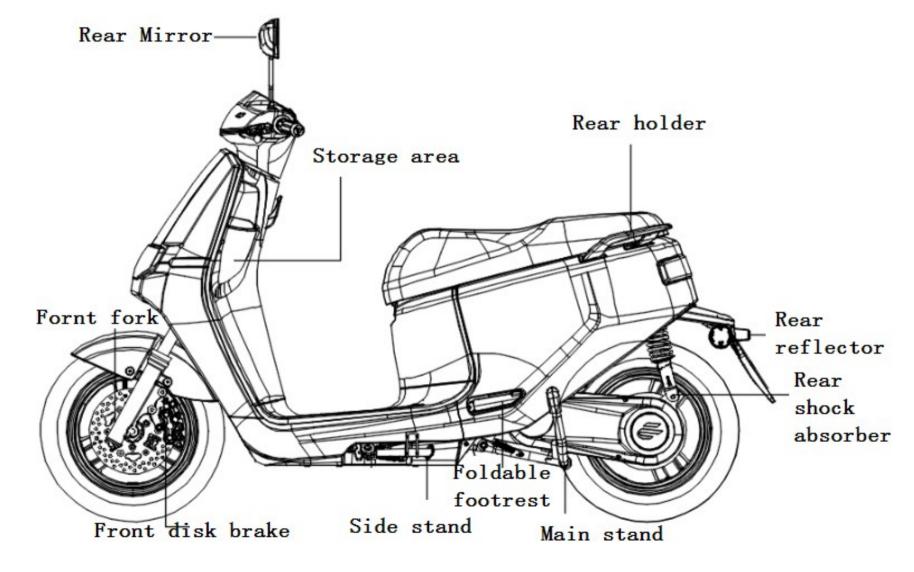
2. Component instruction

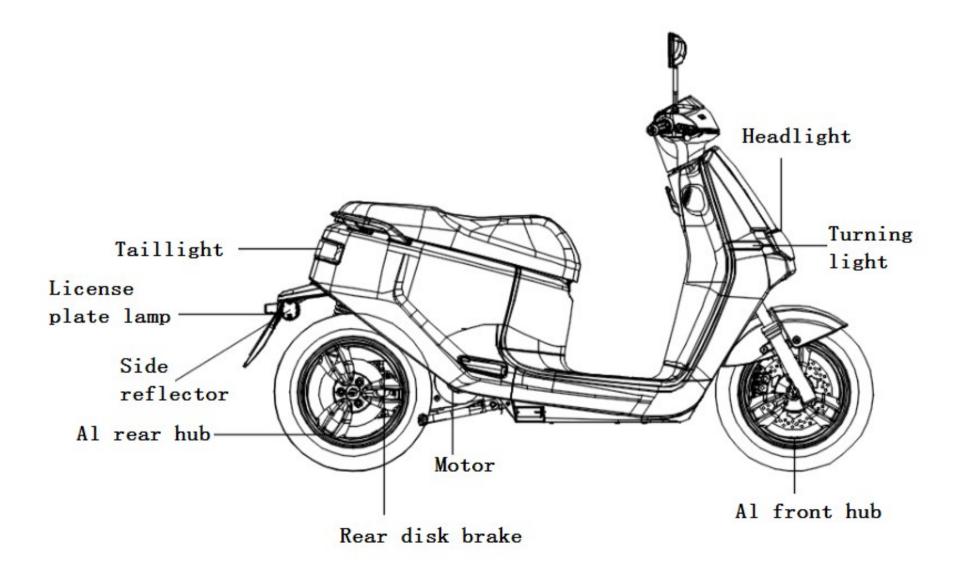
2.1Component description

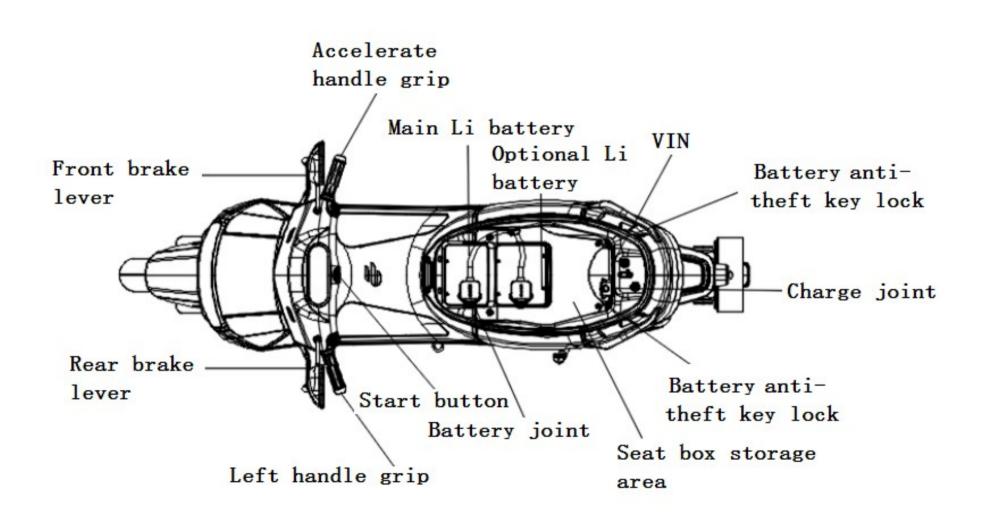


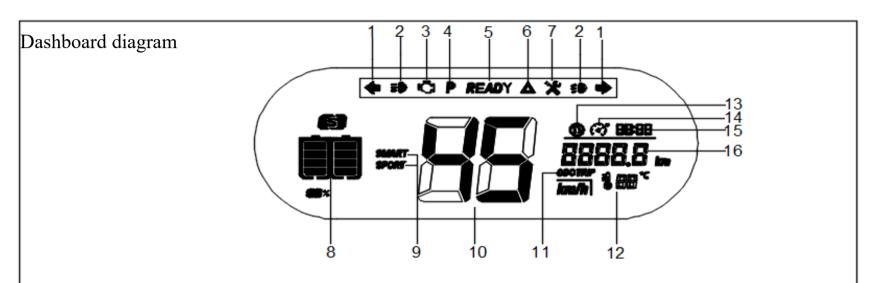












Item	Name	Color	Remarks	Item	Name	Color	Remarks
1	turning light indication			9			Smart: low speed, Sport: high speed
2	headlight indication			10	Speed indication		
3	OBD indication			11	Mileage mode indication		ODO:total driving mileage, Trip:driving distance per time
4	Parking indication			12	Temperature indication		
5	Ready indication			13	Side support power off indication		
6	Double flash warning indication	4		14	Fixed speed cruise indication		
7	Scooter fault indication			15	Time indication		
8	Battery capacity indication			16	Mileage indicator		

Error warning:it will be on when an operation error occurs
rning light:shining with indicatoror the system is briefly abnormal
w beam:Light follow low beam
High beam:light follow high beam
Self-check/failure warning:it will be on when the system exception or reach the maintenance mileage to remind
the owner to do a maintenance.

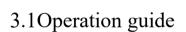
DBD Indication
System temperature protection:It will be on when the power system or battery temperature is abnormally high, at

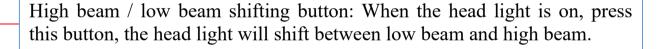
this moment, the electric scooter will lower power output or the current will cut off automatically.

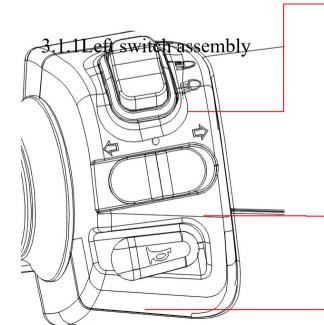
Fault code

Fault code	Code meaning	Reason	Solution
E001	Controller stops working temporarily	Block	Rear wheel is stuck
E002	Controller stops working temporarily	Undervoltage or overvoltage	The battery is exhausted or the battery voltage is too high. Please check the charger. Not solved, please contact your local dealer.
E003	Controller stops working temporarily	Overcurrent	Not solved,please contact your local dealer.
E004	Controller stops working temporarily	Controller over temperature	Please drive the scooter to a cool place to avoid intense driving
E005	Controller failure	Power tube failure, drive power failure	Please contact your local dealer.
E006	Controller verification failed	Illegal controller and controller failure	Use original factory controller
E007	Motor failure	Encoder failure, lack of phase	Please contact your local dealer.
E008	Battery overcharge protection	Charge saturation protection	Check if the charger is damaged; check if the charger model matches the corresponding model. If not solved, please contact your local dealer.
E009	Charging overcurrent protection	Charging overcurrent protection	Check if the battery is used for the specified model. If not solved, please contact your local dealer.
E010	Low temperature prohibits charging	Below 0°C for 30s, below -20°C for 3s	Please put the battery in indoors and it will recover after the battery temperature is higher than 3 °C.
E011	Battery over discharge warning	The battery is about to run out, and the BMS is about to enter the over-discharge protection.	Charge the battery with the charger
E012	Discharge over flow alarm	The battery current reaches the protection value, and the BMS is about to overcurrent protection	Please check if the battery is used for the specified model. If not solved, please contact your local dealer.
E013	Battery over temperature warning	The battery temperature is about to reach the protection value, and the BMS is about to enter the over temperature protection.	Please take out the battery and put it in a cool place. When the battery is cooled to below 60 °C, it can be used again.
E014	Low temperature prohibits charging and discharging	The battery cell is lower than -20 °C for 5s continuously	Please remove the battery. You can return to use it after the battery is above -15 °C.
E015	Accelerate handle grip failure	Accelerate handle grip failure	Please contact your local dealer.
E016	Controller communication failure	Controller has no feedback data	Please contact your local dealer.
E017	Controller communication failure	Battery has no feedback data or error data	Please check if the battery plug connection is tight. If not solved, please contact your local dealer.
E018	Controller communication failure	Central control failure, main wires failure	Please contact your local dealer.
E019	Controller communication failure	SIM card recognition failed	Please contact your local dealer.
E020	Controller communication failure	Communication module failure 13	Please contact your local dealer.
E021	Controller communication failure	GPS failure	Please contact your local dealer.
E022	Controller communication failure	GPS antenna short circuit	Please contact your local dealer.

3.User Instruction







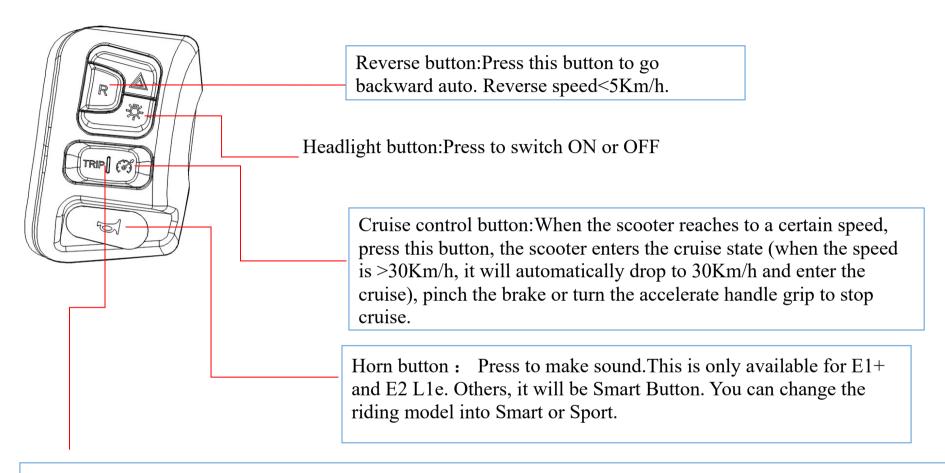
Turning light button: Turn the switch to the left/right side, the left/right direction light will flash and beep, turn the switch to the middle to turn off the left/right direction light..

Horn button: Press to make sound.

3.1.2 Right switch assembly

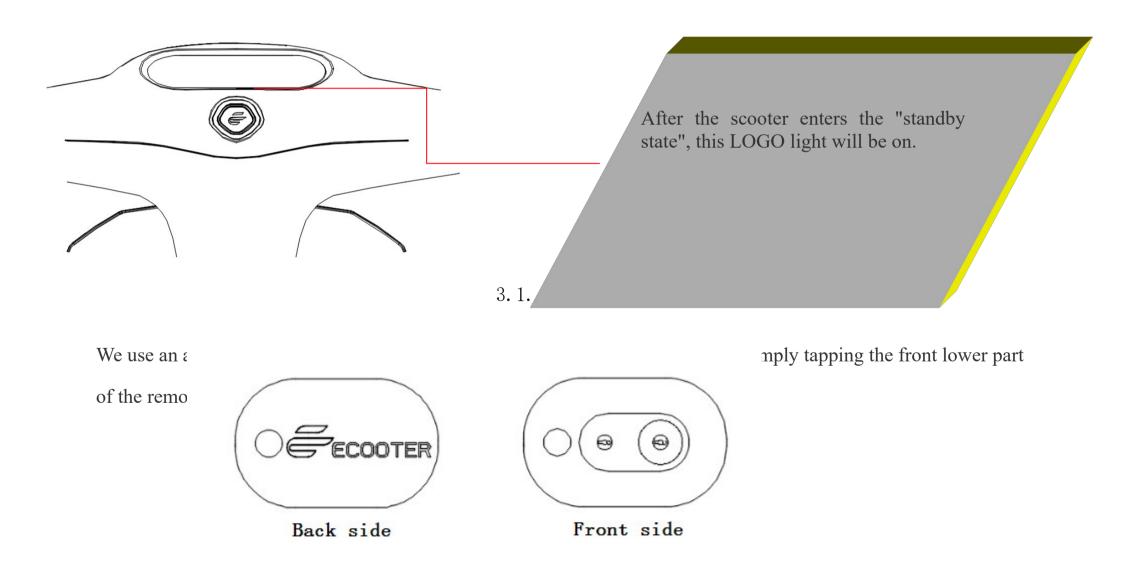
Right switch assembly

Double flashing warning button: When the left and right turning lights are not activated, press this button once, the left and right turning lights will flash together. Press this button again to turn it off.



Mileage shifting button: Press this button to shift to ODO(total mileage)/TRIP(total mileage per time)/rest mileage

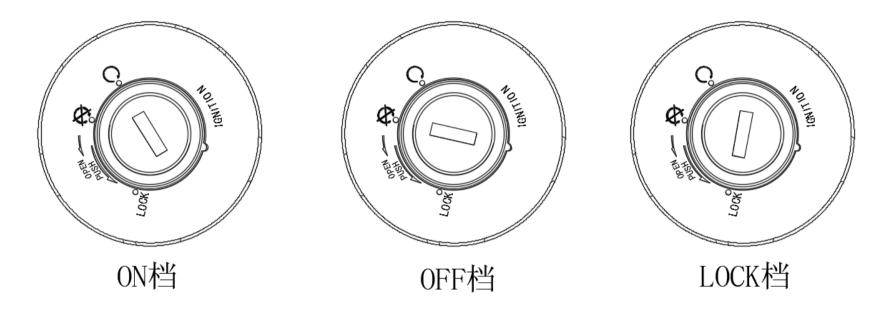
After unlocking the scooter with the smart remote control / ECOOTER APP / power lock, press the start button, the scooter enters the "standby state", and can go by turning the accelerate handle grip.



Unlock

- 1. When the scooter is in the locked state, press the front side of the remote control to unlock the scooter.
- 2. When the headlight and taillight flash and sound, the dashboard lights up, it means the scooter is unlocked. Lock
- 1. When the scooter is in the unlocked state, press the front side of the remote control to lock the scooter.
- 2. When the headlight and taillight flash and sound,the dashboard lights were all extinguished,it means the scooter is locked.

3.1.5 Mechanical Key Lock



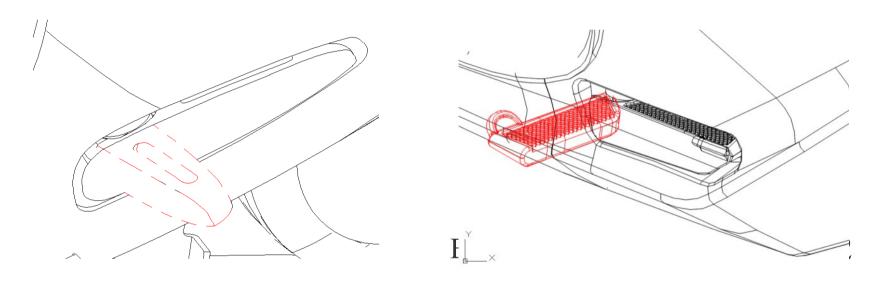
The position of key	Function	Can the key be taken out?
Lock(shift) lock	Handle bar is locked, motor and lights can not use	Yes
Off shift	Motor and lights can not use	Yes
On shift	Motor and lights can use	No

Park the scooter, turn the handle bar to left, put the key into the mechanical key lock, press and turn the key to left "LOCK", the scooter is locked; press and turn the key to right side to unlock the scooter.

3.1.6 The way to open seat cushion and storage box

- 1)If the electric scooter is locked, press the smart remote control (about 2 seconds) to unlock the seat cushion to open the storage box.
- 2)If the electric scooter is not locked and is completely in stationary state, press the smart remote control (about 2 seconds), or turn the mechanical key left to unlock the seat to open the storage box.
 - Please carry the valuables with you and do not place them in the storage box
 - In some cases, the seat cushion may not be able to bounce on by itself, such as when there are too many goods in the storage box. In this case, please press the end of the seat cushion with your hand and press the smart remote control. When you hear the click and at the same time, pull up the seat cushion, you can open the storage box.
 - Should not attempt to open the storage box during you are riding the electric scooter.
 - If no battery, there is only one way to open the seat. That is using the mechanical key.

3.1.7 Foldable Footrest



This footrest is open now

3.2 Driving guide

3.2.1. Pre-ride checklist

Please confirm and inspect below items before riding.

- Handle bar is controlled freely and stable.
- •Left and right hand switches works well.
- Accelerate handle grip works well.
- •Make sure the electric scooter has correct tire pressure, we suggest the front wheel tire pressure is 1.8-2.2kPa, the rear wheel tire pressure is 2.0-2.5kPa.
- •Make sure the tire no crack/damage/worn and no broken by foreign matter
- The depth of tire should be more than 0.8mm.
- Dashboard indication works well.

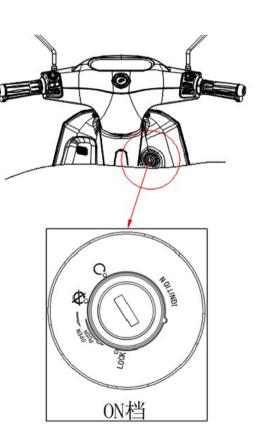
- •Battery capacity is enough.
- Headlight, taillight, brake light and turning light work well.
- •Inspect the horn to be good working.
- •Clean the mirrors and adjust it to correct position.
- The brake oil is sufficient. The handle bar and brake system work well.
- Any errors and problem, please contact the local dealer.

3.2.2 Starting

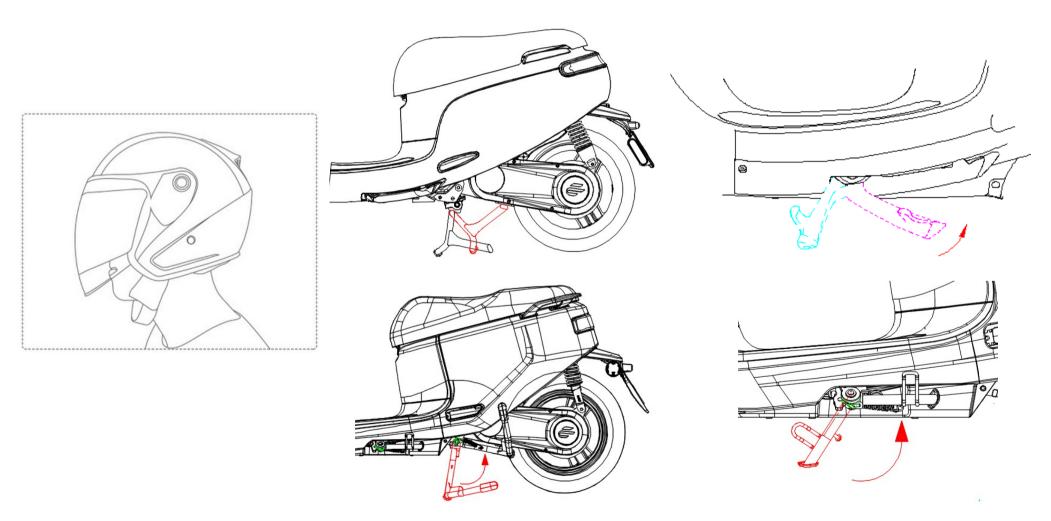
(1) Press the smart remote control or ECOOTER APP unlock key or turn the key light/rear license plate light/start button light will be always on,the scooter is ready.



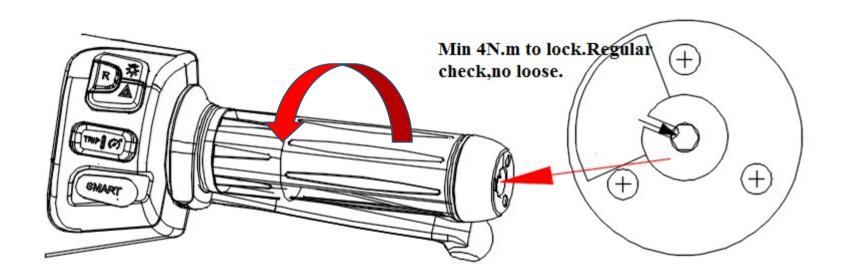




(2) Put on the helmet, put away the main stand and the side stand.



(3) Press the "E"start button, and have sound from Ecooter if the APP box is connected. It means the scooter received the riding signal, you can have a riding just turning the accelerate handle grip.



Friendly reminder:

Before riding, make sure the accelerator grip fixed screw is tight.

Before riding, make sure the stand is folded and turn the handlebar left and right to ensure the head lock is in the "unlocked" state.

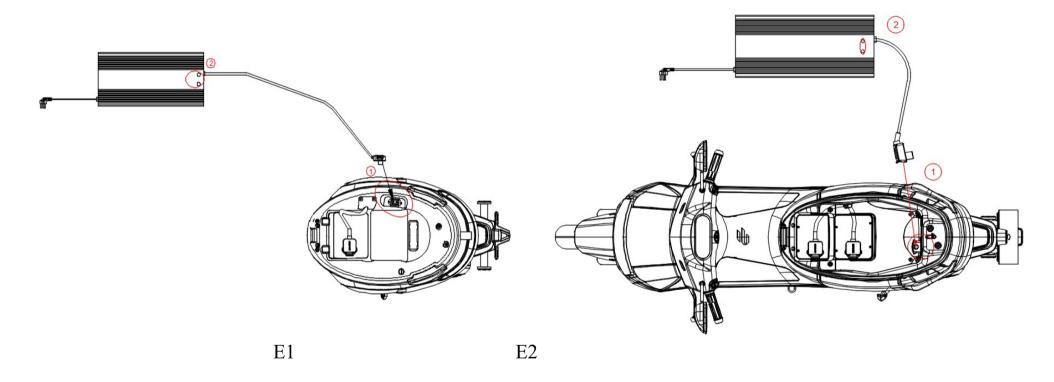
You can start the scooter but must make sure the scooter is in completely stationary state. If the scooter is abnormal during riding, please carry it to a safe place. Do not attempt to restart the scooter when you are riding or on the driving road.

3.3 Battery Use Manual

3.3.1. Battery charge

- (1)Internal charging
- 1) First plug the charger into the body charging port.
- 2)Plug the charger's AC power plug into the socket again

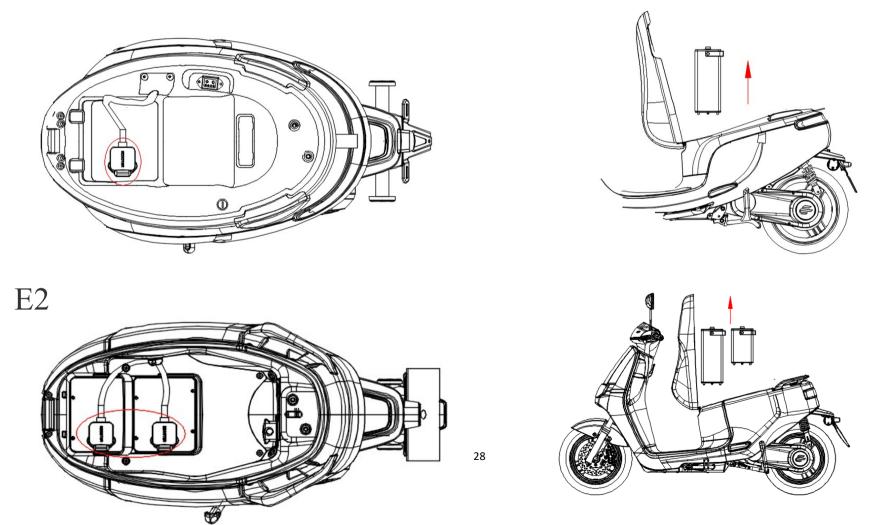
and the charger light blinks one after the other, including that the battery pack starts charging. When all four lights turn green, the battery pack is fully charged.



(2) External charging

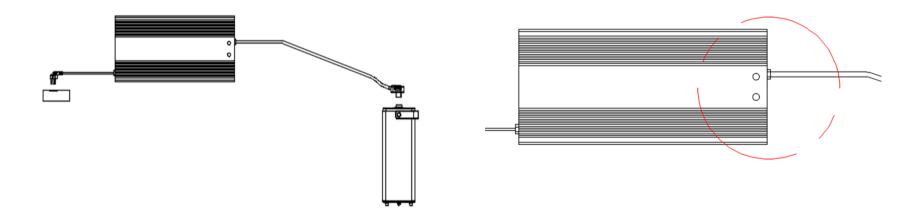
1)Make sure the scooter is powered off. Open the seat cushion, disconnect the battery pack and take out the battery pack from the scooter.

E1



2)Insert the main plug of the charger into the charging port of the battery pack, then insert the charger's AC power plug into the socket. During normal charging, the four indicator lights of the charger flash in sequence.

3) Full charge, the charging indicator light shows the green light.



Friendly reminder

Pay attention to waterproof, prevent the battery pack from being exposed to water;

Battery charging work temperature: $0\sim45^{\circ}$ C, discharging work temperature: $-20\sim45^{\circ}$ C;

If battery has not been used for a long time, please be sure to remove it from the scooter;

It is forbidden to make the battery pack input & output terminal positive and negative short-circuit;

Keep the battery pack away from children, away from fire and heat, and strictly prohibit it from being placed in the fire;

Prohibit strenuous exercise, impact and extrusion;

Must use the specified dedicated charger. It is strictly forbidden to charge the battery pack with other chargers;

This product has been strictly tested before leaving the factory, and it is strictly forbidden to disassemble. If meet problems, please contact your local dealer.

3.3.2 E2 dual batteries using instructions

- 1) When parallel connection two batteries, please connect main battery plug and then to plug in second battery plug.
- 2)When plug off main battery and second battery, please plug off second battery plug, then plug off main battery plug.
- 3)When use one battery separately, it is necessary to put battery on the main battery storage room, and plug in the main battery plug; Please not use second battery plug separately and left the main battery plug empty.
- 4)When use main battery and second battery at the same time, please charge both batteries full, and then put into the battery storage room.
- 5)When E2 main and second battery has battery capacity difference, battery system will automatically inspect and adjust the two batteries charging and discharging status, allows the two batteries to plug together even battery capacity difference. To avoid battery system inspect and start too often, please try to make the two battery same for

battery capacity and voltage, recommended battery capacity difference no more than 20%(battery voltage difference no more than 4V) for paralleled connection, to better fit for the battery system running.

6)When charge 64V20Ah battery separately, please use Ecooter charger to charge. When paralleled connection the two batteries in the battery storage room, you can use Ecooter charger thru scooter direct charging hole.

Special note:

- 1)No matter when, using Ecooter slow charger or fast charger or fast charging with slow mode to charge E2 batteries, it will always benefit battery life span.
- 2)Using fast charger with fast mode, due to environmental temperature difference, it will result in battery capacity show insufficient (around 1% to 3%), but it will not influence normal riding.
- 3) When E2 paralleled connection using two batteries, due to battery spec difference, battery capacity consuming

speed will be different; two batteries capacity difference during riding is normal phenomenon.

3.3.3. Storage, maintenance, transportation

When the battery pack needs long-term storage, please charge the battery pack to a half-saturated state (the better battery power is between 30% and 60%). Place it in a dry, ventilated place.

Recharge the battery every month.

Battery storage conditions:environment temperature $-20 \sim 35$ ° C, environment humidity $\leq 65\%$ RH;

When storing the charger, disconnect with the battery pack.

If users didnot use correctly and without maintenance, and storage more than max 3 months safety storage period(scooter storage more than 1 month with plug in, battery separately storage more than 3 months), battery didnot get charged in time, which will result in under voltage and cannot be repaired.

3.4 Mobile APP instructions (only for the scooter with smart terminal devices)

ECOOTER has wireless communication functions, and it can connect owner's smart phones.

Thur Eooter APP, owner can control vehicle management and checking functions.

Scooter condition can be monitored any time.

Full day GPS/Antitheft alarm/ Remote control management/Your service center

1) Please scan the SR code as below, and follow prompt to operate to connect the APP





For IOS system

For Android system

2) When downloaded and installed, please register account according the APP prompt

3)Binding scooter: After registered, click my Ecooter, click Ecooter scooter selection / new scooter interface /

binding scooter interface, scanning SN code offered by Instruction manual or manually input the SN code to bind

the scooter.

4)Improve personal information: In My Ecooter interface, click on the user's profile picture to enter the personal

information setting interface, after complete then save the personal information setting.

Custom Action: Display settings, sound settings, security settings.

Scooter condition diagnosis: When the scooter is on, with the one-button physical examination, you can know the

scooter condition at any time

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Multiple anti-theft: When the scooter is illegally displaced, it will give an alarm, and the APP will notify the user at the first time and track the scooter position at any time.

Data Recording: Users can learn about the scooter information, remaining power, mileage, and driving trace through the App.

Remote control: The user can remotely lock the scooter through the APP.

Software update

The user can upgrade the central control and controller programs through the APP. Due to the special nature of the Ecooter smart system, the upgrade operation is as follows:

Operation steps:

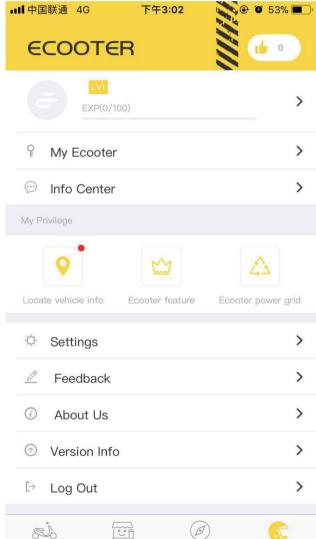
Open the APP, click on "My Ecooter" in the lower right corner → click on My Vehicle → click on the model SN code → click on "Central Control Version" to enter the "Central Control Version" interface, then you can upgrade

the MCU and controller.





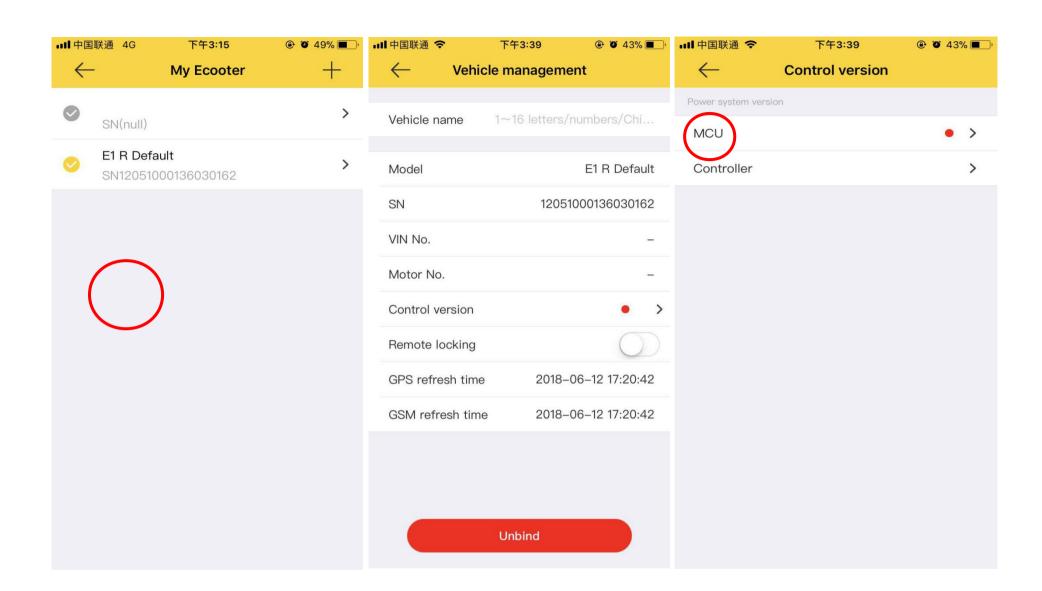
Service



Service









When the new scooter leaves the factory, MCU is the latest version, but in the process of warehousing, transportation, etc., the MCU may be updated. So when you receive the new scooter, please enter into the "Central Control Version" interface for query and update. If there is software update, there will be a red dot prompt.



Take the MCU update as an example: the interface will display the installed software version number and the latest software version number. If it is not the latest version, the Update Now" button will appear below the version number, and click to update; If it is the latest version, no need to update, and the "Update Now" button will automatically disappear.





When upgrading, please make sure that the battery is properly installed, fold the main support, the rear wheel is not blocked, and operate as below,

Upgrade type	ype Power supply "E"button (Start button)	
MCU	ON	ON or OFF both ok
Controller	ON	ON

Note: When pressed the "E"button, the dashboard speed display will be lighted up, you can accelerate

handle grip to ride; otherwise, it will be off, and can not to ride.

When upgrading, the dashboard mileage display will automatically display as a progress bar: from $0\% \rightarrow 100\%$

Jump (the percent sign is not displayed). Because the updated data section is different, after the progress is 100%, it may can be used directly, or it may be automatically restarted or automatically shut down. Please wait patiently until the meter display is stable. Please wait for 10 seconds after automatically powering off and being black screen. If the light of dashboard is no longer on, please turn it on manually. After the dashboard is stable, it can be used normally.

After upgrading the controller, when you are first time to power on it, press the "E" button (start button), please wait for 10 seconds. If the motor starts stepping backward, it means the upgrade content includes the update of the encoder data. After the motor completes the action, (Generally, it does not exceed 15 seconds), it can be used

normally; if the motor does not move, it means the upgrade content does not contain encoder data, you can be used directly.

The precautions during the upgrade process are as follows:

- 1. Please keep the mobile phone power and scooter power is more than 30%;
- 2. Try to keep the mobile phone is in flight mode to upgrade by WIFI.
- 3. Don't be disturbed by calling in the process of the upgrading. It will disconnect with Bluetooth

Smart Ecooter will continue to be updated based on product and technology upgrades.

4. Maintenance

Regular maintenance can improve the Ecooter life and riding safety. We advice that you take care of your scooter by following suggestion.

4.1 Daily cleaning and maintenance

Cleaning: Please use clean water and neutral detergent to clean, and clean the surface of the scooter with a soft cloth or sponge; do not use metal brushes, sandpaper, etc. to clean, so as not to scratch the surface of the parts. After cleaning, wipe the scooter with a soft cloth.

Storage: Try to park the scooter in a dry and cool room, so as to avoid corrosion of parts and shorten the service life.

After long-term storage, fully charge the battery before using it.

4.2 Regular maintenance and repair

500 km or one month after the delivery of the new scooter (whichever comes first), the initial inspection and maintenance must be carried out at your local dealer.

It is recommended to check and maintain scooter at your local dealer every 3,000 kilometers or every six months (whichever comes first).

It is recommended to check the motor belt wear condition every 10,000 km.

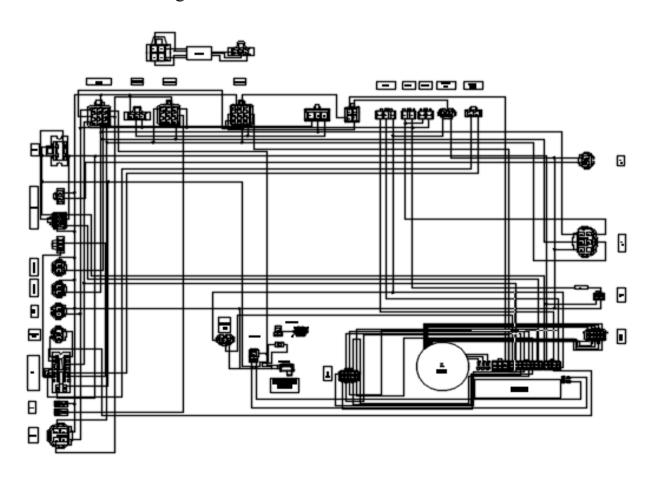
Key maintenance parts: motor transmission part, brake pads, single arm front fork hing parts

Brake	Detecting brake performance and preventing traffic accidents caused by brake failure on the road
Tire	Detecting tire damage and tire pressure to prevent puncture or excessive power consumption during riding
Hub	Detecting the strength of the hub and decontaminating the bearing to prevent the hub from cracking, jam
Rocker arm assembly	Check if the rocker arm and hinge fixing bolts are loose
Front shock absorber assembly	Check if the front shock absorber handle tube and the base are loose
Rear shock absorber	After detecting the use of shock absorption, decontamination and lubrication to prevent shock absorbing jam
Mechanical key and accelerate handle grip	Check mechanical key and accelerate handle grip, prevent inflexible or occasional malfunctions

Circuit	Check if the circuit connector is loose or the insulation is broken to prevent the circuit from malfunctioning.
Screw	Check if the main screw is secure and prevent loosening
Battery	Detect battery appearance and performance to prevent circuit faults and prolong service life
Charger	Check if the charger cable is broken, disconnected, and the input and output plugs are no damage.
Lubricating	Check if it is necessary to add lubricant to the front axle, brakes, etc.
Motor transmission belt	Check if the belt wear condition needs to be replaced
Clean	Clean the whole scooter surface
Brake pads	Check brake pads if all good, if brakes work well, to avoid any traffic accident

5.Electrical schematic diagram

5.1 Electrical schematic diagram



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6.	Smart	interi	ace	repair	guid	e
				1	\sim	

6.1Bluetooth connection problems

Solution:

1) Disconnect previous connection on APP, reconnect again.

2)Restart mobile

3)Turn off Bluetooth, turn on Scooter, fold and unfold side stand four times continually in order to restart the smart ECU system when the time on dashboard shows normally. Turn on Bluetooth to reconnect scooter.

4)Uninstall APP, download the newest version.

6.2	Scooter	can	not	go
-----	---------	-----	-----	----

Solution:

- 1)Make sure the side stand puts away
- 2)If the daytime light is off, it means the battery supply is abnormal.
- 3)If wheels cannot move, all the buttons do not work, it means scooter is locked remotely
- 4)If the brake light is always on, it means braking system is damaged.
- 5) Scooter need to be self-learning

6.3Battery communication failure
Solution:
1)If the battery has no voltage output, (usually the output voltage is more than 52V), it means the battery can not work.
2)Check if the battery connector has current.
3)If restart scooter, and can not read the battery capacity, it means scooter hardware (battery main board, main battery communication wire, smart ECU) is damaged.
6.4Unable to unlock the scooter remotely after receiving SMS.

Solutions:
1) Put the Scooter in a place with good signal, restart Scooter
2)Make sure the SIM card with enough money
6.5User's mobile phone cannot receive SMS verification code
Solution:
1)Make sure SMS has enough memory space, and mobile phone has enough money
2)Put the phone in a place with strong signal or restart the phone

3)If user operations are too	frequent (100 mobile pho	one verification c	odes per day), p	please contact the	background
staff to get SMS verifica	ation code.				

4)If the SMS platform is attacked, the server is down in the background. Please contact the background staff to get SMS verification code.

6.6 The Scooter button can not work

Solution:

1)Make sure our scooter does not be locked remotely

2)Make sure the button connector plugs are not loose

6.7 Make sure SIM card with good signal

Solution:

- 1) Put Scooter in a place with good signal, restart Scooter.
- 2)Make sure SIM card has money
- 3)Take off SIM card, reconnect it
- 4) Make sure aerial no damage
- 5)Make sure model no damage

6.8 No GPS signal

Solution:

- 1)Turn on Scooter and wait for two minutes, click Scooter on APP main interface to check the GSM and GPS time, if internal of GPS time and local time is more than 10 minutes, that means the GPS information cannot upload, please refers to 7.7 NO SIM CARD SIGNAL.
- 2)Put scooter in a open place
- 3)Refresh the Scooter after riding a distance (1-3km)(GPS is easy to locate moving object)
- 4)Make sure the GPS Aerial has no damage

6.9 Common faults and troubleshooting methods

The battery can not charge	1. The main plug connection is poor	1. Check if the main plug collnection is well
The scooter is out of power, the start button does not work		formected sure battery well connected 2. Use Feographic whatger 3. Change the battery
After power-on, turn the accelerate handle Nordsplay on the dashboard n	Rattery level low The scooter has no power	1. Charge hattery 1. Check if the battery plug is plugged well
	2.DC converter does not work	2. Change a new DC converter
	3.Dashboard failure	3. Change the dashboard spare parts
	6. Controller connection loose	6. Connect controller connector again
USB cannot be charged	7. Controller failure	7. Change controller
OSB cannot be charged	1.Plug is not well connected	1. Check if plug connected well
Driving speed is slow or driving distance is	2. USB cable does not comply with phone	2. Please purchase cable complied with phone
short	standard	standard
	3. USB charger is damaged 4.Brake pad is interfered 5.Battery is aging or retired normally	3.Change the damaged parts 3.Keep proper load 4.Replace the brake pads and check the brake
		system before each riding 5.Change battery

7. After sales service notice:

Ecooter products are high end electric products. Our company has responsibility to make sure product has good quality features; Meanwhile, our company has built specialized testing center and perfect quality control system, which strengthens the full inspection process from raw material to the complete scooter before ex factory, this is to make sure user benefits. Despite of this, we still look forward to your good suggestions and your supervision during using our products.

Users who purchased Ecooter products all have the rights for high quality service, our company strictly follow the regulated aftersales service items.

Special notes::

This user manual is mainly for operation instruction purpose, not for product inspection basis.

This user manual drawings may not be complied with the actual scooter, please take the real scooter as standard;

This user manual is edited based on new materials, but any further change, it will not be informed then.

Due to quick improvements of our products, please take real scooter feature as standard.