Quantanium PRO SMART User Manual -----S/M/L series------



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Welcome

Thank you for choosing Quantanium PRO SMART S. This product can be registered as a Scooter vehicle.

Combining advanced wireless positioning technology and smart App control, Quantanium Scooter promises a brand-new riding experience.



Please read the user manual carefully to fully understand the vehicle's usage and maintenance methods.

Please note that the pictures shown are for illustration purpose only. The pictures do not refer to a particular model of product.

Actual product may vary due to different model. No legal claims can be made on the basis of data in this manual.

1. Overview

IMPORTANT

For the purpose of emphasis, the words and symbols of "WARNING" (A) "CAUTION" ((g)) and "NOTE (*)" have special meanings. Pay extra attention to information highlighted by these signals:

WARNING A indicates a potential hazard that could result in death or serious injury.

CAUTION (g) indicates a potential hazard that could result in minor or moderate injury.

NOTE (*) indicates information that makes installation and maintenance easier.

* NOTE

You must thoroughly understand the user manual before riding the Quantanium Scooter. This manual should be considered as a permanent part of the vehicle and should remain with the vehicle if or when ownership is changed.

NOTE

Read the Service and Maintenance Record thoroughly so you understand the coverages under which your vehicle is covered, as well as your rights and responsibilities.

A WARNING

- · Check and obey all local laws or regulations of Scooter driving in your region or country.
- Do not ride through deep water, submerge the vehicle or wade in water for a long time. The battery will be damaged and it will cause serious damage to the scooter.
- · You must wear a helmet and protective gear when riding at all times.
- Improper decorations and modifications may result into fatal injury. We strongly advise that you do not
 modify your Quantanium Scooter or remove any original equipment. Changing its original design or
 operation will be dangerous and will void the warranty.
- · Do not use a high-pressure washer hose directly on the electrical components.

Riding Safety

· Remember that whenever you ride this product, you risk injury from loss of control, collisions, and falls.

To reduce the risk, you must read and follow all "CAUTION" and "WARNING" notices. Please understand that you can reduce the risk by following the instructions and warnings in this manual, but you cannot eliminate all the risks. Please use common sense when riding.

- In order to master riding skills, practice is necessary. Use with caution to avoid falls or collisions causing
 injury to yourself or others. Quantanium would be responsible or liable for any injuries, damage or legal
 disputes caused by rider's inexperience or failure to follow the instructions indicated in this manual.
- · When entering public places, always comply with the local laws and regulations.
- · In places without laws regarding Scooter, comply with the safety guidelines outlined in this manual.
- Do not modify the scooter or change parts by yourself. Use only Quantanium approved parts and
 accessories. Any modifications to your scooter could interfere with its operations, result in serious injury
 and/or damage, or void the Limited Warranty. If you need to replace any component, please contact
 after-sales service or an authorized dealer.
- If the scooter makes abnormal sounds or signals an alarm, stop riding immediately. Contact after-sales service for advice.

Who Should Not Ride:

Those who should not ride Quantanium Scooter include:

- Underaged people.
- II. Anyone under the influence of alcohol, drugs, or intoxicants.
- III. Anyone who suffers from diseases that put them at risk if they engage in strenuous physical activity.
- IV. Pregnant women.

V. Those with compromised mental abilities who cannot understand the risks and proper operation of the vehicle.

Riding Surfaces and Environment:

- · Do not ride in bad weather.
- Slow down and ride with care on complex road conditions. Quantanium Scooter might lose control if riden at high speeds to pass obstacles, bumpy roads, low traction surfaces (including, but not limited to, wet ground, loose sand, loose gravel, and ice), when riding on slopes or making sharp turns.

When riding in rainy or snowy weather, the traction is reduced and the braking distance is increased.
 For your safety, please drive slower and brake earlier to reduce the risks of loss of control and falls.

Before Riding:

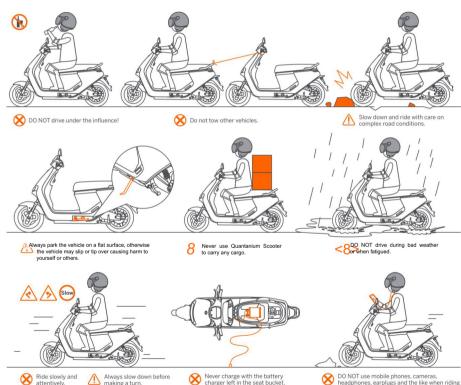
- Before each ride, inspect the brakes system and tire conditions and make sure there are no loose or damaged parts.
- DO NOT allow anyone to ride the scooter on their own unless they have carefully read this manual. The
 safety of a new rider is your responsibility. Assist new riders until they are comfortable with the basic
 operations. Make sure each new rider has gone through the New Rider Tutorial and is made fully aware
 of the safety precautions.
- When the remaining battery is less than 20%, charge the scooter in time with the original charger.
 Please regularly check the lights, tire pressure, tire tread, brake cable, rear-view mirrors and other components function properly.

Instructions on Riding and Usage:

- · ONLY ride on flat paved surfaces. DO NOT accelerate or brake abruptly when driving.
- Stay alert when driving and always keep a safe distance from other vehicles. Slow down when entering
 a new environment.
- Please hold the handlebar with both hands to avoid serious injuries due to loss of balance or falling. DO
 NOT use a cell phone, camera, headphones, earbuds or perform any other activities while riding.
- Slow down when approaching intersections, motorways, corners, doors, etc. Yield the right of way for
 pedestrians, bicycles and motor vehicles.
- If any abnormality occurs, stop riding immediately and contact the after-sales service in time. DO NOT
 ride before the cause of the abnormality is found out and repaired.
- Always park the vehicle on a flat surface after turning it off. Otherwise the vehicle may slip and cause harm to you or others.

Warnings and Precautions

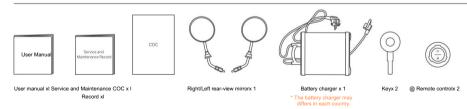
Potential safety hazards involved. Avoid all dangerous driving activities!



2. Package and Functions

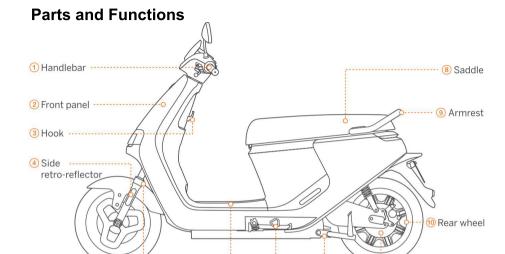


Accessories



When unpacking, please check if all items are in good condition. If there are any missing or defective parts, please contact your dealer or the after-sales service.

To avoid damage to vehicle parts or to avoid accidents, please consult with your dealer for service and vehicle adjustment.



41 Functions of the Remote Control

7 Foot panel ----

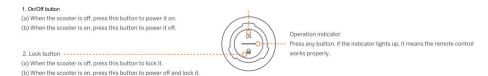
5 Front wheel

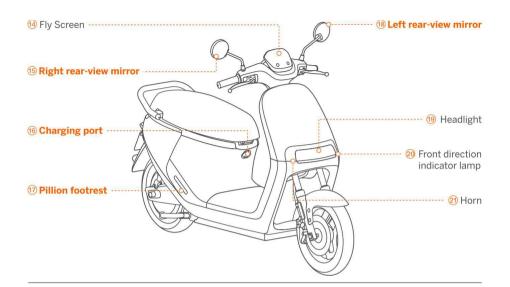
6 Front shock absorber

Follow the instructions of step 1 in "First Use" . The remote control can work when the scooter is powered on and the distance between the remote control and the scooter body is no greater than 10 m.

Electric motor

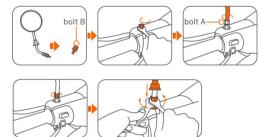
Central stand





®@ Rear-view mirror installation

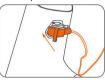
- a. Unscrew bolt B as shown in the picture.
- b. Mount onto the handlebar and affix the bolt.
- Screw the rear-view mirror into the bolt counterclockwise. Turn bolt A until it comes into contact with bolt B.
- d. Tighten the bolts in the opposite direction with the wrenches. Slide down the protector to cover the bolts.

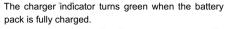


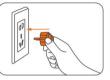
©Charging port

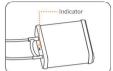
Charge the Vehicle

Please power off Quantan Scooter before charging.









©Pillion footrest

Open:

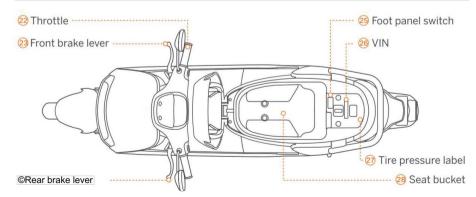
Push the footrest and it will pop out automatically.



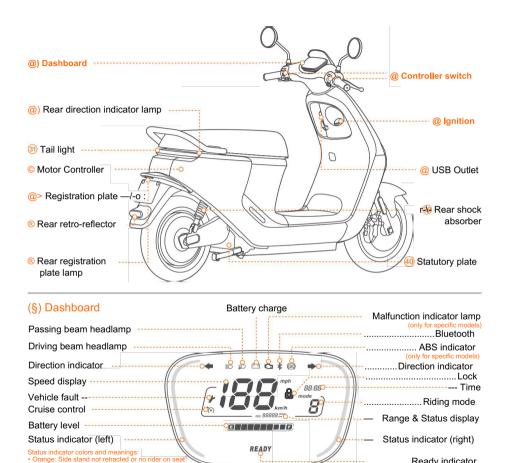
Close:

Push the footrest inward.





U/



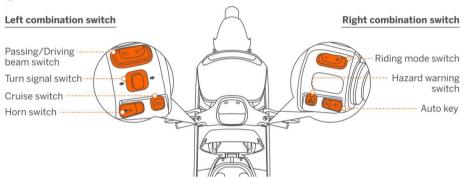
 Blue: Good to go • Red: Warning Green: Ongoing energy recovery

Symbol	Symbol Name	Description	Details				
READY	READY indicator	When READY is on, the vehicle is good to go.	When the side stand is folded up and a person sits on the seat, press the Auto Key, and READY is on.				
••	Direction indicator (Left/Right)	Flash when the left/right turn button is pressed. When both direction indicators (left and right) lights up simultaneously with the warning indicator, the vehicle is in a warning state.	When toggled Q (at left combination switch) to the left/right, the left/right turn signal is on. Press Q again to turn off the turn signal. When press A (at right combination switch), the left/right turn signal and this indicator will flash to alert pedestrians and other vehicles, press A again to remove the warning.				
ID	Driving beam headlamp	The high beam is on when it lights up.	Find I((***********************************				
go	Passing beam headlamp	The low beam is on when it lights up.					
E3	Battery charge	The battery power is low and needs charging when it lights up.	When the battery power is low, this indicator lights u and the battery level bar on the dashboard flashes.				
СЗ	Malfunction indicator lamp	The indicator light will light up when the vehicle has a malfunction.	This indicator will flash once when powering on; This indicator will light up when the vehicle has a malfunction, and the error code will be displayed on the dashboard.				
*	Bluetooth	The vehicle is connected to a phone when it lights up).				
(ABS)	ABS indicator	The indicator light is off when the vehicle working normally.	If the symbol stays on when the speed is > 5 km/h, it means there is an error in the ABS.				
ft	Cruise control	The vehicle is in cruise control when it lights up.	During riding, press '(*) (at the left combination switch) to lock the current vehicle speed; Turn the throttle or brake lever to remove the cruise control.				
J	Vehicle failure	When the icon flashes, the vehicle has a malfunction					
а	Vehicle lock	The vehicle is locked when the icon lights up.	Press on the Remote Control to lock the vehicle; Press (?) to unlock the vehicle, at the same time, this indicator off.				
f88^	Speed display	Indicates the current speed. Displays the error code when there is a malfunction.	mph : Imperial units n. km/h: Metric unit				
8888	Clock	Indicates current time.					
88888 Am	Range	Indicates the total distance traveled.	miles : Imperial units km : Metric unit				
88888	Status display	Loc8: While the vehicle is locked, insert the key and turn to ON mode. 8E8: The vehicle is still at ON mode when trying to turn it off via remote control or by pressing the Auto button. **/ dE: The throttle is turned while the side is supported. EHG; The throttle is turned while charging. **/* The throttle is turned when there is no rider.					

Ready indicator

1 Symbol [Sy	mbol Name	Description	Comments
	Riding mode	Indicates the current gear.	
G#######D	Io Kemaining ⁴ danery ⁱ leve	tsars of remaining oahery.	

(36) Controller switch



Symbol	I Symbol Name	1 Meaning
(EZD	Passing/Driving beam switch	Toggle it to the right to activate the high beam; toggle it to the center to turn off the high beam. Slide it all the way to the left to turn on the overtaking signal; Release to cancel the overtaking signal.
♦ 0*	Turn signal switch	When toggled to the left, the left turn signal turns on. The button resets automatically after releasing. Toggle it to the center and press to turn off the left turn signal. When toggled to the right, the right turn signal is on. The button resets automatically after releasing. Place it at the center and hold down to turn off the right turn signal.
(-)	Horn switch	When pressed, the horn is sounded to alert pedestrians or other vehicles.
®	Cruise switch	When pressed, the vehicle will cruise at the current speed. The cruise control can be cancelled by pressing the button again, turning the throttle, or by braking.
(Q)	Riding mode switd	Press"+" to increase the mode (higher speed), and pressto decrease the mode (lower speed)
@ <u>^</u>	Auto key	When the vehicle is on, double-press to open the seat bucket or press and hold to switch off the vehicle. If the AirLock is enabled in the App, hold this button while the paired phone is within range to turn on the vehicle. When the side stand is folded up and the rider is on the seat, press this key and READY indicator is on.
®	Hazard warning switch	When the button is pressed, both the left and right turn signals will flash to alert pedestrians and other vehicles.

© Ignition



OFF position
The vehicle is powered off.



ON position The vehicle is powered on.



OPEN position
Rotate left to open the seat bucket.

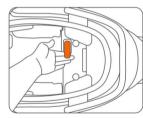


LOCK position
Turn the handlebar to the very left,
then turn the key to the left end while
pressing it down, so that the handlebar
is locked.

3. First Use

For your safety, please go through the New Rider Tutorial in ProSmart App.

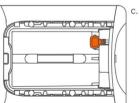
©Turn on



a. Open the seat bucket with your key, and pull the foot panel switch to unlock it.



b. Lift the lid.



c. Connect the battery plug.



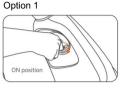
d. Close the lid.

n 12

@ Powering-on and activation

a. Power on:

Option 1: Power on with the key [see@ lanition]. Option 2: Press the ON button on the remote control [see @ Functions of the Remote Control for details1.



Option 2



b. Activation:

Enable AirLock: Enable Bluetooth on your phone, scan the QR Code on the dashboard to download and install the app > register and log in > click "Search device" > Connect. Follow the instructions to bind your Quantanium Scooter.









© How to power on/lock the vehicle after activation

There are four ways to power on/lock the vehicle.

Option 1: Use the remote control: Press ON/OFF button to unlock and power on the vehicle: press the lock button to power off and lock. [See @ Functions of the Remote Control for details]

Option 2: Use the key: Insert the key and turn it clockwise to ON position to power on or counterclockwise to LOCK position to lock, [see @ lanition]

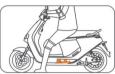
Option 3: Press the Auto button [see @ Controller Switch]

Option 4: Via the ProSmart app as shown below:

- 1. Press the On/Off button on the vehicle homepage.
- 2. Press "Confirm" on the popped-up window.
- 3. When the indicator on the dashboard is pre-light, press and hold the Auto button to power on/lock the vehicle.

4 Learn to Ride

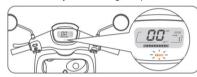
a. When powered on via the App, sit on the cushion and retract the side stand



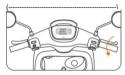
b. Press the Auto Kev.



c. The "Ready" indicator lights up.

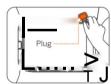


d. Squeeze the throttle inwards to go.



5. Installation of Lithium-ion Battery

For E110SE / E110S:

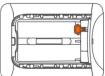


NOTE: Before installation, make sure there is no foreign object in the battery compartment and there is only one plug inside.

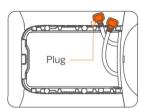
L. Place the battery in.



2. Connect the battery plug.

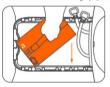


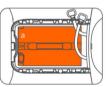
For E125S:



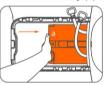
NOTE: Before installation, make sure there are no foreign objects in the battery compartment with two plugs inside.

1. Place the battery (a) in.



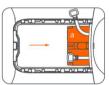


2. Push the battery (a) to the inner end.

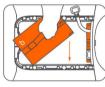


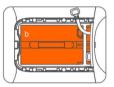
Connect the battery plug on the corresponding side.





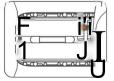
4. Place the battery (b) in the compartment.





5. Connect the battery plug(s).

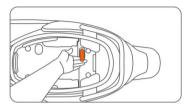




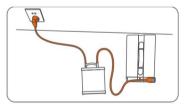
* The battery (a) means the first battery; (b) is for the second battery.

6. Charge the Battery

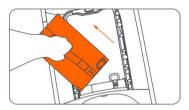
 Use the key to open the seat bucket and pull the foot panel switch to unlck it.



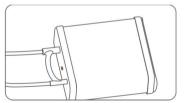
Connect the charging cable to the charging port on the battery and then plug into a power socket.



 Open the driver's footrest, which is also the battery compartment lid, and take out the battery.



* The indicator on the battery charger shows solid red when charging and turns green when finished.



* For how to charge the vehicle, see [@Charging Port] at page 8.

7. Common Failures and Solutions

Fault	Possible causes	Solution		
Error code 10	Controller communication error	Check the controller, dashboard and related wiring.		
Error code 11	Undervoltage protection of motor controller	Charge the vehicle before use.		
Error code 12	Motor hall sensor fault			
Error code 13	Controller MOS tube fault	Check the throttle, motor, motor controller and related wiring.		
Error code 14	Throttle abnormality	1		
Error code 15	Brake switch abnormality	Check the brake levers, motor controller and related wiring. Please contact after-sales service or an authorized dealer.		
Error code 16	Error in saving configuration settings			
Error code 17	Dashboard communication error	Please contact after-sales service or an authorized dealer. Check the LCD wiring inside the dashboard.		
Error code 18	Lead-acid sampling board communication error	Check the lead-acid sampling board and the related wiring.		
Error code 19-30	Lithium-ion battery abnormality	Check the instruments, battery and related wiring.		
Error code 33	Program redirection error	Update the program.		
Error code 34	Abnormal vehicle temperature	Check the temperature sensors of the dashboard.		
Error code 35	Dashboard and ECU communication error	Check the dashboard, ECU and related wiring.		
Error code 36	Weak central controller signals	Make sure the vehicle is parked in an open space outdoors.		
Error code 37	Low battery in central controller	Connect the battery and keep the main switch on for at least 5 hours.		
Error code 38	Electric switch error	Check if the electric switch cable is short-circuited or broken.		
Error code 40	AHRS (attitude and heading reference system) error	Please contact after-sales service or an authorized dealer.		
Error code 41	Stem lock not released	Turn off the vehicle and power it on again.		
Error code 42	Invalid or wrong ECU certificate	Replace ECU.		
Error code 43	The vehicle was in a crash or violent impact	If this is a false alarm, please check the dashboard. If there was an accident, turn off the vehicle and power it on again.		
	Battery not connected properly	Check if the main plug of the battery is properly connected.		
No battery	The main switch is off	Turn on the main switch.		
	Blown fuse	Replace the fuse.		
	Insufficient tyre pressure	Check the tyre pressure: 1.8 bar for front wheel and 2.0 bar for rear wheel.		
Short range	Low battery or failure in battery charger	Fully charge the battery in time.		
	Frequent starts, braking or overloading	Maintain good riding habits and DO NOT exceed the max. payload.		
	Battery failure			
Other faults	If you encounter a malfunction that cannot be solved by the instructions above, or the issue cannot be identified.	Please contact after-sales service or an authorized dealer.		
Smart service not available, including: AirLock, scooter locating, SOS emergency notice. OTA upgrade, scooter positioning, vehicle condition and battery info, vehicle/battery loss report, notifications, riding record and statistics, etc.	The integrated SIM card in ECU has expired. (A new vehicle comes with a limited-time free smart service from the date of activation. The SIM card info will be deleted within 3 months upon expiry). ECU error	Within three months after the expiry: You may renew your value-added service via "After-sales service - Smart service " in the ProSomart App, When exceeding the 3-month limit, you need to pay and replace the ECU. Replace ECU		

8. Maintenance

Cleaning and maintenance

Cleaning

Wash with water and neutral detergent and use a soft and wet cloth to clean.

CAUTION

DO NOT clean with alcohol, gasoline, acetone, or other corrosive/volatile solvents. These substances may damage the appearance and internal structure of the vehicle. DO NOT rub with sandpaper or metal brush.

A WARNING

Before cleaning, make sure the vehicle is powered off.

Storage

Store in a dry and cool place indoors and avoid sunlight and rain, so as to avoid oxidation and shorten the service life. Disconnect the battery plug for long-time storage to prevent over-discharge.

Motor

- When driving through puddles or pools of water, make sure that the water level should not exceed the central axis of the rear wheel.
- 2. Regularly check the motor. In case of any loose objects, tighten immediately.
- Clean the vehicle regularly to prevent particles from entering the motor and affecting its normal function. Do not spray water directly during cleaning.
- Inspect if there are any scratches on the motor and whether there is any abnormal noise when the motor is running. In case of any abnormality, contact after-sales service or your dealer.

Battery

- 1. In case of any malfunction with battery, please contact the after-sales service or an authorized dealer.
- DO NOT drain the battery. It is recommended to keep the battery level above 15%. Charge after each ride to prolong the service life of the battery.

- It is strictly prohibited to disassemble the battery. There is a danger of electric shock, short circuit, fire, explosion, etc.
- When the battery indicator bars are all lit up or the charger indicator turns green, it means the battery is fully charged.
- 5. If you are not going to use the vehicle for a long time, take out the battery after it is fully charged, place in a dry and well-ventilated place, and charge it every two months.
- DO NOT store the battery in a place where there is a risk of falling. Falling may cause battery damage and short circuit, fire and explosion.

Battery Charger

Before charging:

- 1.The charger should ONLY be used to charge the original vehicle. It is strictly prohibited to charge non-rechargeable batteries.
- To prevent the electronic components inside the charger from loosening, DO NOT place the charger inside the vehicle.
- 3. The power supply voltage should be 200-240V AC.
- 4. Should you discover any wire damage or loose connector, stop using the Quantan Scooter.

During charging:

- 1. Place the vehicle in a safe place away from the elements.
- 2. Connect to the battery or vehicle charging port first, and then plug into the power socket.
- When there is an unusual smell, sound or light display, stop charging immediately and contact after-sales service.

After charging:

- When the battery is full, disconnect from the power socket first and then unplug from the battery/vehicle.
- 2. After the charger cools down, place it in a safe place inaccessible to children.

A WARNING

- 1. Ensure good ventilation during charging. Stay away from fire or explosive materials!
- 2. High voltage in the charger! DO NOT disassemble or replace parts of the charger.
- DO NOT connect the charger to the power supply for a long time. Unplug from the power socket when not charging. DO NOT use the charger to charge multiple vehicles.
- Regularly inspect the charger for damage to the cord, plug, enclosure and other parts. If any damage is found, stop using until it is repaired or replaced.
- 5. The external cable of the charger cannot be replaced: if the cord is damaged, the charger must be discarded and replaced by a new one.
- 6. The charger should be handled with care.

Others

- •Tires supplied with the product are to be mounted on the wheel by a professional repairer. Removing the wheels is complicated and incorrect assembly can lead to instability and malfunctions.
- You may findthe limited warranty information in the service and maintenance record booklet.
- Efforts have been made to simplify wording in the user manual for users. Where an action appears too
 complicated for a user, he/she is advised to contact an authorized or a specialized repairer or customer
 service.
- For maintenance record and limited warranty, please refer to Quantan Scooter Service and Maintenance Record.

NOTICE: INSURANCE

YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THIS ESCOOTER. TO DETERMINE IF COVERAGE IS PROVIDED, PLEASE CONTACT YOUR INSURANCE COMPANY OR AGENT.

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9. Specifications

	[product Name	Superior, since	_	1	-	100	
	Brand	PRO SMART S		PRO SMART M		PRO SMART L	
Basic Information	Dimensions (LxWxH)	1856 x 675 x 1169 mm		1856 x 675 x 1169 mm		1856 x 675 x	1169 mm
	Vehicle Weight (batteries not included)	78 kg		78 kg		90 kg	
	Wheelbase	1365 mm		1365 mm		1365 mm	
	Max. Speed	25 km/h	45 km/h	25 km/h	45 km/h	25 km/h	45 km/h
	Electric Range(WMTC Stage 3)	59 km	49 km	47 km	40 km	102 km	81 km
	Energy Consumption	30 Wh/km	37 Wh/km	28 Wh/km	37 Wh/km	28 Wh/km	39 Wh/km
/ehicle	Max. Motor Output Power	1.5 kW	*	1.5 kW		3kW	
Parameters	Max. Torque for Drive Wheel	88 N-m		88 N-m		120 N-m	
	IP Rating	IPX5		IPX5		IPX5	
	Space under Seat	27 L		27 L		27 L	
	Seats	For two persons		For two persons		For two persons	
	Battery Type	Li-ion		Li-ion		Li-ion	
	Charging Time	5-6 hours		4-5 hours		4 hours	
	IP Rating	IPX7		IPX7		IPX7	
Battery	Capacity	38 Ah		30 Ah		30 Ah	
	Weight	11 kg		11kg		11 kg x 2	
	Rated Voltage	48 V		48 V		48 V	
	Battery Energy	1824 Wh		1440 Wh		2880 Wh	
	Nominal Power	420 W		420 W		1120 W	
Charger	Charger Input Voltage	200-240V- 50Hz 3.0A MAX		200-240V- 50Hz 3.0A MAX		200-240V- 50/60HZ 6.5A MAX	
	Charger Output Voltage	52.5 V		52.5 V		54.2 V	
	Tyre Type	Front: 80/90-12, tubeless tyre Front: 80/90-12, tubeless tyre	Front: 100/70-12, tubeless tyre				
Tyre	Tyre Type	Rear: 90/80-12, tubeless tyre		Rear: 90/80-12, tubeless tyre		Rear: 120/70-12, tubeless tyre	
	Standard Tire Pressure	Front: 200 kPa		Front: 200 kPa		Front: 200 kPa	
	lotanuaru Tire Pressure	Rear: 220 kPa		Rear: 220 kPa		Rear: 220 kPa	
	Front brake	Disc		Disc		Disc	
Brakes	Rear brake	Disc		Disc		Disc	

	[Product Name	Support Control (SEC)	Print Street	Property of the Control of the
Dashboard	Digital	Digital & VA panel	Digital &VA panel	Digital &VA panel
	Power Indicator	10-Segment display	10-Segment display	10-Segment display
Smart features	AirLock	Yes	Yes	Yes
	Handlebar Lock	Yes	Yes	Yes
	Seat Trunk Lock	Yes	Yes	Yes
	Seat Detection	Yes	Yes	Yes
	Kickstand Detection	Yes	Yes	Yes
	OTA	Yes	Yes	Yes
	AHRS	Yes	Yes	Yes
	Built-in IoT	Yes	Yes	Yes
	Cruise mode	Yes	Yes	Yes
	Smart BMS 6.0	Yes	Yes	Yes