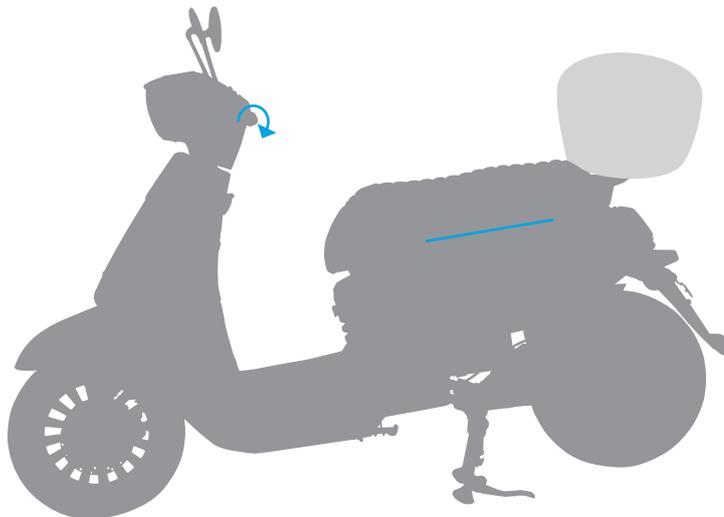


# Manual for quick start

**e.broh**  
THE ELECTRIC BIKE & SCOOTER COMPANY

Manual for electrical motorcycles SPUMA li.



**SPUMALi**



## Notice for user

1. Please read carefully this Manual before using the motorcycle for a correct use.
2. Check please carefully whether parts are complete as indicated in the Manual of the product before your ride for the sake of safety.
3. Please follow traffic laws. Slow down on rainy or snowy days, on slippery roads.
4. The scooter Ebroh can operate on rainy or snowy days, on slippery roads. Increase the braking distance for the sake of safety.
5. Do not dismantle the scooter on your own.
6. Please contact the after-sales service for replacement or purchase of original parts.
7. Do not lend your Spuma Li to those who can't operate an Ebroh scooter for the safety of the others and for preventing unnecessary damage to your scooter.
8. Please keep this Manual and the Guarantee Card properly.
9. Do not connect nor disconnect the battery when the switch is on.

## Warnings

1. Rider and passenger  
Spuma Li is not designed for a ride of more than 2 persons.
2. Road conditions  
Spuma Li is only suitable for riding on asphalt.
3. Please read carefully this Maintenance Manual.

<b>Warning:</b> failure to follow the instructions herein may lead to serious casualties.
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<b>Caution:</b> Failure to follow the instructions herein may lead to personal injury or damage of parts.
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<b>Note:</b> Provide useful information.
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4. This product Manual should be deemed as a permanent document of Spuma Li scooter. If this scooter is transferred to others, this Manual should be handed over to the new owner as well. Without the written consent of the Company Ebroh, reproduction or reprint of any part of this Manual is prohibited.

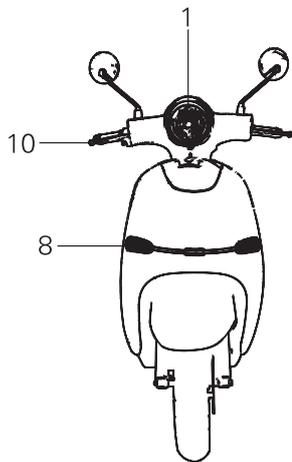
## Safety notes

1. Using safety clothes is very important. Use a quality safety helmet.
2. Know your Spuma Li. Your riding skills and mechanical knowledge are the basis for safe riding. You are advised to practice your riding on open, quiet roads, and to know the mechanical performance and operation methods at first.
3. Be aware of your riding skills. Always ride the scooter within your skill range. Knowing your riding skills and the operation methods of the scooter will prevent accidents.
4. Pay attention on our driving. It should be noted that the braking distance on rainy days should be twice of that on sunny days. Always avoid the roads with paint markers, manhole covers and oil stains to prevent slipping. Pay extra attention when riding through railway crossings, iron fences and bridges. Slow down if road conditions are unclear.
5. Do not use the high beam light indiscriminately.  
Continuous use of the high beam light on urban roads and pedestrian roads may disturb the visibility of the drivers and pedestrians and affect normal, safe driving. Do not use the high beam light when the road is well lighted.
6. Do not make or receive calls while riding.  
Making or receiving calls while riding is one of the main reasons for inattention and will easily cause accidents. Please stop the scooter before you make or receive calls.
7. Do not change the lane indiscriminately.  
Changing the lane indiscriminately is one of the main reasons of accidents. When you need to change the lane, remember to switch on the turn indicator first. Check the scooters approaching for behind and change the lane when it's safe.

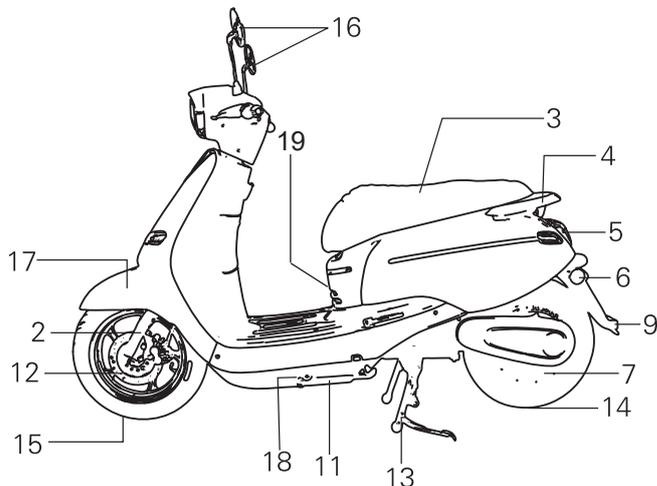
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PARTS INFORMATION

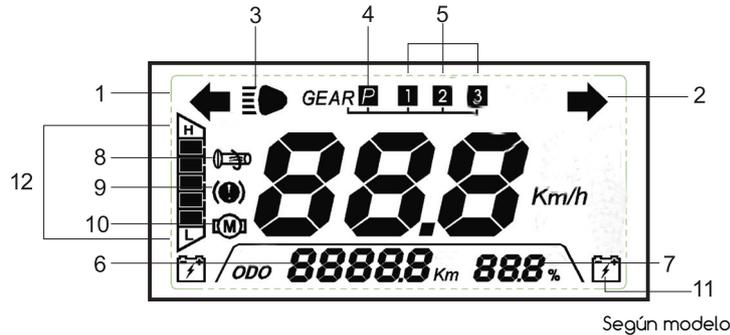


- 1. Head light led
- 2. Front shock absorber.
- 3. Battery
- 4. Rear carrier
- 5. Rear light.
- 6. Intermittent Back Indicator led.
- 7. Motor brushless
- 8. Intermittent Front Indicator led
- 9. Back Reflector (LR)
- 10. Brake levers (LR)
- 11. Support Side Stand.



- 12. Front disc brake.
- 13. Central easel
- 14. Rear tyre
- 15. Front tyre
- 16. Mirrors.
- 17. Rear fender.
- 18. Stand of switch.
- 19. Plug for battery charging.

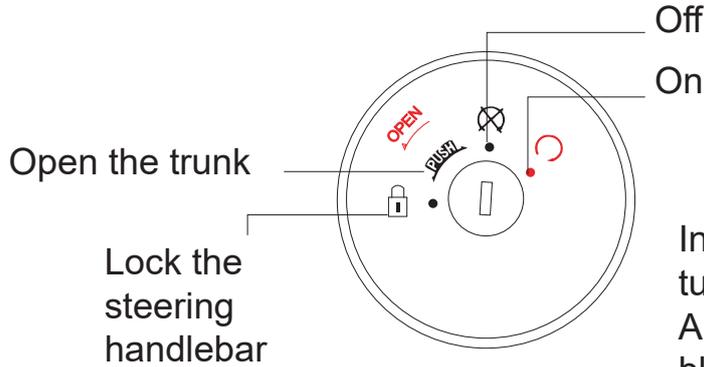
Display information



Según modelo

1. Left turn	7. Battery percentage.
2. Right turn	8. Throttle handle failure.
3. High beam light	9. Brake fault.
4. Stop or parking indicator (according to model)	10. Motor fault.
5. Gear shift indicator. (according to model)	11. Low battery warning (<10%)
6. Total of kilometres travelled.	12. Battery charge status indicator

Indicador de batería H-L barra vertical de la izquierda	
1. 81-100%: five lines.	5. 11%-20%: one line
2. 61-80%: four lines.	6. 6%-10%: flash line.
3. 41-60%: three lines.	7. 0%-5%: non line.
4. 21-40%: two lines.	

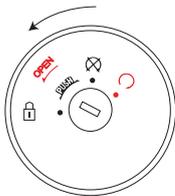


Insert the key into the lock hole and turn it.

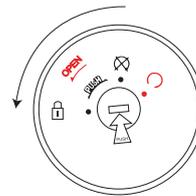
Apagado y encendido para abrir y bloquear el maletero.

Turn to  to lock the steering handlebar.

Open the trunk

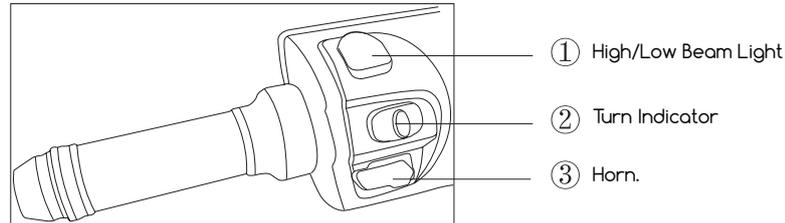


Start the scooter

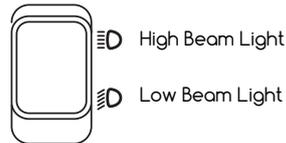


## Operational Guide

## Left Combination

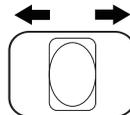


- ① High/Low Beam Light: Press the upper part to turn on the high beam light; press the lower part to turn on the low beam light.



- ② Turn Indicator: Push the button left to turn on the Left Turn (2) Indicator; push the button right to turn on the Right Turn Indicator. Press the button to reset the Left/Right Turn.

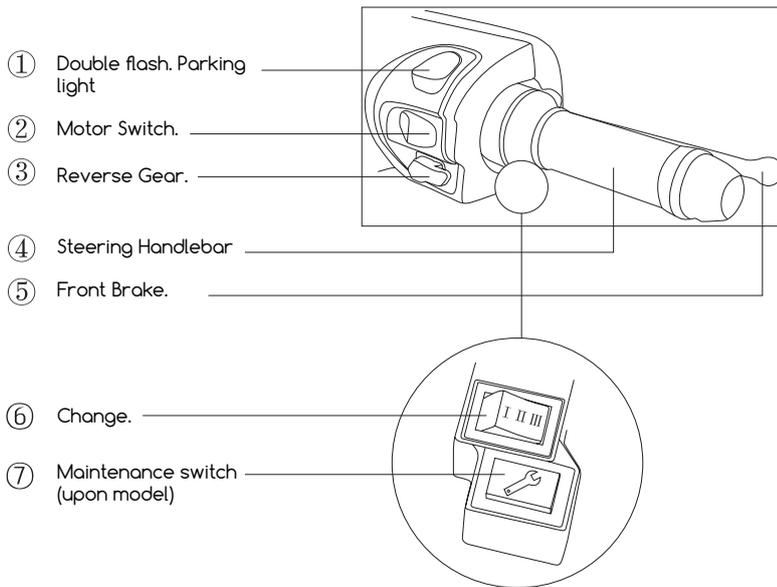
Push the button left/right to turn on the Left/Right Turn Indicator.



Press the button to reset/switch off.



Right Combination



## Operations Guide

### BATTERY USE ENVIRONMENT

The battery is to be used at the environmental temperature range between -10 C and 45 C.

Do not expose the battery to water, beverages or corrosive liquids to prevent possible leakage, overheating, smoking, fire or explosions.

Do not keep the battery close to a heat source, open fire, inflammable and explosive gases and liquids. Metal objects in the battery compartment may lead to leakage, overheating, smoking or explosions.

In case of undesirable odour, overheating or deformation of the battery, please stop using the battery immediately, keep away from the battery and contact the after-sales service.

**WARNING:** The battery is not a repairable part by the user. In case of battery fault, please contact the after-sales service.

Users dismantling the battery may lead to leakage, overheating, smoking, fire or explosions.

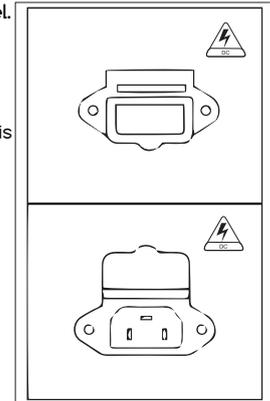
### BATTERY USE ENVIRONMENT

Charging on the scooter Ebroh.

1. Plug the charging plug into the charging socket (front of seat pos. 19). After the charging indicator turns from green to red, charging is started.
2. Insert the key and unlock the scooter Ebroh during charging to see the current battery level on the meter panel.

Charging the battery out of the scooter Ebroh

1. Remove the battery from the scooter Ebroh.
2. Plug the charging plug into the charging socket. When the charging indicator turns from red to green, charging is finished.



## Operational Guide

### Attention:

If the battery is not full after charging for over than 24 hours, please stop charging and contact the after-sales service. To maximize battery life, users are advised to keep the battery percentage within the range of 20% to 80% as practicably as possible. Please use the accelerator handlebar gently in a normal ride.

Do not keep the battery at environmental temperatures over than 40 C so as to prevent irreversible capacity loss of the battery. At low temperatures, the lithium battery capacity will lose at varying degrees. To be more specific, the usable capacity at -10 C is 70%, at 0 C 85% and at 25 C 100%. The best battery capacity for storage is 50%. Storage of battery less than 10% full or more than 90% full over a long period of time will cause irreversible capacity loss of the battery.

For storage over a long period of time, please keep the battery at an ambient temperature from -20 C to 40 C, and have a charge and a discharge at least once a month so as to minimize battery capacity loss in storage.

## Dos and Don'ts in Riding

## Checks before Riding

CHECK DESCRIPTION	KEYS
Steering Handlebar	<ol style="list-style-type: none"> <li>1. Steadiness.</li> <li>2. Flexible steering.</li> <li>3. No axial displacement or loosening.</li> </ol>
Braking	<ol style="list-style-type: none"> <li>1. Braking handlebar has a 5 to 9 mm idle travel</li> <li>2. The air pressure range of the front tyre is between 1,38 and 1,72 bars (20 and 25 psi); the air pressure range of the rear type is between 1,79 and 2,20 bars (26 to 32 psi).</li> </ol>
Tyres	<ol style="list-style-type: none"> <li>1. Normal air pressure.</li> <li>2. Proper tyre tread depth.</li> <li>3. No cracks or openings.</li> </ol>
Battery	Adequate for planned distance to travel
Lights	Check all the high beam light, low beam light, turn indicator and brake light.
Horn	Check whether the horn can work.

## Dos and Don'ts in Riding

### BREAKING PRECAUTIONS

Always balance the scooter Ebroh before braking. If the tyres are locked resulting from excessive braking force, loosen the grip on the braking handlebar and the tyres will be working again and the scooter Ebroh will be stabilized. If the front tyre is locked, the scooter Ebroh will lose the steering power. Try to maintain a 1:1 ratio of front and back braking force on slippery roads.

#### Attention:

The inexperienced drivers tend to use the rear brake only, which will accelerate the wear of the brake and as a result of this loss of the ground adhesion, the braking will need a longer stopping distance.

#### Warning:

Using the front brake or rear brake only is dangerous because of a loss of asphalt adhesion or control loss. Pay extra attention and use the brakes gently when riding on damp, slippery roads and around the curves. Riders slamming on the brakes will be exposed to great danger.

## Maintenance, Repair and Storage

To extend the service life of the scooter Ebroh and for a safe, comfortable ride, users are advised to have the scooter checked and maintained on a regular basis. A scooter Ebroh not used for a long period of time also needs to be checked on a regular basis.

### REGULAR MAINTENANCE.

The first maintenance should be conducted one month after the purchase or after a travelling distance of 500 km. An overall check and maintenance should be conducted in our after-sales service every 6 months or 3000 Km thereafter. Regular check and maintenance are aimed for the safety of the scooter Ebroh and the rider.

Attention: If the scooter is frequently subject to such use conditions as overload, high-speed, bumpy roads, uphill and downhill riding, the maintenance cycle should be shortened. Original parts made from quality materials and rigorously tested are recommended for guaranteed quality and service life, and for best scooter Ebroh conditions and riding safety. Parts are under guarantee standards.

### DAILY MAINTENANCE

If anomalies are found during checks and the scooter Ebroh needs cleaning, maintenance or parts replacement, users may have checks and maintenance in reference to the Home Repair Instruction or send the scooter Ebroh to the dealer's for checks and maintenance.

#### Warning:

If you are not able to repair or adjust on your own, the scooter has to be sent to the dealer's for maintenance and adjustment for the sake of safety. Always choose a smooth surface road for repair and adjustment and unfold the central stand before repair and adjustment. If it were necessary to repair the scooter Ebroh during a ride, please mind the traffic.

#### A. Brake Adjustment.

If any anomaly is found during checks and the scooter Ebroh needs cleaning, maintenance or parts replacement, users may have checks and maintenance in reference to the Home Repair Instruction or send the scooter to the dealer's for checks and maintenance.

#### B. Battery Switch

The scooter is equipped with battery switch. If the switch is disconnected, remember to identify the cause before connecting the switch.

## SCOOTER WASHING

Please use a hose and wash the scooter Ebroh with running water and neutral detergent. Wipe the scooter Ebroh after washing with a piece of soft cloth to prevent scratching.

### WARNING:

Never use a pressure water to wash the scooter Ebroh. Do not wash the sides, the rear and the inner of the battery compartment with a pressure washer. Do not flush the upper side cover on the rear wheel where the charger, controller and other parts are installed, so as to prevent damage by water. If the scooter Ebroh falls to the ground by accident, the AC high-voltage charger may be wet. In that case, do not charge before the charger dries to prevent an electric shock. Repair into the service centre is recommended. Do not use it before it's properly checked.

## STORAGE METHOD

Advices for storage:

1. Keep the scooter Ebroh on flat, steady surface in a well-ventilated and dry place.
2. Charge the battery to 50% full before storage to ensure the service life of the battery.
3. Avoid exposing scooter to the sun and rain as much as possible to reduce damage or aging of the parts.
4. Charge the battery to 100% full for long-term storage.
5. If the scooter Ebroh installed with battery is stored indoor or in safe places like showrooms or packed for short-distance transport in transportation vehicles, the battery switch should be disconnected to prevent potential electrical fault.

## LONG-TERM STORAGE

1. Please disconnect the battery switch in the storage compartment and the battery power supply circuit before long-term storage to prevent excessive discharge of the battery.
2. Remember to have a charge and a discharge at least every two months for long-term storage, and charge the battery to 50% full before storage to ensure the service life of the battery.
3. Please charge the battery to 100% full before use of Ebroh scooter after long-term storage.
4. Check all the parts carefully and make sure that there is no anomaly before taking in ride on the road with Ebroh scooter. In case of any problem, send the scooter Ebroh to the dealer's for maintenance or repair.

REGULAR MAINTENANCE CHECKLIST			
REGULAR SAFETY AND PERFORMANCE CHECK	BRAKES	STRUCTURAL CHECK	WHEEL BEARING
	LIGHTS		VIBRATION DAMPER
	HORN		CENTRAL STAND
	ELECTRIC PARTS		STEERING BEARING
	FUSE	MAJOR PARTS CHECK	BATTERY
	TYRES		MAIN WIRING HARNESS
STRUCTURAL CHECK	LUBRICATION		CONTROL SYSTEM

REGULAR MAINTENANCE CHECKLIST		
FAULT DESCRIPTION	FAULT CAUSE	TROUBLESHOOTING METHOD
No output after the power is on.	1. Dead Battery. 2. Switch disconnected.	1. Charge the battery. 2. Connect the switch.
Motor failure when turning the steering handlebar after the power is on.	1. Low battery voltage. 2. The power of ON switch is enabled resulting from grasping the braking handlebar. 3. The scooter Ebroh is not started.	1. Charge the battery. 2. Do not grasp the braking handlebar when starting the scooter. 3. Refer to the "Start the scooter Ebroh" section of this Manual.
Battery charge failure	1. The plug of the battery is not properly connected with the battery socket.	1. Check whether the plug is loosened.

REGULAR MAINTENANCE CHECKLIST		
FAULT DESCRIPTION	FAULT CAUSE	TROUBLESHOOTING METHOD
Ebroh scooter does not have power.	<ol style="list-style-type: none"> <li>1. Low battery.</li> <li>2. Under-inflation of tyres.</li> <li>3. Frequent braking and overload.</li> <li>4. Battery aging or normal capacity loss.</li> <li>5. Low battery capacity resulting from low environmental temperature.</li> </ol>	<ol style="list-style-type: none"> <li>1. Charge the battery and check whether the plug is properly plugged in and whether the charger is damaged.</li> <li>2. Check the tyre inflation before each use.</li> <li>3. Develop good riding habits.</li> <li>4. Replace the battery.</li> <li>5. Use in normal ambient temperature.</li> </ol>
Sudden stop during a ride	Dead battery.	Charge the battery.
	Identify the fault cause in reference to the panel fault codes.	

Displayed in the panel control.	<ol style="list-style-type: none"> <li>1. Wires loosened.</li> <li>2. Damage to the communication device.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check whether the wire is loosened.</li> <li>2. Please send the scooter Ebroh to the service centre for professional checks.</li> </ol>
	Communication fault of the controller.	Please send the scooter Ebroh to the service centre for professional checks.
	Communication fault of the battery management system.	Please send the scooter Ebroh to the service centre for professional checks.
	Controller fault	Please send the scooter Ebroh to the service centre for professional checks.

Displayed in the panel control.	Suspended operation of the controller (possibly caused by overcurrent, locked rotor, overvoltage, over-temperature)	Stop the scooter and restart it later.
	Verification failure of controller start identification.	Turn off and turn on the main switch again.
		Please send the scooter Ebroh to the service centre for professional checks.
Motor failure	Please send the scooter Ebroh to the service centre for professional checks.	

REGULAR MAINTENANCE CHECKLIST		
FAULT DESCRIPTION	FAULT CAUSE	TROUBLESHOOTING METHOD
Displayed in the panel control.	Motor over-temperature	Stop the scooter Ebroh and restart it later
	Steering handlebar failure	Please check the wires of the steering handlebar or send the scooter Ebroh to the service centre for professional checks.
	Battery overcharge	Stop charging the battery.
	Battery over-discharge.	Stop riding and charge the battery.
	Charge overcurrent	Stop charging the battery and check whether the charger is damage.

#### GUARANTEE POLICY.

All our scooters Ebroh are guaranteed for manufacturing faults during 24 months from submission date. The substitution during the guarantee is subordinated to restitution of the damaged parts.

For any subject of claim during the established period, a form available in our web page [www.amasoluciones.com](http://www.amasoluciones.com), should be fill in according to the buying invoice of product.

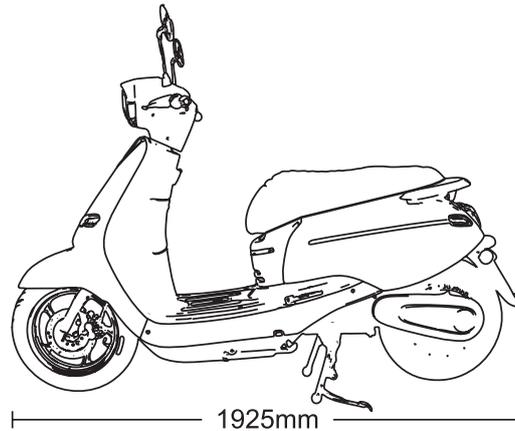
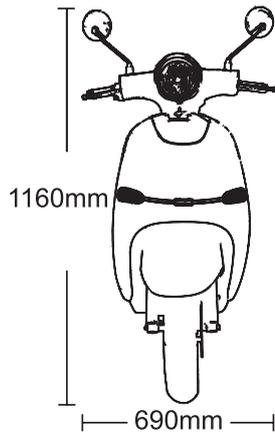
The guarantee will be cancelled whenever any one of these following cases occurs:

When it is demonstrated that there is a dysfunction due to human mistake, or negligence of the scooter user.

When getting over the scooter use limit, whatever reached due to pressure, flow, weight or revolutions of la toma de fuerza.

When during repairs parts not original from Ebroh are used or when a maintenance operation or repairing in a technical service not authorised by Ebroh is made.

KEY FEATURES			
Weight	80 Kg.	Maximum Designed Speed	45 km/h.
Rated Voltage	60 V.	Maximum Load	200 Kg.
Designed Capacity	2 persons homologated		



CUADRO	
Front Damper	Sleeve and oil damping
Amortiguador trasero	Spring and oil damping
Front Tyre Specifications	110 - 70 -12
Rear Tyre Specifications	110 - 70 -12
Front Brake Mode	Disc brake
Rear Brake Mode	Disc brake
Minimum Ground Clearance	170 mm.
BATTERY SYSTEM	
Voltage	60V
Capacity	28Ah
Standard Charging Current	5A
Maximum Discharging Current	40A

POWER SYSTEM	
Motor	Brushless
Motor Maximum Power	3000W
Controller Maximum Current	35A / 45A
ELECTRICAL SYSTEM	
Headlight	12V LED
Turn Indicator	12V LED
Taillight	12V LED
Brake Light	12V LED
Meter Panel	12V LCD







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