

***MOTORINO
GTL
OWNER'S
MANUAL***



TABLE OF CONTENTS

User Instructions.....	1
Safety Instructions.....	1
Description of Components and Parts.....	2
Schematic diagram of components and parts.....	2
Diagram of instrument panel.....	3
Prompts.....	5
Operation Guide.....	5
Switches on left handlebar.....	5
Switches on right handlebar.....	6
Start button.....	6
Smart remote controller operation.....	7
How to operate the physical handlebar lock.....	8
Operation of air switch.....	9
Operation of adjustable pedal.....	10
Riding Guide.....	10
Checks before riding.....	10

How to start the bike.....	12
Battery Use Instructions.....	14
Charging methods.....	14
Tips.....	16
Storage, maintenance and transportation.....	17
Operation Instructions to Mobile Phone APP.....	17
Lock the bike with MOTORINO XML APP.....	18
Maintenance.....	19
Routine cleaning and maintenance.....	19
Regular inspection and maintenance.....	19
Common Problems and Troubleshooting Methods.....	20
Routine cleaning and maintenance.....	20
After Sales Service.....	21
Standards of three guarantees (repair, replacement and return).....	21

User Instructions

Welcome to the family of MOTORINO XML owners! We will guide you to know every function for the right and safe use of TS smart electric bikes. To ensure your safety, please read this manual carefully before riding and make sure you are always following the requirements below:

Fully understand the information in this manual, including but not limited to the relevant instructions, precautions and warnings.

Fully understand the operation and contingency measures of TS smart electric bikes.

Be fully aware of warning labels of TS smart electric bikes.

MOTORINO XML will take any responsibility resulting from the unauthorized modification, failure to use original spare parts, or installation of components that affect the performance and safety of the bike.

Please contact the MOTORINO XML Customer Service Center at 1-877-310-0554 or email us at service@motorino.ca if you have any questions about this bike. We are at your service at any time. Wish you safe and pleasant riding experience!

Safety Instructions

To ensure the safety of you and others, please make sure to observe the following matters:

Do not ride after you take medications which may affect your riding ability, drink alcohol, or when you are unwell.

Observe traffic regulations and traffic signs and confirm the surrounding road conditions and bike conditions at any time, so as to actively avoid danger.

Wear safety equipment, such as helmet, and appropriate protective clothing if necessary, such as gloves and boots.

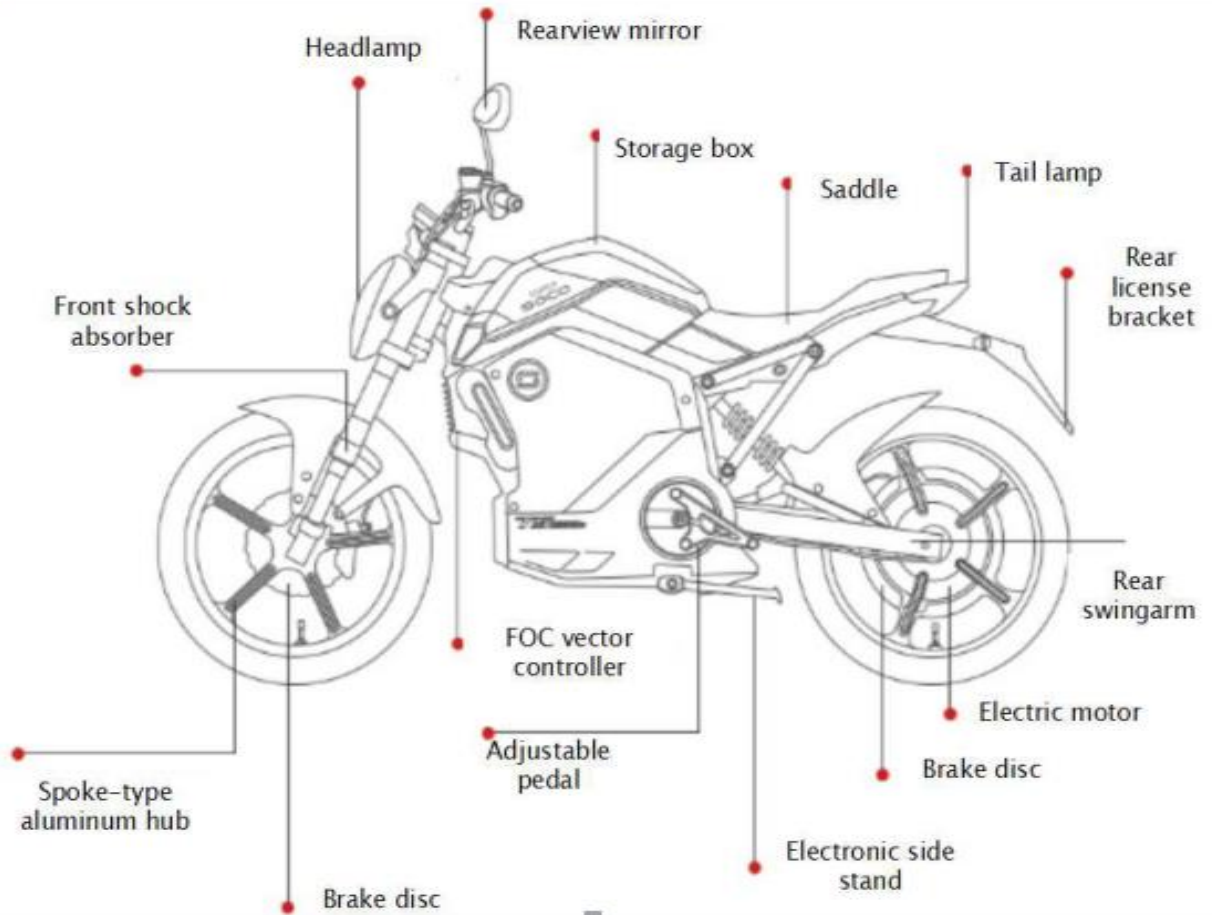
Perform a basic check each time before riding, so as to confirm the light, brake, tread and tire pressure and check other parts for looseness or abnormal noise, and regularly go to MOTORINO XML Service Center for maintenance.

In order to ensure the safety of you and others, please DO NOT use high beam in good lighting conditions. The continuous use of high beam will cause the visual disturbance to vehicles and pedestrians on the opposite side, thus affecting normal driving.

Please do not make or answer any call during riding, which is likely to cause traffic accidents.

Description of Components and Parts

Schematic diagram of components and parts



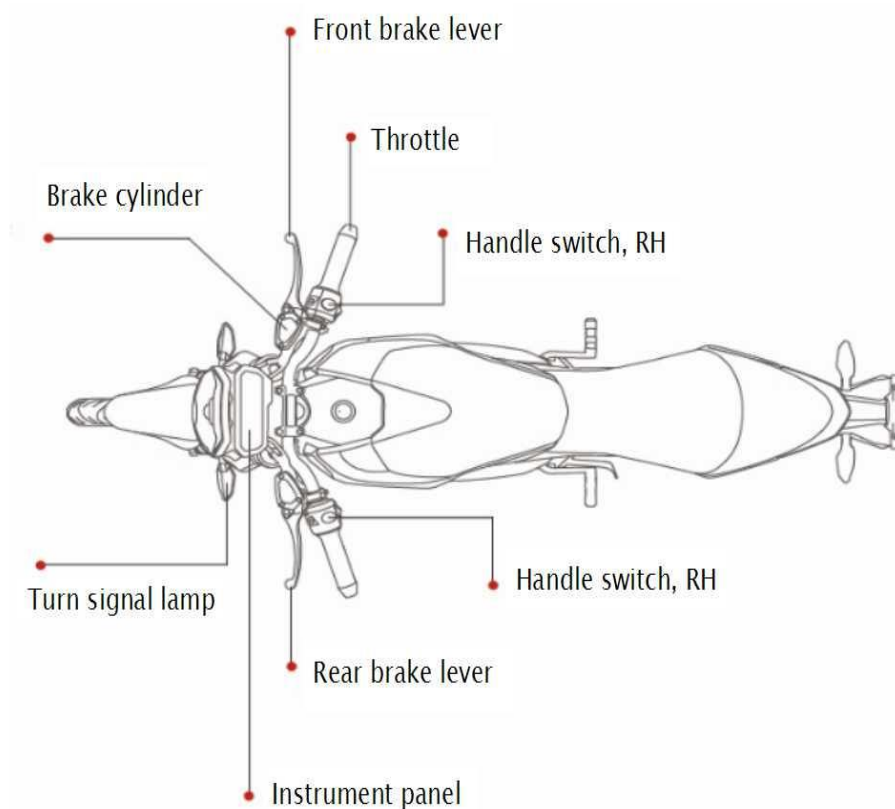
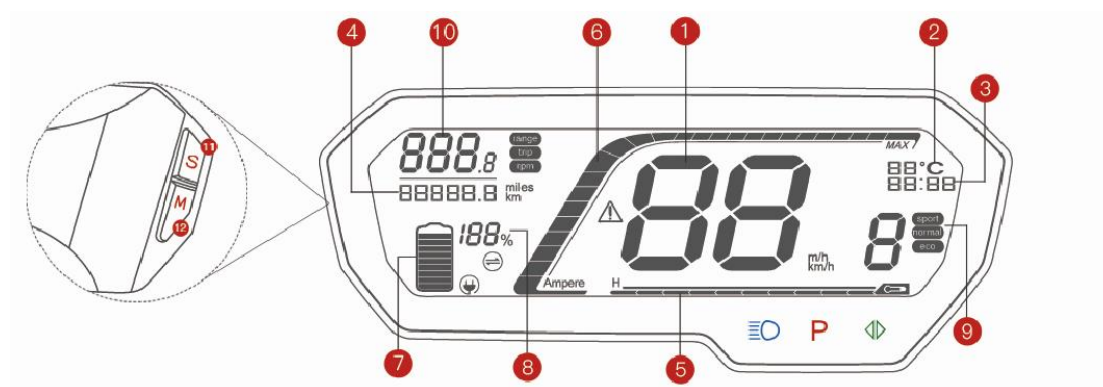


Diagram of instrument panel



1 Speed / fault code

Display current speed. When fault indicator goes on, fault code will be displayed.

2 Ambient temperature

Display current ambient temperature.

3 Clock

Display current time.

4 Total mileage

Display the total mileage.

Long press the M¹² button on the back of the instrument panel, and the trip distance will be cleared.

5 Controller temperature

Display the temperature under current operating conditions.

6 Real-time current

Display current output current.

7 Power display bar

Display current battery level.

8 Power display

Display current battery level

9 Gear display

Display current gear.

eco = Economical Gear, corresponding to the number “1”.

Normal = Cruising Gear, corresponding to the number “2”.

sport = Sport Gear, corresponding to the number “3”

10 Distance per charge/ trip distance/ rotating speed







range = remaining distance per charge.

Trip = current riding distance.

rpm = current rotating speed.

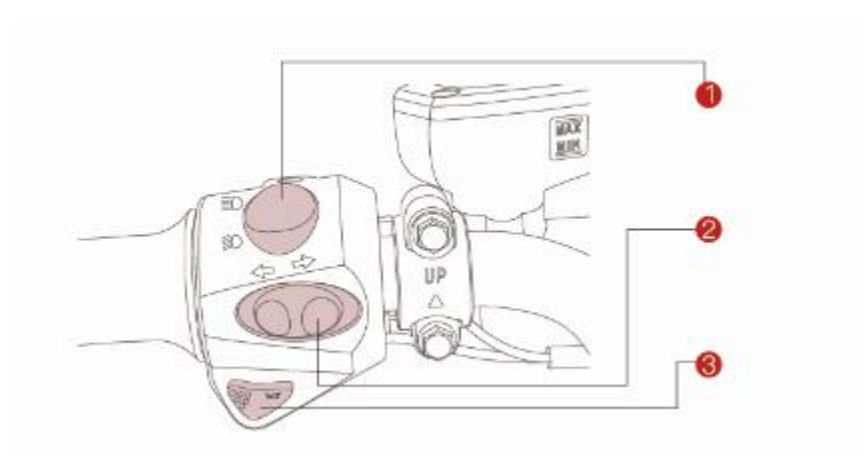
Press the S¹¹ button on the back of the instrument panel to switch the motor speed, the current riding distance, and the remaining distance per charge.

Prompts


Prompts	
	Fault
	High beam indicator, indicating high beam on
	Charging
	Parking indicator, indicating the parking state
	Data connection
	Direction indicator, flashing in synchronization with the left and right lamp


Operation Guide

Switches on left handlebar



1. High/low beam switch button

Press  up to turn on the high beam.

Press  down to turn on the low beam.

2. Turn signal button

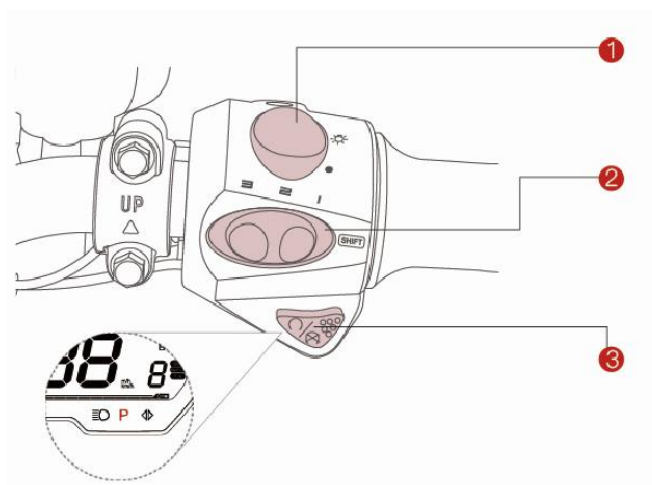
Dial to the left side to turn on the left direction indicator.

Dial to the right side to turn on the right direction indicator.


3. Horn button


Press to make a sound and release to stop.

Switches on right handlebar



1. Headlamp button


Dial up to  to turn on the headlamp.

Dial down to  to turn off the headlamp.

2. Gear shift button

The bike has three modes, i.e., 1 “eco”, 2 “cruise”, and 3 “sport”. Dial rightwards for “eco”, middle for “normal” and left for “sport”.

3. Parking button

Parking button has two modes: press to park the bike and parking indicator  goes on; and press again to exit the parking status.

Start Button

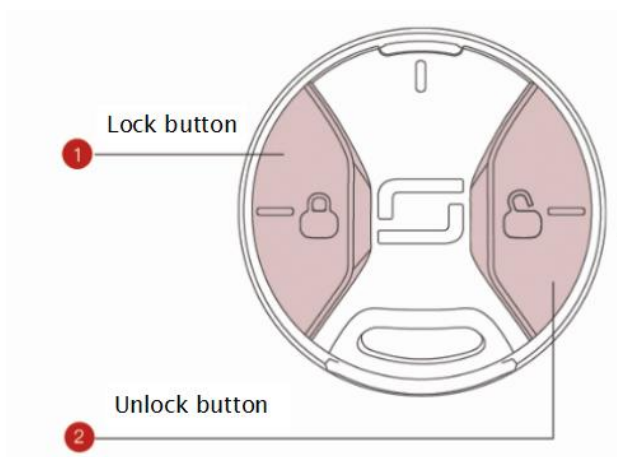
After unlocking the bike with the Smart Remote Controller, press the start button, and the bike will be in the “Powered” state; press it again to turn off the bike.



1. Power button flashing, indicates the locked mode;
2. Power button lightning, indicates the standby mode;
3. Outer circle lightning, indicates the power on state.

Smart Remote Controller Operation

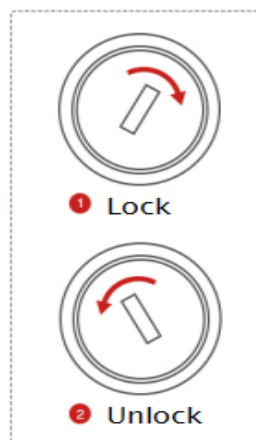
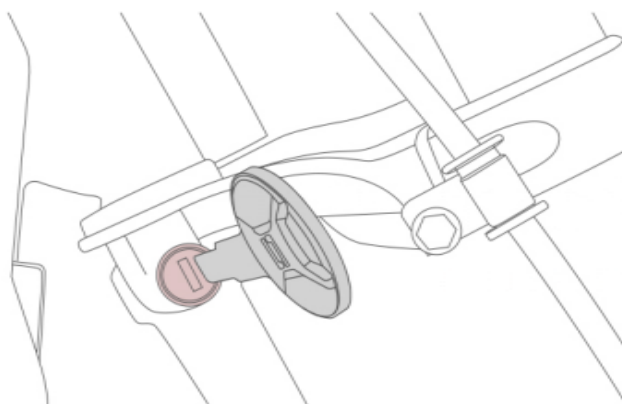
With the advanced Smart Remote Controller, you can easily lock or unlock your TS smart electric bike by simply pressing the button within 50 meters.



1. Lock button. When the bike is in the [Static State], press the lock button, and the start button flashes. The bike enters the [Locked State].

2. Unlock button. Press the unlock button, and the start button stays on. The bike enters into the [Unlocked State].

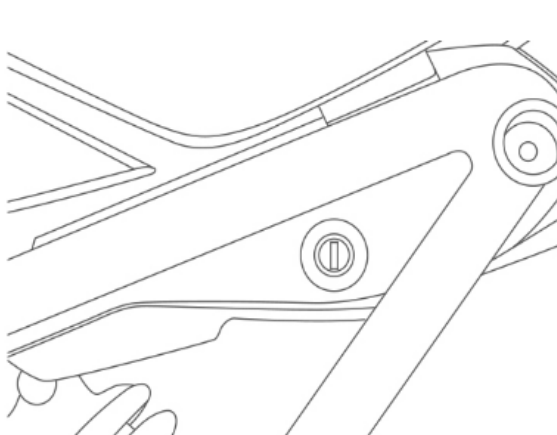
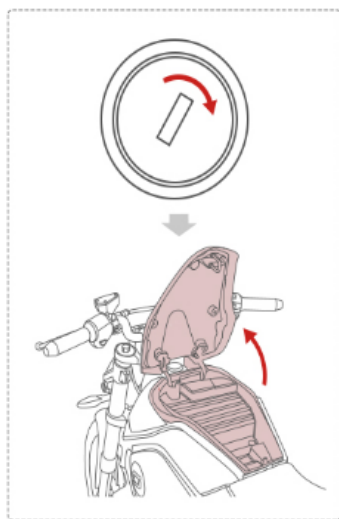
How to operate the physical handlebar lock



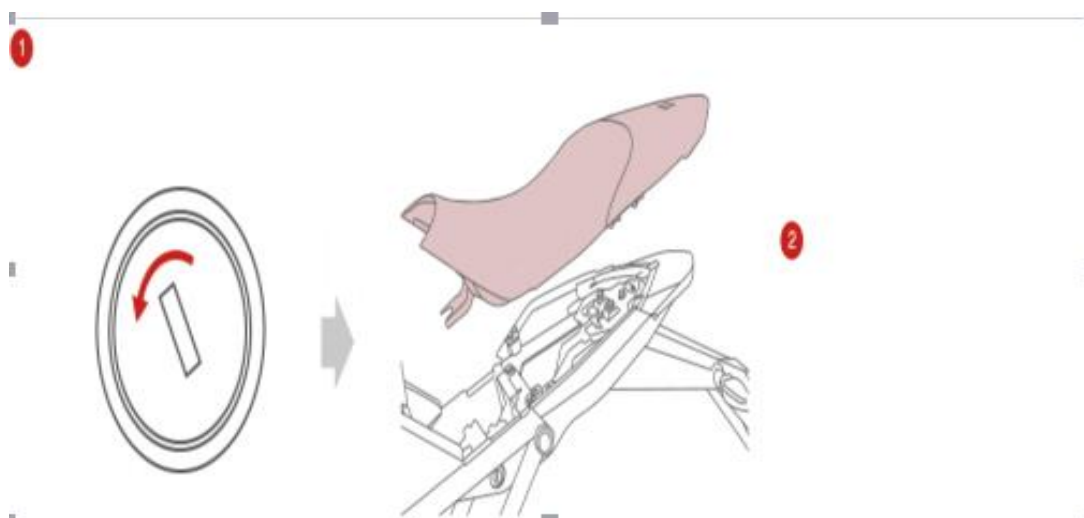
1 After the bike stops, turn the handlebar to the far left, insert the key into the physical handlebar lock, and rotate it rightwards to lock the bike.

2 Insert the key into the physical handlebar lock, and rotate it leftwards to unlock the bike.

Open the storage box and saddle



* The handlebar lock is located on the left side of the bike, below the saddle.

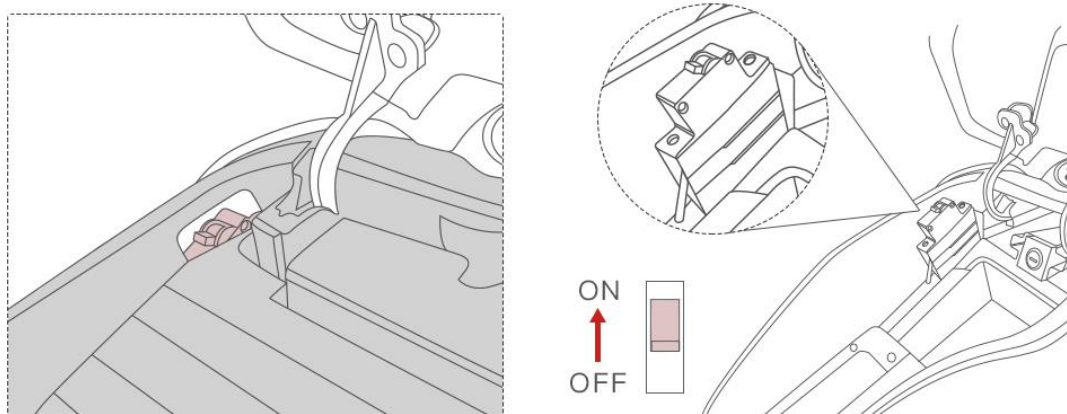


1. Insert the key and rotate it rightwards, and the storage box will be opened when you hear a [Click] sound.

2. Insert the key and rotate it leftwards to open the saddle. Basic tools are provided inside saddle.

Operation of Air Switch

As the protection switch for the main power of TS smart electric bike, the air switch will automatically disconnect to ensure safety when the bike circuit is abnormal or the current caused by short circuit exceeds the set safe value.

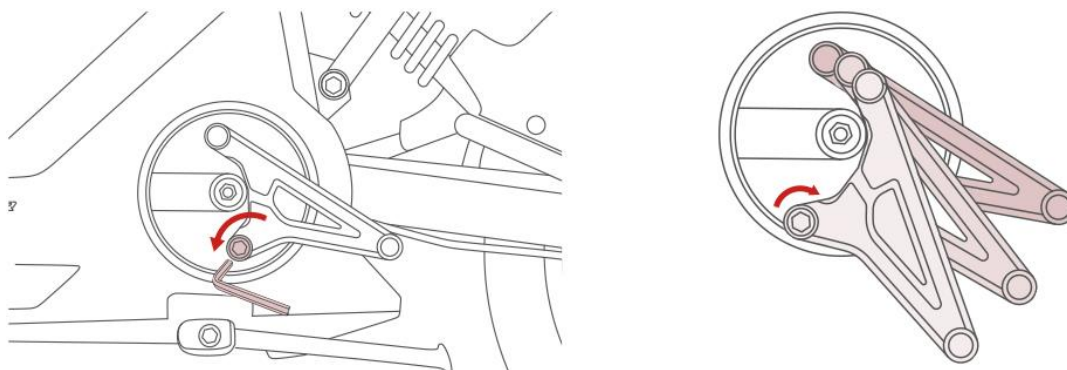


TIPS: In order to protect your safety, please turn off the air switch when cleaning, storing the bike for a long time, or removing the battery pack.

Operation of adjustable pedal

The original adjustable pedal provides three riding modes, and can be adjusted for comfort.

1. Open the saddle and take out the included Allen wrench;
2. Unscrew the nut under the pedal;
3. Adjust the pedal to the appropriate position (three positions) and tighten the nut.



Riding Guide

Checks before Riding

Make sure to check the following items before riding a TS Smart Electric Bike, which will guarantee your safety on the road.

Whether the handlebar is stable and flexible when turning.

Whether the switches on the right and left handlebars can work normally.

Whether the speed control handle can work normally.

Make sure the tire pressure is normal. The suggested tire pressure is 20-25psi for front wheel and 26-32 psi for rear wheel.

Check tire surface for cracks, damage, wear, and foreign matter puncture or attachment.

Whether the tread depth is sufficient (>0.8 mm).

Whether any fault warning light on the instrument panel goes on after being powered.

Whether the battery is fully charged.

Whether the head and tail lights, brake lights and turn signal lamp can work normally.

Whether the horn can work normally.

Whether the rear mirrors are clean. Adjust them to the appropriate angle.

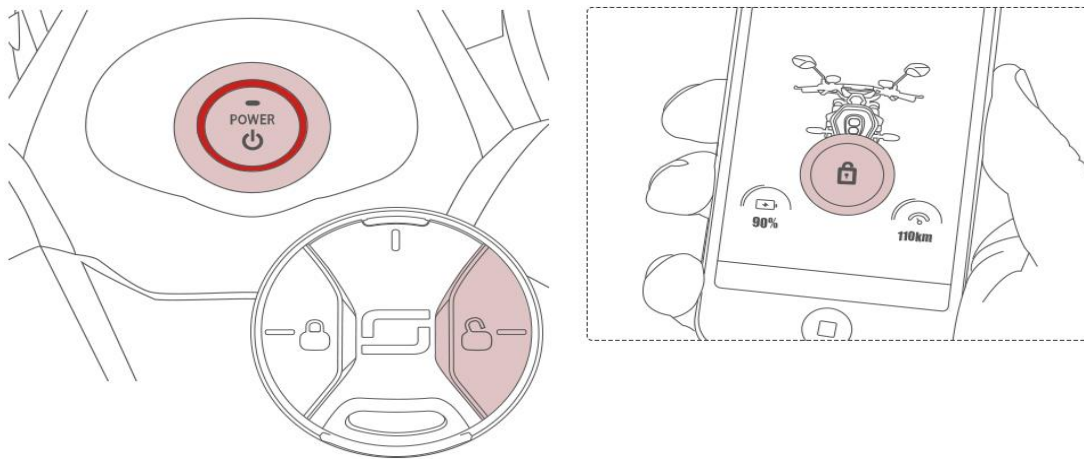
Whether the brake oil is sufficient, and whether the handbars and brake system can work normally.

For any abnormality or operational concern, please contact MOTORINO XML Customer Service Center.

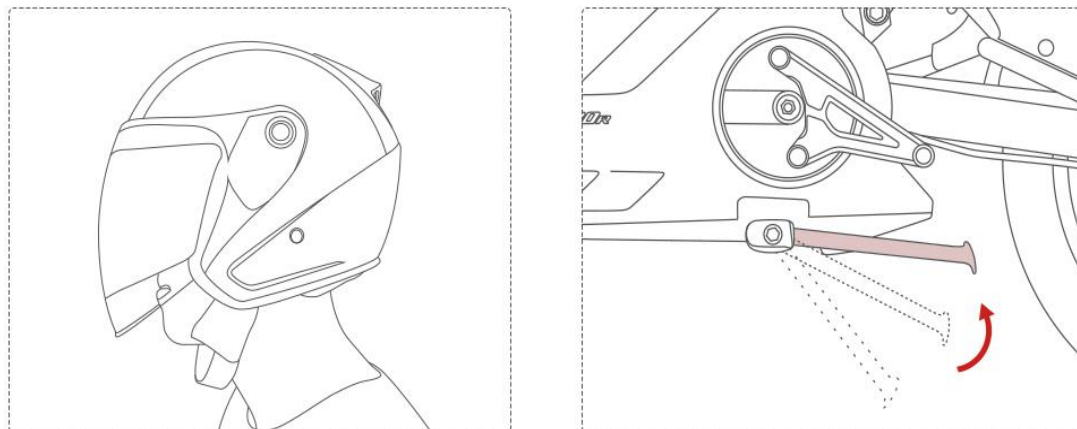
Tel: 1-877-310-0554

How to start the bike

1. Press the “Unlock” button of the Smart Remote Controller, and the start button stays on.

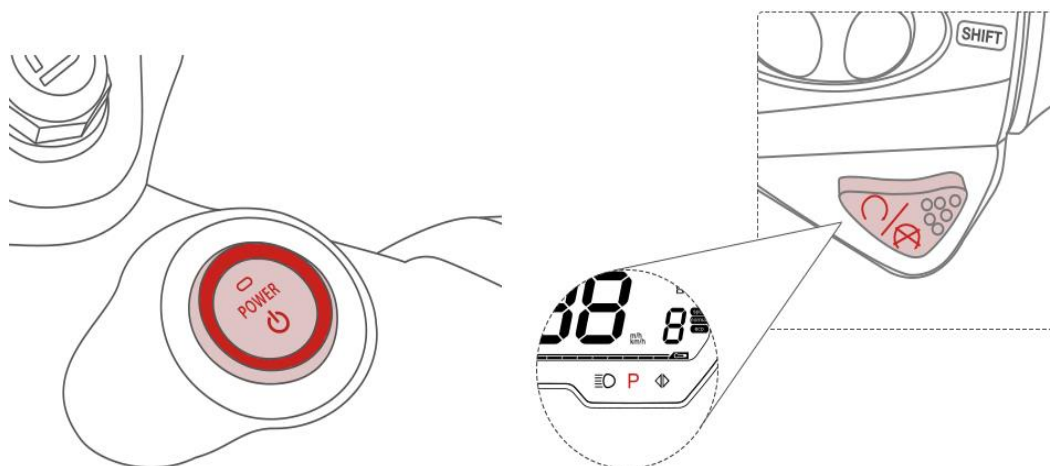


2. Put on a helmet, ride the TS, and retract the electronic side stand.

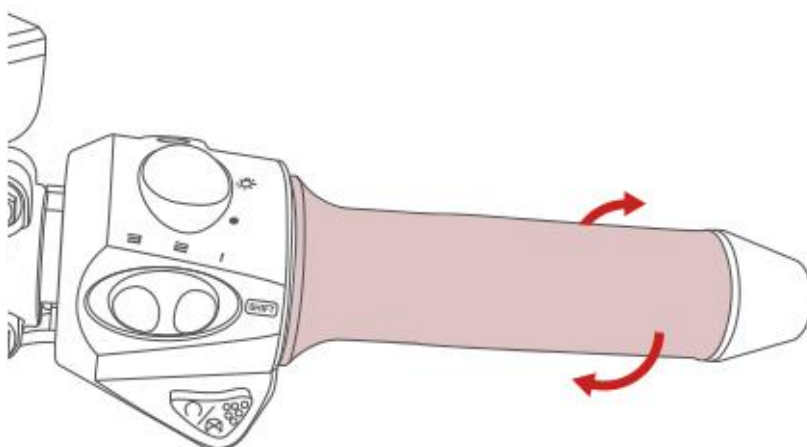


3. Press the “Start” button, and the bike enters the “Powered” state.

4. Press the “Parking” button to exit the parking state, and the parking indicator goes off



- 5 Gently turn the handlebar to ride on the road.



TIPS

Before riding, make sure the electronic side stand retracted and rotate the handlebar to ensure that the handlebar lock is closed.

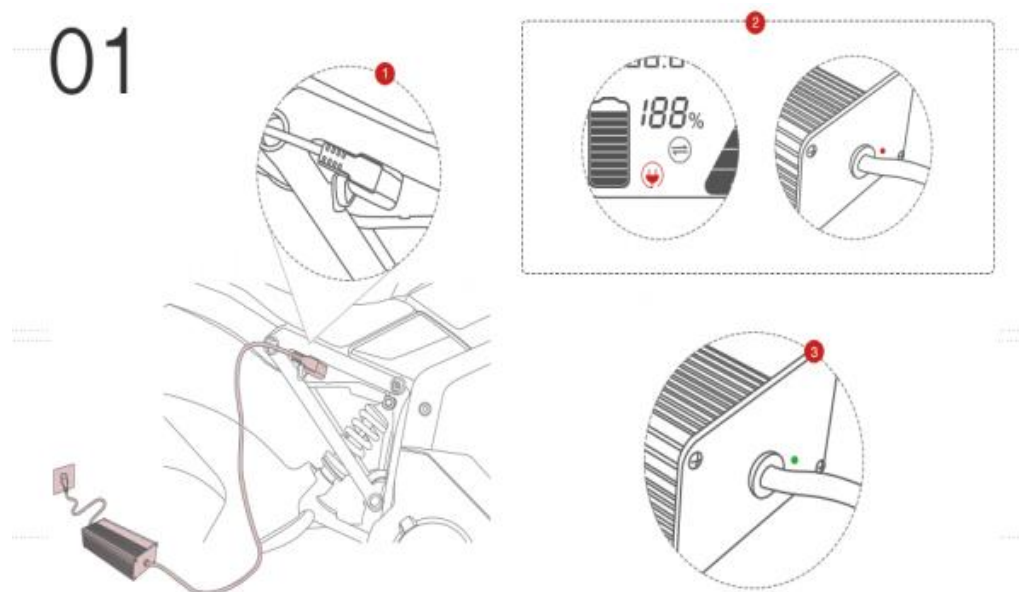
If the parking button is pressed when riding, the bike will be dis-energized. So DO NOT press it when riding for avoiding danger caused by the sudden loss of power.

If the electronic side stand is extended when riding, the bike will be dis-energized. So DO NOT extend the electronic side stand when riding for avoiding danger caused by the sudden loss of power.

The bike must be fully stopped before starting. In case of abnormality during riding, please ride carefully or push it to a safe place. DO NOT try restarting the bike during riding or on the lane so as to avoid danger.

Battery Use Instructions

Charging Methods



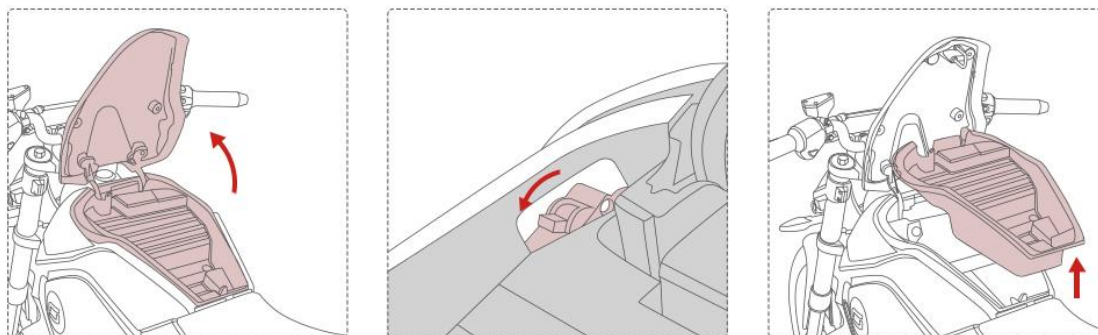
How to charge the battery on the bike

1. Insert the main charger plug into the charging port of the bike.
2. Insert the charger's AC power plug into the socket, and the battery starts charging when the charger indicator turns red.
3. The battery is fully charged if the charger indicator turns from red to green.

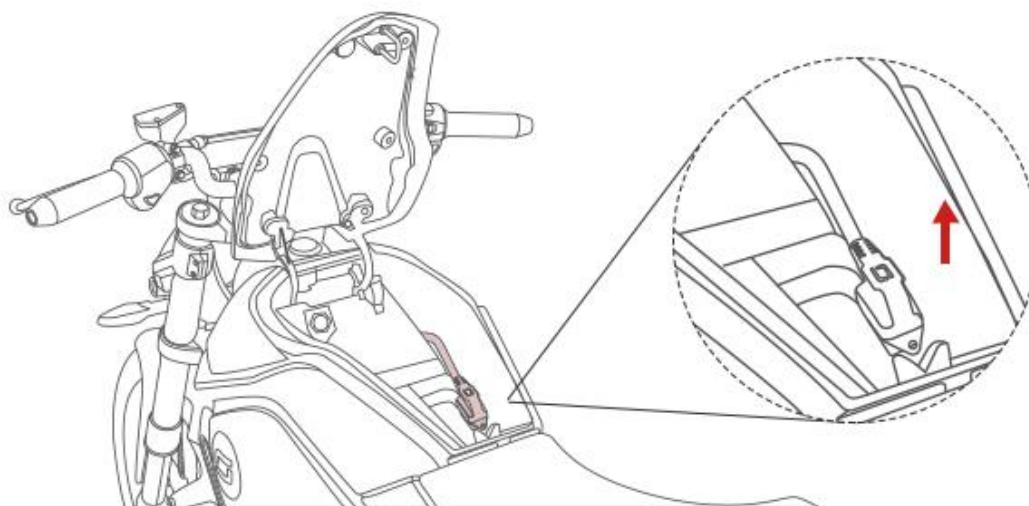
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How to charge the battery off the bike

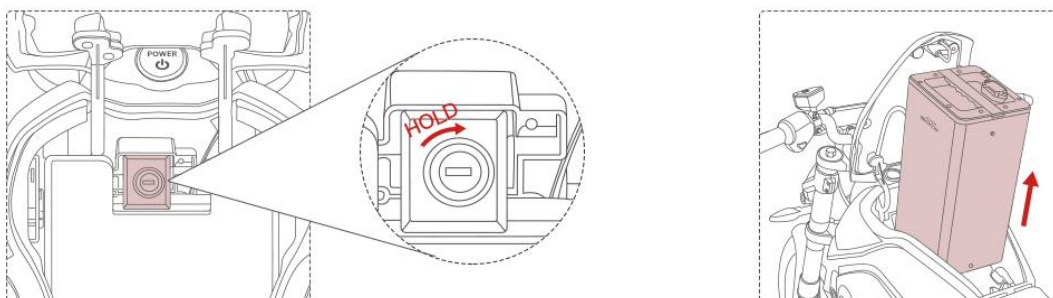
1. Open the storage case, close the air switch and take out the storage box.



2. Disconnect the main battery plug.

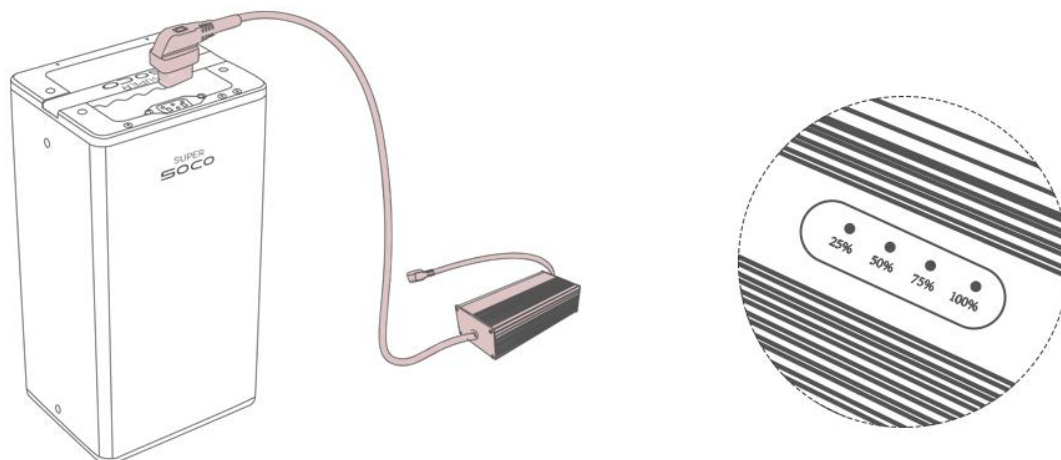


3. Insert the key into the anti-theft battery lock and rotate it rightwards to remove the battery from the bike.



4. Insert the main plug of the charger into the battery charging port, and then insert the AC power plug of the charger into the socket. The green lights of the charger will flash in turn when charging normally.

5 When the battery is fully charged, the charge indicators are all green.



TIPS

Do not expose the battery to water, and prevent it from being damped by water or rained

Charge temperature: 0-45 °C, discharge temperature: -20-45 °C; Battery capacity will be reduced when placed in a low-temperature environment;

Charge the battery when you use it, but make sure to charge it before the capacity is lower than 20%. When it is not used for a long time, please remove it from the bike;

Develop a good usage habit. DO NOT frequently yank the switch, and ride at a constant speed.

Short circuit of the cathode and the anode at the battery's input and output ends is prohibited;

Keep it away from children, fire and heat source. It is strictly forbidden to throw it into the fire;

Violent movements, shock and extrusion are prohibited;

Only the specified charger can be used, and other chargers are prohibited to charge the battery;

This product has been subject to strict inspection before leaving factory, and it is strictly prohibited to dismantle it. Please contact our company's after-sales department for any question.

Storage, maintenance and transportation

Please charge the battery to half-saturation state when storing or transporting it (after the battery is discharged, charge it for 3 hours). Place it in a dry and ventilated place;

Battery and charger should be kept in a clean, dry, and ventilated place. Keep them away from corrosive materials, power source and heat source;

Storage conditions: ambient temperature -20-35 °C, humidity $\leq 65\%$ RH;

When storing the charger, please disconnect it from the battery.

Operation Instructions to Mobile Phone APP

Some versions are equipped with GPRS communication function, which enables the connection with the owner's smart phone. Through the MOTORINO XML APP, the owner can use the smart phone to manage and inquire information of the bike.

The MOTORINO XML APP is available in iOS and Android versions. Please confirm the smart phone's operating system before installing the APP.

Support Apple IOS 8.4 and above

Support Android 4.4 and above

Lock the bike with the MOTORINO XML APP



Lock button: when the bike is in a [Static State], press the lock button, and the start button will flash. The bike enters the [Lock State]

Diagnosis of the bike condition: when the bike is in the start state, you can know the bike's condition in real time at a click of the button.

Multiple anti-theft measures: when the bike is moved without authorization, it will give an alarm. And meanwhile, the APP will notify the user immediately and track the bike in real time.

Data records: users can know the remaining capacity, mileage, riding track and other information through App.

Remote control: users can lock the bike through APP.

The functions of the MOTORINO XML APP may slightly vary with the version update, functions upgrade, and bike types. The actual contents of the latest version shall prevail.

Maintenance

Regular maintenance can enhance the service life and driving safety of the TS smart electric bike. Please refer to the following suggestions and take care of your bike.

Routine cleaning and maintenance

Cleaning: Please use clean water and neutral detergent to clean it, and use soft cloths and sponges to clean the surface; it is prohibited to use metal brushes, sandpaper or the like to clean it, in order not to scratch the parts surface. After cleaning, dry it with soft cloths.

TIPS:

Please disconnect the air switch before cleaning.

Do not use strong water jet to directly wash it, so as to avoid the default of mechanical parts caused by water invasion.

Storage: try to park it in a dry and cool room to reduce the exposure to sun and rain and avoid the reduction of service life due to corrosion of parts.

When left unused for a long time, please turn off the air switch and disconnect the power supply circuit to prevent overdischarging.

After long-term storage, please fully charge it before use..

Regular Inspection and Maintenance

The new bike must be subject to the first inspection and maintenance in the MOTORINO XML Service Center when it reaches 1,000 km or two months (whichever comes first).

The bike is recommended to be subject to regular inspection and maintenance in the MOTORINO XML Service Center at every 3,000 km or six months (whichever comes first).

TIPS:

Please disconnect the air switch before cleaning.

Do not use strong water jet to directly wash it, so as to avoid the fault of mechanical parts caused by being damped.

Common Problems and Troubleshooting Methods

Regular maintenance can improve the service life and driving safety of the TS smart electric bikes. Please refer to the following suggestions and take care of your bike.

Routine cleaning and maintenance

Failure	Causes	Solutions
The bike has no electricity, and the start button does not shine	1. Battery is poorly connected 2. Air switch is not turned on	1. Connect the battery properly at its main plug 2. Turn on the air switch
When turning the speed regulating steering handlebar, the motor does not turn after being powered	1. Low battery 2. Side stand is not retracted 3. Parking key is not closed 4. Brake handle does not reach the right position 5. Steering handlebar failure 6. The controller plug is loose 7. Controller failure	1. Charge the battery 2. Put away the side stand 3. Close the parking key 4. Place the brake handle at the right position 5. Change handlebar 6. Re-plug controller 7. Change controller
Speed is slow or mileage is short	1. Low battery 2. Under-inflated tire 3. Heavily overloaded 4. Brake pads interference 5. Battery aging or normal scrap	1. Charge the battery 2. Inflate the tire, and check the tire pressure before riding 3. Foster a good habit, and keep the appropriate load 4. Change the brake pads and check the brake system before riding 5. Change battery
Battery cannot be charged	1. Poor contact of the main plug of the charger 2. Do not use the correct charger	1. Check whether the main plug is in a right place 2. Use the special charger of the MOTORINO XML 3. Change battery

	3. Battery aging or normal scrap	
The instrument panel shows 99	Controller communication failure	Please contact after-sales service or dealer
The instrument panel shows 98	Controller pauses operation (possibly over current, blocking, under pressure, over temperature)	Please stop for a while and then start again
The instrument panel shows 97	Controller power tube failure	Please contact after-sales service or dealer
The instrument panel shows 96	Controller Hall sensor failure	Please contact after-sales service or dealer
The instrument panel shows 95	Controller handlebar failure	Please check the handlebar wire, or change it in the after-sales service
The instrument panel shows 94	Battery communication failure	Please check whether the charging interface is in a right place or contact after-sales service or dealer
The instrument panel shows 93	Battery overcharging	Please stop charging, and check the charger
The instrument panel shows 92	Charging over voltage	Please stop charging, and check the charger
The instrument panel shows 91	Battery at high temperature	Please stop charging and riding
The instrument panel shows 90	Battery overcurrent	If the instrument keeps showing 90, please stop riding
The instrument panel shows 89	Low temperature charge	Park the bike indoor or in a warm place, and wait for a moment
The instrument panel shows 88	Low temperature discharge	Park the bike indoor or in a warm place, and wait for a moment
The instrument panel shows 87	Abnormal network connection	Go to an open area or contact after-sales service or dealer
The instrument panel shows 86	Abnormal GPS connection	Go to an open area or contact after-sales service or dealer

After Sales Service

Standards of Three “R”Guarantees (repair, replacement and return)

Fittings	Parts	Three Guarantees cover:	Three Guarantees cover does not cover:	Warranty period
Battery	Lithium battery pack	The voltage abnormalities, charge failure, less-than-60% capacity and other	Damage to the internal cell connections	36 months Prorated (The battery can be

		malfunctions of the lithium battery which is used after charged in the required environment and not subject to external impacts. (The 3-guarantee period of replaced battery is not re-calculated, which means that after replacement, the warranty period of battery is calculated according to the remaining warranty period of the original battery.)	caused by unauthorized disassembly of the battery pack (As the internal cell connections of the battery pack are complex, consumers are not recommended to take the battery pack apart by themselves.)	replaced with a new one within the first 3 months or 5,000 km and a maintained one in the later 33 months. If ECU is replaced or the lithium battery pack is purchased separately, the validity term of the Three Guarantees is 36 months, and not calculated by the mileage.)
Electric motor	Electric motor	Quality problems like open phase or burn-out of coil, demagnetization or loss of magnetic steel and so on, which cannot be repaired.	1. Damage to internal circuit of motor caused by unauthorized disassembly 2. Breakage of the motor by man-made factors	24 months
Electric parts	Controller	1. Internal damage, or voltage regulation failure 2. No DC output, or over supply voltage	Damage resulting from unauthorized modifications of the internal circuit or structure of the controller	12 months
	Converter	1. Internal damage, or voltage regulation failure 2. No DC output, or over supply voltage	2. No errors after testing	12 months
	ECU	Damage of internal wiring or components resulting in	1. No errors after testing 2. Artificial	12 months

		no data display or inaccurate data	modifications and defects of internal structure	
	Alarm	1. Malfunction of unlocking and locking with the remote control 2. Automatic alarm 3. Malfunction resulting from the damage of internal circuit	1. Loss of remote controller, or modifications of internal structure or circuit 2. No errors after testing	12 months
	Main wire harness	1. Short circuit, open circuit, ablation and other problems during correct use that cannot be repaired (caused by the main wire harness defects) 2. Circuit defects not caused by improper installation	1. Unauthorized modifications of the circuit or misuse 2. Tear or wear of the cable surface (Non-body structure problems)	12 months
	Headlight	Malfunction caused by the quality problem of headlight	Headlight damage caused by circuit modification	12 months
	Charger	1. Charge failure caused by charger line defects 2. No change in charging indicator	1. Modifications of internal structure or lines 2. No errors after testing	6 months
	Horn	Malfunction caused by structure and quality problems of the horn	No errors after testing	6 months
	Full-day lock	1. Battery lock failure 2. Electronic front lock failure 3. Lock of storage box failure 4. Saddle lock failure	1. Full-day lock is broken by picklock with iron unit. 2. Improper use leading to lock body damage	6 months

	Instrument panel	1. No display or incomplete display of the LCD instrument panel 2. Inaccurate digit hopping of the LCD instrument panel	Scratches or damage to instrument due to misuse.	12 months
	Brake system	1. Breakage or falling off due to material problems 2. Brake failure of hydraulic braking system caused by leakage of gas, air resistance, decreased pump pressure, or brake caliper seizing 3. Brake uninterrupted and cannot be repaired	1. Oil leakage due to inappropriate removal over upper and lower pump assembly of hydraulic disc brake 2. Malfunction of hydraulic disc brake just because of lake of oil instead of its damage 3. Wear of brake disc 4. Brake system damage caused by self-modification	6 months
	Handlebar	Speed control failure due to the handlebar circuit and construction problem	Malfunction caused by misuse of handlebar	6 months
	Tail light assembly	Malfunction of tail light caused by quality problem	Damage of tail light caused by artificial circuit modification	6 months
	Left and right switch assembly	1. Switch failure, failure to be in place or reset 2. Loss and breakage of switch button because of the quality problems 3. Short circuit, open circuit or poor contact inside switch	1. Unauthorized circuit modifications 2. Missing pieces, or inconsistency	6 months

		4. Inconsistent switch circuit		
Body parts	Direction handlebar	1. Uneven heights of the handlebar at its both ends 2. Different lengths of the handlebar on both sides 3. Crack or fracture	Deformation or damage of the direction tube due to human factors or improper use	12 months
	Direction column	1. Loose weld between direction column riser and upper connecting plate 2. Crack or fracture	Deformation or damage due to human factors or improper use	12 months
	Rear fork	Fracture or loose weld	1. Damage caused by human factors or improper use 2. Alterations of status by consumers 3. Serious lacking or missing of pieces	12 months
	Shock absorber	1. Fracture of base cylinder fork tube under the normal use of front shock absorber 2. Serious oil leakage in the oil seal of front shock absorber 3. Oil leakage of rear shock absorber, loose weld of joints 4. Fracture occurs on the piston rod of rear shock absorber damper 5. Abnormal sound of impact inside the shock absorber	1. Oil leakage caused by significant damage due to improper use 2. The parts have been replaced, removed and cannot be restored 3. Obvious bumps of shock absorber 4. Soft or hard shock absorber (due to human factors) 5. Rod deflection of	12 months

			rear shock absorber caused by self-modification or overload	
	Front hub	<ol style="list-style-type: none"> 1. Peeling or fracture of the wheel rim of the hub 2. Quality problems of front hub that cause the disc brake stuck and fail to rotate. 3. Fracture of hub 4. Deformation of the hub wheel 	<ol style="list-style-type: none"> 1. Hub deformation and scratches or damage due to improper maintenance and overload use 2. Deformation caused by collision 	12 months
	Subframe	<ol style="list-style-type: none"> 1. Loose weld, incomplete and missing welding of the weld joints 2. Deformation or cracking caused by quality problems of frame 	<ol style="list-style-type: none"> 1. Damage caused by human factors or improper use 2. Frame deformation because of overload issue 3. Unauthorized modifications of frame structure 4. Unauthorized modifications of entire body structure 	6 months
	Temple	Fracture or loose weld	<ol style="list-style-type: none"> 1. Deformation or damage due to human factors or improper uses 2. Scratches or damage to surfaces by human factors 3. Self-modification or 	6 months

			self-repair (such as welding, etc.)	
	Saddle	Cushion quality problems causing open line or cracking	Breakage and fracture of the saddle surface by human factors	6 months
	Frame	1. Loss weld, incomplete and missing welding of the weld joints 2. Cracks in key parts, or frame fracture 3. Failure to apply license plate due to the unclear frame code printing	1. Damage caused by human factors or improper use 2. Unauthorized modifications of frame structure 3. Unauthorized modifications of body structure	24 months
	External plastic parts	If the area of peeling or crack that caused by the paint problem is one square centimeter or more, the bike can be replaced.	Damage caused by human factors	3 months
	Connecting plate	Crack or fracture	Fracture caused by human factors or improper use	12 months
	Air switch	Automatic disconnect protection failure under overvoltage or overcurrent	No errors after testing	3 months
	Tire	Cracking, swelling or broken line	1. Normal wear 2. Damage caused by human errors 3. External damage	1 month

Instructions to other items not covered by Three Guarantees
Based on the above table, the items or conditions that are not within the time limits and scope of the three guarantees provisions will not enjoy the "Three Guarantees" service.
Bulbs, brakes, motor hub cover, rearview mirror, the whole car cable, screw nuts and other standard parts, decorative pieces, black pieces, pedal leather, chain, switch, gas nozzle and other vulnerable parts are not covered by the three guarantees.
Advertising promotions, gift items, loudness of the sound, soft and hard feelings and other items related to sensory perception.
Advertising promotions, gift items, loudness of the sound, soft and hard feelings and other items related to sensory perception.
The bike is damaged due to force majeure, such as fire, smoke, earthquake, typhoon, flood, fire, lightning, chemical corrosion and so on.
Failure to repair in MOTORINO XML's service provider, self-modification, disassembly, destruction of parts; use of non-original parts that causes damage to other parts, and unauthorized modification of the circuit and configuration are not covered in the Three Guarantees.
Damage caused by crash, falling down, overspeed, overload, unauthorized modification, failure to use the original parts, failure to follow instructions in user's manual and other human factors.
Without invoice, warranty voucher, or discrepancy between the ticket or ticket card and the product.
Controllers, chargers and other parts whose trademarks or seals are artificially torn up will not be covered.