## READ THIS MANUAL BEFORE OPERATING YOUR MOTORINO™

## GREENWIT Ltd. STRONGLY SUGGESTS THE OPERATOR OF THIS PRODUCT BE 16 YEARS OF AGE OR OLDER.

# MOTORINO<sup>TM</sup> ASSEMBLY AND USER'S MANUAL Model: XPv



For the most recent version of this user's manual and for all updated product information please visit **www.motorinocycles.com** or call your local dealer

**GREENWIT TECHNOLOGIES Inc. 2009** 

## THANK YOU FOR PURCHASING OUR PRODUCT

PLEASE READ THIS MANUAL CAREFULLY AS IT IS BASED ON OUR LONG EXPERIENCE DEDICATED TO ENGINEERING, SALES AND MAINTANENCE OF LIGHT ELECTRIC VEHICLES. IT WILL HELP YOU ENJOY YOUR MOTORINO AND EXTEND ITS LIFE.

Greenwit Technologies team

YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THE MOTORINO™. TO DETERMINE IF COVERAGE IS PROVIDED YOU SHOULD CONTACT YOUR INSURANCE

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## FEATURES & SPECIFICATIONS

## **FEATURES AND SPECIFICATIONS**

- Motor Specs: Brushless DC Motor, Continuous Rotational Power: 500W, Speed: 400rpm
- Controller CCT type with three independent continuous current electronic gears
- Recharge Time for the Battery: 4-6 Hours
- One Full Charge Lasts up to 50 km with a single battery and 80 km with dual.
- Speeds up to 32km/h on level pavement with a 75 kg rider
- Weight of MOTORINO: 75 kg

\* More details available at www.motorino.ca

### CONTENT OF THE BOX

- 48V 22AH battery installed (charging required)
- Left and right pedals (to be attached, no tool required)
- 48V charger for 110V AC outlet
- Rain cape and bike rain cover
- Two Ignition Keys (also used for under seat storage and main battery compartment)
- Two remote alarm controls
- Two mirrors (left and right)
- Two Storage Box Keys

#### UNDERSTANDING THIS MANUAL

Within this manual you will find sections marked with a **AWARNING** sign. This is to warn you that failure to abide by the following instructions may result in injury to the rider or others. Although your MOTORINO is classified as a bicycle, it is a much heavier vehicle and should be ridden with the care and control of a full sized motorcycle. A loss of control at speed can result in serious injury or death.

We constantly strive to improve and upgrade our product; as such your MOTORINO may include updated components which are not covered by this manual. If you notice that parts of your bike differ from the parts pictured herein, contact your local MOTORINO dealer to ensure that everything on your machine is up to specification.

Thank you for purchasing the low speed electrically powered MOTORINO™
Your MOTORINO™ complies with the Canadian Motor Vehicle Safety Regulation Act (CMVSRA), and is classified as a Power Assisted Bicycle under section 1.2.1 of that act. It is also compliant with US Public Law 107-319 for importation and use in all states where it is enacted

Your provincial motor vehicle branch or city or county may have additional laws regulating the use of vehicles like the MOTORINO . Some provinces or states may require a driver's license or minimum age requirements for the MOTORINO . Some provinces in Canada and some states in the US may classify your MOTORINO . Some Limited Speed Motorcycle or Moped. Please check with your local motor vehicle branch or insurance company for information specific to your area.

If your province or state allows the MOTORINO<sup>TM</sup> to be used on vehicle roadways please make sure you are familiar with all traffic laws such as: yielding to pedestrians and other motorists, signaling, riding as far to the right edge of the roadway as possible, obeying traffic signs etc. Your provincial MVB or state DOT can provide you with materials related to these traffic laws. In addition to those traffic laws abide by the following general principals:

1. You are sharing the road or the path with others - motorists, pedestrians and other cyclists.

Respect their rights, and be yielding if they infringe on yours.

- 2. Ride defensively.
- 3. Look ahead of where you're going, and be ready to avoid:
- Vehicles slowing or turning in front of you, entering the road or your lane ahead of you, or coming up behind you.
- Parked car doors opening in front of you.
- Pedestrians stepping out in front of you.
- Children or dogs playing near the road.
- Potholes, sewer gratings, railroad tracks, expansion joints, road or sidewalk construction, debris and other obstructions that could cause you to swerve into traffic, catch your wheel, orotherwise lose control and have an accident.
- 4. Ride on the right side of the road, in the same direction as vehicle traffic and as close to the outisde edge of the road as possible.
- 5. Stop at stop signs and traffic lights; slow down and look both ways at street intersections.
- 6. Always use signal lights or hand signals for turning and stopping. Learn the local vehicle code for the correct signal.
- 7. Don't weave through traffic or make any moves that may surprise people with whom you are sharing the road.
- 8. Never carry anything which obstructs your vision or your complete control of the or which could become entangled in the moving parts of the **MOTORINO** TM
- 9. Never hitch a ride by holding on to another vehicle. Remember that the **MOTORINO** will always lose in a collision with a motor vehicle, so be prepared to yield even if you have the right of way.

NEITHER GREENWIT Ltd. NOR THE RETAIL SELLER OF THE **MOTORINO** TM IS RESPONSIBLE FOR THE CONSEQUENCES OF FAILURE TO COMPLY WITH FEDERAL AND PROVINCIAL TRAFFIC ORDINANCES

## **A WARNING**

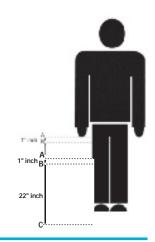
# ALWAYS USE A HELMET WHILE RIDING THE MOTORINO<sup>TM</sup>

US and Canadian safety regulations require that you wear any helmet suitable for use with a regular bicycle. The MOTORINO<sup>TM</sup> should not be used under any circumstances without properly wearing a helmet.

## **▲ WARNING**

## IN ADDITION TO THE REQUIREMENTS ABOVE, THE **MOTORINO**<sup>TM</sup> IS NOT TO BE RIDDEN / USED:

- 1. on any roadways where the speed limit is in excess of 50 km/h
- 2. on any sidewalks or pedestrian walkways
- 3. on any bumpy, rough or unpaved surfaces
- 4. in darkness without proper illumination
- 5. on sandy or gravel surfaces
- 6. by any person weighing more than 225 lbs
- 7. by any person with an inseam of less than 22"



- 8. by any physically or mentally challenged person
- by any person with vision, balance, hearing or coordination impairments
- 10. by any person using headphones or a cellular phone
- 11. to carry more than 10 lbs of cargo in the cargo compartment
- 12. in excess of 20 mph (with or without the motor activated)
- 13. by barefoot riders or those wearing sandals, open toed, high heeled, platform or slip on footwear
- 14. by any person who has ingested any alcohol or drug that could impair their ability to operate the MOTORINO  $^{\text{TM}}$
- 15. without two hands on the handle bar
- 16. while not properly seated
- 17. to jump ramps, curbs, or objects or attempt any stunts
- 18. with clothing or extremities in close proximity to the drive chain or any moving parts
- 19. beyond your ability and experience
- 20. by stopping with only the front brake. Use both brakes simultaneously
- 21. Do not try to accelerate and engage the brake at the same time.

[This may cause damage to the motor from excess heat]



#### **BEFORE EACH RIDE:**

- Make sure you properly wear a helmet
- 2. Wear protective clothing and gloves
- 3. Wear eye protection that does not interfere with your peripheral vision
- Check local and state laws before operating the MOTORINO™ in any area
- 5. Make sure all tail/brake lights, turn signals and the headlight are operational
- 6. Make sure the horn is operational
- 7. Make sure the brakes are properly adjusted and working correctly (see further detailed instructions).
- 8. Make sure you understand how the brakes work and that your hands can reach and squeeze the levers comfortably and hard enough to stop the MOTORINO<sup>TM</sup> safely.
- 9. Make sure the chain is properly adjusted (see further detailed instructions).

- 10. Make sure all parts of the  $MOTORINO^{TM}$  are properly and securely fastened and adjusted, including but not limited to pedals, crank arms, wheels, all controls and cargo box (Please refer to Assembly Instructions)
- 11. Make sure the tires are not excessively worn, do not have tears or cuts, are properly seated on the rim and inflated to the proper pressure on the sidewall (45-50psi) (DO NOT USE GAS STATION PUMPS FOR INFLATION WITHOUT A PRESSURE GAUGE)
- 12. Make sure the wheels spin freely, are well aligned, and that the rims are not bent or damaged (the front wheel must be undamaged for the front brake to work properly)

  13. Do not turn the key until you are sected on the bike and have shocked that the
- 13. Do not turn the key until you are seated on the bike and have checked that the throttle is OFF. Since the motor is silent it is easy to forget the bike is active; this can be hazardous when pushing the bike with a hand on the throttle

## **AWARNING**

### **AFTER EACH RIDE:**

- 1. Make sure that the ignition key is turned OFF and that all keys are removed and kept in a safe place
- 2. Make sure to plug the battery into an outlet to charge it
- 3. Make sure the throttle is rotated to the off position
- 4. Ensure that the kickstand is on stable ground so the MOTORINO™ will not fall over and get damaged
- 5. Ensure the  $MOTORINO^{TM}$  is not kept outdoors or where moisture can damage it
- 6. Do not charge or store the MOTORINO<sup>™</sup> closer than 20 feet from any heat source (e.g. furnace, fireplace, water heater, space heater)
- 7. Do not allow children under 16 to play on or near the unattended <code>MOTORINO $^{ exttt{ iny}}$ </code>

**WARNING** FAILURE TO FOLLOW THESE OPERATION INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH OR COULD RESULT IN AN ELECTRICAL SHORT OR FIRE.

**WARNING** DO NOT MAKE ANY ALTERATIONS OR MODIFICATIONS TO THE MOTORINO™, OR ADD ANY PARTS NOT AUTHORIZED BY GREENWIT Ltd. EXCEPT THOSE DISCUSSED IN THIS MANUAL OR THOSE REQUIRED BY LAW. DO NOT REMOVE ANY REFLECTORS, LIGHTS OR OTHER STANDARD EQUIPMENT. DOING SO WILL VOID YOUR WARRANTY.

All authorized replacement parts are listed on the parts list enclosed or available at www.greenwit.com and www.motorino.ca or by calling your local **MOTORINO**<sup>TM</sup> dealer.

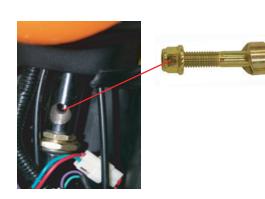
## ASSEMBLY INSTRUCTIONS

Your Motorino will come in one of three different states:

- a) 95% assembled you only need to install the mirrors and the cargo box
- b) 90% assembled you need to install (a) plus front wheel
- c) 85% assembled you need to install (b) plus the handle bar and some plastic elements All instructions for (a), (b) and (c) are described below with supporting pictures

#### HANDLE BAR

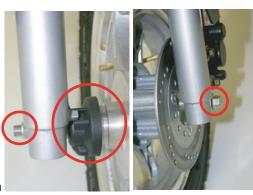
Insert the top part of the handlebar into the handlebar post as shown on the picture. Locate the attachment bolt with the nut and the spacer. Place the curved side of the spacer over the hole on the front of the bar, insert the bolt through the spacer and the bar, screw the nut in behind and tighten it. After attached, the handlebar should look as on the picture below.





## FRONT WHEEL ASSEMBLY

If the front wheel of your bike is assembled, proceed to the next section. Otherwise read below: Before installing the front wheel gently take apart disk break pads using a wide flat screwdriver so the wheel disk can squeeze between the pads. Push the black speedometer cap against the wheel and position it in the way that the axle bolt can go through it. Be sure that the two teeth



the speedometer cog properly mate with the wheel. Firmly tighten the nut at the opposite side.

## ASSEMBLY INSTRUCTIONS

### **MIRRORS**

Locate the mirrors included with your MOTORINO scooter. Insert the threaded part of the mirrors to designated holes on the handle bar and secure them with provided nuts. Turn the cone shape nut on top clock wise to secure the mirrors.

Make sure to adjust the mirrors before use.

Once mirrors are installed, they should look like the picture below.



## **PEDALS**

Locate Pedals (Set of 2). The pedals are labeled
L and R near the threads, the cranks are labeled
on their inside surface. The pedals have opposite
threading and are not interchangeable.
Screw the Left and Right pedals to their
cranks and tighten them with an adjustable
wrench. Align the hole in the crank with the
round pin in the pedal axle and connect the pedals.
To remove use a tool to depress the pin in the pedal axle
and briskly remove the pedal.

## STORAGE BOX

Locate the storage box and the hardware necessary to mount it on the back of the scooter. Use the two metal brackets to secure the box by placing them underneath the attachment rack and connecting them to the box with the supplied bolts. Tighten the bolts enough to achieve a secure grip on the rack.



## **BATTERY**

BEFORE OPERATING YOUR NEW **MOTORINO**<sup>TM</sup> , FOR THE FIRST TIME, CHARGE THE BATTERY FOR 8-12 HOURS.

- -The batteries will take about two weeks to become conditioned; slightly shorter ranges may be experienced before this.
- -Charge the batteries as often as possible; Be sure to charge the MOTORINO<sup>™</sup> after each use. Keeping the battery properly charged will extend the battery life.
- -Draining the battery completely is best avoided; they do not endure well when deep-cycled. This is counterintuitive for many people because of their experience with NiCAD and some Lithium batteries.
- -Sulphation occurs when the battery is left discharged or partially charged for a length of time. Insulating sulphur crystals accumulate on the Anode and will render the battery useless in a matter of days. This is why we stress regular and frequent charging.
- -Using a desulphator is a good preventative measure, but once sulphation reaches a certain point the cell is a loss. Best results are achieved when the desulphator is used right from the beginning.
- -Replacing the batteries is an inevitable cost of ownership. With frequent charging and limited drain 350-400 full charge cycles is common. Partially drained and promptly recharged battery is not considered a full cycle; maximum battery life is achieved by partial drains and prompt charging.
- -Installing a second battery is a good way to prevent deep-cycling, this will not only extend the range but prolong the life of both batteries as well.
- -If second battery is installed later, charge each battery separately before you connect them in parallel. Unless charged separately the second battery will take a long time to charge, and will not be properly conditioned.
- -If you need extra range we recommend to install a second battery in the first six months of use. This will prevent an unequal charge of the older battery.
- -Cold weather can shorten a batteries useful life and reduce its capacity. If you use your **MOTORINO**<sup>TM</sup> bike in colder climate avoid storing the battery under freezing temperature.
- -If you notice anything unusual about the battery such as a cracked or leaking battery case, a battery that gets hot while being used or charged, a battery case that appears "puffy" or bloated etc, or there are any other problems with the battery, please contact your local MOTORINO dealer.
- -Do not attempt to repair, remove, adjust or in any way alter any internal or electrical components, controls or wiring without first speaking with a customer service representative. Doing so will void your warranty.

## **BATTERY**

- 1. ▲ WARNING DO NOT CHARGE OR STORE THE MOTORINO<sup>™</sup> CLOSER THAN 20 FEET FROM ANY HEAT SOURCE (E.G. FURNACE, FIREPLACE, WATER HEATER, SPACE HEATER)
- 2. Be sure to only use 110V AC with the **MOTORINO**<sup>™</sup> charger.
- 3. PLUG the POWER INPUT CORD into the MOTORINO™ charging receptacle located below the front of the seat.
- 4. Plug the MOTORINO<sup>™</sup> 48V battery charger into a 110V AC power source.
- 5.The CHARGER INDICATOR LIGHT will illuminate confirming that power is connected to the charger. If the light does not come on check all connections. If it still does not come on after checking all connections, fuses and that your AC plug is working, unplug the charger and call your local MOTORINO<sup>TM</sup> dealer.
- 6. ▲ WARNING DO NOT KEEP THE MOTORINO<sup>™</sup> CONNECTED TO THE CHARGER FOR LONGER THAN 18 HOURS UNDER ANY CIRCUMSTANCES! DOING SO COULD CAUSE THE BATTERY OR CHARGER TO OVERHEAT AND CAUSE A FIRE.
- 7. When the light on the 48V charger is red, the **MOTORINO**<sup>™</sup> battery is being properly charged. When the **MOTORINO**<sup>™</sup> battery is fully charged, the light will turn green. If this does not occur after 16 hours of charging, unplug the charger and call your local **MOTORINO**<sup>™</sup> dealer. Normal recharge time for the main battery is 4-6 hours (assuming it is not 100% discharged).
- 8. Disconnect the charger from the 110V Power Source.
- 9. Disconnect the Input Cord from the Charging Receptacle.
- 10. ▲ WARNING NEVER LEAVE THE BATTERY CHARGER CONNECTED TO THE 110V POWER SOURCE OR THE MOTORINO™ WHEN NOT CHARGING THE BATTERY. KEEPING THE CHARGER PLUGGED INTO THE 110V POWER SOURCE AND NOT THE BATTERY COULD CAUSE THE CHARGER TO OVERHEAT AND OR CAUSE A FIRE.
- 11. When storing your **MOTORINO**<sup>™</sup> for lengthy periods of time, the battery should be charged at least once a month to avoid full depletion.

**A WARNING** FAILURE TO KEEP THE MOTORINO<sup>™</sup> BATTERY CHARGED WILL CAUSE TOTAL BATTERY FAILURE. DO NOT ALLOW BATTERY TO BECOME FULLY DISCHARGED!!! ALWAYS RECHARGE THE BATTERY BEFORE THE POWER INDICATOR ON THE INSTRUMENT PANEL SHOWS NO POWER.



## **BATTERY RECYCLING**

When maintained and used properly, (by following charging and storage guidelines), the Lead Acid Battery Pack used in this product has a normal lifespan of two to three years. When the battery pack no longer holds a charge or is unable to be charged properly, it should be removed from the bike and delivered to a recycling facility. Federal Lawsprohibit disposal of lead-acid batteries in everyday trash. Please contact your local solid waste or recycling authority for recycling information in your area.

## GENERAL USAGE NOTES

#### **BRAKE-IN PERIOD**

Your MOTORINO™ will last longer and work better once it is broken in properly. Brake control cables, chains and axle nuts may get loose when a new MOTORINO™ is first used and may require adjustment. We suggest that the brakes and axle nuts be checked every 30 days and adjusted if necessary. The scooter can be used without pedals, but pedaling the MOTORINO™ during acceleration will save battery life and will make it easier to balance. The MOTORINO™ can also be pedaled in situations where the battery power is too low due to a failure to charge or exceeding its maximum range. The rider can also rest his or her feet on the pedals while riding the MOTORINO™

Riding constantly at full throttle will reduce the scooter's range and battery life. A smart rider will accelerate gently, gradually turning the throttle until the vehicle is at speed. When riding downhill or approaching an intersection, release the throttle and let the vehicle coast to conserve power. Apply the brakes gently to draw stopping force from the regenerative brakes, and not the mechanical brakes. Since all Motorino XP scooters have tubeless tires, it is a good idea to purchase tubeless tire repair kit and apply the plug when they have a puncture. A 48/12V inverter can be used to power a small compressor via a cigarette lighter; with this a flat can be repaired and pumped on the spot, rather than pushing the bike to a station, which may damage the wheel.

**AWARNING** A CRASH OR OTHER IMPACT CAN PUT EXTRAORDINARY STRESS ON COMPONENTS, CAUSING THEM TO FATIGUE PREMATURELY. COMPONENTS SUFFERING FROM STRESS FATIGUE CAN FAIL SUDDENLY AND CATASTROPHICALLY, CAUSING LOSS OF CONTROL, SERIOUS INJURY OR DEATH.

First, check yourself for injuries, and take care of them as best you can. Seek medical help if necessary. Next, if your  $\mathbf{MOTORINO}^{\mathsf{TM}}$  is damaged, perform the checks described in this manual. If you are unable to fix any or all damage/problems, or if you find any bent, scored, or discolored parts, please call your local  $\mathbf{MOTORINO}^{\mathsf{TM}}$  dealer

IF YOU HAVE ANY DOUBT ABOUT THE CONDITION OF THE MOTORINO OR ANY OF ITS PARTS, DONT USE IT . CALL YOUR MOTORINO DEALER FOR INSPECTION

## **MAINTENANCE**

In order to minimize the chances of an accident and possible injury, it is critical that you have all repair and maintenance work performed regularly

For more detailed maintenance instructions or for ordering replacement parts please contact your dealer. Local bicycle retail stores, which have service facilities in your area can also assist you with certain non-electrical repairs or adjustments that you are not qualified to make, or for which you do not have the specific or specialized tools needed to repair.

The fact that these scooters have no combustion engine, no transmission, no belts, no chains, no clutch, no ignition plugs, no carburetor, and use no gasoline and no lubricants means it requires almost no maintenance. The unique design of the direct drive system and the use of regenerative brushless motor braking system limits all friction in the scooter to the two bearings of the front axle and the two bearings in the motor and make it much easier to maintain than other electric scooters. In general, the only regular maintenance is to:

- Adjust the brakes
- Check the axle nuts
- Check tire pressure
- Check the chain

#### **BRAKES MAINTENANCE**

If your **MOTORINO**<sup>™</sup> is equipped with hydraulic disk brakes you don'i need to adjust them - they are self adjustable. You only have to check and maintain the brake fluid level in the brake fluid tank.

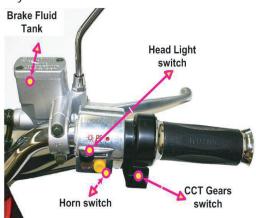
If your  $MOTORINO^{TM}$  has drum brakes they may need to be adjusted once in a while. Front and rear break cables may get stretched. Tighten the nuts at the threaded end of the cable to adjust them. If the breaking power decrease, check the break pads.

▲ WARNING Check both axle nuts regularly

and especially the rear one. Make sure to tighten the nuts firmly when you change a tube.



Rear Axle nuts - Check them regularly



## MAINTENANCE FLAT TIRE REPAIR

Your MOTORINO <sup>™</sup> may come with tubeless tires or tires with tubes. For tubeless tires we recommend you carry a tubeless tire repair kit and use it on any minor puncture. Consult with professional tire repair service shop to make sure your repair will hold. It is a good idea to carry a portable compressor and tubeless tire liquid sealer. That will help you to be back on road in a few minutes if you have flat without even removing the wheel.

**A WARNING** Don't ride or push your MOTORINO<sup>™</sup> with a flat tire. This will cause the tire beads to detach from the rim and possibly damage the rim.

 $\label{lem:interpolation} \textbf{IF THE TIRE IS CUT, or if the puncture is too large to be effectively plugged}$ 

A WARNING YOU MUST REPLACE THE TIRE TO PREVENT ANY SUDDEN AND CATASTROPHIC FAILURE CAUSING LOSS OF CONTROL, SERIOUS INJURY OR DEATH.

## If your MOTORINO ™ comes with tube tires, follow the next instructions:

- 1. Depress the tire valve to let all the air out of the tube, which will assist in removing the tube from the wheel
- 2. Remove the wheel from the  $MOTORINO^{TM}$  using a wrench. Loosen the nuts counterclockwise and make sure to remove the wheel retention clips on the rear wheel. Be sure to remember where all the spacers and washers belong. For rear tire removal you will also need to slip the chain off the rear sprocket to remove the wheel. The chain must be properly reinstalled and re-tentioned when reinstalling the rear wheel.
- 3. Remove one bead of the tire from the rim by grasping it at a point opposite the valve stem with both hands and, at the same time, lifting and peeling one side of the tire off the rim. If the bead is on too tight for you to unseat it with your hands use tire levers to lift the bead carefully over the tire rim. Tire levers can be purchased at any local bike shop. Push the valve stem through the wheel rim. Remove the inner tube.
- 4. Carefully check the outside and inside of the tire for the cause of the puncture and remove any debris or damaging material from the inside or outside of the tire.

PATCHING A TUBE IS AN EMERGENCY REPAIR. CARELESS PATCHING OR A WARNING EVERAL PATCHES CAN SERIOUSLY WEAKEN THE TUBE, RESULTING IN POSSIBLE TUBE FAILURE, WHICH COULD CAUSE YOU TO LOSE CONTROL AND FALL. REPLACE A PATCHED TUBE AS SOON AS POSSIBLE.

5. Reinstall the tire and tube. Slip one tire bead over the rim. Insert the tube valve through its hole in the rim. Feed the tube carefully into the cavity of the tire. Inflate the tube just enough to give it some shape. Starting at the valve stem and working around both sides of the rim to the side opposite the valve stem, use your thumbs to push and seat the other bead of the tire inside the rim.

IF YOU USE A SCREWDRIVER OR ANY TOOL OTHER THAN A TIRE LEVER, A WARNING ELY TO PUNCTURE THE TUBE.

6. Check to make sure that the tire is evenly seated around both sides of the rim and that the tube is inside the tire beads. Inflate the tube slowly to the recommended pressure on the tire sidewall, all the while checking to make sure that the tire beads stay seated in the rim.

## OPERATING INSTRUCTIONS



#### **KEY AND THROTTLE OPERATION**

ON/OFF/LOCK Switch: (ignition)

- MOTORINO <sup>™</sup> is ON. Turn it ON only when you are ready to go. Turn it OFF when you are not riding and remove key.
- 2. MOTORINO <sup>™</sup> is OFF. Turn it OFF when not in use to preserve the battery.
- 3. Push the key in on this position to lock the handlebar and turn it to position 4
- 4. Handlebar is locked. The key can be removed

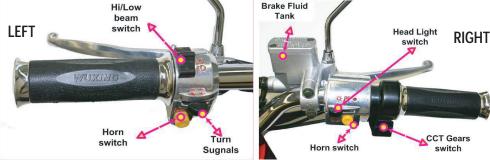
## **A** CAUTION

BEFORE OPERATING YOUR MOTORINO™ MAKE SURE THAT THE THROTTLE GRIP IS NOT ROTATED TO THE "ON" POSITION!!! MAKE ALSO SURE THAT YOUR THROTTLE IS NOT "STICKY" AND ROTATES FREELY BACK TO THE INITIAL POSITION

### THROTTLE CONTROL

The  $MOTORINO^{TM}$  uses a speed changing throttle grip. It is on the right side of the handlebar. Rotate the throttle grip toward the seat to accelerate and rotate forward away from the seat to slow down.

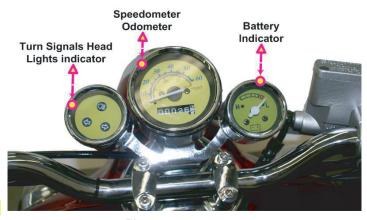
All MOTORINO XP models are equipped with a CCT electronic gear switch which allows you to select between high torque, high speed and economy mode depending on the road conditions or your preferences. High torque (middle position of the switch) is suitable for hills and flat terrain. We suggest you to avoid using high speed mode on hills to avoid draining your battery faster. Instead you can use high speed when approaching hills and then switch to high torque when the bike begins to slow. Once you are on flat pavement and your acceleration is constant the CCT automatically switches to economy mode. We suggest you use high torque mode most of the time, as the most practical MOTORINO CCT setting.



It is suggested after acceleration to turn back 1/4 turn the throttle. This will increase your range and increase your battery life.

## **OPERATING INSTRUCTIONS**

- 1. Position yourself behind the handlebar with your feet on both sides of your bike and turn the ignition key on. Do not turn it on when you are beside the bike.
- 2. Push the bike forward to release it from the main kick stand and then turn the Throttle gradually to accelerate. Do not turn the Throttle until you are in position to drive.
- 3. To prevent losing control of the vehicle, please turn the Throttle slowly until the speed increases. This will also protect your battery from stress, increase your range and prolong battery life.
- 4. To stop, release the throttle and apply the front and rear brake simultaneously. You can decelerate by slightly pressing the brakes to start regeneration mode. The noise and slight vibration caused by regeneration is normal.
- 6. When you change direction turn on the signal switch left or right and don't forget to press it to turn it off.
- 7. The Brushless motor makes a small electromagnetic noise when accelerating.
- 8. Always remove the key from the ignition when not using the bike.
- 9. We suggest you use the main kickstand rather than the side one.



**A** CAUTION

BEFORE OPERATING YOUR MOTORINO  $^{\text{IM}}$  make sure that the throttle grip is not rotated to the "on" position!!! make also sure that your throttle is not "sticky" and rotates freely back to the initial possition

The distance and speed depend upon the riding style and the road conditions. A constant speed and less stops will ensure longer range. Other factors include weather, vehicle condition, and battery charge. Drivers must be cautious when driving on rough roads, in poor weather, or when the battery charge is low. Always check the battery gauge while you are riding and be sure that it does not get too low too often.

## **OPERATING INSTRUCTIONS**

### MAIN COMPONENTS

The **MOTORINO** <sup>™</sup> scooters driving system consist of four main components:

- Battery
- Controller
- Throttle
- Motor

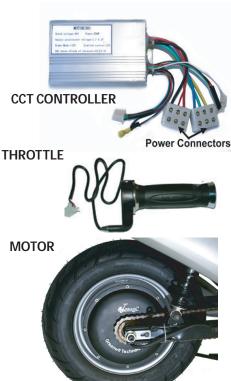
When the throttle is twisted a signal goes to the controller communicating the desired motor rpm. The controller then draws current from the battery to accelerate to and maintain the desired speed. Higher speeds and steep hill climbing demand more from the battery, and will reduce your range. A second battery can be connected to the extra battery cable to extend the range, and prolong the life of both batteries. The main breaker under the seat works as a high current protector.

48V DC to 12V DC inverter inverts the voltage to 12V. All light bulbs work on 12V.

The alarm works on 48V. It is vibration sensitive. No matter that it consumes very little amount of power, it is recommended when the **MOTORINO** ™ is stored for a long period of time the main breaker to be turned OFF.

## ALARM







## 48/12V DC/DC INVERTER



## **Troubleshooting**

Problem	Condition	Check	Solution
When I turn my vehicle on nothing happens.	No light indications on the display.	Check that the main breaker under the seat ison "ON" position.     Check power plug connection and battery level.	Flip the breaker lever to "ON"     Fasten connections
	2. Power indication light is on	3. Check battery and motor connection. Contact the supplier.	Clean and fasten battery terminal connectors     Fasten the motor connections with the controller under seat. Contact the supplier.
	3. Power indication light is on and the brake light is on	4. Check that the brake levers return to their normal position.	5. Loosen the brake. If there is any corrosion, replace. Contact the supplier.
		5. Battery voltage is below 42 volts.	6. Charge or replace battery. Inquire about desulphation
The Throttle does not function properly, the vehicle moves without acceleration.	The Throttle does not return to the OFF position.	1. Check the grip for Damage 2. Check the Throttle spring. 3. Check if the Throttle handle is loose	1.Use a flat head screwdriver to adjust the gap between the rubber handle and the cover.  2. Readjust the Throttle spring position. Ensure the spring is properly fastened to the throttle interior  3. Tighten the bolt on the underside with an Allen key
The range is low	Charger light is off	Bad connection     between the charger     and the battery.     Charger doesn't     charge	Check the charger plug for corrosion.     Check fuses inside the charger, Replace the charger or fuses.
	Battery doesn't hold a charge	Connections between the battery Batteries are lose     Bad battery cell	1.Check all connections between the batteries     2. Replace the bad battery cell
The brakes are not working properly	Brake levers feel too soft     No braking power	Needs adjustment     Brake pads are dirty     or need replacement     Show level Brake fluid	Adjust the brake cable – see instructions     Clean brake pads using sand paper or replace     Add Brake fluid

## WARRANTY INFO

## Warranty

To activate your warranty you should go to www.motorino.ca/warranty, or fill out the warranty form at the retailer you purchased your Greenwit product from.

Greenwit Ltd. warrants to the original retail purchaser ("you") that the Greenwit Motorino scooter for which this warranty has been issued is free from defects in materials and workmanship as follows:

Frame - 24 month warranty (excluding kick stands)

Electric Motor - 12 month warranty

Controller and electric circuits - 12 month warranty

Battery and charger - 6 month warranty

This warranty is not transferable to a subsequent purchaser. Greenwit's dealers sole obligation under this warranty is to repair or replace the product, at their option. Greenwit's dealer must be notified in writing of any claim under this warranty within 10 days of the discovery of any fault or defect. Immediately report any abnormal product behavior to Greenwit or a Greenwit dealer.

## Warranty Limitations

The duration of any implied warranty or condition, of merchantability for a particular purpose, or otherwise, on this product shall be limited to the duration of the warranty expressed above. In no event shall Greenwit or Greenwit dealers be liable for any loss, inconvenience or damage, whether direct, incidental, consequential or otherwise, resulting from a breach of any expressed or implied warranty condition, of merchantability for a particular purpose, or otherwise with respect to this product, except as set forth herein. This warranty gives you specific legal rights, in addition to other consumer rights bestowed by your province or state.

This warranty will be interpreted pursuant to the laws of Canada and USA. The original English language version of this warranty supersedes all translations and Greenwit is not responsible for any errors in translation of this warranty or any product literature. This warranty is not intended to confer any additional legal, jurisdictional or warranty rights to you other that those set forth herein or required by law. If any portion of this warranty is held to be invalid or unenforceable for any reason, such finding will not invalidate any other provision. For products purchased outisde Canada please contact Greenwit's authorized distributor in that country.

Under no circumstances is Greenwit liable for any consequences of the assembly, inspection or service work of their dealers.

## Warranty Service Options

To obtain service under this warranty you must call Greenwit or Greenwit dealer for Customer Service/Technical Support on your Product BEFORE returning your Greenwit product back to the place of purchase. If you return your Greenwit Product for warranty service you must obtain a return authorization number by contacting Greenwit dealer. Send your product (with the return authorization number on the outside of the shipping container and affixed to the product), together with the retail seller's original receipt or other satisfactory proof of the date of purchase to the dealer you have purchased it from

THE GREENWIT PRODUCT MUST BE RETURNED IN ITS ORIGINAL BOX, ALONG WITH ALL KEYS, CHARGER, MIRRORS & LOCKS, FLOOR MATS, AND ANY OTHER ACCESSORIES THAT CAME WITH YOUR UNIT. DUE TO TRANSPORTATION AND RECLAMATION ISSUES, IF THE GREENWIT PRODUCT IS NOT IN THE ORIGINAL PACKAGE IT MAY NOT BE RETURNED UNDER ANY CIRCUMSTANCES.

Any postage, insurance or other shipping costs incurred in sending your Greenwit product for service under either option above is your responsibility. Greenwit Ltd. will not be responsible for products lost or damaged in shipping.

Retailers and sellers of Greenwit products are not authorized to modify this warranty in any way. It is your responsibility to regularly examine the product to determine the need for normal service or replacement.

Warranty Exclusions are listed below:

- Products that have been modified, neglected or poorly maintained, used for commercial purposes, misused or abused or involved in accidents.
- Damage occurring during shipment of the products (such claims must be presented directly to the shipper).
- Damage to products resulting from improper assembly or repair, the use or installation of parts or accessories not compatible with the original intended use of the product, or the failure to follow the product warnings and usage instructions.
- Damage or deterioration to the surface finish, aesthetics or appearance of the product.
- The labor required to remove and/or re-fit and re-adjust the item covered by this warranty.
- Normal wear to the product including but not limited to light bulbs, tubes, tires, brake pads brake cables, kickstands
- Any products for which the consumer does not follow the warranty procedures outlined above.
- For the current version of this warranty please visit www.motorrino.ca

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#### 7 DAY RETURN/EXCHANGE POLICY

THIS WRITTEN POLICY SUPERCEDES ANY OTHER PREVIOUS POLICY, WRITTEN OR IMPLIED. THIS WARRANTY IS TO BE POSTED AT THE STORE LEVEL IN PLAIN SIGHT OF THE CONSUMER.

ALL GREENWIT PRODUCTS PURCHASED AT RETAIL STORES IN CANADA ARE COVERED UNDER THIS 7 DAY RETURN POLICY

ALL GREENWIT PRODUCTS ARE EXCHANGEABLE OR RETURNABLE FOR ANY REASON TO THE RETAIL POINT OF PURCHASE, IF ACCOMPANIED BY A STORE RECEIPT, FOR A PERIOD OF SEVEN (7) DAYS FROM THE DATE OF PURCHASE. TO BE ELIGIBLE FOR RETURN OR EXCHANGE, ALL GREENWIT PRODUCTS MUST BE IN NEW CONDITION, IN THE ORIGINAL BOX, OR IN ITS ORIGINAL STATE WHEN PURCHASED ALONG WITH ALL ACCESSORIES THAT INCLUDE, BUT IS NOT LIMITED TO, KEYS, MIRRORS, TOOL KITS, LOCKS, MANUALS, FUSES, CHARGERS, ETC. ALL PRODUCTS MUST HAVE THE KEYS REMOVED FROM THE KEY SLOT AND ATTACHED WITH A ZIP TIE TO THE HANDLE BARS, THE FUSE REMOVED, AND THE BATTERY DISCONNECTED EITHER BY THE QUICK DISCONNECT, OR BY REMOVING THE BATTERY LEADS AND COVERING THE TERMINALS WITH TAPE. IN COMPLIANCE WITH PROVINCIAL AND FEDERAL REGULATIONS.

GREENWIT OR THE RETAIL STORE MAY REFUSE ANY RETURN OR EXCHANGE IF THE PRODUCT IN QUESTION APPEARS TO HAVE BEEN NEGLECTED BY THE OWNER OR IF THE PRODUCT HAS BEEN DAMAGED OR IF THE CONSUMER FAILED TO COMPLY WITH THE WRITTEN INSTRUCTION MANUAL, THIS SEVEN DAY RETURN POLICY OR THE GREENWIT WARRANTY TERMS. RETAILERS AND SELLERS OF GREENWIT PRODUCTS ARE NOT AUTHORIZED TO MODIFY THIS RETURN/EXCHANGE POLICY OR WARRANTY IN ANY WAY.

THE CURRENT WARRANTY IS AVAILABLE ON THE INTERNET BY VISITING WWW.MOTORINO.CA

## **NOTES**

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