

MS02 MAX Mobility Scooter

Operating Manual

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0. FIRST OF ALL

Upon receiving your Mobility Scooter, the first step is to OPEN THE BATTERY DISCONNECT SWITCH.

- ◆ Fully remove the five fixed screws located under the seat (See Pic. 0.1).



Pic. 0.1

- ◆ Once the screws are removed, lift the bottom cover to access the electrical control unit (See Pic. 0.2).



Pic. 0.2

- ◆ The battery disconnect switch should be pointing to the right, indicating the "OFF" position (See Pic. 0.3).
- ◆ Need to turn the switch to the left "ON" position for the battery to begin supplying power(See Pic. 0.4).



Pic. 0.3



Pic. 0.4

- ◆ After that, replace the bottom cover and secure the five screws to prepare for normal use.

All mobility scooters are shipped with the battery turned off to protect it from natural discharge during transport, which can affect battery longevity.

If you plan to store your scooter for an extended period during winter without using it, you can also reopen the bottom cover and turn the switch to the right to the "OFF" position to protect the battery's performance.

I. INTRODUCTION

Read and follow all instructions, warnings, and notes in this manual before attempting to operate your power mobility scooter for the first time.

If there is any information in this manual that you do not understand, or if you require additional assistance for assembly or operation, please contact Ecomobi Service Team.

Whether you use your product safely depends on whether you follow instructions, cautions, and warnings in this manual. We are not liable for any damage and/or injury resulting from unsafe operation or failure to follow instructions, cautions, and warnings in this manual.

These symbols in this manual are used to identify warnings and important information. All of them are very important to your safety. It is strongly recommended that you read and understand them completely.



WARNING!

Failure to heed the warnings in the manual may result in personal injury.



ATTENTION!

Failure to heed the cautions in the manual may result in damage to the powered mobility scooter.

To ensure your safety, please be sure to read all the operating instructions in the manual and follow them strictly when you use the power mobility scooter for the first time.

These instructions are essential for your well-being. Comprehending the instructions is the basic protection for operating the mobility scooter safely.

Once you really comprehend how to operate and maintain the scooter, we believe this product will bring you the worry-free service and endless fun for years.

We will appreciate hearing your suggestions for this manual and the evaluation to the safety, reliability of this product and the dealers authorized of this company.

II. STRUCTURE AND PERFORMANCE

This mobility scooter mainly consists of four parts:
front body, rear body, seat unit and batteries (See Pic. 1).



Pic. 1

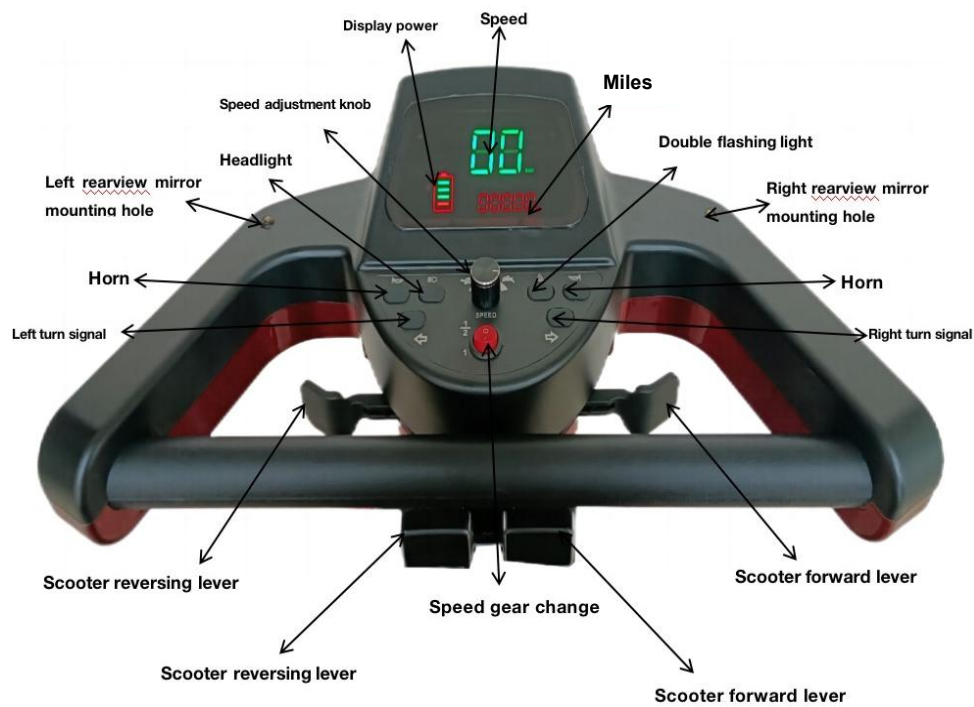
Front body consists of controller, handlebar, and footrest.

Rear body consists of drive motor, brake, and electric controller unit.

Seat consists of backrest, armrest, seat belt, and cushion.

A. TILLER CONTROL

(See Pic. 2)



Pic. 1.2

a. Key switch

Controls power of the entire mobility scooter.



Pic. 2

b. Speed dial

Adjusts the maximum speed of the mobility scooter.

Turn it clockwise to increase the speed.

Rotate counterclockwise to decrease the speed.

c. Power indicator

Turn on the power switch, the meter will show the battery's power level, the green part indicates that the power is strong, the yellow part indicates that the power is weak, and the red part indicates that the power is very low. The battery must be charged in time.

d. Front light button

Press this button to turn on the light, then press this button again to turn off the light.

e. Horn button

Press this button, the horn sounds.

f. Left control lever

Pull the lever backward with your left hand, the mobility scooter moves backwards. The bigger the angle is, the faster the speed is. Slowly release the lever, and the mobility scooter will slow down. When it is fully released and the lever is reset, the mobility scooter will stop and be in braking state.

g. Right control lever

Pull the lever backward with your right hand to move the mobility scooter forward. The bigger the angle is, the faster the speed will be.

Slowly release the lever, and the mobility scooter will slow down. When it is fully released and the lever is reset, the mobility scooter will stop and be in braking state.

B. The other Function:



Pic. 3

The yellow lever is the Manual brake lever (See Pic. 3).

Move the position of the yellow lever, the brake can be controlled to switch between “electric driving” and “hand pushing” .

a. Electric driving

When the brake lever is moved backward to the “closed” position, the mobility scooter is in a braking state and cannot be pushed. At this position, turn on the power, so the mobility scooter can run normally.

b. Push by hand

When the brake lever is moved forward to the "open" position, the mobility scooter is in a brake release state and can be pushed.

(This function can be achieved by pulling the handle whether the power is on or off, but in this position, the mobility scooter cannot be drove.)

It is absolutely forbidden to push the brake lever forward to the “open” position (push by hand) when going downhill, because there is no brake effect at this time to ensure the safety of the user and the electric mobility scooter.

Table 1

SPECIFICATIONS

Overall size (LxWxH)	54.72"×25.79"×51.18" (1390×655×1300 mm)
Battery	48V 40AH
Scooterweight (G.W/N.W)	220 lbs / 198 lbs (99.79 kg / 89.81 kg)
Maximum speed	0-15 Mph (0-24 km/h) Note: The maximum speed may be affected by the user's weight.
Brake	Electromagnetic brake system
Weight capacity	Max 500 Lbs (226.8 kg)
Ground Clearance	4.33" (110 mm)
Front Tyres	Φ 12.01" × 3.74" (305*95 mm)
Rear Tyres	Φ 13.78" × 3.94 (350*100 mm)
Power of motor	48V 1000W
Controller	48V 120A
Charger	DC28.8V 4A
Max Grade Ability	20°
Running distance	32 Miles (51.5 km) The maximum range may be affected by the user's weight and driving habits.

III. EMC DECLARATION

EMC Declaration

Report No.: XMT0201909872L.

This mobility scooter complies with the Regulations EN 61000-6-1 / EN 61000-6-1 /EN 61000-6-1, the test result is pass.

Product Name: Mobility Scooter

IV. ASSEMBLY

For convenience of transportation and reduction of possible damage, the batteries and seat unit are separately packaged. So you need to assemble them onto the main frame of your mobility scooter.

A. OPENING THE PACKING BOX

Open the packing box of your new mobility scooter, and take off all protective liners, and then take out the mobility scooter that has been folded from the box.

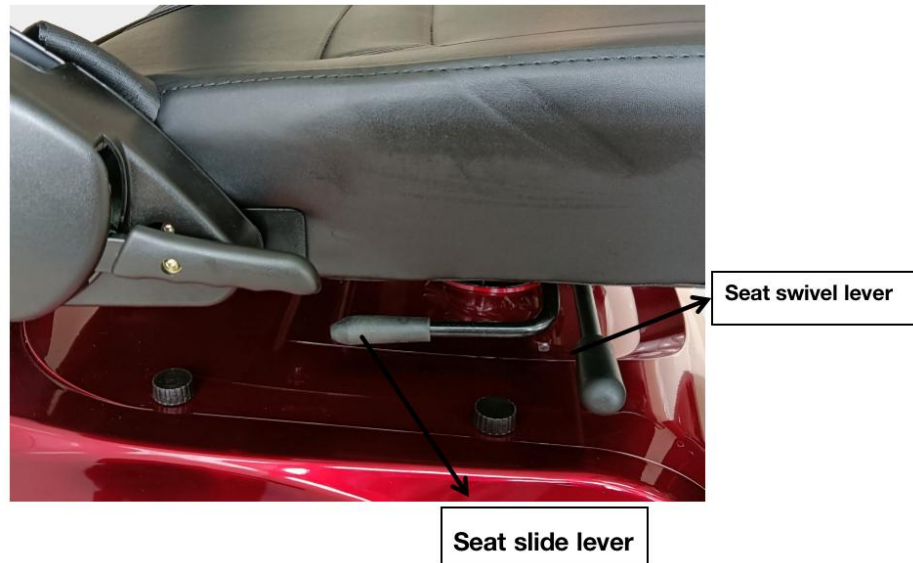
B. SEAT ADJUSTMENT AND USE

a. 360-degree rotation adjustment of the seat

The driver can rotate the seat by pulling the rotating lever under the seat.

b. Seat position adjustment

The driver can press and hold the sliding lever on the seat upward to slide the seat forward and back to a comfortable position. (Pic. 4)



Pic. 4

c. Seat armrest height adjustment

After lifting the armrest, rotate the adjuster under the armrest to adjust the height of the armrest accordingly (See Pic. 5).

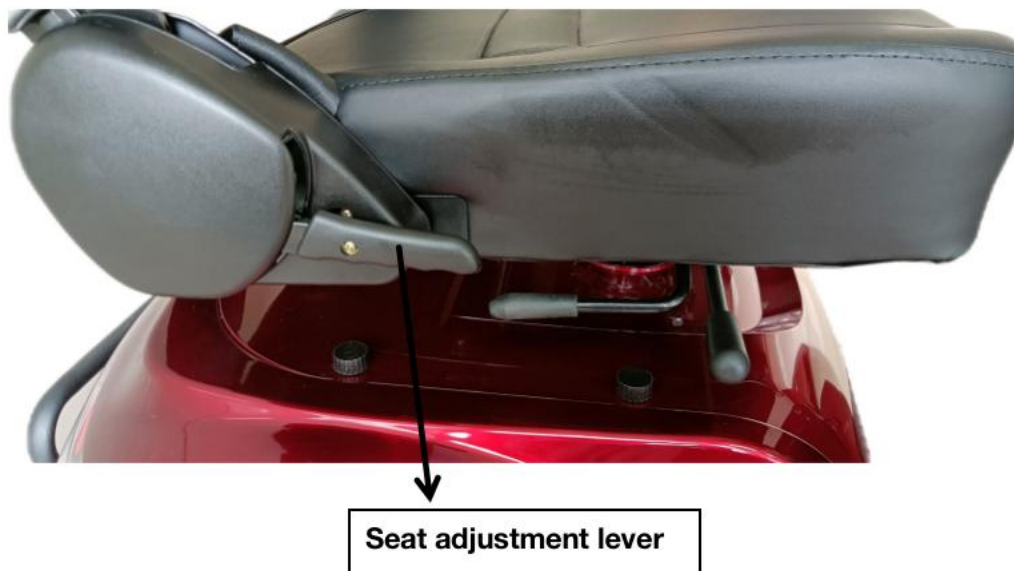


Pic. 5

d. Adjustment of the seat backrest

The driver sits on the seat and pulls up the adjustment lever with one hand to adjust the angle of the seat backrest to a suitable position.

When no one is sitting on the seat, when pulling the adjustment lever to adjust the seat backrest, you must use your other hand to press the seat back firmly to avoid accidental injury due to seat rebound (See Pic. 6).



Pic. 6

C. BATTERY ASSEMBLY

Put the batteries into the battery tray. Note that the electrode terminals on the batteries should be aligned with those on the rear body. Then, the battery platen on the rear body is turned by 90° to secure the battery box, and then firmly tighten the knob on the platen.



NOTICE!

- 1. Check and clean the electrodes and remove any foreign bodies on them that may cause poor electrical contact.**
- 2. Incorrect placement of the batteries may cause the mobility scooter to be unusable.**

D. SEAT ASSEMBLY

- a. Put the seat onto the seat post.
- b.** Unlock the seat lock lever, adjust the seat toward the front, and the lock level will automatically lock the seat.
- c. Assemble the left/right armrests respectively into the square tubes below the seat.
- d.** Adjust the seat width between the armrests to suit you, and tighten the knob.

E. BASKET ASSEMBLY

- a.** Remove the two screws in the tiller. Assemble the basket holder onto the tiller.
- b.** Assemble the basket into the holder.



NOTICE!

The basket is an optional accessory, and customers who need it should make an additional order.

V. COMFORT ADJUSTMENTS



WARNING!

Pull out the power key before adjustment, never do it when driving.

A. SEAT HEIGHT

- ◆ Pull up the seating fixing bar to release the seat.
- ◆ Pull up the seat.
- ◆ Remove the latch by pulling the latch-ring outward (See Pic. 5).
- ◆ Adjusting the seat height.
- ◆ Reload the latch.
- ◆ Reset the seat.

B. SEAT ROTATION

- ◆ Pull up the seat lock lever to release the seat.

- ◆ Rotate the seat to your desired direction.
- ◆ Release the seat lock lever, then it will lock the seat automatically.

C. ARMREST WIDTH

- ◆ Find the fixing screws on the armrest adjusting frame.
- ◆ Release the screws.
- ◆ Move the armrests outward or inward according to your desired width.
- ◆ Refasten the screws.

D. TILT ANGLE ADJUSTMENT

- ◆ Loosen the lock knob on the lower end of the tiller.
Adjust the tiller back and forth according to your desired angle.
- ◆ Fasten the knob.

VI. OPERATION

A. How to drive this mobility scooter

- a.** Get on the mobility scooter, pull out the electric lock key, and turn on the power.
- b.** Hold the handle with both hands and slowly pull the lever backward with your right hand to move forward.

- c. Adjust the speed adjustment knob according to the road conditions, surrounding conditions and personal preferences.
- d. When you want to stop, you only need to release the lever with your right hand to return it to the neutral position, so you can stop smoothly.
- e. When retreating, pay attention to the surrounding conditions. Pull the lever slowly backward with your left hand. When the left lever is released, the mobility scooter can be stopped smoothly.

B. CHARGING BATTERIES

The battery charger is important to the batteries. This off-board charger can charge your mobility scooter's batteries safely, quickly and easily.

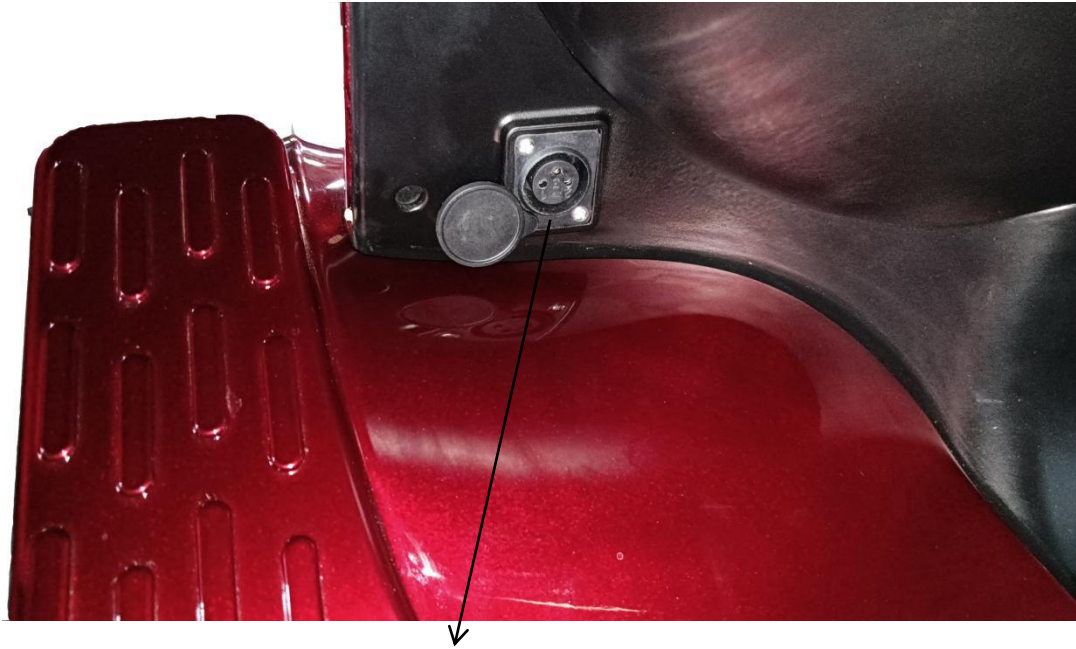


WARNING!

Your scooter's batteries must be charged with the off-board battery charger supplied by Ecomobi. Do not use any automotive-type battery charger.

a. Charging Batteries with the Off-board Charger

- ◆ You can charge your mobility scooter in its entirety.
- ◆ Position your mobility scooter near a standard wall outlet.
- ◆ Lift the cover on the battery box.
- ◆ Ensure the mobility scooter is powered off.
- ◆ Plug the output connector the off-board charger into the 3-pin charger socket of the mobility scooter.
- ◆ The red light on the charger turns on, indicating that charging is in progress.
- ◆ When charging is nearly finished, the green light turns on. You should continue to charge the batteries for one or two hours.
- ◆ It is recommended that your batteries are charged for 10 to 12 hours.
- ◆ When the batteries are fully charged, unplug the input connector of the charger from the wall outlet and then its output connector from the 3-pin charger socket of the mobility scooter.
- ◆ The batteries can also be charged off the scooter.



***Please turn off the power before charging.**

C. New Battery's Usage

To break in new batteries for maximum efficiency, please follow the notes below:

a. Fully charge any new battery prior to its initial use.

This brings the battery up to about 90% of its peak performance level.

b. Operate your scooter throughout the house and yard. Move slowly at first, and do not stray too far until you can skillfully drive your mobility scooter and know how to control the driving distance using the battery condition indicator.

c. Give the batteries another full charge of 10 to 12 hours and operate your mobility scooter again.

The batteries will now perform at over 90% of their potential.

d. After four or five charging cycles, the batteries will top off at 100% charge and last for an extended period.

D. TILLER CONSOLE

The tiller console houses all of the controls required for driving your mobility scooter, including the key switch, the speed adjustment knob, throttle control lever, battery condition indicator, horn button, and headlight button. With all of the controls on the console you can control various motions of your mobility scooter.

a. Key Switch (See Pic.2)

- ◆ Plug the key into the key switch.
- ◆ The light on the battery indicator illuminates.
- ◆ The light is off when the key is pulled out.



WARNING!

Do not use the key switch to stop your mobility scooter unless an urgent event has occurred.



WARNING!

If your mobility scooter has stopped for a long period, power it down to prevent unintended motion.

b. Throttle Control Lever (See Pic. 2)

This lever, which is located on the left side of the tiller console, allows you to control the forward or reverse speeds of your mobility scooter up to the maximum speed you preset with the speed adjustment knob.

- ◆ Push the throttle control lever forward to disengage the brakes and make the mobility scooter start moving backward. Conversely, the mobility scooter starts moving forward if pulling the lever backward.
- ◆ The larger the angle the lever is pushed, the faster the speed of your mobility scooter.
- ◆ When you release the lever completely, it automatically returns to the primary position, i.e., the stop position, and engages your mobility scooter's brakes to slow the mobility scooter until it comes to complete stop.



WARNING!

If your scooter occurs unintended motion, please release the throttle control lever immediately.

The mobility scooter will automatically come to a stop unless this lever is out of order.

c. Speed Adjustment Knob (See Pic. 2)

- ◆ This knob allows you to preset and limit your mobility scooter' s top speed.
- ◆ Max. turning radius is 1.4m.



CAUTION!

Before you master the operation, please preset this speed adjustment knob to the lowest position.

d. Battery Condition Indicator (See Pic. 2)

- ◆ When your mobility scooter is powered up, this indicator shows the remaining capacity of the batteries by 3 color ranges on it : red, yellow and green.
- ◆ When pointing to green, it indicates that the batteries

are fully charged.

- ◆ When pointing to yellow, it indicates that the batteries remain half capacity, and they need to be recharged.
- ◆ When pointing to red, it indicates that the batteries are fully discharged, and they need to be recharged immediately.

e. OFF-BOARD CHARGER (See Pic. 3)

- ◆ Open the “hasp” on the battery box; you can find a 3-pin charger socket.
- ◆ Through it, you can use the off-board charger to charge your scooter’ s batteries. See “Charging Batteries” in this section.

f. Overload Protector (See Pic. 3)

- ◆ The overload protector is a safety device.
- ◆ When the overload occurs, this protector automatically trips to protect the motor and other electrical devices.
- ◆ When the protector trips, your scooter will be powered down immediately.
- ◆ And then you should wait at least one minute before you can press the button on the protector, which is under the cover at rear body of scooter, to resume it.
- ◆ After that, you can power up again and drive normally.

g. MANUAL FREE-WHEEL LEVER

There is a free-wheel lever at the bottom right of the seat. Whenever you do not want to move your scooter using the motor, you can put it in free-wheel mode.

- ◆ Push forward on the manual free-wheel lever to disengage the drive motor and switch to free-wheel mode.
- ◆ Pull backward on the manual free-wheel lever to engage the drive motor and switch to drive mode.



CAUTION!

- 1. When your scooter is in free-wheel mode, the brake system is disabled, and the functions of the throttle control lever are inhibited by the control system. Meanwhile, the horn sounds while the power is on.**
- 2. Never use your scooter in free-wheel mode without your attachment. Failure to do so may cause personal injury.**
- 3. Never put your scooter in free-wheel mode on any incline. Failure to do so may cause personal injury.**



WARNING!

When the scooter is in drive mode, the manual free-wheel lever must be in backward position, i.e. in drive mode, to ensure the brake system works normally.

Do not push the lever to the forward position while in motion. Failure to do so may cause personal injury or damage to your scooter.

h. PIN CHARGER SOCKET (See Pic. 3)

This socket is used to connect to the charger. When the batteries are charged, this socket disables your scooter.



WARNING!

A wrong connection may cause damage to the charger.

VII. MAINTENANCE

GENERAL GUIDELINES

- ◆ Avoid knocking or bumping the tiller console and controls.
- ◆ Avoid prolonged exposure of your scooter to extreme conditions, such as overheating, cold or moisture.
- ◆ Keep the tiller console clean.
- ◆ Check all connectors to ensure that they are tight and secured properly.
- ◆ Check all electrical connectors including the charger's connectors. Make sure they are all tight and not corroded. Batteries must sit flat in the battery tray with the battery terminals facing backward and forward each other and with 3-pin charger socket facing backward.
- ◆ When you have finished everyday usage, please pull out the key to reduce unnecessary power consumption.
- ◆ This product has the power-saving facility; when you stop using it up to 20 minutes, the power will shut off automatically. When need to drive again, please re-insert the key.
- ◆ The body shroud has been sprayed with a clear sealant coating, and you can apply a light coat of car wax to

help it retain its high-gloss appearance.

- ◆ All wheel bearings are pre-lubricated and sealed; they require no subsequent lubrication.

For keeping your scooter in better condition, it should be checked before use. It is suggested that your scooter should be checked once per week and every six months as shown in "Table 2" .

Table 2

CHECK LIST

Check Items	At any time	Weekly	Monthly	Six monthly
All parts			●	
Turning, Driving, Devices etc.		●		
Brakes	●			
Connections		●		
Battery Charge	●			

Tire wear			●	
Motors				●
Console devices		●		
Clean	●			

VIII. CLEAN

- ◆ Controller: Wipe the controller surface with a dry and soft cloth.
- ◆ Motor: Clean the dirt from the surface of the motor, especially the dirt on the lead line of the motor. Do not allow water to enter. If the water exceeds 5cm, the motor will enter water, it may damage the motor permanently.
- ◆ Body: The body shroud has been sprayed with a clear sealant coating, and you can apply a light coat of car

wax to help it retain its high-gloss appearance.

IX. SAFETY

A. PRE-RIDE SAFETY CHECK

- ◆ Check all electrical connections. Make sure they are tight and not corroded.
- ◆ Check all connections to the battery box. Make sure they are secured properly.
- ◆ Check the brakes. Make sure they are sensitive and reliable.
- ◆ Check the battery charge (See V: Operation).

B. WEIGHT LIMITATIONS

Your scooter is rated for a 500Lbs maximum weight limit.



WARNING!

Exceeding the weight limit voids your warranty and may result in personal injury and damage to your scooter.

C. INCLINE INFORMATION



WARNING!

When climbing an incline, do not zigzag or drive at an angle up the face of the incline. Drive your scooter straight up the incline.

This greatly reduces the possibility of a tip or a fall. Always exercise extreme caution when negotiating an incline.



WARNING!

Don't drive up or down a potentially hazardous incline (areas covered with snow, ice, cut grass, or wet leaves, etc.).



WARNING!

Never drive down an incline backward. This could cause personal injury.

The maximum safe slope of an incline is 20 ° for your scooter. If a slope is less than this angle, it is safe for your

scooter whenever climbing or descending.



WARNING!

Any attempt to climb or descent a slope steeper than 20° may make your scooter unstable and cause it to tip, resulting in personal injury and/or damage to your scooter.

D. OUTDOOR DRIVING SURFACES

Your scooter is designed to provide optimum stability under normal driving conditions-dry, level surfaces composed of concrete, blacktop, asphalt, or hard dirt. But you should avoid driving on the following surfaces:

- ◆ Surface that you feel unsure about or soft pavement.
- ◆ Tall grass that can become tangled in the running gear.
- ◆ Loosely packed gravel and sand beaches.
- ◆ The max height of a curb is 3.15 inches (8 cm).

E. MANUAL FREEWHEEL MODE

Your scooter is equipped with a manual freewheel lever

that allows it to be manually pushed by your attendant.
For more information, see Section V: Operation.



WARNING!

Do not use your scooter in manual freewheel mode without an attendant present. Failure to do so may cause personal injury.



WARNING!

Do not place your scooter in manual freewheel mode while seated on it. Personal injury may result. Ask an attendant for assistance if necessary.



WARNING!

Do not place your scooter in manual freewheel mode while on an incline. The scooter could roll uncontrollably down the incline on its own, causing personal injury.

F. ELECTROMAGNETIC INTERFERENCE

Electrical devices may be affected by Electromagnetic

Interference (EMI) or Radio Frequency Interference (RFI) produced by radio waves from radio stations, TV stations and other radio transmitters.

Like any electrical device, your scooter may be affected by EMI/RFI. Especially, when your scooter is driven within the interference range of these radio transmitters. In this case, your scooter may be out of order due to their interference.

G. TRANSFER ONTO OR OFF SCOOTER

To avoid injury, the following safety precautions are useful for you while you attempt to transfer on or off your scooter.

- ◆ Remove the key from the key switch, see Section V: OPERATION.
- ◆ Ensure your scooter is not in manual freewheel mode.
Flip up or move away the armrests.
- ◆ Reduce the distance between you and your scooter or the object you are transferring onto.
- ◆ Turn the front wheels forward to improve your scooter's stability during the transfer.



WARNING!

If unintended motion occurs due to EMI/RFI. Please immediately turn your scooter off and contact your authorized Ecomobi provider. Ecomobi Corporation is not liable for any damage and/or injuries due to failure.

8. Inclement Weather Precautions



WARNING!

Do not operate your scooter on slippery roads with ice or snow. Failure to do so may cause injury and affect the performance of your scooter.



WARNING!

Do not expose your scooter to any type of moisture at any time (rain, snow, mist or wash). Such exposure will damage your scooter. Never operate your scooter if it has been exposed to moisture until dried thoroughly.



WARNING!

Before transferring, position yourself as far back as possible in the scooter seat to prevent the scooter from tipping and causing injury.



WARNING!

Avoid putting all of your weight on the armrests. Failure to do so may cause your scooter to tip, resulting in injury.



WARNING!

Avoid putting all of your weight on the footplate. Such use may cause your scooter to tip, resulting in injury.

X. WARRANTY

All design and production processes of Ecomobi products are managed in accordance with ISO 9001 to guarantee their quality. Warranty service will be performed by the authorized Ecomobi provider in cooperation with the Ecomobi after-service department.

A. WARRANTY INCLUDING

- a. One-year warranty on the front and rear main frames from the date of purchase.
- b. One-year warranty on the following parts from the date of purchase:
 - ◆ Electric control system and the controller.
 - ◆ Motor/gearbox assembly.
 - ◆ Charger.
- c. Six-months limited warranty on batteries from the date of purchase.

B. OUT OF THE WARRANTY

- ◆ ABS Shroud worn out.
- ◆ Tires.
- ◆ Upholstery and seat.
- ◆ Damage caused due to abuse, misuse, operation, accident, and negligence.
- ◆ Damage caused due to improper operation, maintenance and storage.
- ◆ Business or other non-normal use.

XI. PARTS ORDER INFORMATION

If you need change the spare parts of scooter, please contact Ecomobi Service Team via Amazon or ecomobi brand website: ***ecomobiclub.com***.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.