

AirLite X



USER MANUAL

PRODUCT CODE
MS01051

CareCo (UK) Ltd, Hubert Road, Brentwood, Essex, CM14 4JE

CONTENTS

1. INTRODUCTION	1
2.1 SAFETY PRECAUTIONS	2
2.2 BEFORE DRIVING	3
2.3 WHILE DRIVING	3
2.4 LABELLING	5
3 EMI	6
4. PARTS DESCRIPTION	8
5. HOW TO OPERATE YOUR SCOOTER	9
6. ASSEMBLY & DISASSEMBLY	10
7. BATTERY	15
8. INSPECTION AND MAINTENANCE	17
9. SPECIFICATIONS	21
10. WARRANTY	22

1. INTRODUCTION

Congratulations on the purchase of your new Airlite X Mobility Scooter! The advanced light-weight design of the scooter with its superb leg room and streamlined design ensures many years of enhanced trouble-free mobility. Correct use improves your mobility and quality of life.

Please read this owner's manual before using the scooter. Improper use of the scooter could result in harm, injury or traffic accidents.

This owner's manual includes operation instructions for every aspect of the scooter.

The symbols used in this manual are explained below. Read carefully, especially the parts marked with these symbols:



Suggestion:

Follow these instructions to keep the status of the scooter working well and ease your operation.



Warning:

Improper usage could lead to death or serious injury / or damage to your scooter.

Please read and follow all instructions in this manual before operating your scooter. Complete understanding of these operating instructions, prior to driving your scooter, is essential for your safety and enjoyment.

No liability can be taken by us for personal injury or damage to property arising from the failure of any person and/or user of this scooter to follow the instructions and recommendations either contained in this manual, in other scooter-related literature issued by the manufacturer; or displayed on the scooter itself.

This Owner's Manual was compiled from the latest specifications and product information pertaining at the time of publication. We reserve the right to make such changes as become necessary. Changes to our products may cause slight variances between illustrations and explanations shown in this manual, to the product purchased by you.

If you feel incapable of safely following the instructions and or recommendations contained in this manual, or experience any problems with your scooter which you are unable to resolve, please contact your authorized dealer for assistance.

2.1 SAFETY PRECAUTIONS

- » Lock your seat into place and remove the key before you get on or off your scooter.
- » Lock the seat into position before you operate your scooter.
- » Do not operate your scooter with the seat in the reclined position (if so equipped).
- » Do not operate your scooter if you are taking medication which may impair your ability to operate your scooter in a safe manner.
- » Do not drive your scooter across the side of an incline or diagonally up or down an incline; avoid stopping whilst driving on inclines.
- » Keep both hands on the tiller and your feet on the floorboard at all times while operating your scooter. This driving position gives you the most control over your vehicle.
- » Proceed with extreme caution when driving near raised surfaces or unprotected ledges or drop-offs (kerbs, porches, stairs, etc.)
- » Drive slowly when turning.
- » Secure the batteries before loading your scooter into another vehicle for transport.
- » Disconnect the batteries if you are not going to operate your scooter for more than 48 hours.
- » Do not operate or store your scooter where it may be exposed to inclement weather conditions such as rain, snow, mist, and below-freezing temperatures. Attempting to operate your Scooter in such conditions may damage the electronics and potentially result in loss of control.
- » Always protect batteries from freezing temperatures and never charge a frozen battery. This damages the battery and may cause personal injury. Attempting to charge a battery in freezing conditions does not prevent a battery from freezing.
- » Do not expose the electronics to any type of moisture at any time. Such exposure may damage the electronics. Never attempt to ride a scooter that has been exposed to moisture until it has dried thoroughly.
- » Never sit on your scooter when it is being used with any type of lift/elevation product. Your scooter was not designed with such use in mind, and any damage or injury incurred from such use is not the responsibility of the manufacturer.

2.2 BEFORE DRIVING

1. Ride on the pavement, park way or pedestrian areas only.
2. Be aware of the cars on the road at all times.
3. Be extremely cautious when driving your scooter in crowded areas, such as shopping centres or near busy roads.
4. Do not drive your scooter after drinking alcohol or feeling tired.

Practice operating your scooter

Until you are familiar with the operation of your scooter, please practice in a wide and open area like a park. To prevent the possibility of falling off your scooter while driving, bear in mind the status of the driving motion, such as accelerating, stopping, turning, reversing, up-and-down ramps etc.

- » Please set the speed dial to the lowest speed initially until competent.

The scooter is limited to one passenger

Do not carry any passengers on your scooter. (Including children and pets)

Do not use this scooter to carry or transport goods

The maximum weight to be carried is (includes goods) 250 lbs.

Maximum loading weight for the basket is 6 lbs.

2.3 WHILE DRIVING

Please carry out daily inspections. Refer to Section 8.

Mobile Phones and other electrical equipment.

Do not use a mobile phone or other wireless communication device while driving.

Do not charge a mobile phone or other electrical devices from your scooter.



2.3 WHILE DRIVING

Ramps, incline and drops

Be careful while driving up a steep ramp. Refer to section 9 "MAX CLIMBING ANGLE" in the SPECIFICATION table.

When climbing up an inclined road please drive slowly. When going down a steep incline never reverse your scooter, you should set the speed dial to the lowest speed setting. Avoid potholes in the pavement. Refer to section 9 "GROUND CLEARANCE".

Do not pass through water crossing the pavement, unless the water is less than 1" deep. Please drive slowly when driving on roads with drops or dips. Do not make sudden turns while driving on gravel roads or ramps.



Suggestion

When approaching Drop-Offs, such as kerbs, please make sure that the speed control is set a minimum and that the scooter is driven carefully and slowly to ensure no damage is done to the anti-tip wheels at the rear of the scooter.



Warning

Do not set the scooter in free-wheel mode when driving on an incline or decline.

Maximum User Weight Limit

Refer to section 9 "WEIGHT CAPACITY". Overloading your scooter will invalidate your warranty and could cause your scooter to malfunction.

2.4 LABELLING

Please read all the labelling on the scooter before driving it. For your future reference, do not remove them.

 **Warning**

Do not operate the scooter unless the tiller (handlebar column) is up, the teeth in the tiller adjustment bolt fit together and the bolt is fully tightened.

Do not lean against or pull forward on the handle bar while mounting or dismounting from the scooter. Serious harm or injury may occur.

The manufacturer disclaims all responsibilities for any personal injury or property damage which may occur as a result of importer unsafe use of its products.

This portion of the content will provide the user with basic information about the problems with EMI (electromagnetic interference), protective measures can be used to either lessen the possibility of exposure or to minimize the degree of exposure; this section also shows some conditions that unexpected or erratic movements may cause.

 **Warning**

It is very important that you read this information regarding the possible effects of electromagnetic interference on your Scooter.

Electromagnetic Interference (Emi) From Radio Wave Sources

Powered scooters may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and mobile phones. The interference (from radio wave sources) can cause the powered scooter to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered scooter's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered scooter can resist EMI up to a certain intensity level". The higher the immunity level the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. This powered scooter model as shipped, with no further modification, has an immunity level of 20 V/m without any accessories.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warning listed below, your risk to EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

1. Hand-held portable transceivers (transmitter-receivers with the antenna mounted directly on the transmitting unit). Examples include: citizens band (CB) or hand held radios,(security, fire, and police transceivers), mobile telephones and other personal communication devices.
2. Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances and taxis usually have the antenna mounted on the outside of the scooter.
3. Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

NOTE: some mobile telephones transmit a signal while they are ON, even though they are not being used.

NOTE: Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD player, and cassette players, and small appliances, such as electric shavers and hair dryers, are not likely to cause EMI problems to your powered scooter.

Powered Scooter Electromagnetic Interference (Emi)

EM energy rapidly becomes more intense as one moves closer to a transmitting antenna (source). The EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered scooter's control system while using these devices; this can affect your scooter's movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of a powered scooter.

Warning

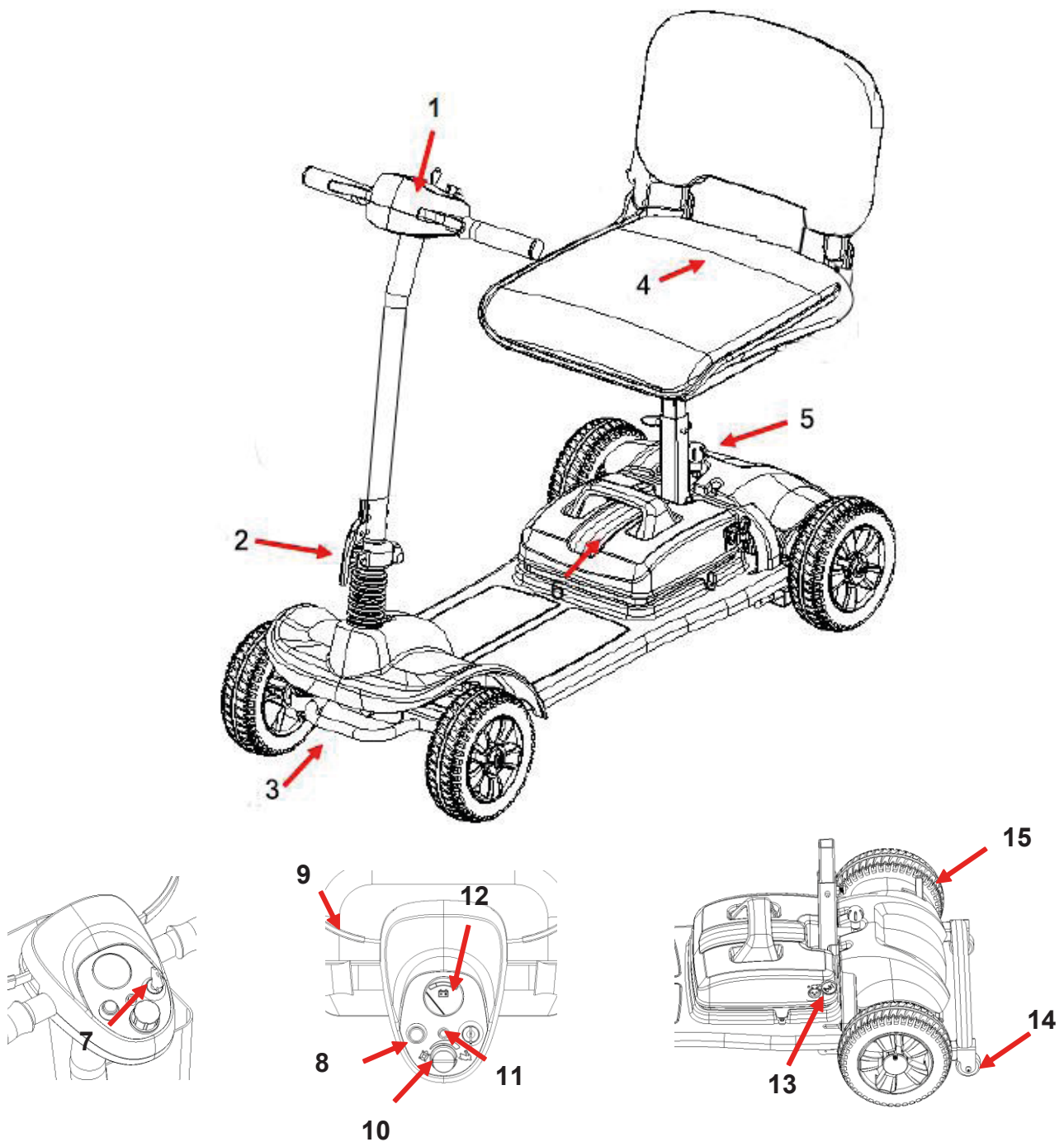
Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and mobile phones can affect motorized scooters. Following the warnings listed below should reduce the chance of unintended brake release or powered scooter movement which could result in serious injuries.

1. Do not operate hand-held transceivers-receivers, such as citizens band (CB) radios, or turn ON personal communication devices, such as mobile phones, while the powered scooter is turned ON.
2. Be aware of nearby transmitters, such as radio or TV stations, and try to avoid getting close to them.
3. If unintended movement or brake release occurs, turn the powered scooter
OFF as soon as it is safe.
4. OFF as soon as it is safe.
5. Be aware that adding accessories or components, or modifying the powered scooter, may make it more susceptible to EMI.
6. Report all incidents of unintended movement or brake release to your scooter dealer, and note whether there were sources of EMI nearby.

Important Information

20 Volts per meter (V/m) is generally a useful immunity level against EMI (the higher the level, the greater the protection). This product has an immunity level of 20 V/m without any accessories connected to it.

4. PARTS DESCRIPTION



- | | | |
|---|----------------------|---------------------------|
| 1. Control panel | 5. Connecting device | 11. Diagnostic light |
| 2. Tiller adjustment knob | 6. Battery pack | 12. Battery Gauge |
| 3. Carrying handle | 7. Key switch | 13. Charger socket |
| 4. Detachable swivel seat with fold-down back | 8. Horn button | 14. Anti-tip wheels |
| | 9. Throttle lever | 15. Free-wheel mode lever |
| | 10. Speed dial | |

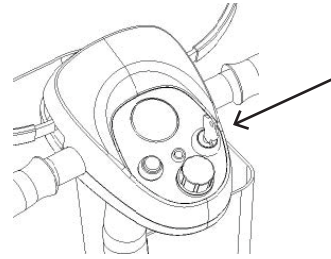
5. HOW TO OPERATE YOUR SCOOTER

Power switch

- » Turn the Key to power ON or OFF

[ON] - Power is turned on

[OFF] - Power is turned off



Forward, Reverse and Braking

1. Pull the throttle lever towards you with your right first finger and the scooter will move forward.
2. Pull the throttle lever towards you with your left first finger and the scooter will move backward.
3. The horn will beep when the scooter is in reverse.
4. When you release the throttle lever while in either forward or reverse direction, the electromagnetic brake in the motor will be activated and the scooter will stop.

Horn Button

The warning horn will be activated when you push the button, release the button and the horn will stop.

Braking

Electro-magnetic brake: Release the throttle lever completely; the electro-magnetic brake will be activated.

Warning

When going down an incline, NEVER set to the free-wheel mode. When in free-wheel mode, the electromagnetic brake will not function.

5. HOW TO OPERATE YOUR SCOOTER

Seat

The seat can be turned 90 degrees. Pull swivel seat lever to rotate the seat. The seat has 4 height adjustments. After adjusting the height to the desired seat position, secure the fixed nut.

⚠ Warning

Be sure the seat is in the forward position and locked before driving.

6. ASSEMBLY & DISASSEMBLY

You can disassemble the scooter into four pieces: the seat, the front section, the battery pack, and the rear section.



1. Place the scooter in an area where you have sufficient clearance to move the parts around. You may need assistance to lift some of the scooter components.
2. See "Specifications" for individual component weights.
3. No tools are required to disassemble or assemble your scooter. Always disassemble or assemble your scooter on a level, dry surface with sufficient space for you to work and move around your scooter. Keep in mind that the disassembled sections of the scooter take up more floor space than the assembled scooter.

6. ASSEMBLY & DISASSEMBLY

Warning

Lifting weight beyond your physical capability may result in personal injury. Ask for assistance when necessary while disassembling or assembling your scooter.

To Disassemble:

1. Turn key switch to "OFF".
2. Place the free wheel mode lever in the drive position.
3. Pull upward on the swivel-release lever to remove the seat from the seat post. Remove the plug of power cable from the battery pack. (See Fig. 6.1)
4. Pick up the battery pack and remove it from the scooter. (See Fig. 6.2)
5. Pull the connecting device upward and the front section will be apart from the rear section. (See Fig. 6.3)

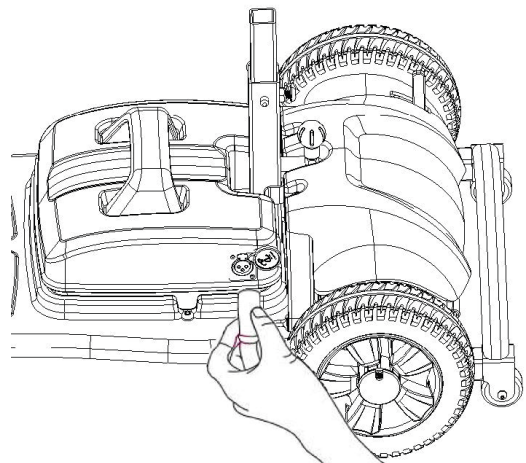


Fig 6.1

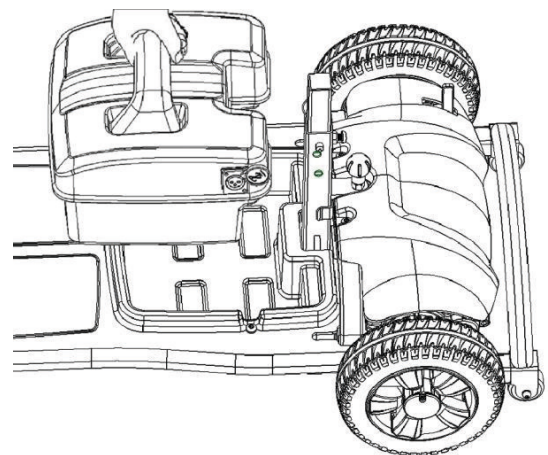


Fig 6.2

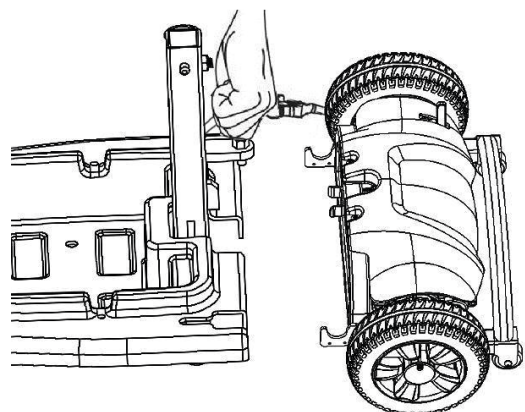


Fig 6.3

6. ASSEMBLY & DISASSEMBLY

To Assemble:

NOTE: Raise the tiller before reassembling the scooter.

1. Place the free-wheel mode lever in the drive position.
2. Connect the front and rear sections by aligning them and gently lifting the front section and the rear section. (See Fig 6.4)
3. Make sure the connecting device is connected securely to the bracket of rear section.
4. Place the battery pack on the scooter and insert the power cable into battery charger socket.
5. Set down the seat on the seat post – Always hold the seat lever upwards otherwise this can cause the seat to become stuck onto the seat post.
6. Turn the key switch to “ON”.

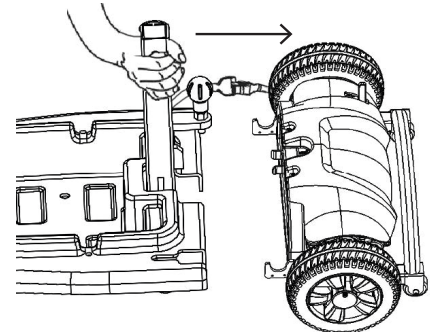


Fig 6.4



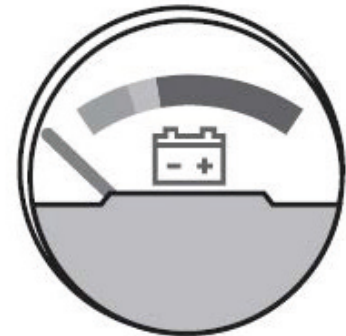
Warning

Ensure the front and rear sections are connected together securely before driving.

6. ASSEMBLY & DISASSEMBLY

Battery gauge

When the key is switched "ON", the battery gauge will display the battery power capacity by indicating red, yellow and green areas respectively. Green area indicates a full charge from the battery. Red area indicates low power. The remaining power indicated by the battery gauge will be varied by the actual driving time and how you drive. Repeated starting, stopping or climbing will consume the power more quickly.



Suggestion

1. It is recommended that you charge the battery immediately when the battery gauge is in the red area.
2. In the wintertime, the battery may respond more slowly and the distance you can travel per charge may also be shortened.
3. When driving on an incline, the battery gauge light might move from green to red, this is a normal phenomenon, please do not worry.
4. Even if the battery is used properly, it is natural that the battery capability will decay as time passes, which results in a shortening of travel distance compared to a brand new battery. Therefore, when the travel distance is reduced to 50% it is time for a replacement battery. Please go to your Scooter dealer and purchase replacement batteries. If you continue to use the old battery when its lifetime is ending, it could lead to a decrease in travel distance.

Travel distances will be shortened when driving frequently on an incline or slope, as this leads to a larger consumption of power.

6. ASSEMBLY & DISASSEMBLY

How To Set The Free Wheel Mode

Drive Mode (Fig 6.5): Push the free wheel mode lever on the scooter toward the rear direction, and the scooter will be driven by the motor.

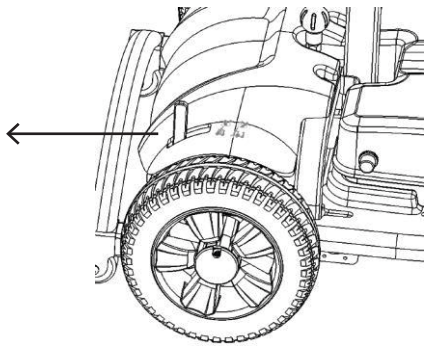


Fig 6.5 DRIVE MODE

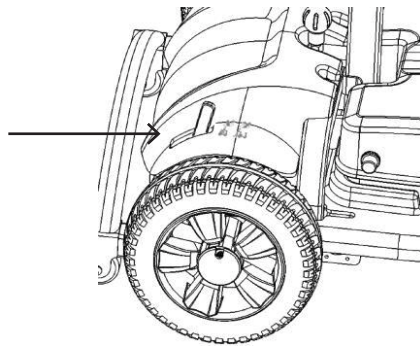


Fig 6.6 FREE WHEEL MODE

Tiller Adjustment

The Tiller can be adjusted by the following steps.

1. Loosen the knob by turning counter-clockwise. Adjust the tiller angle.
2. Tighten the knob by turning clockwise, and make sure the tiller is securely fixed.

(Fig 5.2.3)

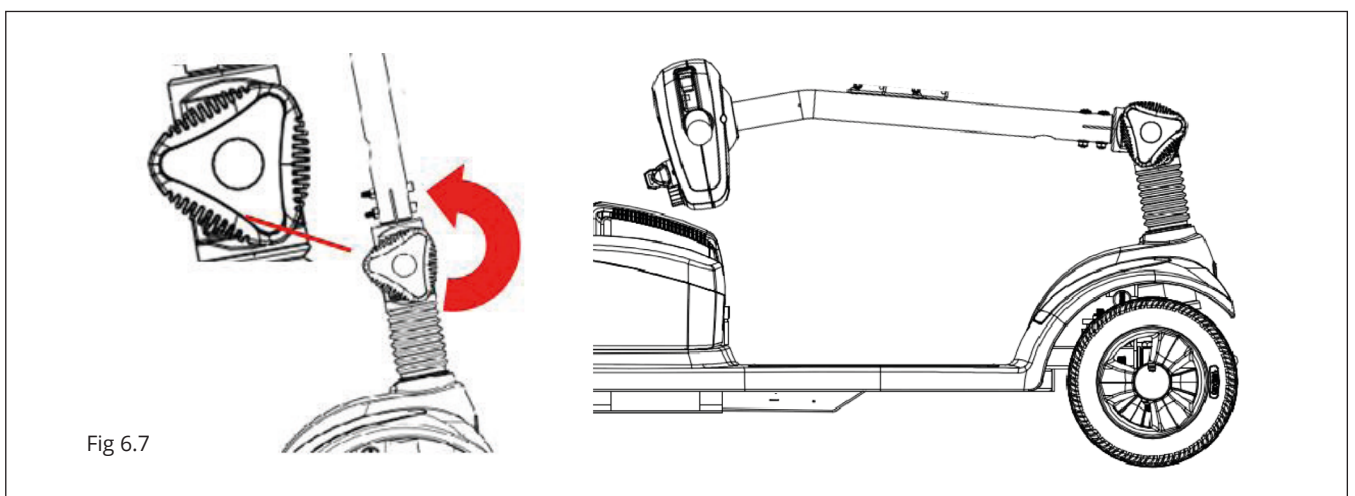


Fig 6.7

6. ASSEMBLY & DISASSEMBLY

Stopping

1. Release the throttle lever completely and the scooter will naturally brake and stop.
2. Turn the key switch to [OFF] then pull out the key (only after stopping).

Warning

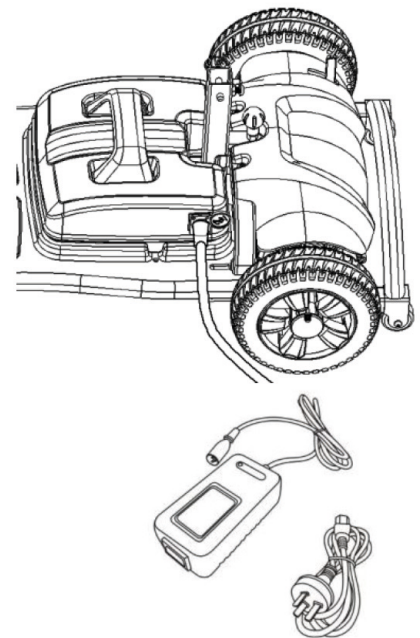
The stopping distance will vary with your forward / reverse speed, please begin braking as early as possible.

7. BATTERY

Charging the battery

Be sure to follow the procedures shown below accordingly.

1. Turn the scooter key to "OFF".
2. Connect the charger cord to the power outlet.
3. Open the charging socket cap on the scooter's cover then connect the charger's plug to the charging socket.
4. The charger's LED light will be red at the beginning of a charge. The charging duration is at least 8-12 hours - this will vary based on the status of the battery and temperature.
5. The red LED will turn to green when charging is complete.
6. Disconnect the cord and remove the round plug from the charge socket.



7. BATTERY



Suggestion

1. Do not disconnect the charger cord if the charging is not complete. The battery life will be shortened if the battery is repeatedly used without being fully charged.
2. If your scooter is left untouched for a long period of time, it should be charged at least every 2 weeks to keep the battery at full status.
3. Charging time will be affected by the ambient temperature so it takes longer in the winter time.

Charger

The charger's red LED will be ON when you plug it into the power outlet. The red LED will change to green when the charging is complete.

Battery Specifications

Type	Deep-cycle (Sealed Lead Acid Battery)
Size	151 x 64 x 116 mm (L x W x H) – 10Ah Other Amperage may vary.
Voltage	12 V
Amperage	10 Ah / 12 Ah / 21 Ah

Do not expose the battery to temperatures below -10° or above 50°. The battery used on your scooter is sealed lead acid, which is maintenance free.

8. INSPECTION AND MAINTENANCE

Daily Checking

Check the following items before driving. If you find anything abnormal, contact your scooter dealer for a further inspection before using it.

ITEM	INSPECTION CONTENT
Handle bar	Is it tight? Can they be turned left or right smoothly?
Speed Dial	Can it be adjusted freely and function well?
Throttle Lever	Does the scooter move when the lever is engaged? Does the scooter stop when the lever is released completely?
Motor	Is there any abnormal noise from the motor? Does the electromagnetic brake work properly?
Battery Gauge	Does the gauge move to green when switched "ON"? Is the remaining power enough for your trip?
Horn Button	Does the horn work?
Seat	Is the seat on properly?

Regular Checking Record

To make sure your scooter is in good condition, go to your Scooter dealer regularly.

Circuit Breaker

There is one button for the circuit breaker (located on the Battery pack), if the power switch is "ON" and the battery gauge does not move, it is possible an electric current has overloaded the scooter, Reset the circuit breaker by pressing the button.



8. INSPECTION AND MAINTENANCE

Tyres

The condition of the tyres depends on how you drive and use your scooter.

Inspecting Tyre Treads

Please check the tread depth regularly. Replace the tyres when the tread depth is less than 0.5 mm.

Maintenance

1. Do not use water, oil or other chemical solutions to clean your scooter. Be sure NOT to spray the scooter with the water as this can damage the electronic components. Please clean the scooter by wiping it with either a dry or moist cloth.
2. Please take the scooter to authorized dealers for repairs and adjustments. Improper adjustments could lead to accidents and scooter malfunction.

8. INSPECTION AND MAINTENANCE

This table is only a guide to aid you in getting your scooter operating, should you have any problems. If you are unable to get your scooter operating, please contact your Scooter Dealer.

Table 1 Basic troubleshooting

SYMPTOM	POSSIBLE	SOLUTION
Scooter does not move	<ol style="list-style-type: none"> 1. Key switch is not "ON" 2. Main circuit breaker tripped 3. Brake release lever in 'Free-wheel Mode' 4. Charger connected to outlet 5. Battery power low 6. Scooter shuts down to conserve battery 7. Controller error 	<ol style="list-style-type: none"> 1. Turn key switch to "ON" 2. Reset circuit breaker 3. Place lever in 'Drive Mode' 4. Disconnect charger 5. Recharge battery 6. Turn key switch "OFF", then "ON" 7. Check diagnostic light for Flash Code (See Table 2 to get solution)
Range less than expected	<ol style="list-style-type: none"> 1. Charging too infrequently 2. Defective or worn out battery 3. Cold weather reduces battery life 4. Defective charger 	<ol style="list-style-type: none"> 1. Charge scooter more often 2. Load test batteries. If necessary replace. 3. Allow batteries to reach room temperature and then fully recharge 4. Contact your Scooter Dealer
Brake squeals	<ol style="list-style-type: none"> 1. Dirt in brake pad 	<ol style="list-style-type: none"> 1. Blow dirt out with air pressure hose
Brake release lever sticks	<ol style="list-style-type: none"> 1. Rust and corrosion 	<ol style="list-style-type: none"> 1. Spray ball detent area with lubrication oil.



8. INSPECTION AND MAINTENANCE

Table 2 Scooter controller internal diagnostics

FLASH CODE	POSSIBLE	SOLUTION
1	The battery needs charging or there is a bad connection to the battery.	Check the connections to the battery. If the connections are good, try charging the battery.
2	There is a bad connection to the motor.	Check all connections between the motor and the controller.
3	The motor has a short circuit to a battery connection.	Please contact your Authorized Service Centre.
4	The Controller is overloaded	Stop scooter, switch off and allow to cool, before continuing.
5	Not available	
6	The controller is being inhibited from driving.	Check the battery charger connector. Remove the battery charger from the scooter.
7	A speed control lever fault is indicated.	Make sure that the speed control lever is in the rest position before switching on the scooter.
8	A controller fault is indicated.	Make sure that all connections are secure.
9	The parking brake has a bad connection.	Check the parking brake and motor connections. Make sure the controller connections are secure.
10	Excessive voltage has been applied to the controller.	Check the battery connections. This is usually caused by a poor battery connection.

9. SPECIFICATIONS

MODEL REFERENCE	MS01051
Overall length	4-wheel: 1010 mm / 39.76"
Overall width	4-wheel: 490 mm/ 19.29"
Overall height	4-wheel: 920 mm/ 36.22"
Total weight with battery	4-wheel: 41.0kg (with battery)
Total weight w/o battery	4-wheel: 31.5Kg/ (without battery)
Min. turning radius	4-wheel: 1165 mm /45.8"
Propulsion motor	24Vx270W/0.36HP x 4700rpm
Battery	DC12Vx2 10Ah
Charger	2Amp, off board
Front Tyre	7.5"X 2.35", PU foam tyre
Rear Tyre	7.5"X 2.35", PU foam tyre
Driving System	Direct drive (the rear wheel)
Brake System	Automatic Electromagnetic brake
Control Method	By throttle lever; Dynamic R-series 50A / P&G S-Drive
Speed (Maximum)	4 Mph
Max climbing angle	12°
Range	12 Km / 7.5 miles
Ground clearance	50 mm / 2 "
Weight Capacity	18 stone

REMARK: CareCo reserves the right to modify the specification if necessary. The final specification is subject to the individual scooter you purchase from your dealer.

Note: Maximum driving distance is based on the conditions of ambient temperature at 20 degrees, a 165 pound driver and a brand-new fully charged battery.



10. WARRANTY

Quality / Warranty Declaration

Products are to be fit for purpose and of excellent quality and performance. For valid warranty claims CareCo will, at their discretion, replace / repair / refund items mutually agreed to be defective.

The scooter's warranty is as follows:

- » Frame: Two year limited warranty
- » Controllers: One year limited warranty
- » Electronic Components and Charger: One year limited warranty
- » Batteries: 6 month limited warranty
- » Warranty Exclusion: The following items are not covered by warranty
 - *Motor Brushes / Wheel Tyres / Arm Pads*
 - *Seat Cushion / Fuses and Bulbs / Tiller Cover*
 - *Rear Shroud / Front Shroud and Consumable Parts*

Any damage or defect of any nature occurring from the misuse, abuse of the product, improper operation or improper storage is not covered. The warranty starts from the date of arrival of our products.

NOTES



NOTES

AirLiteX