

Evolution Safari Scooters

Model # Safari Lite 4000 Portable Scooter User Manual



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Evolution Safari Scooters

INTRODUCTION

Congratulations on your purchase of the *Evolution Safari Lite 4000* Portable scooter.

The *Safari Lite 4000* is the ultimate combination of style, comfort and portability.

The *Safari Lite 4000* includes several innovative and convenient features.

The *Safari Lite 4000* goes with you wherever you go and can be assembled or disassembled in just seconds with wireless quick-connect components.

The *Safari Lite 4000* is light and compact, and can be stored in small areas such as the trunk or back seat of your car. The compact features support easy transportation of your *Safari Lite 4000* for today's active lifestyle.

The *Safari Lite 4000* can be used in confined spaces both indoors and out. Direct drive transaxle and automatic electromagnetic brake give a smooth, safe and efficient ride. We know that the *Safari Lite 4000* portable scooter will provide many years of mobility for you.

Please ensure that you read this manual carefully, it is important for your safety that you understand the guidelines and instructions given.

SMART FEATURE GUIDE (Fig 1)

1. Tiller control head
2. Detachable seat with fold down back with removable pads
3. Removable height, width, & angle flip-up arm rests
4. Detachable large wire mesh basket
5. Detachable battery-pack
6. Tiller adjustment knob
7. Swivel seat lever and seat release lever
8. Puncture proof tires
9. Anti-tip wheels
10. Head light
11. Battery charging inlet
12. Side reflectors



Figure 1

Evolution Safari Scooters

SAFETY ADVICE

- DO NOT carry passengers.
- DO NOT exceed inclines over 6 degrees (10% grade).
- DO NOT turn on steep inclines.
- DO NOT turn suddenly at high speeds.
- DO NOT get on or off the scooter unless the brake is on and the scooter is switched off.
- DO NOT switch off the scooter while the scooter is moving.
- DO NOT drive the scooter where you cannot safely or legally walk.
- DO NOT drive the scooter on the road, street or highway.
- DO NOT attempt to drive over curbs greater than 2 inches in height. Doing so could cause your scooter to turn over, causing injury or damage to the scooter.
- DO NOT drink or use a mobile phone when driving your scooter.
- DO NOT exceed the suggested user weight limit. Doing so, could cause personal injury and invalidate the warranty.
- ALWAYS keep your feet on the scooter when moving.
- Consult your doctor if there is any doubt about your ability to use a scooter safely.
- ALWAYS slow down and proceed carefully when traveling over rough or uneven ground.
- For individuals with balance problems practice getting on the scooter with assistance of a qualified healthcare professional.
- DO NOT operate the scooter without anti-tip wheels installed.
- DO NOT use an escalator to move a scooter between floors. Serious injury could occur.
- DO NOT drive the scooter on an incline that has oil, water or ice film on it.
- DO NOT try to lift the scooter by its seat, tiller, or any removable parts. Any of these could cause injury to the user or damage to the scooter.
- DO NOT use parts or accessories that are not authorized by **Evolution Technologies Inc.**
- Before sitting in or exiting the scooter, REMOVE the key from the ignition. This will insure the POWER is off and the scooter cannot move under its own power.
- As a general precaution, always remove the key from the ignition while the scooter is not in use. This will prevent use by untrained and unauthorized persons.
- DO NOT connect any medical device to the scooter battery. This could cause failure of the device, the scooter and personal injury.
- Make sure the tiller is properly adjusted to the user or damage and injury could result.
- DO NOT transport in a vehicle WHILE seated on the scooter. **Evolution Technologies Inc.** will not be responsible for any injury or damage that might result.
- DO NOT use the scooter in the rain or near any other water source where the scooter may get wet. Direct exposure to rain or dampness could cause damage to the scooter electrical components.
- For maximum battery life, make sure to fully charge batteries for up to 12 hours prior to first use.

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EMI WARNING

Evolution Safari scooters may be susceptible to electromagnetic interference (EMI), which is a kind of interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radio, and cellular phones. The interference (from radio wave sources) can cause the scooter to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the scooter's control system.

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

1. Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie-talkie" security fire and police transceivers, cellular telephones, and other personal communication devices.

NOTE! Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.

2. Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle.
3. Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

NOTE! Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause problems to the scooter.

Scooter Electromagnetic Interference (EMI)

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

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WARNING

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

NOTE! There is no easy way to evaluate the overall immunity of the scooter.

5. Report all incidents of unintended movement or braking to your *Evolution Technologies Inc.* provider, and note whether there are sources of EMI nearby.

WARNING! *Evolution Technologies Inc.* is not responsible for damage or injury incurred due to improper and unsafe use of our scooter.

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ADJUSTMENTS

Tiller Angle Adjustment (Fig 2)

At the base of the tiller is a round knob. Turn the knob counterclockwise to loosen the tiller and select the desired tiller angle. Turn the knob clockwise to securely lock the tiller into place.

NOTE: For Safety, this lock is designed to break away if the scooter is driven when locked.

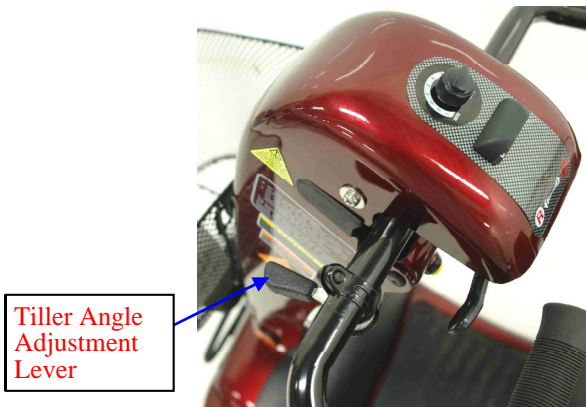


Figure 2

Folding the Tiller (Fig 3)

Fold down the tiller by loosening the tiller angle adjustment knob located at the base of the tiller (fig 2). Tighten knob to lock tiller in place. You may lock the tiller assembly into place so that it doesn't swivel from side to side by lifting the red tiller lock lever up (fig 2) and to the right. (Do not forget to unlock the tiller lever lock when driving scooter. For safety reasons, this lock is designed to breakaway if scooter is driven while locked)



Figure 3

Seat Removal (Fig 4)

Fold down the back of the seat. Lift the swivel seat release handle up to lift the seat up and off the seat post.

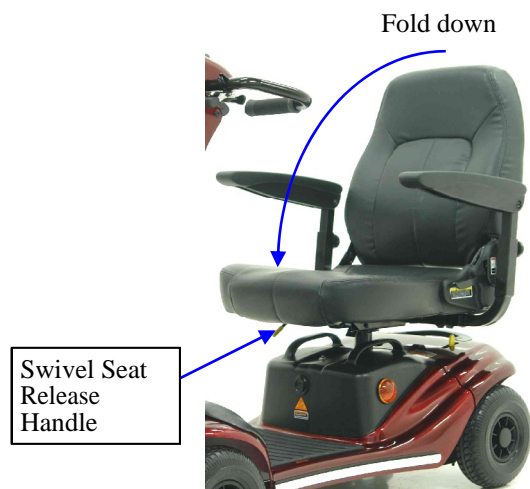


Figure 4

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Seat Height Adjustment (Fig 5)

Remove seat as described (fig 4). Remove battery pack (refer to disassembly section). Using two 13mm wrenches, remove locking bolt and nut. Adjust seat post up or down to desired position. The seat height can be adjusted to five different positions by inserting the locking bolt in the desired hole. Replace washer and nut and tighten. Replace battery pack and seat.

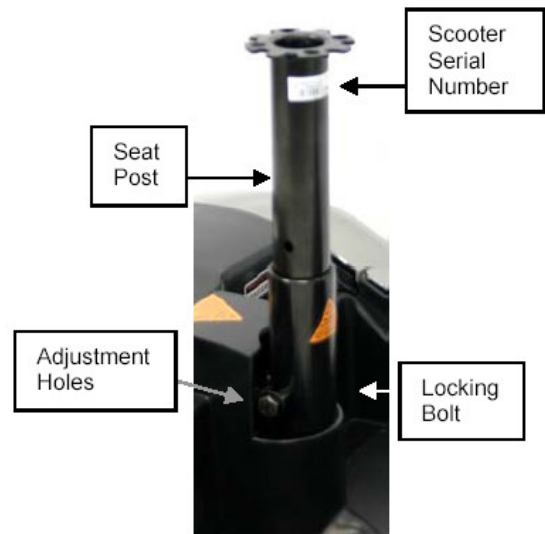


Figure 5

Serial Number (Fig 5)

Serial number is located on the seat post. It is on a white sticker with a barcode. The serial number is 13 alphanumerical digits beginning with the number 1.

Armrest Width Adjustments (Fig 6)

On the underside back of the seat there are two armrest hand knobs, one on each side. Turn hand knobs counterclockwise to loosen. Loosening the armrest hand knob allows the armrest width to be adjusted or arm rest to be removed. Once the desired positions of the armrests are set, tighten the hand knobs by turning clockwise to lock the armrests into place.



Figure 6

Armrest Adjustments (Fig 6)

The armrests may be pulled up and out of the way for sideways transfer. Pull armrest up and back.

The arm rest angle may be adjusted by turning the adjustment screw either clockwise or counterclockwise depending on the desired angle.

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SCOOTER TILLER CONTROLS (FIG 7)

Speed Controls

The speed control allows you to set a speed between slow (turtle) and fast (rabbit).

Battery Level Indicator Gauge

Where the needle sits, shows the amount of charge left in your batteries. The amount of charge will only show at its true level when the scooter is in drive. Always charge the batteries completely before beginning out on any journey.

Caution – Do not allow the gauge needle to go down completely as complete discharge of the batteries could cause irreversible battery damage.

Horn

A yellow button on top of the tiller operates the horn.

Thumb Lever Controls

The left thumb lever controls the reverse and the right thumb lever controls the forward motion. The amount of pressure applied to each lever will determine the speed the scooter travels at up to the speed selected. Release the thumb lever and the scooter will automatically come to a stop as the electromagnetic brake is applied to the motor.

On/Off Key Switch

Insert the key into the key switch located on top of the tiller. Turn the key and the battery gauge needle will move. There may be a slight delay before the thumb lever control can be operated, while the main controller checks the circuits.

Electromagnetic Brake

The brake is automatically operated when the thumb control levers are pressed or released. There is a slight delay when the scooter accelerates and decelerates; this allows the scooter to *Safari Lite 4000* smoothly and come to a smooth stop.

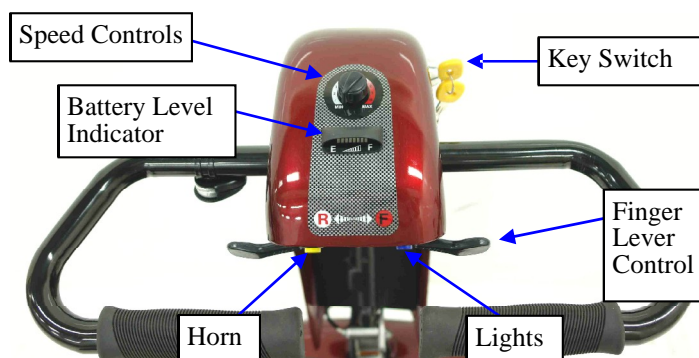


Figure 7

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DRIVE/FREEWHEEL OPERATION (FIG 8)

The drive/freewheel lever (yellow ball handle) is located under the seat at the right rear of unit. This lever allows you to disengage the drive mechanism and push the scooter while in freewheel mode. To disengage the drive mechanism (neutral), move the lever forward (the scooter can now be pushed). To re-engage the drive mechanism (drive), move the lever backward (now the unit may be driven).

Note: The scooter will not operate while the drive/freewheel lever is in the neutral position (forward). The scooter must be turned off, lever moved backward (drive position) and then turned on in order to reset the circuits.

WARNING! *Always re-engage the free-wheeling device after use. Failure to do so may result in injury.*

Anti-tip wheels

The anti-tip wheels are located at the rear of the scooter frame (Fig 8). The scooter should not be used unless the anti-tipping wheels are in place.

Evolution Technologies Inc. is not responsible for damage or injury incurred due to improper or misuse of the scooter.

Scooter serial number

The scooter serial number is located on the seat post and consists of a combination of 13 numbers and letters. Evolution recommends that you write the serial number down on the back of this manual for future reference. Refer to Fig 5.

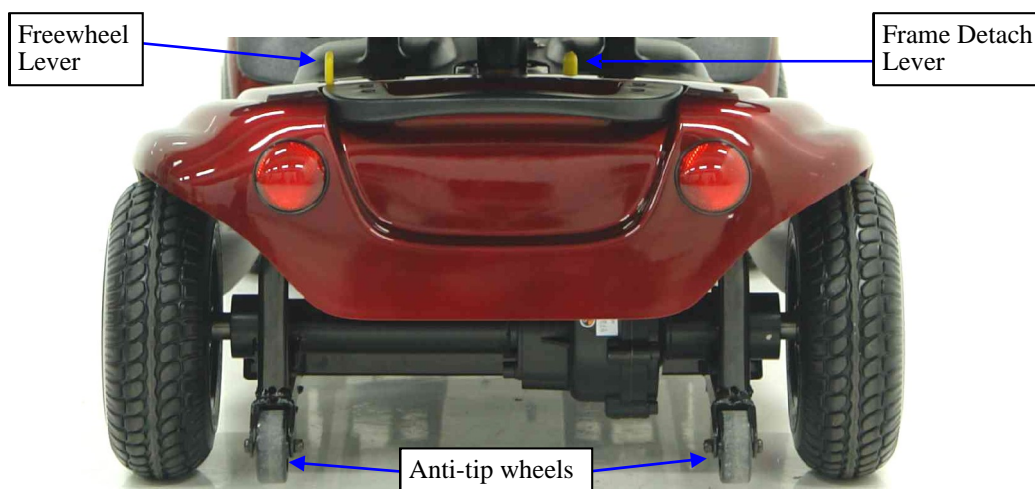


Figure 8

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STARTING TO DRIVE YOUR SCOOTER

First Time Use

Prior to using your *Safari Lite 4000* Portable scooter for the first time, you must charge the batteries fully (refer to Battery Charging Procedures). Charging may take up to 12 hours. Charging the batteries completely prior to first time use will benefit battery efficiency. Failure to do so may cause permanent battery damage.

Getting Started

Select a level area with plenty of space.

Mount the scooter by pushing the arm upward out of the way and sliding onto the seat or swivel the seat around to mount. Use the arm rest for support if necessary.

Adjust the tiller and seat as previously described.

Starting Scooter Movement

Ensure that you are seated in a comfortable position.

Turn the key to the on position.

Your speed setting should be on or near the turtle (slow).

Push your right thumb lever (yellow) and the scooter will move forward slowly. The harder you push, the faster the scooter goes but will only reach the speed level that has been selected.

Release the lever and the scooter will slowly come to a stop as the magnetic brake automatically engages.

Steering

Steering the scooter is light and easy. When starting off ensure that you give a wide clearance when turning so that the rear wheels clear any obstacle that you are passing. When steering through limited spaces such as a doorway or when turning around, turn the tiller handles where you want to go and apply power gently. The scooter will turn very tightly, but will still move with complete stability as long as the speed is not too high.

Reversing

Before reversing ensure that the area behind is free from any hazards or obstructions. Adjust your speed setting to a low setting before you move in reverse. Push your left thumb lever (black), and steer wide of all corners and obstacles.

Dismounting

Before dismounting ensure that the key is turned to the off position.

Dismount the scooter by pushing the arm upward out of the way and sliding off the seat or swivel the seat around to dismount. Use the arm rest for support if necessary.

CAUTION: Please ensure that care is exercised when mounting or dismounting the scooter and that the tiller and foot rest is not used for support.

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EXTRA GUIDELINES IN THE CONTROL OF YOUR SCOOTER

Ramps

The stability of your scooter is governed by several factors such as the seating position, the angle of the slope and your height and weight. When approaching an incline, do so directly and not at an angle and where ever possible avoid making turns. When going down a ramp or slope keep the speed settings to slow. This will ensure there is a safe controlled descent. When the thumb levers are released the scooter will slowly stop.

Safe Climbing Angle

Always follow the guidelines of the safe climbing angle as shown in figure 9.

Caution - Do not turn off the control key while the unit is in motion

Grass and Gravel

Please follow the guidelines given previously and your scooter will perform admirably over many surfaces. Avoid long grass, loose gravel and sand.

NOTE: You should not operate your scooter in wet weather or on wet surfaces. This may cause the motor to short out or cause other irreversible damage.

NOTE: To preserve battery charge, your scooter may go into sleep mode after being idle for a few minutes. To remove from sleep mode, turn the key off and back on again.

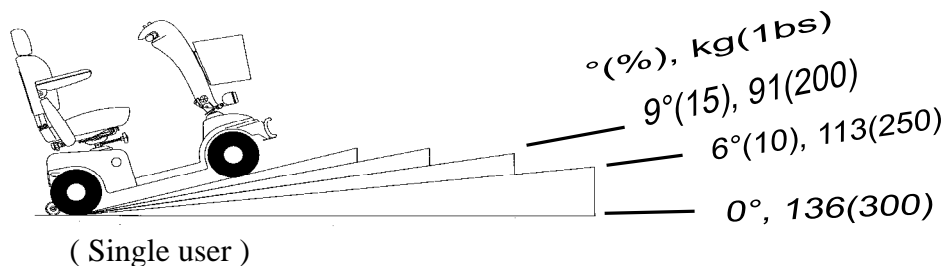


Figure 9

Evolution Safari Scooters

TRANSPORT / STORAGE

The *Safari Lite 4000* Portable scooter is designed to be quickly and easily disassembled into sections for transportation and storage. Follow these simple guidelines for disassembly:

Safari Lite 4000 Disassembly (Fig 10 & 11)

- 1) Remove the front basket: Lift basket up and off.
- 2) Fold the seat down and remove: Pull yellow swivel seat lever up and lift seat up and off.
- 3) Remove battery pack: Turn yellow battery pack locking lever to unlock position. Lift battery pack up and off using handle (Note: battery pack is secured by Velcro).
- 4) Fold tiller down and lock into place: Loosen tiller adjustment knob, lower tiller, and tighten adjustment knob. Lock tiller assembly so that it doesn't swing sideways by pulling yellow tiller lock lever up and to the right.
- 5) Detach rear section from front section: Detach lever is located in the rear of the scooter next to the freewheel lever. Slide lever to "detach" and separate rear section from front section.



Figure 10

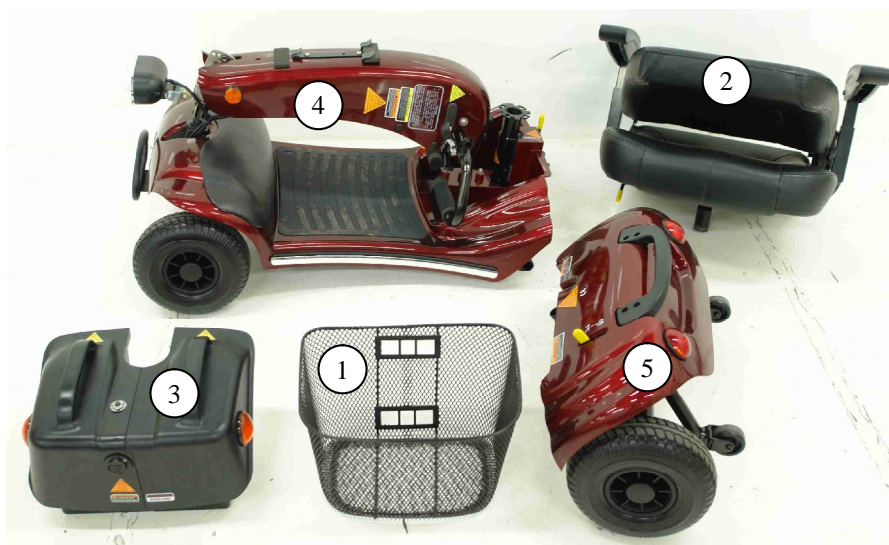


Figure 11

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BATTERIES AND BATTERY CHARGING

The *Evolution Safari Lite 4000* Portable scooter is supplied with maintenance-free, sealed lead acid batteries. For easy handling, the batteries are contained within a battery pack. Battery life and performance may be affected by temperature, terrain, condition of battery, the weight of the user, care of batteries, and other conditions. The battery needle gauge is only a guide and is most effective when the scooter is moving, only then is the true discharge level displayed.

When the scooter stops the battery needle gauge may indicate full.

An active user can use up to 30% of battery capacity or more per day.

Inactive users may only use 50% of battery capacity in a week.

In both these instances the battery should be put on charge over night.

*****Keeping the batteries charged at all times will extend the life of the batteries*****

Battery Charger

The battery charger is a 3-amp transformer type off board. The *Safari Lite 4000* Portable scooter has a built in charger port on the rear side of the battery pack. This special feature allows the batteries within the battery pack to be charged without the scooter.

First Time Use

Prior to using your *Safari Lite 4000* Portable scooter for the first time, you must charge the batteries fully (refer to Battery Charging Procedures). Charging may take up to 12 hours. Charging the batteries completely prior to first time use will benefit battery efficiency. Failure to do so may cause damage.

Charging

To charge the batteries connect the 3-pin male plug lead into the 3-pin female battery-charging socket located on the battery pack. Plug the A/C cord plug into the wall socket. The battery charger has two indicator lights. The red light, when solid, indicates power on. A flashing red light indicates a problem in the connection to the batteries. If the red charging light flashes when plugged into the battery pack, check the reset button and batteries for excessive discharge. The green light, when flashing, indicates the batteries are charging. When the green light becomes solid, the charging cycle is complete. Once the batteries are completely charged, unplug the A/C cord from the wall then unplug the 3-pin lead from the battery pack. Remember to always remove charger once charging cycle is complete.

WARNING: Only use the original Evolution Technologies Inc. approved charger!

This charger is for indoor use only. DO NOT expose it to rain or water spray.

Do not leave the charger plugged into the charger port if the charger is not charging.

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MAINTENANCE

Tires

Since your tires are flat free tires, there is no need to ever worry about tire air pressure.

General Maintenance and Lubrication

- Inspection for loose wheel bolts, seat and arm tightening bolts, and other nuts and bolts is recommended on a regular basis.
- Most lubricated components on the *Safari Lite 4000 Portable* scooter are designed to be maintenance free and are sealed. Therefore lubrication is not required for these components. However, the driving axles and seat post should always have a very light coat of multipurpose grease.

DO NOT USE TOO MUCH GREASE!

Drips may stain or damage carpets, furnishings, etc.

- It is recommended that the driving axles (inside the drive wheel assembly) be checked and cleaned occasionally for hair and debris build-up, which will hinder the performance of the unit.
- Check the batteries on a regular basis. For extended battery life, it is highly recommended that the batteries be fully charged after use. Please refer to battery section of this manual. If the batteries are weak, severely discharged or old, a variety of problems may occur with the unit including charging problems, reduced speed, loss of range, and others. Please contact your local *Evolution Technologies Inc.* provider for battery replacement.

TROUBLESHOOTING GUIDE

Circuit Breaker (Reset Button)

Your scooter is fitted with the latest in electronic controls that are programmed to protect the electrical system from abnormal overloads. Provided for extra protection is a circuit breaker, located on the side of the battery pack. Should there be a situation where your scooter stops for no apparent reason, please check that the circuit breaker has not popped.

NOTE: To preserve battery charge, your scooter may go into sleep mode after being idle for a few minutes. To reset, turn the key off and back on again.

Check List

If your scooter fails to operate, please check the following:

- Unit is switched on.
- Drive/Freewheel mechanism is in the drive position.
- All plugs and connectors are clean and firmly connected. Push reset button.
- Battery level shows full charge.

If the free wheel device has been operated with the scooter switched on, then the scooter will not operate until the ignition key has been switched off and then on again. Please consult your dealer if your scooter does not run after checking these points.

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TECHNICAL SPECIFICATIONS

UNIT SPECIFICATIONS		Safari Lite 4000
Overall Dimensions: L ¹ x W x H	(Inches) mm	(41.3"± x 22"± x 27"±) 1050 x 560 x
Number, Size of Tires	Front	2, 9"
	Rear	2, 9"
Suggested User Weight (on the Level Road)	Kg (lb)	136 (300)
Weight of Rear Chassis w/ Drive Train Assy	Kg (lb)	15 (33)
Total Weight (w/ 21Ah Battery Pack, Basket, Seat)	Kg (lb)	64 (141)
Weight of Seat w/ Arm Assys	Kg (lb)	15 (33)
Battery Pack Module Weight	Kg (lb)	16 (35)
Battery Module Capacity	_V_Ah x Pcs	12V 21Ah x 2
Charger	Amps	Off Board 3-Amp
Output Power of Motor	hp	0.75
Maximum Speed ²	Kph (mph)	6 (3.8)
Maximum Climbing Angle (based on user weight of 100kg/220lb) / Safe Climbing Angle	% (°)	Fig. 9
Range ³ (per charge w/ STD 21Ah Battery / 90kg User Weight) (After the battery and mechanical moving parts fully break in)	Km (miles)	15~18 (9~11) *Range varies with the weight of occupant and other factors
Turning Radius	Mm (in)	1260 (50)
Handle Bar	Type	P
Detachable Chassis	Y/N	Y
Suspension	Y/N	N
Emergency Hand Brake	Y/N	N
High / Low Speed	Y/N	N

*****ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE*****

1. Include the Anti-Tip wheel.
2. Driver weight may exceed weight of the unit; speed must be reduced when turning.
3. The actual driving range varies with the factors shown below:
 - the weight of occupant
 - ground surface
 - battery conditions
 - type of charger
 - ambient temperature
 - the way of driving
 - terrain
 - etc.

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QUARTERLY INSPECTION

For your own safety, quarterly inspection and service on the product with signature by an authorized dealer is strongly recommended. There may be a nominal dealer inspection fee for this service not covered by warranty. Maintenance records (below) should be kept at all times. The manufacturer / distributor / vendor will be indemnified from any product liability claim if the above maintenance / service requirement is not met.

NOTE! Regular (Monthly) inspection is strongly recommended by the manufacturer to ensure ultimate performance of the vehicle.

Service Record:			Date of Purchase: / /		
Purchaser:					
Model #: <i>Safari Lite 4000</i>			Serial #:		
Provider Unit Was Purchased From:					
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y
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WARRANTY

Please refer to warranty information included with unit.

DISCLAIMER

Congratulations on your purchase of the *Evolution Safari Lite 4000* Portable scooter. It is not intended to be used by individuals with physical limitations that could prevent the user from operating this unit safely. *Evolution Technologies Inc.* disclaims all responsibility for any personal injury or property damage, which may occur as a result of improper or unsafe use of its products. Mechanical or electrical defects will be dealt with on a contingency liability basis.

The preceding guidelines are intended to assist you in the safe operation of your powered scooter. If you should have any questions about the correct operation of your scooter, please contact your authorized *Evolution Technologies Inc.* provider.

Model Name: **Safari Lite 4000** Serial No.

Provider's Name

Evolution Technologies Inc.
(800) 556-2558
www.evolution.ca

