



Samba
Samba lite

Directions For Use
Manual De Usuario
Manual De Utilizaçao

QUICKIE

INNOVATE.
BUILD FOR THE FUTURE

How to use this manual

We at Sunrise Medical want you to get the best out of your SAMBA wheelchair. This Owner's Manual will familiarise you with the chair and its features. It contains hints on everyday usage and general care in addition to information on the high quality standards which we adhere to and details about the guarantee. There are a wide range of components and adjustments available on the SAMBA for further information about these you should contact your wheelchair prescriber/supplier.

Your wheelchair will reach you in excellent condition having been personally inspected before leaving our factory. Following the guidelines for maintenance and cleaning your wheelchair will maintain its first class condition and give you complete satisfaction.

Introduction

The SAMBA has been designed for use by an individual on a daily basis. It is suitable for both indoor and outdoor use (Class B). It is only intended for use as a pavement vehicle, but may also be used when crossing between pavements.

This vehicle has been designed for a single occupant of limited mobility up to the weight of 120Kg who has the cognitive, physical and visual ability to control the vehicle safely on a maximum slope of 10° (18%), [6° (10%) for French Market only]. If you are in any doubt as to the suitability of the power chair, contact your local Sunrise approved dealer for clarification, prior to commencing use.

It is very important to read the relevant section of the owners manual when making any adjustments. If you have any queries about the use, maintenance or safety of your wheelchair please contact your local approved Sunrise Medical service agent. If you do not know of an approved dealer in your area or have any other questions please write or telephone:

Sunrise Medical LTD.

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High Street, Wollaston
West Midlands DY8 4PS
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Sunrise Medical is ISO 9001 certified, which ensures quality at all stages of the development, and production of this wheelchair.

This product is manufactured to comply with the radio interference requirements of European Electromagnetic Compatibility Directive 89/336/EEC and Medical Device Directive 93/42/EEC

Guarantee

The guarantee form is included in the Sunrise Pack, please fill in the relevant details and return to us to register your entitlement.

THIS IN NO WAY AFFECTS YOUR STATUTORY RIGHTS.

Warranty conditions

- 1) The repair or replacement will be carried out by an authorised Sunrise Medical dealer/service agent.
- 2) To apply the warranty conditions, should your wheelchair require attention under these arrangements, notify the designated Sunrise Medical service agent immediately giving full information about the nature of the difficulty. Should you be operating the wheelchair away from the locality of the designated Sunrise Medical service agent work under the "Warranty Conditions" will be carried out by any other service agent designated by the manufacturer.
- 3) Should any part of the wheelchair require repair or replacement, as a result of a specific manufacturing or material defect, within twelve months from the date on which the possession of the wheelchair was transferred to the original purchaser, and subject to it remaining within that ownership, the part or parts will be repaired or replaced completely free of charge if returned to the authorised service agent.

Note: This guarantee is not transferable.

- 4) Any repaired or replaced part will benefit from these arrangements for the balance of the warranty period applicable to the wheelchair.
- 5) Parts replaced after the original warranty has expired are covered for a further twelve months.
- 6) Items of a consumable nature will not generally be covered during the normal warranty period, unless such items have clearly suffered undue wear as a direct result of an original manufacturing defect. These items include amongst others upholstery, tyres, inner tubes, and similar parts.
- 7) The above warranty conditions apply to all wheelchair parts, for models purchased at full retail price.
- 8) Under normal circumstances, no responsibility will be accepted where the wheelchair has required repair or replacement as a direct result of:
 - a) The wheelchair or part not having been maintained in accordance with the manufacturer's recommendations, where such exist. Or failing to use only the specified original equipment parts.
 - b) The wheelchair or part having been damaged by neglect, accident or improper use.
 - c) The wheelchair or part having been altered from the manufacturer's specifications, or repairs having been attempted prior to the service agent being notified.

Please keep a note of your local service agent's address and telephone number in the space below. In the event of a breakdown, contact them and try to give all relevant details so they can help you quickly.

The wheelchairs shown and described in this manual may not be exactly the same in every detail as your own model. However, all instructions are still entirely relevant, irrespective of detail differences.

The manufacturer reserves the right to alter without notice any weights, measurements, or other technical data shown in this manual. All figures, measurements, and capacities shown in this manual are approximate, and do not constitute specifications.

Features and Options

The SAMBA has been designed for use by an individual, on a daily basis. It is suitable for both indoor and outdoor use (Class B). It is only intended for use as a pavement vehicle, but may also be used when crossing between pavements.

This vehicle has been designed for a single occupant, of limited mobility, up to the weight of 120Kg, who has the cognitive, physical and visual ability to control the vehicle safely. If you are in any doubt as to the suitability of the powerchair, contact your local Sunrise approved dealer for clarification, prior to commencing use.

Some of the options shown in this manual may not be available in your country. For further information please consult your Sunrise supplier.



Safety warning and user tips

Safety is very important with any vehicle that is power driven, here are some helpful tips to safeguard your use.

General

- **Always** ensure that your wheelchair is switched off before attempting to mount or dismount.
- **Always** ensure that you are able to operate all controls from a comfortable position. Paying attention to your posture is essential to ensure your continued comfort and well being.
- **Always** make sure that you can be seen clearly, especially if you intend using your wheelchair in poor light.

Kerbs

- **Never** descend a kerb Forwards. Please read carefully the section on kerb climbing in this manual before attempting to mount and dismount any kerbs in your wheelchair.
- **Do not** attempt to climb or dismount a series of steps. It is unsafe to do so and could cause personal injury or damage the chair. The SAMBA has only been designed to climb a single step or kerb

Routine service

Like most things in life a little care and attention makes a big difference and your chair is no exception. The recommended service interval is one year. (See service history on page 43).

Emergency freewheel

Please remember that you have no braking facility when the freewheel lever is moved from the normal drive position to the freewheel position.

The wheelchair must never be left with the lever in the freewheel position. For a enhanced description of this facility and its limitations to use please see later section.

Emergency braking

The simplest and safest way to stop the wheelchair is to release the joystick control lever (see Control pod section). This will bring the chair to a halt in a controlled manner.

Switching the control system off whilst the chair is in motion will also bring the chair to a halt. This latter method is not recommended as the stopping action is very abrupt.

Sharp turns

Full speed turns should not be attempted. If you need to turn sharply you must reduce your speed with the joystick or speed setting. This is particularly important when travelling across or down a slope. Disregarding this advice could lead to your wheelchair tipping over.

Batteries

Your wheelchair is supplied as standard from Sunrise Medical with maintenance-free batteries. These only require regular charging.

- **Do not**, under any circumstances, tamper with the batteries. If in any doubt contact your local service agent.
- **Do not** connect the battery charger to the mains supply after you have connected the charger to the wheelchair. Before charging, please read the relevant section in this manual. *Take care with acid on wet batteries or damaged sealed type batteries, which is very dangerous.* It can cause burns to the skin as well as damage to floors, furniture and your wheelchair. If it comes into contact with the skin or clothing, wash immediately with soap and water. If it comes into contact with the eye, immediately flood the eye with running cold water for at least 10 minutes and seek medical attention immediately. Acid can be neutralised with baking soda and water. Take care to keep batteries upright at all times, especially when transporting your wheelchair.

Battery and charger type:
24V (2x12V) / 40 Ah/20h. Maintenance free
Dimensions: 197x165x170 mm.
24V (2x12V) / 52 Ah/20h. Maintenance free
Dimensions: 197x165x197 mm.
Connector: 3 pins "Cannon " type

Note: Before using your vehicle for the very first time, please charge your batteries for a period of 24 hours.

Tyres

Your wheelchair tyres can wear depending on use. Check them regularly in accordance with the service instructions in this manual, especially the pressure of the tyres.

NEVER inflate the tyres using a garage forecourt airline, always use the pump provided.

Cleaning seating

This is important should the wheelchair be used by more than one person to ensure there is no cross infection. You can wash all parts of the covers with a gentle-wash detergent at 40°C. You can - spindry the covers, but do not try them in a dryer. You can remove all parts of the covers independently of each other and wash them separately. Take out the foam inlays prior to washing and close the Velcro fasteners!

Cleaning controls

Should the control of your wheelchair become soiled or dirty, it can be wiped with a damp cloth with a dilute disinfectant until clean. This is important should the wheelchair be used by more than one person to ensure there is no cross infection.

Wheelchair motors

After prolonged use, the motors will produce heat which is radiated through the motors outer casing. Do not touch the motors outer casing for at least 30 minutes after using the wheelchair, to allow it to cool.

Wheelchair range

The range of your wheelchair can be affected by many factors such as user weight, terrain, ambient temperature, use of powered options and battery condition. The stated range in the sales literature should be seen as the theoretical maximum (ISO 7176; Part 4) and may not be attained by every user.

We recommend that every user initially limit their journey to half the stated range, until they have confidence in the actual range their wheelchair can attain. If your battery indicator is showing a low charge then do not attempt a long journey unless you are confident in reaching your destination and also returning to your home without the risk of being left stranded.

Use on a slope

Your wheelchair has been designed and tested to allow its use on slopes or gradients of up to 10° (18%). However, you have the option of adjusting the angle of seating with either tilt seat or recline back, then in certain circumstances your wheelchair could become unstable. Before attempting to climb or decline a slope, we strongly recommend that you return the seat and back to an upright position.

Failure to do this may cause the wheelchair to become unstable.

If you are in any doubt about the capabilities of wheelchair on a slope then do not attempt to drive up or down the slope, try to find an alternative route.

Mobile telephones and two - way radios.

When operating cordless or mobile telephones, two way radios, walkie-talkies, C.B. Amateur Radio or other transmitting devices, the following must be noted:

Mobile telephones or two-way radios devices must not be used while operating the vehicle.

Use of Mobile Phones or Two Way Radios can cause excessively strong electromagnetic fields. This may interfere with the vehicles electronic systems. If Mobile Phones or Two Way Radios are required to be used, the vehicle must be brought to a halt and the power turned off before any such device is switched on or used.

The chair itself can disturb the performance of electromagnetic fields such as alarm systems of shops!

Hot surfaces:

Not only motors can be hot during the operation of the chair, but also the upholstery material and armrests when standing in the sun.

Wheels

If it is necessary to remove one of the wheels (e.g. in order to repair them in case of puncture), proceed as follows:

Front wheel

1. Use a 7mm Allen key to remove the fork screw.
2. Remove the damaged wheel.
3. When the wheel has been repaired, follow the reverse procedure.

Rear wheel:

1. Using a screw driver, remove the cover of the hub.
2. Loosen the 4 screws with a 5 mm Allen Key on the outside and a 13 mm hexagonal socket wrench on the inside.
3. Use a 6 mm Allen Key to split the rim.
4. Remove the damaged wheel. When it has been repaired, follow the reverse procedure.

Lap belt fitting instructions

The lap belt should be adjusted to suit the end user as detailed above. Sunrise Medical recommend that the length and fit of the belt be checked on a regular basis to reduce the risk of the end user inadvertently



tently re-adjusting the belt to an excessive length.

Step 1: Place lap belt round chair.

Step 2: Position belt such that fastening buckle is situated in the middle of the stomach. The positioning belt should be adjusted so that a hand can be placed between the user and the belt.



Step 3: Attach bottom universal bracket (with slot facing downwards) to back posts of wheelchair. Wrap the metal strap around the back post. Place a washer on the securing screw, and insert the screw through the appropriate hole in the strap. For \varnothing 1" tube use outer hole, for \varnothing 7/8" tube, use inner hole. Tighten the screw into the barrel nut through the side of the post bracket body. Snap the screw caps over both screw heads.

Step 4: Thread the positioning belt back through the tri-glide to form a loop around the back post. Thread positioning strap through tri-glide. Thread lap belt through slot in universal post bracket.



Maintenance:

Check lap belt, and securing components, at regular intervals for any sign of frays, or damage. Replace if necessary.

Use

Handling the wheelchair

Note: To dismantle the chair for transport no tools are required.

List of components when dismantled:

- 1 pair of Armrests
- 1 pair of Legrests
- 1 backrest
- 1 drive unit
- 1 pair of batteries
- 1 seat frame with castor wheels

Prepare for transportation

First remove the legrests. Lift off the armrests. Press the release pin at the front of the drive unit. Release the frame from the drive unit. Lift off or fold down the backrest at the frame. Now you can store the frame part. By releasing the brakes you can move the drive unit as close as possible to the place you want to store it. Lift off the shroud of the drive unit. Disconnect the Anderson connectors of the batteries and lift them out by using the straps. If you have a remote control unit fitted to the chair, first remove the power module off the battery box. At first take the front battery out to balance the drive unit correctly. Then the rear one. If you wish, you can now store the legrests in the drive unit for transportation. *The best way to lift the drive unit is using the wheels as the handle.*



Re-Assembling

Place the batteries back into the drive unit. Start with the rear battery. Connect at first the black Anderson plugs to connect the two batteries and then the red one to connect the controller. Put the shroud back onto the drive unit. Flip up or replace the backrest. Use the push handles to move the chair with the two bottom receivers into the drive unit. Press the push handles downwards and the drive unit will lock automatically with the frame and you will hear an audible "click". By pulling the push handles upwards, check that the interlock is correctly locked in place. If this is not the case, repeat the procedure until the unit locks into place correctly. Put your armrests back in and connect the remote controller. Make sure your brakes are engaged. Now you are ready to drive the chair.



Note: Never lift the wheelchair by the armrests, since they are detachable and harm could be done to the user or to the wheelchair.

Preparing your wheelchair for use

Armrests-removing

The armrests on both sides of the wheelchair can be removed to allow side transfer. Release the adjusting screw on the side of the armrest frame down tube (Fig. 5) and remove armrest as shown. When seated, lower the armrest until it locks into the retaining screw.



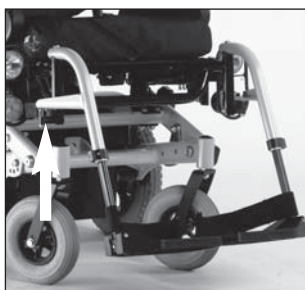
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Armrests-replacing

Insert the tube of the armrest into the receiver bracket. Position it at height required. Tighten the adjustment screw to fix the armrest in the receiver. Prior to use ensure the Armrest is securely locked in place.

Fitting footrests

Firstly, offer the footrest assembly at right angles to the frame (Fig. 6), locate the stem into the frame tube and swing the assembly forward as in Fig. 7 to lock in position. To swing away the footrest, simply depress the retaining catch and turn the footrest out. This can now be lifted out if required.



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Control box

Depending on your control system chosen, there are two principles of control systems: Integral and remote controls (for details please see control pod section). The control box is mounted on a sliding mechanism which enables the control to be moved forwards and backwards. When the most comfortable position has been selected, secure the slider by tightening the locking screw. Ensure the locking screw is fully tightened prior to use and especially when transporting your wheelchair.



Emergency freewheel

By moving the release lever to the left and lock it in (Fig. 8), the drives become disconnected from the motors. This may only be used in an emergency, or if you need to manually push your wheelchair.

It is not intended for permanent use.

REMEMBER: The chairs automatic braking system will not work unless the handle is turned to the right.

ALWAYS RE-ENGAGE THE EMERGENCY FREE-WHEELS AFTER USE



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Drive wheel suspension

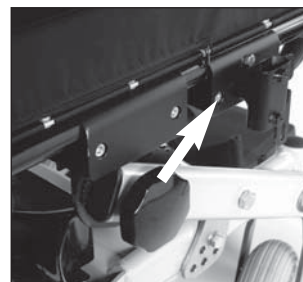
SAMBA has an effective and adjustable drive wheel suspension system. To match your requirements on drive comfort, the tension of the springs at the damper can be adjusted. Turning the aluminium ring on the bottom of the spring downwards will soften your ride, adjusting the aluminium ring in a higher position will harden it. This option is to be used to match the different user weights to the suspension system.



Armrests

Adjusting the armrest width

To adjust the width loosen the two screws as shown in Fig. 11, move the armrest receiver brackets to the desired position, and tighten the screws firmly prior to use.



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Adjusting armrest height

To adjust the height (Fig. 12) loosen the adjusting screw, move the armrest to the desired position and tighten the screw.



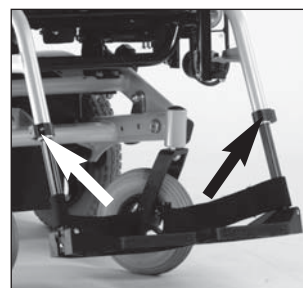
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Footrests

Adjusting the footrest length

To adjust the footrest length remove the screw assembly on the footrest stem as shown in Fig. 13, adjust the length to suit. Replace the bolt assembly and tighten. Ensure the bolt is firmly located and tightened prior to use.

Note: The internal footrest stem may require cutting down in length to allow the footplate position to be raised.



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Manual elevating legrest (ELR):

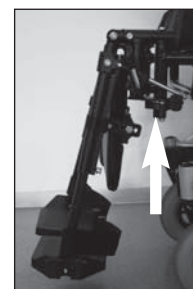
To elevate:

Pull the legrest upwards and stop at the desired height. The legrest will automatically lock in the chosen position.

To lower:

Push the release lever slowly forward. The legrest will lower the angle. As soon as you release the lever, the legrest will be locked in the current position.

CAUTION: The elevating legrest can be adjusted into a position where it can interfere with the castors.



CAUTION: Keep hands clear of the adjustment mechanism between the frame and the movable parts of the legrest while elevating or lowering the legrest.

CAUTION: Legrests are not to be used for lifting or carrying the wheelchair with an occupant.

Powered elevating legrest:

To operate:

Integral Control (VSI):

To operate the legrests simply push the mode switch to select the legrests and then the up and down button for operating the legrest up or down. Release the button when the desired angle is reached. Once the legrest is fully lifted or in its lowest position do not hold the switch in its operating position as this could damage the actuator.

Remote control (Pilot+):

To operate the legrests simply push the mode switch to select the "actuator mode". The wheelchair symbol LED will appear. With the joystick moved to the left or the right direction you scroll through the possible actuators fitted. To operate the selected one just move the Joystick forward for the up and backwards for the down operation of the selected actuator. Release the Joystick when the desired angle is reached. Once the legrest is fully lifted or in the lowest position do not move Joystick in its operating position as this could damage the actuator. Pressing the mode button again will bring you back into drive mode.

Manual seat tilt

The seat can tilt up to 20° by rotating the handle at the right or the left side of the chair.

Note: Please be aware, that a tilted seat of more than 6° will affect the stability of the chair.



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Powered Seat tilt

The seat can tilt up to 20° by operating it through your control system.

Integral Control (VSI):

To tilt the seat simply push the actuator switch in front of the joystick. To select the tilt move the joystick to the left and then forwards and backwards to operate the seat angle up or down. Release the joystick when the desired angle is reached. Once the seat is fully tilted or in its lowest position do not hold the joystick in its operating position as this could damage the actuator. Press the actuator switch again to return to the drive mode.



Remote control (Pilot+):

To tilt the seat simply push the mode switch to select the "actuator mode". The wheelchair symbol LED will appear. With the joystick moved to the left or the right direction you scroll through the possible actuators fitted. To operate the selected one just move the Joystick forward for the up and backwards for the down operation of the selected actuator. Release the Joystick when the desired angle is reached. Once the seat is fully tilted or in the lowest position do not move Joystick in its operating position as this could damage the actuator. Pressing the mode button again will bring you back into drive mode.



Note: Please be aware, that a tilted seat of more than 6° will affect the stability of the chair.

Backrest removal and refitting

Although there are a variety of backrests which can be used on the SAMBA chair they all attach and release in the same way. To remove the backrest (Fig. 19) loosen the screws on the base of the backrest and pull up the back. To attach the backrest repeat the process in reverse. You must ensure the two screws are securely locked in position and the backrest is correctly and firmly attached prior to using your chair.



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Optima backrest upholstery

SAMBA can be supplied with optima backrest upholstery which can be adjusted in its tension to the individual's requirements.

Footplates

The footplates may be flipped up to aid entry and exit from the chair. (Fig. 16). Do not use the footplates to stand on as the full weight of your body may cause the chair to tip forwards and damage the footrests.



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Seating

Seat sling tension adjustment

The seat upholstery may be re-tensioned. To do this, loosen all the screws as shown in Fig. 17 and detach the Velcro®. Re-tension the seat, attach the Velcro® and securely tighten the screws.



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Firm seat board

The optional Firm Seat Board is designed to allow pressure relief cushions such as Jay to be used. If Retro-fitting the firm seat board you must ensure the two retaining screws and collars are fitted and that the seat hooks are located behind them prior to use (Fig. 18). Failure to do this may result in the seat tipping up and possibly causing injury.

Seat cushions

Seat cushions supplied by Sunrise Medical will have Velcro® strips that correspond to patches on the seat. You must ensure these are aligned prior to using the wheelchair. Other cushions used should also have Velcro® strips in a similar position to ensure the cushion does not slip off the seat. The seat cushion supplied by Sunrise Medical all have removable covers.

Changing the shape or tension

To change the shape and/or tension of the 'Optima' backrest remove the padded cover from the rear of the backrest and expose the tension straps. Loosen or tighten the straps to suit. (The most comfortable and supportive position is achieved with the wheelchair user seated in the chair). Ensure the straps are securely fastened and replace the padded cover prior to use.

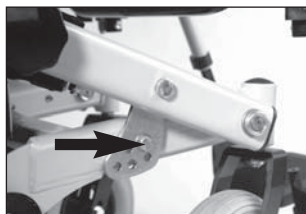
Changing seat depth

To change the seating depth loosen the two clamps on each side of the seat rails. The backrest can now be moved to the desired position along the seat rail. Firmly tighten the two bolts at the clamps on each side of the backrest. Make sure you have at least 1cm of the rear of the seat rail tube left, when adjusting the maximum seat depth.



Changing seat height

To change the seat height loosen the two nuts on the side of the bottom frame with two 13 mm spanners. Take the bolts off the frame. Make sure the top frame does not trap your fingers. Hold the top frame securely in the up position. Adjust the seat height by choosing your required hole position at the bracket and replace the bolts and the nuts. Tighten them securely.



Removable covers

The covers are all fully removable using zips or Velcro® once all the brackets have been removed. The zip for the backrest is located on the underside of the cushion.

Manual adjustable backrest (recline)

For depth adjustment see 'Changing the seat depth' above. To recline the backrest angle simply turn the knob at the bottom on the outside of the backrest (like the seat in a car). If you want to adjust the backrest into the upright position you might need to support the upward motion to be able to turn the knob.



Powered adjustable backrest

For depth adjustment see 'Changing the seat depth' above on page 10.

Integral control (VSI):

To recline the backrest angle (Fig. 27) simply push the actuator switch in front of the joystick. To select the backrest move the joystick to the right to select the backrest and then forwards and backwards to operate the backrest up or down. Release the joystick when the desired angle is reached. Once the back is fully reclined or raised do not hold the joystick in its operating position as this could damage the actuator. Press the actuator switch again to return to the drive mode.

Remote control (Pilot+):

To recline the backrest angle (Fig. 27) simply push the mode switch to select the "actuator mode". The wheelchair symbol LED will appear. With the joystick moved to the left or the right direction you scroll through the possible actuators fitted. To operate the selected one just move the Joystick forward for the up and backwards for the down operation of the selected actuator. Release the Joystick when the desired angle is reached. Once the back is fully reclined or raised do not move Joystick in its operating position as this could damage the actuator. Pressing the mode button again will bring you back into drive mode.

Lowering the backrest by an angle of greater than 15° from vertical alters the balance of your wheelchair.

Never exceed 15° of recline when on any gradient or when driving your wheelchair.

JAY backrests

The standard backrest assembly will allow the fitting of a JAY backrest, which is available as an optional extra.

Headrest

To fit the headrest, fit the location bracket to the backrest brace, using the screws and nuts supplied, ensuring that they are fully tightened. The headrest height is changed by slackening lever, and sliding the inner vertical tube to the desired position, and tightening the lever mechanism. The headrest to seat depth is adjusted by slackening the Allen screw, and moving the hinge to the desired position, and tighten the screw securely. To adjust the headrest angle, loosen the screws at the headrest upholstery, position the headrest as required and tighten the screws securely.



Note: This headrest is not to be used when transporting the user, with the chair, in a motor vehicle.

Lights and indicators

SAMBA can be equipped with lights and indicators. Where lights are not factory fitted, they may be fitted as an optional extra by an approved Sunrise Medical service dealer.

Lighting bulb exchange procedure

If bulbs of your lights and indicator system show a defect, please proceed in the following way:

Front lights and indicators:

Use a cross screw driver to release the screw of the light or indicator glass. Take the glass off. This gives you access to the bulbs.

- For the lights a 12 V/3 W bulbs with an E 12 thread are required
- For the indicators a 12 V/5 W bulbs with a 90° bayonet socket are required



Rear lights and indicators:
Lift the red or orange glass of the light carefully off the socket. If a bulb needs to be replaced a 12 V/5 W cylindrical, capless is required.
Note: We recommend for the safety of the chair and the lighting circuit to use original Sunrise Medical or through Sunrise Medical authorised spare parts only.



Proportional control

Programming the control. When the chair leaves the factory, the parameters of the controller are set to default.

To program the controller you need a special programming device (Handheld or PC software) which is available through your Sunrise Medical Dealer.

Note: SUNRISE MEDICAL does not accept responsibility for damages which result from unexpected stopping of the wheelchair or inappropriate programming or unauthorised use of the wheelchair.

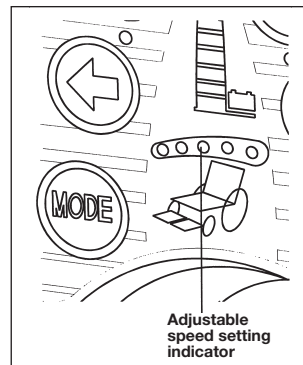
Note: Programming the controller of the wheelchair is only allowed through authorised Sunrise Medical agents. Incorrect controller settings could cause driving outside the safe limits and could result in damage or injury.

Adjustable speed setting

Your controller has five speed settings.

To adjust:

1. Press the mode button until the speed settings indicator is flashing (Fig. 29).
2. Increase or decrease the speed setting by pushing the joystick to the left or right respectively, until the required setting is obtained. To activate the setting either push the joystick forwards to drive or press the mode button until the flashing lights are no longer flashing.
3. When the third or middle speed indicator light is selected on a 10 km/h chair, the vehicle is set at 4mph.

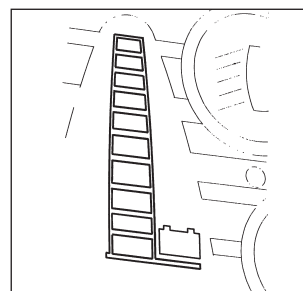


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Please note that this is the maximum speed permitted for pavement travel.

Battery level indicator

This has ten colour coded lights, 3 red, 4 orange, and 3 green, and denotes the state of charge of the batteries (Fig. 30). Green is high, Orange is low, and Red is dangerously low. The most accurate reading is attained when the chair is stationary and on a level surface. The lights also help indicate the position of a fault (should the need arise). When in fault the lights will flash quickly. Noting the number of lights flashing may help your service agent in simple fault finding.



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The Penny and Giles Pilot + control pod

Power supply

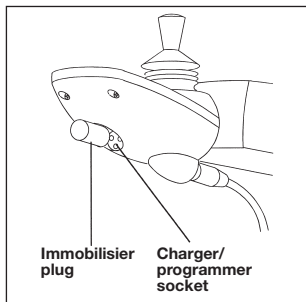
Ensure the power lead is connected correctly into its socket on the rear of the control pod (Fig. 27).

The immobiliser plug

When this is activated the chair will not function, other than the hazard warning light system. This may be useful if you wish to leave your wheelchair unattended (Fig. 27).

To activate the immobiliser

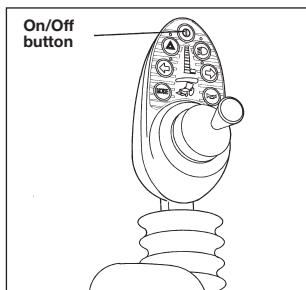
1. Switch the chair on via the On/Off button (Fig. 28).
2. Insert the immobiliser plug into the charger/programmer socket located on the front of the control pod.
3. Remove the plug after 1-2 seconds.
4. Your chair should now be immobilised.



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To de-activate the immobiliser

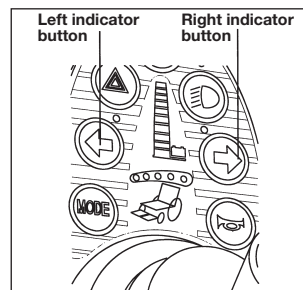
1. Switch the chair on via the On/Off button (Fig. 28).
2. Insert the immobiliser plug into the charger/programmer socket located on the front of the control pod.
3. Remove the plug after 1-2 seconds.
4. Your chair should now be ready to use.



28.1

Indicators

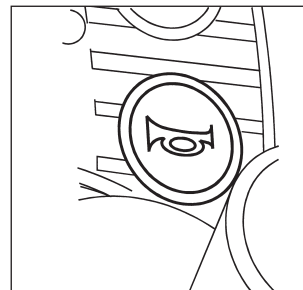
The right hand button operates the right side, front and rear indicators, the left button operates the left side, front and rear indicators. To cancel press the button again (Fig. 31).



31

The horn button

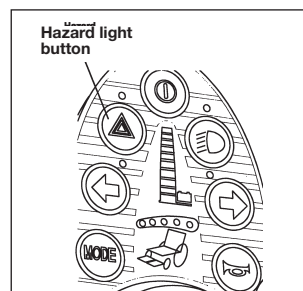
When pressed the horn buzzer will sound, it stops when you release the button (Fig. 32).



32

Hazard lights

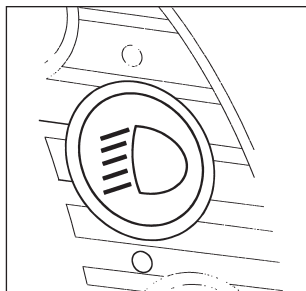
Depressing the button will operate the front and rear hazard lights. This is effective either when the chair is switched On or Off. The two indicators will flash intermittently until cancelled by pressing the button again (Fig. 33).



33

Main lights

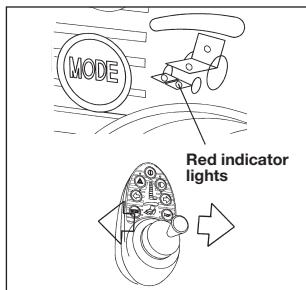
Depressing this button will operate the lights (Fig. 34) only when the chair is switched on. Pressing it again will switch the lights off.



34

Actuator mode function

This will be included on your remote control pod if you have one or more electric options fitted to your chair. Refer to Fig. 35.



35

Menu select

To chose an electric option press the mode button until the red lights are visible on the wheelchair diagram next to the joystick. Move the joystick to the left or right to indicate which function can be used.

When the desired function has been chosen you can activate the electric actuator system. If you attempt to operate the electric functions when driving, the chair will automatically come to a safe stop. We recommend you only use the electric options whilst stationary.

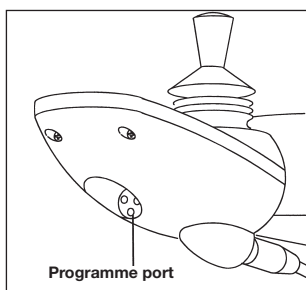
Up/down movement

Once the relevant electric option has been chosen the required movement is achieved by moving the joystick forwards or backwards.

Programme port

This will enable an approved service agent to reprogramme your chair and also gain useful information when tracing any faults (Fig. 36).

Note: If you need to stop in an emergency, the simplest and safest way is to just release the joystick. This will bring the chair to halt in a controlled manner. A second means of bringing the chair to a halt is to press the On/Off switch. This method is not recommended as the chair will stop very abruptly and will cause unnecessary wear in the chairs braking system.



36

Charging socket

See section on charging.

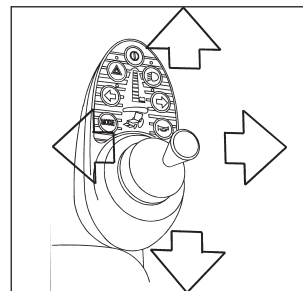
Operating the control joystick

When engaging the main On/Off switch, allow a few seconds prior to moving the joystick. This allows the system to self check. If you move the joystick too soon, the battery level indicator display will flash, disabling drive to your wheelchair. Whilst this is not harmful to your wheelchair, you will need to switch off and then back on to clear the system.

To steer, simply move the joystick in the direction you wish to go. Proceed slowly at first, i.e., do not push the joystick too far forward. Brakes will operate as soon as the joystick is released and allowed to return to its centre position. On level ground, this should bring you to a halt within one chair's length (6 km/h model). On a steep hill, it may travel slightly further and you will notice the brakes being automatically applied when the chair is nearly stationary. Once the brakes have been applied, switching off will make no difference to the brakes, although it is always safer when remaining stationary for a period of time to switch off.

Summary






1. To steer, simply move the joystick in the direction you wish to go (Fig. 37).
2. The further you move the joystick, the faster you will go.
3. New users should use slower speeds until they feel confident when driving the powerchair. Adjust the speed range as explained on the previous pages.
4. The brakes will automatically stop the wheelchair from any speed when the joystick is released.
5. Switching off immediately applies braking and is not recommended for normal use.
6. It is important that the chair is stationary when changing direction from reverse to forward.
7. Always switch to off before getting into or out of the chair.



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Integral Control System (VSI)



- On/off button: This connects or disconnects the entire electronic system, which supplies energy to the motors. Do not use this button to stop the chair except in case of emergency, in doing so may damage the wheelchair. 
- Battery Gauge: This indicates that the wheelchair is under power. It also indicates any fault there may be in functioning. The number of lights flashing indicates the fault type. (See "Battery Gauge" in this manual.) 
- Speed indicator: This indicates the maximum speed set for the wheelchair. There are five speeds predefined. The first is the lowest, the last is the highest. 
- Speed decrease button: Decrease the maximum speed setting 
- Speed increase button: Increase the maximum speed setting 
- Horn switch

- **Battery Gauge**
 - If it remains lit, this means that everything is OK. It flashes to indicate any fault that may have arisen. Slow and stable flashing means the batteries need charging.
 - If it flashes once every 2.5 seconds, this means that the control system has deactivated particularly if the wheelchair has not been used for a certain period of time. To reactivate it, turn off the system and then turn it on again.
 - If the fault indicator flashes rapidly, this indicates that there is a fault. Turn off the system. Check the state of the batteries and the connections, and turn on the system again. If the flashing continues, the number of bars flashing will indicate the location of the fault.
- If the number of bars on is 1: The batteries need charging, or are badly connected.
- If the number of bars on is 2: The left motor is improperly connected.
- If the number of bars on is 3: Electrical fault in the left motor.
- If the number of bars on is 4: The right motor is improperly connected.
- If the number of bars on is 5: Electrical fault in the right motor.
- If the number of bars on is 6: The battery charger is plugged in.
- If the number of bars on is 7: Fault in the control.
- If the number of bars on is 8: Fault in the control system. Make sure the control system connections are secure.
- If the number of bars on is 9: Fault in the electromagnetic brake.
- If the number of bars on is 10: Excess voltage.

To operate the lights and indicators press the relevant switch for the on and off operation.

To operate the actuators press the actuator button in front of the joystick. A left or right movement of the joystick selects the tilt or back actuator. A LED will indicate the option selected.

Moving the joystick forwards and backwards changes the angle of the seat option chosen.

By pressing the actuator button again you return into the drive mode.

Parallel Swing Away Arm

Before adjusting the swing-away arm, switch off the controller to avoid accidental displacement of the joystick which would cause unwanted movement of your wheelchair.

Gently apply pressure to the side of the controller nearest the user and as close as possible to the front of the controller.

The controller will move outward and then backward before reaching its fully back position.

Keep your fingers and clothing, etc., clear while operating the swing-away mechanism.

If required, your wheelchair can be operated with the swing-away mechanism in its fully back position, but only for slow manoeuvring such as positioning the wheelchair closer to table tops, etc. To revert to the normal driving position, switch off the power and pull the arm outwards and then forwards before returning the arm to its 'home' position. Make sure the controller is fully engaged in its home position before switching on and operating the wheelchair in the normal manner.

Caution:

Do not hang any items on or over the parallel swing-away remote assembly as this could damage the swing-away mechanism. When transferring to and from the wheelchair do not use the remote as a means of support.

Warning:

Keep fingers, clothing, etc., clear of the swing-away mechanism at all times. Ensure the power is switched off while adjusting the parallel swing-away arm. Only operate the wheelchair at low manoeuvring speed when the parallel swing-away is in use.

Kerb climber

Retrofitting the kerb climber

To retrofit the kerb climber as an optional extra you need to take out the bolts of the height adjustment mechanism. Start with one side after the other.

Procedure: Take out the bolt of the left hand height adjustment mechanism by using two 13 mm spanners. Replace the bolt with a longer one and spacer, as supplied with the kerb climber retrofit kit. Fit the left hand kerb climber bracket on the inside of the bottom frame with the height adjustment bolt. Screw the second bolt and spacer through the front hole of the three-point mechanism for height adjustment into the bottom frame.

Proceed in the same way for the right hand bracket.



Fitting and removal procedure

1. Locate the kerb climber bar into the left hand location bracket and push it into the right hand receiver bracket.
2. Hold the kerb climber with your right hand in the receiver bracket.
3. Align the holes of the receiver bracket and the kerb climber tube and plug in the locking pin from the top.
4. Reverse the procedure to remove the kerb climber.

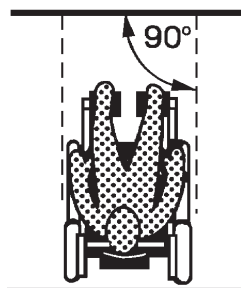
Front transfers

If you find that the kerb climber is obstructing your exit or entry into the wheelchair you can swing the kerb climber back into the reverse position. Follow the fitting instructions above, but rotate the climber through 90° backwards.

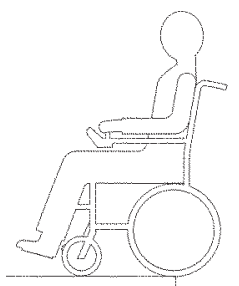
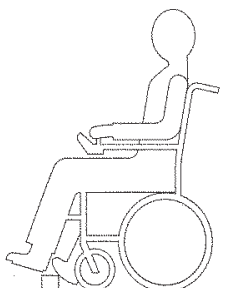
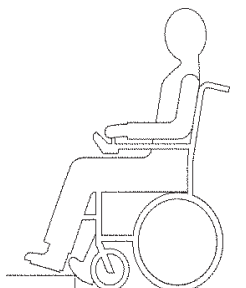
The kerb climber must be returned to its operating position prior to climbing kerbs.

Mounting the kerb or step

1. Approach the kerb (step) head on driving forwards slowly and steadily and always at a 90° angle (Fig. 38).
2. As the Kerb Climber makes contact with the kerb (step), the wheelchair should be moving slowly. Small kerbs can be climbed from a standstill.
3. Apply sufficient power to the motors to lift the front of the chair up onto the kerb (step) and then apply slightly more power and speed so that the drive wheels climb the kerb (step) smoothly and without hesitation. As far as possible, keep the joystick in the straight forward position.
4. In accordance to the ground clearance, the maximum Obstacle height possible to pass is 50 mm (100 mm with kerb climber).



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Dismounting the kerb

1. Reverse the chair slowly and carefully until both rear wheels are on the edge of the kerb again in a 90° position to the kerb (Fig. 39).
2. Reverse as slowly as possible off the kerb with the rear wheels. You will feel more secure if you can lean forward, but if you can't, don't worry, the wheelchair is extremely stable. As long as you stay within its limitation, you will be quite safe.
3. The front of the chair will naturally follow down the kerb as you continue to drive slowly backwards.

Caution

1. **Please show the utmost consideration for the other traffic on the road. Remember that the last thing a car or lorry driver expects to see is a wheelchair backing off the kerb into the road. If in any doubt, do not risk crossing the road until you are certain that it is safe.**
2. **Always cross the road as quickly as possible, there may be other traffic.**
3. **Do not attempt to go up or down more than a 10 cm (4") high kerb (only with kerb climber fitted).**
4. **Do not attempt to use the kerb climber on a series of steps.**
5. **Do not attempt high kerbs if on steep slopes or cambers.**
6. **Do not attempt any kerbs in the vicinity of drain covers, uneven or gritty road surfaces.**
7. **Do not attempt to dismount a kerb any higher than 5 cm (2") in the forwards direction.**
8. **Do not mount or dismount kerbs at an angle other than straight on (90 degrees) to the edge of the kerb.**
9. **Prior to climbing ensure your legrests will clear the kerb.**
10. **Take care of the anti tips which might interfere with the kerb or the ground when mounting or dismounting a kerb.**

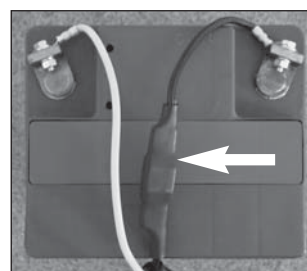
Batteries and charging

Batteries

The batteries are contained within the drive unit located under the shroud. To remove the batteries, should they require changing or maintenance, first lift the shroud of the drive unit and then disconnect the 2 pin Andersen connectors of each battery. There are straps available on each battery where they can be lifted out. For an easier access, de-dock the frame from the drive unit. The drive unit will automatically tip onto the anti tip wheels into a stable position. In this position please take out the front battery first, then the rear one. If the drive unit is still attached to the frame, please remove the rear one first. To fit the batteries please proceed in the opposite way.

Safety cut-outs

In the event of a short circuit there are safety systems built into your wheelchair to safeguard your electrical circuits. Fusible links are connected on to the battery terminal posts (Fig. 39.1). Should your chair suffer a short circuit these links will break the circuit. To replace them contact your local Sunrise Medical service dealer, who will also diagnose the fault.



39.1

General information

Batteries are the power source for almost all of the modern mobility products available today. The design of batteries used in mobility products is significantly different to the batteries used to start a car for example. Car batteries are designed to release a large amount of power over a short period of time, whilst mobility batteries (commonly called deep cycle batteries) release their power evenly, over a long period of time. Therefore, due to the lower production volumes and increased technological requirements, mobility batteries are typically more expensive.

Commonly two 12 volt batteries are used together in a mobility product, giving a total voltage of 24 volts. The size of the battery, (e.g. its available power) is expressed in amps per hour e.g. 30amp/hr. The higher the number, the bigger the battery size, weight and, potentially, the greater the distance you can travel.

Sunrise Medical only fit as standard maintenance free batteries into this type of wheelchair.

Maintenance free batteries

This type of battery uses a method of carrying the electrolyte commonly referred to as 'gel', that is held within the battery case. As the name implies, no maintenance is required other than regular charging. You can safely transport this type of battery without fear of acid spilling. Furthermore, they are approved for transportation on aircraft.

Battery care

Below is set out a battery care plan for maintenance free batteries. This has been agreed between Sunrise Medical and the battery manufacturers, to enable you to get the best out of your batteries. If a different care plan is followed, this may result in lower than expected performance from your mobility vehicle.

Maintenance free battery care plan

1. Only use an approved Sunrise Medical charger compatible with the vehicle to be charged.
2. Charge your batteries every night, regardless of the amount of use your mobility device has had during the day.
3. Do not interrupt the charging cycle.
4. If your mobility device is not required for use, it should remain connected to the charger until required. This will not damage your batteries, so long as the mains socket/plug is left switched on. Turning the mains socket/plug off, but leaving the mains cable plugged in will eventually deplete your battery charge.
5. If you leave your vehicle for an extended period (more than 5 days) disconnect the main battery lead.
6. Failure to allow for recharge will damage the batteries and can lead to shortened distances and premature failure.
7. Do not top up the charge of your batteries during the day. Wait until the evening for a full overnight charge.
8. As a general rule, maintenance free batteries take longer to fully charge than lead acid batteries.
9. The battery terminals need to be checked regularly for signs of corrosion. If any corrosion is apparent, then clean the terminals completely (a wire brush is ideal) and re-grease the terminal using Vaseline petroleum jelly, not ordinary grease. Ensure that the terminal nut and bolt, cable clip and exposed cable are completely covered with jelly.
10. Following all the points above should result in a healthier battery, greater range for the vehicle user and a longer life for your batteries.
11. Return the batteries back to Sunrise Medical or directly to the battery manufacturer for recycling, when they no longer hold charge.

Do not expose any part of the battery to direct heat (i.e. naked flame, gas fire).

When charging always place on a hard surface in a room with good ventilation.

You should not charge your batteries in outdoor conditions.

General

The external charger (Fig. 40) has been designed to charge two 12 volt Sonnenschien Dryfit Gel type batteries.

Safety features

The chargers have features which prevent hazards or accidents occurring as a result of connecting batteries the wrong way round, overheating caused by fault conditions, or attempting to charge wrong voltage batteries.

The majority of charger sizes are electrically double insulated and no earth connection is required. Some larger sizes may be electrically earthed and this will be clearly stated on the label.

The 3 pin UK mains input plug contains a replaceable fuse. The rating of this fuse is shown on the

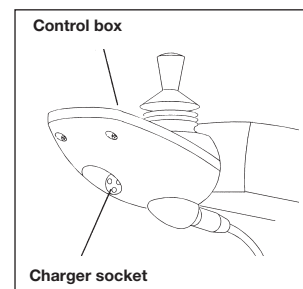
charger label. Always replace with the same type and size of fuse as specified. Fitting of different fuses can result in damage to the charger or failure of the charger to operate properly.

If your charger has been specified for use in Continental Europe it will contain a European two pin plug which does not have a fuse. In this case the fuse is located in the fascia panel of the charger.

Note: Please read the owners manual with the charger supplied carefully. The general procedures and effects for the interference with the chair and the batteries remain still valid.

Procedure for connecting the charger and charging

1. The wheelchair can be charged via one of two charging sockets. The charger socket most convenient and often used is located on the front of the Pilot Control Box (Fig. 44). The other charger socket is located on the rear of the battery boxes. The charger socket on the battery box is useful should you require to charge the batteries independently from the chair, to do this remove the batteries and charge in a more convenient location making sure that the two batteries are connected together.
2. Connect the charger to the mains supply by means of the mains plug and switch on.
3. Do not leave the charger connected to the battery with the mains disconnected or switched off. This could result in damage to your battery being caused by deep discharge over a period of time.
4. Always switch off at the mains before disconnecting the batteries.



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Safety and caution notes

1. The charger is designed for indoor use. Do not use outdoors or expose to rain, snow, spray or moisture.
2. Use only with Sonnenschein dryfit Gel type batteries of the A200, A500 or A500C groups when employed in cyclic mode.
3. The charger may be used with other brands of Gel type batteries, subject to written confirmation from the Technical Department of Sunrise Medical.
4. Do not smoke, or create sparks or flames in the

vicinity of the batteries.

5. Avoid standing the charger on carpets or rugs during use and do not cover the ventilation slots of the charger or allow objects to rest on the case.
6. Do not attempt to recharge other types of batteries such as car batteries, non-rechargeable batteries, AGM sealed batteries, wet electrolyte batteries or batteries of the wrong voltage.
7. Repairs should only be carried out by Sunrise Medical.
8. The charger is designed for mains input voltages of 220V AC to 240V AC, for chargers to operate with 110V AC (in countries such as North America), a different charger will be needed, please consult your local Sunrise Medical Dealer.
9. Use of an attachment, not recommended or sold by Sunrise Medical, may result in a risk of fire, electric shock or injury to persons. To reduce the risk of damage to electric plug and cord, pull by the plug rather than the cord when disconnecting the charger. Make sure the cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If any extension cord must be used, make sure the pins on the plug of the extension cord are the same number, size and shape as those of the plug on the charger; and that the extension cord is properly wired and in good electrical condition.

Important !

- **Do not** rest a battery on top of the charger.
- **Do not** stand the charger on a carpet or other soft surface. Always place it on a hard surface.
- **Do not** operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way, take it to a qualified technician.
- **Do not** disassemble charger; only have it repaired by the manufacturers. Incorrect re-assembly may result in a risk of electric shock or fire. To reduce the risk of an electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
Turning off the controls will not reduce the risk.
- **Never** place the charger directly above the battery being charged; gases from the battery will corrode and damage the charger.
- **Never** Smoke or allow a spark or flame in the vicinity of battery or charger. Be extra cautious to reduce the risk of dropping a metal tool on to the battery. It could spark or short circuit the battery or other electrical parts, that may cause an explosion. Also take off all personal metal effects and dangling objects when working on the battery.
- **Never** Charge a frozen battery. A fully charged battery will rarely freeze but the electrolyte of a discharged battery can freeze at 16° Fahrenheit (-9° Centigrade), any battery that is suspected of being frozen should be thawed completely before charging.

Note: When buying replacement batteries always consult your Sunrise Medical service agent.

Battery warranty

Battery warranties are subject to periods set by the manufacturers, however, most of these warranties are subject to a wear and tear clause, and if you genuinely wear out your batteries in 6 months, it will not be possible to obtain a replacement under warranty.

The range of your vehicle

Most manufacturers of mobility products state the range of their vehicles either in the sales literature or within the Owners Manual. The range stated sometimes differs from manufacturer to manufacturer even though the battery size is the same. Sunrise Medical measure the range of their vehicles in a consistent and uniform manner, but variances still occur due to motor efficiencies and overall product load weight.

The range figures are calculated to **I.S.O. Standard 7176. Part 4: Wheelchair Energy Consumption Theoretical Range**

This test is carried out in controlled conditions with new, fully charged batteries, on a level test surface and a user weight of 75kg. The range figures stated should be seen as a theoretical maximum and could be reduced if any single, or combination, of the following circumstances occur:

1. User weight heavier than 75kg.
2. Batteries whose age and condition are less than perfect.
3. The terrain is difficult e.g. very hilly, sloping, muddy ground, gravel, grass, snow and ice.
4. The vehicle climbs kerbs regularly.
5. The ambient temperature is very hot or very cold.
6. Incorrect tyre pressures in one or more tyres.
7. Lots of start/stop driving.
8. Also thick pile carpets within the home can affect range.
9. Use of additional power consumption options (e.g. light, actuators, etc.)

All this technical information may seem complicated and a little daunting, but please remember, that the battery sizes available on each Sunrise Medical product should give sufficient range to cope with the majority of customer's lifestyles.

Myths and legends

Over the years, battery technology has moved forward but, unfortunately, some of the advice given on battery care has not. This has resulted in a number of confused and at times contradictory instructions on the 'best' way to care for your batteries. This section will help to dispel some of these myths and legends.

1. Batteries can be charged immediately after use.
You do not need to allow them to cool prior to charging.
2. Mobility batteries do not develop a memory from using a repetitive charge and discharge cycle.
This only applies to nickel cadmium batteries commonly found in products such as camcorders.
3. Batteries when new do not require any special attention with regard to their charge and discharge cycle. Following the relevant 'care plan' is the best advice we can give.

User tips

Caution

Please show the utmost consideration for the other traffic on the road.

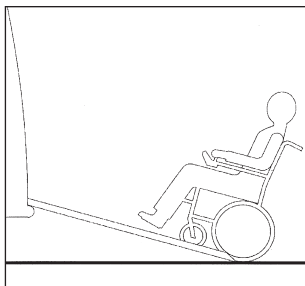
Remember that the last thing a car or lorry driver expects to see is a wheel chair backing off the kerb into the road. If in any doubt, do not risk crossing the road until you are certain that it is safe. Always cross the road as quickly as possible; there may be other traffic.

Adverse conditions

Please be aware that when driving your wheelchair in adverse conditions, e.g. on wet grass, mud, ice, snow, or other slippery surfaces you may experience a reduction in the grip and traction of your wheelchair. We recommend you take extra precautions in these conditions, particularly on hills and slopes, your wheelchair could become unstable or skid causing possible injury. Extreme variances in temperature may trigger the self protect mechanism in the control system. If this occurs the control system will temporarily shut down to prevent damage to the electronics or the chair.

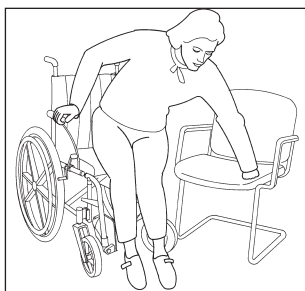
Ramps

When using a ramp, please ensure that it is capable of taking the combined weight of the power-chair and yourself. If a ramp is being used to load a chair into a vehicle, please ensure the ramp is properly secured to the vehicle. Always approach the ramp head-on and exercise caution.



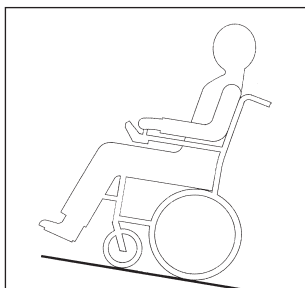
Transfer to and from the chair

Sunrise Medical recommend that you consult your healthcare professional for assistance in developing your personal front or side transfer technique to best suit your needs, and avoid any personal injury.



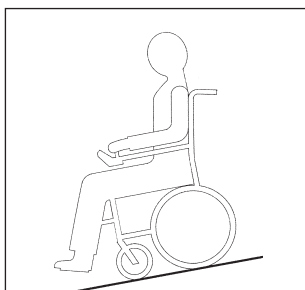
Gradients: ascents

When going uphill, keep the chair moving. Keep the joystick pushed well forward and steer by moving it from side to side. If you have stopped on a hill, then you should start slowly, and if necessary lean forward to prevent the tendency for the front wheels to lift.



Gradients: descents

On descents, it is important not to let the wheelchair accelerate beyond its normal level of ground speed. In fact, it is safer to proceed slowly down steep descents and stop immediately if any anxiety arises regarding directional control. If the chair picks up speed, centre the control to slow it or to stop all forward movement, then restart slowly and do not allow the speed to increase. The solid state controller has the benefit of a logic system, that will help compensate when driving along a camber or up a hill. This is an added safety feature on your wheelchair. In addition of course, you may control the wheelchair speed by using the speed control (Fig. 50).

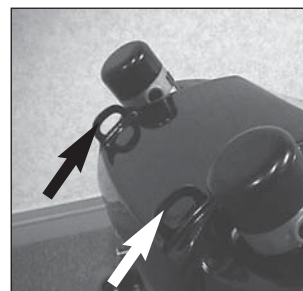


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Transportation

Clamp points

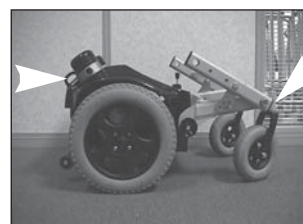
The SAMBA has been crash tested to ISO 7176 Part 19. However, we do not recommend that you transport the SAMBA with a person sitting in it in a vehicle. Should you still choose to transport the SAMBA, please clamp the product using a 4 Point Webbing Restraint as per the diagram shown (Fig. 51).



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Transportation in vehicles

This wheelchair has been crash tested in its standard configuration. However, due to safety risks Sunrise Medical do not recommend the transportation of people in their wheelchairs.



Should a person need to be transported in the wheelchair on transport systems, the following should be adhered to:

1. The wheelchair must be positioned forward facing.
2. For tie down points on the wheelchair, please look for the tie-down symbols on the wheelchair.



3. A head restraint must be fitted and suitably positioned at all times during the transportation.
4. If possible, remove seat cushion to create a lower centre of gravity.
5. The chair is crash-tested, and has satisfied the Dynamic test requirements of ISO 7176-19.
6. The wheelchair must be secured by a 4-point Tie Down Restraint system, conforming to ISO 10542 part 2.
7. The occupant must be restrained independently of the wheelchair by a lap and diagonal safety belt, conforming to ISO 10542 part 3. Sunrise Medical postural lap belts are for postural support only, and not suitable as restraints during transportation.
8. Any detachable accessories or components of the wheelchair must be removed and stored securely in the vehicle luggage compartment during transportation.
9. The Tie down restraints should be fitted to the main frame of the wheelchair as indicated by the karabiner stickers, and in the User Manual, and not to any other part of the chair.
10. The Tie Down restraints should be attached as close as possible at an angle of 45°, and tightened securely in accordance with the restraint manufacturers' instructions.
11. The wheelchair parking brakes must be firmly applied

Maintenance

Cleaning

The wheelchair should be wiped over once per week with a slightly damp, not wet, cloth and any fluff or dust that has accumulated around the motors should be blown or dusted away.

Tyre pressures

If pneumatic tyres are fitted to your wheelchair it is important to regularly check the air pressure and for signs of wear.

The correct pressures are between the minimum of 137 kiloPascals (20 psi, 1.37 bar) and the maximum 241 kiloPascals (35 psi, 2.41 bar) for rear wheels.

The pressure will need to vary, depending on the weight of the user. IT IS IMPORTANT that front wheels are inflated to the same pressure as a pair, and likewise the rear. The inflator pump provides the safest method of inflating your wheelchair tyres and the pressure can be checked with a standard motor vehicle pressure gauge.

Do not inflate beyond the maximum tyre pressure.

Electrical connections

When inspecting electrical connections, pay attention to the battery connections, the connection of batteries to power loom and plug in sockets for the joystick, control box and lights and indicators.

Tyre wear

When inspecting the tyres for signs of wear, look for significant scuff marks, cuts and a diminished tyre tread. Tyres will need to be changed when the tread cannot be seen over the complete surface of the tyre.

Upholstery/seating

Tears, dents, wearing or slackening of upholstery particularly near to metal could result in poor posture or lower levels of comfort and pressure relief.

Authorised Sunrise Medical service agents

The annual full service must be performed by an approved Sunrise Medical Service Agent. For a list of approved service agents in your area please contact Sunrise Medical Service Center on this telephone number:

01384 44 66 66

Storage

When storing your powerchair for long periods of time (in excess of one week), first fully charge, and then disconnect the batteries, to minimise battery discharge.

Never store your wheelchair in direct sunlight. It might bleach plastic parts and components.

SAMBA maintenance and routine

Complete inspection, safety check and service should be made by an authorised Sunrise Medical supplier or it may void warranty!

Service History

This section is designed to assist you in keeping a record of any service and repairs to your Wheelchair. Should you decide to sell or exchange your vehicle in the future, this will prove most helpful to you. Your Service Agent will also benefit from a documented record and this manual should accompany the Wheelchair when service or repair work is carried out. The Service Agent will complete this section and return the manual to you.

Your new wheelchair is manufactured in the West Midlands by Sunrise Medical. With over 30 years experience, we are one of the longest established mobility equipment manufacturers in the UK. All our Scootas, Wheelchairs and Powerchairs undergo rigorous tests to ensure that they meet our requirements of comfort, safety and durability. Our success is based on the strong traditions of quality, value for money and genuinely caring for our customers.

We pride ourselves not only on designing and building the most innovative products but also on our commitment to offer an excellent standard of customer service both during and after sale.

Service History

This section is designed to assist you in keeping a record of any service and repairs to your wheelchair. The service Agent will complete this section and return the manual to you.

Model				
Serial No.				
Year	1	2	3	4
Service dates				
Controller				
On/Off switch				
Output plug				
Operation				
Dynamic braking				
Programmable configuration				
Batteries				
Levels				
Connections				
Discharge tests				
Wheels/Tyres				
Wear				
Pressure				
Bearings				
Wheel nuts				
Motors				
Wiring				
Noises				
Connections				
Brake				
Brushes				
Free wheel mechanism				
Chassis				
Condition				
Steering				
Fasteners				
Upholstery				
Seat				
Back				
Armrests				
Electric's				
Condition of loom				
Connections				
Test run				
Forward				
Reverse				
Emergency stop				
Left run				
Right run				
Up/down slope				
Over obstacle				
Parking brake				

Note: Only use Sunrise Medical parts for service and repairs

Specification

	Min.	Max.
Effective seat width	350 mm	500 mm
Effective seat depth	380 mm	480 mm
Backrest height	380 mm	480 mm
Overall length (w/legrest)	1040 mm	
Overall width	610 mm	635 mm
Climbing ability upwards		10° (18%)
Seat surface height at front edge	450 mm	510 mm
Ground Clearance	80 mm	
Footrest to seat distance	350 mm	490 mm
Armrest to seat distance	180 mm	300 mm
Folded length	N/a	
Folded width	N/a	
Folded height	N/a	
Total mass (w/batteries)	75 kg	
Seat plane angle	-5°	20°
Backrest angle	-10°	40°
Leg to seat surface angle	70°	90°
Max. Speed forward		6 km/h.
Obstacle climbing (w/kerb climb.)	50 mm	(100 mm)
Max. safe slope		10°
Min. Turning radius	900 mm	
Max. User weight		120 kg
Max. Range (ISO 7176; Part 4)	25 km	32 km
Mass of the heaviest part (drive units without batteries)		31 kg

Note: For more specifications to select the wheelchair a separate specification sheet is available on request.

Replacement units are available on request by the dealer for repairing or changing. Please refer to the SAMBA parts manual available.

Battery installation for the SAMBA wheelchair

First, remove all the parts from the battery box and lean the chair forward to its maximum to achieve greater space for easier installation.

Parts in the battery box:

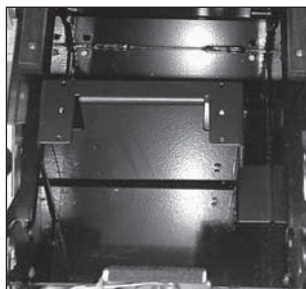
- Supporting plate for rear electric modules.
- Conical-shaped terminals for batteries with cylindrical terminals.
- Two installation cables.

The black plate has holes and is designed to support special controls in the future and to support the batteries inside, to prevent them from moving. It should be placed between the two batteries with the lateral spacer placed on the floor, on the right side if the control goes on the right, and on the left if the control goes on the left.

Connect the batteries with the terminals opposing the centre of the plate to avoid possible contact with it.

CAUTION: Before connecting the battery terminals it is very important to connect together the two connectors that join the cables. This way, if one cable is connected wrongly, it will produce a small spark indicating that something is wrong.

CAUTION: Otherwise, if the cables are connected first and then the connectors together, if there is a problem, the installation will ignite, causing major damage to the batteries.



How to connect the cables to the batteries

The red cable always goes to the positive terminal (+) of one battery. The black cable always goes to the negative terminal (-) of the other battery and one of the yellow cables goes to the negative of one battery and the other yellow cable goes to the positive of the other battery, linking both batteries serially to give a supply of 24 volts.

It is better to direct the cable terminals towards the interior of the box to avoid risk of contact with the outer box.

**If you are in any doubt, please contact Sunrise Medical
Tel 902 14 24 34**

