



Zippie® Power Seating

Supplier: This manual must be given to the user of this wheelchair.

User: Before using this wheelchair read this entire manual and save for future reference.

Owner's Manual

Zippie® Power Seating

Distribuidor: Este manual debe ser entregado el usuario de esta silla de ruedas.

Usuario: Antes de usar esta silla de ruedas, lea este manual en su totalidad y guárdelo para futura referencia.

Manual de Instrucciones

Cada una de las sillas se envía con un manual de instrucciones en inglés. El manual en español y francés está disponible en formato PDF en nuestra página en Internet: www.SunriseMedical.com. Ingrese a la página del producto específico para descargar el manual, o comuníquese con el proveedor autorizado de Sunrise Medical.

Zippie® Power Seating

Au Fournisseur: Ce manuel doit être remis à l'utilisateur de ce fauteuil roulant.

Utilisateur: Avant d'utiliser ce fauteuil roulant, lisez l'intégralité de manuel et conserver pour référence future.

Manuel d'Instructions

Chaque fauteuil est livré avec un manuel d'instructions en anglais. Les versions en espagnol et en français sont à votre disposition en format PDF sur le site : www.SunriseMedical.com. Veuillez vous rendre à la page de votre produit pour télécharger le manuel dans la langue souhaitée, ou contactez un fournisseur agréé Sunrise Medical.

P/N 255249 Rev. A

ZIPPIE® POWER Seating Manual

Instructions for Use

SUNRISE MEDICAL LISTENS

Thank you for choosing a Zippie® wheelchair. We want to hear your questions or comments about this manual, the safety and reliability of your chair, and the service you receive from your Sunrise dealer. Please feel free to write or call us at the address and telephone number below:

SUNRISE MEDICAL (US) LLC

Customer Service Department
2842 N. Business Park Avenue
Fresno, CA 93727 USA
(800) 333-4000



www.SunriseMedical.com/register

Be sure to register your wheelchair, and let us know if you change your address. This will allow us to keep you up to date with information about safety, new products, and options to increase your use and enjoyment of the wheelchair.

You can also register your product at:
www.SunriseMedical.com/register

FOR ANSWERS TO YOUR QUESTIONS

Your Sunrise Medical authorized dealer knows your wheelchair best and can answer most of your questions about chair safety, use, and maintenance.

For future reference, please fill in the following:

Dealer: _____

Address: _____

Telephone: _____

Serial #: _____ Date/Purchased: _____

ADDITIONAL INFORMATION YOU SHOULD KNOW

No component of this chair was made with Natural Rubber Latex.



DISPOSAL AND RECYCLING INFORMATION

When this product reaches the end of its life, please take it to an approved collection or recycling point designated by your local or state government. This product is manufactured using a variety of materials.

Your product should not be disposed of as ordinary household waste. You should dispose of your product properly, according to local laws and regulations. Most materials that are used in the construction of this product are fully recyclable. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is disposed in a manner that protects the environment.

Ensure you are the legal owner of the product prior to arranging for the product disposal in accordance with the above recommendations.

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1.0 User information

Congratulations on choosing a Sunrise Medical wheelchair. Our high quality mobility products are designed to enhance your independence and make your everyday life easier.

As a part of our ongoing product improvement initiative, Sunrise Medical reserves the right to change specifications and design without notice. Further, not all features and options offered are compatible with all configurations of the wheelchair.




All dimensions are approximate and may be subject to change. The intended lifetime of the wheelchair is five (5) years. Please DO NOT use or fit any third party components to the wheelchair unless they are officially approved by Sunrise Medical.

1.1 This user manual

This user manual will help you to use and maintain your seating system safely. This seating manual is a supplement to Sunrise Medical's general wheelchair user manual:

- The general wheelchair user manual
- The user manual for the seating system (this manual)
- The user manual for the controller
- The user manual for the battery charger

When necessary, this seating user manual refers to other manuals as shown below:

-  General manual: Refers to the general user manual for the wheelchair.
-  Controller: Refers to the user manual for the controller.
-  Battery charger: Refers to the user manual for the battery charger.




Do not use your wheelchair until this entire manual (all booklets) has been read and understood!

If one of the user manuals was not included with your wheelchair, please contact your Sunrise Medical authorized dealer immediately.

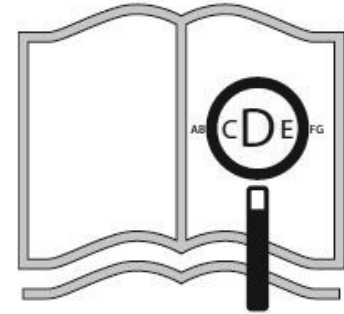
1.2 For further information

Please contact your Sunrise Medical authorized dealer if you have any questions regarding the use, maintenance, or safety of your wheelchair. In case there is no authorized dealer in your area or you have any questions, contact Sunrise Medical either in writing or by telephone. For information about product safety notices and product recalls, go to www.SunriseMedical.com

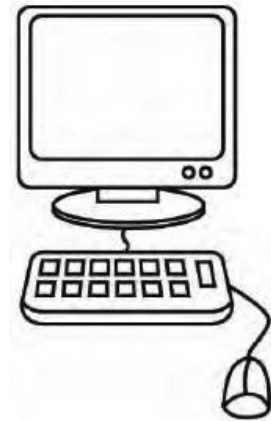
1.3 Symbols used in this manual

-  **DANGER!**
Potential risk of serious injury or death
-  **WARNING!**
Potential risk of injury
-  **CAUTION!**
Potential damage to equipment
- NOTE:**
General user advice

Not following these instructions may result in physical injury, damage to the product, or damage to the environment!



If you are visually impaired, this document can be viewed in PDF format at www.SunriseMedical.com



2.0 SAFETY

Follow the instructions carefully next to these warning symbols! Not paying careful attention to these instructions could result in physical injury or damage to the wheelchair or the environment. Wherever possible, safety information is provided in the relevant chapter.

2.1 Symbols and labels used on the product

The signs, symbols, and instructions affixed to the wheelchair comprise part of the safety facilities. They must never be covered or removed. They must remain present and clearly legible throughout the entire lifespan of the wheelchair.

Replace or repair all illegible or damaged signs, symbols, and instructions immediately. Please contact your Sunrise Medical authorized dealer for assistance.

Fig. 2.1: Warning – Maximum user weight for the wheelchair.

Fig. 2.2: Warning – Do not drive your wheelchair on a slope with the backrest reclined.

2.2 Safety: Temperature

WARNING!

1. Avoid physical contact with the wheelchair's motors at all times. Motors are continuously in motion during use and can reach high temperatures. After use, the motors will cool down slowly. Physical contact could cause burns. Allow the motors to cool down for at least thirty (30) minutes after use before any physical contact and/or service.
2. If you do not use the wheelchair, ensure that it is not exposed to direct sunlight for lengthy periods of time. Certain parts of the wheelchair, such as the seat, the back, and the armrests can become hot if they have been exposed to full sunlight for too long. This may cause burns or allergic reactions to the skin.

2.3 Safety: Moving parts

DANGER!

A wheelchair has moving and rotating parts. Contact with moving parts may result in serious physical injury or damage to the wheelchair. Contact with the moving parts of the wheelchair should be avoided (Fig. 2.3).

1. Wheels (turning and caster)
2. Powered tilt in space adjustment
3. Powered seat lift option
4. Swing-away bracket of the controller
5. Powered elevating leg rest

2.4 Safety: Choking hazard

DANGER!

This mobility aid uses small parts which under certain circumstances may present a choking hazard to young children.

SUNRISE MEDICAL (US) LLC
2842 N. BUSINESS PARK AVE
FRESNO, CA 93727 USA
(800) 333-4000
MAX USER WEIGHT 165 LBS (75 KG)
P/N 117125 Rev. C

Fig. 2.1



Fig. 2.2

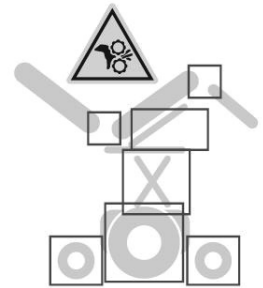


Fig. 2.3

2.5 Safety: General warnings**⚠ DANGER!**

1. 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.
2. Always ensure that you can be seen clearly. Use the lights, especially if you intend using your seating system in poor light.
3. This seating system has been set up to match the needs of a particular user. If used by another user, then it may need to be adjusted.
4. Do not let children or others use the seating system.
5. Avoid spilling liquids on to the controller or its connections, especially hot, sticky, sugary, or corrosive liquids. Such contamination may compromise the safe operation of the control system and damage the seating system upholstery.

⚠ WARNING!

DO NOT use any wheelchair that has been involved in a motor vehicle accident. A sudden stop and/or collision may structurally damage your wheelchair. There may have been a change to the structure of the chair and/or damaged or broken some of the components.

Inspect for: visual cracks, dents, metal distortion, bends, or damage to the seating mounting. **If the wheelchair has been involved in an accident, discontinue use immediately and contact your Sunrise Medical authorized dealer for a thorough inspection.** Work with the dealer to determine if the device is still safe to use if it has been involved in a collision. If the damage is questionable or if there is concern regarding the condition of the chair, Sunrise Medical recommends replacement of the chair.

NOTE: the warranty is void on any wheelchair that is involved in a collision.

2.5.1 User and Attendants**⚠ DANGER!**

1. When transferring the user in or out of the seating system, never use the footplate as a platform.
2. When transferring the user in or out of the seating system, never use the armrest as a means of support.
3. Do not lift this seating system by any parts that are removable. Doing so may result in damage to the seating system or injury to the user.
4. Never try to stop or slow this seating system with the wheel locks (if applicable). Wheel locks are designed to prevent the system from moving when stopped. They are not brakes.
5. Always keep your hands and body parts clear of moving parts to help prevent injuries.

2.5.2 User**⚠ DANGER!**

1. Every seating system is different.
2. Take the time to learn the feel of this system before you begin riding.
3. Be aware that you must develop your own methods for the safe use of this system that are best suited to your level of function and ability.
4. Have someone help you practice bending, reaching, and transferring until you learn how to do them safely.
5. Never try a new maneuver on your own unless you are sure it is safe.
6. Get to know the areas where you plan to use your system. Look for hazards and learn how to avoid them.
7. Always wear a positioning belt.
8. Do not use a seating system if the joystick does not spring back to the neutral position.
9. Do not use your seating system if the joystick boot is ripped or damaged.
10. Do not try to tip this seating system without an attendant present.
11. Do not allow additional riders; the system may become unstable.

2.5.3 Attendants**⚠ DANGER!**

Ensure you heed all warnings and follow all instructions in each section of this manual. Warnings that apply to the user also apply to you.

1. Do not stand or sit on any portion of this seating system.
2. You need to work with the user, and the user's doctor or health care provider, to develop safe methods best suited to your abilities and those of the user.
3. To manually push the system you must release the motor brakes.
 - a. Do not engage or disengage motor brakes **unless** power to the system is **off**.
 - b. Ensure you have full control over the system when you release the motor brakes. When you do so the system will not have brakes.
 - c. Ensure the system is on level ground before you release the motor brakes.
4. Check to ensure push handle grips will not rotate or slip off.

2.5.4 Attendant control**⚠ DANGER!**

Ensure you always have comfortable access to the controls while the chair is moving and ensure that the controller is fixed securely to the chair.

1. Set the speed of the attendant control to a speed that you can comfortably follow.
2. Always turn off the power to the controller when leaving the user in the chair.

2.6 Safety: Accessory Trays**Safety: Vent tray****⚠ DANGER!**

Using a vent tray will affect the stability and overall weight of your wheelchair.

1. Ensure that the batteries and the ventilator are securely fastened to the tray before use.
2. Familiarize yourself with the increased size of the wheelchair before driving to prevent potential collisions.
3. When activating the recline backrest ensure that the area around the vent tray is clear.
4. Be aware that the vent tray assembly can cause a finger trap hazard when the backrest is reclined.
5. The vent tray is not designed to hold anything other than the vent unit and its batteries. It is not designed to hold an oxygen bottle, etc. Use of these items may cause your wheelchair to become unstable.
6. The vent tray must be installed and maintained by a Sunrise Medical authorized dealer.

Safety: Swing away tray**⚠ DANGER!**

1. The maximum load allowed for the tray is 5.5 lbs (2.5 kg).
2. Do not overload the tray. This could cause the tray to break or could cause the chair to become unstable.
3. Do not leave lit cigarettes or other heat sources on the tray as this could cause the tray to deform and mark.
4. Ensure that all extremities and clothing are clear when positioning the tray for use.

2.7 Safety: Stability**⚠ DANGER!**

1. Removing the batteries may cause the chair to become unstable causing it to tip backwards.
2. Only remove the batteries while the chair is on the ground.
3. Do not remove the batteries while the chair is on a lift table or on any other elevated surface.

3.0 GENERAL DESCRIPTION

General description

This wheelchair is equipped with the Zippie Power seating system. The Zippie Power seating system provides excellent support for the head, torso, arms, and legs. Optimal body support ensures maximum independence for the wheelchair user.

The wheelchair must be adjusted by a qualified specialist. Incorrect settings may have negative consequences for the seating posture.

Main Components (Fig.3.1).

1. Joystick
2. Armrest
3. Seat Cushion
4. Leg rest
5. Backrest
6. Headrest

3.1 Maximum user weight

The overall maximum user weight shall not exceed:

Zippie Seating System - 165 lbs (75 kg)

WARNING!

Exceeding the weight capacities could lead to injury and/or permanent damage to the equipment.

NOTE — Exceeding the weight limit will void the warranty.

Indications

The varieties of fitting variants, as well as the modular design, mean that it can be used by those who cannot walk or have limited mobility because of:

- Paralysis
- Loss of extremity (leg amputation)
- Extremity defect deformity
- Joint contractures/joint injuries
- Illnesses such as heart and circulation deficiencies, disturbance of equilibrium or cachexia as well as for elderly people who still have strength in the upper body.

Contraindications

The wheelchair shall not be used in case of:

- Perception disorder
- Imbalance
- Seating disability

We at SUNRISE MEDICAL have been awarded the ISO-13485 certificate, which affirms the quality of our products at every stage, from R & D to production. This products meet the requirements in accordance with EU regulations.

Options or accessories shown are available at extra cost.

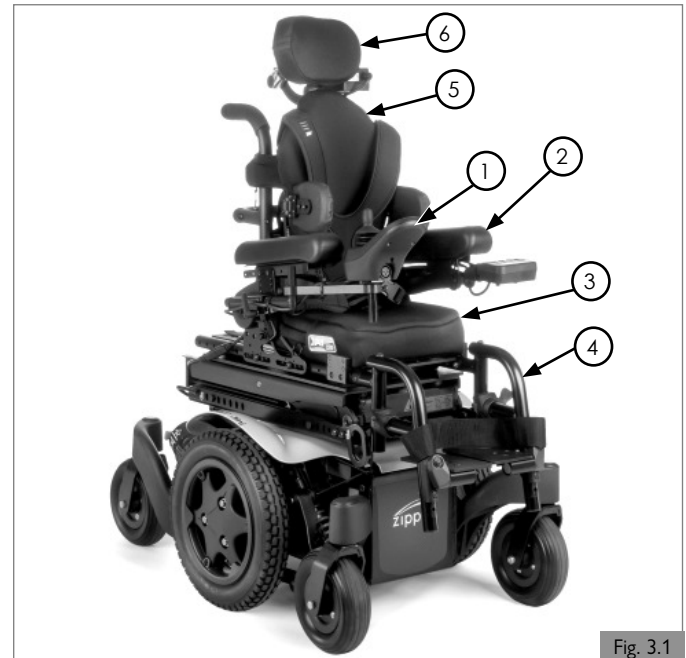


Fig. 3.1

4.0 WARNINGS FOR COMPONENTS AND OPTIONS

⚠ WARNING!

Using parts or making changes not authorized by Sunrise Medical may create a safety hazard and will void the warranty.

4.1 Armrests**⚠ DANGER!**

1. Armrests will not bear the weight of the user.
2. Never lift this system by its armrests. They may come loose or break.
3. When transferring the user in or out of the seating system, never use the armrest as a means of support.

4.2 Cushions**⚠ WARNING!**

1. Standard foam cushions and other body supports are not designed for the relief of pressure.
2. If you suffer from pressure sores or are at risk that they will occur, you may need a special seating system or a device that will help control your posture. Consult a health care provider to find out if you need such a device for your comfort and health.

4.3 Fasteners**⚠ WARNING!**

Many of the screws, bolts, and nuts on this system are special high-strength fasteners. Use of improper fasteners may cause the system to fail.

1. Only use fasteners provided by Sunrise Medical.
2. If fasteners become loose, tighten them immediately.
3. Do not over- or under-tighten fasteners as this can cause damage to the system or its components.
4. Always tighten to specified torque. Specified torque values are listed in Section 9.
5. Do not reuse fasteners.

4.4 Footplate and footrests**⚠ DANGER!**

1. At the lowest point, footrests should be at least 2-in (51mm) off the ground. If set too LOW, they may "hang up" on obstacles that you can expect to find in normal use. This may cause the system to stop suddenly and tip forward.
2. To avoid a trip or fall when transferring:
 - a. Ensure your feet do not "hang up" or get caught in the space between the footrests.
 - b. Avoid putting weight on the footrests, as the system may tip forward.
 - c. Remove or swing the footrests out of the way, if possible.
3. The footrest should always be in the down position when operating the system.
4. Never lift this system by the footrests. Footrests detach and will not bear the weight of this system. Lift this system only by non-detachable parts of the main frame.

4.5 Positioning belts**⚠ DANGER!**

The positioning belt is predominately used to support your posture. It can also be used to limit slipping and/or sliding that you might experience when the system is in motion. The positioning belt is not a transit rated safety belt and should not be used in the place of a seat belt while being transported in a motor vehicle. Improper use of positioning belts may cause severe injury or death. If you use a positioning belt, ensure these recommendations are followed:

1. Ensure the rider does not slide down in the seating system seat. If this occurs, the rider may suffer chest compression or suffocate due to pressure from the belts.
2. The belts must be snug, but must not be so tight that they interfere with breathing. You should be able to slide your open hand, flat, between the belt and the rider.

3. A pelvic wedge or a similar device can help keep the rider from sliding down in the seat. Consult with the rider's doctor or health care provider to find out if the rider needs such a device.
4. Use positioning belts only with a rider who can cooperate. Ensure the rider or attendant can easily remove the belts in case of emergency.
5. NEVER use positioning belts:
 - a. As a patient restraint. A restraint requires a doctor's order.
 - b. On a rider who is comatose or agitated.
 - c. As a motor vehicle restraint. In an accident or sudden stop the rider may be thrown from the system. Seating system positioning belts will not prevent this, and further injury may result from the belts or straps.

If you fail to heed these warnings, damage to your system, a fall, tip-over, or loss of control and may cause severe injury to the rider or others.

4.6 Push handles**⚠ DANGER!**

1. Push handles provide secure points for an attendant to propel and control the system. This helps to prevent a fall or tip-over.
2. Check to ensure push handle grips will not rotate or slip off.

4.7 Seating systems**⚠ DANGER!**

1. Use of a seating system not approved by Sunrise Medical may affect or interfere with other parts of the system.
2. Never change the seating system without consulting a Sunrise Medical authorized dealer first.
3. Never raise the seating system to a height of more than 19-in (482mm) (measuring from the front of the seat pan to the floor) with all actuators in their home position.

4.8 Upholstery fabric**⚠ DANGER!**

1. Replace worn or torn fabric of the seat sling and/or seat back as soon as possible. Failure to do so may cause the seat to fail and the rider to fall. Worn or torn fabrics may increase the potential for a fire hazard.
2. Fabric will deteriorate with age and use. Look for fraying, thin spots, or stretching of fabric at rivet holes. Replace fabric as required.
3. Be aware that washing may reduce flame retardation qualities of the fabric.

4.9 Wiring and connectors**⚠ WARNING!**

Never pull on cables directly. This can result in wires breaking inside the connector or harness. To remove a plug or connector, always grasp the plug or connector itself.

4.10 Assignable controls**⚠ DANGER!**

It is possible to assign a function to an input control (buttons, jacks) to the seating system. If controls have been assigned to perform a dual or alternate function, ensure it is known what each control operates. Please contact a Sunrise Medical authorized dealer if this information was not received. Failure to do so may result in damage and/or injury.

4.0 WARNINGS FOR COMPONENTS AND OPTIONS

4.11 Power seating safety

⚠ DANGER!

1. Operation
 - a. While driving this seating system in the elevated or tilted position use caution.
 - b. Do not attempt to operate any power seating option while positioned on an incline.
 - c. Do not attempt to operate any power seating option while this seating system is in motion.
 - d. Do not attempt to operate the lift and/or tilt power seating options around children.
 - e. Through programming it is possible to reverse the direction of all powered seating functions; ensure it is known which direction the seat is going to move before operating. Please discuss with a Sunrise Medical authorized dealer which direction the power seating functions have been programmed.
2. Reduced Speed Driving (Creep and/or C-Me)

This power system is designed to automatically reduce the maximum driving speed to a creep and/or C-Me mode when certain power seating limits are reached. Depending on the configuration of the chair there might be multiple creep and/or C-Me speeds. Please discuss the multiple creep and/or C-Me speeds with a Sunrise Medical authorized dealer.

Before operating the chair in creep and/or C-Me mode, read all warnings and guidelines related to this feature. They will help in understanding how to reduce the risk of a fall or tip-over and how to identify environmental conditions that could affect the rider's safety when driving while the chair is in creep and/or C-Me speed.

- a. When driving indoors or outdoors, in creep mode, it should only be used on flat, level, and hardscape surfaces.
 - b. Driving in creep mode should never be attempted on uneven terrain like: gravel, grass, bumpy surfaces, uneven sidewalks, or hills.
 - c. This feature may be equipped with a system that allows the power chair to drive up to 3 mph when the seat is elevated, this feature is called C-Me.
 - d. NEVER raise the seat when the chair is being operated in the proximity of any of the terrain types listed above, or on any uneven surface.
3. Pinch points

Pinch points may occur when operating the powered seating options on this system. Ensure all hands and body parts are clear of all power seating components that may result in pinch points before operating them.
 4. Tilting Power Base with Push Handles

Do not attempt to tilt power wheelchairs by pulling down on the push handles. Power wheelchairs have heavy bases. As such, attempting to tilt a power seating system to traverse obstacles can damage components in the seating system and/or modular actuators.
 5. Remain Clear During Power Accessory Operation

Please stay clear of any powered actuator while the component is in motion. Sunrise Medical power mechanisms move over large ranges of travel. Users should be aware of their surroundings while components are in motion.
 6. Maximum User Weight

Do not exceed the weight capacity for the specific system/seating system configuration. Doing so could result in premature failure or injury.
 7. Latch Mode

While operating any power seating function in latched mode use caution. In latch mode, powered seating will not stop until a reverse command is performed or the end of travel is met. Please consult a Sunrise Medical authorized dealer to receive training before using latch mode. Failure to do so may result in potential serious injury.

4.12 Swing away joystick arm

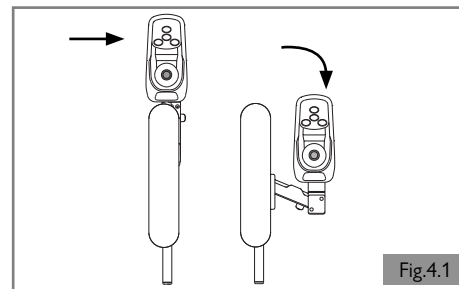
⚠ DANGER!

Before adjusting the swing away arm, switch off the controller to avoid accidental displacement of the joystick which would cause unwanted movement of the wheelchair. Be aware that the width of the chair may have increased, and the chair may not be able to go through certain obstacles.

⚠ DANGER!

1. Only operate the wheelchair at a low and maneuverable speed when the parallel swing-away is in use. (Fig 4.1)
2. When transferring to and from the wheelchair, do not use the remote as a means of support.
3. Do not hang any items on or over the parallel swing-away remote assembly as this could damage the swing-away mechanism.

Note: hanging items on/near the joystick may cause unwanted movement and potential of serious injury or death!



4.13 Transit

⚠ DANGER!

Important Transit notes for the chair:

1. If possible and feasible, the rider should transfer to the Original Equipment Manufacturer (OEM) vehicle seat and use the vehicle restraint.
2. If the seating system is used for transport, it must be used in a forward-facing seating position during travel in a motor vehicle.
3. The recommended clear zones for wheelchair seated occupants restrained by both pelvic and upper-torso belt(s) and only by a pelvic belt are shown in the diagrams (Fig 4.2 and 4.3) and described below. Frontal Clear Zones (FCZ) need to be larger when upper torso belt(s) are not used. The Rear Clear Zone of 16-in (40.5 cm) is measured from the rearmost point on an occupant's head. The Front Clear Zone is measured from the front most point of an occupant's head and is 26-in (66 cm) with pelvic and upper-torso belt(s) and 37-in (94 cm) with only a pelvic belt. The frontal clear zone may not be achievable for wheelchair-seated drivers.
4. The estimated seated height (HHT) from the ground or floor to the top of the wheelchair-seated occupant's head ranges from approximately 47-in (119 cm) for a small adult female to about 61-in (155 cm) for a tall adult male (Fig 4.3).
5. The rider must not weigh more than 165 lbs (75 kg).
6. Attach WTORS to securement points in accordance with the manufacturer's instructions and SAE J2249.
7. Ensure hip guides are mounted and are locked in place.
8. Only use Wheelchair Tie-down and Occupant Restraint Systems (WTORS) which meet the requirements of SAE J2249 Recommended Practice-Wheelchair Tie-down and Occupant Restraint Systems For Use in Motor Vehicles. Do not use WTORS designed to rely on the wheelchair structure to transfer occupant restraint loads to the vehicle.
9. In order to reduce the potential of injury to vehicle occupants, wheelchair mounted accessories, such as trays and respiratory equipment, should be removed from the seating and wheelchair and secured separately.
10. Postural supports and positioning devices should not be relied on for occupant restraint.
11. Do not alter or substitute wheelchair frame parts, components, or seating.
12. Sudden stops or impacts can structurally damage your system. Chairs involved in such incidents should be replaced.

Important Transit notes for Occupant restraints:

13. Attach occupant restraints in accordance with the manufacturer's instructions and SAE J2249.
14. Both pelvic and upper torso restraint belts must be used to restrain the occupant to reduce the possibility of head and chest impacts with the vehicle components and serious risk of injury to the user and other vehicle occupants (Fig 4.4)
15. The upper torso restraint belt (A) should be mounted to the vehicle (B) pillar. Failure to do so will increase the risk of serious abdominal injuries to the user (Fig 4.4).
16. A head restraint suitable for transportation must be fitted and suitably positioned at all times during transportation.
17. The pelvic restraint belt (C) must be worn low across the front of the pelvis so that the angle of the pelvic belt is within the preferred zone of 30 to 75 degrees to the horizontal (Fig 4.4).
18. A steeper (greater) angle within the preferred zone is desirable closer to, but not exceeding, 75 degrees (Fig 4.6).
19. The upper torso restraint belt (A) must fit over the shoulder and across the chest (Fig 4.4).
20. Restraint belts must be adjusted as tightly as possible consistent with user comfort, and should not constrict breathing (Fig 4.5).

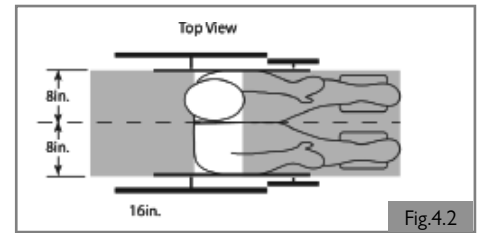


Fig.4.2

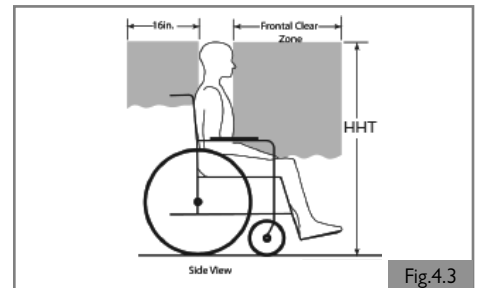


Fig.4.3

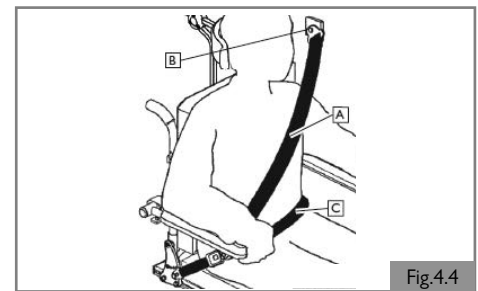


Fig.4.4



Fig.4.5

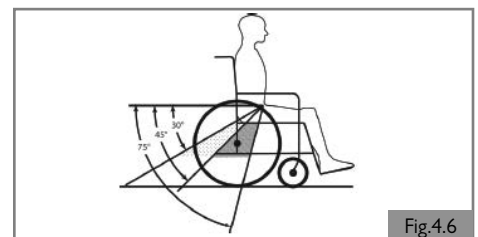


Fig.4.6

5.0 SETTING UP THE SEATING SYSTEM

The average wheelchair does not exist. This is why Sunrise Medical wheelchairs can be pre-set according to specific needs of the user.

Pre-settings are carried out once, the first time the wheelchair is going to be used. They must be executed by a qualified specialist, unless explicitly stated otherwise.

Tool and calibration marks

A M5 Allen key should be used by a professional for adjusting all the seating system settings.

5.1 Pre-set seat depth adjustment (Fig 5.1 - Fig. 5.3)

The seat depth can be adjusted in one inch increments.

For Standard Angle Adjustable Backrest (Fig. 5.1):

1. To adjust, remove the two bolts (A and B) from each side of the backrest pivot plate.
2. Reposition the backrest to the desired position.
3. Replace and reposition bolts on each side of the backrest pivot plate.

For Angle Adjustable Backrest with Cantilever Armrests (Fig. 5.2):

1. To adjust, remove the two bolts (C and D) from each side of the backrest pivot plate.
2. Reposition the backrest to the desired position.
3. Replace and reposition bolts on each side of the backrest pivot plate.

For Manual Recline Backrest (Fig. 5.3):

1. To adjust, remove the two bolts (I and J) from each side of the backrest pivot plate.
2. Reposition the backrest to the desired position.
3. Replace and reposition bolts on each side of the backrest pivot plate.

⚠ CAUTION!

When a bigger seat depth is required, ensure that the harnesses are lengthened before the mechanical adjustment takes place.

⚠ DANGER!

We strongly recommend that you contact your Sunrise Medical authorized dealer to adjust the seat depth, because adjusting the seat depth will affect the center of gravity.

5.2 Pre-set back angle adjustment on seat frame

For Standard Angle Adjustable Backrest (Fig. 5.1)

1. Remove the front securing bolt (A) on the side of the backrest hinge plate.
2. Loosen the lower rear bolt (B).
3. Set at desired angle. There are five holes (in 4° increments) to choose from.
4. Attach again the front bolt and tighten both bolts securely.

For Angle Adjustable Backrest with Cantilever Armrests (Fig. 5.2)

1. Remove the front securing bolt (F) on the inside of the backrest bracket.
2. Loosen the upper bolt (E).
3. Set at desired angle. There are five holes (in 4° increments) to choose from.
4. Attach again the lower bolt and tighten both bolts securely.

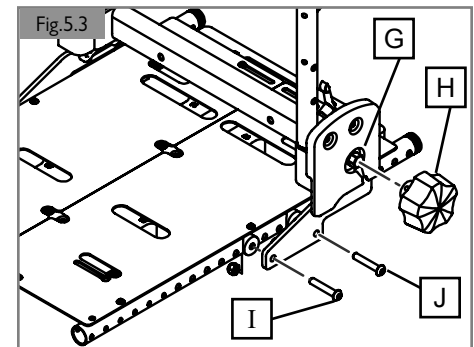
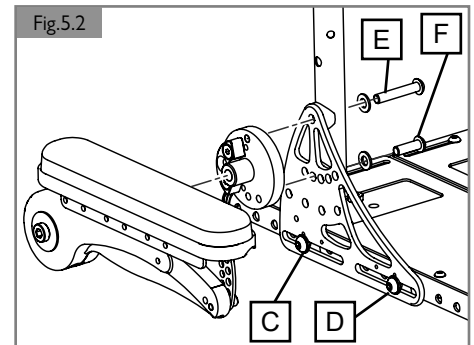
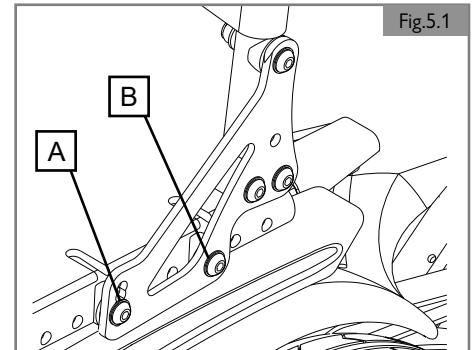
5.3 Manual recline operation (Fig. 5.3)

For operation with wrench:

1. Using a 16mm socket wrench at point (G), rotate clockwise to recline, and counter-clockwise to return the back to an upright position.
2. Backrest is ready for use.

For operation with recline knob:

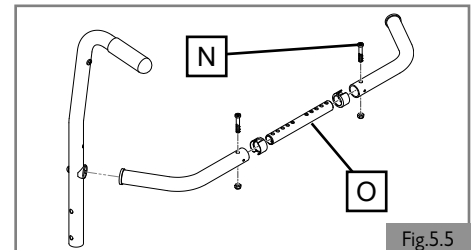
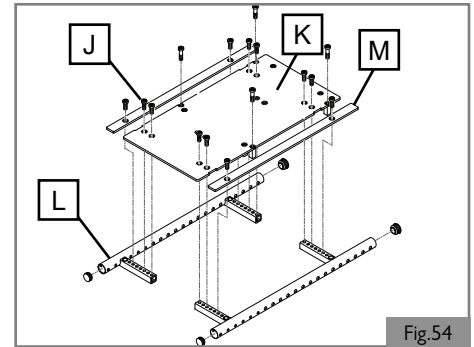
1. Using the manual recline knob (H) on the side of the chair, rotate clockwise to recline, and counter-clockwise to return the back to an upright position.



5.4 Seat pan and back size adjustments (Fig. 5.4 and Fig. 5.5)

The Zippie Power seating system can be adjusted to a wide range of widths and depths to accommodate specific user needs. Seating dimensions should only be altered by a trained medical professional and may require a new seat pan, cushion, and/or stabilizer bar to complete the adjustment.

1. Seat pan/frame width adjustment (Fig. 5.4)
 - a. Most width adjustments require the back, stabilizer bar, and back brackets to be loosened and/or removed before adjusting the seating width.
 - b. To adjust the width of the seating area, remove the screws (J) that attach the seat pan to the seat frame (L).
 - c. Reposition (K) (either solid seat pan, or split-cover seat pan) to achieve the desired width (1/2-in increments on each side). Ensure that seat pan is centered and equally spaced from side to side.
 - d. For 13-in wide (10-in x 10-in to 13-in x 18-in), you will need to mount the width fillers (L) to cover the gap between the seat rail (M) and seat pan (K).
 - e. Check your width measurements and then replace and retighten all the hardware.
2. Back support frame width adjustment (Fig. 5.5)
 - a. After measuring the width adjustment in the seating area, remove the front securing hardware (N) from the adjustment tube (O) on the stabilizer bar.
 - b. The stabilizer bar can be adjusted in 1-in increments (1/2-in on each side) to match the width change in the seating area.
 - c. Replace the stabilizer bar, recheck the measurement and ensure the backposts are straight and parallel. Tighten the adjustment screws (N). (Fig 5.1)

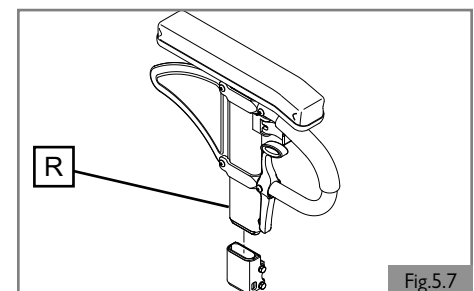
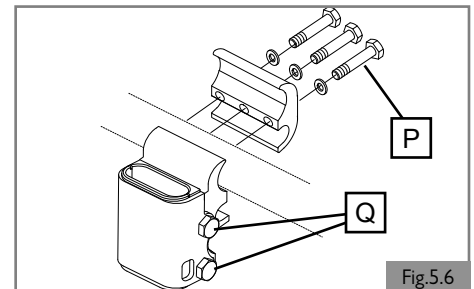


5.5 Single post height-adjustable armrest (Option) (Fig 5.6 and 5.7)

1. Adjusting armrest receiver (forwards or backwards)
 - a. Loosen the 3 bolts (P) on the receiver clamp.
 - b. Move the armrest and receiver forwards or backwards for a universal fit.
 - c. Tighten the hardware when adjustment is completed (P).
2. Adjusting armrest receiver fit (tighten or loosen fit)

To tighten or loosen the fit of the outer armpost in the receiver:

 - a. Loosen the 4 bolts (Q) on both sides of the receiver.
 - b. With the armrest in the receiver, squeeze the receiver to achieve the desired fit.
 - c. Continue the pressure on the receiver and tighten the four bolts.
3. Adjusting inner armpost fit
 - a. Two set screws (R) are located in the outer armpost.
 - b. Turn the set screws (R) in or out until the desired fit is achieved.



5.6 Cantilever armrest (Fig 5.8 and 5.9)

1. Adjusting armrest pad (forwards or backwards)
 - a. Loosen the 2 bolts (S) on the armrest pad bracket.
 - b. Move the armrest forward or rearward for a universal fit.
 - c. Tighten the hardware (S) when adjustment is complete.
2. Adjusting armrest angle or leveling the armrest after height adjustment
 - a. Loosen the pivot bolt (T) on the armrest angle bracket.
 - b. Remove the socket head screw (U) and hardware.
 - c. Adjust the angle of the armrest and joystick and reinsert the hardware through the adjusted hole.
 - d. Tighten all hardware when adjustments are complete.
3. Adjusting armrest height (within factory limits)
 - a. Locate the height adjustment screw (T) at the bottom of the cantilever arm and adjust the height by using a 5mm hex key and turning the screw either clockwise (more height) or counter-clockwise (less height).
 - b. Do not loosen the screw to the point where it will fall out of the armrest. If this happens simply re-thread the screw into the armrest until it starts to height adjust the armrest again.
 - c. When you reach the desired height remember to level the armrest using screws (V and W) as shown in step 2 above.

NOTE: The cantilever armrest has about 2-in of adjustment set from the factory. In most cases the external height adjustment will be all that is necessary for a proper fit.

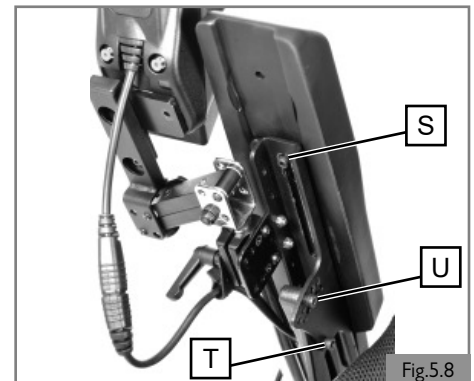


Fig.5.8

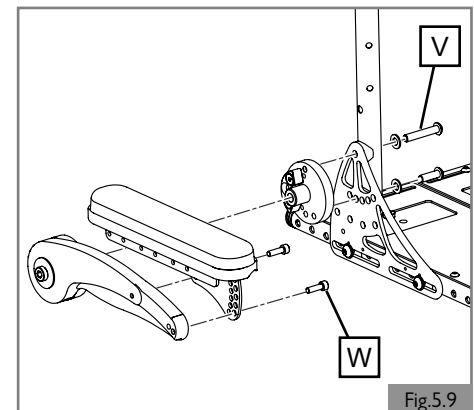


Fig.5.9

5.7 Pre-set fixed / swing away controller**Bracket depth of the controller (Fig. 5.10)**

1. Loosen (A) by one turn.
2. Adjust (B) to the desired position.
3. Tighten (A). See section 9 for specified torque values.

Height of the controller (1) (Fig. 5.11)

1. Loosen (A) by one turn.
2. Adjust (B) to the desired position.
3. Tighten (A). See section 9 for specified torque values.

Height of the controller (2) (Fig. 5.12w)

1. Loosen (C) by one turn.
2. Adjust (D) to the desired position.
3. Tighten (C). See section 9 for specified torque values.

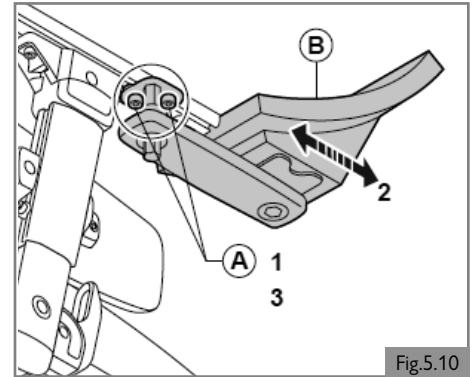


Fig.5.10

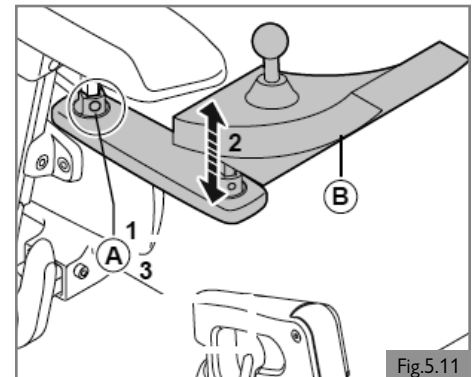


Fig.5.11

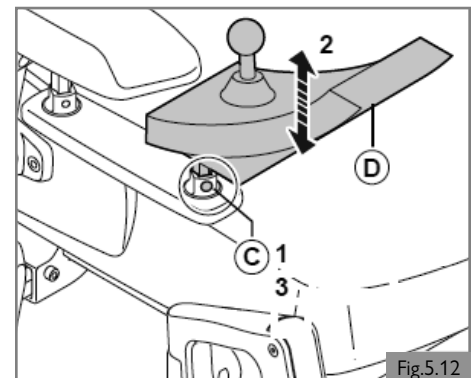


Fig.5.12

5.0 SETTING UP THE SEATING SYSTEM

5.8 Joystick controller position (Fig 5.13)

The controller can be moved in or out in relation to the armrest. The controller can be moved to either side of the chair to accommodate left or right-hand use.

⚠ WARNING!

Be careful of pinching the controller cords. When the controller is moved, the harness and cord can be at risk of pinching from the seat frame and/or the power base frame. Ensure you route and secure the cord with a zip tie to avoid cord pinching. Cord pinching could eventually disable your power chair if left unchecked.

1. Before moving the controller from one side to the other, read these important tips:
 - a. Turn off the power to the controller.
 - b. Unplug the controller connectors from the power base.
 - c. Remove any wire ties securing the controller harness to the armrest.
 - d. Flip up the armrest so that it is perpendicular to the floor.
 - e. Loosen the hardware on the controller bracket and slide the controller out.
 - f. Tighten again the hardware so it will not be lost accidentally.
 - g. Loosen the hardware on the other armrest.
 - h. Slide the controller arm into the other armrest and tighten the hardware.
 - i. Route and secure the controller harness to the back of the power base and plug in the controller cord. It is important to avoid any areas where the cord may be pinched.
2. Adjustment and/or switch sides
 - a. To adjust the joystick, forward or back, loosen the clamp (E), move the joystick, and then hand-tighten the clamp handle.
 - b. To move the joystick to the opposite side of the chair, remove the hardware (F) and move the clamp and joystick receiver to the other armrest.
 - c. Tighten all hardware to avoid any movement of the joystick while traveling.

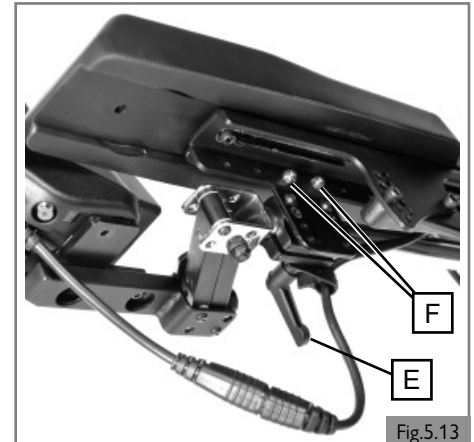


Fig.5.13

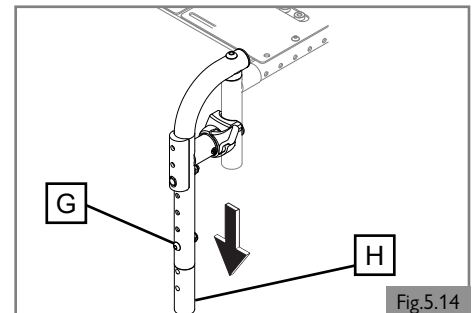


Fig.5.14

5.9 Swing in/out footrest adjustment (Fig 5.14)

1. Footplate height adjustment
 - a. Remove the hardware (G) from the hanger frame tube.
 - b. Move the footrest extension tube (H) up or down to set the correct height, and line up the adjusted holes.
 - c. Insert the hardware to hold the tube in place.
 - d. Re-tighten all hardware (G).

5.10 Angle adjustable center mount footrest (Fig 5.15)

1. Quick independent angle adjustment
 - a. Depress the button (I) and angle adjust the footplates as an assembly.
 - b. The footplates can be moved independently of each other by removing the bracket (K) that locks the footplates together.
2. Footplate height adjustment
 - a. Loosen the securing screws (J).
 - b. You can move the footplates up or down to the desired height as an assembly or adjust the height for each footplate independently.
 - c. Tighten the hardware (J).

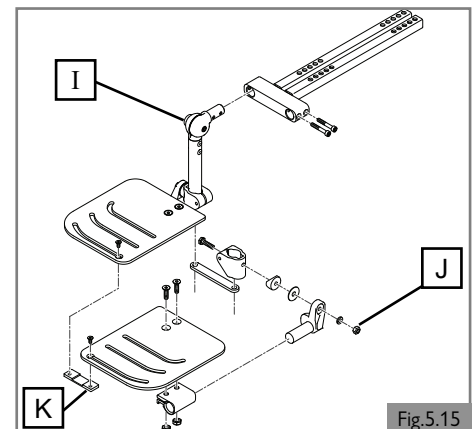


Fig.5.15

5.11 Elevating legrest adjustment (Option) (Fig 5.16)

1. Footplate height adjustment
 - a. To raise footrest, loosen the two bolts (L) that hold the extension tube and footplate in place.
 - b. Adjust the footplate up or down, and tighten the hardware (L).
2. Calf pad adjustment
 - a. Remove the securing screw (M).
 - b. Move calf pads to desired height.
 - c. Re-tighten the screws (M) through adjusted hole.

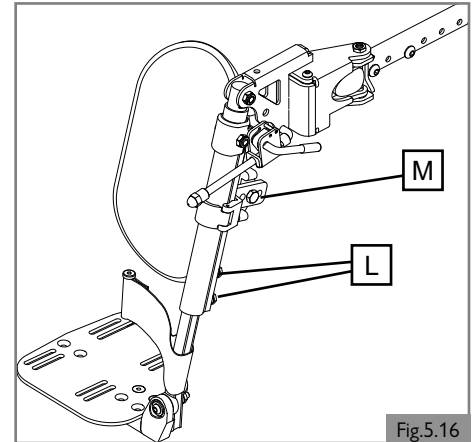


Fig.5.16

5.12 Center mount hanger adjustment

1. Removing the assembly (Fig 5.17)
 - a. Remove the four screws (N) and slide the footrest assembly out of the receiver.
2. Footplate height adjustment (Fig 5.18)
 - a. Remove the six securing screws (O).
 - b. Move the footplate up or down to the desired height.
 - c. Attach again screws (O) through adjusted holes and tighten the hardware.
3. Calf pad adjustment (Fig 5.19)
 - a. Remove the two securing screws (P).
 - b. Move calf pads to desired height.
 - c. Attach again screws (P) through adjusted holes.

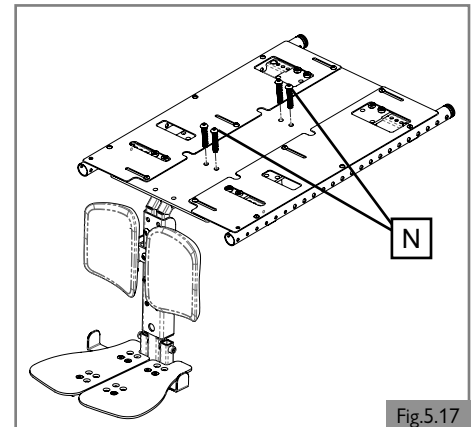


Fig.5.17

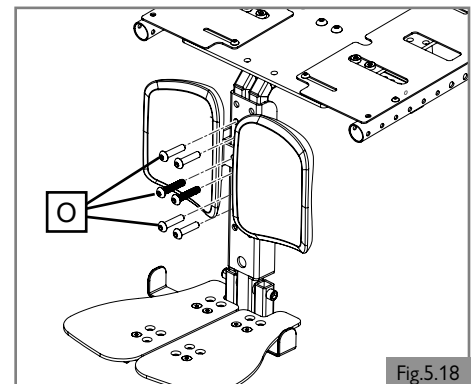


Fig.5.18

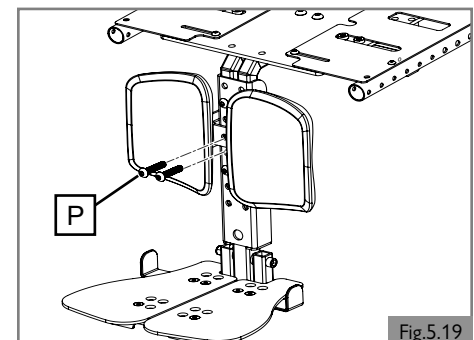


Fig.5.19

5.0 SETTING UP THE SEATING SYSTEM

5.13 Lap belt / seating positioning belt (Fig. 5.20)

⚠ DANGER!

1. This product is only to be used to position a single person in a wheelchair.
2. Lap belts are not suitable for transit purposes. Approved occupant restraint systems must be used.
3. Failure to heed these warnings may result in severe injury or death.
4. Ensure that the carer or attendant is trained in the correct operation of the belts.
5. Untrained carers or attendants may lead to delays, if an emergency situation occurs.

Mounting a lap belt /seating positioning belt

1. Attach belt (Q) to the seating frame using provided screws on the left and on the right. (Fig. 5.20)
2. Tighten (R). See section 9 for specified torque values.

Positioning a person with a lap belt

1. Adjust the lap belt to suit, leaving no more than a hand's width gap for comfort and safety. (Fig. 5.21)
2. The hand clearance should be with the lap belt under normal tension and not allow large gaps or loops.
3. Generally, the lap belt should be fixed so that the belt sits at an angle of approximately 45° (Fig. 5.22), and when correctly adjusted should not allow user to slip down in the seat.
4. Place the belt loosely across the seat with the opening end of the buckle facing to the right for a left-handed person and to the left for a right handed person. Pass the other ends of the belt through the gap between the backrest posts and the backrest.

⚠ DANGER!

1. Always ensure that the lap belt is correctly secured and adjusted prior to use.
2. Too loose a belt could cause the user to slip down and cause serious injury.
3. Check lap belt and securing components at regular intervals for any signs of fray or damage. Replace if necessary.
4. When servicing, check for correct operation of the release buckle and for any signs of wear on the material or plastic brackets.
5. Regular checks/activities:
 - a. As with all positioning components, there is a need for corrective adjustments as the person changes their seating position over time.
 - b. Check the belts regularly for correct fitting, to ensure the safety and comfort of the user.

⚠ CAUTION!

1. Standard Sling: Lap strap movement is restricted by upholstery.
2. Contoured Back: Use universal bottom bracket as per recline back method.

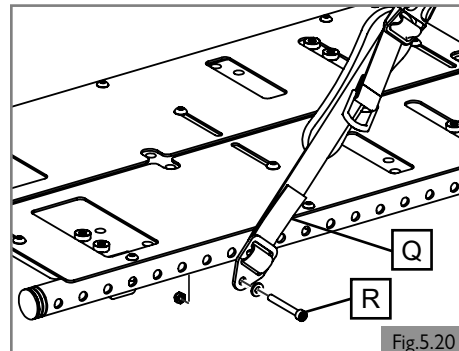


Fig.5.20

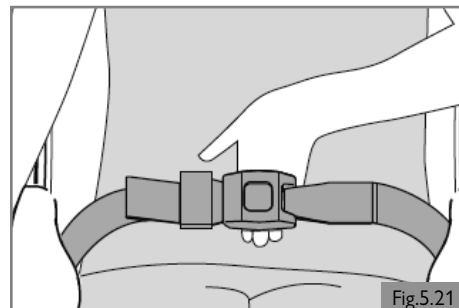


Fig.5.21

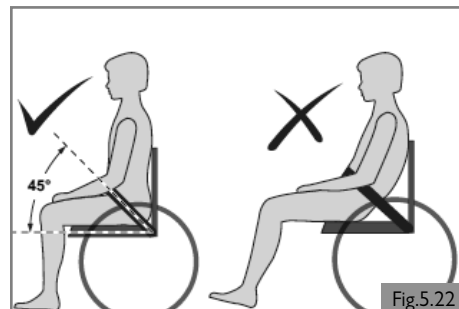



Fig.5.22

6.1 Getting in and out of the wheelchair (Transferring)

Sunrise Medical recommends that you consult your health care provider for assistance in developing your personal front or side transfer technique to best suit your needs and avoid any personal injury.

⚠ DANGER/WARNING!

To prevent a fall:

1. Ensure controller is switched off during transfers to avoid unintentional movement. If you fail to do so you may touch the joystick and cause your system to move when you do not expect it.
2. Ensure that the free wheel switch has been set to "drive". ( General manual)
3. Rotate the front casters so that they point forward.
4. Work with a health care provider to learn all safe methods for transfers.
5. Ensure motor brakes are engaged. This keeps the system from moving when you transfer.
6. It is dangerous to transfer on your own. It requires good balance and agility. Be aware that there is a point during every transfer when the seating system seat is not below you.
7. Learn how to position your body and how to support yourself during a transfer.
8. Have someone help you until you are sure you can do a safe transfer on your own.
9. Do not stand on the footrest. Putting your full weight on the footrest may lead to wheelchair damage and to hazardous situations, including the wheelchair tipping up.
10. Ensure your feet do not "hang up" or get caught in the space between the footrests.

6.2 Preparing for forward transfer

⚠ DANGER/WARNING!

Move your wheelchair as close as possible to the seat you intend to transfer to.

Swing In/Out Footrests (Fig 6.1)

1. Fold up the foot supports.
2. Swing the calf plates to the side (if applicable).

Elevating legrest (Option) (Fig 6.2)

1. Fold up the foot supports.
2. Swing the calf plates to the side (if applicable).

Angle adjustable center mount legrest (Option) (Fig 6.3)

1. Flip up foot supports.

Lower the centermount foot plate (Fig. 6.4)

1. Ensure the area is level and free of obstacles and hazards.
2. Turn the control system ON.
3. Select the powered centermount leg rest.
4. Push the joystick forward until the footplates rest fully on the ground. (Fig. 6.4)
5. Switch the control system OFF before transferring.

⚠ WARNING!

Be aware that when powered, the area around and underneath the footplate needs to be clear of all personal items and bodily extremities to prevent injury or damage to property.

⚠ CAUTION!

Once the leg rest is fully lifted or in its lowered position, do not hold the joystick in its operating position as this could damage the actuator.

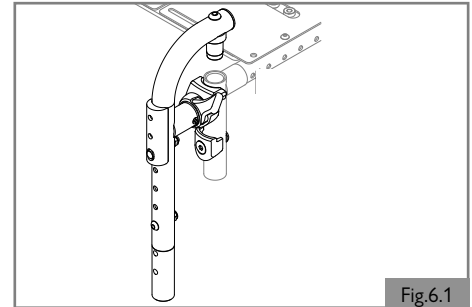


Fig.6.1

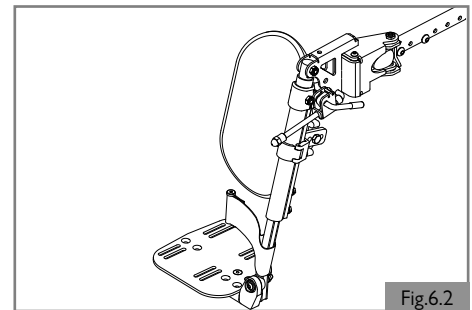


Fig.6.2

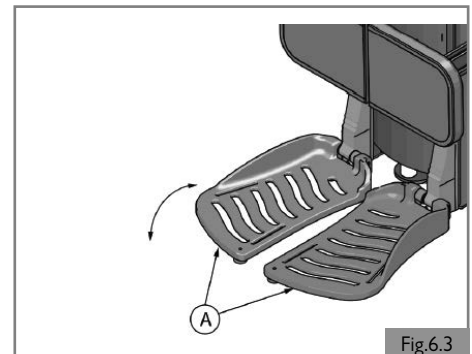


Fig.6.3

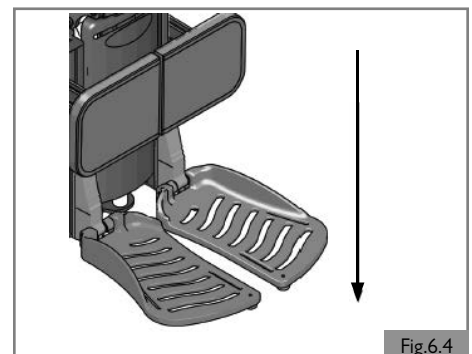


Fig.6.4

6.0 USING THE SEATING SYSTEM

6.3 Preparing for side transfer

⚠ DANGER/WARNING!

1. Move your system as close as you can to the seat you are transferring to. If possible, use a transfer board.
2. Transfer as far back onto the seat surface as you can. This will reduce the risk that you will miss the seat or fall.

⚠ CAUTION!

1. Some versions of the controller will need to be swung aside.
2. Remove the tray before folding back the armrest.
3. Do not lean on the armrest when folded back.

Dual-post height adjustable armrest (Option) (Fig 6.5)

1. To remove armrest for transfer:
 - a. Disengage levers (A and B) so front and rear posts are able to come free.
 - b. Armrest can now be easily removed for transferring.
2. To reattach armrest:
 - a. Insert front and rear posts into armrest receivers.
 - b. Engage levers (A and B) to secure armrest.

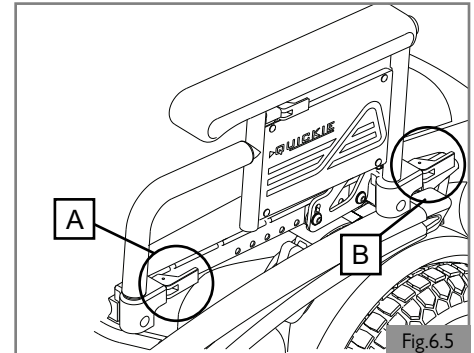


Fig.6.5

Single post height-adjustable armrest (Option) (Fig 6.6)

1. To remove armrest for transfer:
 - a. Press on the release lever and remove the armrest.
2. To reattach armrest:
 - a. Slide the outer arm post into the receiver mounted to the wheelchair frame.
 - b. The armrest will automatically lock into place.

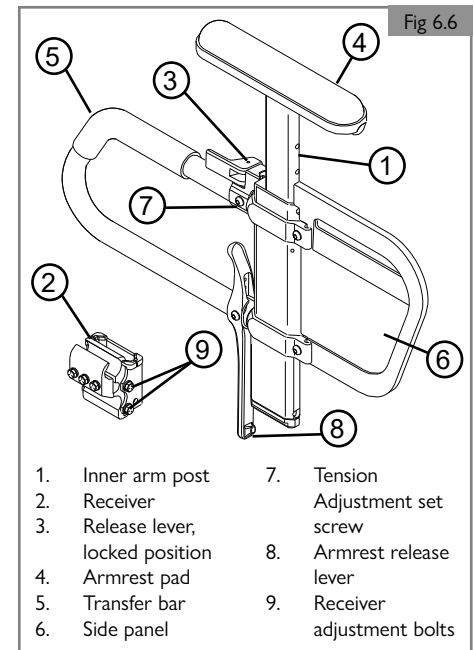


Fig 6.6

- | | |
|-----------------------------------|---------------------------------|
| 1. Inner arm post | 7. Tension Adjustment set screw |
| 2. Receiver | 8. Armrest release lever |
| 3. Release lever, locked position | 9. Receiver adjustment bolts |
| 4. Armrest pad | |
| 5. Transfer bar | |
| 6. Side panel | |

Cantilever armrest (Fig 6.7)

1. On the side you wish to transfer from, flip the armrest all the way up until it goes into its mechanical stop. This frees your space for side transfer.

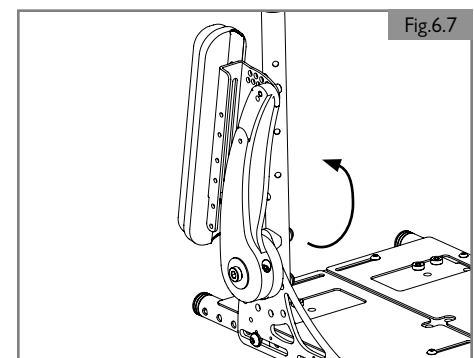


Fig.6.7

6.4 Headrest

Removing/positioning the headrest (Fig 6.8)

1. Lift (D).
2. Slide (E) out of or into (F).
3. Push (D) down.

6.5 Retractable and swing-away joystick mounts

The joystick or enhanced display is mounted with a mechanism that allows the joystick to be locked in a forward or retracted position.

To retract or swing-away the joystick mount (Fig 6.9)

1. To retract the joystick, push outward on the inside of the joystick.
2. Push the joystick away from the front of the armrest until it locks into the swing-way position.
3. To return to forward position, push the front of the joystick mount forward until it locks into place.

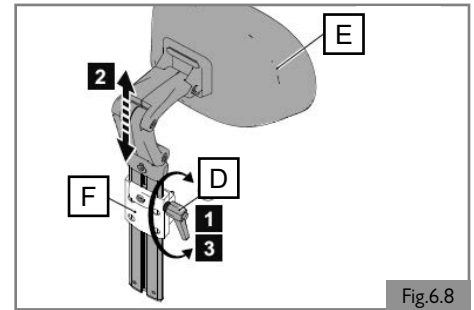


Fig.6.8

6.6 Elevating legrest (Option) (Fig 6.10)

1. Adjustment
 - a. To raise legrest, lift to desired position. Legrest will automatically lock in place.
 - b. To lower legrest, while seated in chair, first lift slightly then press release lever (H) down and lower legrest to desired position.

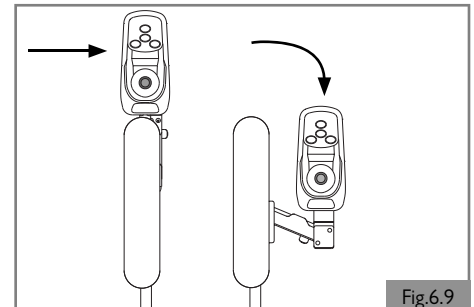


Fig.6.9

6.7 Angle adjustable center mount footrest (Option) (Fig 6.11)

1. Quick independent angle adjustment
 - a. Depress the button (H) and angle adjust the footplates as an assembly or independently of each other.
2. Adjustment
 - a. To raise legrest, lift to desired position. Legrest will automatically lock in place.
 - b. To lower legrest, while seated in chair, first lift slightly then press the button (I) and lower legrest to desired position.

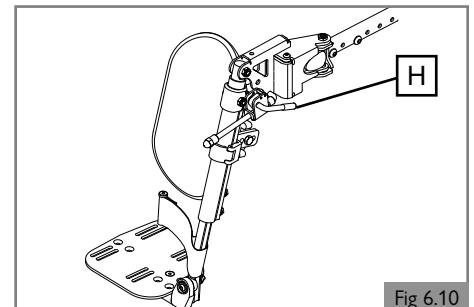


Fig 6.10

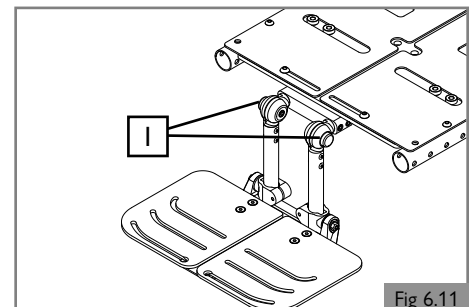


Fig 6.11

6.0 USING THE SEATING SYSTEM

6.8 Dual-post height adjustable armrest (Option) (Fig 6.12)

1. Flip-back operation
 - a. Disengage lever (J) so front post is able to come free.
 - b. Armrest can now be flipped back without armrest removal.
2. Height adjustment (option)
 - a. Release the upper securing lever (K).
 - b. Set at desired height.
 - c. Return securing lever to locked position.
 - d. Move armrest up or down to allow armrest to snap into place.

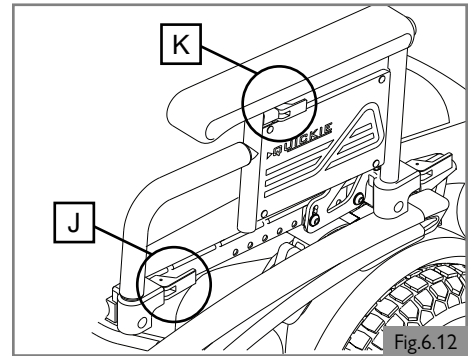


Fig.6.12

6.9 Single post height adjustable armrest (Option) (Fig 6.13)

1. Height adjustment
 - a. Rotate release lever (3) to stop.
 - b. Slide armrest pad up or down to desired height.
 - c. Return lever (3) to locked position.
 - d. Push arm pad until upper armpost locks firmly into place.

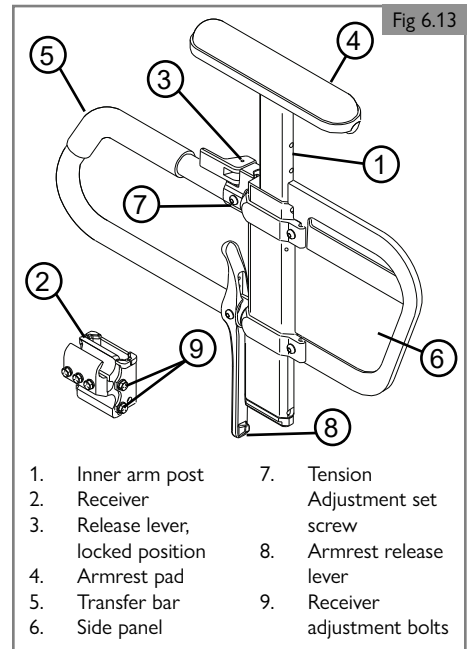


Fig 6.13

- | | |
|-----------------------------------|---------------------------------|
| 1. Inner arm post | 7. Tension Adjustment set screw |
| 2. Receiver | 8. Armrest release lever |
| 3. Release lever, locked position | 9. Receiver adjustment bolts |
| 4. Armrest pad | |
| 5. Transfer bar | |
| 6. Side panel | |

7.1 Powered seating options

The wheelchair can be equipped with the following powered options to adjust your seating position. These options can be operated by the user without the use of tools.

Powered adjustable seating options (Fig 7.1 - Fig 7.3)

How to operate these powered seating options can be found in:

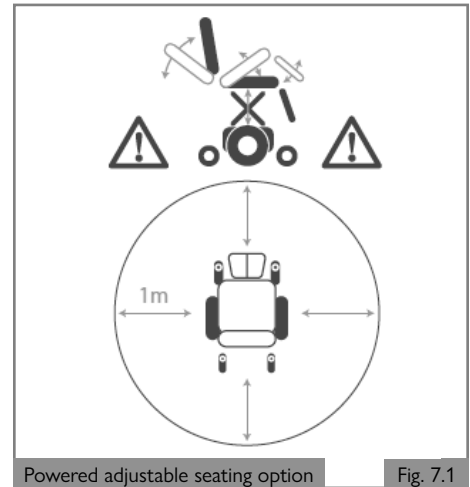
CONTROLLER

1. Powered tilt function
2. Powered seat lift
3. Powered elevating leg rests

DANGER!

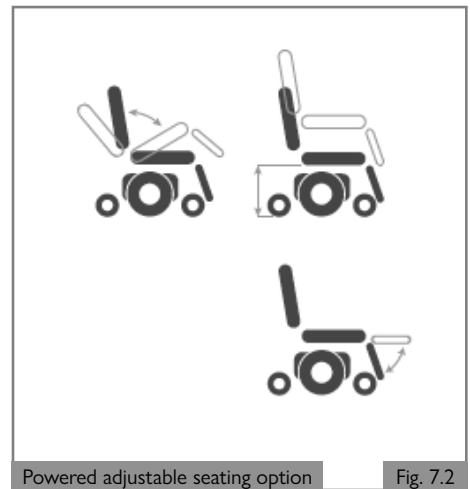
1. Use of the powered adjustable seating options may influence the stability of the wheelchair.
2. Only use the powered adjustable seating options when the wheelchair is on a flat surface! Do Not attempt to operate any power seating option while positioned on an incline.
3. Please stay clear of any powered actuator while the component is in motion. Sunrise Medical power mechanisms move over large ranges of travel. Users should be aware of their surroundings while components are in motion.
4. While driving this seating system in the reclined, elevated, and/or tilted position use caution.
5. Do not attempt to operate any power seating option while this seating system is in motion.
6. Do not attempt to operate the lift or tilt power seating options around children.
7. Through programming it is possible to reverse the direction of all powered seating functions; ensure you know which direction your seat is going to move before operating. Please discuss with your Sunrise Medical authorized dealer which direction the power seating functions have been programmed.
8. Please be aware that the lift/tilt modules present a trap hazard (pinch point). Ensure that during operation the lift/tilt modules are free from all clothing, hands, feet, and other extremities to prevent injury.
9. Do not drive on ramps or slopes with the seating in the elevated position. Before attempting to climb or descend a slope, return the wheelchair to a standard seated drive position, with the backrest upright.

This power system is designed to automatically reduce the maximum driving speed to a creep and/or C-Me mode when certain power seating limits are reached. Depending on the configuration of the chair there might be multiple creep and/or C-Me speeds. Talk to your Sunrise Medical authorized dealer about creep and/or C-Me speeds for your chair.



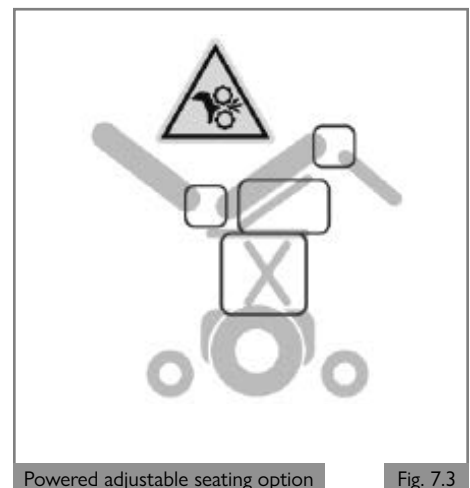
Powered adjustable seating option

Fig. 7.1



Powered adjustable seating option

Fig. 7.2



Powered adjustable seating option

Fig. 7.3

8.0 REDUCING THE SEATING SYSTEM SIZE FOR TRANSPORTATION PURPOSES

Zippie® Power Seating

⚠ DANGER/WARNING!

The wheelchair can be reduced in size for transportation without a passenger. Any components of the seating system that can be detached easily should be removed. Store away such components safely so that they can not cause injury or damage, or become damaged themselves.

8.1 Backrest (Fig 8.1)

Folding the backrest

1. Lift and turn backrest latch handles (A) inward or outward.
2. Fold backrest forward.

Return backrest to upright positioning

1. Lift backrest to upright position so that latch handles (A) lock into place.
2. Backrest is ready for use.

⚠ NOTE/CAUTION!

If necessary, first remove the back cushion and/or the armrest assemblies.

⚠ WARNING!

Backrest latches must be locked into place before operating wheelchair.

8.2 Swing in/out footrests (Fig 8.2)

Removing a swing in/out footrest

3. To remove the footrest, release latch (B) by pulling lever upward or pushing lever downward.
4. Rotate footrest inward or outward and lift it out of the front frame tube.

Reattaching a swing in/out footrest

1. From the side, place the pivot (D) into the top of the frame tube which guides the hanger into the correct alignment with the locking plate (C) on the front frame tube.
2. Rotate the hanger to the front until it locks into place on locking plate.

8.3 Elevating legrest (option) (Fig 8.3)

To remove and/or reattach elevating legrest, see instructions for Swing in/out footrests (section 8.2).

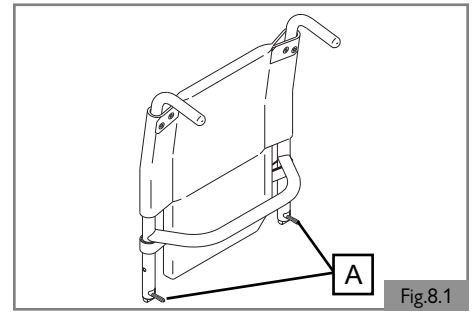


Fig.8.1

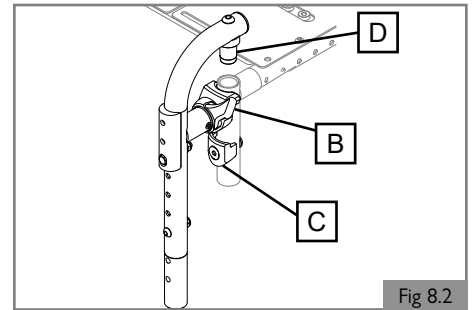


Fig 8.2

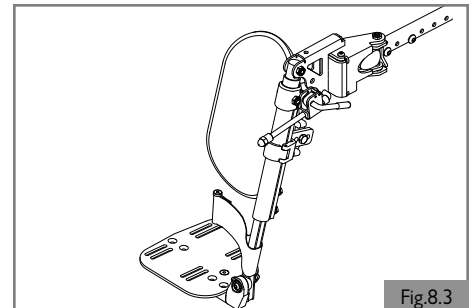


Fig.8.3

8.0 REDUCING THE SEATING SYSTEM SIZE FOR TRANSPORTATION PURPOSES

8.4 Dual-post height adjustable armrest (Option) (Fig 8.4)

1. To remove armrest for transfer:
 - a. Disengage levers (E and F) so front and rear posts are able to come free.
 - b. Armrest can now be easily removed for transferring.
2. To reattach armrest:
 - a. Insert front and rear posts into armrest receivers.
 - b. Engage levers (E and F) to secure armrest.

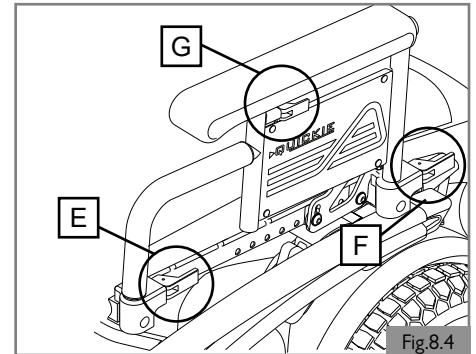


Fig.8.4

8.5 Single post height-adjustable armrest (Option) (Fig 8.5)

1. To remove armrest for transfer:
 - a. Press on the release lever (8) and remove the armrest.
2. To reattach armrest:
 - a. Slide the outer armpost into the receiver (2) mounted to the wheelchair frame.
 - b. The armrest will automatically lock into place.

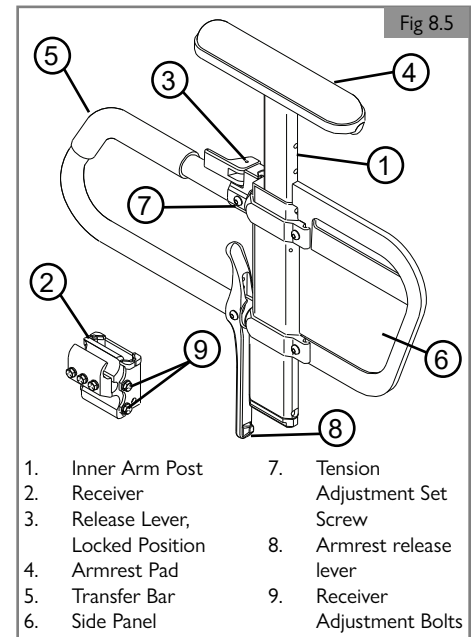


Fig 8.5

8.6 Cantilever armrest (Fig 8.6)

1. To flip up armrest for transfer:
 - a. Flip the armrest all the way up until it goes into its mechanical stop.

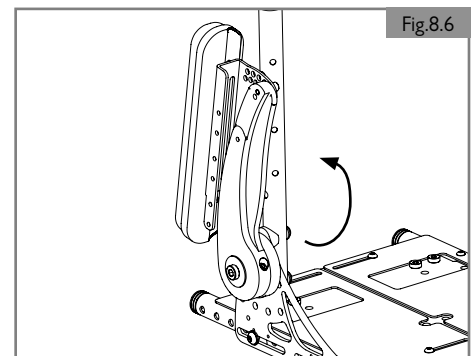


Fig.8.6

9.0 MAINTENANCE AND CLEANING

The wheelchair's lifespan is dependent on it being well maintained.

For information concerning specific settings, maintenance, or repair work, please contact your Sunrise Medical authorized dealer. Always ensure you mention the model and year of manufacture and identification number provided on the serial number label of the wheelchair when contacting your Sunrise Medical authorized dealer.

CAUTION!

The wheelchair should be serviced by your Sunrise Medical authorized dealer once a year or, in the case of intensive use, every six months. For a list of approved authorized dealers in your area please contact Sunrise Medical Service Center.

The contact details of your local Sunrise Medical Service Center can be found on the inside front cover of this booklet.

Website addresses are on the back cover.

9.1 General maintenance

1. All fasteners should be checked quarterly for wear, such as loose bolts or broken components.
2. Loose fasteners should be re-tightened. See section 9.8 Maintenance and Inspection Schedule for specified torque values.
3. Check all straps monthly for fraying, ripped seams, or other indications of excessive wear damage. Discontinue use if damage is found.
4. Chest straps should be replaced at the first indication of damage and/or excessive wear.
5. If a broken or loose component is found, discontinue use immediately and contact your Sunrise Medical authorized dealer for replacement.
6. Check all Velcro® fastening straps for correct adhesion when pressed together.
7. Ensure that any contamination, such as fluff, hair, etc is removed from the Velcro® straps. Such contamination may affect adhesion.

Daily checks

Perform the daily check routine before driving as described below.

Checking seating

1. Ensure that all cushions are in place.
2. Ensure that the backrest is correctly fitted and adjusted.
3. Visually inspect the wheelchair to ensure the legrests, armrests, etc. are correctly positioned and attached to the wheelchair and all fasteners are sufficiently tightened. See section 9.8 Maintenance and Inspection Schedule for torque values.
4. Ensure that the seat interface knobs are tight and secure.

Checking clothing on potential entrapment

When operating the wheelchair, ensure that your clothing does not hamper the wheelchair (e.g. too long). Before use, always ensure your clothing or accessories do not come into contact with the wheels or other moving and/or rotating parts in which they could become entangled.

Weekly checks

Perform the weekly check routine before driving as described below.

Checking connectors and cables

1. Ensure that all connectors are securely mated.
2. Check the condition of all cables and connectors for damage.

Checking controller

1. Check the thin rubber gaiter or boot around the base of the joystick shaft for damage or splitting. Check visually only; do not handle the gaiter.
2. Ensure that all components of the control system are securely mounted.

Checking controls

1. Switch on the hand control – Do the lights flash? This signifies that there is a fault in the electronic system.
2. Operate all of the electric options, including lights and indicators (if fitted), to ensure that they work correctly.
3. Drive the wheelchair in each of the drive profiles to ensure the wheelchair performs as it did before.

General weekly checks

1. Check tires for proper inflation level (if applicable).
2. Check frame and base for foreign objects and/or obstructions.
3. Ensure the knobs that attach the seat frame to the front of the base are not loose.

Quarterly checks

Perform the quarterly check routine before driving as described below.

1. Check all straps for fraying, ripped seams, or other indications of excessive wear damage. Discontinue use if damage is found and contact a Sunrise Medical authorized dealer.
2. Check chair for any missing or loose nuts, bolts, and/or fasteners. Contact a Sunrise Medical authorized dealer if found.
3. Check wheelchair for any broken components, unusual wear, or other indicators of excessive wear. Discontinue use if damage is found and contact a Sunrise Medical authorized dealer.

WARNING!

1. If you are in any doubt about the performance requirements of your wheelchair contact your Sunrise Medical authorized dealer.
2. After performing any maintenance or repairs on the wheelchair you must ensure that it is functioning correctly before it is used.
3. A complete inspection, safety check, and service should be made by a Sunrise Medical authorized dealer at least once per year.
4. All fasteners must be replaced like for like using the correct length, tensile strength, and materials.
5. When replacing self-locking nuts, or nuts/studs secured with a thread locking solution, ensure that a suitable thread locking solution is reapplied to the new fastener.
6. Check all Velcro® fastening straps for correct adhesion when pressed together.
7. Ensure that any contamination, such as fluff, hair, etc is removed from the Velcro® straps. Such contamination may affect adhesion.
8. Do not reuse fasteners.

9.2 Cleaning your seating system

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 actuators should be blown or dusted away.

CAUTION!

Ensure that you dry all parts of your wheelchair if it becomes wet or damp after cleaning or if it is used in a wet or damp environment.

DANGER!

It is important that should the wheelchair be used by more than one person it is cleaned thoroughly to ensure there is no cross contamination.

9.2.1 Cleaning and inspection of your seating

WARNING!

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

Cleaning instructions for seating

Wash all parts of the covers with a gentle-wash detergent at 100°F (38°C). You can spin-dry the covers, but do not dry them in a dryer. 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!

Where upholstery cannot be removed, clean regularly to prevent build up or soiling. Clean with a damp, soapy cloth. Disinfectants may be used in dilution as specified by their manufacturer. Ensure surfaces are rinsed well with clean water and dried thoroughly.

9.3 Hygiene measures when being re-used

Prior to the wheelchair being reused, it must be carefully prepared. All surfaces which come into contact with the user must be treated with a disinfectant.

To do this, you must use a suitable disinfectant for rapid alcohol-based disinfection of medical products and medical devices.

Please take into account the manufacturer's instructions for the disinfectant you are using.

⚠ CAUTION!

1. Do not use solvents, bleaches, abrasives, synthetic detergents, wax polishes, or aerosols.
2. Disinfectants may be used in dilution as specified by the manufacturer.
3. Ensure surfaces are rinsed with clean water and dried thoroughly.

9.4 General cleaning instructions

⚠ CAUTION!

1. You should remove stains on your seat as soon as possible.
2. After a long period of use, you should clean the cover of your seat with a standard commercially available dry foam cleaning agent.
3. You should always clean the whole surface and not just individual spots in order to avoid unattractive edges. The longer you wait the more difficult it will be to remove them.
4. Avoid powerful rubbing with aqueous solutions. This will roughen up cover fabric.
5. Dirt stains (eg. beer, blood, cola, red wine, etc.) are best removed with the dry foam cleaning agents or with a mild action detergent.
6. Please follow the respective instructions of use when treating the covers.
7. The covers should be allowed to dry for at least 48 hours after cleaning with foam cleaning agents.
8. For grease stains (eg. ball point pen, lipstick, chewing gum, etc.) use a proprietary stain remover. Carefully rub the soiled location on the surface only with a clean cloth impregnated with the stain remover.
9. Use only a very small quantity of stain remover.
10. Test a small, inconspicuous area first.
11. The upholstery material must not be saturated, since the stain remover might then change it.
12. Do not use a hose or a pressure washer to clean your chair.

9.8 Maintenance and inspection schedule

To be performed by:

Maintenance and Inspection Schedule	End User / Caregiver			Sunrise Medical Authorized Dealer
	Daily*	Weekly	Quarterly**	Annually
Daily Check routine as described in Section 9.1	<input checked="" type="checkbox"/>			
Weekly Check routine as described in Section 9.1		<input checked="" type="checkbox"/>		
Clean wheelchair upholstery as described in Section 9.2		<input checked="" type="checkbox"/>		
Quarterly Check routine as described in Section 9.1			<input checked="" type="checkbox"/>	
Complete inspection, safety check, and service should be made by a Sunrise Medical authorized dealer				<input checked="" type="checkbox"/>

* Daily = Before each use of the wheelchair. Quarterly = Every three (3) months.

If fasteners are found to be loose a Sunrise Medical authorized dealer should tighten the fastener to the torque setting per size detailed below, unless stated otherwise in all appropriate owner's manuals or instruction sheets (if applicable).

- M8 Fasteners = 13.5-14.9 Nm [120-132 in-lbs]
- M5 Fasteners = 3.1-3.6 Nm [27-32 in-lbs]
- M6 Fasteners = 6.8-7.9 Nm [60-70 in-lbs]
- M4 Fasteners = 0.7-0.9 Nm [6-8 in-lbs]

⚠ WARNING!

1. Always read the label on any commercial or domestic cleaning substances.
2. Always follow the instructions carefully.

9.5 Cleaning accessories

1. All parts/accessories such as swing away trays should be cleaned with a damp cloth.
2. All lateral supports, headrest, armrests, side guards, calf pads, lap belts, and knee pads should be cleaned with a damp cloth.

9.6 Cleaning controls

Should the controller of your wheelchair become soiled or dirty, it can be wiped with a damp cloth with a dilute disinfectant until clean.

⚠ DANGER!

1. This is important should the wheelchair be used by more than one person to ensure there is no cross contamination.
2. Ensure that wafer boards, joysticks (all variants), head arrays, and switches (all variants) are cleaned with a mild disinfectant and a cleaning cloth to avoid any cross contamination possibilities. Following removal from chair regularly wash the sip and puff mouth piece and tube to maintain cleanliness and functionality.
3. Ensure control is switched off before cleaning.

9.7 Storage

To keep the upholstery and other parts of the wheelchair in good condition, store in a dry environment as close to room temperature as possible.

⚠ CAUTION!

1. Never store your wheelchair in direct sunlight or in a damp/outdoor environment.
2. Direct sunlight might bleach upholstery/plastic parts and cause metal parts to become hot.

10.0 TECHNICAL SPECIFICATIONS: APPLICABLE NORMS / STANDARDS



This product complies with the regulations and guidelines for medical aids and carries a CE symbol. The product meets the requirements and standards below. These are checked by independent institutions.

Standard	Definition / Description	Maximum User Weight
EU guideline 93/42 EEC	Applicable as mentioned in Appendix 1	N/A
NEN-EN 12182:2014 Class B	"The requirements from EN12182 as mentioned in NEN-EN 12184 (2014): Assistive products for persons with disability - General requirements and test methods"	165 lbs / 75 kg
NEN-EN 12184:2014 Class B	Electrically powered wheelchairs, scooters and their chargers - Requirements and test methods	165 lbs / 75 kg
ISO 7176-8:2014	Requirements and test methods for impact, static and fatigue strengths	165 lbs / 75 kg
ISO 7176-9:2009	Climate tests for electric wheelchairs	N/A
ISO 7176-14:2008	Requirements and test methods for control systems for electric wheelchair	N/A
ISO 7176-16:2012	Requirements for resistance to ignition of upholstered parts	N/A
ISO 7176-19:2008	Wheelchairs - Part 19: Wheeled mobility devices for use as seats in motor vehicles: The Q-series meet the crash test requirements as described in ISO 7176-19	165 lbs / 75 kg
ISO 7176-4:2008	Wheelchair Energy Consumption Theoretical Range	165 lbs / 75 kg
ANSI/RESNA WC-1:2009	Requirements and test methods for wheelchairs (including scooters)	N/A

11.0 SUNRISE LIMITED WARRANTY

THIS GUARANTEE DOES NOT AFFECT YOUR LEGAL RIGHTS IN ANY WAY.

Sunrise Medical* provides a guarantee, as set out in the warranty conditions, for wheelchairs to its customers covering the following.

Warranty conditions

- FOR ONE (1) YEAR** - We warrant all Sunrise-made parts and components of this wheelchair including: motors, gearboxes, and electronic components, against defects in materials and workmanship for one year from the date of first consumer purchase.
- BATTERIES** - The batteries are covered by a one (1) year warranty provided through the original battery manufacturers.
- LIMITATIONS**
 - We do not warrant:
 - Tires and tubes, upholstery, pads, and push-handle grips.
 - Damage from neglect, accident, misuse, or from improper installation or repair.
 - Products modified without Sunrise Medical's express written consent.
 - Damage from exceeding the weight limit.
 - This warranty is VOID if the original chair serial number tag is removed or altered.
 - This warranty applies in the USA and Canada only. Check with your Sunrise Medical authorized dealer to find out if international warranties apply.
 - This warranty is not transferable and only applies to the first consumer purchase of this wheelchair through a Sunrise Medical authorized dealer.
- WHAT WE WILL DO** - Our sole liability is to repair or replace covered parts. This is the exclusive remedy for consequential damages.
- WHAT AUTHORIZED DEALER MUST DO** - Obtain from Sunrise Medical, while this warranty is in effect, prior approval for return or repair of covered parts. Contact Customer

Service for a Returned Material Authorization (RMA) number and information as to where to return the product. Upon contacting Customer Service please provide Model number, Serial number, description of what is required for service/repair, and any additional information as to reason for service being performed to the wheelchair.

6. NOTICE TO CONSUMER -

- You must pay the cost of labor to repair, remove, or install parts even if they are covered under warranty.
 - If allowed by law, this warranty is in place of any other warranty (written or oral, express or implied, including a warranty of merchantability, or fitness for a particular purpose).
 - This warranty gives you certain legal rights. You may also have other rights that vary from state to state or province to province.
7. This guarantee is subject to the law of the country in which the product was purchased from Sunrise Medical.

* Denotes the Sunrise Medical facility from which the product was purchased.

ADDITIONAL WARRANTY INFORMATION FOR AUSTRALIA ONLY

- For goods provided by Sunrise Medical Pty Ltd in Australia, our goods come with a guarantee by Sunrise Medical that cannot be excluded under the Australian Consumer Law.
- You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage.
- You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- The benefits to you given by this warranty are in addition to your other rights and remedies under a law in relation to the goods to which the warranty relates.

Record your serial number here for future reference:

(Refer to Base owner's manual for serial number label location)

www.SunriseMedical.com



Customer Service:
800.333.4000
In Canada 800.263.3390

Sunrise Medical
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04.2022 P/N 255249 Rev. A