



X'CAPE



Zippie X'CAPE®

- with transit option without transit option

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

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

Owner's Manual

Zippie X'CAPE®

Distribuidor: Este manual debe ser entregado al pasajero de esta silla de ruedas.

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

Manual de Instrucciones

Zippie X'CAPE®

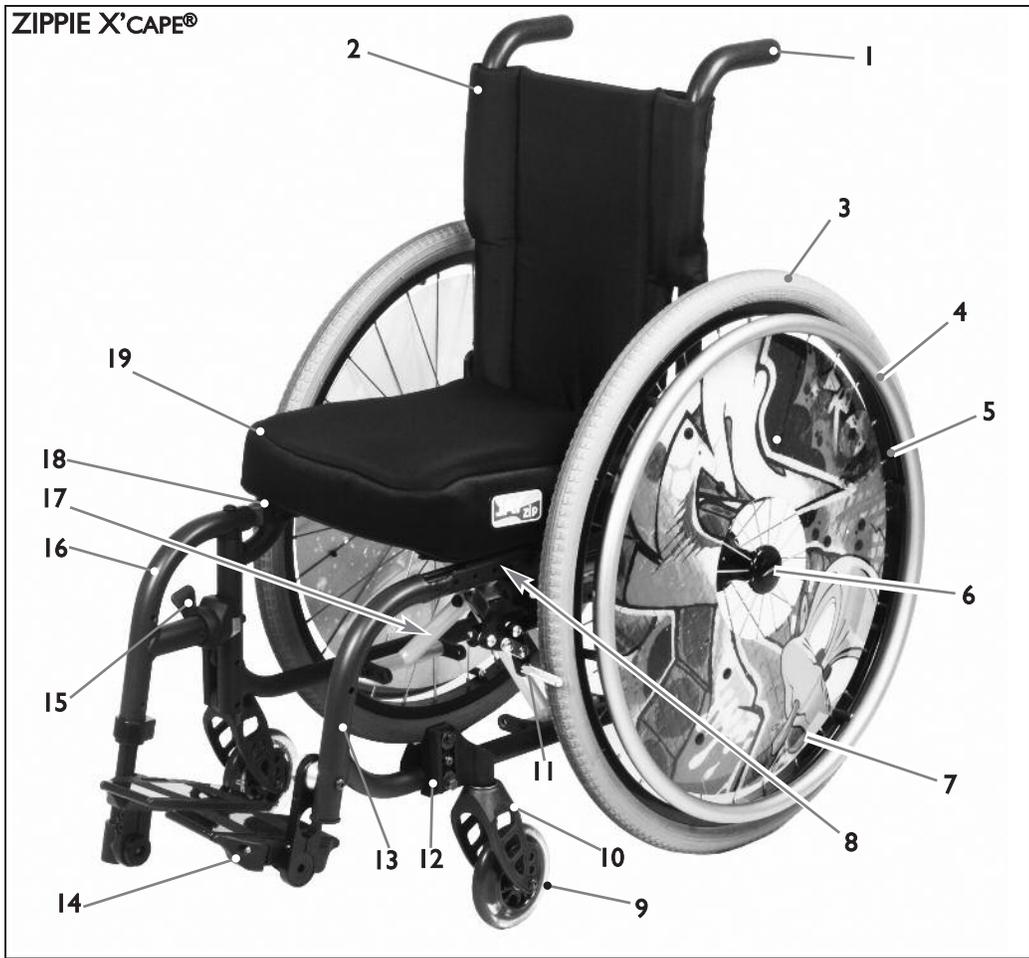
Fournisseur: Ce manuel doit être remis à l'utilisateur / utilisatrice de ce fauteuil roulant.

Utilisateur / Utilisatrice: Avant d'utiliser ce fauteuil roulant, lisez entièrement ce manuel et conservez-le pour le consulter ultérieurement.

Mode d'emploi



I. INTRODUCTION	2	L. Modified Seat Systems	13
II. TABLE OF CONTENTS	3	M.Seat and Back Upholstery	13
III. YOUR CHAIR AND ITS PARTS	4	N.Power Drive.....	13
IV. NOTICE - READ BEFORE USE	4	O.Dynamic Backrest.....	13
A. Choose the Right Chair & Safety Options	4	P. Anti-tip Receivers	13
B. Review This Manual Often	4	VIII. USE AND MAINTENANCE	14
C. Warnings	4	A. Introduction	14
V. GENERAL WARNINGS.....	5	B. Critical Maintenance Tips.....	14
A. Weight Limit	5	C.Maintenance Chart	14
B. Intended Use.....	5	D.Cleaning Tips.....	14
C.Attendants and Caregivers.....	5	E. Troubleshooting Chart.....	14
D. Accessories	5	F. To Mount and Remove Rear Wheels.....	15
E. Know Your Chair	5	G.Wheel Locks.....	15
F. Reduce The Risk of an Accident	5	H.Hub Locks	15
G.Safety Checklist	5	I. Anti-tips.....	16
H.Changes & Adjustments	5	J. Single-Post Height Adjustable Armrest.....	16
I. Environmental Conditions	6	K. Footrest system	17
J. Terrain	6	L. Swing-Away Footrest	17
K. Street Use	6	M.Upholstered Backrest.....	17
L. Motor Vehicle Safety	6	N.Folding and Unfolding	18
M.When You Need Help	6	O.Integrated Stroller Handles	18
VI. SAFETY WARNINGS: FALLS & TIP-OVERS.....	7	P. Backrest.....	18
A. Center of Balance	7	Q.Seat Sling Upholstery and Cushion.....	19
B. Dressing or Changing Clothes	7	R. Storage Tips.....	19
C.Obstacles	7	S. Check-Out	19
D.Front Caster Lift.....	7	IX DEALER SERVICE AND ADJUSTMENT	20
E. Reaching or Leaning.....	7	A.Dealer Service Introduction.....	20
F. Moving Backward.....	7	B. Critical Maintenance tips	20
G.Escalators.....	8	C.Cleaning.....	20
H.Ramps, Slopes & Sidehills	8	D.Rear Axles & Axle Plates.....	20
I. Transfers.....	9	E. Rear Wheel Axle Nut Adjustment.....	21
J. Curbs & Single Steps.....	9	F. Wheel Locks	21
K. Climbing a Curb or Single Step.....	10	G.Caster Forks	22
L. Descending a Curb or Single Step.....	10	H.Casters	22
M.Stairs	10	I. Anti-tip Receivers	22
N.Climbing Stairs	10	J. Armrest Receiver Attachment	23
O.Descending Stairs	10	K. T-post Armrest	23
VII. WARNINGS: COMPONENTS & OPTIONS	11	L. Flip-up armrests	23
A. Anti-Tip Tubes	11	M.Adjustable Locking Flip-up Armrests	24
B. Armrests	11	N.Footrest System	24
C.Cushion & Sling Seats	11	O.Angle adjustable Backrest	25
D.Fasteners	11	P. XLOCK™ Technology.....	25
E. Footrests.....	11	Q.Dynamic Backrest.....	25
F. Pneumatic Tires	11	R. Sideguard with T-Post Armrest	26
G.Positioning Belts Option	12	S. Backrest Tension Adjustable	26
H.Push Handles Option.....	12	X. SUNRISE LIMITED WARRANTY	27
I. Quick-Release Axles	12		
J. Rear Wheels	12		
K. Rear Wheel Locks	12		



1. Push Handle/Backcane
2. Backrest
3. Pneumatic Tire
4. Aluminum Handrim
5. Aluminum Wheel Rim
6. Quick-Release Axle
7. Spoke cover
8. Versa Rail™ (Seat Rail)
9. Caster Wheel
10. Caster Fork
11. Wheel lock
12. Caster Clamp (Fixed)
13. Fixed Front Frame
14. Footrest System
15. Swing-Away latch release
16. Swing-Away Front Frame
17. XLOCK™ Crossbrace
18. Seat Sling
19. Cushion

NOTE - Not all options shown are available on the Fixed or Swing-away frame options of the Zippie X'CAPE®. Please refer to the order form for specific option availability.

IV. NOTICE- READ BEFORE USE

A. CHOOSE THE RIGHT CHAIR & SAFETY OPTIONS

Sunrise provides a choice of many wheelchair styles to meet your needs. This product is intended for single person use only. Final selection of the type of wheelchair, options and adjustments rests solely with you and your health care professional. Choosing the best chair for your unique mobility needs, will depend on such things as:

1. Your disability, strength, balance and coordination.
2. The types of hazards you must overcome in daily use (where you live and work, and other places you are likely to use your chair).
3. The need for options that will improve your positioning, safety and comfort (such as anti-tip tubes, positioning belts, or special seating systems).

B. REVIEW THIS MANUAL OFTEN

Before using this chair you, and each person who may assist you, should read this entire manual and make sure to follow all instructions. Review the warnings often, until they are second nature to you.

C. WARNINGS

The word "WARNING" refers to a hazard or unsafe practice that may cause severe injury or death to you or to other persons. The "Warnings" are in three main sections, as follows:

1. V — GENERAL WARNINGS

Here you will find a safety checklist and a summary of risks you need to be aware of before you ride this chair.

2. VI— SAFETY WARNINGS: FALLS & TIP-OVERS

Here you will learn about practices for the safe use of your chair, and how to avoid a fall or tip-over while you perform daily activities in your chair.

3. VII — WARNINGS — COMPONENTS & OPTIONS

Here you will learn about the components of your chair and options you can select for safety. Consult your authorized supplier and your health care advisor to help you choose the best set-up and options for safe use.

NOTE— Where they apply, you will also find "Warnings" in other sections of this manual. Heed all warnings in these sections. If you fail to do so a fall, tip-over or loss of control may occur and cause severe injury to the rider or others.

A. WEIGHT LIMIT**⚠️ WARNING**

NEVER exceed the weight limit specified by Sunrise Medical. The weight capacity provided by your manufacturer is for the combined weight of a rider and items carried using on-board storage. If you do exceed the weight limit, damage to your chair, a fall, tip-over or loss of control may occur and cause severe injury to the rider or others.

Weight Capacity

Zippie X'CAPE® - 165lbs/(75kg).

B. INTENDED USE

The Zippie X'CAPE® wheelchair's intended use is to provide mobility to children limited to a sitting position.

⚠️ WARNING

DO NOT use this device for purposes other than what is intended by the manufacturer

1. The wheelchair is not designed for weight training and is unsafe for use as a seat while weight training. Weight training from the wheelchair substantially changes the stability of the chair and may cause tipping.
2. DO NOT stand on the frame of the wheelchair.
3. NEVER allow someone to stand on your chair or use it as a step ladder.
4. This chair is designed for a single rider only.
5. Unauthorized modifications and use of parts or accessories not supplied or approved by Sunrise Medical may change the chair structure. This will void the warranty and may cause a safety hazard. If the warning is ignored, damage to your chair, and the potential severe injury of the person using the chair for unintended purposes can occur.

C. ATTENDANTS AND CAREGIVERS**⚠️ WARNING**

Before you assist a rider, be sure to read all warnings contained in this manual, and follow all instructions that apply. Be aware that after consulting a healthcare advisor, you will need to learn safe and proven body mechanics to use and create assistive methods best suited to your abilities.

D. ACCESSORIES**⚠️ WARNING**

Unauthorized modifications or use of parts, or accessories not supplied or approved by Sunrise Medical may change the chair structure. This will void the warranty and may cause a safety hazard.

Some problems that may occur, but are not limited to:

1. Incorrect Wheels and/or tires that put the rider at risk of a fall or tip-over.
2. Adding a component to the frame, changing the structural integrity of the chair.
3. Any modification or disassembly can potentially create an unsafe situation where rider and/or attendant are put at risk.

E. KNOW YOUR CHAIR**⚠️ WARNING**

Every wheelchair is different. Take the time to learn the feel of this chair before you begin riding. Start slowly, with easy, smooth strokes. If you are used to a different chair, you may use too much force and tip over. If you use too much force, damage to your chair, a fall, tip-over or loss of control may occur and cause severe injury to the rider or others.

F. REDUCE THE RISK OF AN ACCIDENT**⚠️ WARNING**

1. BEFORE you begin riding, you should be trained in the safe use of this chair by your health care advisor.
2. Practice bending, reaching and transfers until you know the limit of your ability. Have someone help you until you know what can cause a fall or tip-over and how to avoid doing so.
3. Be aware that you must develop your own methods for safe use best suited to your level of function and ability.
4. NEVER try a new maneuver on your own. Ask the advice of your health care provider to lower the risk of a fall or tip over.
5. Get to know the areas where you plan to use your chair. Look for hazards and learn how to avoid them.

G. SAFETY CHECKLIST**⚠️ WARNING**

Before Each Use Of Your Chair:

1. Make sure the chair rolls easily and that all parts work smoothly. Check for noise, vibration, or a change in ease of use. (This may indicate low tire pressure, loose fasteners, or damage to your chair).
2. Immediately repair any problem. Your authorized supplier can help you find and correct the problem.
3. Check to see that both quick-release rear axles are locked. When locked, the axle button will "pop out" fully. If not locked, the wheel may come off and cause you to fall.
4. If your chair has anti-tip tubes, lock them in place.

H. CHANGES & ADJUSTMENTS**⚠️ WARNING**

1. See your healthcare advisor and have them adjust seating components any time a change or adjustment needs to be made.
2. Unauthorized modifications or use of parts not supplied or approved by Sunrise may change the chair structure. This will void the warranty and may cause a safety hazard.

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

I. ENVIRONMENTAL CONDITIONS

⚠ WARNING



1. Use extra care if you must ride your chair on a wet or slick surface. If you are in doubt, ask for help.
2. Contact with water or excess moisture may cause your chair to rust or corrode. Avoid all extreme weather situations if possible.
 - a. Do not use your chair in a shower, pool or other body of water. The chair tubing and parts are not water-tight and may rust or corrode from the inside.
 - b. Avoid excess moisture (for example, do not leave your chair in a damp bathroom while taking a shower).
 - c. Dry your chair as soon as you can if it gets wet, or if you use water to clean it.

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

J. TERRAIN

⚠ WARNING

1. Based on ANSI/RESNA testing, Sunrise Medical recommends the use of a caster wheel with a minimum diameter of 5", if the wheelchair will be overcoming obstacles up to 1/2" on a regular basis.
2. Your chair is designed for use on firm, even surfaces such as concrete, asphalt, indoor flooring, and carpets.
3. Do not operate your chair in sand, loose soil, or over rocky terrain.
4. If you use your chair on terrain that is rougher than described above there is a danger that screws and bolts will loosen prematurely, and that damage to wheels or axles could put the rider at risk of a fall, tip-over, or loss of control.

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

K. STREET USE

⚠ WARNING

1. This product is not intended for street use.
2. Avoid streets whenever possible.
3. Obey and follow all legal pedestrian pathways, and laws that apply to pedestrians.
4. Be alert to the danger of motor vehicles in parking lots, or if you must cross a road.

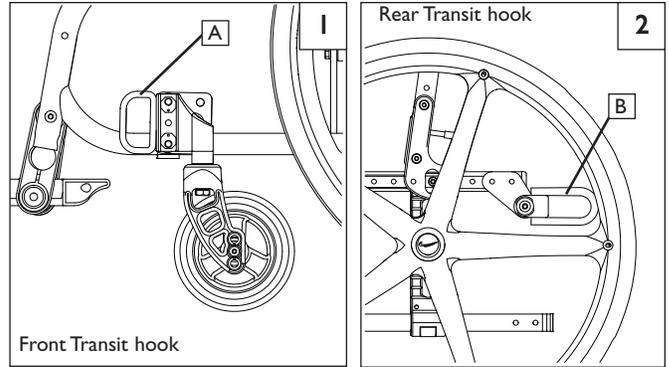
If you fail to heed this warning, damage to your chair, and a possible collision may occur and cause severe injury to the rider or others.

L. MOTOR VEHICLE SAFETY 1 2

If possible and feasible, the rider should transfer to the Original Equipment Manufacturer vehicle seat and use the OEM vehicle restraint.

Sunrise Medical does provide a WC-19 Wheelchair Tie-Down and Occupant Restraint System, otherwise called a Transit Option. To identify whether your wheelchair has been manufactured with the Transit Option installed, look for four points of securement. Two Front points (A), and two rear points (B). These points are recognized by the securement point decal which can be found on or near the securement points.

If your wheelchair is equipped with the Transit Option, please review the Transit Securement supplement that was provided with the wheelchair for additional information and instructions. You can request a copy from your authorized supplier, or call Sunrise medical at 1-800-333-4000 if you don't have it.



Look for this symbol on your wheelchair. It indicates wheelchair securement points which conform to ANSI/RESNA (1998) V.1 - Section 19 and/or ANSI/RESNA (2012) V.4 WC-19. For more Transit related information, see the "Transit Securement Supplement" included with your chair.

⚠ WARNING

If your chair is **NOT** equipped with the Transit Option:

1. NEVER let anyone sit in this chair while in a moving vehicle.
 - a. ALWAYS move the rider to an approved vehicle seat.
 - b. ALWAYS secure the rider with proper motor vehicle restraints.
2. In an accident or sudden stop the rider may be thrown from the chair. Wheelchair seat belts will not prevent this, and further injury may result from the belts or straps.
3. NEVER transport this chair in the front seat of a vehicle. It may shift and interfere with the driver.
4. ALWAYS secure this chair so that it cannot roll or shift.
5. Do not use any chair that has been involved in a motor vehicle accident. The frame and/or components may have been changed due to the accident. Such items could be, but are not limited to: bent, loosened, and/or broken components that were subjected to an impact.

Failure to heed these warnings puts you and others that may assist you at a high risk of injury.

M. WHEN YOU NEED HELP

⚠ WARNING

For The Rider: Make sure that each person who helps you reads and follows all warnings and instructions that apply.

For Attendants:

1. Work with the rider's doctor, nurse or therapist to learn safe methods best suited to your abilities and those of the rider.
2. Tell the rider what you plan to do, and explain what you expect the rider to do. This will put the rider at ease and reduce the risk of an accident.
3. Make sure the chair has push handles. They provide secure points for you to hold the rear of the chair to prevent a fall or tip-over. Check to make sure push handle grips will not rotate or slip off.
4. To prevent injury to your back, use good posture and proper body mechanics. When you lift or support the rider or tilt the chair, bend your knees slightly and keep your back as upright and straight as you can.
5. Remind the rider to lean back when you tilt the chair backward.
6. When you descend a curb or single step, slowly lower the chair in one easy movement. Do not let the chair drop the last few inches to the ground. This may damage the chair or injure the rider.
7. To avoid tripping, unlock and rotate anti-tip tubes up, out of the way.
8. Whenever you aren't attending the wheelchair, ALWAYS use the wheelchair to secure the rear wheels, and lock the anti-tip tubes in place.

If you fail to ask for help when in doubt, you run a high risk of a fall, tip-over or loss of control that may occur and cause severe injury to the rider or others.

A. CENTER OF BALANCE**⚠️ WARNING**

The point where this chair will tip forward, back or to the side depends on its center of balance and stability. How your chair is set up, the options you select and the changes you make may affect the risk of a fall or tip-over.

1. **The Most Important Adjustment Is:**
The position of the rear wheels. The more you move the rear wheels forward, the more likely your chair will tip over backward.
2. **The Center Of Balance Is Also Affected By:**
 - a. A change in the set-up of your chair, including:
 - The distance between the rear wheels.
 - The amount of rear wheel camber.
 - The seat height and seat angle.
 - Backrest angle.
 - b. A change in your body position, posture or weight distribution.
 - c. Riding your chair on a ramp or slope.
 - d. A back pack or other options and the amount of added weight.
3. **To Reduce The Risk Of An Accident:**
 - a. Consult your doctor, nurse or therapist to find out what axle and caster position is best for you.
 - b. Consult your authorized supplier **BEFORE** you modify or adjust this chair. Be aware that you may need to make other changes to correct the center of balance.
 - c. Have someone help you until you know the balance points of your chair and how to avoid a tip-over.
 - d. Use anti-tip tubes.

If you fail to heed these warnings, you are at a high risk of a fall, tip-over or loss of control that could cause severe injury to the rider or others.

B. DRESSING OR CHANGING CLOTHES**⚠️ WARNING**

Your weight may shift if you dress or change clothes while seated in this chair.

To reduce the risk of a fall or tip-over:

1. Rotate the front casters until they are as far forward as possible. This makes the chair more stable.
2. Lock anti-tip tubes in place. (If your chair does not have anti-tip tubes, back it up against a wall and lock both rear wheels).

If you fail to heed this warning, damage to your chair, a fall, tip-over or loss of control may occur and cause severe injury to the rider or others.

C. OBSTACLES**⚠️ WARNING**

Riding over curbs or obstacles can cause tipping and serious bodily harm. If you have any doubt that you can safely cross any curb or obstacle, **ALWAYS ASK FOR HELP**. Be aware of your riding skills and personal limitations. Develop new skills only with the help of a companion.

To avoid the risk of traversing obstacles:

1. Keep a lookout for danger – scan the area well ahead of your chair as you ride.
2. Make sure the floor areas where you live and work are level and free of obstructions.
3. Remove or cover threshold strips between rooms.
4. Install a ramp at entry or exit doors. Make sure there is not a drop off at the bottom of the ramp.
5. **To Help Correct Your Center Of Balance:**
 - a. Lean your upper body **FORWARD** slightly as you go **UP** over an obstacle.
 - b. Press your upper body **BACKWARD** as you go **DOWN** from a higher to a lower level.
6. If your chair has anti-tip tubes, do not go over an obstacle without help.

7. Keep both of your hands on the handrims as you go over an obstacle.
8. Never push or pull on an object (such as furniture or a doorjamb) to propel your chair.

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

D. FRONT CASTER LIFT**⚠️ WARNING**

Front caster lift can occur when the front wheels, ordinarily in contact with the ground, are either intentionally, or unintentionally caused to lift from the ground while the rear wheels remain in contact. Pitch control (partial or full) should **NEVER** be attempted without consulting your healthcare advisor and making sure that anti-tips are installed.

If you fail to heed this warning, you are at a high risk of damage to your chair, a fall, tip-over or loss of control that may occur and cause severe injury to the rider or others.

E. REACHING OR LEANING**⚠️ WARNING**

If you reach or lean it will affect the center of balance of your chair. This may cause you to fall or tip over. When in doubt, ask for help or use a device to extend your reach.

1. **NEVER** reach or lean if you must shift your weight sideways or rise up off the seat.
2. **NEVER** reach or lean if you must move forward in your seat to do so. Always keep your buttocks in contact with the backrest.
3. **NEVER** reach with both hands (you may not be able to catch yourself to prevent a fall if the chair tips).
4. **NEVER** reach or lean to the rear unless your chair has anti-tip tubes locked in place.
5. **DO NOT** reach or lean over the top of the seat back. This may damage one or both backrest tubes and cause you to fall.
6. **If You Must Reach Or Lean:**
 - a. Do not lock the rear wheels. This creates a tip point and makes a fall or tip-over more likely.
 - b. Do not put pressure on the footrests.
 - c. Move your chair as close as you can to the object you wish to reach.
 - d. Do not try to pick up an object from the floor by reaching down between your knees. You are less likely to tip if you reach to the side of your chair.
 - e. Rotate the front casters until they are as far forward as possible. This makes the chair more stable.
 - f. Firmly grasp a rear wheel or an armrest with one hand. This will help to prevent a fall if the chair tips.

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

F. MOVING BACKWARD**⚠️ WARNING**

Use extra care when you move your chair backward. Your chair is most stable when you propel yourself forward. You may lose control or tip over if one of the rear wheels hits an object and stops rolling.

1. Propel your chair slowly and smoothly.
2. If your chair has anti-tip tubes, make sure to lock them in place.
3. Stop often and check to be sure your path is clear.

If you fail to heed this warning, you are at a high risk of damage to your chair, a fall, tip-over or loss of control that may occur and cause severe injury to the rider or others.

G. ESCALATORS

⚠ WARNING

NEVER use this chair on an escalator, even with an attendant. If you do, a fall or tip-over is likely.

If you fail to heed this warning you and others that may be assisting you, are at a high risk of severe injury.

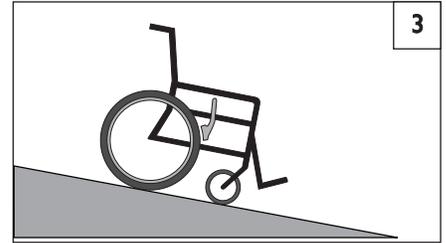
H. RAMPS, SLOPES & SIDEHILLS 3 4 5 6

⚠ WARNING

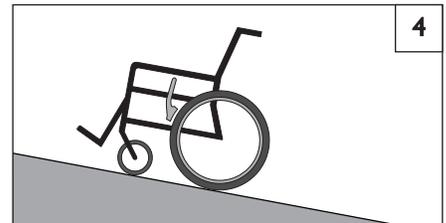
Whenever possible, avoid riding on a slope, which includes a ramp or sidehill. This will change the center of balance of your chair. Your chair is less stable and more difficult to maneuver when it is at an angle. When moving up a hill, anti-tip tubes may not prevent a fall or tip-over.

1. **DO NOT** use your chair on a slope steeper than 10%. (A 10% slope means: one foot in elevation for every ten feet of slope length.)
2. **ALWAYS** go as straight up and as straight down as you can. (Do not “cut the corner” on a slope or ramp.)
3. **DO NOT** turn or change direction on a slope.
4. When you have to use a ramp, always stay in the **CENTER** of the ramp. Make sure ramp is wide enough that you have no risk of going off the edge.
5. **DO NOT** stop on a steep slope. If you stop, you may lose control of your chair.
6. **NEVER** use rear wheel locks to try to slow or stop your chair. This is likely to cause your chair to veer out of control.
7. **ALWAYS** be aware of:
 - a. Wet or slippery surfaces.
 - b. A change in grade on a slope (or a lip, bump or depression). These may cause a fall or tip-over.
 - c. A drop-off at the bottom of a slope or ramp. A drop-off as small as 3/4 inch can stop a front caster and cause the chair to tip forward.
8. To Reduce The Risk Of A Fall Or Tip-Over:
 - a. Lean or press your body **UPHILL**. This will help adjust for the change in the center of balance caused by the slope or sidehill.
 - b. Keep pressure on the handrims to control your speed on a down slope. If you go too fast you may lose control.
 - c. **ASK FOR HELP** any time you are in doubt.
9. Ramps At Home & Work– For your safety, ramps at home and work must meet all legal requirements for your area:
 - a. **AVOID A DROP-OFF**
Make sure there is a section at the top or bottom to smooth out the transition.
 - b. **ALWAYS** stay in the center of the ramp and control your speed.

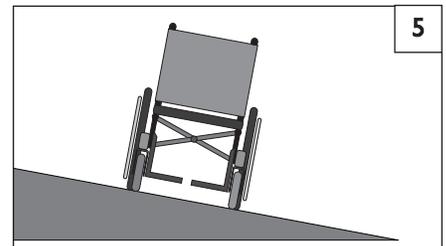
If you fail to heed these warnings damage to your chair, a fall, tip-over or loss of control may occur and can possibly cause severe injury to the rider or others.



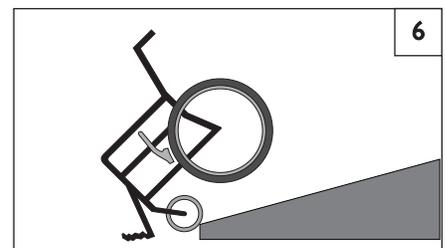
- IF** you need to go down a hill:
- a. The Downslope should be less than 10°
 - b. **GO SLOW**
 - c. **ALWAYS** Go Straight down
 - d. **ALWAYS** Control your speed.
 - e. **NEVER** turn on a hill.



- IF** you need to go up a hill:
- a. The Upslope should be less than 10°
 - b. **ALWAYS** Go Straight up
 - c. **NEVER** Stop on the upslope.
 - d. **NEVER** turn on a hill.
 - e. **ALWAYS** lean forward



- IF** you need to traverse a Sidehill:
- a. The sidehill must be Less than 6° or you are at risk of a tip over
 - b. **DON'T STOP.**
 - c. **DO NOT** make any Turns on the sidehill.



- If** you need to traverse a Ramp:
- a. **Go Slowly.**
 - b. **Watch out for Drop-offs.**
 - c. **ALWAYS** go straight down.
 - d. **Stay centered on the Ramp.**

I. TRANSFERS 7 8

⚠ WARNING

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 wheelchair seat is not below you. To avoid a fall:

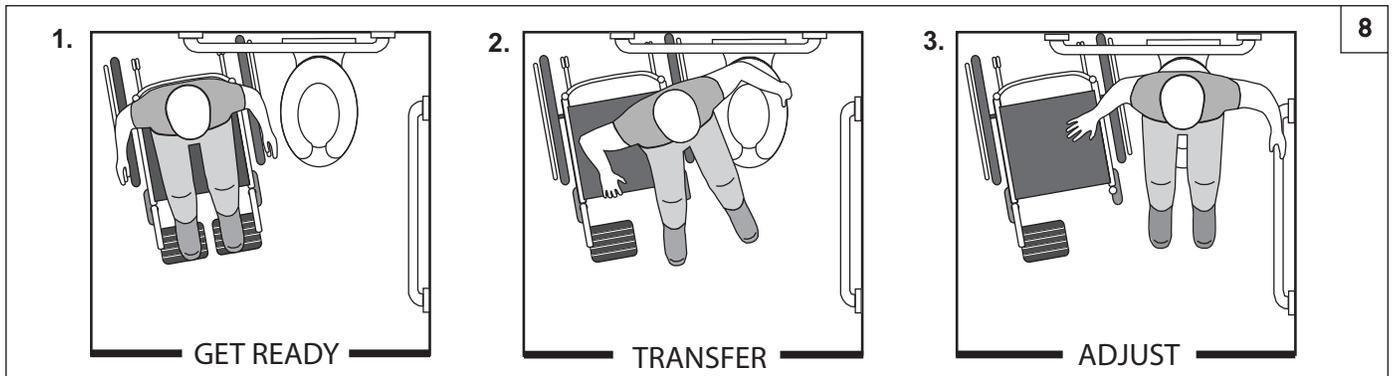
1. Work with your health care advisor to learn safe methods for transfers.
 - a. Learn how to position your body and how to support yourself during a transfer.
 - b. Have someone help you until you learn safe transfer methods.
2. Lock the rear wheels before you transfer.
3. Be aware that the chair can still slide and/or tip. The wheel lock keeps the rear wheels from rolling while you are performing the transfer.
4. Make sure that the pneumatic tires are properly inflated. Low tire pressure may allow the rear wheel locks to slip. (see table in Section G "Pneumatic Tires")
5. Move your chair as close as you can to the seat you are transferring to. If possible, use a transfer board.
6. Rotate the front casters until they are as far forward as possible.
7. If you can, remove the footrests, or swing them out of the way.
 - a. Make sure your feet do not catch in the space between the footrests.
 - b. Avoid putting weight on the footrests as this may cause the chair to tip.
8. Make sure armrests are removed, or out of the way and do not interfere with the transfer.
9. Transfer as far back onto the seat surface as you can. This will reduce the risk that the chair will tip or move away from you.

Optimum Transfer position



Before transferring:

1. Remove the armrests.
2. Remove or move the footrests.
3. Make sure the wheel lock is set.



J. CURBS & SINGLE STEPS 9

⚠ WARNING

Before riding over curbs, and negotiating even a single step, ALWAYS ask for assistance first. Curbs and steps can cause tipping and serious bodily harm. When in doubt as to your ability to avoid, or traverse any obstacle, always ask for help. Be aware of your riding skills and personal limitations. Develop new skills only with the help of a companion.

For Attendant: Each person who assists the rider with curbs and steps should read and follow all instructions and warnings pertaining to attendants, and caregivers.

1. Do not try to climb a high curb or step (more than 4 inches high) UNLESS you have help. Doing so may cause your chair to exceed its balance point and tip over.
2. Go straight up and straight down a curb or step. If you climb or descend at an angle, a fall or tip-over is likely.
3. Be aware that the impact of dropping down from a curb or step can damage your chair or loosen fasteners.

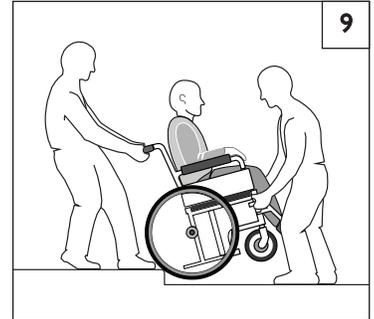
If you fail to heed these warnings damage to your chair, a fall, tip-over or loss of control may occur and can possibly cause severe injury to the rider or others.

K. CLIMBING A CURB OR SINGLE STEP 9**⚠ WARNING**

For Attendant: follow these steps to help the rider climb a curb or single step going **BACKWARD**:

1. Stay behind the chair.
2. Continue backward until the rear wheels contact the face of the curb or step. Lift and roll the rear wheels to the top of the curb.
3. Pull the chair backwards until the caster wheels have cleared the edge of the curb and return the chair to its rolling position.

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

**L. DESCENDING A CURB OR SINGLE STEP** 9**⚠ WARNING**

For Attendant: Follow these steps to help a rider descend a curb or single step going **FORWARD**:

1. Stay at the rear of the chair.
2. Several feet before you reach the edge of the curb or step, tip the chair slightly and pull it backward.
3. When the chair is at its balance point, carefully step forwards until the rear wheels reach the edge of the curb or step. Then allow the rear wheels to slowly roll down onto the lower level.
4. Push the chair forward until you are standing on the lower level.
5. When the rear wheels are safely on the lower level, tilt the chair back to its balance point.

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

M. STAIRS 10**⚠ WARNING**

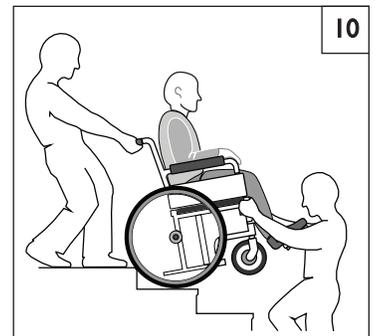
1. NEVER use this chair on stairs UNLESS you have someone to help you. Doing so is likely to cause a fall or tip-over.
2. Negotiating stairs with a wheelchair always requires at least 2 attendants for safety.

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

N. CLIMBING STAIRS 10**⚠ WARNING**

1. Use at least two attendants to move a chair and rider up stairs.
2. Move the chair and rider **BACKWARD** up the stairs.
3. The person at the rear is in control. He or she tilts the chair back to its balance point.
4. A second attendant at the front firmly grasps a non-detachable part of the front frame and lifts the chair up and over one stair at a time.
5. The attendants move to the next stair up. Repeat for each stair, until you reach the landing.

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

**O. DESCENDING STAIRS** 10**⚠ WARNING**

1. Use at least two attendants to move a chair and rider down stairs.
2. Move the chair and rider **FORWARD** down the stairs.
3. The person at the rear is in control. He or she tilts the chair to the balance point of the rear wheels and rolls it to the edge of the top step.
4. A second attendant stands on the third step from the top and grasps the chair frame. He or she lowers the chair one step at a time by letting the rear wheels roll over the stair edge.
5. The attendants move to the next stair down. Repeat for each stair, until you reach the landing.

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

A. ANTI-TIP TUBES



Anti-tip tubes can help keep your chair from tipping over backward in normal conditions.

1. Sunrise recommends the use of anti-tip tubes:
2. When locked in place (in the “down” position) anti-tip tubes should be **BETWEEN** 1 1/2 to 2 inches off the ground.
 - a. If set **higher** than 2 inches, they may not prevent a tip-over.
 - b. If set **lower** than 2 inches, they may “hang up” on obstacles and cause a fall or tip over.
3. If you have to climb or descend a curb, or overcome an obstacle it may be necessary to have an attendant make sure the anti-tip tubes are rotated up, and out of the way, so that the chair and rider do not get stuck and/or become unstable.

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

B. ARMRESTS



Armrests detach and will not bear the weight of this chair.

1. NEVER lift this chair by its armrests. They may come loose or break.
2. Lift this chair only by non-detachable parts of the main frame.

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

C. CUSHIONS & SLING SEATS



1. Zippie sling seats and standard foam cushions are not designed for the relief of pressure.
2. If you suffer from pressure sores or if you are at risk that they will occur, you may need a special seat system or a device to control your posture. Consult your doctor, nurse or therapist to find out if you need such a device for your well-being.
3. Seat slings are not intended to be used as a direct seating surface. A cushion or other seating surface should be placed on the sling before use.

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

D. FASTENERS



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

1. ONLY use fasteners provided by an authorized supplier (or ones of the same type and strength, as indicated by the markings on the heads).
2. Over- or under-tightened fasteners may fail or cause damage to chair parts.
3. If bolts or screws become loose, tighten them as soon as you can.

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

E. FOOTRESTS



1. At the lowest point, footrests should be **AT LEAST 2** inches off the ground. If set too **LOW**, they may “hang up” on obstacles you can expect to find in normal use. This may cause the chair to stop suddenly and tip forward.
2. To Avoid A Trip Or Fall When You Transfer:
 - a. Make sure your feet do not “hang up” or get caught in the space between the footrests.
 - b. Avoid putting weight on the footrests, as the chair may tip forward.
 - c. Footrests should be swung out of the way or removed whenever entering or exiting the wheelchair.
3. NEVER lift this chair by the footrests. Footrests detach and will not bear the weight of this chair. Lift this chair only by non-detachable parts of the main frame.
4. Never use the footrests of the chair to open doors, this may cause them to fail prematurely, and create an unsafe situation.

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

F. PNEUMATIC TIRES



Proper inflation extends the life of your tires and makes your chair easier to use.

1. Do not use this chair if any of the tires are under- or over-inflated. Check weekly for proper inflation level, as listed on the tire sidewall.
2. Low pressure in a rear tire may cause the wheel lock on that side to slip and allow the wheel to turn when you do not expect it.
3. Low pressure in any of the tires may cause the chair to veer to one side and result in a loss of control.
4. Over-inflated tires may burst.

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

Tires	X'CAPE	Recommended Pressure or Pressure Range	
		kPa	PSI
Pneumatic - 12"	x	270	40
Pneumatic - 16"	x	240	35
Pneumatic - 20"	x	448	65
Pneumatic - 22"	x	448	65
Pneumatic - 24"	x	517	75
Pneumatic - 26"	x	448	65
High Pressure Clincher (22")	x	690	100
High Pressure Clincher (24")	x	758	110
High Pressure Clincher (25")	x	758	110
Knobby V-Track (24")	x	448	65
Schwalbe Marathon (22")	x	586 - 1000	85-145
Schwalbe Marathon (24")	x	586 - 1000	85-145
Schwalbe Speed	x	586 - 1000	85-145
Schwalbe Marathos plus Evol	x	586 - 1000	85-145

G. POSITIONING BELTS (OPTIONAL)

⚠ WARNING

Use positioning belts **ONLY** to help support the rider's posture. Improper use of these belts may cause severe injury to or death to the rider.

1. Make sure the rider does not slide down in the wheelchair 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, nurse or therapist to find out if the rider needs such a device.
4. Use positioning belts only with a rider who can cooperate. Make sure the rider can easily remove the belts in an 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 chair. Wheelchair seat 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 chair, a fall, tip-over or loss of control may occur and cause severe injury to the rider or others.

H. PUSH HANDLES (OPTIONAL) II

⚠ WARNING

When you have an attendant, make sure that this chair has push handles or stroller handles.

1. Push handles provide secure points for an attendant to hold the rear of this chair, to prevent a fall or tip-over.
2. Check to make sure push handle grips will not rotate or slip off.

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



I. QUICK-RELEASE AXLES

⚠ WARNING

1. Do not use this chair **UNLESS** you are sure that both quick-release rear axles are locked.
2. An axle is not locked until the quick-release button pops out fully.
3. An unlocked axle may come off during use, resulting in a fall, tip-over or loss of control and cause severe injury to the rider or others.
 - Quick-Release Axles should be periodically cleaned and inspected for function and signs of wear or bending. Replace as necessary.

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

J. REAR WHEELS

⚠ WARNING

A change in set-up of the rear wheels will affect the center of balance of your chair.

1. The farther you move the rear axles **FORWARD**, the more likely it is that your chair will tip over backward.
2. Consult your healthcare advisor to find the best rear axle set-up for your chair. Do not change the set-up **UNLESS** you consult your healthcare advisor first.
3. Adjust the rear wheel locks after you make any change to the rear axles.
 - a. If you fail to do so, the wheel locks may not work.
 - b. Make sure lock arms embed in the tires at least 1/8 inch when locked.

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

K. REAR WHEEL LOCKS

⚠ WARNING

Rear wheel locks are **NOT** designed to slow or stop a moving wheelchair. Use them only to keep the rear wheels from rolling when your chair is at a complete stop.

1. **NEVER** use rear wheel locks to try to slow or stop your chair when it is moving. Doing so may cause a fall or tip-over
2. To keep the rear wheels from rolling, always set both rear wheel locks when you transfer to or from your chair.
3. Low pressure in a rear tire may cause the wheel lock on that side to slip and may allow the wheel to turn when you do not expect it.
4. Make sure lock arms embed in tires at least 1/8 inch when locked. If you fail to do so, the locks may not work.

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

L. MODIFIED SEAT SYSTEMS**⚠ WARNING**

Use of a seat system not approved by Sunrise may alter the center of balance of this chair. This may cause the chair to tip over.

1. Do not change the seat system of your chair UNLESS you consult your authorized supplier first.
2. Use of a seating system not approved by Sunrise may affect the folding mechanism of this chair.
3. Use of a seating system not provided by Sunrise is prohibited for transit use.

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

M. SEAT AND BACK UPHOLSTERY**⚠ WARNING**

1. Replace worn or torn fabric of seat and seat back as soon as you can. If you fail to do so, the seat or seat back may fail.
2. Sling fabric will weaken with age and use. Look for fraying, thin spots, or stretching of fabrics especially at edges and seams.
3. "Dropping down" into your chair will weaken fabric and result in the need to inspect and replace the seat more often.
4. Be aware that laundering or excess moisture will reduce the flame retardation qualities of the fabric.
5. If Tension Adjustable upholstery is present, loosen straps or remove upholstery prior to folding or unfolding the chair.

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

N. POWER DRIVE**⚠ WARNING**

Do not install a power drive on any Zippie Wheelchair that has not been approved by Sunrise Medical.

1. It will affect the center of balance of your chair and may cause a fall or tip-over.
2. It will alter the frame and void the warranty.

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

O. DYNAMIC BACKREST**⚠ WARNING**

Do not use any Dynamic Backrest setup other than what was provided by Sunrise Medical with your original chair.

1. It will affect the center of balance of your chair and may cause a fall or tip-over.
2. It will alter the frame and void the warranty.

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

P. ANTI-TIP RECEIVERS**⚠ WARNING**

The Anti-tip receivers are designed to move with the axle location and are assembled in our manufacturing facilities.

1. Do not attempt to change the location of the Anti-tip receivers, or remove them UNLESS you consult your authorized supplier first.
2. Use of a Anti-tip system not approved by Sunrise may affect the center of gravity of the chair and lead to a fall or tip-over.

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

⚠ WARNING

The owner of this chair is responsible for making sure that it has been setup and adjusted by a trained service professional under the advice of a healthcare advisor. The chair may require periodic maintenance or certain in-use adjustments that may be performed by the owner or caregiver. Always use parts and/or accessories that have been recommended or approved by Sunrise Medical when servicing this chair.

A. INTRODUCTION

1. Proper maintenance will improve performance and extend the useful life of your chair.
2. Clean your chair regularly. This will help you find loose or worn parts and make your chair easier to use. You will need a mild detergent solution and plenty of cleaning rags.
3. If discovered, repair or replace loose, worn, bent or damaged parts **before using the chair**. ALWAYS be sure to use Parts and/or accessories that have been recommended or approved by Sunrise Medical.
4. To protect your investment, have all major maintenance and repair work done by your authorized dealer.
5. **Inspect and maintain this chair strictly per the maintenance chart.**
6. **If you detect a problem, make sure to order parts, or have service, and repair work done at your authorized dealer before use.**
7. **At least once per year, have a complete inspection, safety check, and service of your chair made by an authorized dealer.**

B. CRITICAL MAINTENANCE TIPS

1. Tire Air Pressure:

Check air pressure in pneumatic tires at least **ONCE PER WEEK**. The wheel locks will not grip properly if you fail to maintain the air pressure shown on tire sidewall.

C. MAINTENANCE CHART

Weekly	3 Months	6 Months	Annually	Check...
<input checked="" type="checkbox"/>				Tire inflation level
<input checked="" type="checkbox"/>				Wheel locks
	<input checked="" type="checkbox"/>			All fasteners for wear and tightness
		<input checked="" type="checkbox"/>		Armrests
		<input checked="" type="checkbox"/>		Axle and axle sleeves
	<input checked="" type="checkbox"/>			Quick-release axles
	<input checked="" type="checkbox"/>			Wheels, tires and spokes
	<input checked="" type="checkbox"/>			Casters
	<input checked="" type="checkbox"/>			Anti-tip tubes
		<input checked="" type="checkbox"/>		Frame and crossbrace
	<input checked="" type="checkbox"/>			Upholstery
			<input checked="" type="checkbox"/>	Service by Authorized Supplier

2. Axles & Axle Sleeves:

When checking axles and axle sleeves every six months, make sure they are clean and tight. Loose sleeves will damage the axle plate and will affect performance.

D. CLEANING TIPS

1. Paint Finish
 - a. Clean the painted surfaces with mild soap or detergent at least once a month.
 - b. Protect the paint with a coat of non-abrasive auto wax every three months.
2. Axles and Moving Parts
 - a. Clean around axles and moving parts WEEKLY with a slightly damp (not wet) cloth.
 - b. Wipe off or blow away any fluff, dust or dirt on axles or moving parts.
3. Upholstery
 - a. Hand-wash (machine washing may damage fabric).
 - b. Drip-dry only. DO NOT machine dry as heat will damage fabric.
4. Basic Maintenance Materials available at local store
 - a. Tire Pump
 - b. Clean rags or cotton cloth.
 - c. Teflon-based Lubricant
 - d. Mild Detergent.

NOTE– You do not need to grease or oil the chair.

E. TROUBLESHOOTING CHART

Symptom	Solution						
	Left turn in chair	Right Turn in chair	Looseness in chair	Sluggish turning	Squeaks and rattles	Caster flutter	
<input checked="" type="checkbox"/>			Make sure tire pressure is correct and equal in both rear tires and front caster tires, if pneumatic.				
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Make sure all nuts and bolts are tight.
		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			Make sure all spokes and nipples are tight on radial spoke wheels.
				<input checked="" type="checkbox"/>			Use Tri-Flow Lubricant (Teflon®-based) between frame connections and parts.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Check for proper caster fork adjustment. See instructions for caster fork adjustment.

F. TO MOUNT & REMOVE REAR WHEELS 12 13

⚠ WARNING

Do not use this chair UNLESS you are sure both quick-release axles are locked. An unlocked axle may come off during use and cause a fall.

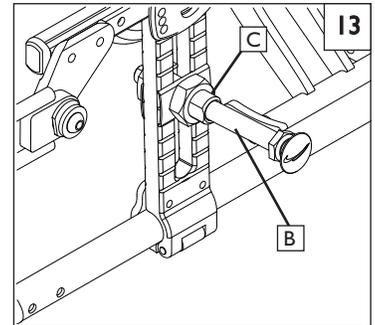
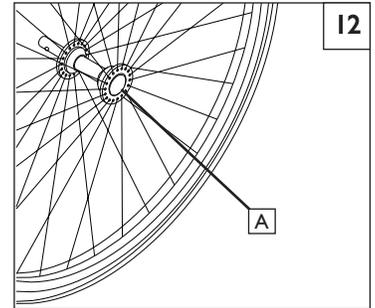
1. To Install Wheel

- a. Depress quick-release button (A) fully. This will release tension on ball bearings at other end.
- b. Insert axle (B) through hub of rear wheel.
- c. Keep button (A) depressed as you slide axle (B) into axle sleeve (C).
- d. Release button to lock axle in axle sleeve. Adjust axle if it does not lock. See Section B.
- e. Repeat steps on other side.

NOTE— The axle is not locked until the quick-release button pops out fully (A). Check that the axle is locked by pulling on the wheel in the direction of the axle.

2. To Remove Wheel

- a. Depress quick-release button (A) fully.
- b. Remove wheel by sliding axle (B) completely out of axle sleeve (C).
- c. Repeat steps on other side.



G. WHEEL LOCKS

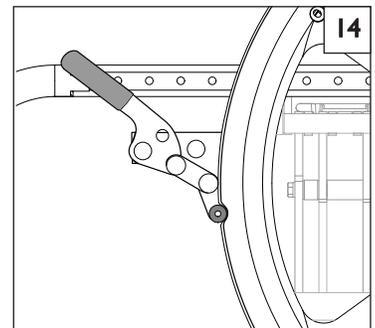
⚠ WARNING

Wheel locks are installed at Sunrise and should be adjusted by your qualified service person.

Inspect wheel locks weekly per the maintenance chart. Do not use your chair UNLESS you are sure both wheel-locks can fully engage. A wheel-lock that is not correctly adjusted may allow your chair to roll, or turn unexpectedly.

Wheel-locks must be adjusted after making sure the tires have the correct air pressure. When fully engaged, the arm should be imbedded into the tire at least 1/8" to be effective.

If you find the wheel locks have slipped or are not working correctly contact your service provider for proper adjustment.



H. HUB LOCKS 15 16

⚠ WARNING

To operate Hub Lock

1. To Lock rear wheels, press button (D). Lever (E) will flip outward.
2. To unlock wheels, press Lever (E) back down until Button (D) pops back out. Each lever operates one side of the chair. To fully lock chair, both buttons must be pushed.

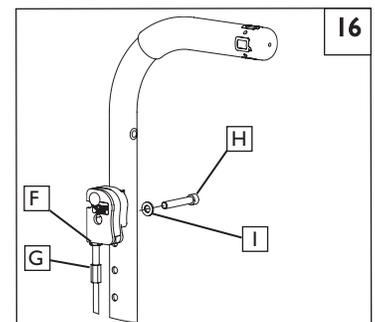
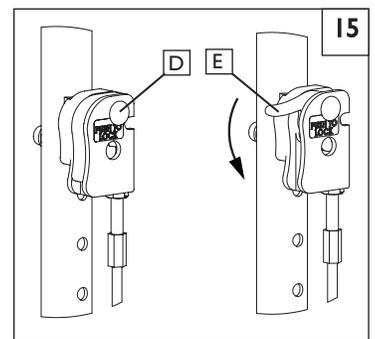
NOTE— Do not engage hub lock when chair is in motion.

To adjust the cables

1. Loosen jam nut (F) using a 10mm wrench.
2. Turn adjustment screw (G) in or out as necessary. Turning screw upward will loosen cable, turning downward will tighten cable.
3. Re-tighten jam nut (F) against lever mount.
4. Repeat steps 1-3 for opposite side of chair as necessary.

To adjust lever position

1. Remove socket screw (H) and washer (I) from lever and backrest.
2. Choose desired hole in backrest to mount lever and re-install screw and washer.
3. Repeat steps 1-2 for opposite side of chair.

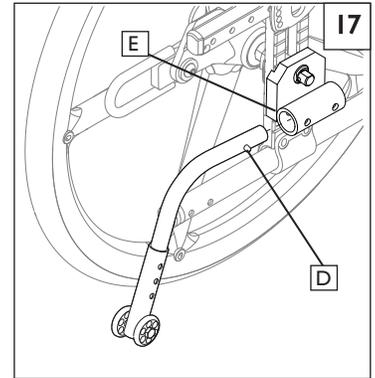


I. ANTI-TIPS 17 18 19

Sunrise Medical recommends anti-tip tubes for all wheelchairs.

1. Inserting Anti-Tip Tubes Into Receiver

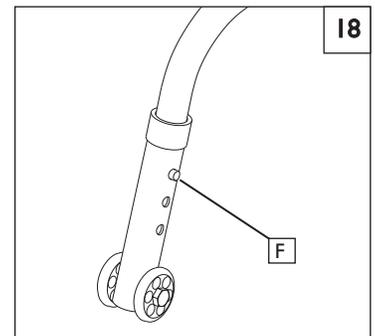
- a. Press the rear anti-tip release pin (D) on the anti-tip tube so that both release pins are drawn inside.
- b. Insert into the anti-tip tube into the receiver (E).
- c. Turn the anti-tip tube down until release pin is positioned through the receiver mounting hole.
- d. Insert second anti-tip tube the same way.



2. Adjusting Anti-Tip Tube Wheel

The anti-tip tube wheels may have to be raised or lowered to achieve proper clearance 1 1/2" to 2".

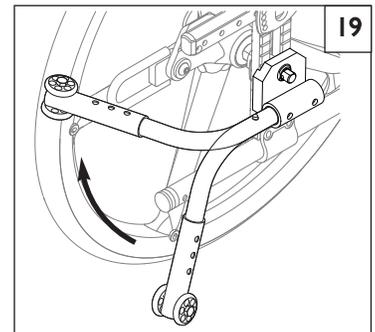
- a. Press the anti-tip wheel release pin(F) so that the release pin is drawn inside.
- b. Raise or lower to one of the three predrilled holes.
- c. Release pin.
- d. Adjust the second anti-tip tube wheel the same way. Both wheels should be at exactly the same height.



3. Turning Anti-Tip Tubes Up

Turn anti-tip tubes up when being pushed by attendant, overcoming obstacles or climbing curbs.

- a. Press the rear anti-tip tube release pin.
- b. Hold pin in and turn anti-tip tube up.
- c. Release pin, and make sure the anti-tip is locked in place.
- d. Repeat these steps with second anti-tip tube.



J. SINGLE POST HEIGHT ADJUSTABLE ARMREST 20

Sunrise medical offers several different types of armrests. Fixed, swing-away, and Flip-back armrests. Flip-back armrests can be detached or can flip back to allow lateral transfers. They are height adjustable (1" increments) by flipping the adjustment lever and moving the armrest pad (1) up or down to the desired height.

1. Basic Installation

- a. Slide the outer armpost (4) into the receiver mounted to the wheelchair frame.
- b. The armrest should lock into place.

2. Height Adjustment

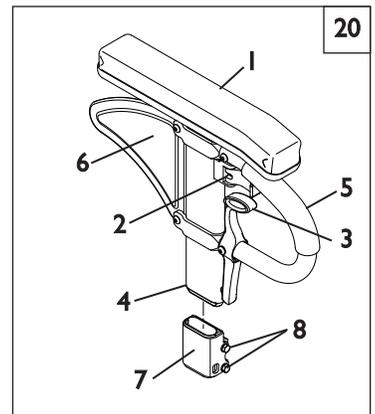
- a. Release the upper securing lever (2) .
- b. Slide armpad up or down to desired height.
- c. Return lever to locked position.

3. Removing Armrest

- a. To remove, grasp the unlocking lever (3) and pull up on the Armrest..

4. Replacing Armrest

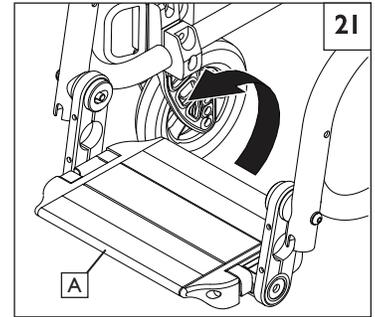
- a. Slide armrest back into receiver.
- b. Make sure that the unlocking lever (3) returns to the locked position against armpost



1. Armrest pad
2. Height Release Lever
3. Release lever
4. Outer armpost
5. Transfer bar
6. Side panel
7. Receiver
8. Receiver adjustment hardware

K. FOOTREST SYSTEM 21 22

With the footrest system, Sunrise Medical offers either a single Flip-up Footplate (A), or dual footplates (B) that are able to accommodate all of the possible heights and adjustment angles that the rider may require for their comfort and support.



L. SWING-AWAY FOOTREST 22 23

The footrest system can also accommodate a swing-away hanger (C) with dual footplates (B) that are both height adjustable and angle adjustable.

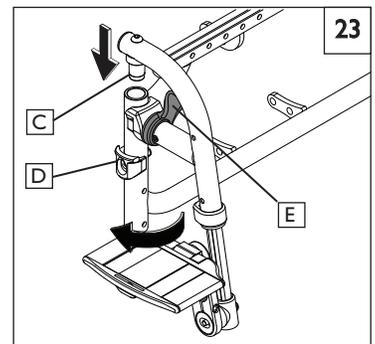
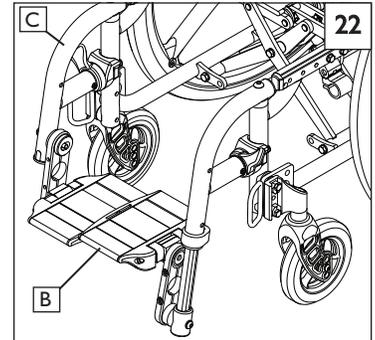
Swing-in-Swing-out Hangers and Footrests (80°)

1. Basic Footrest Installation

- a. From the side, place the pivot (C) into the top of the frame tube which guides the hanger into the correct alignment with the locking plate (D) on front frame tube.
- b. Rotate the footrest towards the front of the chair until it locks into place on locking plate.

2. Removal

- a. To remove footrest, release latch (E) by pulling lever upward or pushing lever downward.
- b. Rotate footrest inward or outward and lift.



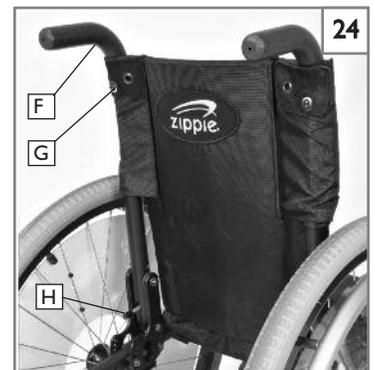
M. UPHOLSTERED BACKREST 24

1. Locking the upholstered Backrest into place

Zippie wheelchairs with depth adjustable backs are shipped with the backrest/stroller handles (F) in a folded position. To secure backrest/stroller handles, lift backrest/stroller handles to upright position. When secured, backrest release pin (H) will lock into place.

2. Adding or Removing upholstered Backrest

- a. Check monthly for excessive stretching of the upholstery, or loose attaching hardware. If you determine the upholstery is no longer tight, contact your service representative for a replacement.
- b. If you need to replace the backrest upholstery, or remove it to add a solid backrest, start by removing the Upholstery securing screw (G) from both backrests, and pull the Upholstery off of the backposts.



N. FOLDING AND UNFOLDING 25 26 27

⚠ WARNING

Possible pinch point! BE CAREFUL.

1. If seat sling is not present during folding or unfolding, use the "Push to lock Tab" to open the chair.
2. Use flat palms to depress the chair if opening.

1. Folding the Wheelchair

- a. Remove quick-release wheels (optional).
 - Depress quick-release button on the axle.
 - Remove wheel by sliding out quick-release axle from axle bracket.
 - Repeat with the other wheel.
- b. Flip up the footrests to a vertical position before folding the wheelchair.
- c. Grasp the seat sling (folding strap (A)) and lift up sharply until the wheelchair is folded.

2. Unfolding the Wheelchair

- a. Replace quick-release wheel (optional) by depressing the quick-release button on the axle.
- b. Slide it into the axle sleeve until it locks.
- c. Repeat with other wheel.
- d. Tilt the wheelchair toward you far enough to take the weight off the opposite wheel.
- e. Push down on the center of the seat sling, Elastic window, and Locking tab (B) until the wheelchair is completely opened.

NOTE- Ensure that footrests are Flipped down, and locked prior to use.

O. INTEGRATED STROLLER HANDLES 28

1. Positioning Swing-Away Adjustable Stroller Handles (option)

Loosen push handle (C) by pushing the Black button (D). You can then raise or lower Stroller handle to desired position.

NOTE - For easy storage and portability, push handles will swing in and stroller handles fold flat.

P. BACKREST 29

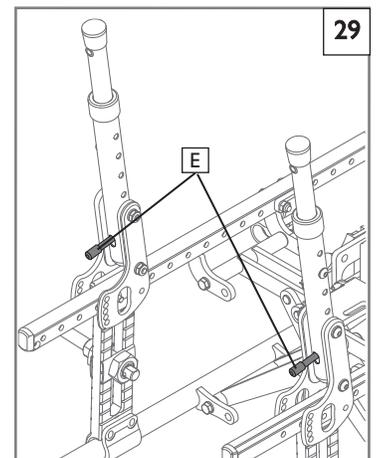
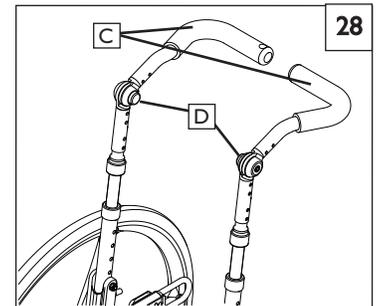
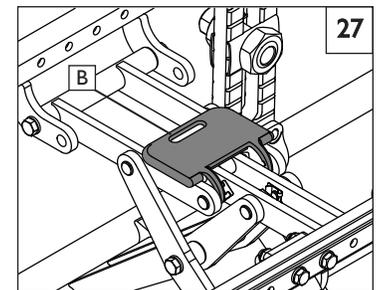
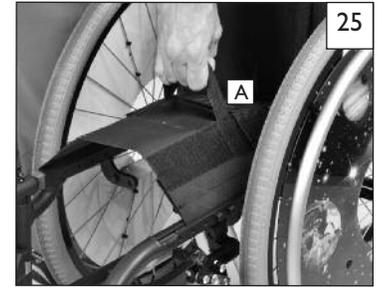
1. Folding the backrest

- a. For easier storage and transport, Locate the backrest release pin lever (E) on both sides and pull up on the levers while pushing the backrest forward.

2. Unfolding the backrest

- a. To secure the back rest in a riding position, lift by the handles to an upright position. When secured, the backrest release pin will lock into place.

NOTE - For easy storage and portability, push handles should fold flat and not interfere with folding.



Q. SEAT SLING UPHOLSTERY AND CUSHION 30

The seat sling can be adjusted through the use of hook and loop material beneath the seat. Seat sling also includes a folding strap on the seat to assist in folding the chair.

NOTE - The seat sling folding strap is not intended as a carrying strap.

1. Adjustment

- a. Remove seat rail end caps at the front or rear of the chair (D).
- b. Slide the seat sling, plastic retaining rods, and spacers (if present) from the channels in the seat rails.
- c. For fixed Front Frame, You must remove the 4 screws (E) that hold the rear caps and remove the caps. By removing the retaining rods first you can then remove the Sling upholstery.
- d. Readjust hook and loop material to obtain the desired tension in the seat sling.
- e. Reinsert the seat sling and plastic retaining rods into the channels in the seat rails.

NOTE - The seat sling needs to be installed so that the “window”(F) is aligned with the Locking tab.

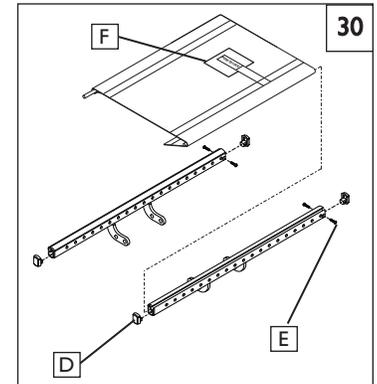
- f. Replace the end caps.

2. Seat sling Upholstery

- a. Check monthly for excessive stretching of the upholstery, or loose attaching hardware. If you determine the upholstery can no longer be adjusted tight, contact your service representative for a replacement.

3. Cushion Installation

- a. Place cushion on the seat sling with hook material side down. The beveled edge of the cushion should be facing toward the front of your chair.
- b. Press firmly into place.

**R. STORAGE TIPS**

1. Store your chair in a clean, dry area. If you fail to do so, parts may rust or corrode.
2. Before using your chair, make sure it is in proper working order. Inspect and service all items on the “Maintenance Chart”.
3. If stored for more than three months, have your chair inspected by an authorized supplier before use.

S. CHECK-OUT

After the wheelchair is assembled and adjusted, it should roll smoothly and easily. All accessories should also perform smoothly. If you have any problems, follow these procedures:

1. **Review the set-up and check-out sections and operating guide to make sure chair was properly prepared.**
2. **Review troubleshooting guide.**
3. **If your problem persists, contact your authorized supplier. If you still have a problem after contacting your authorized supplier, contact Sunrise customer service. See the introduction page for details on how to contact your authorized supplier or Sunrise customer service.**

⚠ WARNING

The owner of this chair is responsible for making sure that it has been setup and adjusted by a trained service professional under the advice of a healthcare advisor. Service and/or adjustments should only be done with the advice of a healthcare professional. Always use parts and/or accessories that have been recommended and approved by Sunrise Medical when servicing this chair.

A. DEALER SERVICE INTRODUCTION

1. At least once per year, this chair should have a complete inspection, safety check, and regular service made by an authorized dealer.
2. Torque settings– A torque setting is the optimum tightening which should be made on a particular fastener. It is important to use proper torque settings where specified. When not specified, torque settings should be 60 in-lbs
3. If you have discovered a worn, bent, or damaged part, repair or replace them with recommended parts **before returning this chair to service.**
4. All major maintenance and repair work should be done by the authorized dealer.

B. CRITICAL MAINTENANCE TIPS

1. Torque settings:

A torque setting is the optimum tightening which should be made on a particular fastener. It is important to use proper torque settings where specified. When not specified, torque settings should be 60 in-lbs

C. CLEANING

1. Paint Finish

- a. Clean the painted surfaces with mild soap or detergent.
- b. Protect the paint with a coat of non-abrasive auto wax.

2. Axles and Moving Parts

- a. Clean around axles and moving parts with a slightly damp (not wet) cloth.
- b. Wipe off or blow away any fluff, dust or dirt on axles or moving parts.
- c. **DO NOT USE 3 in 1 oil, or WD-40 ® for lubrication.** Only use Teflon based Lubricant when working on this wheelchair.

D. REAR AXLES AND AXLE PLATES 31 32

The most important adjustment on the Zippie wheelchair is the position of the rear axle. The center of gravity, wheel camber and wheelbase are all determined by the axle adjustment.

Use a torque setting of 360 in.-lbs. when adjusting rear axle.

⚠ WARNING

The more you move the rear wheels forward, the more likely the chair will tip over backwards. Always make adjustments in small increments, and check the stability of the chair with a spotter to prevent a tip-over. We recommend that anti-tip tubes are always used in conjunction with this type of adjustment.

1. Center of Gravity

Moving the center of gravity to the front will lighten the force required to turn the chair. The further back the axle, the more stable the chair becomes. The center of gravity is adjusted by moving indexed axle plate (A) forward or backward on the Zippie Frame (B). Moving the axle forward will increase your turning speed and lighten the front end.

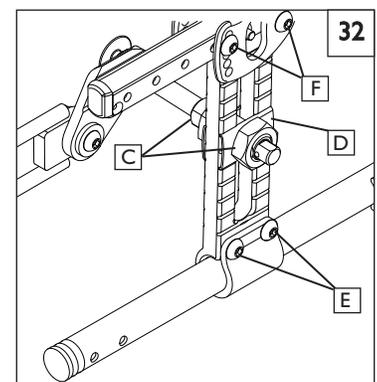
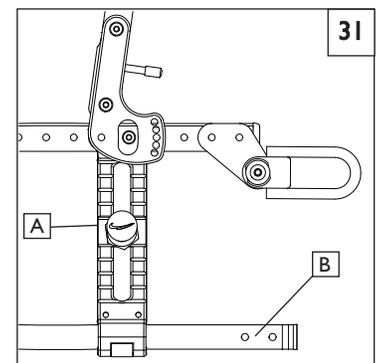
- a. Loosen all hardware (C,D,E,F) on both sides of the chair and move the axle/backrest assembly to the correct position.
- b. Make sure that the ridges in indexing washer (D) are fully engaged before tightening axle nut.
- c. Tighten Screws (E) to 65 in-lbs, and (F) to 120 in-lbs.

NOTE– Adjustment holes in the Versa Rail provide 1" Center of Gravity adjustments. Switching axle plates from side to side allows 1/2" adjustments



TOOLS YOU WILL NEED

1. Imperial Hex key set
2. Metric Hex key set
3. Imperial Open-end Wrench set
4. Metric Open-end Wrench set
5. Torque wrench
6. Imperial Hex bit Socket set
7. Metric Hex bit Socket set
8. Phillips and Flat screwdrivers



2. Wheel Camber

The wheel camber adjustment provides greater side-to-side stability due to the increased width and angle of the wheelbase. The wheel camber adjustment also allows for quicker turning and greater access to the top of the handrims.

Wheel camber is preset at the factory at 3°. You can achieve a 0° camber by removing the axle sleeve (C) and Camber washers (D) and flipping them 180°.

NOTE- Adjusting your chair's center of gravity will require re-adjusting the location of the wheel locks (if provided). See Section T for instructions on adjusting the wheel locks.

3. Wheel Base Width Adjustment 33

Adjusting the wheelbase width allows the rider the option to move the wheels closer or further away from the hips. It also compensates for camber adjustment and gives the proper wheel spacing to maximize pushing efficiency.

- a. Loosen the nuts and reposition the axle sleeve (A) to the desired width.
- b. Retighten nuts to a torque of 360 in-lbs.

4. Seat Height Adjustment 34

Seat height can be adjusted by loosening the large axle sleeve nuts (B), enough so that the axle washers will move along the axle plate vertically in the slots. Be sure to adjust both sides of the chair to an equal vertical seat height adjustment.

NOTE- Be sure the ridges for indexing washers are fully engaged in Axle plate grooves before tightening.

NOTE- A front caster adjustment should be made to correspond with any change in seat height.

NOTE- In most cases the Anti-tip Receiver is used as the internal axle nut in this assembly. Loosen the external axle sleeve nut enough so that the whole assembly can be adjusted up or down. Tighten the axle sleeve nut to 360 in-lbs when the adjustment is complete.

E. REAR WHEEL AXLE NUT ADJUSTMENT 35

Tight axle sleeves should be maintained for proper performance of the wheelchair.

- a. To adjust the axle (C) you will need a 3/4" wrench to turn the outside axle nuts (E).
- b. You will also need a 1/2" wrench to lodge the ball bearings (D), on the opposite end of the axle, and prevent the axle from turning.
- c. Turn the outside axle nut (F) clockwise to tighten.
- d. There should only be zero to ten thousandths of an inch (.010") of play.

F. WHEEL LOCKS 36 37

This Zippie chair is shipped with one of three types of wheel locks. Wheel locks are installed at the factory unless requested otherwise.

Use a torque setting of 120 in.-lbs. If setting up the wheel locks for your customer.

1. High-Mount Push-to-Lock or Pull-to-Lock Wheel Locks Adjustment

- a. Using a 3/16 inch hex key, loosen the clamp screw (G) in the clamp.
- b. Slide the wheel lock toward the rear wheel until the wheel lock is embedded into the tire to prevent wheel movement, when in the locked position.
- c. You can also adjust the wheel lock angle by rotating the clamp while it is loose.
- d. Tighten screw to 120 in-lbs.

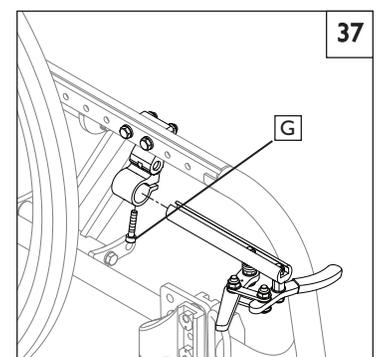
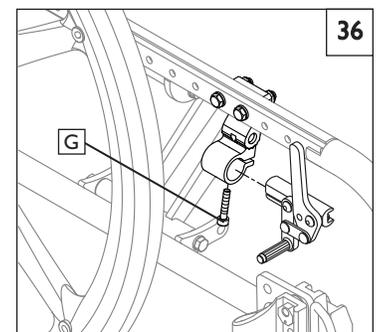
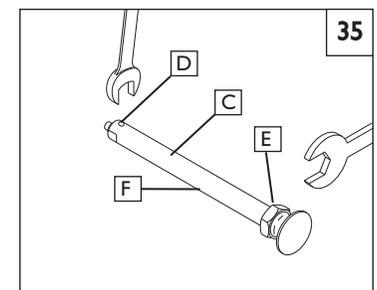
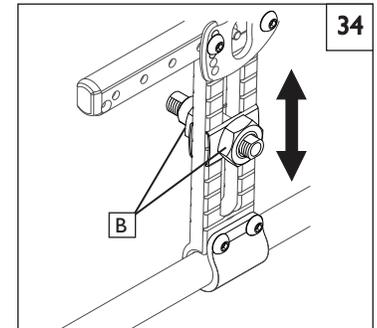
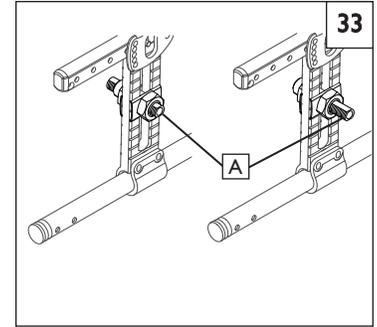
2. Ergo Scissor Wheel Locks or Compact Wheel Locks

Loosen the screws (G) on the top of each clamp using a 3/16 inch hex key. Slide assembly toward rear wheel until clamp embeds into tire to prevent wheel movement when in locked position. Adjust angle position. Tighten screws to 120 in-lbs.

NOTE- Clamp and wheel lock may need to be rotated to clear frame tubing.

3. Foot Lock

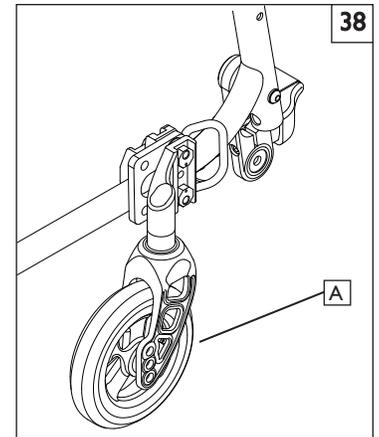
The foot lock should be kept at the factory settings, it will generally not need any adjustment to keep it functioning



G. CASTER FORKS 38

Three-hole caster forks allow the interchanging of some caster wheels and height adjustment when adjusting seat height. To adjust, loosen the bolt and remove the caster wheel. Change the caster size and/or position of the caster upward or downward in predrilled holes (1/2" inch apart) on caster fork. Replace bolt and tighten securely.

Use a torque setting of 40 in-lbs when adjusting the caster forks.



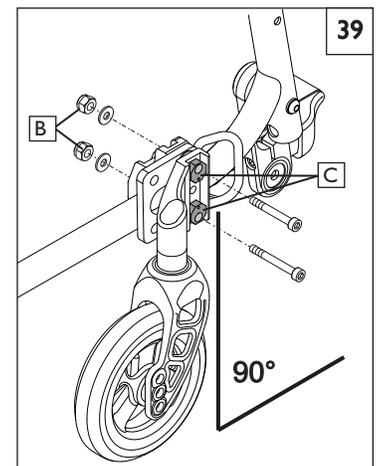
H. CASTERS 39

Use a torque setting of 144 in-lbs. when adjusting the casters.

I. Caster Angle Adjustment

For optimum performance, and after a seat height adjustment, the caster housing should always be at a 90° angle to the floor (perpendicular to the ground). This adjustment is made with an eccentric (offset) washer and hardware.

- a. To change the angle, place the chair on a flat surface (such as a table).
- b. Remove the nuts and washers(B) from the back side of the caster plate. The caster plate is slotted at the top and bottom for adjustment.
- c. Place a large right triangle against the table surface and the front surface of the caster bearing housing.
- d. This will align the caster stem rotational axis perpendicular to the floor surface.
- e. Rotate the eccentric washers(C) independently until they fall into position.
- f. When the alignment is correct, retighten the hardware.
- g. Repeat the process for the other caster.

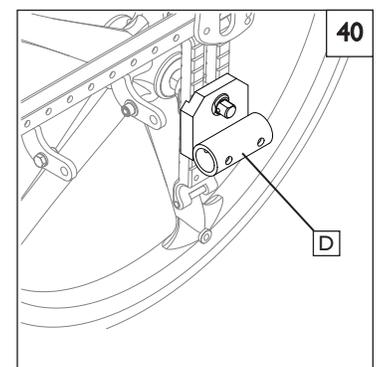


I. ANTI-TIP RECEIVERS 40

Sunrise Medical recommends anti-tip tubes for all wheelchairs.

Use a torque setting of 360 in-lbs when setting up the anti-tip receivers (D).

NOTE– See section (Rear axles and axle plates) for more adjustment information.



J. ARMREST RECEIVER ATTACHMENT 41 42

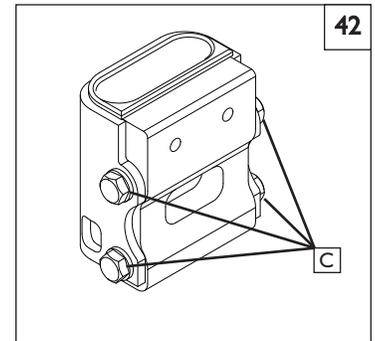
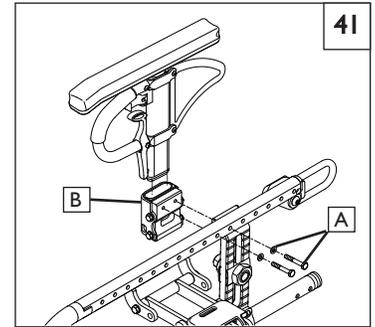
Mounting

1. Thread the two screws and washers (A) thru the rear side frame tube, and into the single post height-adjustable armrest receiver (B).
2. Tighten the hardware to 120 in-lbs.

Adjustment

1. To adjust the fit of the Single Post Armrest in the receiver, loosen the 4 hex bolts (C) by using a 7/16" wrench .
2. With the armrest assembly in the receiver (B), press firmly on the outside of the receiver.
3. Maintain pressure on the receiver and re-tighten two of the hex bolts (C).
4. Remove the armrest assembly and re-tighten the remaining two hex bolts.
5. The armrest should fit firmly into the receiver and lessen any noise that may result from vibration.

NOTE– Armrest Receiver may share hardware with wheel lock assembly if required.



K. T-POST ARMREST 43

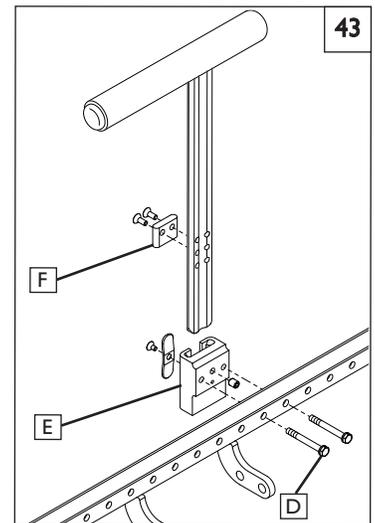
1. Lateral Adjustment

- a. Remove the receiver bolts (D).
- b. Move the Receiver (E) forward or back to the desired position.
- c. Tighten the hardware to 120 in-lbs

2. Height Adjustment

- a. Remove the screws for the Kids Arm Stop (F).
- b. Using one of the three preset holes in armrest post, adjust to the preferred height. (E).
- c. Replace and tighten hardware. to 120 in-lbs

NOTE– Armrest Receiver may share hardware with wheel lock assembly if required.



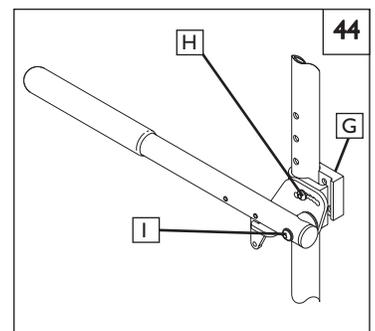
L. FLIP-UP ARMRESTS 44

1. Adjustment

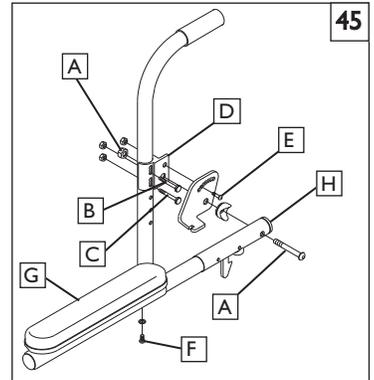
- a. Loosen clamp bolts (G).
- b. Move clamp up or down backrest posts to desired position.
- c. Tighten bolts to 120 in-lbs

2. Angle-Adjustment

- a. Loosen bolt (I).
- b. Set armrest at desired angle using preset holes in armrest angle plate (H).
- c. Tighten bolt to 120 in-lbs



M. ADJUSTABLE LOCKING FLIP-UP ARMRESTS 45



1. Height Adjustment

- a. Loosen bolt and nut (A) and remove flip-back tube (H).
- b. Loosen bolts (B, C) and remove clamp (D).
- c. Move the clamp (D) up or down to the desired position.
- d. Tighten bolts (B, C).
- e. Install the flip-back tube (H) back in place and tighten hardware (A).
- f. Repeat the process for the other armrest.

2. Angle-Adjustment

- a. Loosen screw (E).
- b. Set armrest at desired angle using preset holes in armrest angle plate.
- c. Tighten screw (E) to 120 in-lbs.

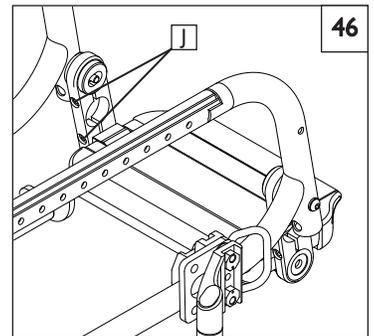
3. Length-Adjustment (optional)

- a. Remove foam grip or armpad (G) from armrest.
- b. Loosen the nut and screw (F) in the adjustable flip-up tube.
- c. Reposition the armpad at the desired length.
- d. Re-tighten the screw and nut (F).
- e. Re-attach foam grip or armpad back in place.

N. FOOTREST SYSTEM 46 47 48 49

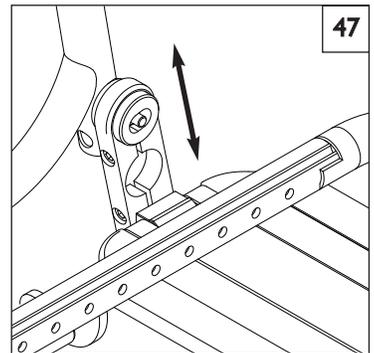
The footrest position is key to keeping the body in the proper alignment, and providing a stable support for your legs and torso. Make sure that your Sunrise dealer has correctly adjusted your footrests and/or legrests with the advice of a healthcare professional. The original setup should not be changed without first checking with that advisor. Legrests and footrests should be swung out of the way, or removed for transfers. .

NOTE – Footplate must have at least 2inches of clearance between the footplate and the ground to prevent hitting obstacles and risking a fall or tip-over.



1. Footrest/Footplate positioning using the rotational clamp

- a. Loosen the two rotational/Angle clamp screws (J)
- b. Rotate the footrest/ footplate until the desired position and angle is achieved.
- c. Tighten the Clamp hardware to proper torque (DO NOT EXCEED a 120 in-lb Max torque).

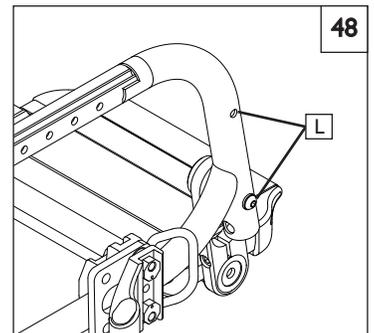


2. Footrest positioning using footplate spacers

- a. Remove footplate spacers (Show)
- b. Slide footplate to desired depth position.
- c. Replace footplate spacers

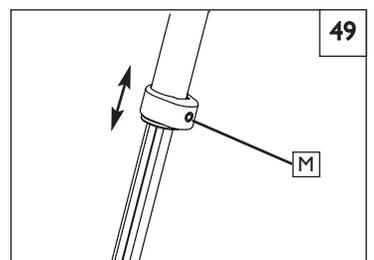
3. Height range adjustment (Direct Mount Footrest)

- a. Adjust the footplate mounting position by removing the button head screw from the adjustment hole (L) and moving the assembly to the desired position.
- b. Tighten hardware to proper torque (120 in-lb Max)



4. Height range adjustment (Extension Mount Footrest)

- a. Loosen set screw (M)
- b. Slide footrest extension tube up or down inside frame tube to desired height..
- c. Tighten set screw to proper torque (120 in-lb)



O. ANGLE ADJUSTABLE BACKREST

1. Backrest Height Adjustment 50

- a. You will see the Backrest Height Adjust hardware on the inside of the frame. (A) Loosen and remove from both sides of the frame.
- b. Adjust the backtube(B) to the desired backrest height. (measured with chair unfolded, from top of seat sling to highest point on Upholstery) and align threaded insert of back cane with the closest hole in frame.
- c. Insert bolt through frame and thread into the insert in back cane.
- d. Torque fasteners on both sides of chair.

NOTE- Use a torque setting of 50 in-lbs for screw (A)

2. Angle Adjustment 51

- a. Loosen remove the button head screws (D) and hardware (C)
- b. Adjust backrest to desired angle.
- c. Attach the hardware (D,C) into new adjustment hole, and tighten button head screws use a Torque of 120 in-lbs for Screw(D)
- d. Repeat for opposite side.

3. Back Depth Adjustment 52

NOTE: This adjustment is intended to compensate for differences in after-market backrest thickness and/or contour. The back-canes can be adjusted fore and aft relative to the seat so that the backrest support surface does not change the location of the user, regardless of the backrest mounting location. This ensures that the center of gravity of the user relative to the axle location, is not altered due to after-market backrest thickness or contour.

NOTE: Sunrise has no recommendations for Depth Adjustable Backrest adjustments and how they might effect transit situations.

When adding an after-market back, the back canes can be moved forward or rearward by removing hardware (E)(F) and repositioning the backrest pivot plate (G) in the pre-drilled holes on the frame.

Tighten Screws (E)(F) to 120 in-lbs.

NOTE: In most cases the Axle plate should move with the Backrest bracket and back canes as the adjustment is made.

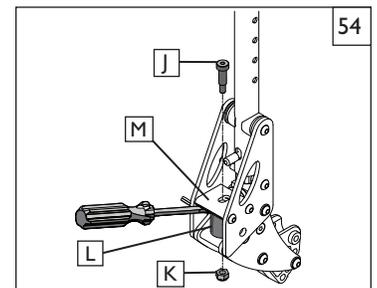
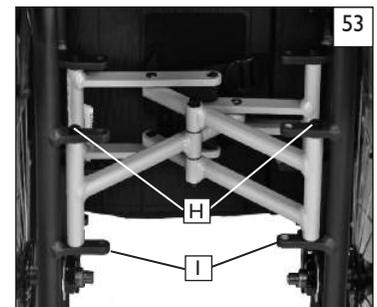
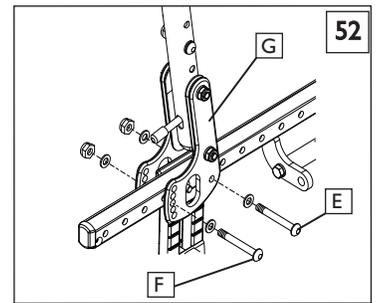
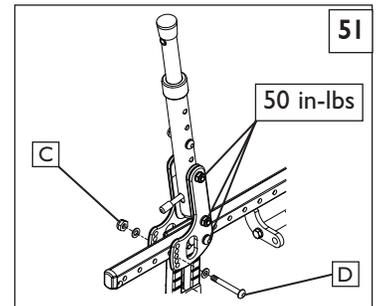
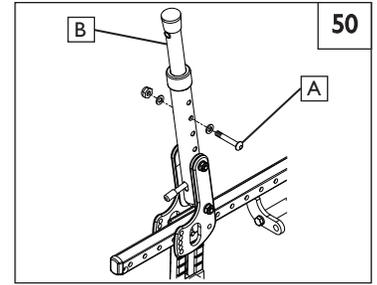
P. XLOCK™ TECHNOLOGY 53

1. Frame Width Adjustment either 1" (only adjust 1 side) or 2" of width (adjust both sides).
 - a) Remove the Hex head screws, and washers (A) from the left and/or right front side frame tabs (I) depending if you want a 1" or 2" adjustment.
 - b) Re-align the XLOCK assembly with the correct adjustment holes.
 - c) Thread the Hex head screws (H) and washers thru the tab holes and into the X-Lock Brace.
 - d) tighten the hex head screws to 120 in-lbs.

Q. DYNAMIC BACKREST 54 55

1. Dynamic Backrest Elastomer Replacement

- a. Remove socket head screw (J) and lock nut (K).
- b. Using a flat head screw driver, gently pry out the elastomer (L) as shown.
- c. Firmly press the new desired elastomer into place, and align holes in elastomer with holes in plate (M).
- d. Replace and tighten screws removed above, the nylock nut (K)needs to be fully engaged.



⚠ WARNING

If the chair is equipped with the Dynamic Backrest option, the lockout feature must be in the locked position on both push handles prior to any type of transport of the chair.

2. Dynamic Backrest Lock Engagement

- a. Pull key ring (A) and swing lock downward to unlock backrest.
- b. Swing lock upward to lock the backrest.

R. SIDEGUARD WITH T-POST ARMREST 56

Installation of sideguard

- a. Position the Sideguard (B) and Sideguard clamp (C) onto the T-post at a height that will locate the bottom edge of the sideguard next to the frame.
- b. Insert two bolts (D) with washer and tighten using 3/16 inch hex key
- c. Your sideguard and T-post armrest can now be inserted into the receiver.

NOTE- After installing receiver hardware and inserting the side guard, check for interference. Don't operate the wheelchair if the sideguard interferes with any of the other components.

S. BACKREST TENSION ADJUSTABLE 57 58 59

1. To install the Backrest Tension Adjustable

- a. Slide Velcro straps (E) over the backrest frame (F) section. Make sure to include at least one strap below the towel bar (if using a rigid chair).
- b. Tighten the straps appropriately to desired tension level. **DO NOT** overtighten straps as this will cause undue strain upon the chair backrest frame (F).
- c. If using integral push handles (G), slide straps from bottom of backrest upward.
- d. Install backrest cover at desired level and fold over rear of Velcro strapping system (H). The Quickie patch should be upright on the rear of the chair.
- e. Finish installation by placing vanity flap (center panel) down onto Velcro on the seat sling to secure attachment (I).

2. Adjusting the Backrest Tension Adjustable

Suggest using anti tips while making any adjustments. Ensure anti tips are safely secured and in a position to prevent the wheelchair from tipping backwards.

- a. User can transfer into wheelchair. Place wheel locks in the locked position
- b. From the rear of the wheelchair the attendant can lift the Vanity Flap (Center panel) to access the strap system. Adjust straps for optimal balance and truck alignment. Ensure the Velcro straps has a minimum of 2" of engagement, hook securing to loop. Press the Velcro together to ensure it's securely engaged.
- c. Once adjustments have been finalized replaced Vanity Flap to its original position.

⚠ WARNING

Any changes made to the straps will affect the center of gravity. Suggest the user has the attendant stationed behind the wheelchair to prevent the wheelchair from tipping backwards while they become accustomed to the adjustment.

