

Xperience 2 & Xplore 2 HYBRID



 OWNER'S MANUAL



ZIPPIE - Xperience 2 / Xplore 2-Hybrid Series - Power Wheelchair Models

Supplier: This Owner's Manual must be given to the wheelchair user.

User: Before using this wheelchair, please read this entire Owner's Manual and save it for future reference.

I. INTRODUCTION

SUNRISE MEDICAL LISTENS

Thank you for choosing a Zippie power wheelchair. We want to hear your questions or comments on this Owner's Manual, the safety and reliability of your power wheelchair and the service you receive from your authorized SUNRISE MEDICAL supplier. Please feel free to write or call us at the address and telephone number below:

SUNRISE MEDICAL

Customer Service Department

SUNRISE

237 Romina Drive, Unit 3
Concord ON L4K 4V3
CANADA

Phone: 1-800-263-3390
Fax: 1-800-561-5834
www.sunrisemedical.ca

FOR ANSWERS TO YOUR QUESTIONS

Your authorized supplier knows your power wheelchair best and can answer your questions on power wheelchair safety, use and maintenance. For future reference, fill in the following:

Authorized supplier:.....

Sales Person:

Address:

.....

.....

.....

Phone:

Fax:

Serial #:

Date purchased:.....

USER WARNING

! WARNING

Notice to users. DO NOT operate this power wheelchair without initially reading the Owner's Manual. If you do not understand some of the instructions and warnings contained in this Manual, please contact your authorized supplier or a qualified technician prior to operating your Zippie power wheelchair. Not doing so, may result in damage and/or injury.

AUTHORIZED SUPPLIER/TECHNICIAN

WARNING

! WARNING

Notice to authorized suppliers and qualified technicians. DO NOT operate or service the power wheelchair without initially reading this Owner's Manual. If you do not understand some of the instructions and warnings contained in this Manual, please contact the SUNRISE MEDICAL Technical Service Department prior to operating and/or servicing this Zippie power wheelchair. Not doing so, may result in damage and/or injury.

! WARNING

Power wheelchairs contain electronic components which need to be handled according to the manufacturer's instructions. Please refer to the documents specific to your wheelchair.

Related Documents

Listed below are additional documents which may be referenced in this Owner's Manual:

- R-Net module user information sheet
- R-Net power module user information sheet
- R-Net intelligent lighting/seating module
- R-Net input output module
- R-Net on-board programming manual
- R-Net OMNI technical manual
- VR2 power wheelchair control system
- VR2 attendant module
- PP1A programming and diagnostics

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III. YOUR XPERIENCE 2/XPLORE 2-HYBRID SERIES POWER WHEELCHAIR AND ITS PARTS

- 1- Headrest
- 2- Push Handle
- 3- Armrest
- 4- Seat Frame
- 5- Free-wheel Release Lever
- 6- Base Frame
- 7- Drive Wheels
- 8- Caster Fork
- 9- Caster Tire
- 10- Foot Platform
- 11- Seat Pan
- 12- Front Riggings
- 13- Joystick
- 14- Backrest



Base Chair User

Weight Limits*

- Up to 300 lb (136 kg)
- *Weight capacity may vary depending on chosen options. Please refer to appropriate order form.

Battery Charger

- 8 amp off-board

Drive Wheels

- 12.5" x 3" (310 mm x 75 mm)
- Optional 14" x 3" (355 mm x 75 mm)

Caster Fork

- Standard - fixed

Casters

- 6" (150 mm) solid,
- Optional 8" (205 mm) pneumatic or 8" (205 mm) pneumatic with foam-filled insert

Tire Type

- Standard pneumatic
- Optional with foam-filled insert

Seat Lift (Option)

- 11" (280 mm) elevation
- 300 lb (136 kg) user weight capacity

Tilt (Option)

- 50° CG tilt up to 300 lb (136 kg) capacity

Power Recline (Option)

- Up to 300 lb (136 kg) capacity
- 89° to 158° range

Battery Sizes

- Two deep cycle batteries are required to operate this power wheelchair
- Group 22NF/Group 24

Seat to Floor Height*

- From 15.5" to 19" (395 mm to 485 mm)

*The height may vary due to the chosen options. Please refer to the appropriate order form.

Joystick Mount

- Standard fixed Joystick (right or left hand mount)
- Optional swing-away mount
- Height Adjustability

Seat Width Range

- Adjustable from 10" to 16" (255 mm to 405 mm)
- Adjustable from 15" to 20" (380 mm to 510 mm)
- Adaptive width available

Seat Depth Range

- Adjustable from 10" to 19" (255 mm to 480 mm)
- Adaptive depth available

Back Cane Height

- 16" to 26" (405 mm to 660 mm)

Contour Backrest

- From 10" to 20" wide (255 mm to 510 mm)
- 10" to 20" high (255 mm to 510 mm) (Even numbers only)

Back Angle

- 86° to 122° in 4° increments

Armrests*

- Standard cantilever
- Optional dual post
- Optional reclining

*All armrests are flip-back and height adjustable.

Footrest

- Standard swing-away footrests
- Heavy-duty footrests
- Power elevating & articulating legrests
- Angle-adjustable from 60°, 70°, 80° or 90°
- Angle-adjustable footplates
- Heel loops
- Calf pads
- Adjustable knee to heel length

Center Mounts

- Solid one-piece foot platform
- Angle-adjustable split footplates
- Power elevating & articulating footboard
- Calf pads
- Adjustable knee to heel length

NOTE- All features may not be available with selected power wheelchair configurations or compatible with another feature. For additional details, please contact your authorized supplier who can also provide more information on accessories available.

NOTE- Specifications may vary depending on your configuration.

IV. NOTICE - READ BEFORE USE

A. CHOOSING THE RIGHT POWER WHEELCHAIR & SAFETY OPTIONS

SUNRISE MEDICAL has a wide range of power wheelchairs with different styles, sizes and settings to meet the user's needs. Ultimately, the final selection of a wheelchair rests solely with you and your healthcare professional. The following individual characteristics must be considered when choosing a power wheelchair:

1. Height & weight (size), disability, strength and balance coordination.
2. Intended use and level of activity.
3. Type of hazards to overcome daily (areas likely used by the wheelchair).
4. Safety and comfort options (such as positioning belts or specialty seating systems).

B. ADJUSTING POWER WHEELCHAIR TO YOUR ABILITY

Work with your doctor, nurse or therapist and your authorized supplier to ensure that your power wheelchair has the appropriate settings to suit your level of function and ability.

C. REVIEW THIS OWNER'S MANUAL OFTEN


Before using this power wheelchair, you and each person who may assist you, should read this entire Owner's Manual and follow all instructions. Review all warning notices often until they become top of mind.

D. CAUTION

Federal law restricts this device to be ordered/sold only by a practitioner licensed by the law of the province in which he/she practices.

E. WARNINGS

The word "WARNING" refers to a hazard or unsafe practice that may cause severe injury or death to you or to other people. In this Manual, "Warnings" have been separated into four main sections as follows:

1.  Section V. EM This section contains electromagnetic interference situations that you may encounter and how it affects your power wheelchair.
2. Section VI. GENERAL WARNINGS This section contains a safety checklist to follow and a description of various risks to be aware of prior to operating this power wheelchair.
3. Section VII. WARNINGS - COMPONENTS & OPTIONS This section contains descriptions of distinctive features for this power wheelchair. Discuss best options and settings with your authorized supplier and healthcare professional for maximum safety.
4. Section X. BATTERIES This section contains battery and charging safety to avoid injury.

NOTE- Other "Warnings" will appear throughout this Owner's Manual as well as on the power wheelchair, where applicable. The following icons identify warnings and potential hazards to look for. It is important to read and understand all of these warnings.

! WARNING



These warnings must be followed. Not doing so, may cause personal injury or may damage the power wheelchair.

1 PROHIBITED!



These prohibited actions must NEVER be performed. Executing such actions may cause personal injury or damage to the power wheelchair.

NOTE- Notes are informative statements to help further explain actions, warnings or product detail.

ESD



Be aware that electrostatic discharge has the potential of damaging electronic components unless handled properly. The ESD icon prompts the user to refer to the proper related document to manage the situation.

V. EMI (ELECTROMAGNETIC INTERFERENCE)

! WARNING

Read all warnings to reduce the risk of unintended power wheelchair movement:

1. Beware of the danger from hand-held transceivers. NEVER turn on or use a hand-held transceiver while power to your wheelchair is on. Use extra care if you believe that such a device may be in use near your power wheelchair.
2. Be aware of nearby radio or TV stations, and avoid coming close to them.
3. If unintended movement occurs, turn your power wheelchair off as soon as it is safe.

! WARNING

A. WHAT IS EMI?

1. EMI means: electromagnetic (EM) interference (I). EMI comes from radio wave sources such as radio transmitters and transceivers. (A "transceiver" is a device that both sends and receives radio wave signals).
2. There are a number of sources of intense EMI in your daily environment. Some of these are obvious and easy to avoid while others are not, and you may not be able to avoid them.
3. Powered wheelchairs may be susceptible to electromagnetic interference (EMI) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two way radios, and cellular phones.
4. EMI can also be produced by conducted sources or electrostatic discharge (ESD).

! WARNING

B. WHAT EFFECT CAN EMI HAVE?

1. EMI can cause your power wheelchair, without warning, to:
 - Move by itself
 - Move in unintended directions
 If any of these occurs, it could result in severe injury to you or others.
2. EMI can damage the control system of your power wheelchair. This could create a safety hazard, and lead to costly repairs.

! WARNING

C. SOURCES OF EMI

The sources of EMI fall into three broad types:

1. Hand-held transceivers:
The antenna is usually mounted directly on the unit. These include:
 - Citizens band (CB) radios
 - "Walkie-talkies"
 - Security, fire and police radios
 - Cellular phones
 - Laptop computers with phone or fax
 - Other personal communication devices
2. Medium-range mobile transceivers:
NOTE- These devices can transmit signals while they are on, even if they are not in use.
These include two-way radios used in police cars, fire trucks, ambulances and taxi cabs. The antenna is usually mounted on the outside of the vehicle.
3. Long-range transceivers:
These include commercial radio and TV broadcast antenna towers and amateur (HAM) radios.
NOTE- The following are not likely to cause EMI problems: laptop computers (without phone or fax), cordless phones, cell phones, TV sets or AM/FM radios, CD or tape players.

! WARNING

D. DISTANCE FROM THE SOURCE

EM energy rapidly becomes more intense as you get closer to the source. For this reason, EMI from hand-held devices is of special concern. (See C. SOURCES OF EMI above). A person using one of these devices can bring high levels of EM energy very close to your power wheelchair without you knowing it.

! WARNING

E. IMMUNITY LEVEL

1. The level of EMI is measured in volts per meter (V/m). Every power wheelchair can resist EMI up to a certain level. This is called its "immunity level".
2. The higher the immunity level, the less the risk of EMI. It is believed that a 20 V/m immunity level will protect the power wheelchair user from the more common sources of radio waves.
3. The tested configuration that was found to be immune to at least 20 V/m is: Quickie power wheelchair with a right-hand mounted remote joystick system, 18" (460mm) seat width, 18" (460 mm) seat depth, dual post height adjustable armrests, fixed center mount legrest with one-piece solid footplate, and Group 24 gel cell batteries.
4. The following specialty input devices have an unknown effect on the immunity level because they have not been tested with the Quickie/Zippie and remote joystick module system:

Input devices:

- Sip & puff
- Proximity head array
- Proportional head control
- Proportional compact joystick
- Proportional micro joystick
- Chin control
- Heavy duty joystick
- Buddy button
- Micro Light switch

! WARNING

Individuals with physical limitations requiring the use of a specialty control input device known not to be immune to 20 V/m, should exercise extra care around known sources of EMI.

! WARNING

There is no way to know the effect on EMI if you add accessories or modify this power wheelchair. Any change to your wheelchair may increase the risk of EMI. Parts not specifically tested or parts from other suppliers have unknown EMI properties.

! WARNING

F. REPORT ALL SUSPECTED EMI INCIDENTS

You should promptly report any unintended movement of your power wheelchair. Be sure to indicate whether there was a radio wave source near your power wheelchair at the time.

Contact: SUNRISE MEDICAL Customer Service Department at 1-800-263-3390.

! WARNING

G. EMI FROM POWER WHEELCHAIR

Electromagnetic field emitted by electronic components included in this power wheelchair may interfere with other electronic devices emitting similar field, such as shopping mall alarm systems.

VI. GENERAL WARNINGS

! WARNING

Read all warnings in this section. If you do not comply with these warnings, a fall, tip-over or loss of control may occur and cause severe injury to you or others.

A. NOTICE TO USER AND ATTENDANTS

! WARNING USER

1. Before using this power wheelchair, you should be trained in its safe use by your health care professional.
2. Every power wheelchair is different. Take the time to learn the feel of this wheelchair before you begin using it.
3. Be aware that you must develop your own methods for the safe use of this wheelchair, which are best suited to your level of function and ability.
4. Have someone help you practice bending, reaching and transfers 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 power wheelchair. Look for hazards and learn how to avoid them.
7. ALWAYS wear a positioning strap.
8. DO NOT use your power wheelchair if the joystick does not spring back to the neutral position.
9. DO NOT use your power wheelchair if the joystick rubber gaiter is ripped or damaged.
10. DO NOT try to tip your power wheelchair without an attendant present.

! WARNING

USER AND ATTENDANTS

1. When transferring the user in or out of the wheelchair, NEVER use the footplate as a platform.
2. DO NOT lift the power wheelchair by any parts that are removable as this may result in damage to the wheelchair or injury to the user.
3. ALWAYS keep your hands and body parts clear of moving parts to prevent injuries.

! WARNING

ATTENDANTS

Make sure you read all warnings and follow all instructions in each section of this Owner's Manual. Be aware that warnings that apply to the user also apply to you.

1. DO NOT stand or sit on any portion of the power wheelchair.
2. You need to work with the user, and the user's doctor, nurse or therapist, to develop safe methods best suited to your abilities and those of the user.
3. To manually push the power wheelchair you must disengage the freewheel levers or brake release levers:
 - DO NOT engage or disengage freewheel/brake release levers unless power to the wheelchair is off. In addition, make sure both levers are completely engaged before turning power on to ensure proper control of the wheelchair.
 - Make sure you have full control over the wheelchair when disengaging the levers because the power wheelchair will not have braking ability.
 - Make sure the wheelchair is on level ground when levers are disengaged.

NOTE- For the freewheel position, to engage or disengage levers, rock the wheelchair back and forth and/or push against the wheelchair while moving the lever.

4. Propel this power wheelchair by the push handles only. They provide secure points for you to hold onto at the rear of the wheelchair to prevent a fall or tip-over.
 - Check to make sure push handle grips will not rotate or slip off.

! WARNING

B. WEIGHT LIMIT

1. The user and items carried should NEVER exceed the total weight capacity identified on your power wheelchair.
2. NEVER use this power wheelchair for weight training if the total weight (user and additional weights) exceeds weight capacity.
3. Exceeding the weight limit is likely to damage the seat, power seating options, frame, or fasteners and may cause severe injury to you or others around the damaged wheelchair.
4. Exceeding the weight limit will void the warranty.

! WARNING

C. POWER MODULE SETTINGS

If your environment or your level of function and ability change, you may need to get the settings on your wheelchair's power module adjusted. Your authorized supplier is best suited to adjust these settings.

Contact your authorized supplier to adjust the power module settings immediately if you notice any change in your ability to:

- Control the joystick
- Hold your torso erect
- Avoid running into objects.

! WARNING

D. EMI

Read Section V on EMI. To reduce the risk of unintended power wheelchair movement:

1. NEVER turn on or use a hand-held transceiver while power to your wheelchair is on. Use extra care if you believe that such a device may be in use near your power wheelchair.
2. Be aware of nearby radio or TV stations, and avoid coming close to them.
3. If unintended movement occurs, turn your power wheelchair off as soon as it is safe.

! WARNING

E. SAFETY CHECKLIST

Before each use:

1. Make sure the power wheelchair operates smoothly. Check for noise, vibration, or a change in ease of use. (These may indicate low tire pressure, loose fasteners, or damage to your wheelchair).
 - If you detect a problem, make sure to repair or adjust the wheelchair. Your authorized supplier can help you find and correct the problem.
2. Make sure batteries are charged. Green lights on charge indicator will light up when charge is full. Yellow lights indicate battery charge level is getting low. Red lights indicate batteries are in immediate need of charging.
3. When not in use, keep your power wheelchair in a clean, dry place.

1 PROHIBITED

F. MODIFICATIONS & CHANGES

NEVER make any modifications or changes to any part of your Zippie power wheelchair unless explicitly authorized by SUNRISE MEDICAL. Doing so will void the warranty and may create a safety hazard.

! WARNING

Adding accessories manufactured by any other third-party manufacturer without prior approval by SUNRISE MEDICAL will void the warranty and may create a safety hazard as these accessories haven't been tested or approved by SUNRISE MEDICAL.

1. Modifying or changing your Zippie power wheelchair may increase the risk of a fall or tip-over.
2. Modifications not authorized by SUNRISE MEDICAL, constitute remanufacturing of the power wheelchair and will void the warranty. The user then assumes all future liability for the power wheelchair.

⚠ WARNING

G. WHEN SEATED IN A PARKED

POWER WHEELCHAIR

1. ALWAYS turn off all power to your wheelchair when you are parked, even for a moment. This will prevent:
 - Accidental movement from contact with the joystick by you or others.
 - Unintended movement from EMI sources. (See Section V).
2. Make sure that people who help you (for example, store clerks) are aware of the joystick and DO NOT touch it. If they do, your wheelchair may move suddenly when you do not expect it.

⚠ WARNING

H. ENVIRONMENTAL CONDITIONS

Your power wheelchair is not designed for use in a heavy rain storm, or in snowy or icy conditions.

1. Contact with water or excessive moisture can cause an electrical malfunction. The frame, motors and other parts are not water-tight and may rust or corrode from the inside.

To avoid a malfunction:

- Minimize exposure of your power wheelchair to rain or very wet conditions.
- NEVER take your power wheelchair into a shower, tub, pool or sauna.
- DO NOT use your power wheelchair in fresh or salt water (such as at the edge of a stream, lake, or ocean).
- Make sure the battery pole protection caps are secured.
- Replace joystick rubber gaiter if it becomes torn or cracked.
- Make sure all electrical connections are secure.
- Dry the wheelchair as soon as you can if it gets wet, or if you use water to clean it.

2. Proceed slowly and use extra care if you must operate your power wheelchair on a wet or slick surface.
 - When in doubt, have someone help you.
 - Do so only if you are sure it is safe.
 - Stop if one or both main wheels lose traction. If this occurs, you may lose control of your wheelchair or fall.
 - NEVER operate your wheelchair on a slope or ramp if there is snow, ice, water or an oil film present.

⚠ WARNING

Extra caution should be used when employing the Micro Light switch or the proximity head array as control devices. These two devices are susceptible to malfunction when wet.

⚠ WARNING

I. TERRAIN

1. This power wheelchair will perform at optimum on firm, even surfaces such as concrete, asphalt and indoor flooring.
2. Although equipped with suspension, the performance can be substantially reduced on uneven surfaces and rough terrain.
3. DO NOT operate the power wheelchair on sand, loose gravel or soil. Doing so may damage wheels, bearings, axles, motors or loosen fasteners.

⚠ WARNING

J. STREET USE

In some areas, power wheelchairs are not legal for use on public roads. Be alert to the danger of motor vehicles on roads or in parking lots.

1. DO NOT operate this power wheelchair on any roads that do not allow non-motor vehicle traffic.
2. When visibility is limited by either darkness or weather conditions, DO NOT operate the power wheelchair on any roadways.
3. It may be hard for drivers to see you. Make eye contact with drivers before you proceed. When in doubt, yield until you are sure it is safe.

⚠ WARNING

K. MOTOR VEHICLE SAFETY/TRANSIT USE

Your power wheelchair has been manufactured with built-in transport brackets.

The standard transport brackets have not been crash-tested in accordance with WC-19. Use these transport brackets only to secure an unoccupied power wheelchair during transport.

1. NEVER let anyone sit in the wheelchair while in a moving vehicle.
2. NEVER transport the wheelchair in the front seat of a vehicle. It may shift and interfere with the driver.
3. ALWAYS secure the wheelchair so that it cannot roll or shift.
4. DO NOT use a power wheelchair that has been involved in a motor vehicle accident.
5. For information concerning approved WC-19 tie down systems, please consult WC-19 Manual.

⚠ WARNING

L. CENTER OF GRAVITY (CG)

The point where a power wheelchair will tip forward, back, or to the side depends on its center of gravity and stability. The center of gravity is affected by:

1. The seat height and seat angle.
2. A change in your body position, posture or weight distribution.
3. Using the wheelchair on a ramp or slope.
4. The use of a back pack or other options, and the amount of added weight.
5. Drive wheel positioning.

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

Whenever a condition exists that may change the center of gravity, reduce speed, proceed cautiously, and when in doubt, ALWAYS have someone help you.

⚠ WARNING

M. TRANSFERS

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 prevent a fall:

1. ALWAYS turn off power before you transfer to or from your wheelchair. If you leave the power on, you may touch the joystick and cause your wheelchair to move when you do not expect it.
2. Make sure freewheel/brake release levers are engaged. This keeps the power wheelchair from moving when you transfer.
3. Work with your health care professional to learn safe methods.
4. Learn how to position your body and how to support yourself during a transfer. (See Fig.1 below for recommended transfer position).
5. Have someone help you until you are sure you can safely transfer on your own.
6. Move your wheelchair as close as you can to the seat you are transferring to. If possible, use a transfer board.
7. Rotate the front casters until they are as far forward as possible.
8. Be careful of the footrests. If you can, remove or swing them out of the way.
9. NEVER stand on footrests when you transfer. Doing so may damage them or cause your wheelchair to tip.
10. Make sure your feet do not get hooked on or caught in the space between the footplates.
11. Make sure armrests do not interfere.
12. Transfer as far back onto the seat surface as you can. This will reduce the risk that you will miss the seat or fall.

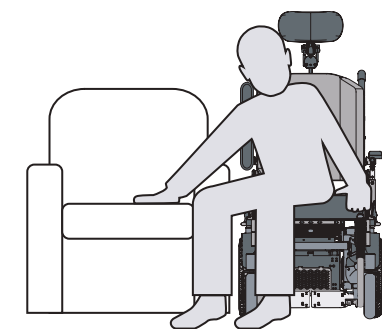


Figure 1. Use caution when transferring to and from your wheelchair.

WARNING
N. REACHING OR LEANING

Reaching or leaning affects the center of gravity of your power wheelchair. If done improperly, a fall or tip-over is likely. When in doubt, ask for help or use a device to extend your reach.

To reduce the risk of injury and/or damage:

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 you lose your balance).
4. NEVER try to pick up an object from the floor by reaching down between your knees.
5. NEVER put pressure on the footrests while reaching.
6. NEVER reach or lean over the top of the seat back. This may damage the backrest and cause you to fall.

IF YOU MUST REACH OR LEAN, DO SO AT YOUR OWN RISK.

Remember to:

1. Move your wheelchair as close as you can to the object you wish to reach.
 2. Rotate the front casters until they are as far forward as possible. This makes the wheelchair more stable.
- NOTE - To do this: Move your power wheelchair past the object you want to reach then back up alongside it. Backing up will rotate the casters forward.**
3. Turn off all power to your wheelchair. If you leave it on, you may touch the joystick and cause your wheelchair to move when you do not expect it.

WARNING
O. DRESSING OR CHANGING CLOTHES

Be aware that your weight will shift if you dress or change clothes while seated in the wheelchair. To make the power wheelchair more stable, rotate the front casters until they are forward.

WARNING
P. OBSTACLES

Obstacles you may have to overcome daily include door thresholds, lifts, ramps and hazards such as potholes and broken pavement. (See Fig.2 below). These can damage your power wheelchair and may cause a fall, tip-over or loss of control.

1. Be aware that thresholds are very dangerous. (Even a small change in height may stop a caster wheel and cause your wheelchair to tip). You may need to:
 - Remove or cover threshold strips between rooms.
 - Install a ramp at entry or exit doors.
2. Keep your eyes moving when you move around; scan the area well ahead of your wheelchair.
3. Make sure the floor areas where you use the wheelchair are level and free of obstacles.

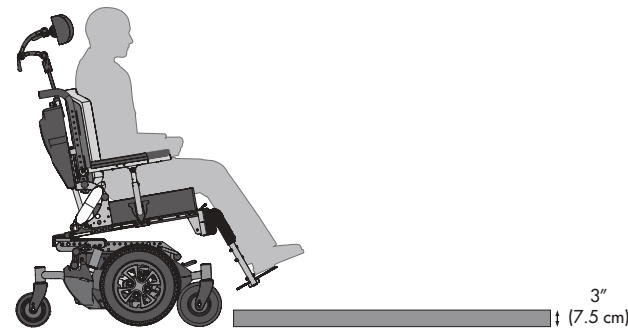


Figure 2. Never try to climb an obstacle greater than 3" (75 mm) with 8" (205 mm) casters.

WARNING
Q. DRIVING IN REVERSE

Use extra care when you operate your power wheelchair in reverse. You may lose control or fall if one of the rear wheels hits an object.

1. Operate your wheelchair slowly and at an even speed.
2. Stop often and check to make sure your path is clear of obstacles.

WARNING
R. RAMPS, SLOPES & SIDEHILLS

The center of gravity of your power wheelchair changes when you are on a slope.

NOTE - "Slope" includes a ramp or hillside. Your wheelchair is less stable when it is at an angle. NEVER use it on a slope unless you are sure it is safe. When in doubt, have someone help you.

Beware of:

1. Steep slopes. DO NOT use this power wheelchair on a slope steeper than 10° (17.6%). See Fig.3 below.
2. Wet or slippery surfaces (ice, snow, water or oil film). A loss of traction may cause a fall or tip-over.
3. A change in grade on a slope (or a lip, bump or depression). These may cause a fall or tip-over.
4. A drop-off at the bottom of a slope. (A drop-off of as small as 0.75" (20 mm) can stop a front caster and cause the wheelchair to tip forward).

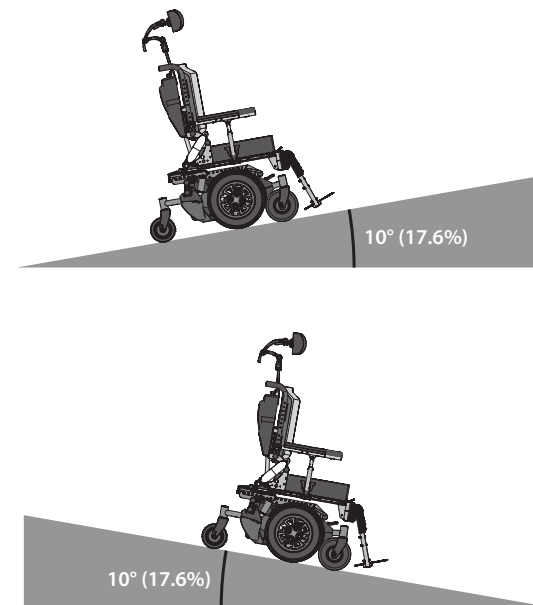


Figure 3. Do not use power wheelchair on slope steeper than 10°.

WARNING
S. TO REDUCE THE RISK OF A FALL, TIP-OVER OR LOSS OF CONTROL:

1. NEVER use your power wheelchair on a slope unless you are sure you can do so without losing traction.
2. ALWAYS go as straight up and as straight down as you can. (See Fig.4).

 - DO NOT "cut the corner" on a slope or ramp.
 - DO NOT turn or change direction on a slope.

3. ALWAYS stay in the center of the ramp. Make sure ramp is wide enough that you are not at risk that a wheel may roll off the side.
4. Keep your power wheelchair moving at a slow, steady speed. Keep control at all times.
 - On a descent, DO NOT let your power wheelchair accelerate beyond its normal speed.
 - If the power wheelchair picks up speed, center the joystick to slow down or stop.

NOTE - The solid state power module has a logic system that will help control your speed when driving on a slope or uphill.

- Should you be required to stop on a slope, please re-start slowly.



Figure 4. Do not turn on a slope.

WARNING

T. RAMPS AT HOME AND WORK

Before driving on a ramp, survey the condition of the ramp. On slippery ramps traction may be reduced causing your wheelchair to slide.

WARNING

Make sure ramps meet all Building Codes for your area.

For your safety, have a licensed contractor build or remodel a ramp to meet all standards.

NOTE - The proper design will vary, depending on such things as: the length and height of the ramp; the need for an intermediate platform; landing size; doors, and the direction of swing, and; whether the ramp includes a turn or angle.

WARNING

U. WHEELCHAIR LIFTS

Wheelchair lifts are used in vans, buses, and buildings to help you move from one level to another.

1. ALWAYS turn off all power to your wheelchair when you are on a lift. If you leave it on, you may touch the joystick by accident and cause your wheelchair to drive off the platform. (Be aware that a "roll-stop" at the edge of the platform may not prevent this).
2. Make sure there is not a lip or drop-off at the top or bottom of the platform. These may cause a fall or tip-over. When in doubt, have someone help you.
3. ALWAYS position the user securely in the wheelchair to help prevent falls while on a lift.
4. Avoid moving forward if a wheel is caught on the lip of the ramp. Backup, reposition the caster for a more direct approach, and slowly try again.

WARNING

V. CURBS & SINGLE STEPS

1. It is recommended to ALWAYS use a ramp or a curb cut when climbing and/or descending a curb, single step, or other obstacle.
2. If you must climb or descend a curb, single step, or other obstacle that is greater than 2.5" (65 mm), it is recommended to have a person assist you.
3. NEVER should you try to climb a curb, single step, or other obstacle greater than 3" (75 mm) high. (See Fig.2 in Section P. OBSTACLES).
4. If you must climb or descend a curb or step alone, do so at your own risk using extreme care and following this procedure:
 - Proceed slowly, at a steady speed
 - Go as straight up or down as you can over the obstacle. (See Fig. 5).
 - NEVER turn when trying to climb or descend an obstacle, doing so may result in a fall or tip-over.
5. **Not following the above procedures may cause:**
 - A fall or tip-over
 - Damage to the frame, wheels, axles or other parts, or loosen fasteners.

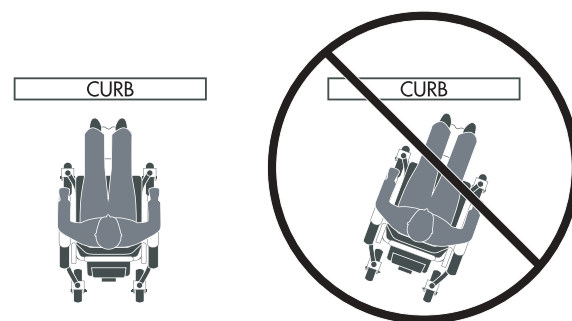


Figure 5. Moving straight up or down a curb cut.

PROHIBITED!

W. STAIRS

NEVER use this power wheelchair to go up or down stairs, even with an attendant. Doing so is likely to cause a fall or tip-over.

PROHIBITED!

X. ESCALATORS

NEVER take this power wheelchair on an escalator, even with an attendant. Doing so is likely to cause a fall or tip-over.

VII. WARNINGS:

COMPONENTS & OPTIONS

WARNING

NOTE - Using parts or making changes without prior authorization from SUNRISE MEDICAL may create a safety hazard and will void the warranty.

WARNING

A. ARMRESTS

Armrests will not bear the weight of this power wheelchair.

PROHIBITED!

NEVER lift the wheelchair by its armrests. They may come loose or break.

WARNING

B. BATTERIES

ALWAYS wear rubber gloves and safety glasses when you handle batteries.

PROHIBITED!

NEVER smoke or hold an open flame near batteries. This is a known explosion hazard.

WARNING

1. Only deep cycle sealed case construction batteries should be used in this device.
2. Read all of Section X. BATTERIES before attempting to change, or charge batteries.

WARNING

C. CUSHIONS AND SLING SEATS

1. Standard foam cushions and other body supports are not designed to relieve 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.
3. Consult your doctor, nurse or therapist to find out if you need such a device for your well-being.

⚠ WARNING

D. FASTENERS

Many of the screws, bolts and nuts on this power wheelchair are special high-strength fasteners. Use of improper fasteners may cause malfunction.

1. Only use fasteners provided by **SUNRISE MEDICAL**.
2. If fasteners become loose, tighten them immediately.
3. Over- or under-tightened fasteners may fail or cause damage to parts.
4. See **Section VIII. SET-UP, ADJUSTMENT & USE**, for proper torque settings.

⚠ WARNING

E. FOOTRESTS

1. At the lowest point, footrests should be at least 1.25" (32 mm) off the ground. If set too LOW, they may get caught on obstacles you can expect to find normally. This may cause the wheelchair to stop suddenly and tip forward.
2. **To avoid a trip or fall when you transfer:**
 - Make sure your feet do not get hooked on or get caught in the space between the footplates.
 - Avoid putting weight on the foot platform/footplates, as the wheelchair may tip forward.
 - Remove or swing the footrests out of the way, if possible.
3. The foot platform/footplates should ALWAYS be down when operating the wheelchair.

🚫 PROHIBITED!

NEVER lift this power wheelchair by its footrests/footplates. These detach and will not bear the weight of the wheelchair. Lift it only by non-detachable parts of the main frame.

⚠ WARNING

F. FREEWHEEL RELEASE LEVERS &

BRAKE RELEASE LEVERS

1. DO NOT engage or disengage freewheel/brake release levers unless power to the wheelchair is off. In addition, make sure both levers are completely engaged before turning the power on to ensure proper control of the wheelchair.
2. Make sure that the person pushing the wheelchair has full control when disengaging the levers because the power wheelchair will not have braking ability.
3. Make sure that the wheelchair is on level ground when levers are disengaged.

NOTE - For the freewheel position, to engage or disengage levers, rock the wheelchair back and forth and/or push against the wheelchair while moving the lever.

⚠ WARNING

G. ON/OFF SWITCH

1. NEVER use the ON/OFF switch to stop the power wheelchair except in an emergency. This will result in an abrupt stop, and may cause a fall.
2. To slow your power wheelchair to a stop, return the joystick to neutral.

⚠ WARNING

H. PNEUMATIC TIRES

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

1. DO NOT use this power wheelchair 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 tire may cause the wheelchair to veer to one side and result in a loss of control.
3. An over-inflated tire may burst.
4. NEVER use a gas station air pump to inflate a tire. Such pumps provide air at high volume, and could cause the tire to burst. To prevent tire damage:
 - Use a hand pump (or low volume air pump) to inflate tires.
 - Use a tire gauge to check pressure.
5. Driving over sharp objects may cause damage to pneumatic tires and tubes.

⚠ WARNING

I. POSITIONING BELTS

Use a positioning belt only to help support your posture. Improper use of such belts may cause severe injury or death.

1. Make sure you are not at risk to slide down in the seat. If this occurs, you may suffer chest compression or suffocate due to pressure from the belt.
2. A pelvic wedge or a similar device can help keep you from sliding down in the seat. Consult your health care professional to find out if you need such a device.
3. The belt must be snug, but must not be so tight that it interferes with breathing. You should be able to slide your open hand, flat, between the belt and your body.
4. Make sure you can easily remove the belt in an emergency.

🚫 PROHIBITED!

NEVER use a positioning belt:

- In place of a motor vehicle seat belt. In an accident or sudden stop you may be thrown from the wheelchair. A positioning belt will not prevent this, and further injury may result from the belt.
- As a restraint. A restraint requires a doctor's order.
- On a user who is comatose or agitated.

⚠ WARNING

J. PUSH HANDLES

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

⚠ WARNING

K. SEATING SYSTEMS

1. Use of a seating system not approved by **SUNRISE MEDICAL** may alter the center of gravity of this power wheelchair. This may cause a fall or tip-over.
2. NEVER change the seating system of your wheelchair unless you consult your authorized supplier first.
3. NEVER raise your seating system to a height of more than 22" (560 mm) (measuring from the front of the seat pan to the floor).

⚠ WARNING

L. UPHOLSTERY FABRIC

1. Replace worn or torn fabric of seat sling, seat cushion and seat back as soon as you can. If you do not, the seat may fail and cause you to fall. Worn fabrics may increase the potential for a fire hazard.
2. Sling 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 of the fabric.

⚠ WARNING

M. POWER SEATING

1. **Operation:**
 - Use caution when operating the power wheelchair in the reclined, elevated, or tilted position.
 - DO NOT attempt to operate power seating options while in motion or positioned on an incline.
 - DO NOT attempt to operate the lift or tilt power seating options around children.
 - Through programming, it is possible to reverse the direction of all power seating functions. Ensure you know which direction your seat is going to move before operating.
2. **Reduced speed driving (creep):**

This power wheelchair is designed to automatically reduce the maximum driving speed to a creep mode when it is equipped with a seat lift. Creep mode is activated when it has reached a maximum limit of 3" (75 mm) of seat elevation or a seat to floor height of 21 1/4" (540 mm).
3. **Pinch points:**

Pinch points may occur when operating power seating options. 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 the power wheelchairs by pulling down on the push handles. Power wheelchairs have heavy bases. As such, attempting to tilt a power wheelchair to traverse obstacles can damage components in the seating system and/or actuators.
5. **Remain clear during power actuator operation:**

Please stay clear of any actuator while it is in motion. Zippie power components move over large travel ranges. Users should be aware of their surroundings while in motion.
6. **Maximum user weight:**

DO NOT exceed the weight capacity for your specific power wheelchair/seating system configuration. Doing so could result in premature break down or injury, and will void the warranty of your power wheelchair.
7. **Latch mode:**

Use caution while operating power seating function in latched mode. In latch mode, powered seating will not stop until a reverse command is performed, the end of travel is met, or latch times out.

⚠ WARNING

N. CG TILT POWER ACCESSORY

NOTE - (Pinch Point) - Avoid putting hands or fingers near the power tilt mechanism while in operation.

The powered center of gravity (CG) tilt accessory for this power wheelchair has a maximum user weight capacity of **300 lb (136 kg)** depending on its configuration.

NEVER exceed the specified weight capacity for your configuration.

⚠ WARNING

O. 11" POWER ELEVATE ACCESSORY

NOTE - (Pinch Point) - Avoid putting hands or fingers near the power seat lift mechanism while in operation.

The powered lift modular accessory for this power wheelchair has a maximum user weight capacity of up to **300 lb (136 kg)** depending on its configuration.

NEVER exceed the specified weight capacity for your configuration.

⚠ WARNING

P. POWER RECLINE ACCESSORY

NOTE - (Pinch Point) - Avoid putting hands or fingers near the power recline mechanism while in operation.

The maximum user weight capacity for the power recline is **300 lb (136 kg)** depending on its configuration.

NEVER exceed the specified weight capacity for your configuration.

⚠ WARNING

Q. POWER ELEVATING LEGREST ACCESSORY

NOTE - (Pinch Point) - Avoid putting hands or fingers near the power elevating legrests or center mount mechanism while in operation.

The power legrest accessory for the Zippie power wheelchair has a maximum user weight capacity of up to **300 lb (136 kg)** depending on its configuration.

NEVER exceed the specified weight capacity for your configuration.

NOTE - Exceeding specified weight capacity of any of these functions for your power wheelchair configuration can lead to injury and/or damage to the equipment.

VIII. SET-UP, ADJUSTMENT & USE

ADJUSTMENT AND USE

NOTES:

1. **Work surface for set-up:**

Use a flat surface, such as a table, to assemble, adjust and check your power wheelchair. This makes the steps easier and helps ensure a correct set-up.
2. **Fasteners:**
 - Many of the screws and bolts on this power wheelchair are special high-strength fasteners and may have special coatings.
 - Many nuts are of the nylon insert lock nut type. They have a plastic insert to help prevent loosening.
 - Only use screws, bolts and nuts provided by **SUNRISE MEDICAL**.

⚠ WARNING

1. Use of improper fasteners may cause the power wheelchair to malfunction.
2. Over- or under-tightened fasteners may fail or cause damage to power wheelchair parts.
3. If bolts or screws become loose, tighten them as soon as you can. Loose bolts or screws can cause damage to other parts causing them to fail.
4. Washers and spacers:
 - Note the position of washers and spacers before disassembly.
 - To avoid damage to the frame, replace all washers and spacers when you reassemble parts.

TOOLS YOU WILL NEED

Basic tool kit:

To set-up, adjust and maintain your power wheelchair you may need the following tools:

- Phillips screw driver
- Metric wrenches from 10 mm to 13 mm
- Metric Allen wrenches from 3 mm to 6 mm
- Imperial wrenches from 1/4" to 9/16"
- Imperial Allen wrenches from 5/64" to 1/4"
- Imperial socket from 7/16" to 3/4"
- Ratchet

NOTE - These tools can be found in common hardware stores.

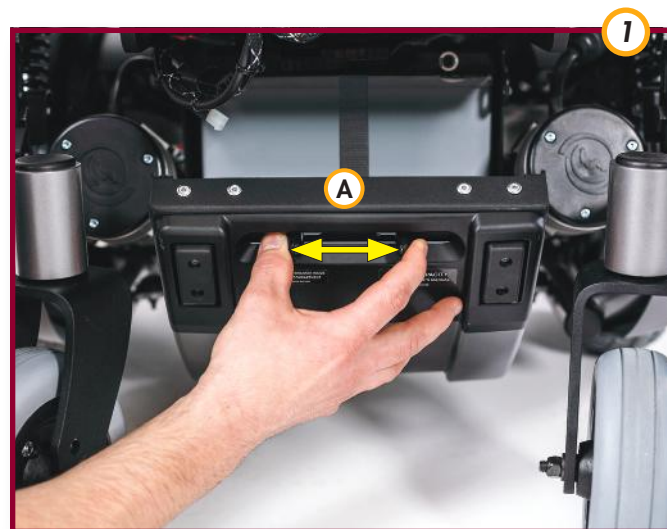
A. BATTERY REMOVAL (Fig.1-2)

Removing the batteries for transporting or servicing: (Fig.1-2)

- a) Push tabs together towards the center to release door (A).
- b) Drop panel (B).
- c) Carefully pull battery pack until cable connection is accessible.
- d) Disconnect and pull battery pack to full deployment to remove it.
- e) Lift the battery pack from the compartment using the battery carrying straps.
- f) Repeat operation in reversed steps to put the batteries back in.

⚠ WARNING

Batteries may weigh up to 55 lb (25 kg) each. Care must be taken to avoid injury when lifting.



B. SWING-AWAY FOOTRESTS (Fig.3-4)

1. Installation: (Fig.3)

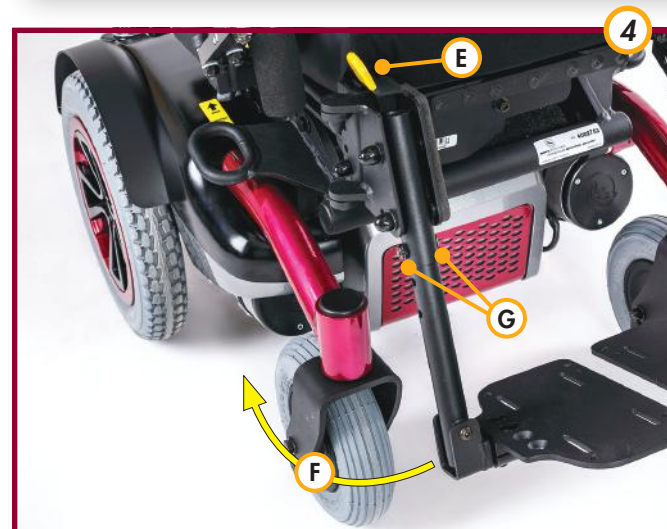
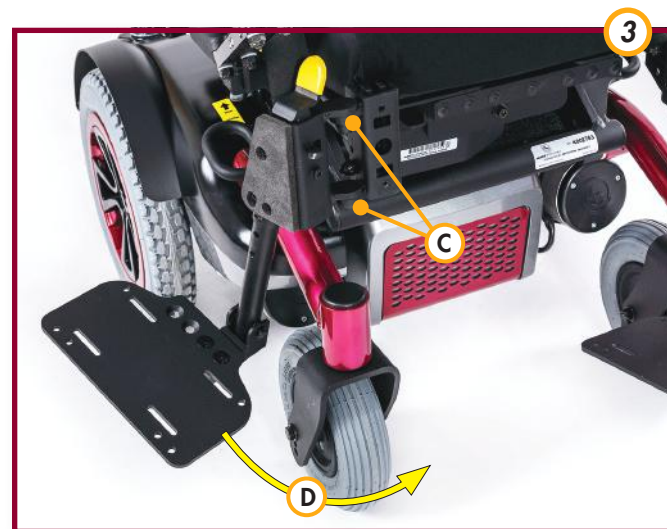
- a) Place legrest pivot pin (C) into the locating hole on top of the receiver with the footrest facing outward from frame.
- b) Rotate the footrest inward until latch plate locks (D) into place.

2. Removal: (Fig.4)

- a) To remove footrest, press quick-release lever (E).
- b) Rotate footrest outward and lift (F).

3. Length adjustment: (Fig.2)

- a) Remove both bolts (G) in the hanger tube.
- b) Reposition the footrest.
- c) Re-tighten all bolts (G).



C. ELEVATING LEGREST (OPTIONAL)

1. Installation:

To install or remove elevating legrest (ELR) see instructions for swing-away footrest installation.

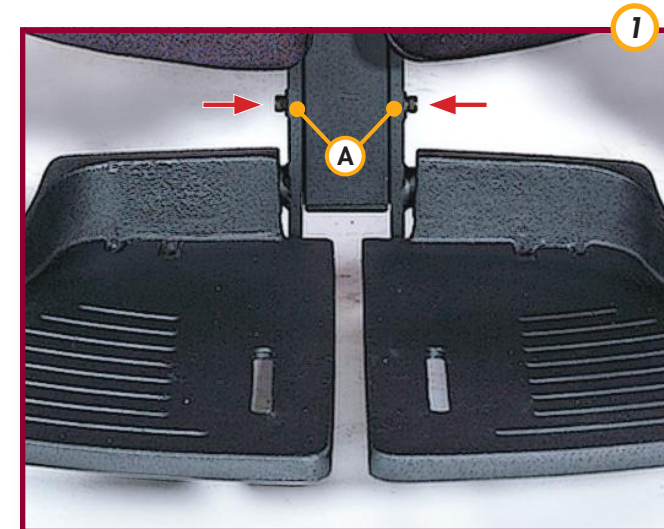
D. CENTER MOUNT ADJUSTMENT (Fig.1-2)

1. Height adjustment: (Fig.1)

- a) Loosen securing bolts (A) with 5/32" Allen key.
- b) Slide footplate to desired height.
- c) Tighten bolts.

2. Calf pad adjustment: (Fig.2)

- a) Loosen the securing bolt behind calf pads with 5/32" Allen key.
- b) Move calf pad to desired height.
- c) Tighten bolts.



E. JOYSTICK

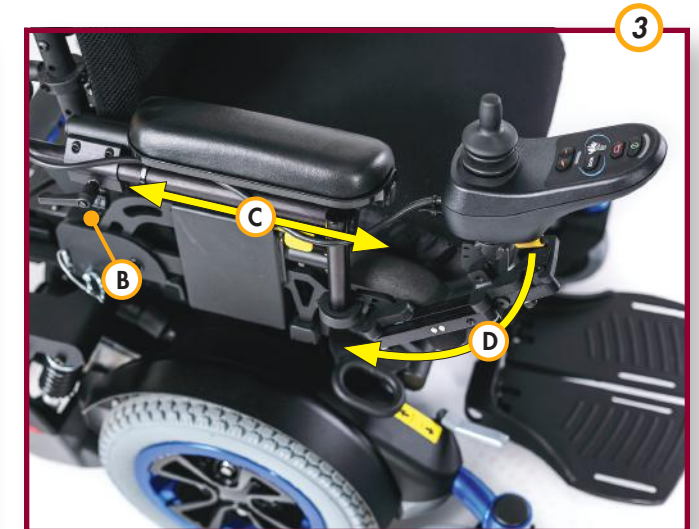
Please refer to the input device Owner's Manual provided with the information package.

F. TO ADJUST THE DEPTH OF THE JOYSTICK (Fig.3)

1. Loosen the adjustment handle (B).
2. Slide the joystick mount (C) in or out until the desired position.
3. Retighten the adjustment handle (B).

G. TO USE THE SWING-AWAY FUNCTION (Fig.3-4)

1. Push down to release the lever (D).
2. Continue pushing down until the joystick bracket is fully retracted.
3. To bring back, pull the joystick firmly towards you until it gets back into its locked position (D).



H. DUAL POST HEIGHT ADJUSTABLE ARMREST (Fig.5)

The dual post flip-back armrest can be used as either a flip-back armrest or a removable armrest.

1. Installing armrest:

- Insert front and rear posts (A) into armrest receivers.
- Engage lever (B) and insert the rear safety pin (C).

2. Set-up for flip-back operation:

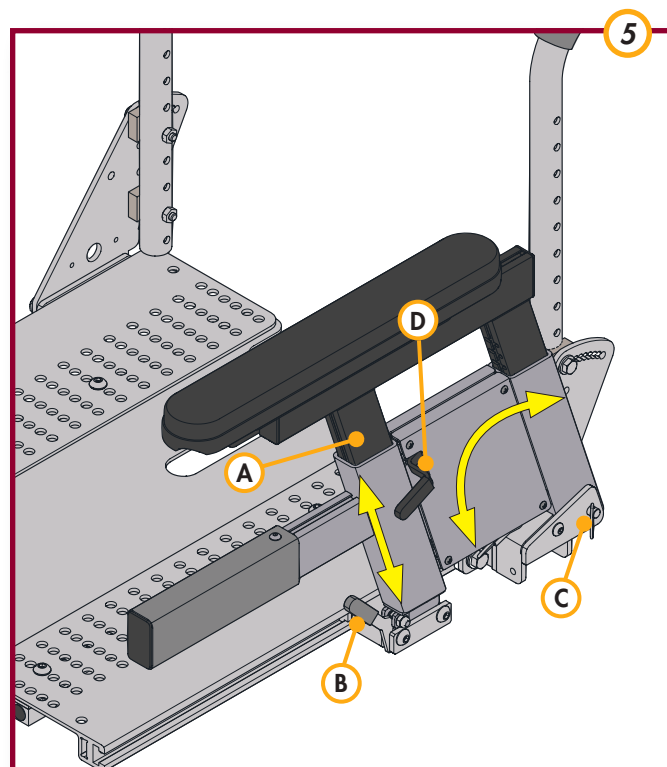
- Disengage lever (B) to free front post (A).
- Armrest now has the ability to be flipped back without removal.

3. Set-up for removal:

- Disengage levers (B) and pull out the rear safety pin (C) to free both front and rear posts (A).
- Armrest can now be easily removed for transferring.

4. Height adjustment:

- Release the upper securing lever (D).
- Set at desired height.
- Return securing lever to locked position.
- Move armrest up or down to allow armrest to snap into place.



I. CANTILEVER AND RECLINING ARMREST

ADJUSTMENT (Fig.6-7)

Both the cantilever and reclining armrests are height adjustable, but they are not removable.

1. Cantilever armrest adjustment: (Fig.6)

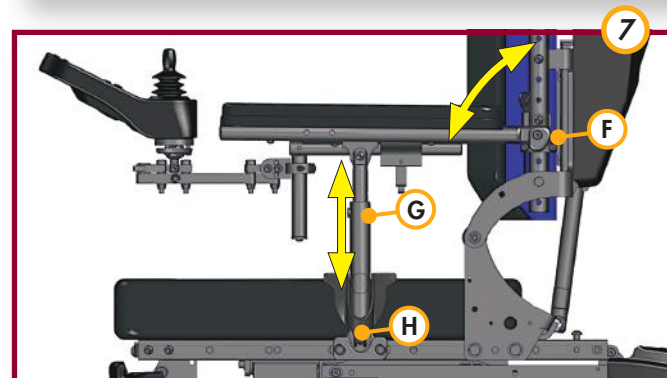
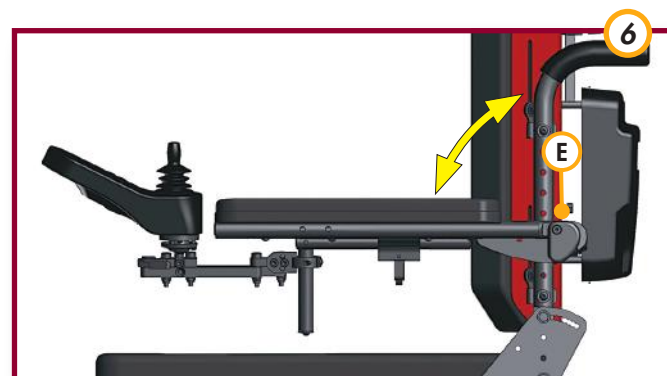
- To adjust, remove the two bolts (E) behind the armrest with 2 7/16" wrench.
- Reposition in the available holes for desired height.
- Retighten bolts (E) on each side.

2. Reclining armrest adjustment on seat frame: (Fig.7)

- To adjust, loosen screws (F) on the collar behind the armrest with a 3/16" Allen key and bolt (G) from the vertical tube.
- Reposition to the desired height.
- Tighten screws (F) on the collar behind the armrest, and install and tighten bolt (G) on the vertical tube.
- To release the armrest, press the release lever (H) towards the inside of the wheelchair, then lift.

⚠ WARNING

Reinstall bolts and tighten them securely.



IX. OPERATING GUIDE

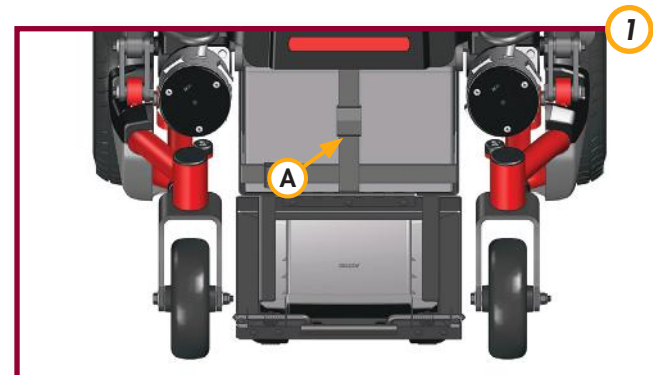
A. BATTERY CABLE AND FUSES (Fig.1)

Your Zippie is equipped with two safety mechanisms which uses a breaker and MIDI style fuses.

NOTE - In the unlikely event of a short circuit or heavy overload, all power to your wheelchair will be shut off. To reset your wheelchair, press the breaker button. Should resetting the breaker not solve the problem, you will need to replace the battery harness which includes the fuses.

To reset the breaker and access the battery harness:

- Squeeze tabs together to open the door.
- Drop the panel down and pull out the batteries (A).
- Reset the breaker or replace the battery harness by following the wiring instructions located inside the battery access door.
- Push the batteries back in the compartment.
- Lock the panel back in its upright position and make sure the tabs are secured on each side of the battery compartment.



Repeated shutdown:

If the power wheelchair continues to pop the breaker or blow the fuses, please have it serviced by your authorized supplier.

B. JOYSTICK ASSEMBLY

The joystick connects to a power module, which controls the power wheelchair's performance. The joystick varies based on the option selected for you.

1. R-Net (option)



2. VR2 joystick



NOTE - Please refer to the Owner's Manual provided with information package.

C. ENHANCED DISPLAY

Please refer to the Enhanced Display Owner's Manual.

NOTE - Use only **SUNRISE** recommended parts.

D. FREEWHEEL RELEASE LEVERS &

BRAKE RELEASE LEVERS (Fig.2-3)

When you need to manually push the power wheelchair, for example in an emergency, or if batteries fail, you must disengage the freewheel/brake release levers. It is recommended to have a person assist you in the following procedure.

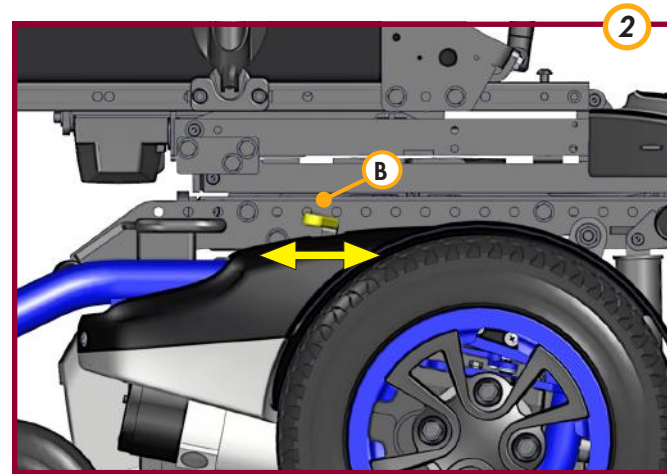
WARNING

1. DO NOT disengage freewheel/brake release levers unless power to the wheelchair is off.
2. Be aware that the power wheelchair will not have braking ability when levers are released, i.e. there is nothing restraining the wheelchair from moving.
3. Make sure that the person pushing the power wheelchair has full control when the freewheel/brake levers are disengaged.

In freewheel position: (Fig.2)

- a) **To disengage levers:**
Pull lever (B)* toward the back to the neutral position to disengage levers.
- b) **To engage levers:**
Push lever (B)* towards the front to engage the levers and return to the drive position.

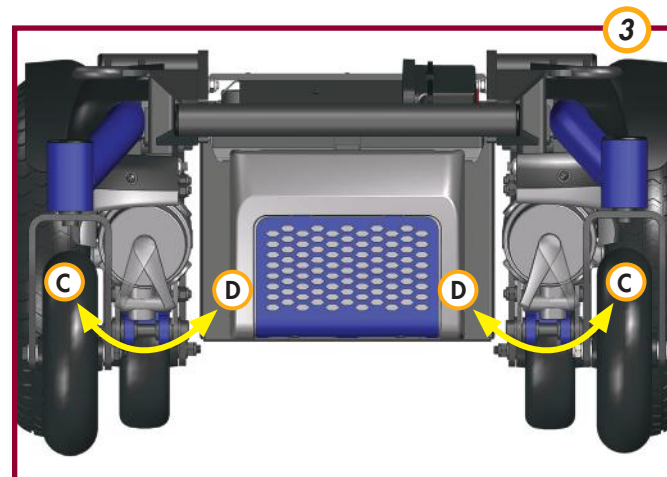
*There is one lever for each motor.



NOTE - For the freewheel position, if levers are difficult to engage or disengage, rock the wheelchair back and forth and/or push against the wheelchair while moving the lever.

For brake release: (Fig.3)

- a) **To disengage levers:**
Rotate both levers toward the outside (C).
- b) **To engage levers:**
Rotate both levers toward the inside (D).

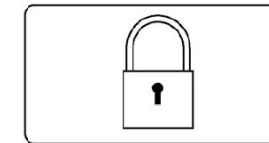


E. LOCKING OR UNLOCKING THE JOYSTICK

To lock with keypad: R-Net and VR2

- While the control system is switched on, depress and hold the on/off button.
- After 1 second the control system will beep. Now release the on/off button.
- Deflect the joystick forward until the control system beeps.
- Release the joystick, there will be a long beep.
- The power wheelchair is now locked.

NOTE - The following screen will be displayed the next time the Control System is switched on.

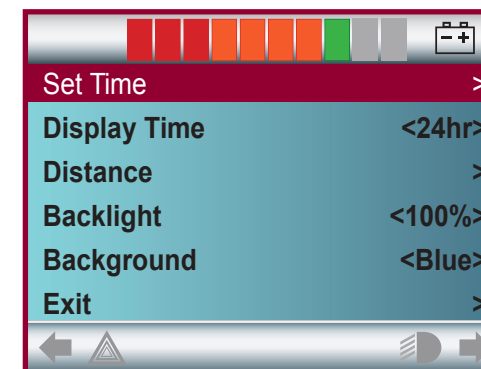
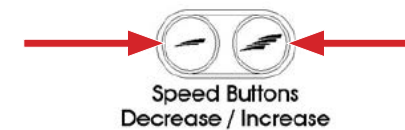


To unlock with keypad: R-Net and VR2

- Press the power button to turn the power wheelchair on.
- Deflect the joystick forward until the control system beeps.
- Deflect the joystick in reverse until the control system beeps.
- Release the joystick, there will be a long beep.
- The power wheelchair is now unlocked.

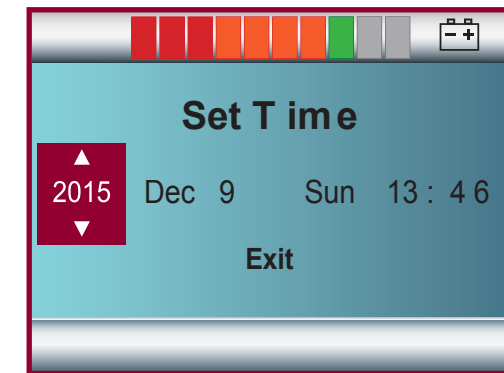
F. DISPLAY SETTINGS FOR R-NET COLOR MODELS

- The settings menu is accessed by depressing the Speed Down and Speed Up buttons simultaneously. A right joystick deflection will enter the clock adjustment screen.

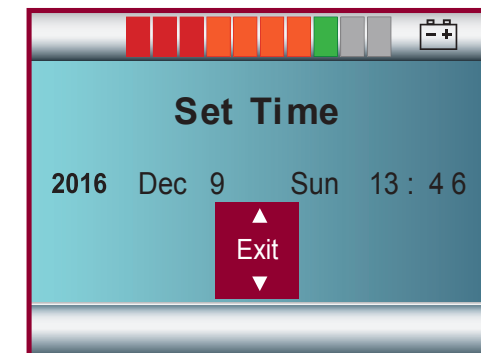


Set time and date:

- Further joystick deflections are used to set the time and date.

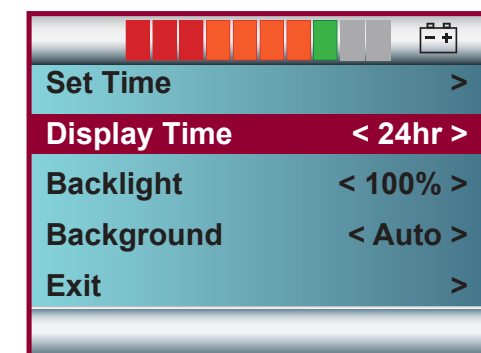


- Once you are done with the settings, just select exit and move the joystick accordingly.



Display time:

- This sets the format of the time display or turns it off.
- The options are 12hr, 24hr or Off. Left and right joystick deflections are used to cycle through the options.



G. PERFORMANCE CONTROL SETTINGS

NOTE - Seek advice regarding checking and adjusting settings. It is vital to match control settings to your level of function and ability.

Consult your health care professional and your authorized supplier to select the best control setting for you. For your safety, have the settings on your power wheelchair verified when your environment or level of function and ability change.

WARNING

Have your control settings re-adjusted immediately if you notice any change in your ability to:

- Control the joystick.
- Avoid running into objects.

NOTE - Control settings are adjusted by your SUNRISE MEDICAL authorized supplier.

H. THERMAL ROLL-BACK

Your power wheelchair has a thermal roll-back circuit. This protects the power module from damage caused by overheating. In extreme conditions (such as repetitive hill climbing), the circuit will decrease the power to your motors. This allows the power wheelchair to operate at a reduced speed. When the power module cools, the wheelchair will return to normal speed.

I. POWER SEATING OPERATION THROUGH THE JOYSTICK

The power tilt, reclining backrest, elevating seat power elevating and articulating center mount or legrest features can be operated using the joystick on your power wheelchair.

1. 6-Key VR2 joystick:

(Activates power tilt or seat elevate only)



- For tilt or seat elevate operation through this joystick, you must press the actuator button to access seating options.
- Once you have accessed the seating mode on your joystick, you must deflect the joystick backward to activate the power option, and deflect the joystick forward to return to the static mode.

2. R-Net EL joystick:

(Activates multiple power options)



- For power seating operation through this joystick, you must press the mode button to access seating options.
- Once you have accessed the seating mode on your joystick, you must toggle left or right until the light showing the power option you want to activate turns on.
- Once you have accessed the seating mode on your joystick, you must deflect the joystick backward to activate the power option, and deflect the joystick forward to return to the static mode.
- When equipped with lighting option, press the light button to turn on or off.

3. R-Net color joystick:

(Activates multiple power options)



- For power seating operation through this joystick, you must press the mode button to access seating options.
- Once you have accessed the seating mode on your joystick, you must toggle left or right until the icon showing the power option you want to activate turns on.
- Once you have accessed the seating mode on your joystick, you must deflect the joystick backward to activate the power option, and deflect the joystick forward to return to the static mode.
- When equipped with lighting option, press the light button to turn on or off.

4. R-Net advanced joystick with 3.5" screen*:

(Activates multiple power options)



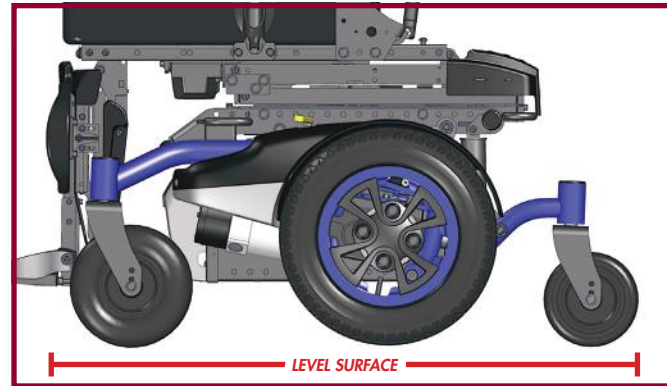
- For power seating operation through this joystick, you must press the mode button to access seating options.
- Once you have accessed the seating mode on your joystick, you must toggle left or right until the icon showing the power option you want to activate turns on.
- Once you have accessed the seating mode on your joystick, you must deflect the joystick backward to activate the power option, and deflect the joystick forward to return to the static mode.
- When equipped with lighting option, press the light button to turn on or off.
- For details on Bluetooth pairing and operation, please review the quick guide document and the PG Manual.

J. POWER TILT OPERATION

(Standard operating instructions)

⚠ WARNING

Make sure the power wheelchair is on a **level surface** before proceeding with tilt mode.



1. SINGLE ACTUATOR TOGGLE SWITCH

Increasing tilt angle

Pull the toggle switch (located next to the wheelchair joystick) backward until the desired tilt angle is achieved, then release.



Decreasing tilt angle

Release the toggle switch to the neutral position for at least 1 second and push the toggle switch (located next to the wheelchair joystick) forward until the desired tilt angle is achieved, then release.



2. DRIVE LOCK-OUT

Drive lock-out is a safety feature designed to prevent the power wheelchair from being driven while in a tilt angle over 15° relative to the horizontal position.

⚠ DANGER

Never operate the power wheelchair while in tilt with an angle over 15° relative to the horizontal position. If the drive lock-out does not stop the wheelchair from operating when in a tilt angle over 15°, have it or the power tilt system serviced by an authorized supplier or qualified technician.

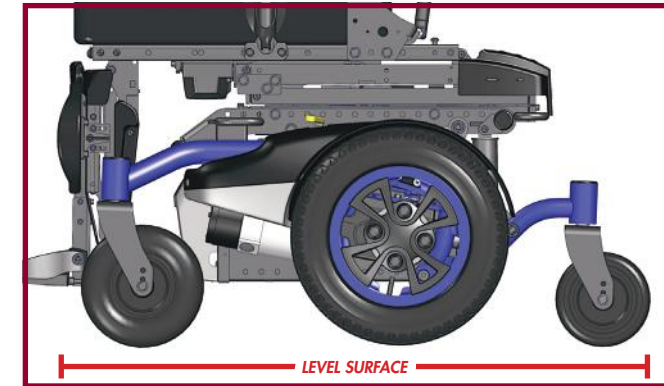


K. POWER SEAT ELEVATOR OPERATION

(Standard operating instructions)

⚠ WARNING

Make sure the power wheelchair is on a **level surface** before proceeding with elevate mode and drive in reduced speed while elevated.



1. SINGLE ACTUATOR TOGGLE SWITCH

Increasing seat height

Pull the toggle switch (located next to the wheelchair joystick) backward until the desired height is achieved, then release.



Decreasing seat height

Release the toggle switch to the neutral position for at least 1 second and push the toggle switch (located next to the wheelchair joystick) forward until the desired height is achieved, then release.



2. DRIVING IN REDUCED SPEED

Reduced drive speed is a feature designed to allow the user to drive the wheelchair at a reduced speed while lifted up to 11" (280 mm). When elevated, the drive speed is then reduced to 25% of its original setting. Full drive speed is achieved when the seat elevator is down to its lowest position.

⚠ DANGER

Never operate the seat elevator when the power wheelchair is on any slope. In reduced speed, the wheelchair must be driven on a level surface. If the reduced speed does not slow the wheelchair's drive speed to 25% of its original settings, have it or the power seat elevate system serviced by an authorized supplier or qualified technician.



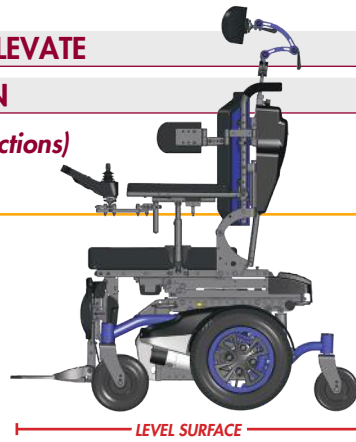
L. POWER TILT/SEAT ELEVATE

COMBO OPERATION

(Standard operating instructions)

WARNING

Make sure the power wheelchair is on a **level surface** before proceeding with either Tilt or Elevate mode and drive in reduced speed while elevated.



Tilt and Seat Elevate options are programmed to operate separately. The ability to tilt while the seat elevator is elevated is not possible. Bypassing this programming may cause severe injury.

1. DUAL ACTUATOR TOGGLE SWITCH

Increasing/decreasing seat height

Pull the toggle switch (located next to the wheelchair joystick) backwards until the desired height is achieved, then release. To change direction, release the toggle switch to the neutral position for at least 1 second, and pull the toggle switch backwards in the same direction until you achieve the desired height, then release.



Increasing/decreasing tilt angle

Push the toggle switch (located next to the wheelchair joystick) forward until the desired tilt angle is achieved, then release. To change direction, release the toggle switch to the neutral position for at least 1 second, and push the toggle switch forward in the same direction until you achieve the desired tilt angle, then release.



2. DRIVING IN REDUCED SPEED

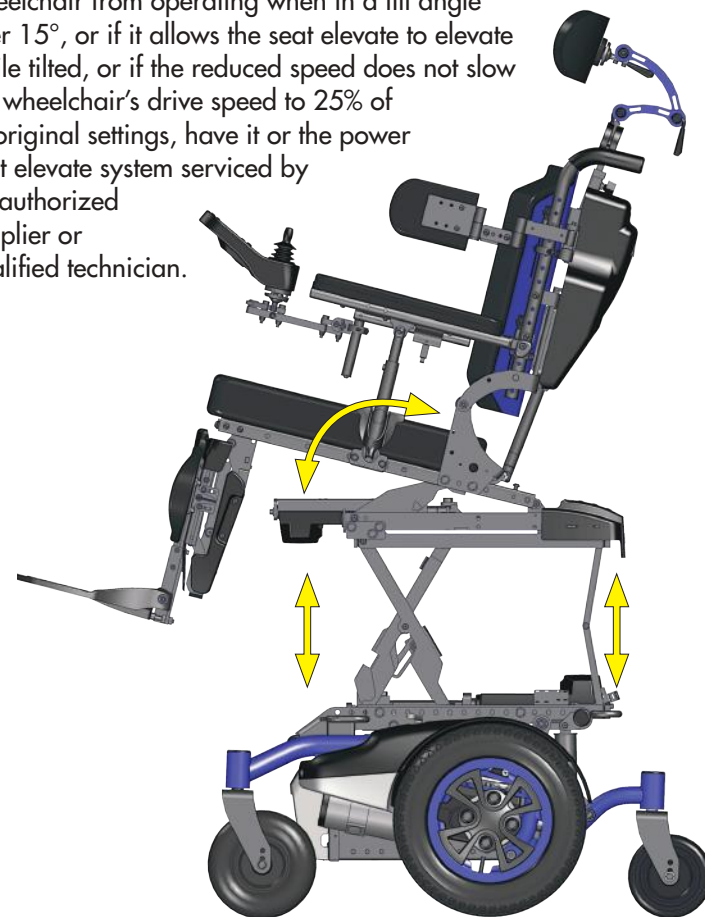
Reduced drive speed is a feature designed to allow the user to drive the wheelchair at a reduced speed while elevated up to 11" (280 mm). When elevated, the drive speed is then reduced to 25% of its original setting. Full drive speed is achieved when the seat elevate is down to its lowest position.

3. DRIVE LOCK-OUT

Drive lock-out is a safety feature designed to prevent the power wheelchair from being driven while in a tilt angle over 15° relative to the horizontal position.

DANGER

Never operate the wheelchair while in tilt mode over 15° relative to the horizontal position. Never operate the seat elevate when the wheelchair is on any slope. In reduced speed, the power wheelchair must be driven on a level surface. If the drive lock-out does not stop the wheelchair from operating when in a tilt angle over 15°, or if it allows the seat elevate to elevate while tilted, or if the reduced speed does not slow the wheelchair's drive speed to 25% of its original settings, have it or the power seat elevate system serviced by an authorized supplier or qualified technician.



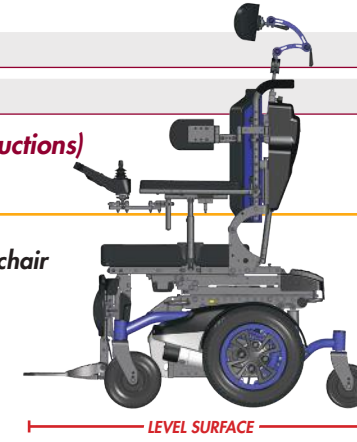
M. POWER TILT

OPERATION

(Standard operating instructions)

WARNING

Make sure the power wheelchair is on a **level surface** before proceeding with Tilt mode.



FOUR-WAY TOGGLE

Increasing tilt angle

Push the four-way toggle switch forward until the desired tilt angle is achieved and release.



Decreasing tilt angle

To reverse the tilt angle direction, release the four-way toggle switch to the neutral position for at least 1 second and push the four-way toggle switch forward until the desired tilt angle is achieved and release.

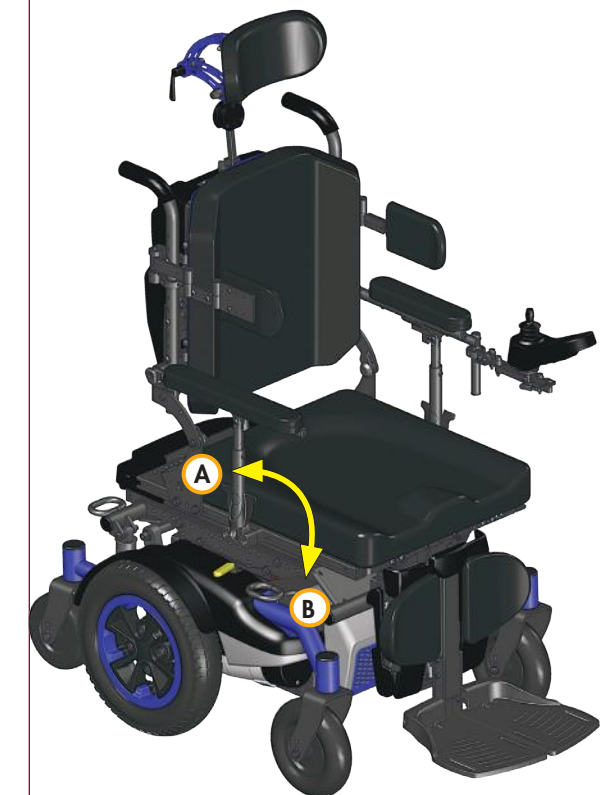
PUSH BUTTON SWITCHES

Increasing tilt angle

Push the 1st button (furthest from the wire) until the desired tilt angle is achieved and release.

Decreasing tilt angle

To reverse the tilt angle direction, release the 1st button to the neutral position for at least 1 second and push the same button until the desired tilt angle is achieved and release.



N. POWER RECLINE OPERATION

(Standard operating instructions)

WARNING

Make sure the power wheelchair is on a **level surface** before proceeding with recline mode.

FOUR-WAY TOGGLE

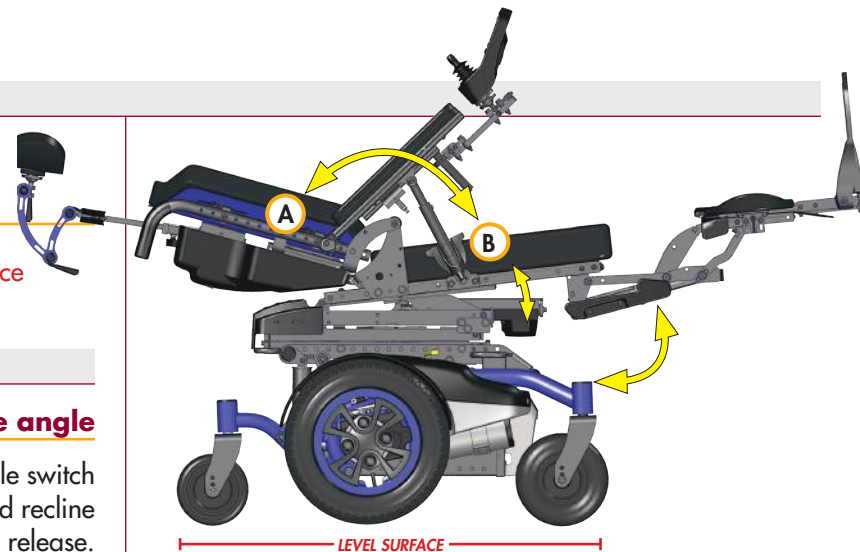


Increasing recline angle

Pull the four-way toggle switch back until the desired recline angle is achieved and release.

Decreasing recline angle

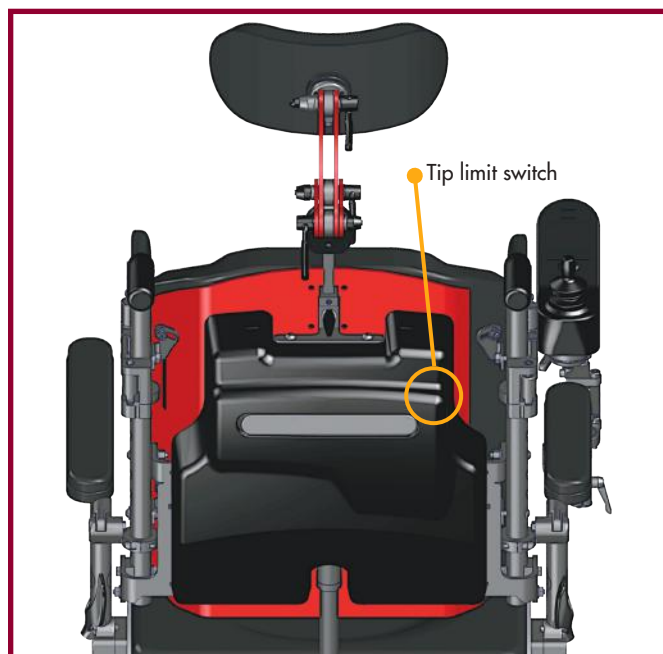
To reverse the recline angle direction, release the four-way toggle switch to the neutral position for at least 1 second and pull the four-way toggle switch back until the desired recline angle is achieved and release.



TIP LIMIT SWITCH

When equipped with a tilt and power or manual recline combination, your power wheelchair will include a tip switch located inside the shroud, on the right side of the power wheelchair. The purpose of the tip switch is to control the combination of the total tilt/recline angle.

This tip switch can be manually turned to change the total tilt/recline angle to a desired or comfortable level for the user. The total tilt and recline angle should never exceed the horizontal plane (180°). Technicians must watch for a possible tilt actuator behind the seat that would reduce the total tilt/recline limit. The total tilt and recline angle should be limited prior to contact between the shroud and the tilt actuator.



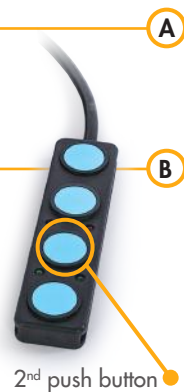
PUSH BUTTON SWITCHES

Increasing recline angle

Push the 2nd button until the desired recline angle is achieved and release.

Decreasing recline angle

To reverse the recline angle direction, release the 2nd button to the neutral position for at least 1 second and push the same button until the desired recline angle is achieved and release.



O. POWER ELEVATING FRONT RIGGINGS OPERATION

(Standard operating instructions)

WARNING

Make sure the power wheelchair is on a **level surface**.

INCREASING & DECREASING THE LEFT LEGREST ANGLE



Four-way toggle



Move the four-way toggle switch towards the left side of the wheelchair until the desired legrest angle is achieved. To reverse the legrest angle direction, release the four-way toggle switch to the neutral position for at least 1 second and move the four-way toggle switch towards the left side of the wheelchair until the desired legrest angle is achieved.

Push button switches

Push the 3rd button until the desired legrest angle is achieved and release. To reverse the legrest angle direction, release the 3rd button to the neutral position for at least 1 second and push the same button until the desired legrest angle is achieved and release.



WARNING

Make sure the power wheelchair is on a **level surface**.

INCREASING & DECREASING THE RIGHT LEGREST ANGLE



Four-way toggle



Move the four-way toggle switch towards the right side of the wheelchair until the desired legrest angle is achieved. To reverse the legrest angle direction, release the four-way toggle switch to the neutral position for at least 1 second and move the four-way toggle switch towards the right side of the wheelchair until the desired legrest angle is achieved.

Push button switches

Push the 4th button (closest to the wire) until the desired legrest angle is achieved and release. To reverse the legrest angle direction, release the 4th button to the neutral position for at least 1 second and push the same button until the desired legrest angle is achieved and release.



O. POWER ELEVATING FRONT RIGGINGS (CONT.)

(Standard operating instructions)

⚠ WARNING

Make sure the power wheelchair is on a **level surface**.

INCREASING & DECREASING THE POWER CENTER MOUNT



Four-way toggle



Move the four-way toggle switch towards the left side of the wheelchair until the desired center mount angle is achieved. To reverse the center mount angle direction, release the four-way toggle switch to the neutral position for at least 1 second and move the four-way toggle switch towards the left side of the wheelchair until the desired center mount angle is achieved.

Push button switches

Push the 3rd button until the desired center mount angle is achieved and release. To reverse the center mount angle direction, release the 3rd button to the neutral position for at least 1 second and push the same button until the desired center mount angle is achieved and release.

3rd push button switch



P. ADJUSTMENTS

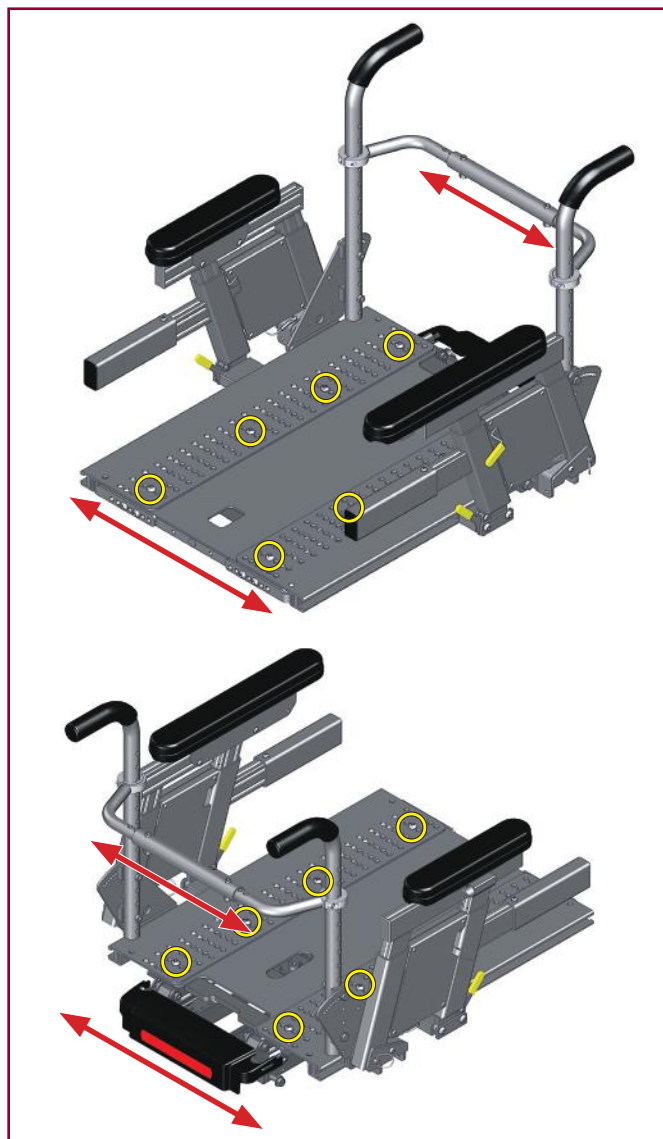
SEAT - WIDTH ADJUSTMENT

Unscrew and remove the 6 to 8 screws located on top of the seat pan with 3/16" Allen key and, then equally adjust the seat width to the desired width and put screws back in place.

NOTE - The width adjustment must also be made on the rear cross tubes that hold the back canes and seat laterally. Use a 3/16" Allen key with 7/16" wrench to remove the 2 bolts.

⚠ WARNING

At all times, the screws holding the seat plates and back cross tube must be screwed in tightly and securely in order to avoid severe injury and/or damage to the seating system.



P. ADJUSTMENTS (CONTINUED)

SEAT - DEPTH ADJUSTMENT (Fig.1)

Two seat frames are available that allow for depth adjustment. The short frame range is up to 19" (480 mm) deep and the long frame range is up to 22" (560 mm) deep.

The seat depth can be adjusted in one inch increments on standard rehab seating for all seat frames.

- To adjust, loosen the three bolts (A) on the backrest pivot plate on each side of the seat with 1/2" wrench.
- Remove bolts linking the back to the seat pan.
- Reposition the seat to the desired position.
- Retighten bolts on each side of the backrest pivot plate, and tighten the bolts that link the back to the seat pan.

⚠ WARNING

At all times, the three screws on each side holding the side plates must be screwed in tightly and securely in order to avoid severe injury and/or damage to the seating system.



BACK - ANGLE ADJUSTMENT (Fig.2)

Using the series of slotted holes provided on each side plate, increase or decrease the back angle by loosening the screw from each side plate and adjust them equally to the desired angle.

- Remove top securing bolt (B) on the side of the backrest pivot plate with 5/32" Allen key and 7/16" wrench.
- Loosen the lower rear bolt (C).
- Set at desired angle. There are ten holes (in 4° increments) to choose from.

⚠ WARNING

At all times, the screws on each side holding the back canes must be screwed in tightly and securely in order to avoid severe injury and/or damage to the seating system.



ADJUSTING THE CENTER OF GRAVITY (Fig.3)

Due to the variety of seat measurements and modular power options available on various power wheelchairs, SUNRISE MEDICAL offers many adjustments to meet individual user needs. Proper adjustment of the center of gravity is critical for patient safety and power wheelchair performance. To adjust the center of gravity, unscrew the bolts on each side of the main adaptors and adjust the system for optimal performance with 1/2" wrench.

⚠ WARNING

At all times, the screws on each side holding the main system must be screwed in tightly and securely in order to avoid severe injury and/or damage to the seating system.

⚠ WARNING

Before delivering a SUNRISE MEDICAL product, the authorized supplier and clinician must verify, while the user is sitting in the seating system, that the center of gravity and overall stability of the power wheelchair is maintained and optimal in all combinations of tilt, recline or elevation.



P. ADJUSTMENTS (CONTINUED)

MULTI-AXIS HEADREST

The multi-axis headrest has a pivot ball at the bottom to allow up to 3" (75 mm) of lateral movement. The kit is supplied with additional hardware consisting of nuts and bolts to replace the quick latch system if desired. It also comes with a second vertical bar that can add another 2" (50 mm) of movement in all directions.

NOTE - When pushing the quick latch back in, it should be hard and stiff to close down. It should leave a pressure mark on your palm. If it still moves after that, repeat by tightening the nut, not the latch. The first time it is tightened, usually the star washer on the inside will "break" the paint. The second time, it will be firmly set into the metal and hold well.

If it is still not tight enough, you can use the replacement nuts and bolts supplied with every headrest to lock it into place.



Q. TROUBLESHOOTING GUIDE

FOR POWER SEATING		
SYMPTOM	Possible Causes	How to fix this
Nothing works!	<ul style="list-style-type: none"> No batteries in your wheelchair 24V power cable disconnected Fuse is burned Control switch is defective Breaker has popped 	<ul style="list-style-type: none"> Check batteries Verify all connections Verify and/or replace battery cables Reset the breaker
Actuator is noisy when going up or down	<ul style="list-style-type: none"> Defective actuator Mechanical restraint 	<ul style="list-style-type: none"> Make sure the seat is aligned well and doesn't interfere with the rear of the power tilt actuator when tilting Check for and remove mechanical restraints
Actuator is going only in one direction	<ul style="list-style-type: none"> Wrong programming Cable connected in wrong location Pinched cables 	<ul style="list-style-type: none"> Verify electrical assembly and programming thoroughly If problem persists, call SUNRISE technical support for further instructions
Relays can be heard, but actuator does not operate	<ul style="list-style-type: none"> Actuator not connected to power module Defective actuator Defective power module Pinched cables 	<ul style="list-style-type: none"> Verify electrical connection assembly and programming thoroughly Verify if cables are pinched If problem persists, call SUNRISE technical support for further instructions
Fuse burns or breaker pops repeatedly	<ul style="list-style-type: none"> Mechanical restraint Short circuit in one of the cables Defective power module 	<ul style="list-style-type: none"> Verify mechanical assembly thoroughly If problem persists, call SUNRISE technical support for further instructions
Drive lock-out switch, tip switch or reduce drive switch do not work properly	<ul style="list-style-type: none"> Wrong programming Cable connected in wrong location Drive lock-out switch is unplugged or defective Reduced drive switch is unplugged or defective Tip switch is unplugged or defective. Pinched cables 	<ul style="list-style-type: none"> Verify proper mechanical operation of limit switches. Verify electrical assembly and programming thoroughly Verify if cables are pinched If problem persists, call SUNRISE technical support for further instructions
Charger fuse burns every time an attempt is made to charge the batteries	<ul style="list-style-type: none"> Wrong charger is used Trouble with the power interfacing cable 	<ul style="list-style-type: none"> Make sure you are using the battery charger provided with your wheelchair Verify all cables

X. BATTERIES

A. INTRODUCTION

1. Notes -

- Batteries supply the power for your wheelchair. They contain a finite amount of energy and have limits on how long they can store and supply energy.
- You can charge batteries only a certain number of times before they will fail and no longer hold a charge.
- For answers to questions about batteries, consult your authorized supplier.

2. Use proper batteries:

- Your power wheelchair operates on two 12 volt deep cycle, AGM- or gel-type batteries.
- They should be Group 24 (or 22NF) size with a minimum of 50 ampere hour rating. Only deep cycle sealed case construction batteries should be used in this device.
- When you buy a replacement, insist on a deep cycle sealed case type. DO NOT use a car starter battery.

3. Breaking in:

- A battery requires "breaking-in" for the first 6 to 12 charges. It will not accept a full charge for this period.
- It is best to limit the length of your trips until you break the batteries in and you know the range of your power wheelchair.

4. Discharged batteries:

- NEVER allow a battery to completely discharge. If you operate your power wheelchair until it has almost stopped, you will greatly reduce the life of your batteries.
- NEVER let a battery sit in a discharged condition. Give unused or stored batteries a full charge once per month.
- ALWAYS fully charge the batteries. Avoid "topping off" with frequent charges.

WARNING

NEVER connect a life support or auxiliary device to a power wheelchair battery. The electrical system may fail, and result in severe injury or death of user.

B. BATTERY CHARGER

A battery charger produces a direct current (DC). When applied to a discharged battery, this reverses the chemical reaction that led to its discharge.

1. Charge rate. How fast a battery will charge depends on:

- Its electrical capacity, state of charge, electrolyte temperature, and internal condition.
- The DC output of the charger. (The charge rate will vary if the alternating current (AC) supply is higher or lower than 110 volts).

2. Caution — To avoid damage to the charger:

- NEVER place the charger on top of a battery during charging. (Gases from the battery can damage the charger and may lead to an explosion or fire).
- NEVER place a battery on top of the charger.
- NEVER expose charger to rain or snow.
- NEVER unplug charger by pulling on the electrical cord. This will damage the cord.
- NEVER open a charger or attempt to repair it yourself. Return a defective charger to your authorized supplier.
- Keep cord out of the way, where it will not be stepped on, tripped over, or damaged.

3. Caution — To avoid damage to the battery:

- Make sure you use the correct setting for sealed (gel) batteries (located on the off-board charger).
- NEVER charge a frozen battery. A fully charged battery will rarely freeze, but the fluid in a discharged battery can freeze at 16° Fahrenheit (minus 9° Centigrade). If you suspect a battery is frozen, thaw it before charging.

WARNING

Lead acid batteries generate explosive gas while charging. Completely read and follow all warnings on batteries in this Owner's Manual and any labels applied to the product. Not doing so, could result in fire, explosion, injury and/or death.

⚠ WARNING

- Batteries weigh up to 55 lb (25 kg) each. Use caution when lifting them to and from the compartment to avoid back strain.
- Connect and disconnect battery cables with caution. Connect the red lead to the positive terminal and the black lead to the negative terminal. Do this for each battery.
- Review the label inside the battery door cover.

🚫 PROHIBITED!

NEVER make direct contact across both battery terminals, as an explosion may occur. A spark may result in an explosion and/or fire resulting in severe injury or death.

⚠ WARNING

C. CHARGING BATTERIES

To avoid the risk of severe injury or death from electrical shock, fire or explosion while charging:

🚫 PROHIBITED!

NEVER connect charger to a 240 volt source. The main input voltage is 110 volts.

⚠ WARNING

NEVER touch the charger after it is connected to an electrical outlet. This may cause electrical shock.

- NEVER connect or disconnect the charger from the joystick or OMNI display while there is power to the charger.

⚠ WARNING

1. NEVER use an extension cord. Use of an improper cord could damage the charger or cause a fire or electrical shock.
2. A battery emits explosive hydrogen gas during charging. To reduce the risk of fire or explosion:
 - Make sure area is well ventilated. NEVER charge battery in a closed-in area.
 - NEVER smoke or allow a spark, flame or high heat near battery during charging.
 - NEVER allow metal tools or power wheelchair parts to make direct contact across both battery terminals.

ALWAYS:

1. Use the charger that comes with your power wheelchair. Read and follow all instructions and warnings.
2. Make sure room is well ventilated.
3. Turn off all power to your wheelchair.
4. Connect and disconnect battery cables with caution.

NOTE - ALWAYS remove and reattach the negative cable (black cable) first.

5. Make sure to allow enough time to fully charge batteries.

NOTE - Batteries should NEVER be left for a long period in the discharged state. Unused or stored batteries should be given a charge once per month.

6. To charge batteries, use the off-board charger by plugging it into the the joystick or OMNI display (optional).

⚠ WARNING

D. DISPOSING OF BATTERIES

1. All batteries once they have reached the end of their useful life are deemed to be hazardous waste.
2. For further information on handling and recycling contact your local recycling authority.
3. ALWAYS dispose of product through a recognized agent.

XI. MAINTENANCE

A. NOTES

1. Proper maintenance will improve performance and extend the life of your power wheelchair.
2. Clean your power wheelchair regularly. This will help you find loose or worn parts and will make it easier to use.
3. To protect your investment, have all major service and repair work done by your authorized supplier.

⚠ WARNING

1. Your power wheelchair needs regular maintenance for peak performance and to avoid injury from break down, damage or premature wear.
2. Inspect and maintain this power wheelchair strictly per the Maintenance Chart on **page 41**.
3. If you detect a problem, make sure to service or repair the power wheelchair before use.
4. At least once a year, have an authorized supplier service your power wheelchair and perform a complete safety check.

B. CLEANING

1. **Paint finish:**
 - Clean the paint finish with mild soapy water monthly.
 - Protect the paint with a coat of non-abrasive auto wax every 6 months.
2. **Motors:**
 - Clean around motor area weekly with a slightly damp (not wet) cloth.
 - Wipe off or blow away any fluff, dust, or dirt on or around the motors.

NOTE - You do not need to grease or oil any part of the power wheelchair except as specified in this Owner's Manual.

3. **Upholstery:**

- Hand-wash only as needed. Machine washing may damage fabric. See label instructions for information.
- Drip-dry only. Heat from a dryer may damage fabric.

NOTE - Washing the fabric may decrease fire retardant properties.

C. DISINFECTING

Many disinfecting products are commercially available and must be used as per the manufacturer's instructions. Before using on the wheelchair, test on a small area to ensure the disinfection product is compatible with the wheelchair materials.

NOTE - SUNRISE MEDICAL takes no responsibility for the effectiveness of the disinfecting process, for contamination, cross infection or damage to the product.

D. STORAGE TIPS

1. Store your power wheelchair in a clean, dry area. If you do not, parts may rust or corrode.
2. Before using your power wheelchair, make sure it is in proper working order. Inspect and service all items according to the Maintenance Chart on **page 41**.
3. If you store this power wheelchair for more than three months, have it inspected by an authorized supplier before use.

⚠ WARNING

E. BATTERY MAINTENANCE

1. **Maintenance schedule:**

This varies for different types of batteries. ALWAYS follow instructions supplied with your batteries.

NOTE - ALWAYS wear rubber gloves and safety glasses when you handle or service batteries.

2. **Corrosion:**

Check battery terminals often for corrosion.

- a) If corrosion is present, use a wire brush to clean the terminals.
- b) Use baking soda to neutralize acid.
- c) Use petroleum jelly (Vaseline) to re-grease the terminals after connecting cable to battery. (Completely cover the terminal nut and bolt, cable clip and any exposed cable with jelly).

3. **For answers to questions:**

Contact your authorized supplier.

WARNING

F. PNEUMATIC TIRES

- DO NOT use this power wheelchair if any of the tires are under- or over-inflated.
- Low pressure in a tire may cause the power wheelchair to veer to one side and result in loss of control.
- An over-inflated tire may burst.
- NEVER use a gas station pump to inflate a tire. Such pumps provide air at high volume, and may cause tire to burst.
- Check weekly for signs of wear and correct air pressure in pneumatic tires.
- For best performance, inflate tires at a maximum pressure level, as shown on the tire sidewall.

CAUTION

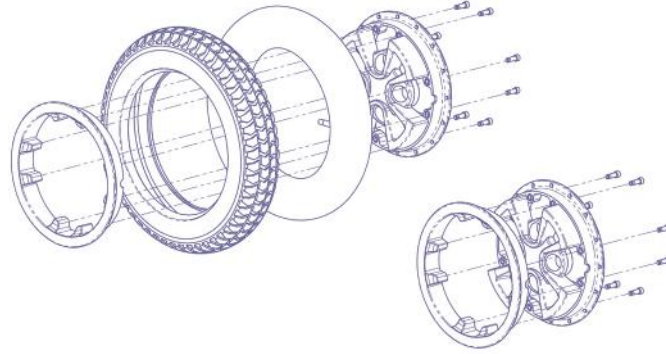
To prevent tire damage:

Use a hand pump (or a low volume air pump) to inflate tires. Use a tire gauge to check pressure.

WARNING

G. TO REPAIR OR REPLACE A TIRE

Residual air pressure in tires can cause severe injury. Make sure you release all air in tire before attempting to service or repair tires.



- 6" (135 mm) castor wheels:**
 - Remove castor wheel from fork using a 1/2" (12 mm) wrench.
 - Remove four bolts from rim using a # 3 Phillips screwdriver. Separate two halves of rim.
 - Replace tire.
 - Reassemble the castor wheel making sure the bearing spacer is in place and all four bolts are well tightened.
 - Mount castor wheel onto fork. Install washers correctly, and tighten bolts.
- 14" and 12.5" drive wheels:**
 - Elevate and securely support power wheelchair so that wheel is off the ground. **Release all air from tire.**
 - Remove four (4) lug nuts from rim using a 5/8" socket wrench.
 - Make sure all air has been removed from tire.** Remove the eight bolts inside the rim with a 5 mm Allen key. Separate two halves of rim.
 - Repair or replace inner tube. Reassemble the wheel.
 - Inflate tire to proper pressure level (Shown on tire sidewall).

H. HOW TO CHANGE CASTER FORKS

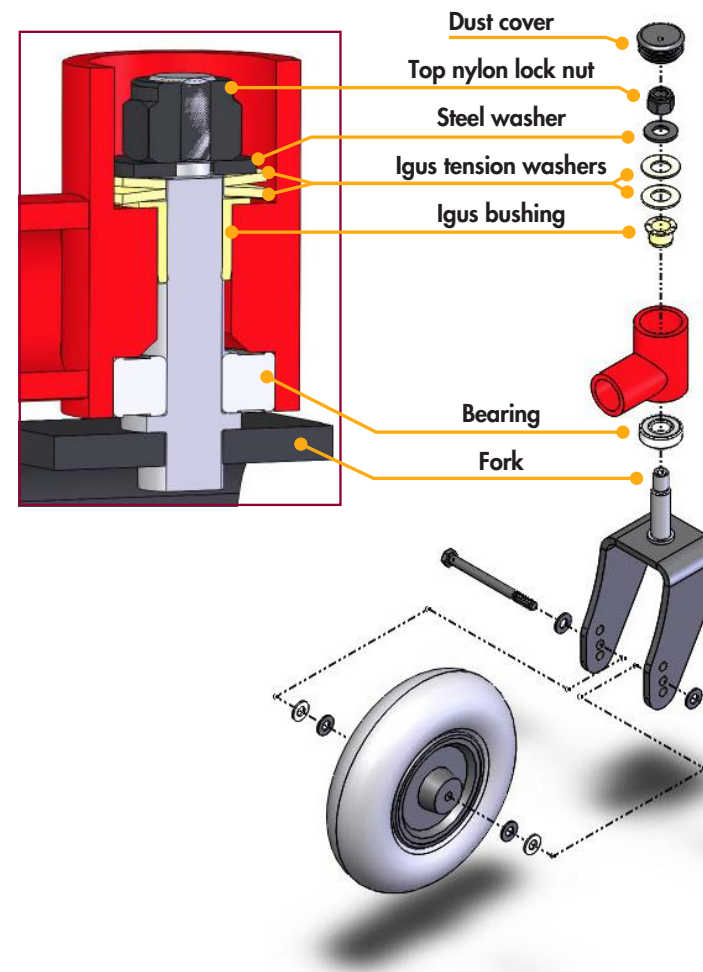
- With flat head screwdriver, gently remove dust cover.
- Using a 3/4" socket, remove top nylon lock nut.
- Remove all parts and pull fork downwards.

NOTE - Be sure to remove all residue before reinstalling parts. It is strongly recommended to replace all parts at the same time. NEVER use any kind of lubricant or grease in the fork housing.

- Reinstall parts.

NOTE - It is important to ensure that the two Iglas tension washers are installed back-to-back as shown in the illustration below. Only this configuration provides the proper pressure on the fork stem.

- Tighten nylon lock nut.
- Replace dust cover.



I. MAINTENANCE CHART

Ensure that all items on the list below are performed according to frequency indicated. If any of the items are loose, worn, bent or distorted, immediately have them checked and/or repaired by your authorized SUNRISE MEDICAL supplier. Frequent maintenance and servicing will improve performance, extend power wheelchair life, and help prevent injuries.

FREQUENCY	Daily	Weekly	Monthly	Quarterly	Annually
Charge batteries	X		X*		
Check tires for proper inflation level and wear		X			
Check plugs and connectors for proper connections			X		
Check all moving parts for wear				X	
Inspect all nuts, bolts and fasteners for looseness or wear				X	
Inspect upholstery for wear				X	
Inspect bearings, pivot points and bushings				X	
Service by authorized supplier					X

*If stored

J. ORDERING PARTS

When you order parts, provide the following:

- Model of power wheelchair,
- Serial number,
- Left hand or right hand control,
- Part number, description and quantity of parts you need,
- State reason for replacement,
- User weight and height.

XII. SUNRISE MEDICAL - LIMITED WARRANTY

1. LIMITED WARRANTY

SUNRISE MEDICAL warrants components of this wheelchair against defects in materials and workmanship from the user's original date of purchase. An invoice, as proof of purchase, may be required.

WARRANTY

- Five (5) years: base frame, seat frame, interface brackets, and structural components
- Two (2) years: all electronic components, and actuators (tilt, recline, lift, power legs)
- Eighteen (18) months: motors / gearbox
- Ninety (90) days: wheels, upholstery, plastic or rubber parts, & painted surfaces
- Six (6) months: all other original components

2. REPLACEMENT PARTS LIMITED WARRANTY

If an item is replaced under warranty, that item's new warranty period shall be the greater of the remaining original item's warranty or the time period shown below.

- One (1) year: base frame, seat frame, interface brackets, and structural components
- Six (6) months: motors / gearbox, all electronic components, and actuators (tilt, recline, lift, power legs)
- Thirty (30) days: wheels, upholstery, plastic or rubber parts, & painted surfaces
- Ninety (90) days: all other original components

NOTE - Warranty may vary from province to province.

3. WHAT WE WILL DO

Our sole liability is to repair or replace covered parts. This is your only remedy for consequential damages.

4. WHAT YOU MUST DO

- Return the warranty card.
- Pay the cost of labour to install or repair parts.

5. WHAT YOUR SUPPLIER MUST DO

- Obtain from **SUNRISE MEDICAL**, while the warranty is in effect, prior approval for return or repair of covered parts. Contact Customer or Technical Service for a Return Material Authorization (RMA) number.
- Return the wheelchair or part(s), freight pre-paid.

SUNRISE MEDICAL CANADA INC.
237 Romina Drive, Unit 3
Concord ON L4K 4V3
CANADA

6. NOTICE TO CONSUMER

There are no other express warranties. To the extent permitted by law, any implied warranty (including a warranty of merchantability or fitness for a particular purpose) is limited to:

- Two (2) years from the first consumer purchase.
- Repair or replacement of the defective part only.

This warranty gives you certain legal rights. You may also have other rights that vary from province to province.

NOTE - Warranty may vary from province to province.

XIII. DISCLAIMER AND WARRANTY

This warranty is extended only to the original purchaser/ user of our products.

This warranty gives you certain legal rights. You may also have other rights that vary from province to province.

1. DISCLAIMER

SUNRISE MEDICAL makes no claims as to the therapeutic effectiveness of the products. Our only claims relate to the ability of the products to provide safe and reliable powered repositioning on the equipment onto which they are installed.

2. LIMITED WARRANTY

This warranty does not include any labour or shipping charges incurred in replacement part installation or repair of any such product. **SUNRISE MEDICAL's** sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

The sole obligation of **SUNRISE MEDICAL** under this warranty shall be to repair or replace any component or components which are found to be defective. For warranty service, contact the authorized supplier from which the system was purchased. The purchaser of the product is responsible for returning the product to the authorized supplier. Any defective component, once replaced under warranty, shall become the property of **SUNRISE MEDICAL**. If further service is required, contact **SUNRISE MEDICAL** at: **1-800-263-3390**.

Suppliers must not return products without first obtaining a Return Material Authorization (RMA) number from **SUNRISE MEDICAL**.

3. LIMITATIONS AND EXCLUSIONS

The foregoing warranty shall apply only to the original purchase and shall not apply to serial numbered products if the serial number has been removed or defaced, products subjected to negligence, accident, improper operation, maintenance or storage, commercial or institutional use, products modified without **SUNRISE MEDICAL's** express written consent (including, but not limited to, modification through the use of unauthorized parts or attachments); products damaged by reason of repairs made to any component without the specific consent of **SUNRISE MEDICAL**, or to a product damaged by circumstances beyond **SUNRISE MEDICAL's** control, and such evaluation will be solely determined by **SUNRISE MEDICAL**. The warranty shall not apply to problems arising from normal wear or failure to adhere to the following instructions.

The foregoing warranty is exclusive and in lieu of all other express warranties. Implied warranties, if any, including the implied warranties of merchantability and fitness for a particular purpose, shall not extend beyond the duration of the express warranty provided herein and the remedy for violations of any implied warranty shall be limited to repair or replacement of the defective product pursuant to the terms contained herein. **SUNRISE MEDICAL** shall not be liable for any consequential or incidental damages whatsoever.

Some jurisdictions do not allow the exclusions or limitation of incidental or consequential damages, or limitation on the length of an implied warranty. Local laws should be reviewed to determine if the above exclusions and limitations apply.

XIV. PRODUCT SPECIFICATIONS

Configuration	MID-WHEEL DRIVE	REAR-WHEEL (HYBRID) DRIVE
Suspension system	GC3 (Dual action: Interactive 6-wheel suspension and seat suspension)	GC3 (Dual action: Interactive 6-wheel suspension and seat suspension)
Ground clearance ¹	3.5" (90 mm) for 14" (355 mm) drive wheel and 2.875" (75 mm) for 12.5" (320 mm) drive wheel	3.5" (90 mm) for 14" (355 mm) drive wheel and 2.875" (75 mm) for 12.5" (320 mm) drive wheel
Base width ²	23.375" (595 mm)	23.375" (595 mm)
Base length ²	35.125" (890 mm)	35.875" (910 mm)
Turning radius	20" (510 mm)	21.75" (550 mm)
Weight capacity	0-300 lb (0-136 kg)	0-300 lb (0-136 kg)
Motor options (Maximum speed)	4-pole 5.9 mph (9.5 kmh) / 6.5 mph (10.5 kmh)	4-pole 5.9 mph (9.5 kmh) / 6.5 mph (10.5 kmh) / 8.5 mph (14 kmh)
Transit option (Unoccupied)	4-point tie-down brackets (Standard)	4-point tie-down brackets (Standard)
Transport option WC-19 (Occupied)	Optional	Optional
Battery type	Two 12 V, deep cycle Gel cell Group 22NF (50 Ah) / AGM Group 22NF (55 Ah)	Two 12 V, deep cycle Gel cell Group 22NF (50 Ah) / AGM Group 22NF (55 Ah)
Battery charger	8 A, off board	8 A, off board
Charging time	8 hours	8 hours
Electronics	VR2 (90 A), R-Net (90 A or 120 A)	VR2 (90 A), R-Net (90 A or 120 A)
Assistive driving package	Available with Smart-Track technology	Available with Smart-Track technology

¹ Subject to variances depending on configuration and manufacturing tolerances.

² Dimensions listed are for power base only. Overall measurements will vary based on seating and accessory selections.

XIV. PRODUCT SPECIFICATIONS (CONTINUED)

	MID-WHEEL DRIVE	REAR-WHEEL (HYBRID) DRIVE
Specialty controls	Available (Switch-It, Stealth, ASL or MO-VIS)	Available (Switch-It, Stealth, ASL or MO-VIS)
Effective seat width range	Adjustable from 11" to 20" (280 mm to 510 mm) wide	Adjustable from 11" to 20" (280 mm to 510 mm) wide
Power seating options	Tilt, recline, elevate, elevating & articulating separate legrests, and elevating & articulating center mount legrest (Personalization available)	Tilt, recline, elevate, elevating & articulating separate legrests, and elevating & articulating center mount legrest (Personalization available)
Seat to floor height range (With power tilt or seat lift)	15.5" to 18.75" (395 mm to 475 mm)	15.75" to 19" (400 mm to 485 mm)
Seat to floor height range (With combo power tilt and seat lift)	17.5" to 18.25" (445 mm to 465 mm)	17.75" to 18.5" (450 mm to 470 mm)
Component weight ³	Base: Compact width: 128 lb (58 kg); Batteries: Group 22: 2 x 36.6 lb (16.6 kg);	Base: Compact width: 127 lb (57 kg); Batteries: Group 22: 2 x 36.6 lb (16.6 kg);

³ Battery weight may vary based on manufacturer.

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