

FreeRider[®]

ATTENTION
READ ALL PARTS IN THIS
MANUAL BEFORE OPERATING
YOUR SCOOTER



Product Model:FR168-W II
Product Name:FR-W02 (APOLO 2)

USER'S INSTRUCTION MANUAL



SAFETY GUIDELINES

WARNING! An authorized Provider or qualified technician must perform the initial setup of this scooter and must perform all of the procedures in this manual.

The symbols below are used throughout this user's instruction manual and on the scooter to identify warnings and important information. It is very important for you to read them and understand them completely.



Warning! Indicates a potentially hazardous condition/situation. Failure to follow designated procedures can cause either personal injury, component damage, or malfunction. On the product, this icon is represented as a red triangle with red exclamation mark.



Caution! Indicates situations where extra caution should be taken. These actions should not be performed at any time or in any circumstances. These actions can cause personal injury and/or equipment damage. On the product, this icon is represented as a triangle with red border.

Please fill out the following information for quick reference:

Freerider Provider: _____
Address: _____
Phone Number: _____
Purchase Date: _____ Serial Number: _____

Note: This User's Instruction Manual is compiled from the latest specifications and product information available at the time of publication. We reserve the right to make changes as they become necessary. Any changes to our products may cause slight variations between the illustrations and explanations in this manual and the product you have purchased. The latest/current version of this manual is available on our website.



FOREWORD

Please read and follow all instructions in this User's Instruction Manual before attempting to operate your scooter for the first time. If there is anything in this manual that you do not understand, or if you require additional assistance for setting it up, contact your authorized dealer.

Using your product safely depends upon your diligence in following the warnings, cautions and instructions in this manual.

A full technical specification can be found at the rear of this manual.

Using your scooter safely also depends upon your good judgment and / or common sense, as well as that of your Provider, Caregiver or Health Professional.



CONTENTS

Introduction	3
Purpose of your Scooter	4
Rules for safe use	5
Getting to know your Scooter	8
Comfort Adjustments	9
Operating your Scooter	12
Freewheeling your Scooter	14
Safety instructions & warning	15
Safety warning & instruction labels	17
Learning to get about	18
Care & Maintenance	20
Batteries & battery charging	22
Basic fault finding	23
Technical specification	26
Classification	31
Optional accessories	32
Guarantee terms	33
Service history	34



INTRODUCTION

Congratulations on purchase of your power chair. The power chair you have purchased combines state-of-the-art components with safety, comfort, and styling in mind. We are confident that these design features will make your daily activities easier. Once you understand how to safely operate and care for your power chair, it should give you years of trouble-free operation and service.

Read and follow all instructions, warnings, and notes in this manual before attempting to operate your power chair for the first time. You must also read all instructions, warnings, and notes contained in any supplemental instructional booklets for the controller, front riggings, and/or seating system that accompanied your power chair before initial operation. Your safety depends upon you, as well as your provider, caretaker, or healthcare professional, in using good judgment.

If there is any information in this manual which you do not understand, or if you require additional assistance for setup or operation, please contact your authorized dealer. Failure to follow the instructions in this manual and those located on your power chair can lead to personal injury and/or damage to the power chair, and may void the warranty.

PURCHASER'S AGREEMENT

By accepting delivery of this product, you promise that you will not change, alter, or modify this product or remove or render inoperable or unsafe any guards, shields, or other safety features of this product; fail, refuse, or neglect to install any retrofit kits from time to time provided by dealer to enhance or preserve the safe use of this product.

SHIPPING AND DELIVERY

Before using your power chair, make sure your delivery is complete as some components may be individually packaged. If you do not receive a complete delivery, please contact your authorized dealer immediately. Where damage has occurred dur

INFORMATION EXCHANGE

We want to hear your questions, comments, and suggestions about this manual. We would also like to hear about the safety and reliability of your new power chair, and about the service you received from your authorized dealer.



PURPOSE OF YOUR POWER CHAIR



Caution: Do not operate your new power chair for the first time without completely reading and understanding this User's Instruction Manual.

Your power chair is a state-of-the-art life-enhancement device designed to increase mobility. Dealer provides an extensive variety of products to best fit the individual needs of the power chair user. Please be aware that the final selection and purchasing decision regarding the type of power chair to be used is the responsibility of the power chair user, who is capable of making such a decision, and his/her healthcare professional (i.e., medical doctor, physical therapist, etc.).

The contents of this manual are based on the expectation that a mobility device expert has properly married the power chair to the user and has assisted the prescribing healthcare professional and/or the authorized dealer in the instruction process for the use of the product.

There are certain situations, including some medical conditions, where the power chair user will need to practice operating the power chair in the presence of a trained attendant. A trained attendant can be defined as a family member or care professional specially trained in assisting a power chair user in various daily living activities.

As you begin using your power chair during daily activities, you will probably encounter situations in which you will need some practice. Simply take your time and you will soon be in full and confident control as you maneuver through doorways, on and off of elevators, up and down ramps, and over moderate terrain.

Below are some precautions, tips, and other safety considerations that will help you become accustomed to operating your power chair safely.

MODIFICATIONS

Your power chair has been designed and engineered to provide maximum mobility and utility. A wide range of accessories is available from dealer to further customize your power chair to better suit your needs and/or preferences. However, under no circumstances should you modify, add, remove, or disable any feature, part, or function of your power chair.



Warning: DO NOT modify your power chair in any way not authorized by dealer. DO NOT use accessories if they have not been tested or approved for your power chair.

PRE-RIDER SAFETY CHECK

Get to know the feel of your power chair and its capabilities. Dealer recommends that you perform a safety check before each use to make sure your power chair operates smoothly and safely.

Perform the following inspections prior to using your power chair:

1. Check all electrical connections. Make sure they are tight and not corroded.
2. Check all controller connections to the power base. Make sure they are secured properly.
3. Check the brakes. See "CARE AND MAINTENANCE".
4. Check battery charge. See "BATTERIES AND CHARGING".

Note: If you discover a problem, contact your authorized dealer for assistance.

WEIGHT LIMITATIONS

Your power chair is rated for a maximum weight capacity. Please refer to the specifications table for this limit. Keep in mind that the maximum weight capacity includes the combined weight of the user and any accessories mounted to the power chair.



Caution: Stay within the specified weight capacity of your power chair. Exceeding the weight capacity voids your warranty. Dealer will not be held responsible for injuries and/or property damage resulting from failure to observe weight limitations.



Warning: Do not carry passengers on your power chair. Carrying passengers on your power chair may affect the center of gravity, resulting in a tip or a fall.

INCLINE INFORMATION

More and more buildings have ramps with specified degrees of inclination, designed for easy and safe access. Some ramps may have turning switchbacks (180-degree turns) that require you to have good cornering skills on your power chair.

1. Proceed with extreme caution as you approach the downgrade of a ramp or other cline.
2. Take wide swings with your power chair's front wheels around any tight corners. If you do that, the power chair's rear wheels will follow a wide arc, not cut the corner short, and not bump into or get hung up on any railing corners.
3. When driving down a ramp, keep the power chair's speed adjustment, set to the slowest
4. speed setting to ensure a safely controlled descent.

Avoid sudden stops and starts.

When climbing an incline, try to keep your power chair moving. If you must stop, start up again slowly and then accelerate cautiously. When driving down an incline, set your power chair to the slowest speed setting and drive in the forward direction only. If your power chair starts to move down the incline faster than you anticipated or desired, allow it to come to a complete stop by releasing the joystick, then push the joystick forward slightly to ensure a safely controlled descent.



Warning: When on any sort of an incline, never place the power chair in freewheel mode while seated on it or standing next to it.



Warning: When climbing an incline, DO NOT zig-zag or drive at an angle up the face of the incline. Drive your power chair straight up the incline. This greatly reduces the possibility of a tip or a fall. ALWAYS exercise extreme caution when negotiating an incline.



Warning: You should not travel up or down a potentially hazardous incline (i.e., areas covered with snow, ice, cut grass, or wet leaves).



Warning: Never travel down an incline backward. Doing so may cause the power chair to tip. ALWAYS exercise caution when negotiating an incline.

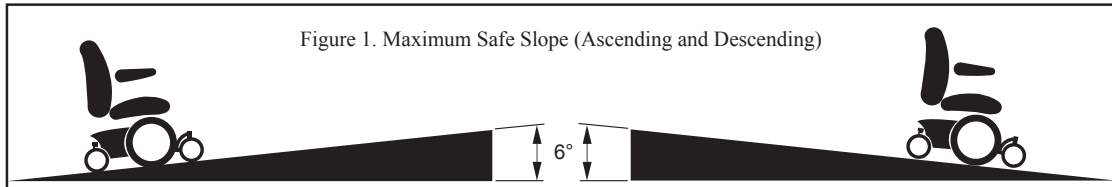


Warning: If your power chair is equipped with a reclining seatback, do not attempt to negotiate inclines with the seat in a reclined position. DO NOT attempt to negotiate obstacles with the seat in a reclined position unless an attendant is present to help stabilize the chair. Failure to heed could result in the power chair tipping over.



Warning: Even though your power chair is capable of climbing slopes greater than those illustrated in figure 1, **DO NOT**, under any circumstances, exceed the incline guidelines or any other specifications presented in this manual. Doing so could cause instability in your power chair.

Dealer recommends that the maximum slope of an incline you attempt to safely ascend or descend on your power chair does not exceed 6°. (See figure 1)



Warning: Any attempt to climb or descend a slope steeper than 6° may put your power chair in an unstable position and cause it to tip.

FREEWHEEL MODE

Your power chair is equipped with two manual freewheel levers to allow for manual maneuverability by a trained attendant. For more information about how to place your power chair into and out of freewheel mode, see "GETTING TO KNOW YOUR POWER CHAIR".



Warning: **DO NOT** use your power chair in freewheel mode without an attendant present.



Warning: **DO NOT** attempt to personally place your power chair in freewheel mode while seated on it. Ask an attendant for assistance if necessary.



Warning: **DO NOT** place your power chair in freewheel mode while on an incline or decline. This could cause the chair to roll uncontrollably on its own.

BRAKING INFORMATION

Your power chair is equipped with two powerful brake systems:

1. Regenerative — uses electricity to rapidly slow the vehicle when the joystick returns to the center/stop position.
2. Disc Park Brake — activates mechanically after regenerative braking slows the vehicle to near stop, or when power is removed from the system for any reason.

CORNERING INFORMATION

While your power chair is equipped with front anti-tip wheels and rear caster wheels, excessively high cornering speeds can still create the possibility of tipping. Factors which affect the possibility of tipping include, but are not limited to: cornering speed, steering angle (how sharply you are turning), uneven road surfaces, inclined road surfaces, riding from an area of low traction to an area of high traction (such as passing from a grassy area to a paved area — especially at high speed while turning), and abrupt directional changes. High cornering speeds are not recommended. If you feel that you may tip over in a corner, reduce your speed and steering angle (i.e., lessen the sharpness of the turn) to prevent your power chair from tipping.



Warning: When cornering sharply, reduce your speed and maintain a stable center of gravity. This greatly reduces the possibility of a tip or fall.

PUBLIC STREETS AND ROADWAYS

Your power chair is designed to provide optimum stability under normal driving conditions—dry, level surfaces composed of concrete, blacktop, or asphalt. However, dealer recognizes that there will be times when you will encounter other surface types. For this reason, your power chair is designed to perform admirably on packed soil, grass, and gravel. Feel free to use your power chair safely on lawns and in park areas.

1. Avoid driving on uneven terrain and/or soft surfaces.
2. Avoid tall grass that can entangle the running gear.
3. Avoid loosely packed gravel and sand.
4. **DO NOT** use your power chair in fresh or salt water.
5. **DO NOT** use your power chair at the edge of a stream, lake, or ocean.
6. If you feel unsure about a driving surface, avoid that surface.



Warning: You should not operate your power chair on public streets and roadways. Be aware that it may be difficult for traffic to see you when you are seated on your power chair. Obey all local pedestrian traffic rules. Wait until your path is clear of traffic, and then proceed with extreme caution.

INCLEMENT WEATHER PRECAUTIONS

Exposure of your power chair to inclement weather conditions should be avoided whenever possible. If suddenly caught up in rain, snow, severe cold or heat while operating your power chair, proceed to shelter at the earliest opportunity. Thoroughly dry your power chair before storing, charging, or operating your power chair.



Caution: Operating in rain, snow, salt, mist/spray conditions, and on icy/slippery surfaces can have an adverse effect on the electrical system. Maintain and store your power chair in a dry and clean condition.



Warning: Prolonged exposure to hot or cold conditions may affect the temperature of upholstered and non-upholstered items on the power chair, possibly resulting in skin irritation. Exercise caution when using the power chair in extremely hot or cold conditions or when exposing your power chair to direct sunlight for prolonged periods of time.

STATIONARY OBSTACLES (STEPS, CURBS, etc.)

Proceed with extreme caution when driving near raised surfaces, unprotected ledges and/or drop-offs (curbs, porches, stairs, etc.). Be sure your power chair is traveling perpendicular to any curb you may be required to navigate.

To navigate up over a curb or stationary obstacle:

1. Approach the curb or obstacle slowly, and make sure the power chair is traveling perpendicular to the obstacle. (See figure 2)
2. Increase the forward speed just before the front wheels come in contact with the obstacle.
3. Reduce the forward speed only after the rear wheels have cleared the obstacle.

To navigate down a curb or stationary obstacle:

1. Approach the curb or obstacle slowly, and make sure the power chair is traveling perpendicular to the obstacle. (See figure 2)
2. Reduce the forward speed just before the front wheels come in contact with the obstacle.
3. increase the forward speed only after the rear wheels have cleared the obstacle and you are once again on a level surface.



Warning: Even though your power chair may be capable of handling greater obstacles, dealer recommends that you do not attempt to negotiate a curb that has a height greater than 2 inches (5 cm). Doing so could cause instability in your power chair.



Warning: DO NOT attempt to proceed backward down any step, curb, or other obstacle. This may cause the power chair to tip.

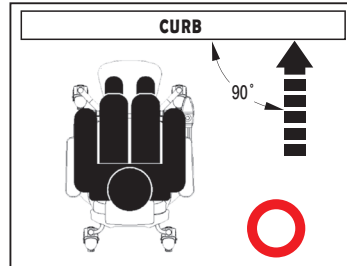


Figure 2. Correct action

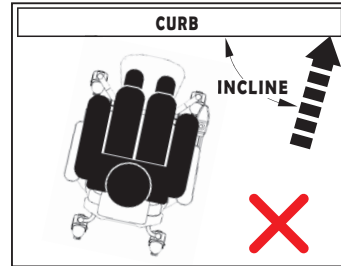


Figure 3. Incorrect action

STAIRS AND ESCALATORS

Power chairs are not designed to travel up or down stairs or escalators. **ALWAYS** use an elevator.



Warning: Never use your power chair to negotiate steps or escalators.

DOORS

1. Determine if the door opens toward or away from you.
2. Drive your power chair gently and slowly forward to push the door open. Or drive your power chair gently and slowly backward to pull the door open.

ELEVATORS

Modern elevators have a door edge safety mechanism that, when pushed, reopens the elevator door(s).

1. If you are in the doorway of an elevator when the door(s) begin to close, push on the rubber door edge or allow the rubber door edge to contact the power chair and the door will reopen.
2. Be careful that pocketbooks, packages, or power chair accessories do not become caught in elevator doors.

LIFT/ELEVATION PRODUCTS

If you will be transporting your power chair during travel, you may find it necessary to use a vehicle - mounted lift system or elevation product to aid in transportation. Dealer recommends that you closely review the warnings, instructions, specifications, and safety information set forth by the manufacturer of the lift/elevation product before using that product.



Warning: Not all lift systems/elevation products are rated for use with an occupied mobility device. Dealer recommends that you **DO NOT** remain seated in your power chair when it is being used in connection with any type of lift system/elevation product unless:

1. That product is rated for occupied use by the manufacturer.
2. You are able to occupy your mobility device in strict conformity with the warnings, instructions, specifications, and safety guidelines set forth by the manufacturer.



Warning: ALWAYS turn off the power to the controller when you are being transferred via an elevation product. Failure to do so may result in accidental joystick contact, resulting in unintended movement and personal injury or product damage.

MOTOR VEHICLE TRANSPORT

Dealer recommends that you do not remain seated in your power chair while traveling in a motor vehicle. The power chair should be stowed in the trunk of a car or in the back of a truck or van with batteries removed and properly secured. In addition, all removable power chair parts, including the armrests, seat, front riggings, controller, and shrouds should be removed and/or properly secured during motor vehicle transport.



Warning: DO NOT sit on your power chair while it is in a moving vehicle.



Warning: ALWAYS be sure your power chair and its batteries are properly secured when it is being transported. Batteries should be secured in an upright position and protective caps should be installed on the battery terminals. Batteries should not be transported with any flammable or combustible items.

POSITIONING BELTS

Your authorized dealer, therapist(s), and other healthcare professionals are responsible for determining your requirement for a positioning belt in order to operate your power chair safely.



Warning: If you require a positioning belt to safely operate your power chair, make sure it is fastened securely in order to reduce the possibility of a fall from the power chair.



Warning: The positioning belt is not designed for use as a seat belt in a motor vehicle. Nor is your power chair suitable for use as a seat in any vehicle. Anyone traveling in a vehicle should be properly belted into seats approved by the vehicle manufacturer.

BATTERIES

In addition to following the warnings below, be sure to comply with all other battery handling information. For more information about your power chair's batteries, see "BATTERIES AND CHARGING".



Caution: Battery posts, terminals, and related accessories contain lead and lead compounds. Wear goggles and gloves when handling batteries and wash hands after handling.



Warning: Power chair batteries are heavy. See specifications table. If you are unable to lift that much weight, be sure to get help. Use proper lifting techniques and avoid lifting beyond your capacity.



Warning: Always protect the batteries from freezing and never charge a frozen battery. Charging a frozen battery may result in damage to the battery.



Warning: Connect the battery harnesses in the proper manner. RED (+) cables must be connected to positive (+) battery terminals/posts. BLACK (-) cables must be connected to negative (-) battery terminals/posts. Protective caps should be installed over all battery terminals. Replace cables immediately if damaged.

REMOVABLE PARTS



Warning: DO NOT attempt to lift or move a power chair by any of its removable parts, including the armrests, seat, front riggings, controller, shrouds, and battery tray.

PREVENTING UNINTENDED MOVEMENT



Warning: If you anticipate being seated in a stationary position for an extended period of time, turn off the power. This will prevent unexpected motion from inadvertent joystick contact. This will also eliminate the possibility of unintended chair movement from electromagnetic (EM) sources.

REACHING AND BENDING

Never reach, lean, or bend while driving your power chair. If it is absolutely necessary to reach, lean, or bend while seated on your power chair, it is important to maintain a stable center of gravity and keep the power chair from tipping. Dealer recommends that the power chair user determine his/her personal limitations and practice bending and reaching in the presence of a qualified healthcare professional.



Warning: DO NOT bend, lean, or reach for objects if you have to pick them up from the floor by reaching down between your knees or if you have to reach over the back of the seat. Movements such as these may change your center of gravity and the weight distribution of the power chair. This may cause your power chair to tip.



Warning: Keep your hands away from the tires when driving. Be aware that loose fitting clothing can become caught in drive tires.

TRANSFERS

Transferring onto and off of your power chair requires a good sense of balance. Always have an attendant or healthcare professional present while learning to properly transfer yourself. To eliminate the possibility of injury, dealer recommends that you or a trained attendant perform the following tasks before attempting a transfer:

1. Turn off the power to the controller.
2. Ensure your power chair is not in freewheel mode. See "GETTING TO KNOW YOUR POWER CHAIR".
3. Make sure both armrests are flipped up or removed from your power chair.
4. Flip up the foot platform or move the leg rests aside; this will help to keep your feet from getting caught on the front rigging during the transfer.
5. Reduce the distance between your power chair and the object you are transferring onto.



Warning: Before transferring, position yourself as far back as possible in the power chair seat to prevent the power chair from tipping forward during transfer.



Warning: Avoid putting all of your weight on the power chair armrests and DO NOT use the armrests for weight-bearing purposes, such as transfers. Such use may cause the power chair to tip, resulting in a fall from the power chair and personal injury.



Warning: The controller and controller bracket are non-load bearing items in your power chair. DO NOT use the controller or controller bracket for weight-bearing purposes, such as transfers. Such use may cause damage to these components, resulting in a fall from the power chair and personal injury.



Warning: Avoid putting all of your weight on the front riggings. Such use may cause the power chair to tip.

PRESCRIPTION DRUGS/PHYSICAL LIMITATIONS

Users must exercise care and common sense when operating a power chair. This includes awareness of safety issues when taking prescribed or over-the-counter drugs or when the user has specific physical limitations.



Warning: Consult your physician if you are taking prescribed or over-the-counter medication or if you have certain physical limitations. Some medications and limitations may impair your ability to operate your power chair in a safe manner.

ALCOHOL/SMOKING

The power chair user must exercise care and common sense when operating his/her power chair. This includes awareness of safety issues while under the influence of alcohol or while smoking.



Warning: **DO NOT** operate your power chair while you are under the influence of alcohol, as this may impair your ability to operate your power chair in a safe manner.



Warning: Dealer strongly recommends that you do not smoke cigarettes while seated in your power chair, although the power chair has passed the necessary testing requirements for cigarette smoking. You must adhere to the following safety guidelines if you decide to smoke cigarettes while seated in your power chair.

1. **DO NOT** leave lit cigarettes unattended.
2. Keep ashtrays a safe distance from the seat cushions.
3. Always make sure cigarettes are completely extinguished before disposal.

ELECTROMAGNETIC AND RADIO FREQUENCY INTERFERENCE(EMI/RFI)

Electromagnetic and Radio Frequency Interference can come from sources such as cellular phones, mobile two way radios (such as walkie-talkies), radio stations, TV stations, amateur radio (HAM) transmitters, wireless computer links, microwave signals, paging transmitters, and medium-range mobile transceivers used by emergency vehicles. In some cases, these waves can cause unintended movement or damage to the control system. Every electrically-powered mobility vehicle has an immunity (or resistance) to EMI. The higher the immunity level, the greater the protection against EMI. This product has been tested and has passed at an immunity level of 20 V/m.



Warning: Laboratory tests have shown that electromagnetic and radio frequency waves can have an adverse effect on the performance of electrically-powered mobility vehicles.



Warning: Be aware that cell phones, two-way radios, laptops, and other types of radio transmitters may cause unintended movement of your electrically-powered mobility vehicle due to EMI. Exercise caution when using any of these items while operating your mobility vehicle and avoid coming into close proximity of radio and TV stations.



Warning: The addition of accessories or components to the electrically-powered mobility vehicle can increase the susceptibility of the vehicle to EMI. **DO NOT** modify your power chair in any way not authorized.



Warning: The electrically-powered mobility vehicle itself can disturb the performance of other electrical devices located nearby, such as alarm systems.

Note: For further information on EMI/RFI, contact your authorized dealer. If unintended motion or brake release occurs, turn your power chair off as soon as it is safe to do so. Contact your authorized dealer to report the incident.



GETTING TO KNOW YOUR POWER CHAIR

THE FR-168W II POWER CHAIR

The FR-168W II Power Chair has two main assemblies:

The seat assembly and the power base assembly, see figure 4. Typically, the seat assembly includes the seat, armrests, and joystick. The power base external assembly includes body shroud, two drive wheels, two rear caster wheels, two front anti-tip wheels, front rigging, and wiring harnesses.

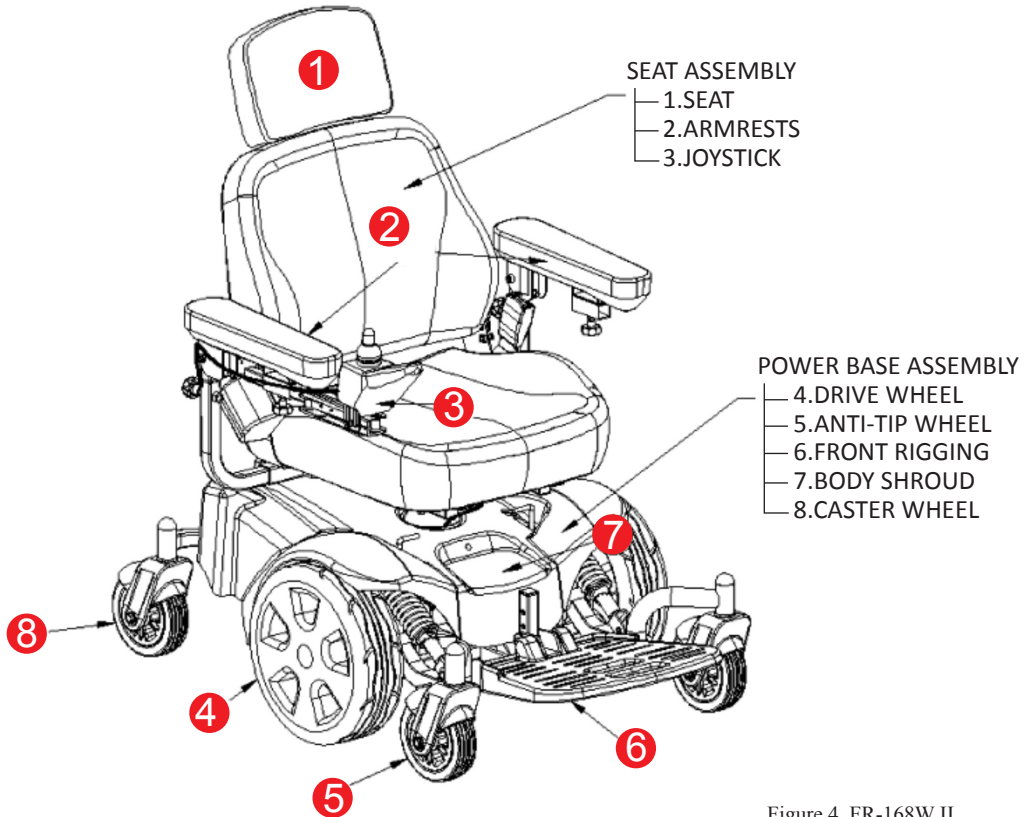


Figure 4. FR-168W II

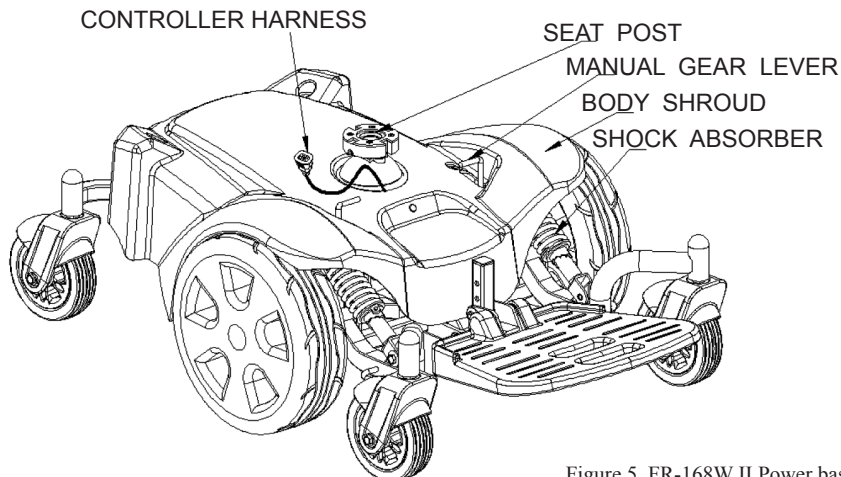


Figure 5. FR-168W II Power base external parts

The power base internal assembly:

The power base internal assembly includes two motor/gear box assemblies, batteries, breaker, main cable, power module, power connector. (See figure 6)

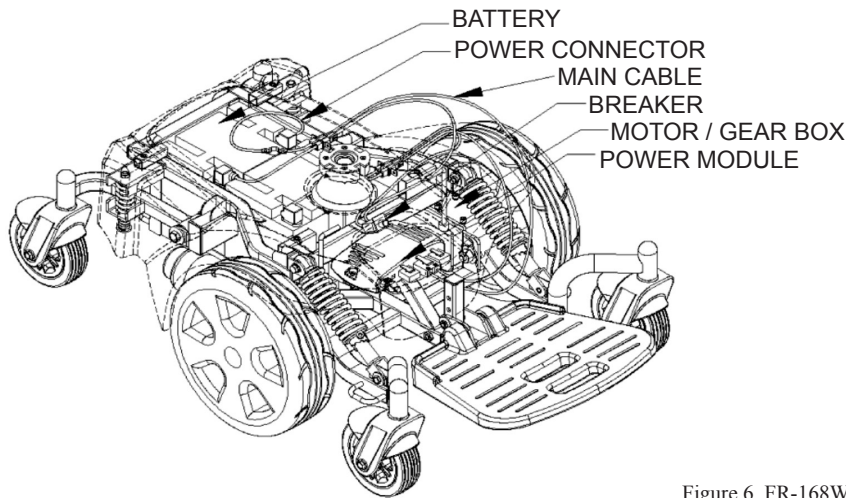


Figure 6. FR-168WII Power base internal parts

ELECTRICAL COMPONENTS

The electrical components are located either on or inside the power base. The main circuit breaker is located on the front of the power base. The power module is located under the front cover. (See figure 7)

Main Circuit Breaker:

The main circuit breaker is a safety feature built into your power chair. When the batteries and the motors are heavily strained (e.g., from excessive loads), the main circuit breaker trips to prevent damage to the motors and the electronics. If the circuit trips, allow your power chair to "rest" for approximately one minute. Next, push in the circuit breaker button, turn on the controller, and continue normal operation. If the main circuit breaker continues to trip repeatedly, contact your authorized dealer.

Power Module:

Provides connection between the controller and the motors and batteries.

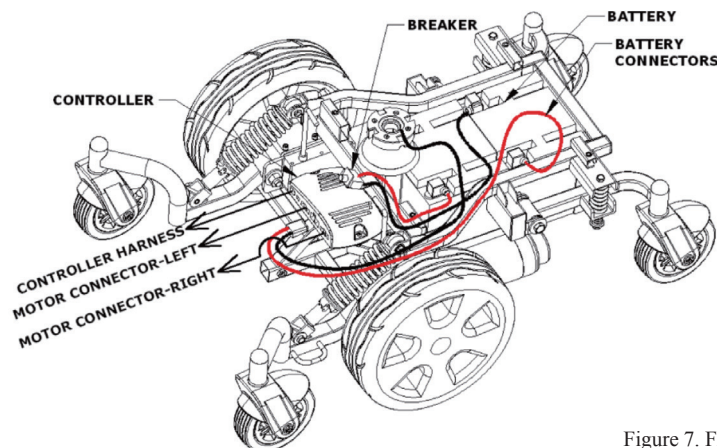


Figure 7. FR-168WII Electrical components

MANUAL FREEWHEEL LEVERS

Your power chair has a manual freewheel lever on each motor. Manual freewheel levers enable you to disengage the drive motors from the gearboxes and maneuver the chair manually.



Warning: DO NOT use the power chair while the drive motors are disengaged! **DO NOT** disengage the drive motors when the power chair is on an incline or decline, as the unit could roll on its own. **ONLY** engage the freewheel mode when on a level surface.



Warning: It is important to remember that when your power chair is in freewheel mode, the braking system is disengaged.

To engage or disengage the drive motors:

1. Turn backward to engage the drive motors (drive mode).
2. Turn inward to disengage the drive motors (freewheel mode). (See figure 8)

If a lever is difficult to move in either direction, slightly rock the power chair back and forth. The lever should then move to the desired position.



Warning: DO NOT use the freewheel lever handles as tie-down points to secure this product.

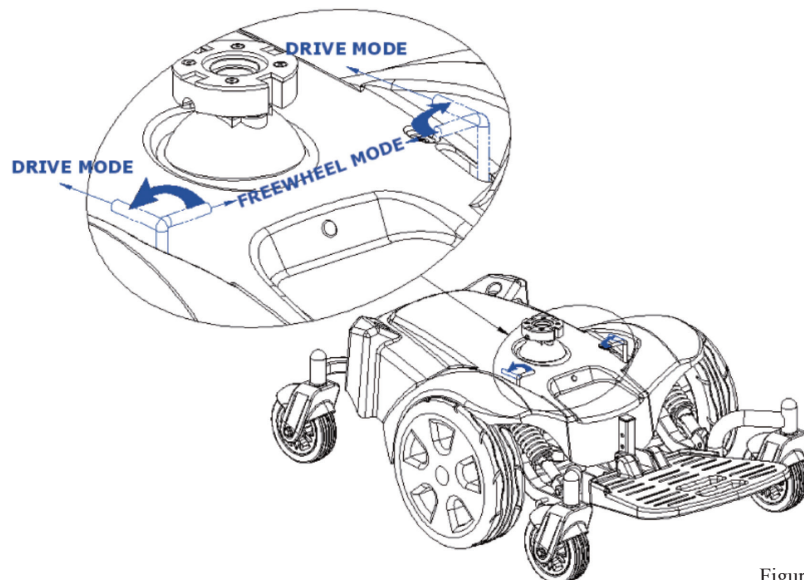


Figure 7. Drive/Freewheel mode



DISASSEMBLY AND ASSEMBLY

INITIAL ASSEMBLY

Your power chair may require some assembly either before initial use or after transportation.

Seat Installation

It may be necessary to install the seat either prior to initial operation or after transporting your power chair.

To install the seat:

1. Make sure the power chair is in drive mode. Both manual gear levers are backward. (See figure 9)

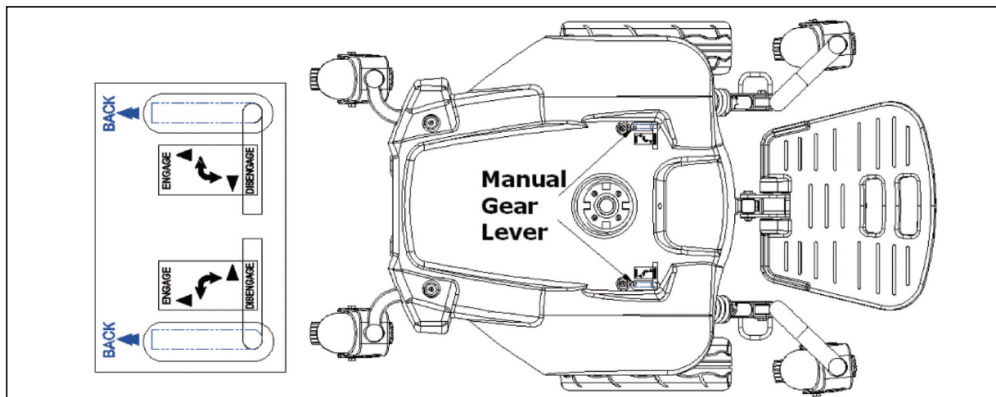


Figure 9. Power chair is in drive mode

2. Link up the power connector and main cable. (See figure 10)

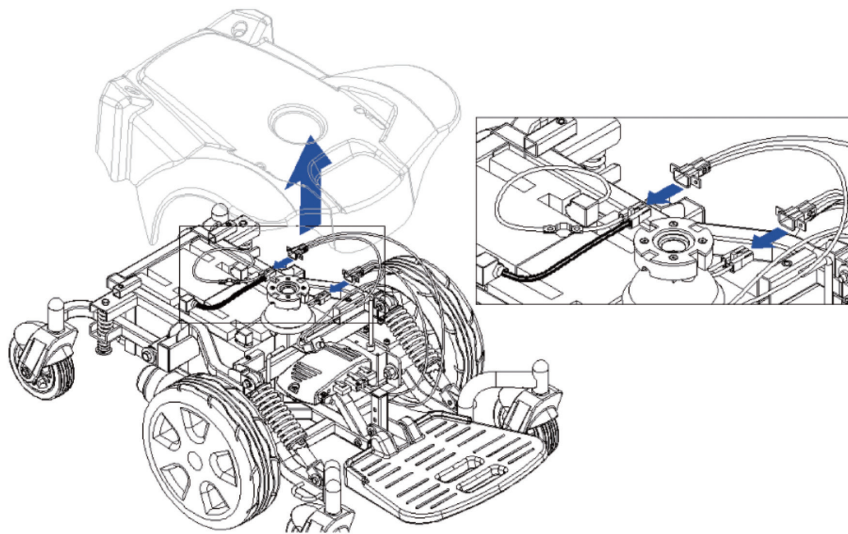


Figure 10. Link up the power connector and main cable

3. Install the seat lateral .The status of seat is disengage. (See figure 11)

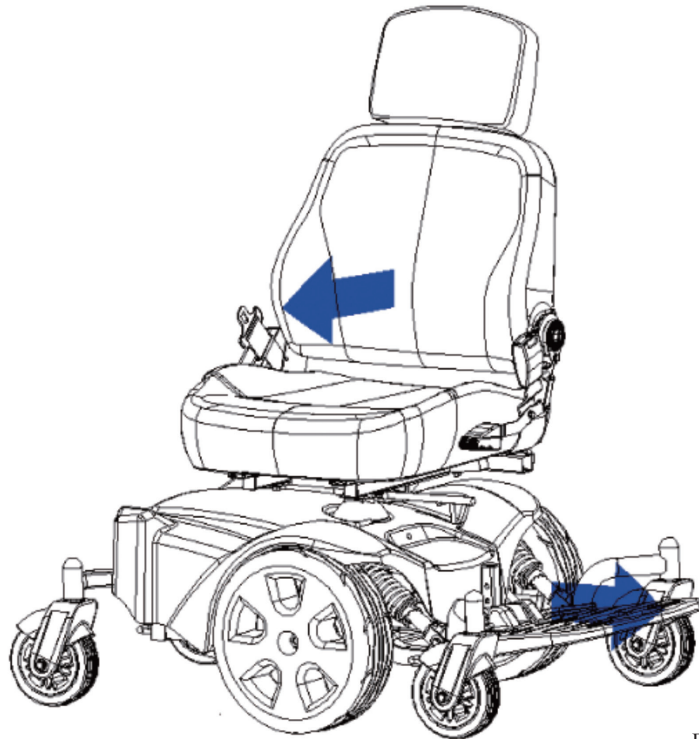


Figure 11. Install the seat

4. Pull the seat lever and keep it up, then swivel the seat forward. (See figure 12)

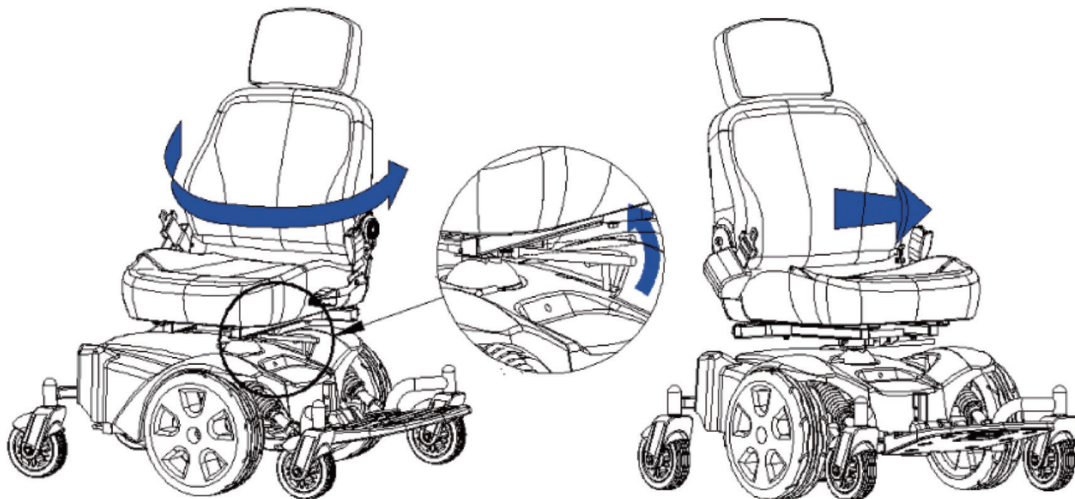


Figure 12. Release the seat lever, then swivel the seat forward

5. Unhitch the seat lever. (See figure 13)

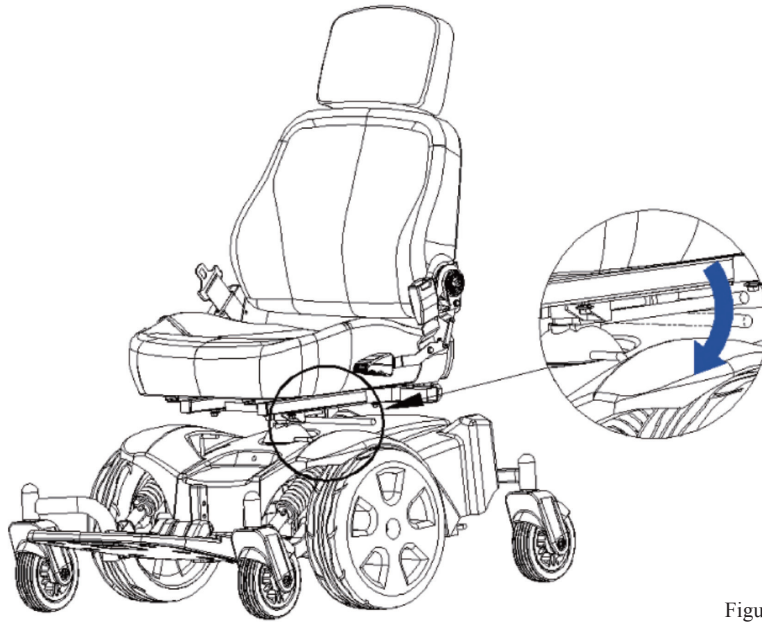


Figure 13. Install the seat

6. Armrest (Right/Left) assembly. (See figure 14)

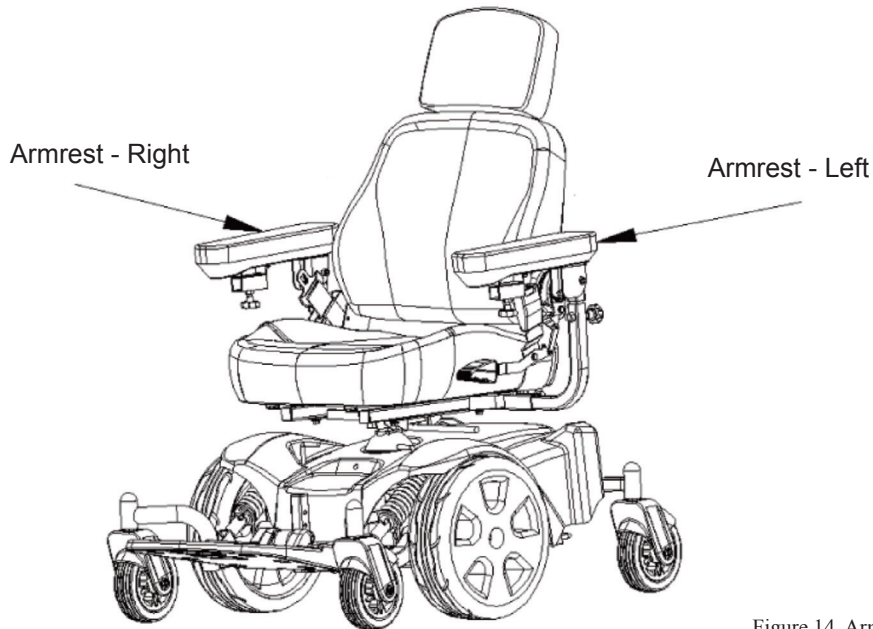


Figure 14. Armrest assembly



Warning: DO NOT pick up the seat frame by the armrests. They are free to pivot, and you may lose control of the seat if they do so.

7. Controller (Joystick) assembly. (See figure 15)

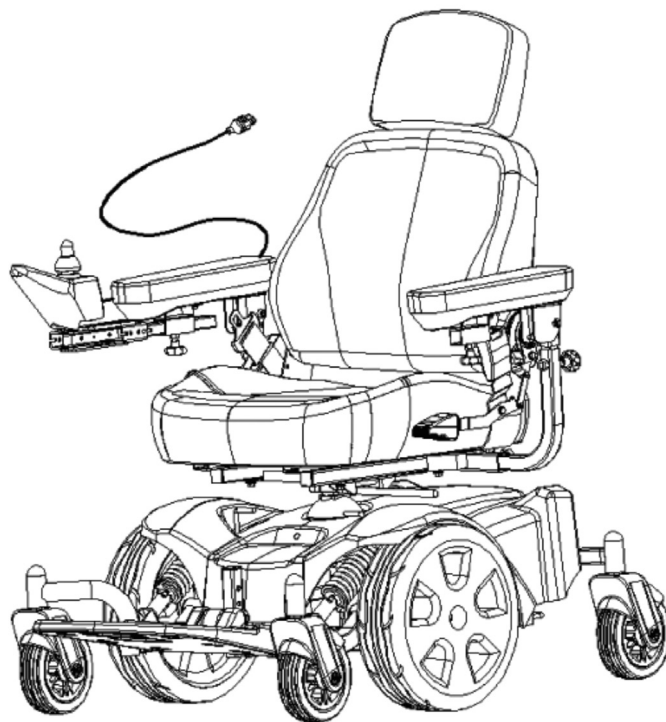


Figure 15. Controller assembly

8. Connect the controller harness to the power base and joystick. (See figure 16)

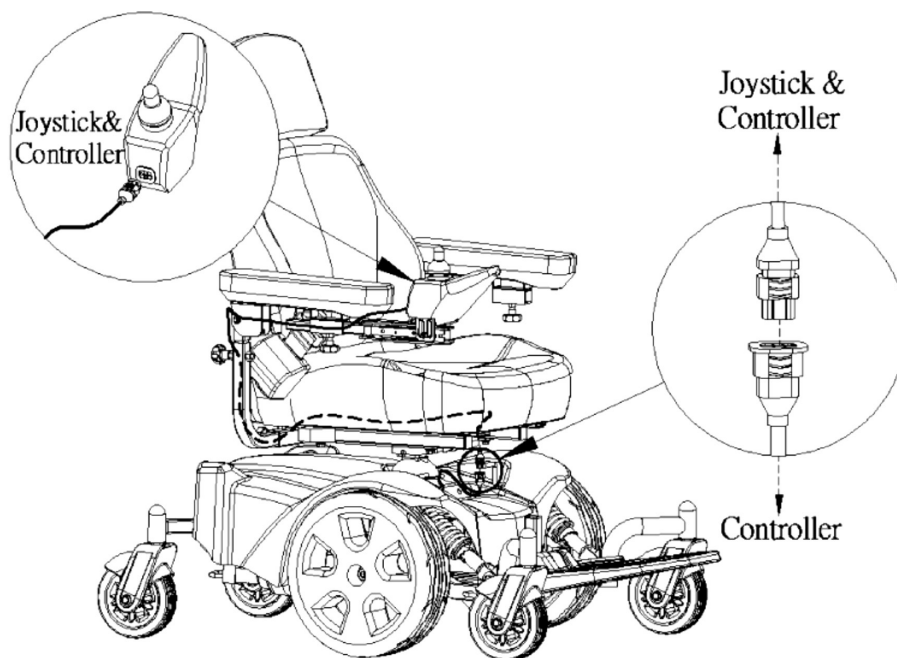


Figure 16. Controller connects

9. Route the controller harness along the armrest receiver to the rear of the power base and secure with the wire ties provided in the owner's package. (See figure 17)

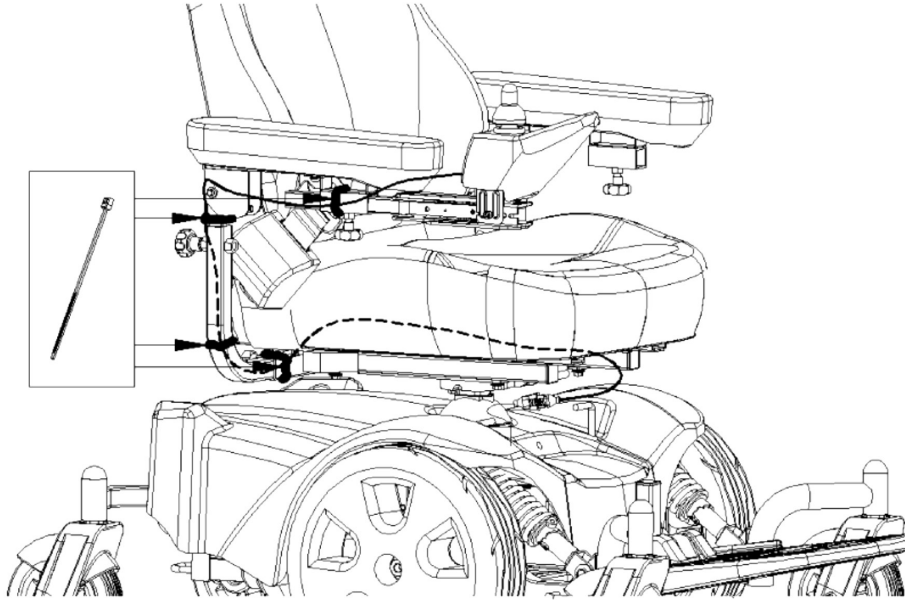


Figure 17.To tie the controller harness safely



Warning: Prevent controller harness damage! Avoid routing the controller harness on the outside of the armrest pad. Route the harness under the armrest or toward the inside of the armrest pad. Use correct tie-down points for the controller harness to prevent the harness from getting caught in the drive tires, pinched in the seat frame, or damaged when passing through doorways.

DISASSEMBLY

1. Disconnect the joystick and the power base. (See figure 18)

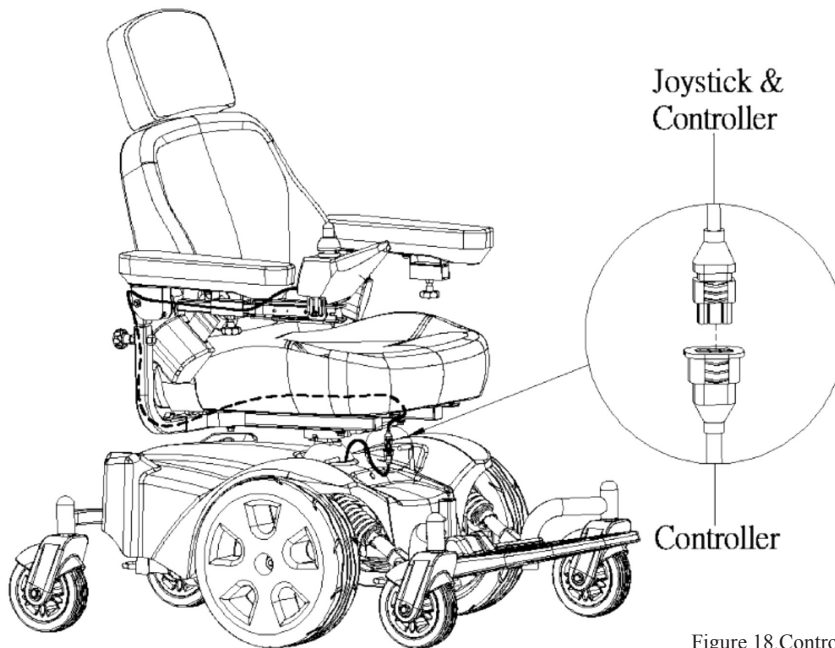
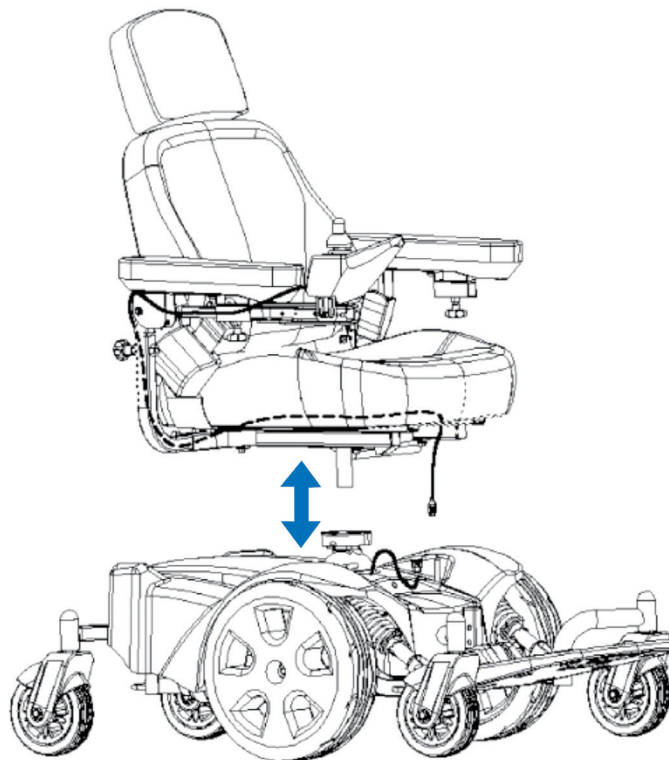


Figure 18. Controller harness disconnects

2. To separate the seat assembly and power base. (See figure 19)



Figures 19. To separate the seat assembly and power base.



DISASSEMBLY AND ASSEMBLY

COMFORT ADJUSTMENTS

When you find the need to make some adjustments to increase your comfort, such as seat height, armrest angle and height, foot platform angle, and controller position. Refer to the following information before making comfort adjustments.



Warning: The center of gravity of your power chair was factory set to a position that meets the needs of the demographic majority of users. Your authorized dealer has evaluated your power chair and made any necessary adjustments to suit your specific requirements. **DO NOT** change your seating configuration without first contacting your authorized dealer.



Warning: Remove the occupant from the power chair before making any adjustments.

SEAT HEIGHT ADJUSTMENT

You can change the seat height to one of two positions in 1.2 inches (3 cm) increments.

To change the seat height:

1. Turn off the power to the controller.
2. Ensure the power chair is in drive mode. (See figure 9)
3. Disconnect the controller connector from the power base. (See figure 18)
4. Disengage the seat release lever. (See figure 12)
5. Swivel the seat lateral and then pull it up and off of the power base. (See figure 11)
6. Remove the seat height adjustment bolt from the seat post. (See figure 19)
7. Raise or lower the upper seat post to the desired position.
8. Reinstall the seat height adjustment bolt to the seat post.
9. Reinstall the seat.
10. Reconnect the controller to the power base.

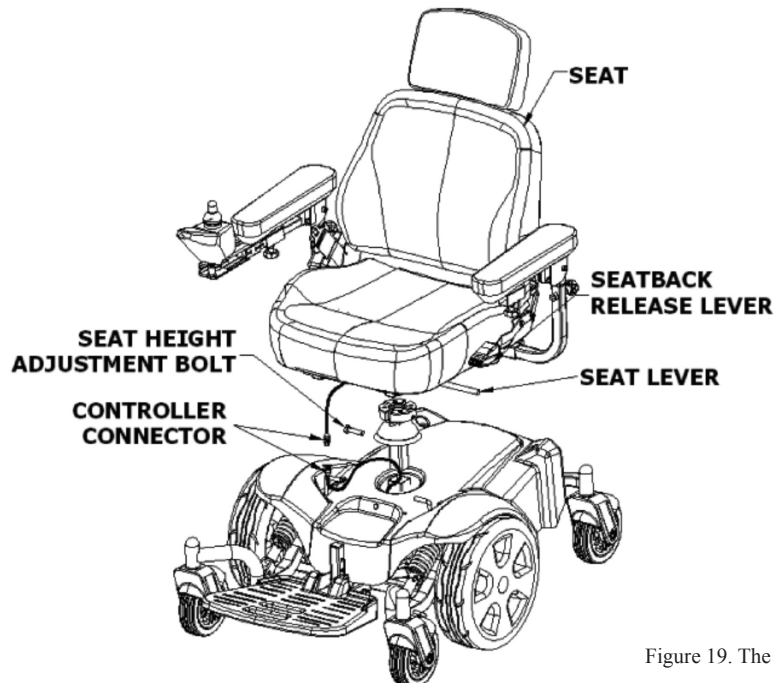


Figure 19. The seat and height adjustment bolt

Note: To rotate the seat, use the seat release lever located under the seat.

Manual recline seatback adjustment

You can adjust the seat back angle with the seatback release lever. The lever is located on the left side of the seat base. (See figure 20)

How to adjust the recline angle?

1. Pull up on the seatback release lever.
2. Lean forward or backward to the desired position.
3. Release the lever.

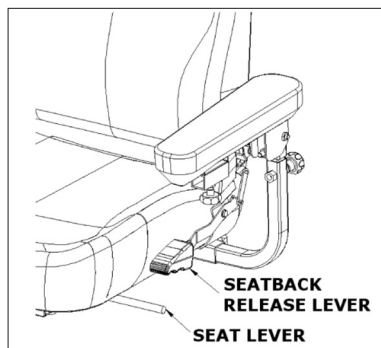


Figure 20. Seatback adjustment

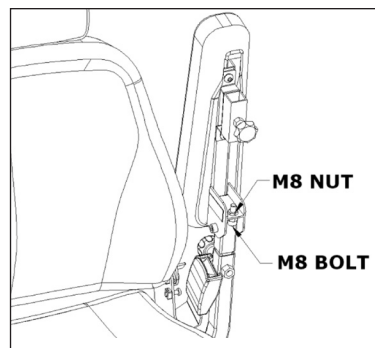


Figure 21. Armrest angle adjustment

ARMREST ANGLE ADJUSTMENT

To change the armrest angle:

1. Lift the armrest straight up so that it is perpendicular to the floor. (See figure 21)
2. Loosen the bolt and jam nut.
3. Turn the adjustment bolt to raise or lower the front of the armrest.
4. Tighten the jam nut to lock the adjustment bolt into place.

ARMREST HEIGHT ADJUSTMENT

To change the armrest height:

1. Loosen the knob on the height adjustment pipe. (See figure 22)
2. Raise or lower the armrest to the desired height.
3. Tighten the knob to secure the height adjustment pipe.

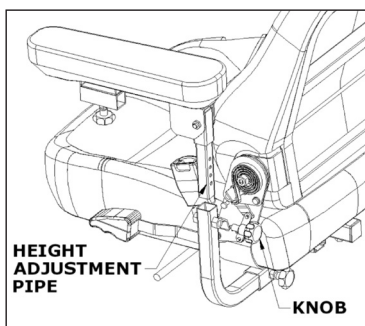


Figure 22. Armrest height adjustment

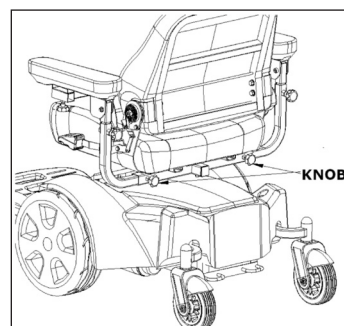


Figure 23. Armrest width adjustment

ARMREST WIDTH ADJUSTMENT

You can change each armrest's width independently of the other.

To change the armrest width:

1. Loosen the knob which is fastened on the pipe. (See figure 23)
2. Slide the armrests in or out to the desired width.
3. Tighten the knob to secure the armrest.

CONTROLLER POSITION

You can move the controller in toward or out away from the armrest.

To adjust the position of controller:

1. Loosen the knob which is fastened on the pipe. (See figure 24)
2. Slide the controller into or out of the armrest to the desired position.
3. Tighten the knob to secure the controller.

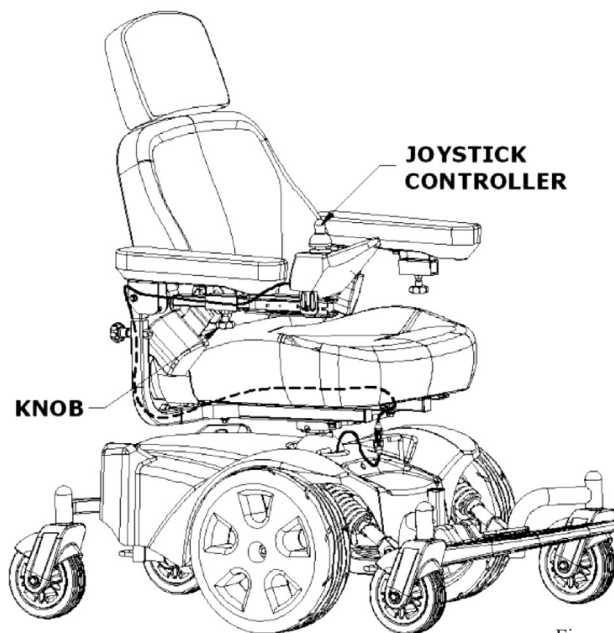


Figure 24. Adjustment controller position

FOOT PLATFORM ANGLE/HEIGHT/DISTANCE ADJUSTMENT

You can adjust the angle/height/distance of the foot platform. (See Figure 25, 26)

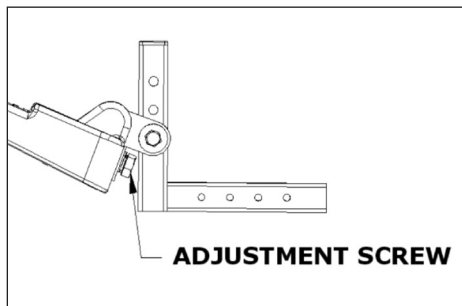


Figure 25. Foot platform adjustment

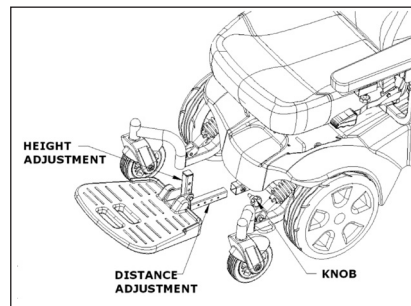


Figure 26. Foot platform adjustment

To adjust the foot platform angle:

Turn the adjustment screw to raise or lower the front of the foot platform.

To adjust the foot platform height:

1. Loosen the adjustment screw on the pipe. (See figure 26)
2. Raise or lower the foot platform to the desired height.
3. Tighten the adjustment screw to secure the platform position.

To adjust the foot platform distance:

1. Loosen the knob which is fastened on the pipe. (See figure 26)
2. Slide the foot platform in or out to the desired distance.
3. Tighten the knob to secure the foot platform.

POSITIONING BELT

Your power chair is equipped with a positioning belt that can be adjusted for operator comfort. (See figure 27) The positioning belt is designed to support the operator so that person does not slide down or forward in the seat. The positioning belt is not designed for use as a restraining device.

To adjust the positioning belt for operator comfort:

1. Once seated, inset the metal tab on one side of the belt into the plastic housing on the opposite side until you hear a click.
2. Pull the excess strap attached to the metal tab until it is secure, but not so tight as to cause discomfort.

To release the positioning belt:

1. Press the push button mechanism on the plastic housing.



Caution: Make sure the positioning belt is properly secured to the power chair and is adjusted for operator comfort before each use.



Caution: Inspect the positioning belt for loose or damaged parts before each use of the power chair. If you discover a problem, contact your authorized dealer for maintenance and repair.

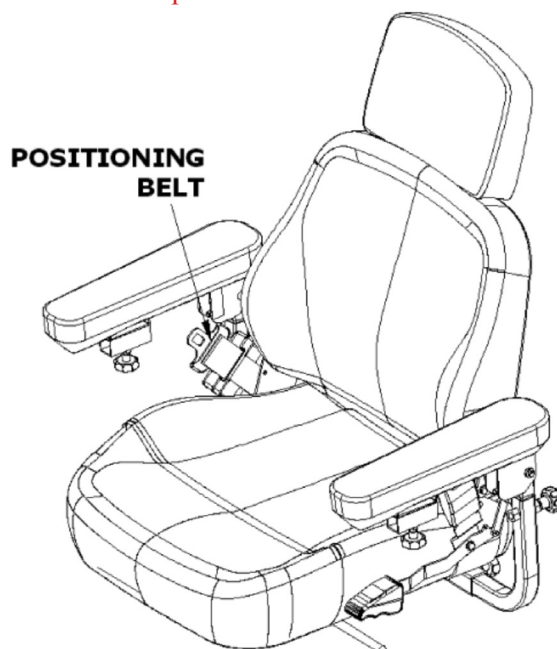


Figure 27. Positioning belt adjustment.



BATTERIES AND CHARGING

BATTERIES AND CHARGING

Your power chair is equipped with two maintenance free 50-volt batteries, deep-cycle batteries. Since they are sealed, there is no need to check the electrolyte (fluid) level. Deep-cycle batteries are designed to handle a longer and deeper discharge. Though they are similar in appearance to automotive batteries, they are not interchangeable. Automotive batteries are not designed to handle a long, deep discharge, and also are unsafe for use in power chairs.



Caution: Battery posts, terminals, and related accessories contain lead and lead compounds. Wear goggles and gloves when handling batteries and wash hands after handling.



Warning: **ALWAYS** use two batteries of the exact same type, chemistry, and amp-hour (Ah) capacity. Refer to the specifications table in this manual and in the manual supplied with the battery charger for recommended type and capacities.



Warning: Contact your authorized dealer if you have any questions regarding the batteries in your power chair.

Charging the Batteries:

The battery charger is essential in providing long life for your power chair batteries. It is designed to optimize your power chair's performance by charging the batteries safely, quickly, and easily. The battery charger is only functional when the charger power cord is plugged into an electrical outlet.



Warning: Removal of earthing can create electrical hazard. If necessary, properly install an approved 3-pronged adapter to an electrical outlet having 2-pronged plug access.



Warning: Never use an extension cord to plug in your battery charger. Plug the charger directly into a properly wired standard electrical outlet.



Warning: **DO NOT** allow unsupervised children to play near the power chair while the batteries are charging. Dealer recommends that you do not charge the batteries while the power chair is occupied.



Caution: Read the battery charging instructions in this manual and in the manual supplied with the battery charger before charging the batteries.



Warning: Explosive gases may be generated while charging the batteries. Keep the power chair and battery charger away from sources of ignition such as flames or sparks and provide adequate ventilation when charging the batteries.



Warning: You must recharge your power chair's batteries with the supplied off-board battery charger. **DO NOT** use an automotive-type battery charger.



Warning: Inspect the battery charger, wiring, and connectors for damage before each use. Contact your authorized dealer if damage is found.



Warning: **DO NOT** attempt to open the battery charger case. If the battery charger does not appear to be working correctly, contact your authorized dealer.



Warning: If the battery charger is equipped with cooling slots, then do not attempt to insert objects through these slots.



Warning: If your battery charger has not been tested and approved for outdoor use, then **DO NOT** expose it to adverse or extreme weather conditions. If the battery charger is exposed to adverse or extreme weather conditions, then it must be allowed to adjust to the difference in environmental conditions before use indoors. Refer to the manual supplied with the battery charger for more information.

To charge the batteries using the off-board charger:

1. Position the front of your power chair next to a standard electrical outlet. (See figure 28)
2. Be certain the controller power is turned off and the freewheel levers are in drive mode. (See figure 8)
3. Plug the off-board charger into the off-board charger/programming socket on the controller. (See figure 28)
4. Plug the off-board charger into the electrical outlet.
5. When the batteries are fully charged, unplug the off-board charger from the electrical outlet and then from the controller.

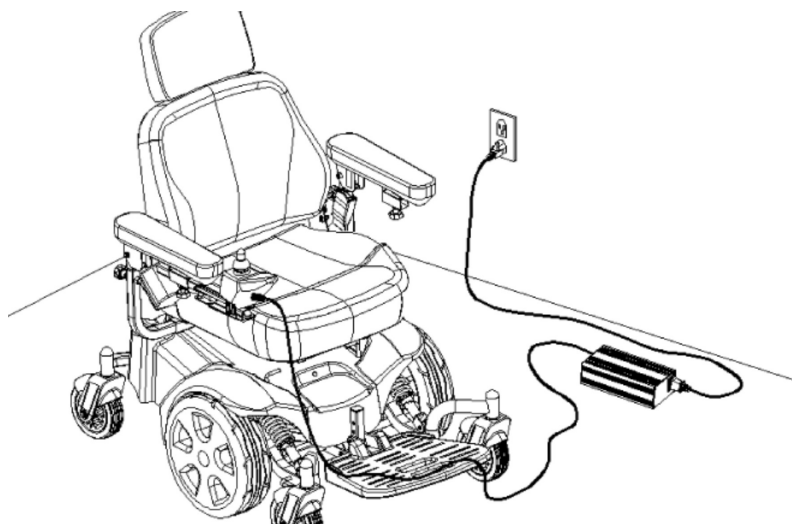


Figure 28. Battery charging

Note: The LED lights on the charger indicate different charger conditions at various times: charger power on, charging in progress, and charging complete. Refer to the manual supplied with the charger for a complete explanation of these indicators.

BATTERY BREAK-IN

To break in new batteries for maximum efficiency:

1. Fully recharge any new battery prior to its initial use. This brings the battery up to about 90% of its peak performance level.
2. Operate your power chair throughout the house and yard. Move slowly at first, and do not travel too far until you become accustomed to the controls and break in the batteries.
3. Give the batteries another full charge of 8 to 14 hours and operate your power chair again. The batteries will now perform at over 90% of their potential.
4. After four or five charging cycles, the batteries will top off at 100% charge and last for an extended period.

FREQUENTLY ASKED QUESTIONS (FAQs)

How does the charger work?

The battery charger takes the standard electrical outlet voltage of 120 VAC (alternating current) and converts it to 24 VDC (direct current). The power chair batteries use direct current to run your power chair. When the battery voltage is low, the charger works harder to charge the battery. As the battery voltage approaches full charge, the charger doesn't work as hard to complete the charging cycle. When the battery is fully charged, the amperage from the charger is nearly at zero. This is how the charger maintains a charge but does not overcharge the battery.

Can I use a different battery charger?

You should use the charger supplied with the power chair. It is the safest, most efficient tool to charge the batteries. We **DO NOT** recommend using other types of chargers. (e.g., an automotive battery charger)

Note: Your power chair's charger will not operate after the batteries have been discharged to nearly zero voltage. If this happens, contact your authorized dealer for assistance.

How often must I charge the batteries?

Many factors come into play when deciding how often to charge the batteries. You may use your power chair all day on a daily basis or you may not use it for weeks at a time.

Daily Use:

If you use your power chair on a daily basis, charge the batteries as soon as you are finished using your power chair. Your power chair will be ready each morning to give you a full day's service. It is recommended that you charge the batteries 8 to 10 hours after daily use.

Infrequent Use:

If you use your power chair infrequently (once a week or less), you should charge the batteries at least once per week for 10 to 12 hours.

*Note: Keep your batteries fully charged and avoid deeply discharging your batteries. **DO NOT** charge the batteries for more than 24 hours at a charging cycle.*

How can I get maximum range or distance per charge?

Rarely do you have an ideal driving situation such as smooth, flat, hard terrain with no wind, hills, or curves. More often you are presented with hills, sidewalk cracks, uneven and loosely packed surfaces, curves, and wind. All of these factors will affect the distance or running time per battery charge. Below are a few suggestions for obtaining the maximum range per charge:

1. **Always** charge the batteries fully prior to your trip.
2. Plan your trip in advance to avoid inclines if possible.
3. Limit baggage weight to essential items.
4. Try to maintain an even speed and avoid stop-and-go driving.

What type of batteries should I use?

We recommend deep-cycle batteries that are sealed and maintenance free. Both AGM and Gel-Cell are deep-cycle batteries that are similar in performance.



Warning: Corrosive chemicals contained in batteries. Use only AGM or Gel-Cell batteries to reduce the risk of leakage or explosive conditions.

Why do my new batteries seem weak?

Deep-cycle batteries employ a much different chemical technology than that used in car batteries, nickel-cadmium (nicads), or in other common battery types. Deep-cycle batteries are specifically designed to provide power, drain down their charge, and then accept a relatively quick recharge. AGM and Gel-Cell batteries should be charged as often as possible. They **DO NOT** have a "memory" like nickel-cadmium batteries.

We work closely with our battery manufacturer to provide a battery that best suits your power chair's specific demands. Fresh batteries arrive regularly and are promptly shipped with a full charge. During shipping, the batteries encounter temperature extremes that may influence initial performance. Heat robs the charge from the battery, and cold slows the power available and extends the time needed to recharge the battery. (just as with a car battery)

It might take a few days for the temperature of the battery to stabilize and adjust to its new ambient temperature. More importantly, it will take a few "charging cycles" (a partial drain — then a full recharge) to establish the critical chemical balance that is essential to the battery's peak performance and long life. It will be well worth it to take the time to break in your battery properly.

How can I ensure maximum battery life?

A fully charged deep-cycle battery will provide reliable performance and extended battery life. Keep your power chair's batteries fully charged whenever possible. Batteries that are regularly and deeply discharged, infrequently charged, or stored without a full charge may be permanently damaged, causing unreliable power chair operation and limited battery life.

Note: The useful life of a battery is quite often a reflection of the care it receives.

How should I store my power chair and its batteries?

If you **DO NOT** use your power chair regularly, we recommend maintaining battery vitality by charging the batteries at least once per week.

What about public transportation?

AGM and Gel-Cell batteries are designed for application in power chairs and other mobility vehicles. These batteries are Federal Aviation Administration (FAA) approved, allowing safe transportation on aircraft, buses, and trains, as there is no danger of spillage or leakage. We suggest you contact the carrier's ticket counter in advance to determine that carrier's specific requirements.

What about shipping?

If you wish to use a freight company to ship your power chair to your final destination, repack your power chair in the original packaging and ship the batteries in separate boxes.



CARE AND MAINTENANCE

CARE AND MAINTENANCE

Your power chair is a sophisticated machine. Like any motorized vehicle, it requires routine maintenance checks. You can perform some of these checks, but others require assistance from an authorized service representative. Preventive maintenance is very important. If you follow the maintenance checks in this section as scheduled, you can help ensure that your power chair gives you years of trouble-free operation. If you have any doubt as to your power chair's care or operation, contact your authorized dealer.



Warning: DO NOT service the power chair when the seat is occupied. Your power chair, like most electrical equipment, is susceptible to damage from the elements. Avoid damp areas of any kind.



Warning: Direct or prolonged exposure to water or dampness could cause the power chair to malfunction electronically and mechanically. Water can cause electrical components to corrode and the chair's frame to rust. Power chairs should be examined periodically for signs of corrosion caused by water exposure, bodily fluids exposure, or incontinence. Damaged components should be replaced or treated immediately.

Should your power chair come in contact with water:

1. Dry your power chair as thoroughly as possible with a towel.
2. Allow your power chair to sit in a warm, dry place for 12 hours to allow unseen water to evaporate.
3. Check the joystick operation and the brakes before using your power chair again.
4. If any inconsistencies are found, take your power chair to an authorized service center. Power chairs that are frequently exposed to sources of water, such as incontinence, should be inspected often for corrosion and electronic components may need to be replaced frequently.

Temperature:

1. Some of the parts of your power chair are susceptible to extreme changes in temperature. Always keep your power chair between the temperatures of 18°F (-8°C) and 122°F (50°C).
2. In extremely cold temperatures the batteries may freeze. The specific temperature at which they freeze depends on a number of factors, such as battery charge, usage, and composition of the batteries. (e.g., AGM or Gel-Cell)
3. Temperatures above 122°F (50°C) may cause your power chair to operate at a reduced speed. This reduced speed is a safety feature built into the controller that helps prevent damage to the motor and other electrical components.

General Guidelines:

1. Avoid knocking or bumping the controller, especially the joystick.
2. Avoid prolonged exposure of your power chair to extreme conditions, such as heat, cold, or moisture.
3. Keep the controller clean.
4. Check all connectors to ensure that they are all tight and secured properly.
5. Make sure pneumatic tires are inflated to the psi/bar/kpa air pressure rating indicated on the tire.

6. Use a rubber conditioner on the tire sidewalls to help preserve them.
7. All wheel bearings are prelubricated and sealed. They require no subsequent lubrication.
8. The body shroud has been sprayed with a clear sealant coating. You can apply a light coat of car wax to help it retain its high-gloss appearance.
9. Check all electrical connections. Make sure they are tight and are not corroded. Batteries must sit flat within the battery boxes and battery well frame with the battery terminals facing inward toward each other. Refer to the battery wiring label for the correct wiring layout.



Warning: Make sure your tires are inflated to the psi/bar/kPa air pressure rating indicated on the tire for pneumatic tires. **DO NOT** under inflate or overinflate your tires. Low pressure may result in loss of control, and overinflated tires may burst. Overinflating tires can cause them to explode.



Warning: **DO NOT** use a high pressure hose to inflate your tires.



Warning: Never use a rubber conditioner on the tread area of the tires; doing so may make the tires slippery and cause your power chair to skid.



Warning: Even though the power chair has passed the necessary testing requirements for ingress of liquids, you should keep electrical connections away from sources of dampness, including direct exposure to water or bodily fluids and incontinence. Check electrical components frequently for signs of corrosion and replace as necessary.

Daily Checks:

1. With the controller turned off, check the joystick. Make sure it is not bent or damaged and that it returns to the neutral position when you release it. Check the rubber boot around the base of the joystick for damage. Visually inspect the boot. **DO NOT** handle or try to repair it.
2. Visually inspect the controller harness. Make sure that it is not frayed, cut, or has any wires exposed.
3. Check for flat spots on solid tires. Flat spots could adversely affect stability.
4. Inspect the armrests for loose hardware, stress points, or damage.

Weekly Checks:

1. Inspect the controller and charger harnesses for corrosion. Contact your authorized dealer.
2. Ensure that all parts of the controller system are securely fastened to your power chair. **DO NOT** overtighten any screws.
3. Check for proper tire inflation. If a tire does not hold air, contact your authorized dealer for replacement of the tube.
4. Check the brakes. This test should be carried out on a level surface with at least 3 feet (1 meter) of clearance around your power chair.

To check the brakes:

1. Turn on the controller and turn down the speed level of your power chair.
2. After one second, check the battery condition meter. Make sure that it remains on.

3. Slowly push the joystick forward until you hear the electric brakes click. Immediately release the joystick. You must be able to hear each electrical brake operating within a few seconds of joystick movement. Repeat this test three times, pushing the joystick backward, then left, and then right.

Monthly Checks:

1. Check that the anti-tip wheels do not rub the ground when you operate the power chair. Adjust them as necessary.
2. Check for extreme wear on the anti-tip wheels. Replace them as necessary.
3. Check for drive tire wear. Looking for help from your authorized dealer for repair.
4. Check the caster wheels for wear. Replace them as necessary.
5. Check the caster forks for damage or fluttering which indicates that they may need to be adjusted or have the bearings replaced. Looking for help from your authorized dealer for repair.
6. Keep your power chair clean and free of foreign material, such as mud, dirt, hair, food, drink, etc.

Yearly Checks:

Take your power chair to your authorized dealer for yearly maintenance, especially if you use your power chair on a daily basis. This helps ensure that your power chair is functioning properly and helps prevent future complications.

STORAGE

Your power chair should be stored in a dry place, free from temperature extremes. When storing, disconnect the batteries from the power chair. See "BATTERIES AND CHARGING".

Batteries that are regularly and deeply discharged, infrequently charged, stored in extreme temperatures, or stored without a full charge may be permanently damaged, causing unreliable performance and limited service life. It is recommended that you charge the batteries periodically throughout periods of prolonged storage to ensure proper performance.

You may wish to place several boards under the frame of your power chair to raise it off of the ground during periods of prolonged storage. This takes the weight off the tires and reduces the possibility of flat spots developing on the areas of the tires contacting the ground.



Warning: If you fail to store the unit properly, the frame can rust and the electronics can be damaged.

DISPOSAL OF YOUR POWER CHAIR

Your power chair must be disposed of according to applicable local and national statutory regulations. Contact your local waste disposal agency or authorized dealer for information on proper disposal of power chair packaging, metal frame components, plastic components, electronics, batteries, neoprene, silicone, and polyurethane materials.

CLEANING AND DISINFECTION

1. Use a damp cloth and mild, non-abrasive cleanser to clean the plastic and metal parts of your power chair. Avoid using products that may scratch the surface of your power chair.
2. If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application.



Warning: Follow all safety instructions for the proper use of the disinfectant and/or cleaning agent before applying it to your product. Failure to comply may result in skin irritation or premature deterioration of upholstery and/or power chair finishes.



Warning: Never hose off your power chair or place it in direct contact with water. Your power chair has a painted, ABS plastic body shroud that allows it to be easily wiped clean with a damp cloth.



Warning: Never use any chemicals to clean a vinyl seat, as they may cause the seat to become slippery or dry out and crack. Use soapy water and dry the seat thoroughly.

WHEEL REPLACEMENT

If you have pneumatic tires and you have a flat tire, replace the tube. If your chair is equipped with a solid tire insert, then you must replace the whole wheel assembly. Replacement tires, tubes, and wheel assemblies are readily available through your authorized dealer.



Warning: The wheels on your power chair should only be serviced or replaced by an authorized dealer or a qualified technician.



Warning: Be sure that the power to the controller is turned off and the power chair is not in freewheel mode before performing this procedure.



Warning: When changing a tire, remove only the center lug nut and washer, then remove the wheel. If any further disassembly is required, deflate the tire completely or it may explode.

Follow these easy steps for a quick and safe repair for both pneumatic and solid tires:

1. Turn off the power to the controller.
2. Make sure that the power chair is in drive mode.
3. Raise and support the power base so that the wheel is at least 1 inches (2.5 cm) off of the ground.
4. Remove the drive wheel nut and washer from the axle.
5. Remove the drive wheel from the axle. Make sure that you keep the key.
6. Replace the entire assembly.
7. Slide the wheel back onto the axle. Make sure that the key is in the axle slot.
8. Reinstall the drive wheel nut and washer onto the axle and tighten.
9. Remove the power chair from the base support.



Warning: Failure to ensure that the axle key is properly installed into the axle slot when mounting the wheel can result in electronic brake failure, personal injury, and/or product damage.



Warning: Make sure both the nut and the washer are reinstalled and tightened properly.

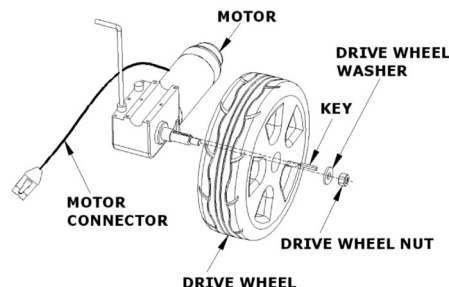


Figure 29. Drive wheel assembly

BATTERY REPLACEMENT

A battery wiring diagram is printed on a decal located on the power base. See "BATTERIES AND CHARGING" for correct battery specifications.



Caution: Battery posts, terminals, and related accessories contain lead and lead compounds. Wear goggles and gloves when handling batteries and wash hands after handling.



Warning: The batteries in your power chair should only be serviced or replaced by an authorized dealer or a qualified technician.



Warning: **DO NOT** replace batteries when seat is occupied.



Warning: Power chair batteries are heavy. See specifications table. If you are unable to lift that much weight, be sure to get help. Use proper lifting techniques and avoid lifting beyond your capacity.



Warning: **DO NOT** mix old and new batteries. Always replace both batteries at the same time.



Warning: Keep tools and other metal objects away from the battery terminals. Contact with tools can cause electrical shock.

You may need the following to change your batteries:

1. Metric/standard socket set and ratchet.
2. Adjustable wrench.

To replace the batteries:

1. Turn off the power to the controller.
2. Make sure that the power chair is in drive mode.
3. Remove the seat. See "DISASSEMBLY AND ASSEMBLY".
4. Loosen the screws and remove the body shroud. See "DISASSEMBLY AND ASSEMBLY".
5. Disconnect the battery cables from the battery terminals of each battery. (See figure 10).
6. Lift the front and rear batteries out of the power base.
7. Install new batteries into the power base. Make sure the terminals of each battery are facing the front of the power chair. (See figure 30)
8. Connect the both battery cable. Make sure that the battery terminal hardware is facing the correct direction. (See figure 30)
9. Reinstall the body shroud and tighten the screws to secure the shroud.
10. Reinstall the seat.
11. Charge the batteries. See "BATTERIES AND CHARGING".



Warning: The battery cables must be disconnected from the battery terminals before sliding the battery tray back or cable damage could result.



Warning: Make sure you tighten the fasteners so that the connections are secure.

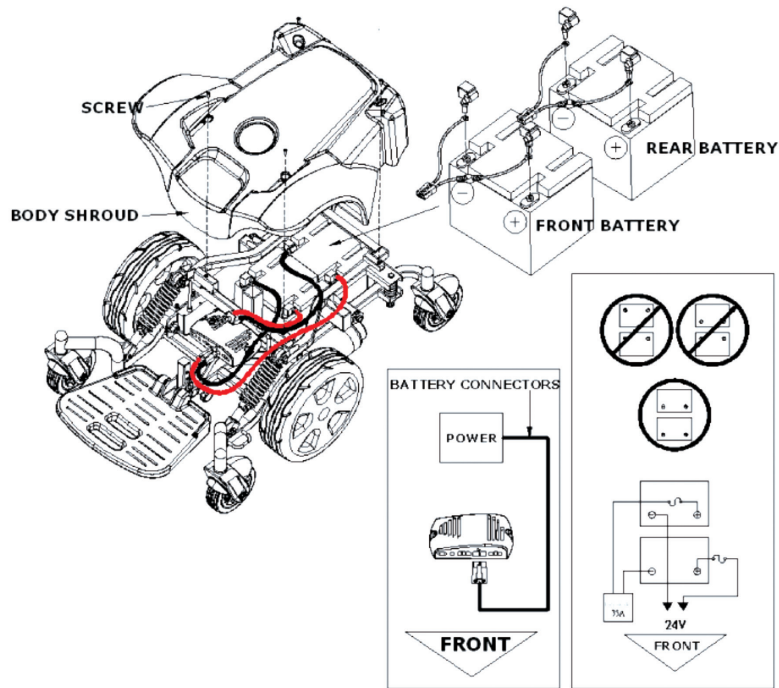


Figure 30. Batteries replaces

CORRECTIVE MAINTENANCE

If the battery condition meter does not light up when you turn on the power:

1. Check the harness connections. Make sure they are tight.
2. Check the circuit breaker. Reset it if necessary.
3. Check the battery connections.

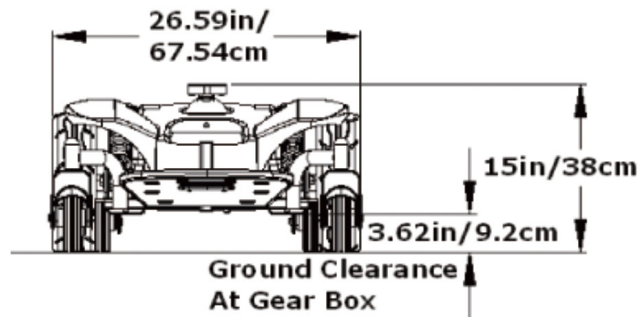
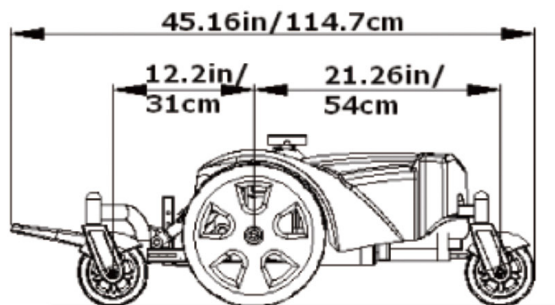
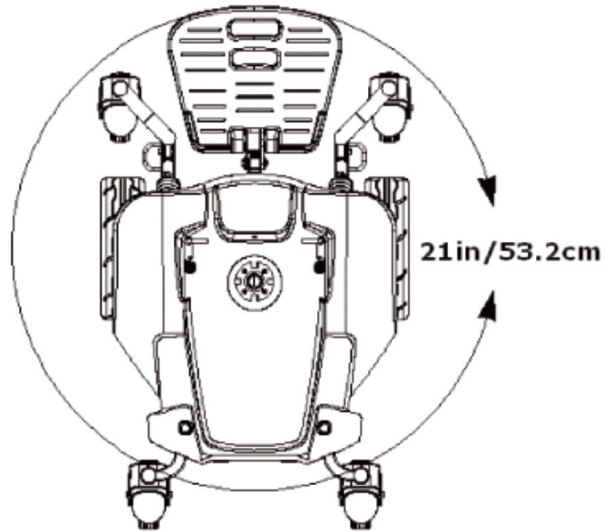
If the above conditions prove normal, you can load test the batteries with a battery load tester. These testers are available at automotive parts stores. Disconnect both batteries before load testing and follow the directions that come with the load tester. If either one of the batteries fails the load test, replace both of them. If your power chair still does not power up, contact your authorized dealer.



TECHNICAL SPECIFICATIONS

Model Number	FR-W02
Weight Capacity	159 Kg / 350 lbs
Total Weight	106 Kg / 233.5 lbs
Standard Seat Weight	25 Kg / 55 lbs
Max. Seat Dimension	20 inches x 21 inches
Maximum Speed	Up to 6.4 Km / 4 mph
Ground Clearance	9.2 cm / 3.62 inches
Turning Radius	53.2 cm / 21 inches
Overall Length	114.7 cm / 45.16 inches
Overall Width	67.54 cm / 26.59 inches
Wheels Size	12.5 inches
Front & Rear Caster	6 inches solid
Suspension	Front & Rear caster
Drive Train	Two-motor, mid-wheel drive
Braking System	Intelligent braking (electronic, regenerative disc brakes)
Standard Electronic	60 amp, Dynamic shark controller
Battery Charger	Off-board, 5 amp
Per-charge Range	Up to 12.27 miles / 19.75 km (160 kg / 350 lbs)
Battery Requirement	12 volt, deep cycle
Battery Size	50 Ah
Battery Weight	14 Kgs / 31 lbs each
Standard Color	Blue / Burgundy Red

Turning Radius





GUARANTEE TERMS

Please keep a note of your serial number.

(This is located on the front frame tube, under the front chassis cover).



Your scooter is guaranteed for 12 months from the date of purchase against faults arising due to defects in manufacture or materials. This guarantee does not detract from, but is in addition to your legal rights. Parts replaced or repaired under the terms of this guarantee will be covered for the balance of the 12 months period.

This guarantee applies only to parts supplied or approved by authorized dealer.

This guarantee is not transferable.

Note: Extended guarantee insurance can be arranged by your dealer. The dealer will be able to advise the extra cost for extended guarantee insurance.

METAL WORK:

Metal components, such as the framework and bright metal parts require special attention and may deteriorate in certain conditions. Moisture and salt may corrode parts left unattended, proprietary auto cleaner polishes should be used to prevent long term damage. Failure to clean and protect these components may void your warranty.

SPEED CONTROLLER:

Servicing of the speed controller or battery charger must only be carried out by your local authorized distributor. Any attempt to open or dismantle these items render the guarantee void on that item.

BATTERIES:

Batteries carry a limited 6 month guarantee from the original manufacturer which is subject to a stringent wear and tear clause. Any battery faults due to a defect in the original manufacture will normally become obvious within the first two months of use. Any gradual deterioration in the performance after this period is normal and associated with fair wear and tear, misuse or accidental damage and as such is not covered by the manufacturers warranty. (Batteries are guaranteed as single parts, only the failed part is replaceable)



Warning: DO NOT attempt to open the battery vent plugs.



SERVICE HISTORY

This section is designed to assist you in keeping a record of any service and repairs to your scooter.

If you decide to sell or exchange your scooter in the future, this will prove most helpful to you. Your service agent will also benefit from a documented record and this book should accompany the scooter when service or repair work is carried out. The service agent will complete this section and return the book to you.

DETAILS OF WORK CARRIED OUT	DEALER STAMP
	DATE INITIALS

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	DATE INITIALS

YOUR LOCAL DEALER
(TO BE FILLED IN BY LOCAL DEALER)



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