

Flash

Owner's Manual



Stylish Design and Premium Performance

Pride
Mobility Products Corp.

*Exeter, PA
St. Catharines, ON*

1-800-800-8586

www.pridemobility.com

SAFETY GUIDELINES

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



WARNING! Failure to follow designated procedures can cause either personal injury, component damage, or malfunction (black symbol on yellow triangle with black border).



MANDATORY! These actions should be performed as specified. Failure to perform mandatory actions can cause injury to personnel and/or damage to equipment (white symbol on blue dot).



PROHIBITED! These actions should be prohibited. These actions should not be performed at any time or in any circumstances. Performing a prohibited action can cause injury to personnel and/or damage to equipment (black symbol with red circle and red slash).



NOTE: Supplemental information that may be helpful to operate the equipment.

C O N T E N T S

I. INTRODUCTION.....	4
II. SAFETY	6
III. THE FLASH.....	15
IV. ASSEMBLY.....	20
V. COMFORT ADJUSTMENTS.....	21
VI. BATTERIES AND CHARGING	26
VII. OPERATION.....	30
VIII. CARE AND MAINTENANCE	34
IX. OPTIONAL ACCESSORIES.....	40
X. WARRANTY.....	41

This owner's 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.

I . I N T R O D U C T I O N

SAFETY

WELCOME to Pride Mobility Products Corporation (Pride). 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 provide you with the conveniences you expect during your daily activities. 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. In addition, your **safety** depends upon you, as well as your provider, caretaker, or healthcare professional in using good judgement.

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 Pride Provider. **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, including voiding 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 retrofits kits from time to time provided by Pride to enhance or preserve the safe use of this product.

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 Pride Provider.

Please notify us of any change of address, so we can keep you apprised of important information about safety, new products, and new options that can increase your ability to use and enjoy your power chair. Please feel free to contact us at the address below:

Pride Mobility Products Corporation
Attn: Customer Care Department
182 Susquehanna Avenue
Exeter, PA 18643-2694
customer care@pridemobility.com
800-424-8205

I . I N T R O D U C T I O N

PRIDE OWNERS CLUB

As an owner of a Pride product, you are encouraged to register your product and enroll in the Pride Owners Club. You may do so by filling out and returning your enclosed product registration card or by visiting Pride's web site at www.pridemobility.com. As a registered member, each time you visit our site, you will have access to the most interactive and honest educational venue available today for people with mobility needs, their families, and friends.

From our home page, select "Owners Club" to enter a page dedicated to current and potential Pride product owners. You will gain access to interviews, stories, recreation ideas, daily living tips, product and funding information, and interactive message boards. These message boards invite you to communicate with other Pride customers as well as Pride representatives who are available to assist you with any questions or concerns you may have.

My authorized Pride Provider:

Name: _____

Address: _____

Phone Number: _____

Purchase Date: _____



NOTE: If you ever lose or misplace your product registration card or your copy of this manual, contact us and we will be glad to send you a new one immediately.

II. SAFETY

PRODUCT SAFETY SYMBOLS

The symbols below are used on the power chair to identify warnings, mandatory actions, and prohibited actions. It is very important for you to read and understand them completely.



Use only AGM or Gel-Cell batteries.



This product has been tested and passed at an immunity level of 20 V/m.



Read and follow the information in the owner's manual.



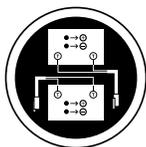
Maximum seating weight.



Unlocked and in freewheel mode.

Place unit on level ground and stand behind or to one side when changing from drive mode to freewheel mode or freewheel mode to drive mode.

Locked and in drive mode.



Battery Configuration:
T = Terminal Post
Connect Red wire to T with +
Connect Black wire to T with -



Do not remove anti-tip wheels.

II. SAFETY



To prevent unintended movement, turn off the power to the electrically-powered mobility vehicle before using a cell phone, two-way radio, lap-top, or any other type of radio transmitter.



Avoid exposure to rain, snow, ice, salt, or standing water whenever possible. Maintain and store in a clean and dry condition.



Removal of grounding prong can create electrical hazard. If necessary, properly install an approved 3-pronged adapter to an electrical outlet having 2-pronged plug access. Failure to heed could result in personal injury and/or property damage.



Prevent personal injury and equipment damage. Do not connect an extension cord to the AC/DC converter or the battery charger.



Corrosive chemicals contained in battery.



Explosive conditions.



Contact with tools can cause electrical shock.



Pinch Point.

II. SAFETY

SAFETY



MANDATORY! Do not operate your new power chair for the first time without completely reading and understanding this owner's manual.

Your power chair is a state-of-the-art life-enhancement device designed to increase mobility. Pride 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 fitted the power chair to the user and has assisted the prescribing healthcare professional and/or the authorized Pride Provider 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 the user become accustomed to operating the power chair safely.

Modifications

Pride has designed and engineered your power chair to provide maximum mobility and utility. A wide range of accessories is available from your authorized Pride Provider 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 Pride. Unauthorized modifications may result in personal injury and/or damage to your power chair.

Pre-Ride Safety Check

Get to know the feel of your power chair and its capabilities. Pride 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:

- Check for proper tire inflation. Maintain but do not exceed **35 psi (2.4 bar)** in each tire (if equipped with pneumatic tires).
- Check all electrical connections. Make sure they are tight and not corroded.
- Check all controller connections to the power base. Make sure they are secured properly.
- Check the brakes. See VIII. "Care and Maintenance."
- Check battery charge. See VI. "Batteries and Charging."



NOTE: If you discover a problem, contact your authorized Pride Provider for assistance.

II. SAFETY

Weight Limitations

Your power chair is rated for a maximum weight capacity. Please refer to the specifications table for this limit.



WARNING! Exceeding the weight capacity voids your warranty and may result in personal injury and/or damage to your power chair. Pride 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 result in personal injury and/or property damage.

Tire Inflation

If your power chair is equipped with pneumatic tires, you should check or have the air pressure checked regularly. Proper inflation pressures will prolong the life of your tires and help ensure the smooth operation of your power chair.



WARNING! It is important that 35 psi (2.4 bar) tire pressure be maintained in pneumatic tires at all times. Do not underinflate or overinflate your tires. Low pressure may result in loss of control, and overinflated tires may burst. Failure to maintain 35 psi (2.4 bar) tire pressure in pneumatic tires at all times may result in tire and/or wheel failure, causing serious personal injury and/or damage to your power chair.

WARNING! Inflate your power chair drive tires from a regulated air source with an available pressure gauge. Inflating your tires from an unregulated air source could overinflate them, resulting in a burst tire and/or personal injury.

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.

- Proceed with extreme caution as you approach the downgrade of a ramp or other incline.
- 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.
- When driving down a ramp, keep the power chair's speed adjustment set to the slowest speed setting to ensure a safely controlled descent. See VII. "Operation."
- 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 climbing an incline, do not zigzag 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! When on any sort of an incline or decline, never place the power chair in freewheel mode while seated on it or standing next to it. Doing so may result in personal injury and/or damage to your power chair.

WARNING! Never travel down an incline backwards. This may result in personal injury.

II. SAFETY



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, resulting in personal injury and/or damage to your power chair.

In compliance with the Americans with Disabilities Act of 1990, all handicap public access ramps are required to have a maximum slope of 5°. Therefore, Pride recommends that the maximum slope of an incline you attempt to safely ascend or descend on your power chair does not exceed 5°. See figure 1.



WARNING! Any attempt to climb or descend a slope steeper than 5° may put your power chair in an unstable position and cause it to tip, resulting in personal injury.

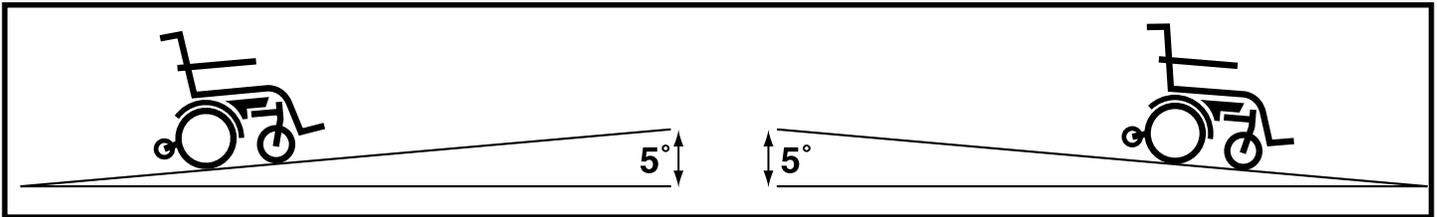


Figure 1. Maximum Safe Slope (Ascending and Descending)

Braking Information

Your power chair is equipped with two powerful brake systems:

- Regenerative — uses electricity to rapidly slow the vehicle when the joystick returns to the center/stop position.
- 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 caster wheels and anti-tip 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. This greatly reduces the possibility of a tip or fall. To avoid personal injury and/or property damage, always exercise common sense when cornering.

Outdoor Driving Surfaces

Your power chair is designed to provide optimum stability under normal driving conditions—dry, level surfaces composed of concrete, blacktop, or asphalt. However, Pride 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.

- Reduce your power chair's speed when driving on uneven terrain and/or soft surfaces.
- Avoid tall grass that can entangle the running gear.
- Avoid loosely packed gravel and sand.
- If you feel unsure about a driving surface, avoid that surface.

II. SAFETY

Freewheel Mode

Your power chair is equipped with a manual freewheel system 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 III. “The Flash.”

WARNING! Do not use your power chair in freewheel mode without an attendant present. Personal injury may result.



WARNING! Do not attempt to personally place your power chair in freewheel mode while seated on it. Personal injury may result. Ask an attendant for assistance if necessary.

WARNING! Do not place your power chair in freewheel mode while on an incline. The chair could roll uncontrollably on its own, causing personal injury.

Stationary Obstacles (Steps, Curbs, etc.)

Proceed with extreme caution when driving near raised surfaces, unprotected ledges and/or drop-offs (curbs, porches, stairs, etc.). The correct method for approaching a curb is illustrated in figures 2 and 3.

WARNING! Do not attempt to have your power chair climb or descend an obstacle that is higher than 2 inches unless you have the assistance of an attendant.



WARNING! Do not attempt to have your power chair proceed backward down any step, curb, or other obstacle. This may cause the power chair to tip and cause personal injury.

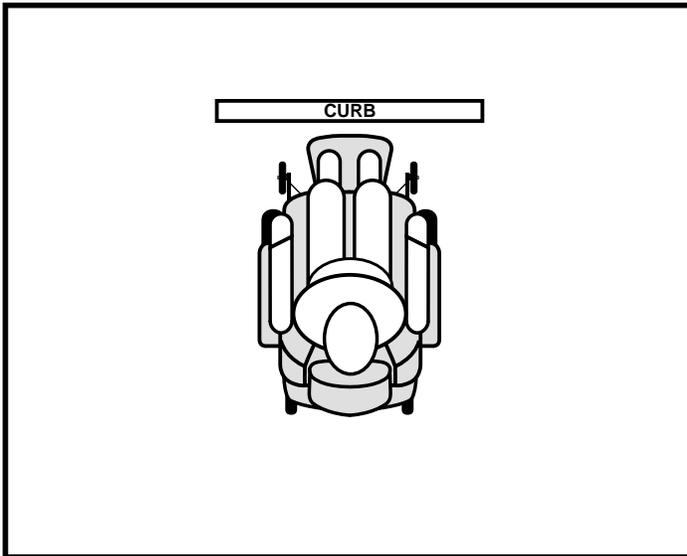


Figure 2. Correct Curb Approach

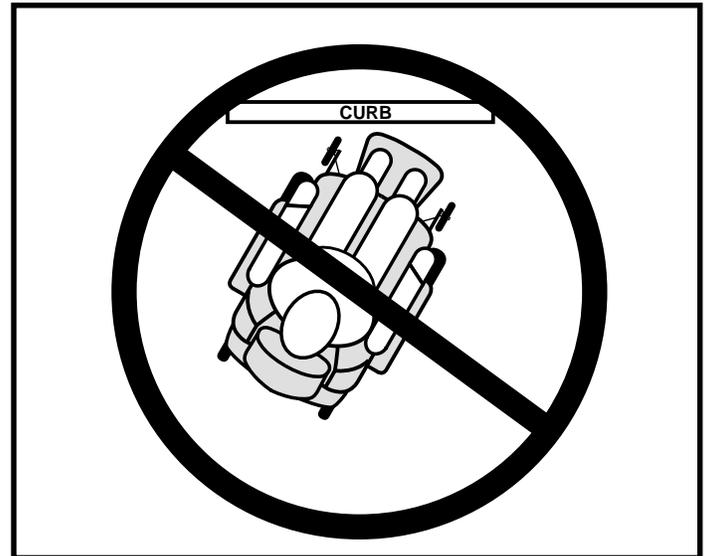


Figure 3. Incorrect Curb Approach

Public Streets and Roadways



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.

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. You may cause injury to yourself and to others and/or damage your power chair.

II. SAFETY

Doors

- Determine if the door opens toward or away from you.
- 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).

- 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.
- Use care that pocketbooks, packages, or power chair accessories do not become caught in elevator doors.

Lift/Elevation Products

If you will be traveling with your power chair, you may find it necessary to use a lift/elevation product to aid in transportation. Pride recommends that you closely review the instructions, specifications, and safety information set forth by the manufacturer of the lift/elevation product before using that product.

Motor Vehicle Transport

Currently, there are no standards approved for tie-down systems in a moving vehicle of any type to transport a person while seated in a power chair.

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, Pride recommends that you or a trained attendant perform the following tasks before attempting a transfer:

- Turn the power off. See VII. "Operation."
- Ensure your power chair is not in freewheel mode. See III. "The Flash."
- Turn both caster wheels toward the transfer destination to improve power chair stability during transfer.
- Make sure both armrests are flipped up or removed from your power chair.
- 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.
- Reduce the distance between your power chair and the object you are transferring onto.

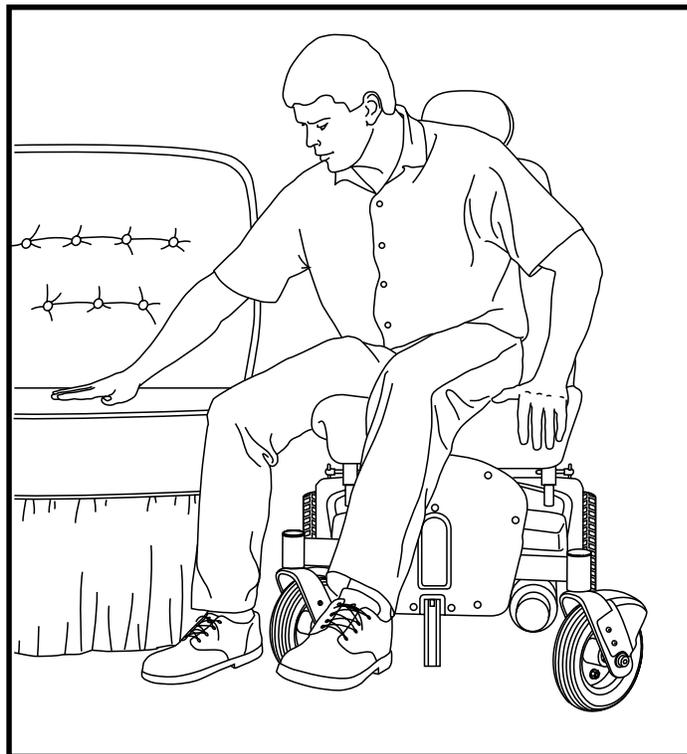


Figure 4. Ideal Transfer Position



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 and causing injury.

WARNING! Avoid using your armrests for weight bearing purposes. Such use may cause the power chair to tip and cause personal injury.

II. SAFETY



WARNING! Avoid putting all of your weight on the front riggings. Such use may cause the power chair to tip and cause personal injury.

Positioning Belts

Your authorized Pride Provider, 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. Serious personal injury may result if you 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.

WARNING! Do not sit on your power chair while it is in a moving vehicle. Personal injury and/or property damage may result.

WARNING! Always be sure your power chair and its batteries are properly secured when it is being transported. Failure to do so may result in personal injury and/or damage to your power chair.

Inclement Weather Precautions



WARNING! Pride recommends that you do not operate your power chair in icy or slippery conditions or on salted surfaces (i.e., walks or roads). Such use may adversely affect the performance and safety of your power chair, resulting in an accident and personal injury.

WARNING! Avoid exposing your power chair to any type of moisture at any time (rain, snow, mist, or wash). Such exposure can damage your power chair. Never operate or charge your power chair if it has been exposed to moisture until it has dried thoroughly.

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. Pride 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. 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, possibly resulting in personal injury. Keep your hands away from the tires when driving.

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. Failure to do so may result in personal injury.

Removable Parts



WARNING! Do not attempt to lift or move a power chair by any of its removable parts. Personal injury and/or damage to the power chair may result.

II. SAFETY

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 VI. "Batteries and Charging."

WARNING! Power chair batteries are heavy. See specifications table. If you are unable to lift that much weight, be sure to get help. Lifting beyond your capacity can result in personal injury.



WARNING! Battery posts, terminals, and related accessories contain lead and lead compounds. Wash hands after handling.

WARNING! Always protect the batteries from freezing and never charge a frozen battery. Charging a frozen battery may result in personal injury and/or damage to the battery.

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

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.



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.

Electromagnetic and Radio Frequency Interference (EMI/RFI)

Laboratory tests have shown that electromagnetic and radio frequency waves can have an adverse affect on the performance of electrically-powered mobility vehicles. The 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, and paging transmitters. In some cases, these waves can cause unintended movement.



This product has been tested and has passed at an immunity level of 20 V/m.



PROHIBITED! To prevent unintended movement, turn off the power to the electrically-powered mobility vehicle before using a cell phone, two-way radio, lap-top, or any other type of radio transmitter.



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, go to www.pridemobility.com. If unintended motion or brake release occurs, turn the power chair off as soon as it is safe to do so. Call Pride at 800-424-8205 to report the incident.

III. THE FLASH

THE FLASH

The Flash has two main assemblies: the seat and the power base. See figures 5 and 6. Typically, the seat assembly includes the armrests, seatback, and seat base. The seat may also have some optional accessories attached to it, such as a rear basket, a cane and crutch holder, or a cup holder. See IX. "Optional Accessories."

The power base assembly includes two motor/brake assemblies, two drive wheels, two anti-tip wheels, two caster wheels, two batteries, and the electrical components.

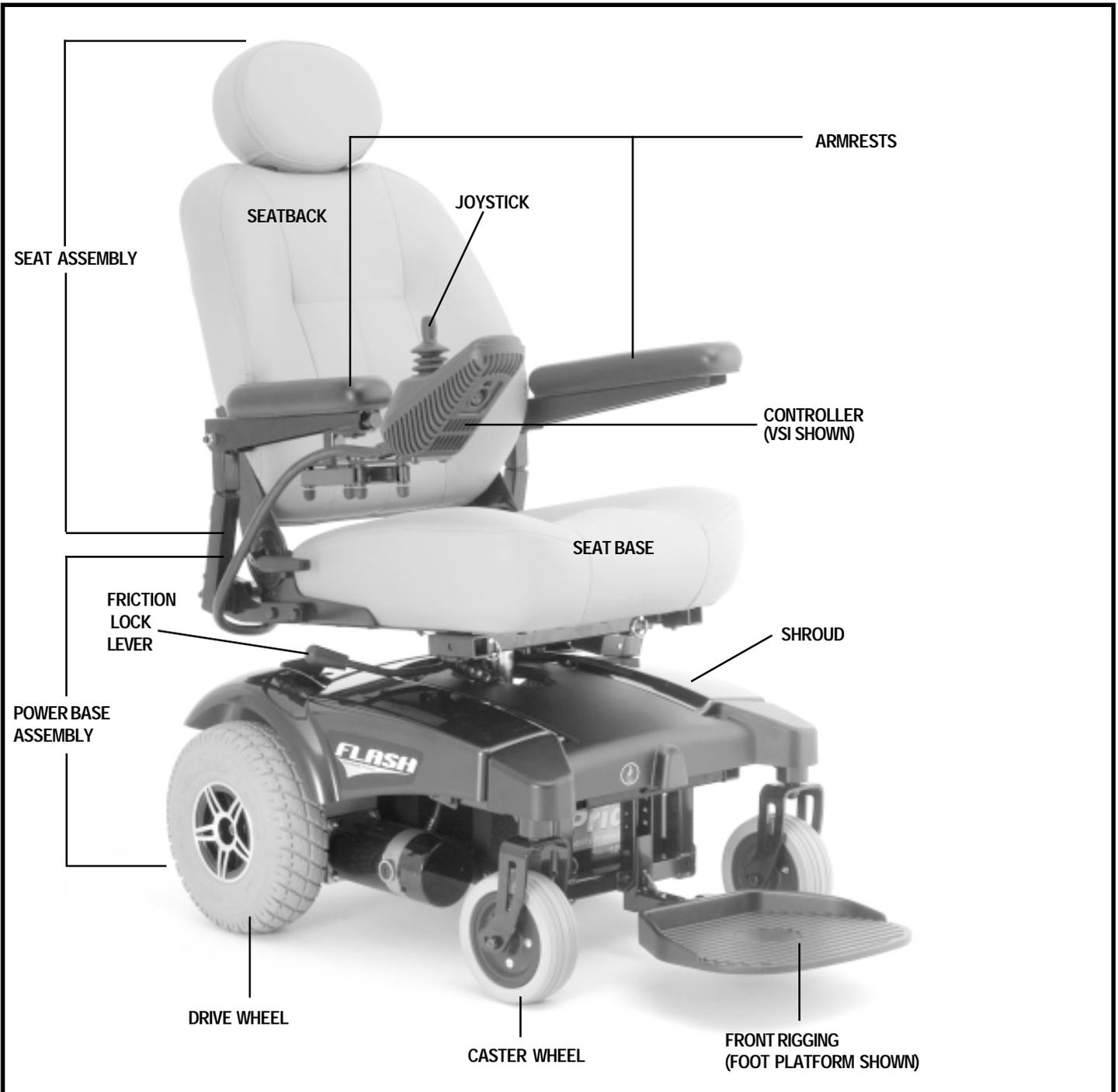


Figure 5. The Flash (shown with optional limited recline high-back seat.)

III. THE FLASH

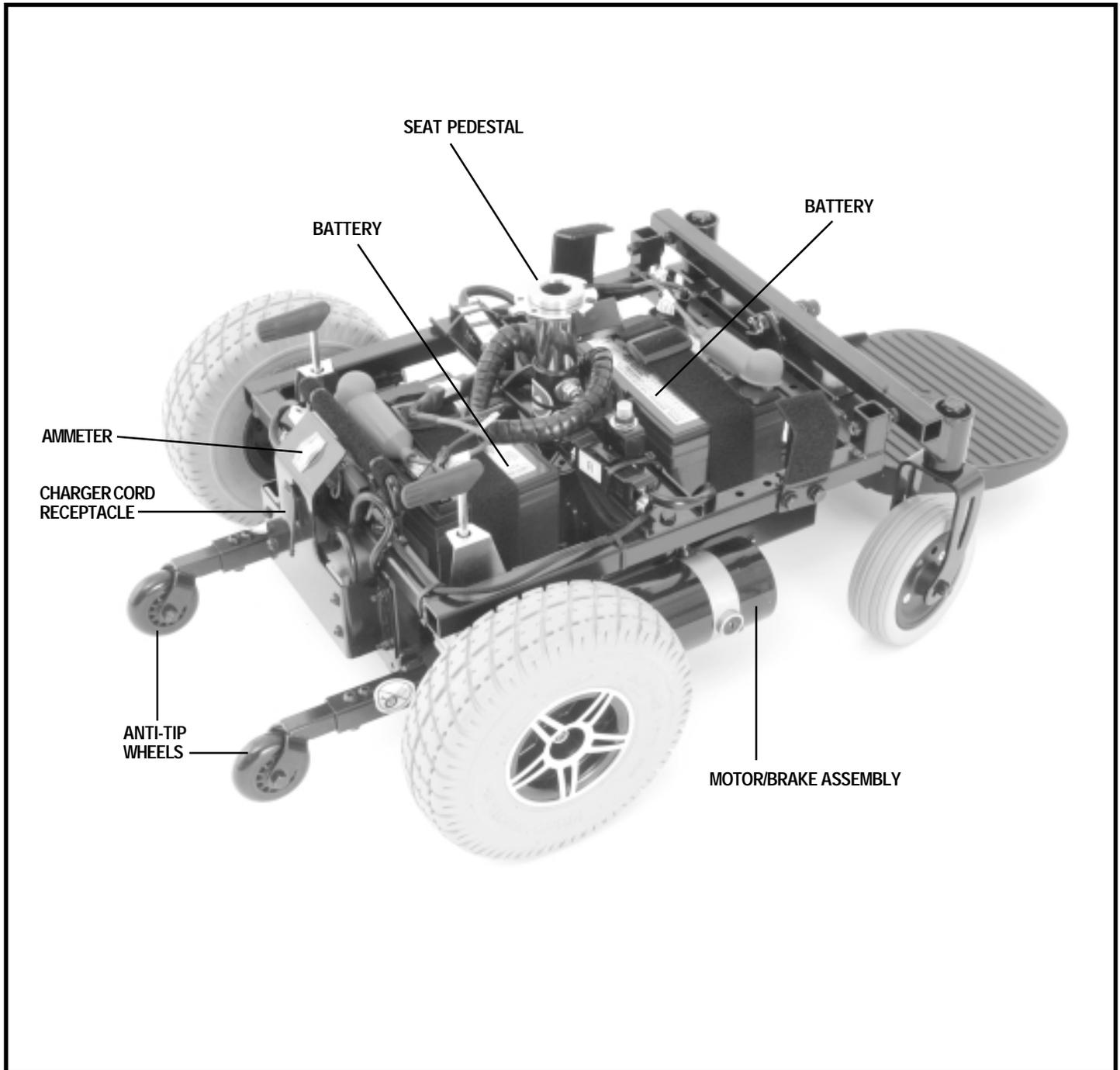


Figure 6. The Flash Power Base (Shroud Removed)

III. THE FLASH

FLASH SPECIFICATIONS	
Suspension:	Limited
Drive Wheels:	10 in., pneumatic
Caster Wheels:	6 in., solid, front-mounted
Anti-tip Wheels:	3 in., solid, rear-mounted
Maximum Speed:	Up to 5 mph*
Brakes:	"Intelligent Braking" electronic regenerative, disc park brake
Ground Clearance:	3 in.
Turning Radius:	22.25 in. (<i>without front riggings</i>)
Turning Diameter	44.5 in. (<i>without front riggings</i>)
Overall Size:	Length: 29 in. (<i>without front riggings</i>) Width: 24 in.
Seating Options:	Medium-Back Seat (<i>standard</i>) Limited Recline High-Back Seat (<i>optional</i>)
Drivetrain:	Two motor, rear-wheel drive
Batteries:	Two 12-volt, U-1 batteries
Range:	Up to 20 miles*
Battery Charger:	4-amp, onboard
Electronics:	50-amp PG Drives VSI Controller
Weight Capacity:	300 lbs.
Component Weights:	Base: 89.5 lbs. Medium-Back Seat: 33 lbs. Batteries: 24.5 lbs. each

*Depending on user weight and terrain.

III. THE FLASH

ELECTRICAL COMPONENTS

The main electrical components are located on the power base. The ammeter and the charger cord receptacle are located on the back of the power base. The main circuit breaker is located on the top of the power base. The controller connector and the charger inhibit connector are located on the main wiring harness. See figure 7.

Ammeter: The ammeter displays the charger’s current output in amps. See VI. “Batteries and Charging.”

Charger Cord Receptacle: This is where the charger cord plugs into the onboard charger. See VI. “Batteries and Charging.”

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 Pride Provider.

Controller Connector: This is where the controller connects to the batteries and the motors.

Charger Inhibit Connector: The charger inhibit enables the onboard charger to disable the controller during charging. See VII. “Operation.”

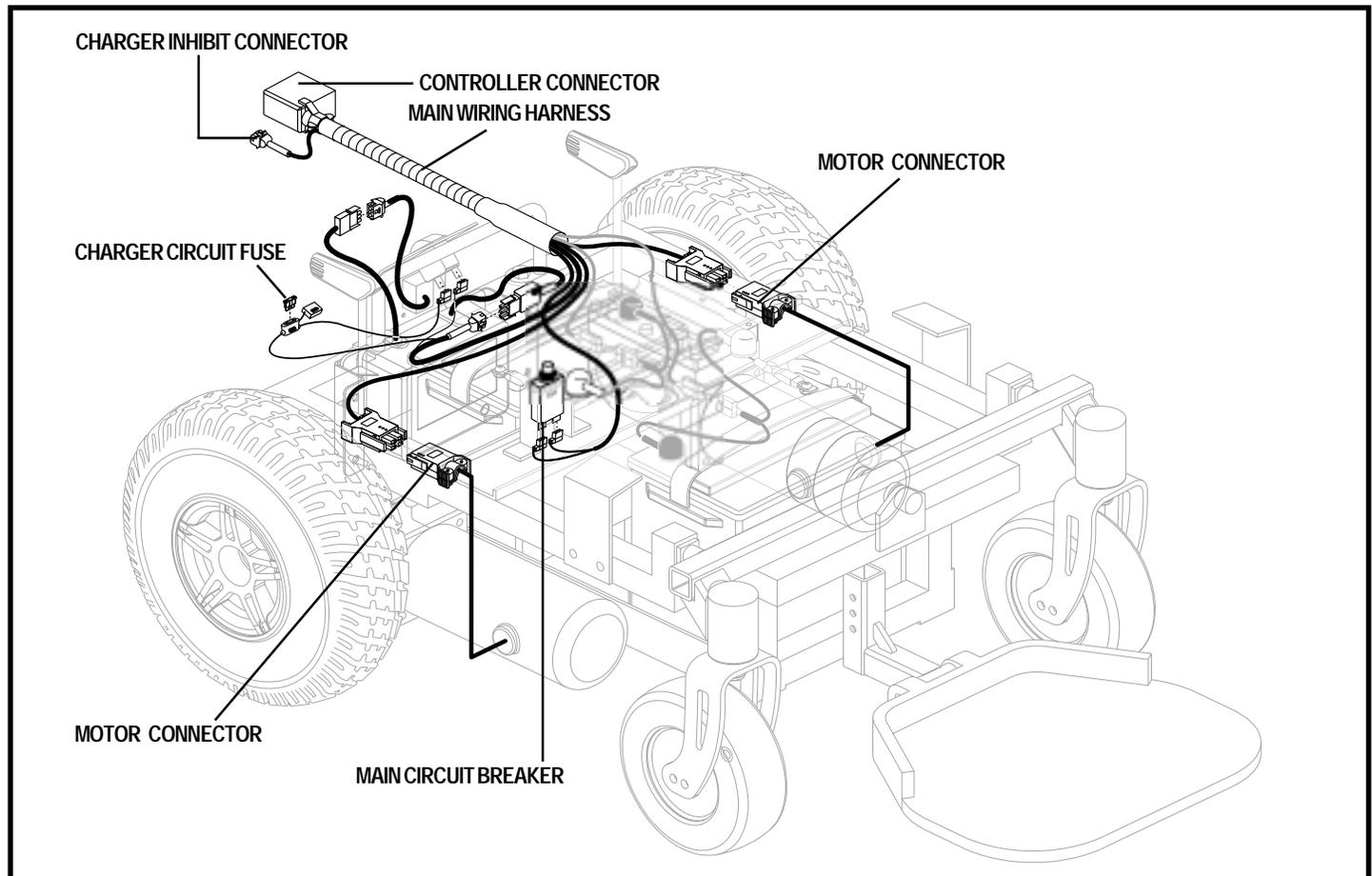


Figure 7. Flash Electrical Components

III. THE FLASH

MANUAL FREEWHEEL LEVERS

The Flash has a manual freewheel lever on each drive 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, as the unit could roll on its own, causing injury!

To engage or disengage the drive motors:

1. Locate the lever on top of each drive motor. See figure 8.
2. Rotate both levers outward to disengage the drive motors.
3. Rotate both levers rearward to engage the drive motors.

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

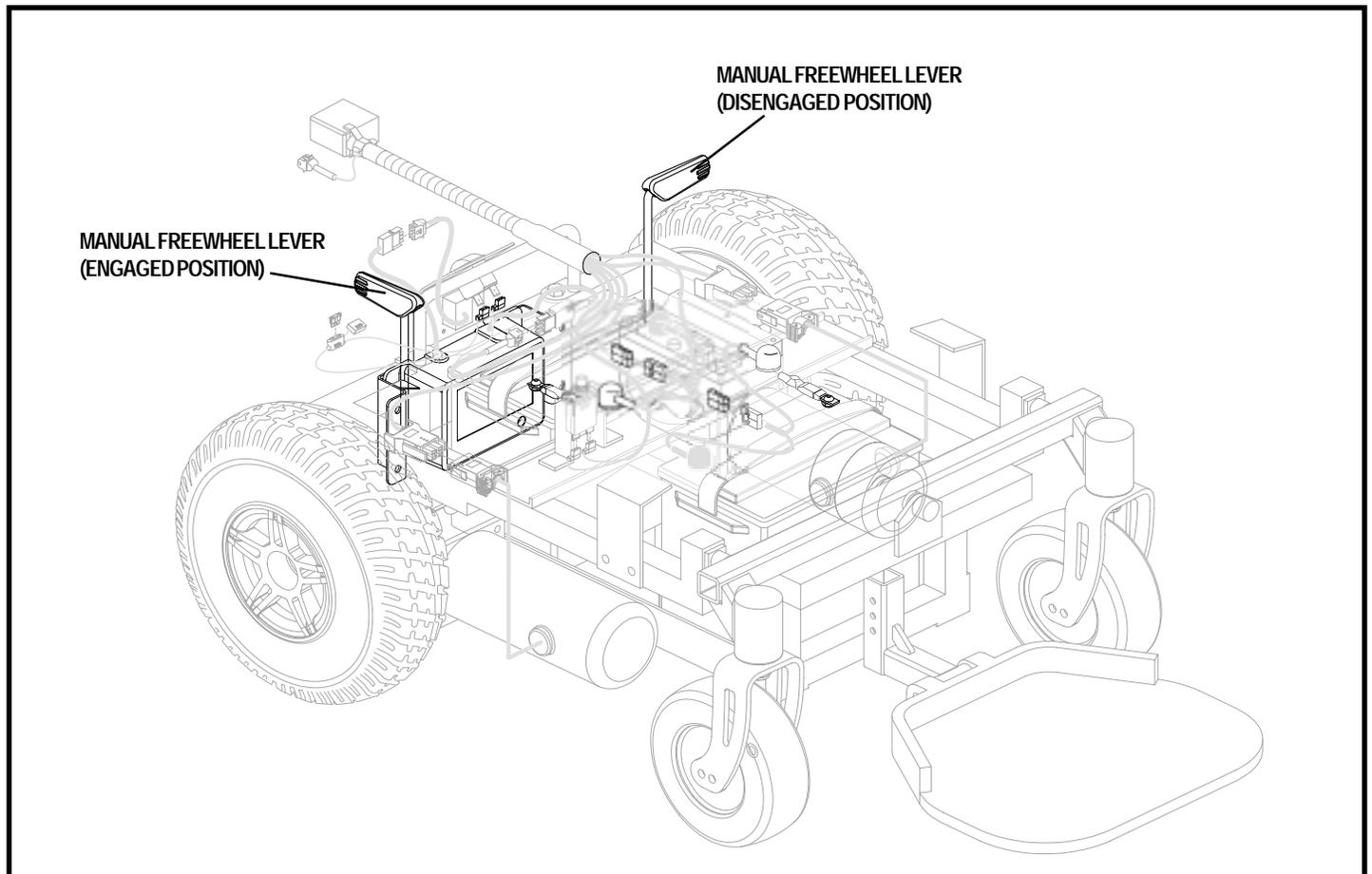


Figure 8. Manual Freewheel Lever Positions

IV. ASSEMBLY

SEAT INSTALLATION

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



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, resulting in personal injury or damage to the chair.

To install the seat:

1. Align the seat base plate with the seat pedestal. See figure 9.
2. Slowly drop the seat down until it comes in contact with the seat pedestal.
3. Make sure the friction lock lever is in the forward position and that the seat is locked.
4. Install the controller into one of the armrests. See “Controller Position” in V. “Comfort Adjustments.”
5. Plug the controller connector and the charger inhibit connector into the main wiring harness. See figure 7.

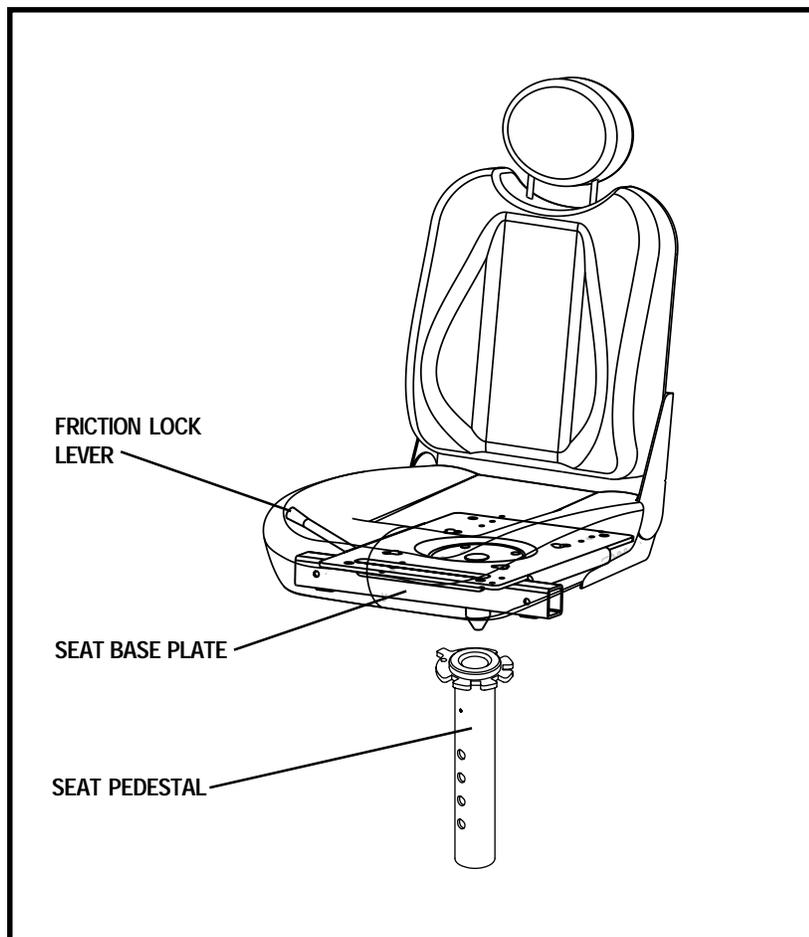


Figure 9. Seat Installation

V. COMFORT ADJUSTMENTS

COMFORT ADJUSTMENTS

After becoming familiar with your power chair's operation, you may find the need to make some adjustments to increase your comfort, such as seat height, armrest angle, foot platform height and angle, and controller position. If your power chair is equipped with a specialty seat, refer to the information provided in separate manuals. If your power chair is equipped with a medium-back, a high-back, or a reclining seat, refer to the following information.

WARNING! If your power chair was configured by your authorized Pride Provider, please consult your healthcare professional before changing the seat position or making any other adjustment. Some adjustments may degrade your power chair's performance and safety by changing its center of gravity.



WARNING! Some power chair components are heavy. You may need assistance to lift or carry them. Please refer to the specifications table for specific component weights before you disassemble the power chair.

WARNING! Prevent injury. Remove the occupant from the power chair before making any adjustments.

You may need the following to make comfort adjustments:

- metric/standard socket set and ratchet
- adjustable wrench

Seat Height Adjustment

The seat is attached to the power base through a seat pedestal. You can change the seat height to one of four positions in 1-in. increments by raising the seat pedestal.

To change the seat height:

1. Unplug the controller connector and the charger inhibit connector from the main wiring harness. See figure 7.
2. Lift the seat up and off of the power base.
3. Remove the hardware that attaches the seat pedestal to the power base. See figure 10.
4. Move the seat pedestal up or down to the desired position.
5. Reinstall the hardware that attaches the seat pedestal to the power base.
6. Reinstall the seat.
7. Plug the controller connector and the charger inhibit connector back into the main wiring harness.

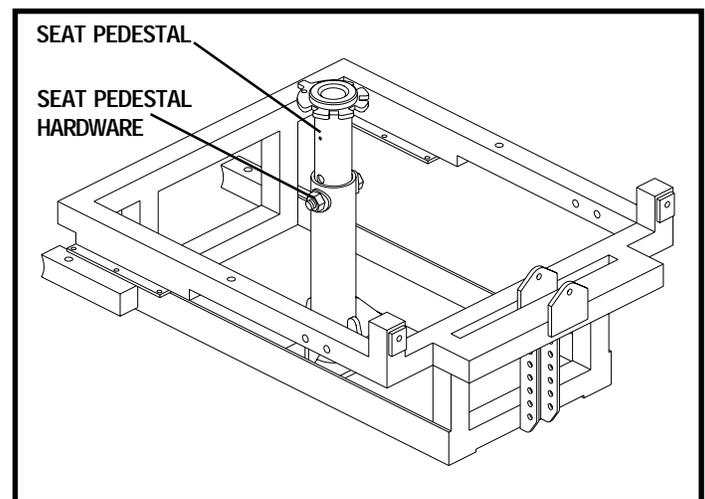


Figure 10. Seat Height Adjustment

Seat Position

You can move the seat forward or rearward by changing the position of the seat base plate.

To change the position:

1. Unplug the controller connector and the charger inhibit connector from the main wiring harness.
2. Remove the seat from the power base.
3. Remove the seat base plate from the seat base. See figure 11.
4. Reposition the seat base plate to a different set of mounting holes.
5. Fasten the seat base plate back onto the bottom of the seat base.
6. Reinstall the seat.
7. Plug in the controller connector and the charger inhibit connector.

Seatback Angle Adjustment

If your power chair is equipped with an adjustable seatback, you can adjust it to four (4) different angles: 90°, 102°, 105°, or 107°.

To adjust the seatback angle:

1. Remove the hardware from each seat hinge. See figure 12.
2. Set the seatback at the desired angle.
3. Reinstall the hardware to each seat hinge and tighten.

Reclining Seat

If your Flash is equipped with a reclining seat, you can adjust the seatback angle with the seatback release lever. The lever is located on the right side of the seat base. See figure 13.

To adjust the recline angle:

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

Armrest Width Adjustment

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



NOTE: Changing the armrest width may increase the overall width of your power chair.

To change the armrest width:

1. Locate the two armrest knobs on each side of the armrest receiver bracket. See figure 13.
2. Loosen the knobs.
3. Slide the armrests in or out to the desired width.
4. Tighten the knobs.

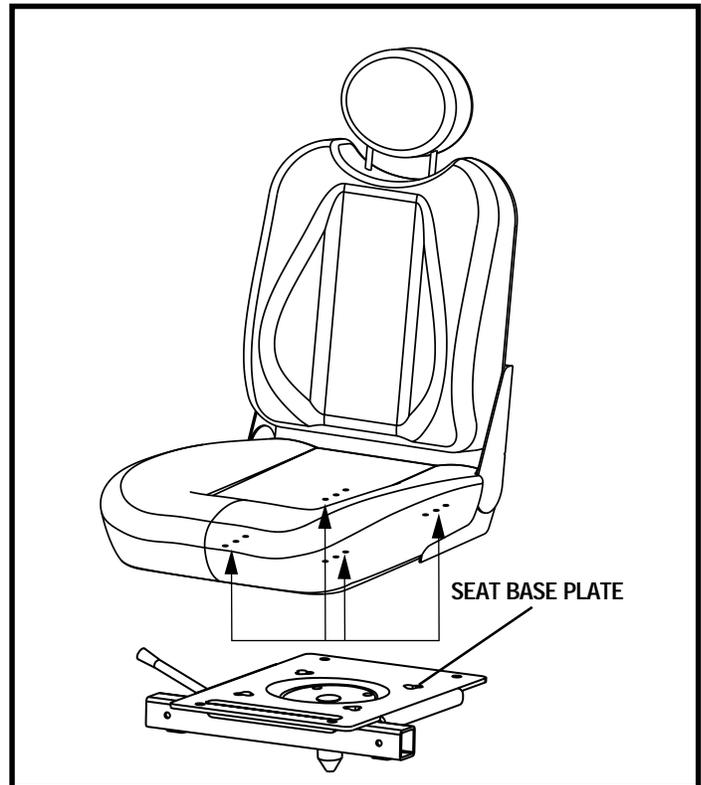


Figure 11. Seat Position Adjustment

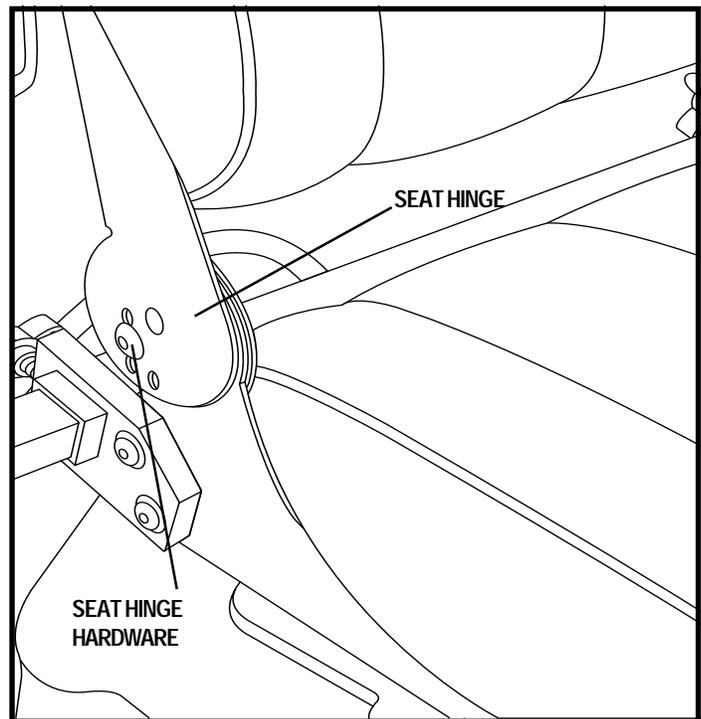


Figure 12. Seatback Angle Adjustment

V. COMFORT ADJUSTMENTS

Armrest Height

The armrest height has a 3-in. range of adjustment.

To change the armrest height:

1. Loosen the setscrew on the armrest. See figure 13.
2. Raise or lower the armrest to the desired height.
3. Tighten the setscrew to secure the armrest.

Armrest Angle Adjustment

To change the armrest angle:

1. Lift the armrest straight up so that it is perpendicular to the floor. See figure 14.
2. Loosen the jam nut.
3. Turn the adjusting screw clockwise to lower the front of the armrest, or turn the adjusting screw counterclockwise to raise the front of the armrest.
4. Tighten the jam nut to lock the adjusting screw into place.

Foot Platform Height

The foot platform height is easily adjusted to different heights in 1/2-in. increments.

To raise or lower the foot platform:

1. Remove the hardware from the foot platform bracket. See figure 15.
2. Raise or lower the foot platform to the desired height.
3. Reinstall the hardware into the foot platform bracket and tighten.

Foot Platform Angle

You can adjust the angle of the foot platform with a hex key. See figure 15.

To adjust the foot platform angle:

1. Flip up the foot platform and locate the setscrew.
2. Turn the setscrew counterclockwise to raise the front of the foot platform.
3. Turn the setscrew clockwise to lower the front of the foot platform.

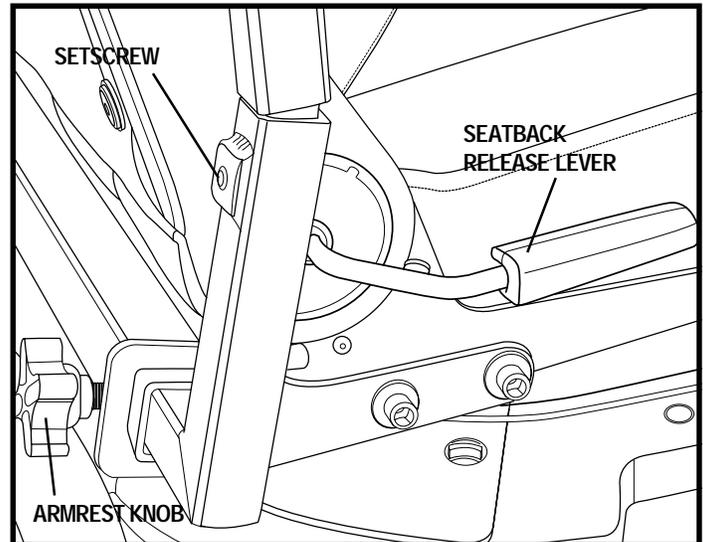


Figure 13. Seat and Armrest Adjustments

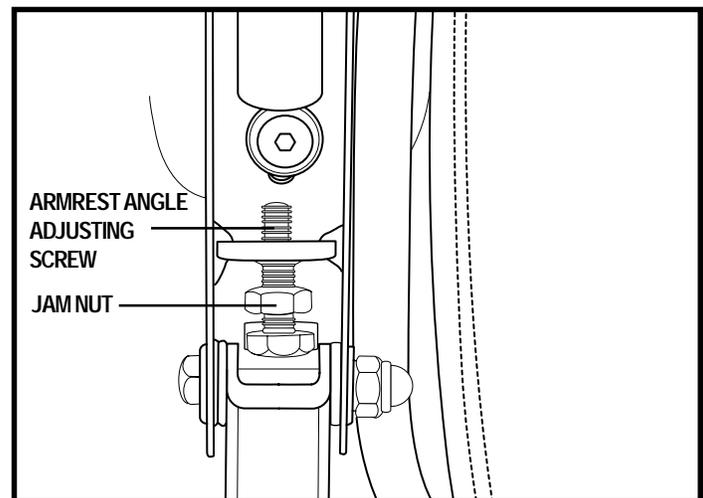


Figure 14. Armrest Angle Adjustment

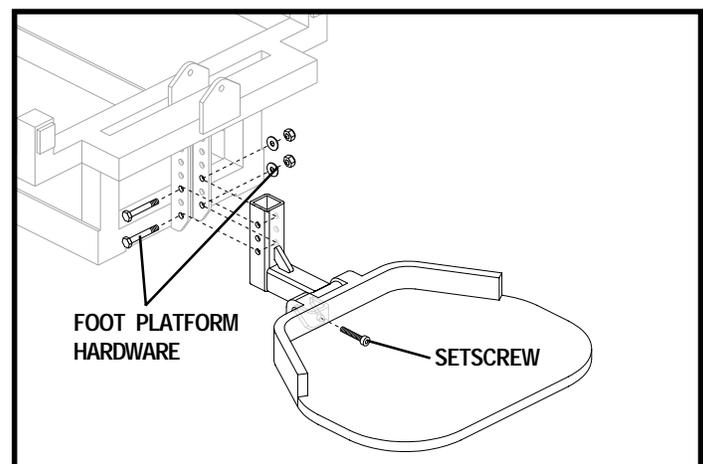


Figure 15. Foot Platform Adjustment

V. COMFORT ADJUSTMENTS

Controller Position

You can position the controller for either left-hand or right-hand use.



WARNING! Do not place the controller cable so that it can be pinched in the seat frame or the power base frame.

To change the controller position:

1. Unplug the controller connector and the charger inhibit connector from the main harness. See figure 7.
2. Cut the wire tie(s) that attaches the controller cable to the armrest.
3. Flip up the armrest and loosen the setscrew. See figure 16.
4. Slide the controller out of the armrest.
5. Loosen the setscrew in the other armrest.
6. Place the controller in the other armrest.
7. Tighten the setscrew to secure the controller.
8. Use a wire tie to secure the controller cable to the armrest.
9. Plug the controller connector and the charger inhibit connector into the main harness. See figure 7.

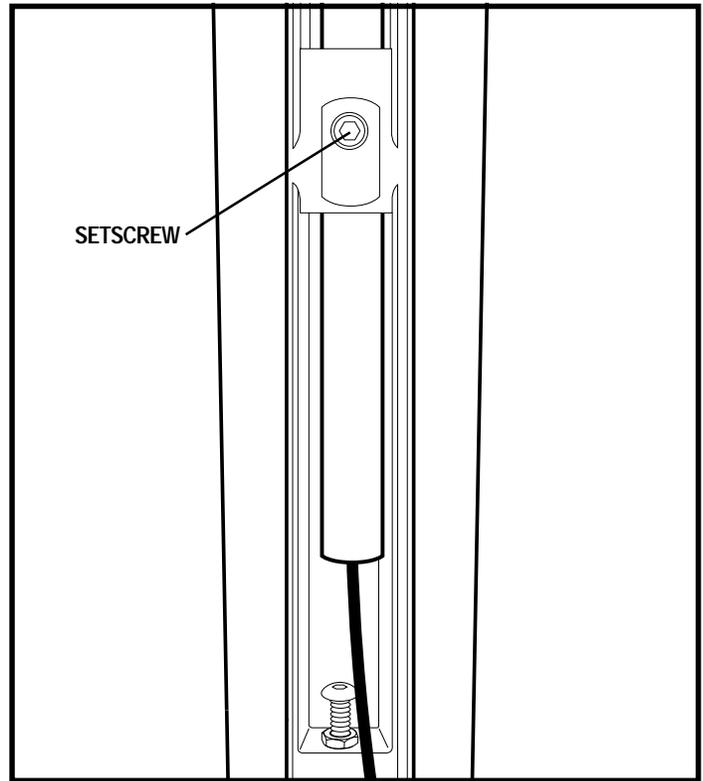


Figure 16. Underside of Armrest

Swing-away Footrests

Swing-away Footrests (SFRs) enable you to rotate the footrests to the side before you transfer onto or off of your power chair.

To rotate the SFRs:

1. Push in the release lever. See figure 17.
2. Rotate the SFRs.

To adjust the SFR length:

1. Remove the hardware from the side of each footrest extension. See figure 17.
2. Slide the footrest up or down to the desired length.
3. Reinstall the hardware.

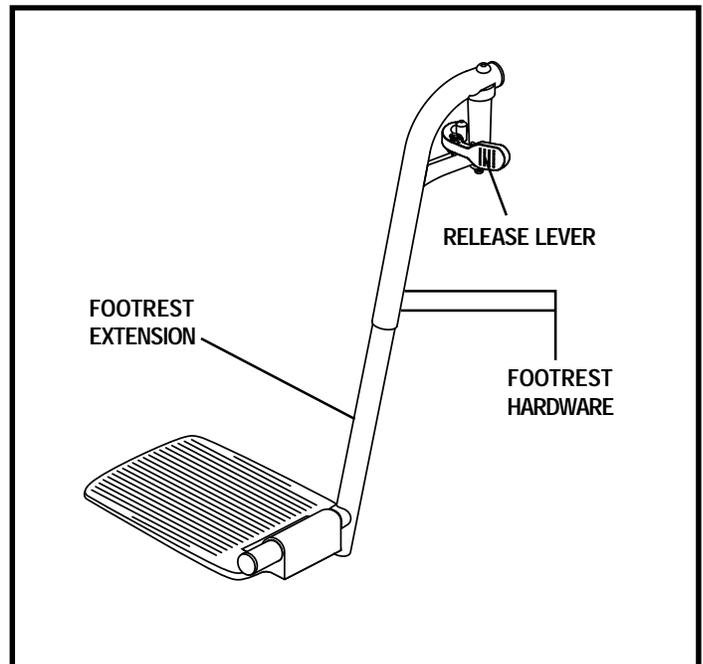


Figure 17. Swing-Away Footrests

Anti-Tip Wheels

The anti-tip wheels are designed to give your power chair increased stability on inclines. The anti-tip wheels are pre-set at the factory for smooth surfaces or indoor use only. If you plan on using your power chair on rough surfaces, it may be necessary to adjust the anti-tip wheels to better suit your needs. The anti-tip wheels may need adjustment if the anti-tip wheels constantly rub the ground.



PROHIBITED! Do not remove the anti-tip wheels.



NOTE: Each drive tire must be inflated to 35 psi (2.4 bar) - if equipped with pneumatic tires and the user must also be seated in the power chair in order to properly adjust the anti-tip wheels.

To adjust the anti-tip wheels:

1. Remove the hardware from the anti-tip bracket. See figure 18.
2. Slide the anti-tip wheel in or out.
3. Reinstall the hardware.
4. Repeat for the other side.

Caster Position

You can change the caster position to one of two positions. Be aware that changing the caster position can affect the stability and turning radius of your power chair. If you have any questions about this adjustment, please contact your authorized Pride Provider.

To change the caster position:

1. Remove the hardware that attaches the caster wheel to the caster fork. See figure 19.
2. Reposition the caster wheel on the fork to the desired hole.
3. Reinstall the hardware that attaches the caster wheel to the caster fork.

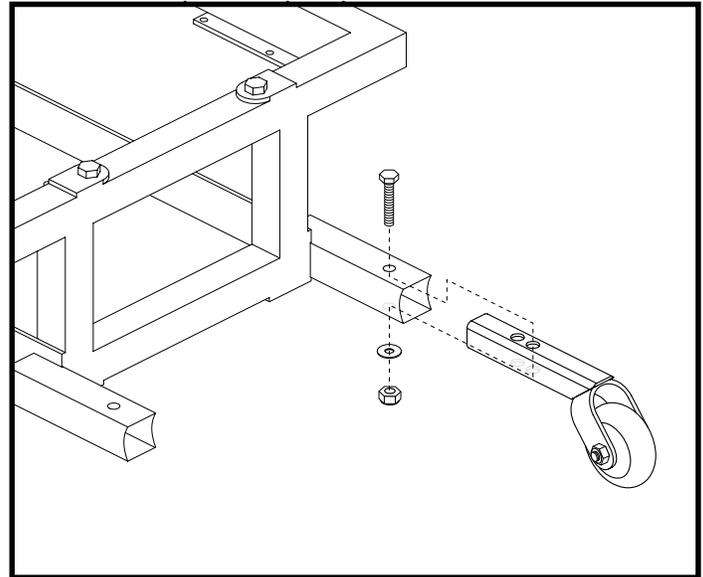


Figure 18. Anti-Tip Wheel Assembly

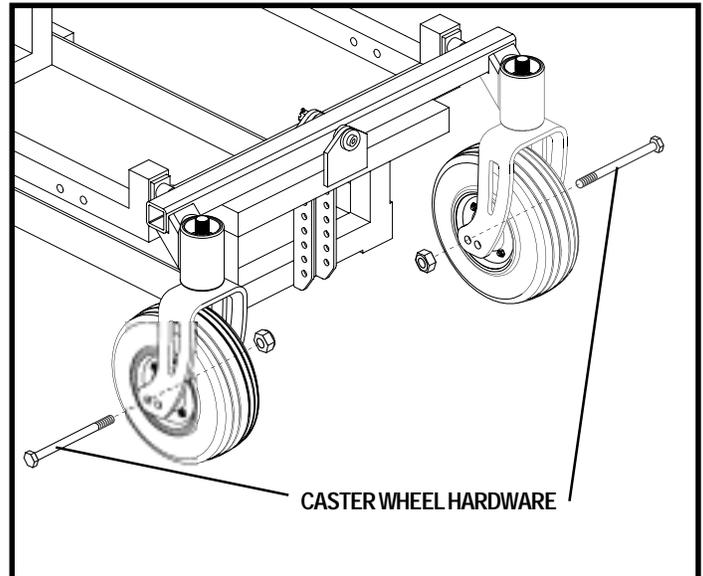


Figure 19. Caster Wheels

VI. BATTERIES AND CHARGING

BATTERIES AND CHARGING

The Flash uses two long-lasting, 12-volt, deep-cycle batteries. These batteries are sealed and maintenance free. 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.



WARNING! Battery posts, terminals, and related accessories contain lead and lead compounds. Wash hands after handling.

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 charging system consists of the onboard battery charger, the charger circuit fuse, and the ammeter. See figures 6 and 7. The ammeter indicates the rate of charge necessary to fully recharge the batteries. It is also a good indication of whether or not the charger is working. The ammeter and the charger are only functional when the charger cord is plugged into a wall outlet. The charging circuit has an ATO fuse that protects the ammeter.



WARNING! You must recharge your power chair's batteries with the supplied onboard charger. Do not use an automotive-type battery charger.



PROHIBITED! Removal of grounding prong can create electrical hazard. If necessary, properly install an approved 3-pronged adapter to an electrical outlet having 2-pronged plug access. Failure to heed could result in personal injury and/or property damage.



PROHIBITED! Never use an extension cord to plug in your battery charger. Plug the charger directly into a properly wired standard wall outlet.

To charge the batteries using the onboard charger:

1. Position the rear of your power chair close to a standard wall outlet.
2. Be certain the controller power is turned off and the freewheel levers are in the engaged position. See III. "The Flash."
3. Plug the charger cord into the charger cord receptacle on the power base, then into the wall outlet. The power chair incorporates an inhibit function that disables the power chair when the charger is plugged into a wall outlet.
4. The ammeter indicates how much charge is needed to fully charge the batteries. Wait about a minute for the charger to warm up. The ammeter may move as high as 5.5 amps, then gradually move back down to 0 amps as the batteries charge.
5. We recommend you charge the batteries for 8 to 14 hours. As the batteries charge, the ammeter needle slowly drops to 0. When the batteries are fully charged, the needle vibrates on or about the 0 mark on the ammeter.
6. When your power chair's batteries are fully charged, disconnect the charger cord, wind up the cord and store it in a safe place.

To charge the batteries using an off-board charger:

1. Position your power chair next to a standard wall outlet.
2. Be certain the controller power is turned off.
3. Plug the off-board charger into the off-board charger/programming socket on the controller. See VII. "Operation."
4. Plug the off-board charger into the wall outlet.

VI. BATTERIES AND CHARGING

5. If it is a Pride off-board charger, then there are two lights in it. The red light indicates that power to the off-board charger is on. The green light indicates that the batteries are fully charged. If it is not a Pride off-board charger, then follow the instructions supplied by the manufacturer.
6. When the batteries are fully charged, unplug the off-board charger from the wall outlet and then from the controller.

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 don't stray 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 wall 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. This is why the ammeter initially reads 5 or more amps. As the battery voltage approaches full charge, the charger doesn't work as hard to complete the charging cycle. This explains why the ammeter drops as it approaches a full charge. 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: The battery charger will not operate after the batteries have been discharged to nearly zero voltage. If this happens, call your authorized Pride Provider 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 14 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 12 to 14 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.

VI. BATTERIES AND CHARGING

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:

- Always charge the batteries fully prior to your trip.
- Plan your trip in advance to avoid inclines if possible.
- Limit baggage weight to essential items.
- 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.

Use these specifications to reorder deep-cycle batteries:

BATTERY SPECIFICATIONS	
Type:	Deep-cycle (AGM or Gel-Cell)
Size:	U-1
Voltage:	12V each



WARNING! Corrosive chemicals contained in batteries.



MANDATORY! Use only AGM or Gel-Cell batteries.



WARNING! 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 at Pride 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).

VI. BATTERIES AND CHARGING

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.



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

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.

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.

If you do not plan on using your power chair for an extended period, fully charge the batteries prior to storage. Disconnect the battery harnesses and store the power chair in a warm, dry environment. Avoid temperature extremes, such as freezing and excessively hot conditions, and never attempt to charge a frozen battery. A cold or frozen battery should be warmed for several days prior to recharging.

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 shipping container and ship the batteries in separate boxes.

VII. OPERATION

VSI CONTROLLER

The electronic controller is what you use to operate your power chair. It takes the battery voltage and sends it to the appropriate system. The electronic controller enables you to move the power chair, as well as monitor battery charge, electronic controller functions, and the condition of your electrical system. The VSI controller is an integral electronic controller. All of the electronics necessary to operate the power chair are contained in one module. See figure 20. Typically, the VSI is mounted to one of the armrests and is connected to the motors, batteries, and the onboard charger on the power base.

The controller supplied with your power chair has been pre-programmed to meet the needs of the end user. The program is set using either a personal computer with software provided by the controller manufacturer or with a hand-held programmer, also provided by the controller manufacturer.



WARNING! The controller program can affect speed, acceleration, deceleration, and braking. But if it is programmed incorrectly or outside of the safe limits as determined by your healthcare professional, it can create a dangerous situation. Only the power chair manufacturer, an authorized representative of the manufacturer, or a trained service technician should program the controller.

The VSI consists of:

1. joystick
2. keypad
3. off-board charger/programming socket
4. controller connector
5. charger inhibit connector

Joystick

The joystick controls the direction and speed of your power chair. When you move the joystick from the neutral (center) position, the electromagnetic brakes release and allow your power chair to move. The farther you push the joystick from its neutral position, the faster your power chair moves. When you release the joystick and allow it to return to the neutral position, you engage the electromagnetic brakes. This causes your power chair to decelerate and come to a complete stop.



WARNING! If your power chair begins to move in an unexpected manner, immediately release the joystick. Unless the joystick is damaged, this action should stop your power chair.

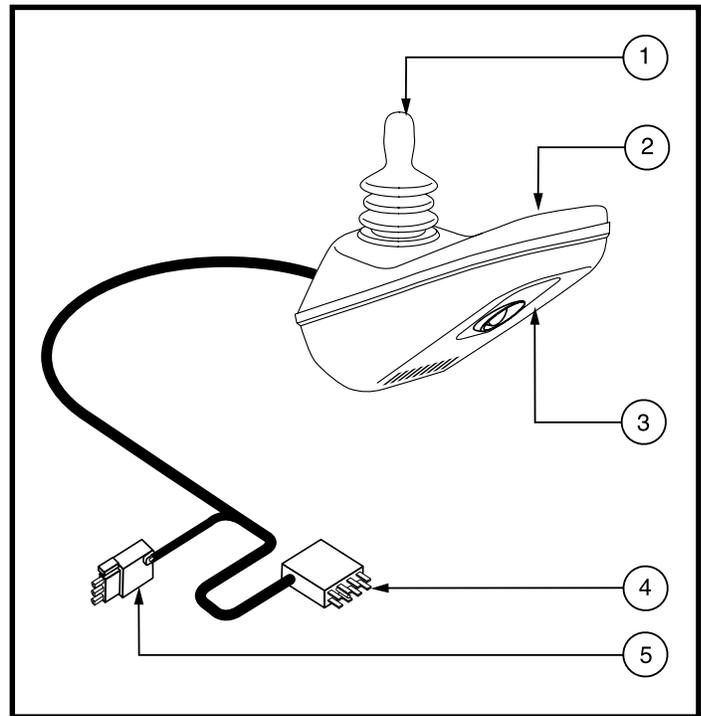


Figure 20. VSI Controller

VII. OPERATION

Keypad

The keypad is located in front of the joystick. It contains keys necessary to operate your power chair. See figure 21.

On/Off Key

The on/off key turns the VSI on and off.



WARNING! Unless faced with an emergency situation, do not use the on/off key to stop the chair. This will cause the power chair to stop abruptly.

WARNING! Always turn the power off when you are stationary to prevent unexpected movement.

Battery Condition Meter

The battery condition meter is located in front of the joystick. See figure 21. This is a 10-segment illuminated display that indicates that the VSI is powered on and also gives the battery status, the VSI status, and the electrical system status.

- **Red, yellow, and green lights lit:** Batteries charged; VSI and electrical system OK.
- **Red and yellow lights lit:** Charge batteries if possible; VSI and electrical system OK.
- **Red lights only lit or slow flash:** Charge batteries as soon as possible; VSI and electrical system OK.
- **Rapid flash of lights:** Indicates a fault in the VSI or the electrical system. Refer to “VSI Error Codes.”
- **Ripple up and down of lights:** The joystick was not in the neutral position when the controller was powered on. If you get “ripple up and down of lights,” turn off the controller, allow the joystick to return to the neutral position, then turn on the controller.



NOTE: If you still get “ripple up and down of lights,” contact your authorized Pride Provider.

NOTE: When the batteries approach a discharged state, the first red light will begin to slowly flash, reminding you the batteries need to be charged immediately!

Speed/Profile Keys

There are two keys that control either the speed or the profile. This depends on how your VSI was programmed. Press the speed/profile increase key to increase the speed or change the profile. Press the speed/profile decrease key to decrease the speed or change the profile. The speed/profile setting is displayed on the maximum speed/profile indicator. If your power chair was programmed with a drive profile, contact your authorized Pride Provider for more information.



NOTE: We recommend that the first few times you operate your power chair, you set the speed to the slowest setting until you become familiar with your new power chair.

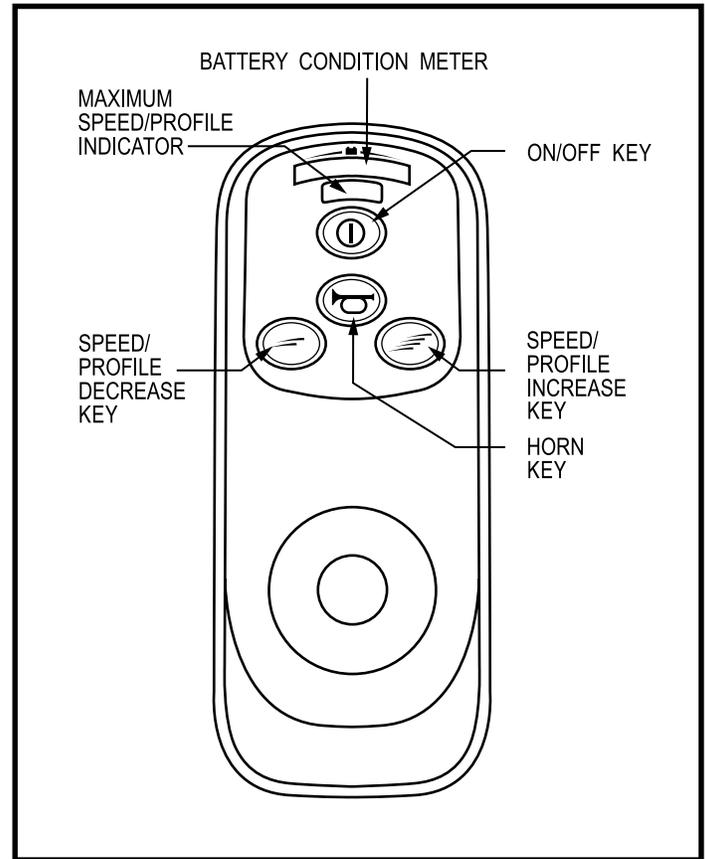


Figure 21. VSI Controller Keypad

VII. OPERATION

Horn Key

The horn key activates the horn.

Locking/Unlocking the VSI

The VSI has a feature that enables you to lock your power chair to prevent unauthorized use.

To lock the VSI:

1. With the VSI powered on, press and hold the on/off key. After 1 second, the VSI should beep.
2. Release the on/off key.
3. Push the joystick to the full forward position until the VSI beeps.
4. Pull the joystick to the full rearward position until the VSI beeps.
5. Release the joystick. There should be a long beep.
6. The VSI is now locked.

To unlock the VSI:

1. Press the on/off key to power on the VSI. The maximum speed/profile indicator should ripple up and down.
2. Push the joystick to the full forward position until the VSI beeps.
3. Pull the joystick to the full rearward position until the VSI beeps.
4. Release the joystick. There should be a long beep.
5. The VSI is now unlocked.



NOTE: If the above procedure fails to either lock or unlock the VSI, contact your authorized Pride Provider.

Off-board Charger/Programming Socket

You may use an off-board charger to charge the power chair batteries through the 3-pin socket located on the front of the VSI. If you use an off-board charger, the charger current should not exceed 12 amps. Contact your authorized Pride Provider for more information.



WARNING! Only chargers with Neutrik NC3MX plugs should be connected to the off-board charger/programming socket. See your authorized Pride Provider for more information.



NOTE: The socket may also be used for reprogramming the VSI. Contact your authorized Pride Provider for more information.

Controller Connector

This connects the VSI to the power chair's batteries, motors, and motor brakes.

Charger Inhibit Connector

This connects the VSI to the onboard battery charger. This connection provides an inhibit that disables the VSI when the battery charger is on. The charger inhibit connector is coded with colored dots. The dots are positioned so that you align the flat side of the male connector with the flat side of the female connector before making the connection.



WARNING! Failure to properly align the connectors can result in damage to the VSI, the charger, and the connectors.

VII. OPERATION

Thermal Rollback

The VSI controller is equipped with a thermal rollback circuit. The circuit monitors the temperature of the controller, which roughly translates to motor temperature. In the event that the VSI controller becomes excessively hot (above 140° F), motor current (amperage) is reduced. For every degree above 140° F, the motor current limit is reduced by .55 amps until the VSI controller reaches 158° F, at which time the current output is reduced to zero. This reduces your power chair's "power," which could also reduce your power chair's speed, and allows the electrical components and motors to cool down. When the temperature returns to a safe level, your power chair resumes its normal operation.

VSI Error Codes

The VSI controller is designed with the user's safety as the prime consideration. It incorporates many sophisticated self-test features which search for potential problems at a rate of 100 times per second. If the VSI detects a problem either in its own circuits or in the power chair's electrical system, it may stop the power chair, depending on the severity of the problem. The VSI is designed to maximize the user's safety under all normal conditions. The table below identifies the individual error codes. Error codes are displayed as a rapid flashing of the battery condition meter lights. If you get one of these error codes, contact your authorized Pride Provider.

FLASHING LIGHTS	DIAGNOSIS AND SOLUTION
1	The battery needs charging or there is a bad connection to the battery. Check the connections to the battery. If the connections are good, try charging the battery.
2	The left motor has a bad connection. Check the left motor connection.
3	The left motor has a short circuit to a battery connection. Contact your authorized Pride Provider.
4	The right motor has a bad connection. Check the right motor connection.
5	The right motor has a short circuit to a battery connection. Contact your authorized Pride Provider.
6	The power chair is being inhibited by the battery charger. Unplug the battery charger.
7	A joystick fault is indicated. Make sure that the joystick is in the neutral (center) position before turning on the controller.
8	A controller system fault is indicated. Make sure that all connections are secure.
9	The brakes have a bad connection. Check the brake and motor connections. Make sure the controller connections are secure.
10	An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.

VIII. CARE AND MAINTENANCE

CARE AND MAINTENANCE

Your Flash is a sophisticated power chair. Like any motorized vehicle, it requires routine maintenance checks. You can perform some of these checks, but others require assistance from your authorized Pride Provider. 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 Pride Provider.



WARNING! Prevent injury. 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 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.

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 your authorized Pride Provider.

Temperature

- 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 and 122° F.
- 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).
- Temperatures above 122° F 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. See VII. "Operation."

General Guidelines

- Avoid knocking or bumping the controller, especially the joystick.
- Avoid prolonged exposure of your power chair to extreme conditions, such as heat, cold, or moisture.
- Keep the controller clean.
- Check all connectors to ensure that they are all tight and secured properly.
- Make sure the drive tires are inflated to **35 psi (2.4 bar)** (if equipped with pneumatic tires).



WARNING! Overinflating tires can cause them to explode and can result in personal injury.

WARNING! Do not use a high pressure hose to inflate your tires.

- Use a rubber conditioner on the tire sidewalls to help preserve them.



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.

VIII. CARE AND MAINTENANCE

- 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.
- Check all electrical connections. Make sure they are tight and are not corroded. Batteries must sit flat within the battery tray, with the battery terminals facing inward, toward each other. Refer to the battery wiring label on the power base frame for the correct wiring layout.
- All wheel bearings are prelubricated and sealed. They require no subsequent lubrication.

Daily Checks

- 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. See your authorized Pride Provider if there is a problem.
- Visually inspect the controller cable. Make sure that it is not frayed, cut, or has any wires exposed. See your authorized Pride Provider if there is a problem.
- Check for flat spots on solid tires. Flat spots could adversely affect stability.

Weekly Checks

- Disconnect and inspect the controller connector and the charger inhibit connector. Look for corrosion. Contact your authorized Pride Provider if necessary.
- Ensure that all parts of the controller system are securely fastened to your power chair. Do not overtighten any screws.
- Check for proper tire inflation. There should be **35 psi (2.4 bar)** in each tire (if equipped with pneumatic tires). If a tire does not hold air, see your authorized Pride Provider for replacement of the tube.
- Check the brakes. This test should be carried out on a level surface with at least three feet 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 electromagnetic brakes click. Immediately release the joystick. You must be able to hear each electromagnetic brake operating within a few seconds of joystick movement. Repeat this test three times, pushing the joystick backwards, then left, and then right.

Monthly Checks

- Check that the anti-tip wheels do not rub the ground when you operate the power chair. Adjust them as necessary. See V. "Comfort Adjustments."
- Check for extreme wear on the anti-tip wheels. Replace them as necessary.
- Check for drive tire wear. See your authorized Pride Provider for repair.
- Check the caster wheels for wear. Replace them as necessary.
- Check the caster forks for damage or fluttering which indicates that they may need to be adjusted or have the bearings replaced. See your authorized Pride Provider for repair.
- Keep your power chair clean and free of foreign material, such as mud, dirt, hair, food, drink, etc.

VIII. CARE AND MAINTENANCE

Yearly Checks

Take your power chair to your authorized Pride Provider for yearly maintenance. 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 VI. "Batteries and Charging."



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

Cleaning Instructions



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.

Tire/Wheel Replacement

If you have pneumatic tires and you have a flat tire, you can 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 Pride Provider.



WARNING! To avoid possible injury, be sure that the controller's power is turned off and the power chair is not in freewheel mode before performing this procedure.

WARNING! Completely deflate the tire before attempting repair.

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. Set the power chair up on blocks.
3. If you are changing a pneumatic tire, completely deflate it before removing the wheel.
4. Remove the drive wheel nut from the wheel hub. See figure 25.
5. Pull the wheel off the axle.
6. Remove the screws and washers that fasten the two rim halves together. See figure 22.
7. Remove the old tube from the pneumatic tire and replace it with a new tube or replace the entire assembly if it is a solid tire.
8. Screw together the two rim halves.
9. Slide the wheel back onto the axle. Make sure that the key is in the axle slot. See figure 25.
10. Reinstall the drive wheel nut onto the wheel hub and tighten.
11. Inflate the pneumatic tire to **35 psi (2.4 bar)** (if equipped with pneumatic tires).
12. Remove the power chair from the blocks.

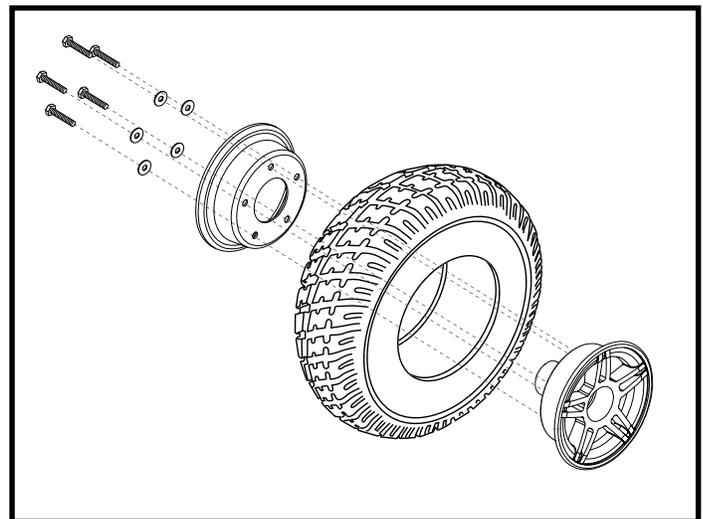


Figure 22. Flash Drive Wheel

VIII. CARE AND MAINTENANCE

Battery Replacement

A battery wiring diagram is printed on a decal located on the battery tray. See figure 24. See VI. "Batteries and Charging" for correct battery specifications.

WARNING! Prevent injury. Do not replace battery when seat is occupied.



WARNING! 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. Lifting beyond your capacity can result in personal injury.

To replace the batteries:

1. Turn off the power to the controller.
2. Make sure that the power chair is in drive mode. See III. "The Flash."
3. Unplug the controller connector and the charger inhibit connector.
4. Remove the seat.
5. Lift off the shroud.
6. Disconnect the batteries from the main wiring harness. See figure 23.
7. Unfasten the hook and loop fasteners from around the batteries.
8. Lift the batteries off of the power base.

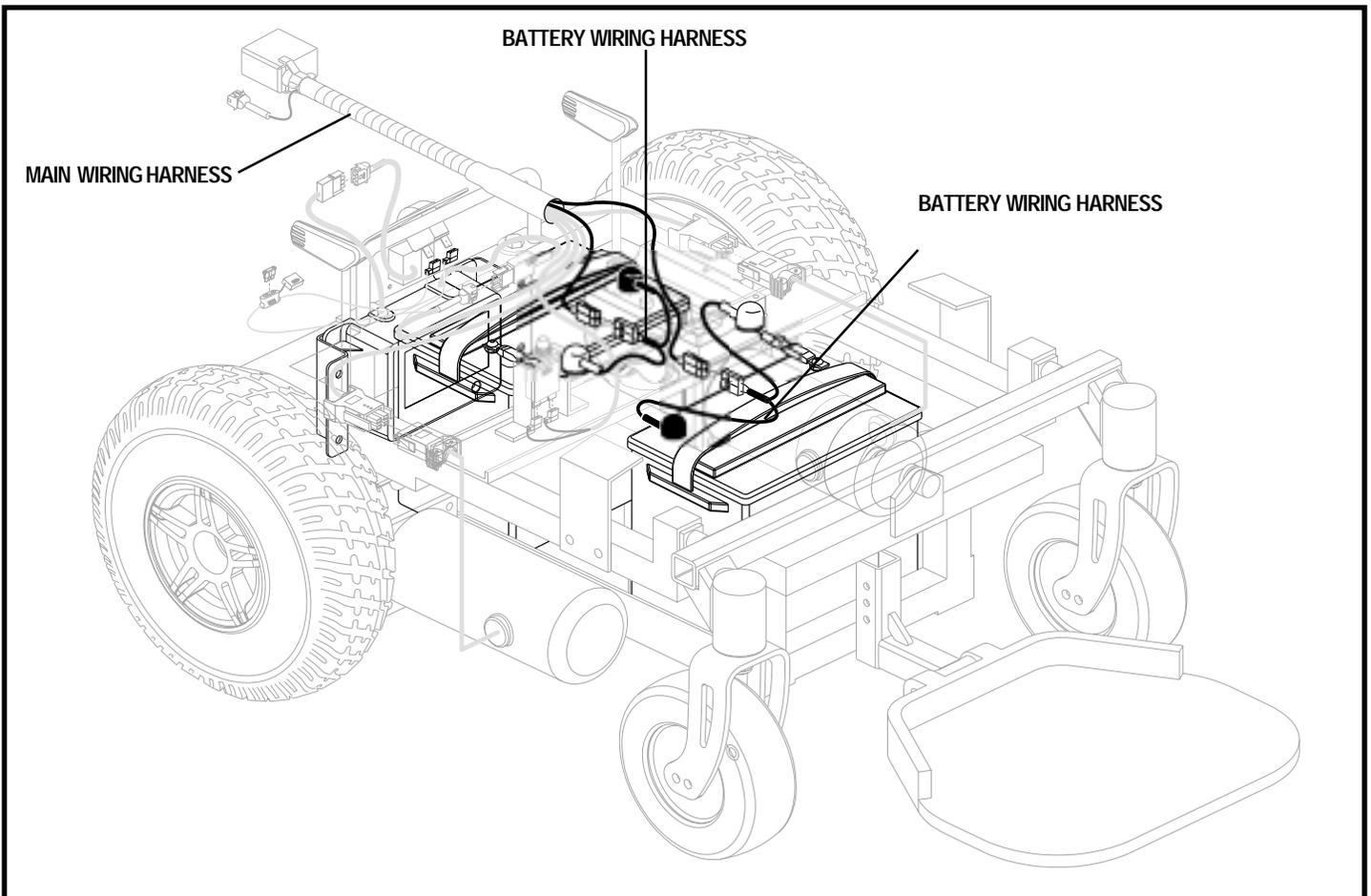


Figure 23. Flash Battery Connections

VIII. CARE AND MAINTENANCE

9. Disconnect the battery harnesses from each of the batteries.
10. Install the battery harnesses on the new batteries.
11. Place the batteries back onto the power base.
12. Refasten the hook and loop fasteners.
13. Plug in the battery harnesses to the main wiring harness.
14. Reinstall the shroud.
15. Reinstall the seat.
16. Plug the controller connector and the charger inhibit connector into the power base.



WARNING! Prevent injury. Make sure you tighten the fasteners so that the connections are secure.

Motor Brushes

The electric motors that power your power chair use carbon brushes. These brushes may become susceptible to wear over a long period of time. The motor brushes are the two contacts located inside the motor assembly that supply power to the motor. They are designed to provide several thousand hours of operation. However, if the brushes become dirty with carbon deposits or wear out, the motor will run poorly or not at all.

To inspect or replace the motor brushes:

1. Turn off power to the controller.
2. Unplug the controller connector and the charger inhibit connector from the power base.
3. Remove the seat.
4. Remove the shroud.
5. Disconnect the motor connectors from the main wiring harness. See figure 7.
6. Remove the screws and washers that attach the motor to the frame. See figure 25.
7. Unscrew the motor brush caps.
8. Remove the brushes.
9. Inspect for wear. See figure 26. If the brushes are 1/4 in. or less, replace the brushes. Contact your authorized Pride Provider for replacement brushes.



WARNING! If an inspection determines excessive wear on the brushes, they must be replaced or motor damage will result. Failure to maintain the brushes could void your power chair's warranty.

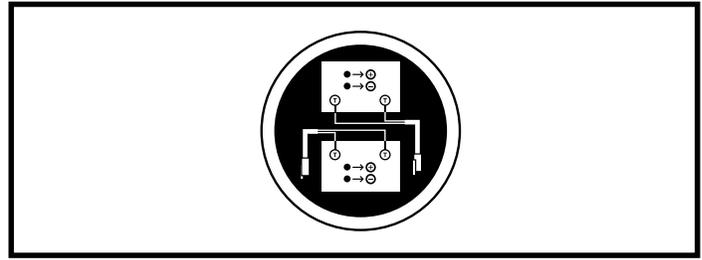


Figure 24. Battery Wiring Diagram

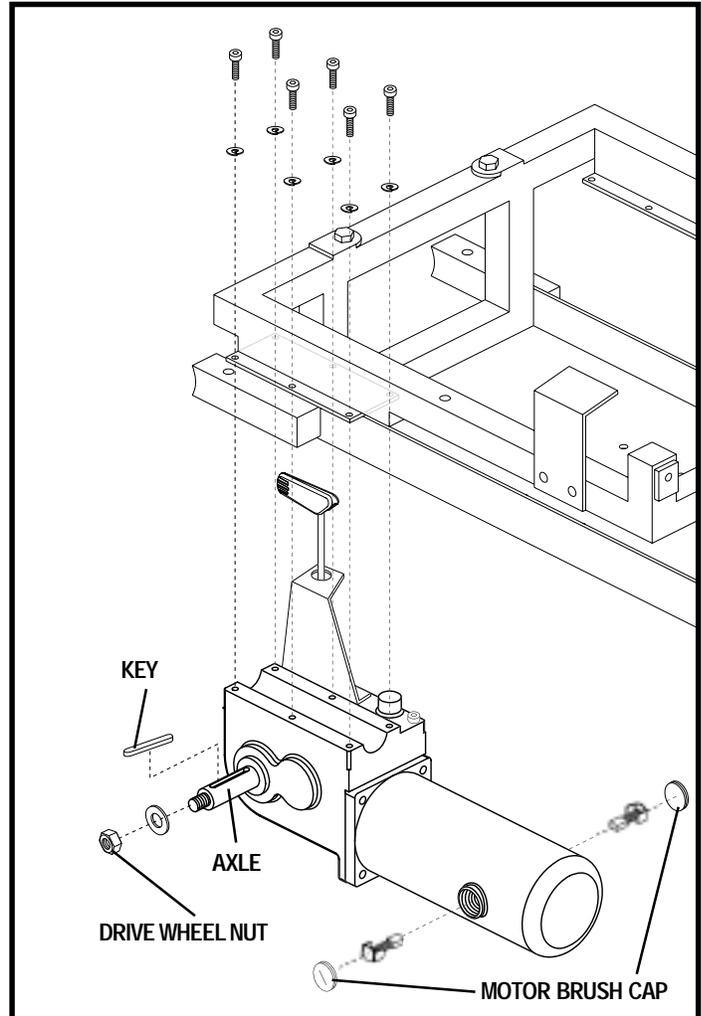


Figure 25. Motor

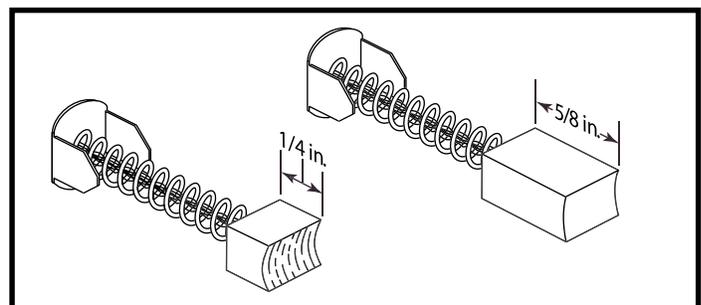


Figure 26. Motor Brushes

VIII. CARE AND MAINTENANCE

When to See Your Authorized Pride Provider for Service

The following symptoms could indicate a serious problem with your power chair. If necessary, contact your authorized Pride Provider. When calling, have the model number, serial number, nature of the problem, and the error code if available.

- Motor noise
- Frayed harnesses
- Cracked or broken connectors
- Uneven wear on any of the tires
- Jerky motion
- Pulling to one side
- Bent or broken wheel assemblies
- Does not power up
- Powers up, but does not move

Corrective Maintenance

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

- Check the harness connections. Make sure they are tight.
- Check the main circuit breaker. Reset it if necessary.
- 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 Pride Provider.

IX . OPTIONAL ACCESSORIES

OPTIONAL ACCESSORIES

The following accessories are available from your authorized Pride Provider.

Positioning Belt

The positioning belt is designed to support your torso so that you do not slide down or forward in the seat. The positioning belt is not designed for use as a restraining device. Make sure the belt is secure but does not cause discomfort.



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.

Cane and Crutch Holder

The removable cane and crutch holder is mounted to the back of the seat by means of the accessory bracket.

Walker Holder

The removable walker holder is mounted to the back of the seat by means of an accessory bracket. It holds a standard size walker.

Cup Holder

The cup holder is mounted to the armrest.

Oxygen Tank Holder

The removable oxygen tank holder is mounted to the back of the seat by means of the accessory bracket.

Rear Basket

The rear basket is mounted to the accessory bracket. It has a handle that you can use when you remove the basket.

Swing-Away Joystick Bracket

This option enables you to move the joystick from the front of the armrest to the side of the armrest without disconnecting it.

Dust Cover

This sturdy canvas cover helps protect your power chair when not in use.

X . W A R R A N T Y

LIFETIME LIMITED FRAME WARRANTY

There will be a lifetime limited frame warranty on Pride workmanship.

ONE-YEAR LIMITED WARRANTY

For one (1) year from the date of purchase, Pride will repair or replace at our option to the original purchaser free of charge, any of the following parts found upon examination by an authorized representative of Pride to be defective in material and/or workmanship:

- Electronic controllers and joystick assemblies
- Motor/gearbox assembly
- Main frame subassemblies (fork, caster beams, metal seat base, metal arms, metal foot plate)
- Plastic components except body
- Rubber components
- Bearings and bushings
- Caster and anti-tip wheels

WARRANTY EXCEPTIONS

Motor: The motor commutator is not warranted if damage is caused by not replacing the motor brushes if they are worn heavily. Motor brushes are wear items and are not warranted.

Brake: There is a one-year warranty for the electrical function of the brakes. Brake pads are wear items and are not warranted.

Battery: The battery is covered by a separate six-month warranty, given by the battery manufacturer. The battery is not warranted by Pride.

Warranty service can be performed by your authorized Pride Provider. Do not return faulty parts to Pride without prior consent. All transportation costs and shipping damage incurred while submitting parts for repair or replacement are the responsibility of the purchaser.

X . W A R R A N T Y

WARRANTY EXCLUSIONS

- ABS plastic body shrouds and footrest covers are wear items and are not warranted.
- Batteries (battery manufacturer provides a six-month limited warranty)
- Tires and tubes
- Upholstery and seating
- Repairs and/or modifications made to any part without specific prior written consent from Pride
- Circumstances beyond the control of Pride
- Labor, service calls, shipping, and other charges incurred for repair of the product unless specifically authorized by Pride

Damage caused by:

- Battery fluid spillage or leakage
- Abuse, misuse, accident, or negligence
- Improper operation, maintenance, or storage
- Commercial use, or use other than normal

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one (1) year from the date of purchase and/or to the extent permitted by law. Any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion of limitation of incidental or consequential damages. The above limitation or exclusion may not apply to you.

This warranty gives you specific rights, and you may also have other rights which vary from state to state.

Please fill out and return the product registration card to Pride. This will aid Pride in providing the best possible technical and customer service.

Pride

Power Chairs

Quality Control - Model Flash



Thank you for making the Flash your choice in power chairs.

We have thoroughly inspected your Flash. The following checkmarks indicate that it has been driven and inspected.

Model # _____

Serial # _____

Inclusion of all Parts

Controller

Controller Serial #

Fit and Finish

Performance



Pride keeps a more detailed report on file at the factory.

Date Inspected

Inspector