

Owner's Manual

QUANTUM[®]
REHAB

INNOVATIVE REHAB SOLUTIONS

A Division of Pride Mobility Products[®] Corp.

***Dynamo* ATS**

ATTENTION:
Please read the content
of your owner's manual
before operating your
power chair.



Pride
Mobility Products Ltd.

Unit 106, Heyford Park Camp Road
Upper Heyford, Oxfordshire OX25 5HA

www.quantumrehab.com

SAFETY GUIDELINES

Please read and follow all instructions in this owner's manual before attempting to operate your power chair for the first time. If there is anything in this manual you do not understand, or if you require additional assistance for set up, contact your authorised Pride Provider.

Using your Pride product safely depends upon your diligence in following the warnings and instructions in this owner's manual. Using your Pride product safely also depends upon your own good judgement and/or common sense, as well as that of your provider, caregiver, and/or healthcare professional. Pride is not responsible for injuries and/or damage resulting from any person's failure to follow the warnings and instructions in this owner's manual. Pride is not responsible for injuries and/or damage resulting from any person's failure to exercise good judgement and/or common sense.

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



WARNING! Failure to heed the warnings in this owner's manual may result in personal injury.

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



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INFMANU2195/Rev B/June 04

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IMPORTANT NOTICE

Attention parents, guardians, and power chair attendants: Please read this manual in its entirety before allowing a minor to operate the Quantum Dynamo ATS. Give close attention to all safety guidelines and warnings contained in this manual. Neither this manual nor this power chair is intended for use by a minor without the close supervision of a parent, guardian, or adult attendant!

SAFETY

WELCOME to Pride Mobility Products Ltd. (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 dealer, carer, 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 authorised Pride 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, 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 authorised Pride Dealer.

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 Ltd.
Unit 106, Heyford Park Camp Road
Upper Heyford, Oxfordshire OX25 5HA

My Authorised Pride Dealer Is:

Name: _____

Address: _____

Phone Number: _____ Purchase Date: _____ Model: _____ Serial # _____

Note: If you ever lose or misplace your product registration card or owner's manual, call or e-mail us and we will be glad to send you a new one immediately.

SAFETY



WARNING! 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 authorised Pride 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 lifts, 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 authorised Pride Dealer to further customise 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 authorised by Pride. Unauthorised 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. See "Care and Maintenance."

Perform the following inspections prior to using your power chair:

- Check for proper tyre inflation. Maintain **2.4 bar (35 psi)** in each tyre (if equipped with pneumatic tyres).
- Check all electrical connections. Make sure they are tight and not corroded.
- Check all controller connections to the electronics tray. Make sure they are secured properly.
- Check the brakes. See "Care and Maintenance."
- Check battery charge. See "Batteries and Charging."

NOTE: *If you discover a problem, contact your authorised Pride Dealer for assistance.*

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.

TYRE INFLATION

If your power chair is equipped with pneumatic tyres, you should check or have the air pressure checked at least once a week. Proper inflation pressures will prolong the life of your tyres and help ensure the smooth operation of your power chair.



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



WARNING! When changing a tyre, remove only the centre lug nut, then remove the tyre. If any further disassembly is required, deflate the tyre completely or it may explode, possibly resulting in 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 "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 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 rearwards. This may result in personal injury.



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.

Pride recommends that the maximum slope of an incline you attempt to safely ascend or descend on your power chair does not exceed 8.7%. See figure 1.



WARNING! Any attempt to climb or descend a slope steeper than 8.7% may put your power chair in an unstable position and cause it to tip, resulting in personal injury.

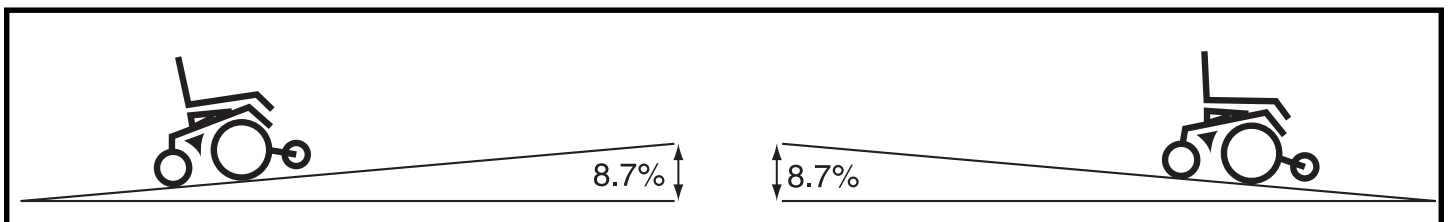


Figure 1. Maximum Safe Angle (Ascending and Descending)

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 centre/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 rear caster wheels in back and anti-tip wheels in front, 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 tarmac. However, Pride recognises 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.

FREEWHEEL MODE

Your power chair is equipped with a manual freewheel lever 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 "Your Quantum Dynamo ATS".



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, KERBS, ETC.)

Proceed with extreme caution when driving near raised surfaces, unprotected ledges and/or drop-offs (kerbs, porches, stairs, etc.). The correct method for approaching a kerb 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 5.08 cm (2 in.) unless you have the assistance of an attendant.

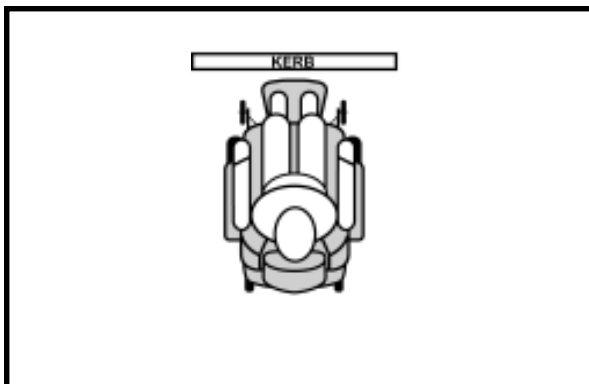


Figure 2. Kerb Approach (Correct)

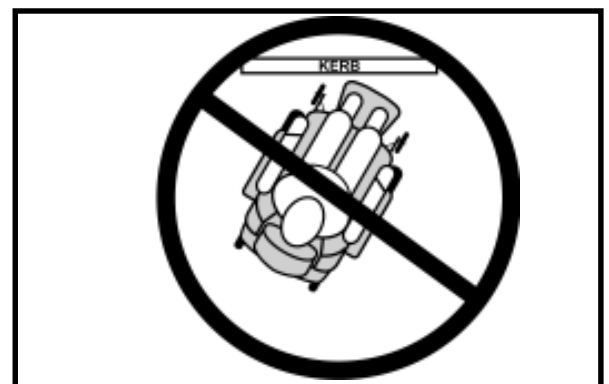


Figure 3. Kerb Approach (Incorrect)



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

PUBLIC STREETS AND ROADWAYS



WARNING! Exercise extreme caution when operating this on footpaths, pavements, bridleways, pedestrian areas and roads. Obey the Code of Practice for Class 3 vehicle users. Failure to heed this warning could result in serious injury and/or damage to your power chair.

NOTE: A copy of the Department of Transportation Code of Practice for Class 3 vehicle users may be obtained by contacting your authorised Pride Dealer.

STAIRS AND ESCALATORS

Power chairs are not designed to travel up or down stairs or escalators. Always use a lift.



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.

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 rearward to pull the door open.

LIFTS

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

- If you are in the doorway of a lift 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 handbags, packages, or power chair accessories do not become caught in lift doors.

ELECTROMAGNETIC FIELDS

Your power chair's road performance features may be influenced by electromagnetic fields caused by mobile telephones or other radiating devices, such as hand-held radios, radio and television stations, wireless computer links, microwave sources, and paging transmitters.

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

Although your power chair may be equipped with a positioning belt, this belt was not designed with the intent of providing proper restraint during motor vehicle transport. Anyone traveling in a motor vehicle should be properly secured in his/her seat with seat belts approved by the vehicle manufacturer. Make sure to secure or remove the batteries before loading your power chair into a motor vehicle for transport.

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:



Figure 4. Ideal Transfer Position

- Turn the power off. See “Operation.”
- Ensure your power chair is not in freewheel mode. See “The Quantum Dynamo ATS”
- 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 the footrest up, or move the leg rests aside; this will help to keep your feet from getting caught on the footrest or the leg rests during the transfer.
- Reduce the distance between your power chair and the object you are transferring onto. See figure 4.



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.



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

POSITIONING BELTS

Your authorised Pride 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. 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! Rain, snow, salt, mist/spray, or icy/slippery conditions could cause serious injury and/or damage to your power chair and the electronic system. Exposure to these weather elements should be avoided whenever possible. Use extreme care when driving at all times. Maintain and store your power chair in a dry and clean condition.

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 centre 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 centre 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 tyres when driving.

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.”



WARNING! Power chair batteries are heavy. See the 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.

BATTERY DISPOSAL AND RECYCLING

If you encounter a damaged or cracked battery, immediately enclose it in a plastic bag and call your authorised Pride Dealer for instructions on disposal. Your authorised Pride Dealer will also have the necessary information on battery recycling, which is our recommended course of action.



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! 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.

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.

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.

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.

THE QUANTUM DYNAMO ATS

Your power chair has two main assemblies: the seat and the power base. See figure 2. There are several seating options available with your power chair. Typically, the seating system includes the armrests, the seatback, the seat base, and the joystick/controller. The power base is the heart of your Quantum Dynamo ATS. The power base assembly includes two drive wheels, two anti-tip wheels, two rear caster wheels, a body shroud, four frame assemblies (located under the body shroud), two battery boxes, and the electrical connectors. See figures 5, 6, and 6a.

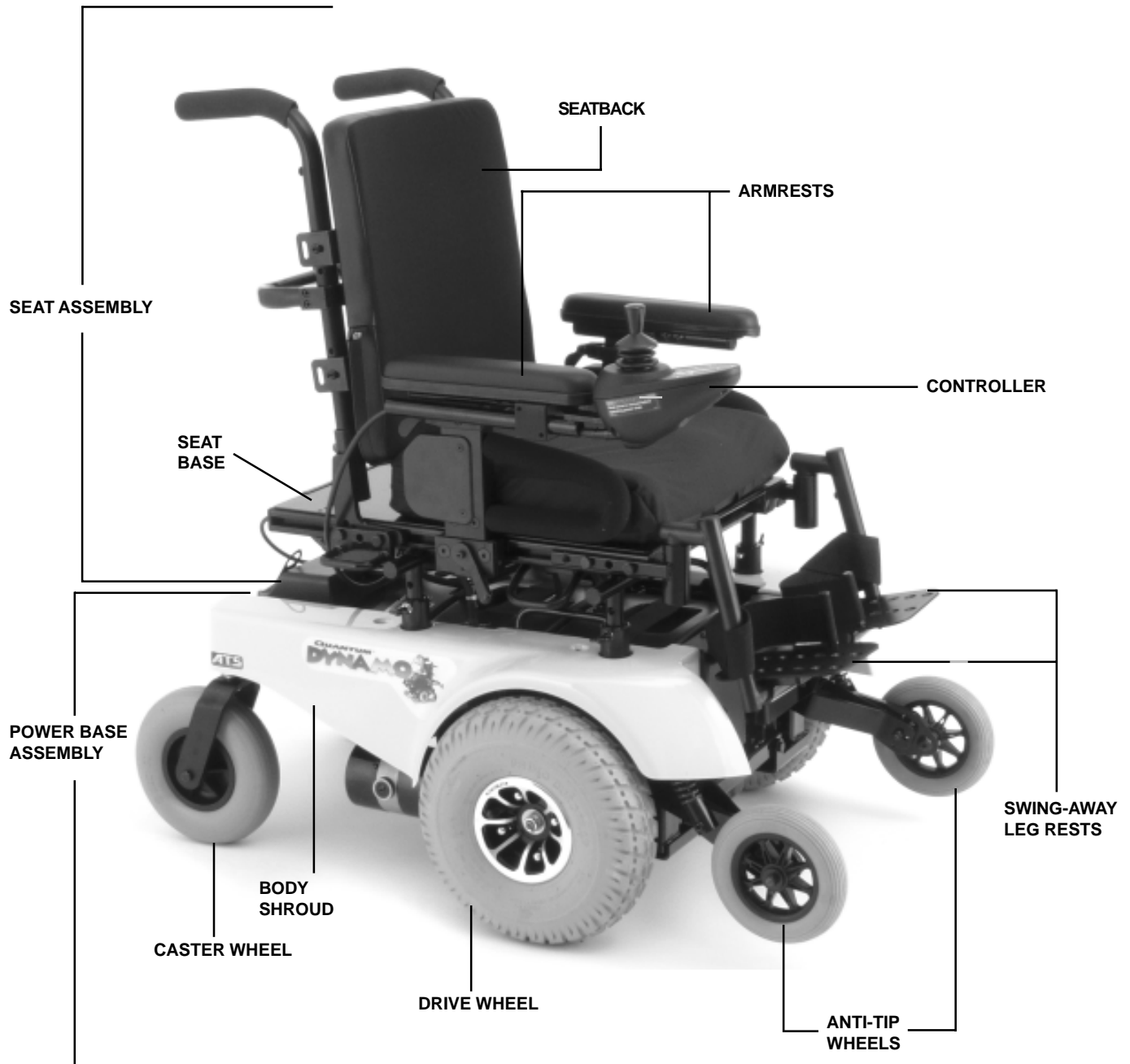


Figure 5. The Quantum Dynamo ATS

SPECIFICATIONS	
Class of Use:	B
Suspension:	Active-Trac suspension
Drive Wheels:	25 cm (10 in.), pneumatic, centre-mounted (solid tyres are optional)
Caster Wheels:	20 cm (8 in.), solid, rear articulating
Anti-tip Wheels:	15 cm (6 in.), solid, front mounted
Maximum Speed:*	Up to 6.4 km (4 mph)
Brakes:	"Intelligent Braking," electronic regenerative, disc park brake"
Ground Clearance:	6 cm (2.5 in.)
Maximum Safe Slope:	8.7%
Maximum Climbing Ability:	8.7%
Maximum Obstacle Climbing Ability:	5 cm (2 in.)
Turning Radius:	47 cm (18.5 in.)
Overall Size:	Length: 93 cm (36.5 in.) Width: 58 cm (23 in.) (assembled)
Seating Options:	Synergy Seat (standard)
Drivetrain:	Two motor, mid-wheel
Batteries:	Two 12-volt, U-1 batteries
Range:*	Up to 40 km (25 miles)
Battery Charger:	5-amp, onboard 5-amp, off-board (optional)
Motor Controller:	70-amp, PG Drives Remote Plus Controller
Weight Capacity:	72.5 kg (160 lbs.)
Component Weights:	Seat: 20 kg (44 lbs.) Front battery and case: 12 kg (26 lbs.) (U-1 Battery = 11 kg (24.5 lbs.)) Rear battery and case: 12 kg (26 lbs.) (U-1 Battery = 11 kg (24.5 lbs.)) Battery well frame: 6 kg (13.5 lbs.) Front frame: 1 kg (2.5 lbs.) Right frame assembly: 17 kg (38 lbs.) Left frame assembly: 17 kg (38 lbs.)

*Depends on user weight and terrain.

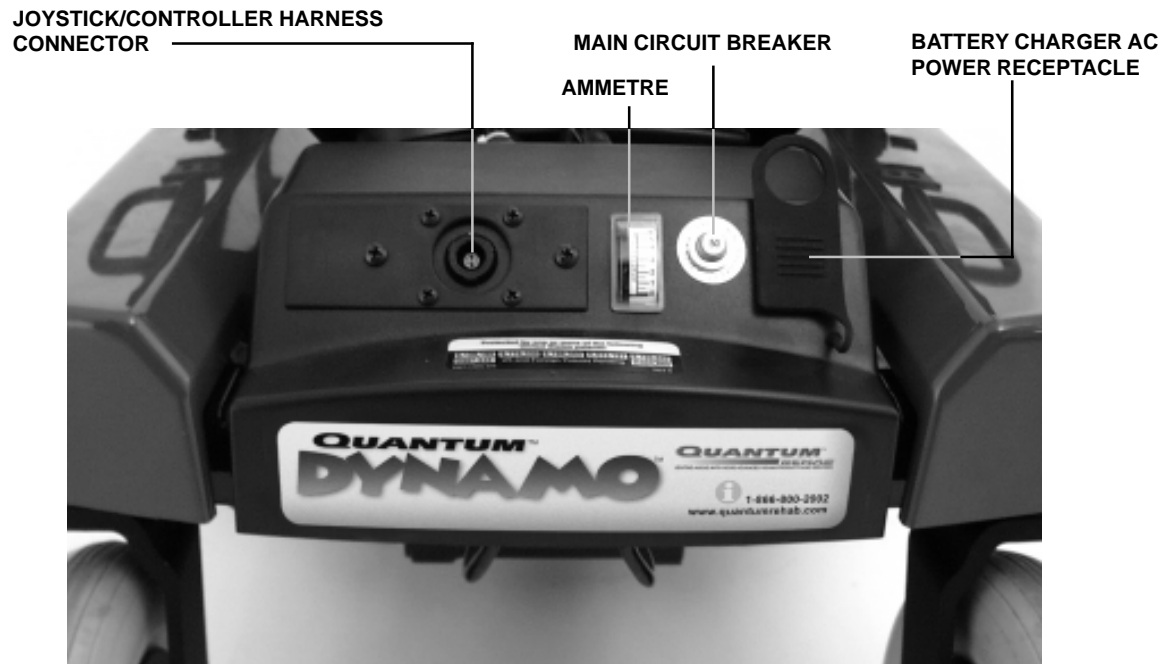


Figure 6. Power Base Rear View - Electronics Tray

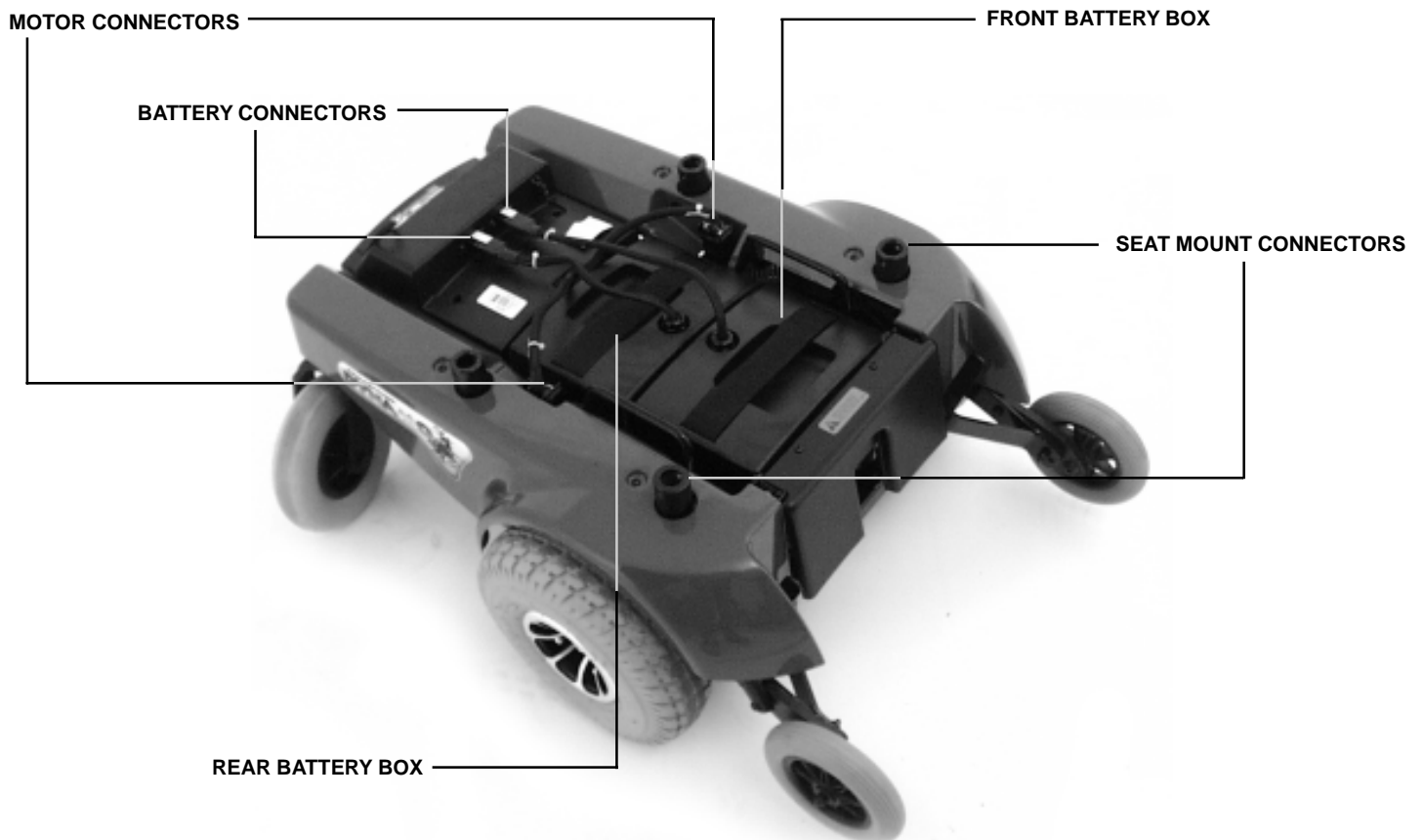


Figure 6a. Power Base Top View

SEAT AND POWER BASE COMPONENTS

The seating system and the power base consist of the following components. See figures 5, 6, and 6a.

- **Controller:** This device is used to move the power chair.
- **Controller Harness Connector:** This is where the joystick harness connects to the electronics tray.
- **Armrests:** These provide a comfortable place to rest your arms during time spent on your power chair.
- **Manual Freewheel Levers:** These levers enable you to disengage or engage the motors from or to the gearbox. While the motors are disengaged, your power chair can be pushed manually.
- **Body Shroud:** These are the plastic pieces that cover the power base.
- **Swing-away Leg Rests:** This is where your feet rest during time spent on your power chair.
- **Anti-Tip Wheels:** These are wheels that allow “slight” or “no” tip while driving. They also allow for 5.08-cm (2-in.) kerb climbing abilities.
- **Drive Wheels:** These are the main wheels that move the power chair.
- **Rear Caster Wheels:** These are the trailing wheels that provide stability.
- **Ammetre:** This displays the charger’s current output in amps.
- **Main Circuit Breaker:** This 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 the power chair to “rest” for approximately one minute. Then, push in the circuit breaker button, turn on the joystick/controller, and continue normal operation. If the main circuit breaker continues to trip repeatedly, contact your authorised Pride Dealer.
- **Battery Charger AC Receptacle:** This is where the battery charger lead plugs in when the batteries need to be recharged.
- **Battery Connectors:** These provide connection between the battery boxes and the electronics tray.
- **Motor Connectors:** These provide connection between the motors and the electronics tray.

MANUAL PARK BRAKES

Your power chair is equipped with a manual park brake mounted on each drive wheel. The manual park brakes work in conjunction with the electromagnetic brakes to help prevent your power chair’s wheels from moving when your power chair is parked. After you release the joystick and your wheels are completely stopped, push the manual park brake lever down to engage it. See figure 7. To disengage the manual park brake, pull the manual park brake lever up. See figure 7a.



WARNING! Do not attempt to use either manual park brake levers to stop your power chair. Serious injury may result.

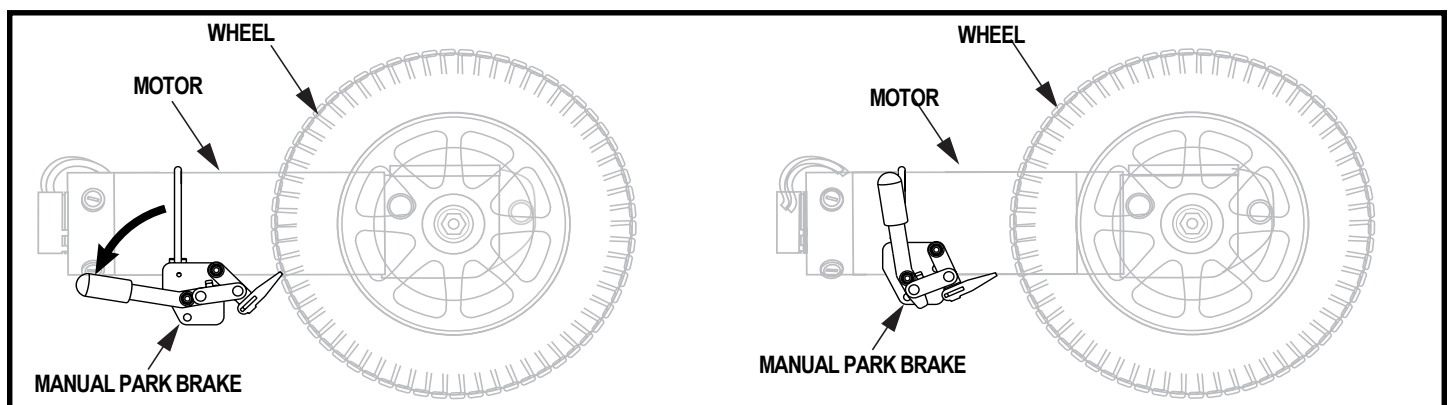


Figure 7a. Manual Park Brake Engaged

Figure 7b. Manual Park Brake Disengaged

MANUAL FREEWHEEL LEVERS

Your power chair is equipped with two manual freewheel levers. See figure 8. These levers allow you to disengage the drive motors and maneuver the chair manually. This is called freewheel mode.



WARNING! Do not use your Quantum Dynamo ATS while the drive motors are disengaged unless you are in the presence of an attendant! Do not disengage the drive motors when your power chair is on an incline. The chair could roll down on its own, causing injury!



WARNING! It is important to remember that when your Quantum Dynamo ATS is in freewheel mode, the braking system is disengaged.

To engage or disengage the drive motors:

1. Push down the manual freewheel levers to engage the drive motors.
2. Pull up the manual freewheel levers to disengage the drive motors.

LIMITED ACTIVE-TRAC SYSTEM

Your power chair is equipped with a limited Active-Trac System (ATS). See figure 9. ATS is a suspension system designed to make your power chair traverse different types of terrain and obstacles while maintaining smooth operation. With ATS, your front anti-tip wheels work in conjunction with your motor suspension to help you maneuver over obstacles.

As your front anti-tip wheels come in contact with an obstacle, the front anti-tip wheel assembly is drawn upward. At the same time, your motors are forced downward. This allows the motors to push your power chair over an obstacle and limits the possibility of your power chair becoming “hung up” on the obstacle.

ATS also helps in day-to-day operating conditions. For instance, when you release the joystick, your power chair begins to slow down. As the chair slows down, the front anti-tip wheels will automatically drop toward the ground. This will reduce the forward tip that is typically encountered with mid-wheel drive chairs.

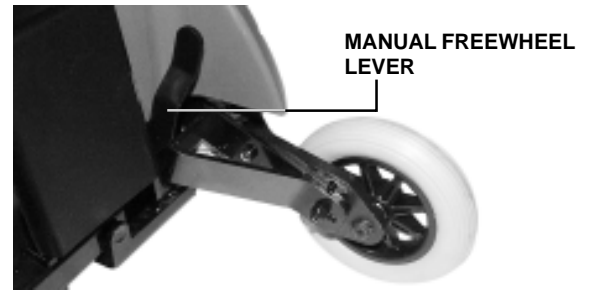


Figure 8. Manual Freewheel Lever (left side)

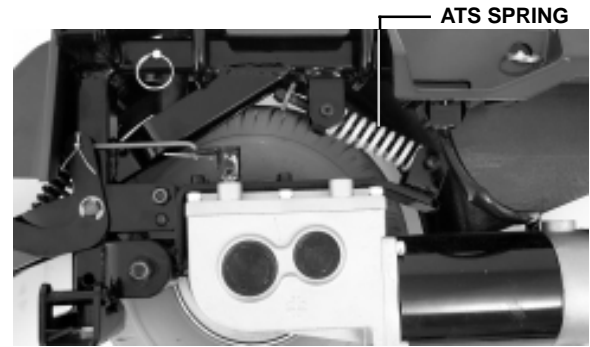


Figure 9. ATS System

COMFORT ADJUSTMENTS

SEAT ADJUSTMENTS

The Synergy Seat is the standard seat assembly for your power chair. After you have become familiar with your power chair's operation, you may find the need to make adjustments to the seat to increase your comfort. Information on seat adjustment is contained in separate manuals that accompany this product.



WARNING! If your Quantum Dynamo ATS was configured at your authorised Pride Dealer or service centre, please consult your healthcare professional before changing seat position or making any other adjustment. Some of these adjustments may degrade your power chair's performance and safety by changing its centre of gravity.

ANTI-TIP WHEELS

The Quantum Dynamo ATS mid-wheel drive design provides superior performance and safety. The anti-tip wheels are an integral part of this design because they provide you with stability during deceleration. The anti-tip wheels are preset at the factory to a height of 1.9-cm (3/4-in.) off the ground. This is the ideal setting for most Quantum Dynamo ATS users. However, you may encounter situations where you may need to adjust the anti-tip wheels. For instance, if you drive your power chair on surfaces such as deep pile carpeting, you may notice that the anti-tip wheels have a tendency to drag on the carpet. In this case, you may need to raise the anti-tip wheels. If you drive your power chair primarily on smooth surfaces such as linoleum or tile, you may find that you tip forward more than is comfortable for you. (This may be more apparent for lighter users.) In this case, you may need to lower the anti-tip wheels.



WARNING! Consult your authorised Pride Dealer before attempting to change the anti-tip wheel height! Changing the anti-tip height affects handling under deceleration!



WARNING! The higher you raise the anti-tip wheels, the more you increase your power chair's tendency to tilt forward when coming to a stop. You can compensate for this by having your authorised Pride Dealer make a small adjustment to the pre-programmed deceleration setting in the controller or by moving the seat assembly further to the rear of your power chair.

NOTE: Before making height adjustments on your anti-tips, consult your authorised Pride Dealer to make sure that your seat is positioned properly. Moving your seat rearward 2.54 cm (1 in.) may be sufficient.

ANTI-TIP WHEEL ADJUSTMENT

You can adjust the anti-tip wheels so that they are higher or lower. Adjusting the anti-tip wheels also affects the stiffness of the suspension. Raising the anti-tip wheels stiffens the suspension while lowering the anti-tip wheels softens the suspension.

To adjust the anti-tips:

1. Make sure the power chair is not in freewheel mode.
2. Use a hex key and a socket to loosen the nut and bolt that fasten the anti-tip spring to the anti-tip arm. See figure 10.
3. Use a 1/2-in. spanner and 1/2-in. socket to remove the anti-tip wheel.
4. Use a 5/32-in. hex key and 7/16-in. socket to remove the anti-tip adjustment bolt.
5. Raise or lower the anti-tip wheel in .6-cm (1/4-in.) increments.
6. Replace the hardware into the appropriate holes and tighten.
7. Install the anti-tip wheel.

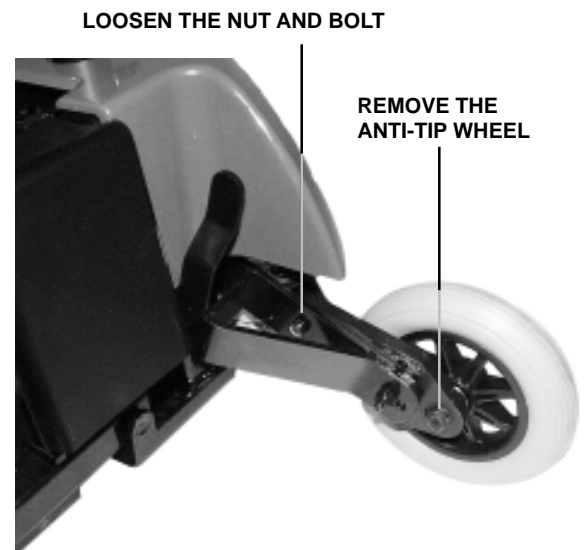


Figure 10. Anti-Tip Wheel Adjustment

POSITIONING BELT

Required Tools/Materials:

- 5/16-in. x 2-in. button head socket cap screw
- 5/16-in. washer
- 5/16-in. spacer
- Black plastic spacer
- 5/16-in. Nylock nut
- 3/16-in. hex key
- 1/2-in. open-end spanner

An auto-type positioning belt is available for your power chair as an optional accessory. The positioning belt is designed to support the operator so that he/she does not slide down or forward in the seat and can be adjusted for operator comfort. The positioning belt is not designed for use as a restraining device. See figure 11.

To install the positioning belt (if required):

1. Insert the 5/16-in. x 2-in. button head socket cap screw through the 5/16-in. washer and the mounting tab at the end of the positioning belt.
2. Install the screw through the 5/16-in. spacer and the large black plastic spacer, then insert the screw through the seat base rail at the rear of the seat.
3. Install the 5/16-in. Nylock nut to the assembly, and then tighten the screw and nut using a 3/16-in. hex key and a 1/2-in. open-end spanner.
4. Repeat steps 1-3 for the other side.

To adjust the positioning belt for operator comfort:

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

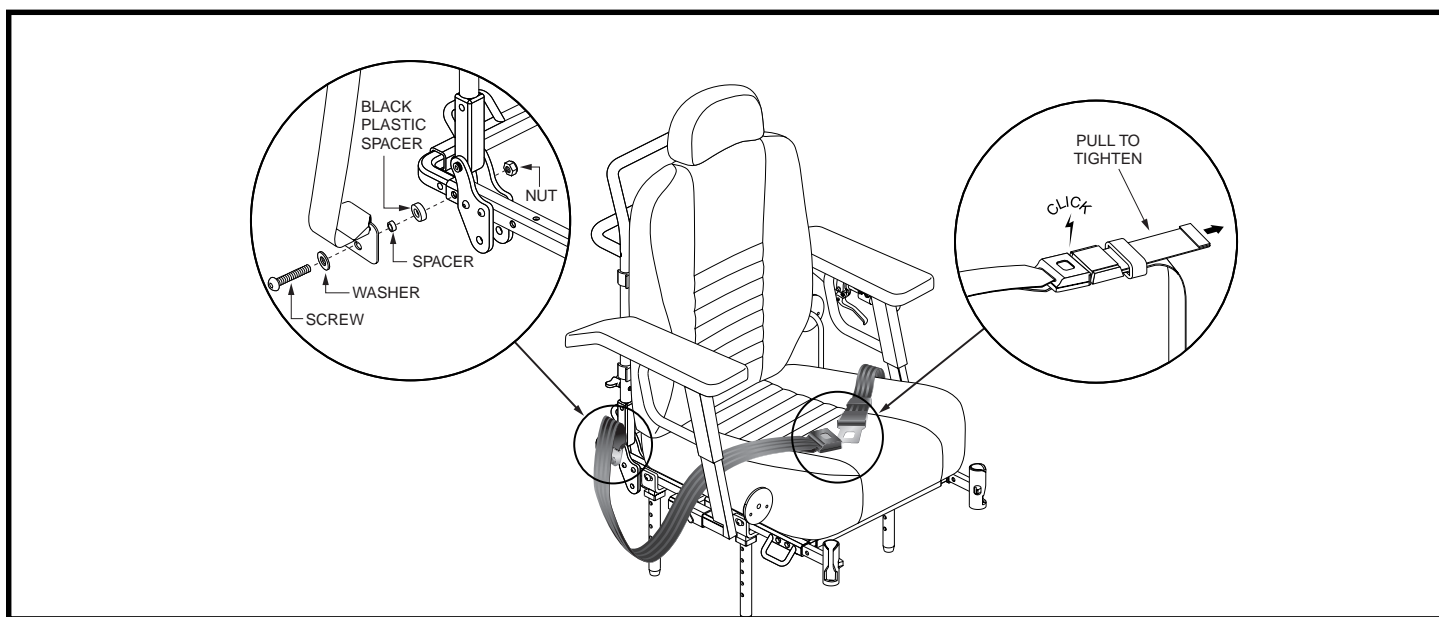


Figure 11. Positioning Belt Installation and Adjustment (Export Seat)

MULTI-AXIS FOOT PLATE

The multi-axis foot plate assembly can be installed on either a swing-away footrest or an elevating leg rest. The multi-axis foot plate has four adjustments: leg rest length (A), position (B), tilt (C), and angle (D). See figure 11a.

To change leg rest length (A):

1. Remove the hardware.
2. Move the leg rest to the desired position.
3. Reinstall the hardware.

To change foot plate position (B):

1. Remove the hardware.
2. Move the foot plate to the desired position.
3. Reinstall the hardware.

To change foot plate tilt (C):

1. Loosen the hardware.
2. Tilt the foot plate to the desired position.
3. Tighten the hardware.

To change foot plate angle (D):

1. Turn the setscrew clockwise to decrease the angle.
2. Turn the setscrew anticlockwise to increase the angle.

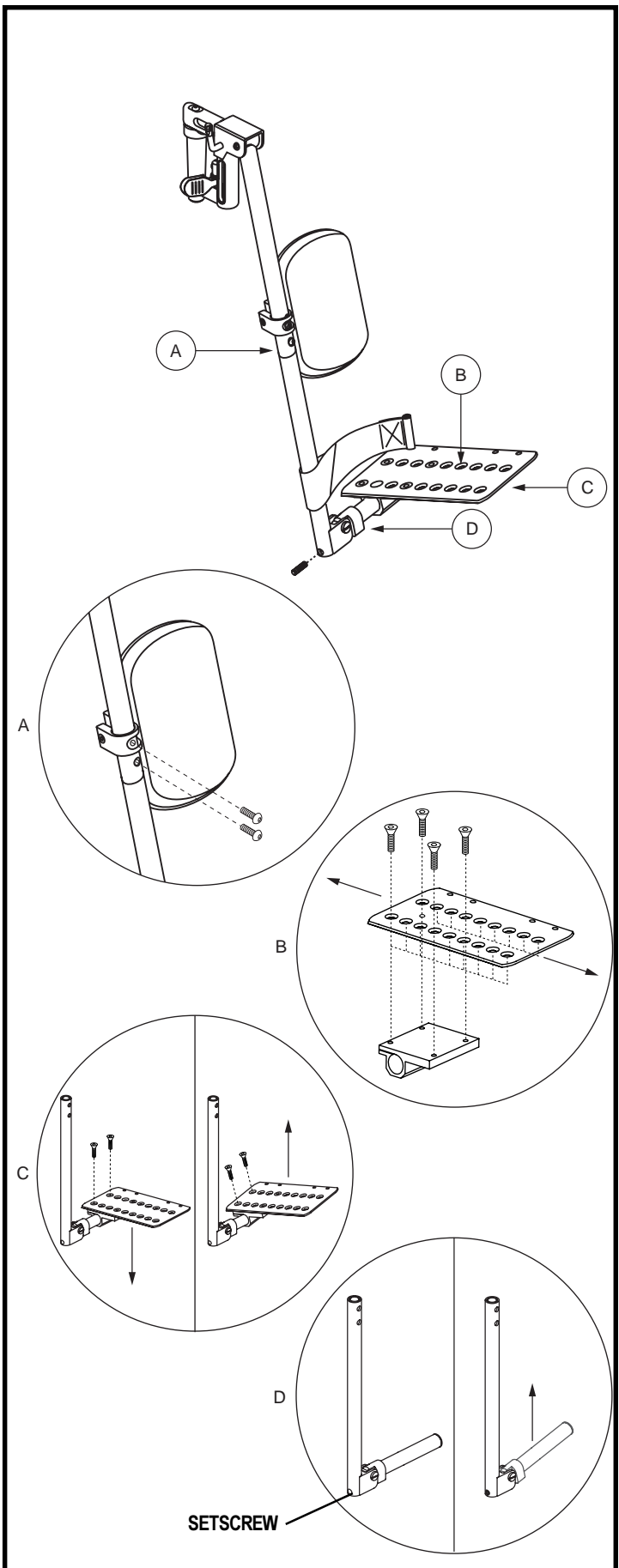


Figure 11a. Multi-axis Foot Plate

OPERATION

REMOTE PLUS 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 also enables you to monitor battery charge, electronic controller functions, and the condition of your electrical system. Also, it may be used to control some optional systems such as power elevating seats and lights.

The Remote Plus is a modular electronic control system. The electronics necessary to operate the power chair are contained in several modules located on different parts of your power chair.

The Remote Plus system consists of the following components:

- master remote (See figure 12.)
- communications cable(s)
- power module
- motor wiring harnesses
- battery wiring harnesses
- actuator lighting module (for optional equipment)

The master remote is located typically on the end of an armrest. The other components are located inside the power base.

REMOTE PLUS MASTER REMOTE

The Remote Plus master remote consists of the following:

1. joystick
2. keypad
3. controller communications cable
4. off-board charger/programming socket

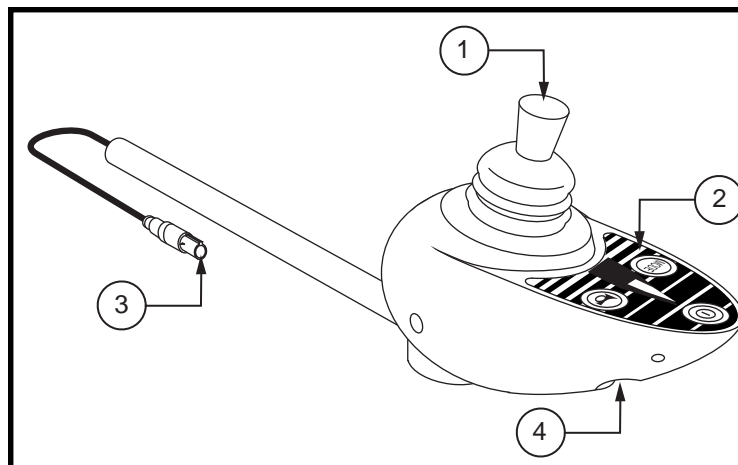


Figure 12. Remote Plus Master Remote

JOYSTICK

The joystick controls the direction and speed of your power chair. When you move the joystick from the neutral (centre) position, the electromagnetic brakes release and allow your power chair to move. The further 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.

KEYPAD

The keypad is located directly in front of the joystick. See figure 13. It contains keys that you will use to control your power chair.

ON/OFF KEY

The on/off keys toggles the system power 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.

MODE KEY

Press the key to change speed setting or to activate the power accessories. See "Speed Settings."

SPEED SETTING INDICATOR

Indicates the selected speed setting.

BATTERY CONDITION METRE

The battery condition metre is located in front of the joystick. This is a 10-segment illuminated display that indicates that the Remote Plus is turned on and also gives the status of the battery, the controller, and the power chair electrical system.

- **Red, yellow, and green lights lit:** Battery charged; controller and electrical system OK.
- **Red and yellow lights lit:** Charge battery if possible; controller and electrical system OK.
- **Red lights only lit or slow flash:** Charge battery as soon as possible; controller and electrical system OK.
- **Rapid flash of lights:** Indicates a fault in the controller or the electrical system. See "Trouble Codes."
- **Ripple up and down of lights:** The joystick was not in the centre position when the controller was turned 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 authorised Pride Dealer.

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 SETTINGS

The Remote Plus speed settings range from 1 to 5. Typically, the slowest speed setting is 1 and the fastest speed setting is 5. The settings are indicated by the number of lights that are lit.

NOTE: The speed settings are preset at the factory. If your authorised Pride Dealer changes the order of these settings, please make note of these changes. Contact your authorised Pride Dealer for more information.

To select a speed setting:

1. Press the on/off key to power on the remote.
2. Press the mode key once.
3. To increase chair speed, push the joystick to the right. Each time you push the joystick, you will increase the speed setting.
4. To decrease chair speed, push the joystick to the left. Each time you push the joystick, you decrease the speed setting.
5. Once you select the desired speed setting, press the mode key once to keep the setting or push the joystick in the forward or reverse direction. The chair will resume operation at the selected speed.

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

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 controller. The socket may also be used for reprogramming the controller by using a PG Drives Programmer, should this be necessary. If you use an off-board charger, the charger current should not exceed 12 amps. Contact your authorised Pride Dealer for more information.



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

CONTROLLER COMMUNICATIONS CABLE

The controller communications cable provides the joystick module with a connection to the power module at the back of the power base.

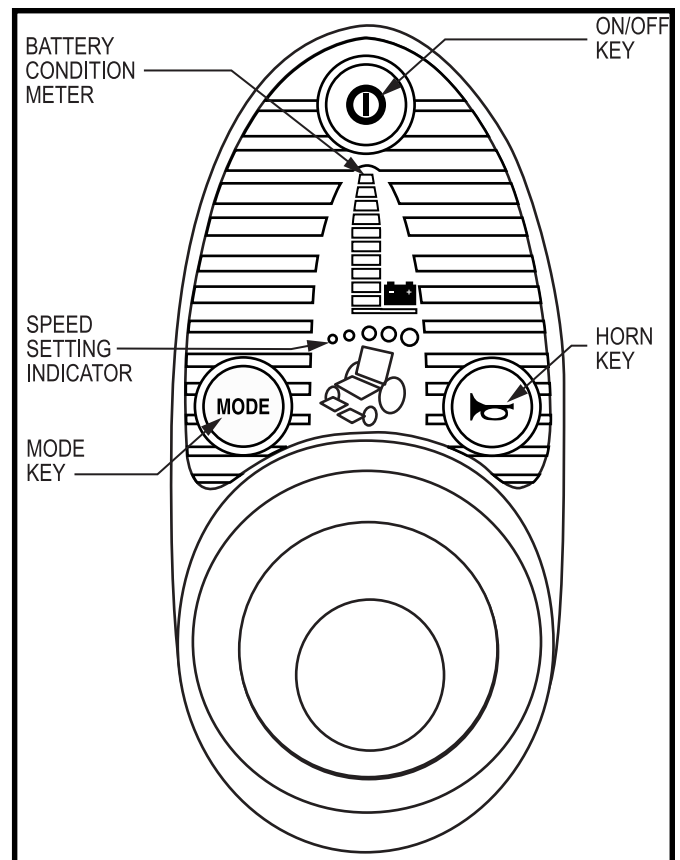


Figure 13. Remote Plus Keypad

Power Module

Typically, the power module is mounted to the power base. The power module provides a power interface for the joystick module. It routes the battery power to the motors and other powered accessories such as lights and power seats.

ACTUATOR LIGHTING MODULE (NOT SHOWN)

The actuator lighting module is also located on the power base. The actuator lighting module provides a control and power interface between the power module, the lights, and/or the power seat actuator.

SLEEP MODE

Your Remote Plus controller has a sleep mode feature. Sleep mode is a built-in circuit that automatically shuts off the main power if the joystick is not moved in any direction for approximately five minutes. The battery condition metre lights on the keypad indicate sleep mode by blinking once every five seconds. To restore power and continue, push the on/off key twice.

THERMAL ROLLBACK

The Remote Plus is equipped with a thermal rollback circuit. This circuit monitors the temperature of the motors, power module, and remote. In the event that any of them become excessively hot (above 50°C/122°F), motor voltage is reduced. For every degree above 50°C/122°F, the voltage is reduced by 5 volts. This reduces your power chair's speed and allows the electrical components to cool down. When the temperature returns to a safe level, your power chair resumes its normal speed.

TROUBLE CODES

In addition to indicating the current state of battery charge, the battery condition metre can also indicate possible problems with your power chair. The battery condition metre has ten lights. The lights provide information by the number of lights that are flashing. If any of the metre lights are flashing rapidly, the controller may be indicating a fault. For instance, if the first light is flashing rapidly, the battery voltage is nearly depleted. The following is a list of the possible errors signified by the rapidly flashing metre. When you get a trouble code, contact your authorised Pride Dealer.

FLASHING LIGHTS	DIAGNOSIS	SOLUTION
10	High Battery Voltage	Check batteries.
9	Solenoid Brake Fault	Check motor/brake wiring.
8	Possible Controller Fault	See authorised Pride Dealer.
7	Possible Joystick Fault	See authorised Pride Dealer.
6	Inhibit Active Unplug charger.	Check connections.
5	Right Motor Wiring Fault	Check right motor wiring.
4	Right Motor Disconnected	Check right motor wiring.
3	Left Motor Wiring Fault	Check left motor wiring.
2	Left Motor Disconnected	Check left motor wiring.
1	Low Battery Voltage	Check batteries/battery wiring.

BATTERIES AND CHARGING

BATTERIES

Your Quantum Dynamo ATS 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 deep 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 are also unsafe for use in power chairs.



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

CHARGING YOUR BATTERIES

The battery charger is one of the most important parts of your Quantum Dynamo ATS. The battery charger is designed to optimise your power chair's performance by charging the batteries safely, quickly, and easily. The charging system consists of the charger, the charger fuse, and the ammetre. The ammetre 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 ammetre and the charger are only functional when the charger power lead is plugged into a wall outlet.



WARNING! You must recharge batteries with the supplied onboard or off-board charging system. Do not use an automotive-type battery charger.



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

To charge the batteries by using the onboard charger:

1. Position the rear of your power chair close to a standard wall outlet.
2. Be certain that the controller power is turned off and the freewheel levers are in the engaged position. See "The Quantum Dynamo ATS."
3. Extend the charger power lead and plug it into the wall outlet. Your Quantum Dynamo ATS incorporates an inhibit function that disables your power chair when the charger is plugged into a wall outlet.
4. The ammetre indicates how much charge is needed to fully charge the batteries. Wait about a minute for the charger to warm up. The ammetre may move up to as high as 5.5 amps, then gradually move back down to 0 amps as it charges.
5. We recommend you charge the batteries for 8 to 14 hours. As the batteries charge, the ammetre needle will slowly drop to zero. When the batteries are fully charged, the needle will vibrate on or about the zero mark on the metre scale.
6. When the batteries are fully charged, unplug the power lead from the wall outlet, wind it up, and store it in a safe place.

OFF-BOARD CHARGER

Your power chair may be equipped with an off-board, or external, charger. Typically, external chargers plug into the joystick/controller. If your power chair is equipped with an external charger, refer to the instructions that come with the charger.

BATTERY BREAK-IN

1. Fully recharge any new battery prior to initial use. This will bring the battery up to about 90% of its peak performance level.
2. Run your Quantum Dynamo ATS about the house and grounds. Move slowly at first, and do not 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 run your power chair again. The batteries should 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 120VAC (alternating current) and converts it to 28VDC (direct current). When the battery voltage is low, the charger works harder to charge the batteries. This is why the charging ammetre initially reads 5.5 amps or more. As the battery voltage approaches a full charge, the charger doesn't work as hard to complete the charging cycle. This explains why the amperage on the charging ammetre drops as the batteries approach a full charge. When the batteries are fully charged, the amperage from the charger is nearly zero. This is how the charger maintains a charge but does not overcharge the battery. Your power chair's charger will not be able to charge your batteries after the batteries have been discharged to nearly zero voltage. If this happens, call your authorised Pride Dealer for assistance.

CAN I USE A DIFFERENT BATTERY CHARGER?

You should use the charger supplied with your 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).

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 it for the day. Your power chair will be ready each morning to give you a full day's service. We recommend that you charge the batteries 8 to 14 hours after daily use. Do not charge the batteries for more than 24 hours.

■ **INFREQUENT USE**

If you use your power chair infrequently (once a week or less), you should charge it at least once per week for 12 to 14 hours.

NOTE: Keep the batteries fully charged and avoid deeply discharging the batteries. Do not charge the batteries for more than 24 hours.

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 hills or curves. More often you are presented with hills, pavement cracks, uneven and loosely packed surfaces, and curves. All of these factors affect the distance or running time per battery charge. The following are a few suggestions for obtaining the maximum range per charge:

- Always charge the batteries fully prior to your trip.
- Maintain **2.4 bar (35 psi)** in pneumatic drive tyres.
- Plan your trip in advance to avoid inclines if possible.
- Limit the baggage weight to essential items.

WHAT TYPE OF BATTERY SHOULD I USE?

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

Use these specifications to reorder deep-cycle batteries from your authorised Pride Dealer.

BATTERY SPECIFICATIONS	
Type:	Deep Cycle (AGM or Gel-Cell)
Size:	U-1
Voltage:	12 Volts each
Amp Hours:	35 amp hours (AH)



WARNING! Corrosive chemicals are 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 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. Lead-acid 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 the Quantum Dynamo ATS'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 their 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 stabilise and adjust to its new ambient temperature. More importantly, it takes 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 is well worth it for you to take the time to break in the batteries 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 provides reliable performance and extended battery life. Keep the 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 QUANTUM DYNAMO ATS AND BATTERIES?

If you do not use your power chair regularly, we recommend maintaining battery vitality by charging the batteries at least once a 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 your power chair in a warm, dry environment. Avoid temperature extremes such as freezing conditions 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.

NOTE: *If you are storing your power chair for an extended period of time, you may wish to block the unit up off of the ground with several boards under the frame. This keeps the tyres off of the ground and prevents the possibility of flat spots developing on the tread area of the tyres.*

WHAT ABOUT PUBLIC TRANSPORTATION?

AGM and Gel-Cell batteries are designed for application in power chairs and other mobility vehicles, 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 it in the original shipping container and ship the batteries in separate boxes.

DISASSEMBLY

Your Quantum Dynamo ATS disassembles into eight easily transportable component assemblies (seat and leg rests not shown)—with no tools required. See figure 14.



WARNING! Even though no tools are required to disassemble or assemble your Quantum Dynamo ATS, you should not place your hands or fingers on the areas of the component assemblies where they may be pinched, as the assemblies "snap" together or "snap" apart.

NOTE: *During both disassembly and assembly of your Quantum Dynamo ATS, take your power chair out of freewheel mode so that the chair does not roll while you are disassembling or assembling it. See "Your Quantum Dynamo ATS."*

DISASSEMBLY PREPARATION

Position your power chair in a location where there is ample working room on all four sides. We recommend three or more feet of clearance on all sides. There are eight component assemblies, some of which take up a great deal of space when disassembled from the chair. Make certain that your power chair is powered off.

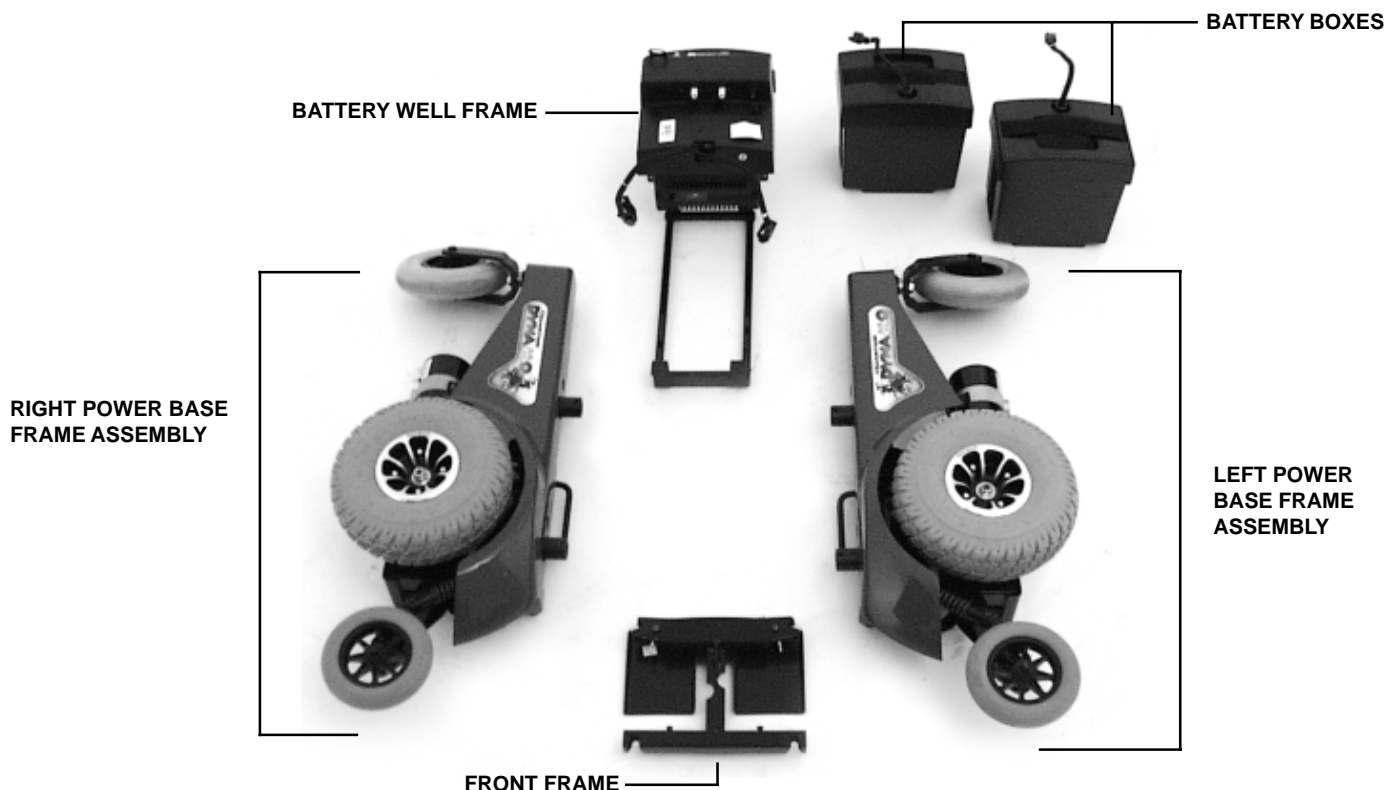


Figure 14. Quantum Dynamo ATS Component Assemblies

DISCONNECT THE JOYSTICK/CONTROLLER HARNESS.

Disconnect the joystick/controller harness from its connector on the electronics tray. See figure 6. You may need to pull firmly and gently wiggle the harness to remove it from the connector.

REMOVE THE SEAT.



WARNING! Depending on the size of the seat, Pride recommends that two people remove the seat to avoid possible damage to the seat or your Quantum Dynamo ATS.

1. Remove the four (4) T-handle ball detent pins securing the seat to the power base.
2. Allow the seat to rest on the seat mount connectors.
3. Lift the seat directly up. See figure 15. You may find it necessary to rock the seat gently from side to side to free the seat posts from the seat mount connectors.



WARNING! Do not pick up the seat frame by the armrests. They may be free to pivot, and you may lose control of the seat if they do so, resulting in personal injury or damage to the chair.

REMOVE THE SWING-AWAY LEG RESTS.

1. Press and hold the locking lever to unlock the leg rest. See figure 16.
2. Swing the leg rest to the side, then lift it straight up to remove it from the mounting bracket.



Figure 15. Removing the Versa Seat

LOCKING LEVER



Figure 16. Removing the Swing-away Leg Rest

REMOVE THE BATTERY WELL FRAME.

1. Disconnect both battery connectors and both motor connectors. See figure 7.
2. Lift and remove each battery box. See figure 17.
3. Squeeze together the latch release levers that hang vertically down from the crossbar at the rear of the battery well frame. Lift up the rear end of the battery well frame. See figure 18. Pull it to the rear of the chair to release the front slots from the locating pins on the front frame bottom bar.

DISASSEMBLE THE RIGHT AND LEFT POWER BASE FRAME ASSEMBLIES.

1. Stand behind your power chair and grasp one of the power base frame assembly handles.
2. Press the chrome latch release lever toward the centre of the frame and hold it. See figure 19.
3. Push the frame assembly outward and pull up on the front frame until the latching mechanism releases.
4. Keep pulling upward until the locating pin on the bottom of that side of the front frame releases from its slot in the power base frame assembly.
5. Carefully let the power base frame assembly tilt to a resting position.
6. Repeat for the other power base frame assembly.



Figure 17. Removing Battery Boxes



Figure 18. Removing Battery Well



Figure 19. Removing Front Frame

ASSEMBLY

FRONT FRAME AND POWER BASE FRAME ASSEMBLY

1. Place the three frame assemblies next to each other as shown in figure 20.
2. Grasp the front frame and fit the notch on the front frame bottom bar onto the locating pin on the lower section of the power base frame assembly. See figure 21.



WARNING! The front frame should be positioned with the two semicircular notches in the vertical bar facing forward.

3. Pivot the front frame top bar toward the power base frame assembly and push the front frame top bar onto the locking mechanism until the two assemblies snap securely into place. See figure 22.
4. Repeat for the other power base frame assembly.

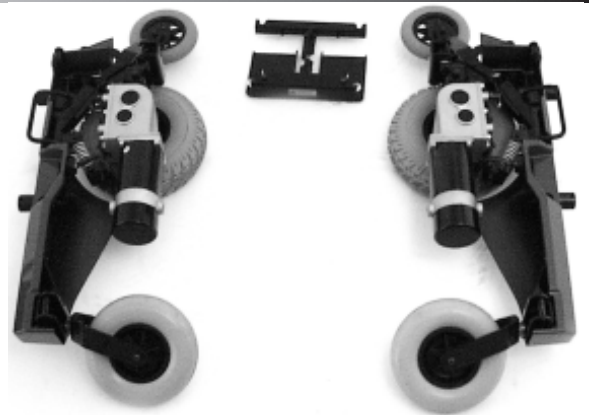


Figure 20. Frame Assemblies



WARNING! Make certain that the front frame is snapped securely to both the right frame assembly and to the left frame assembly.

INSTALL THE BATTERY WELL FRAME.

1. Hold the battery well frame so that the bottom of the well hangs downward.
2. Position the notches on the front of the battery well frame onto the locating pins on the front frame bottom bar. See figure 23.
3. Fit the notch on either side of the rear of the battery well frame onto the locating pin on the power base frame assembly and onto the locating pin on the other power base frame assembly.
4. Make certain that the locking mechanisms snap securely into place.

INSTALL THE BATTERY BOXES.

1. Place the front battery box into the front end of the battery well frame.

NOTE: Make certain that the connectors are facing toward the centre.

2. Place the rear battery box into the back end of the battery well frame. Make certain that none of the wiring harnesses or cables are pinched between the battery or the motor controller box and the frame.
3. Connect the battery boxes. Use the battery connection label for a reference.
4. Reconnect the left and right motor connectors. Be certain to match the left connector to the left motor and the right connector to the right motor. The connectors are labeled left and right.

INSTALL THE SEAT.

1. Lift the seat directly up and position it over the power base so that the seat posts line up with the seat mount connectors.
2. Slide the seat posts down into the seat mount connectors.
3. Align the locating holes in the seat posts with those in the seat mount connectors, and insert the T-handle ball detent pins through the holes.

INSTALL THE SWING-AWAY LEG RESTS.

1. Press and hold the locking lever, and slide the swing-away leg rest into the mounting bracket.
2. Swing the leg rest to the centre position.
3. Release the locking lever to lock the leg rest in place.
4. Repeat steps 1 through 3 for the opposite leg rest.

CONNECT THE JOYSTICK/CONTROLLER.

1. Reconnect the joystick/controller harness to its connector on the electronics tray. See figure 6.



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



Figure 21. Connecting Front Frame Assembly



Figure 22. Fitting the Frames

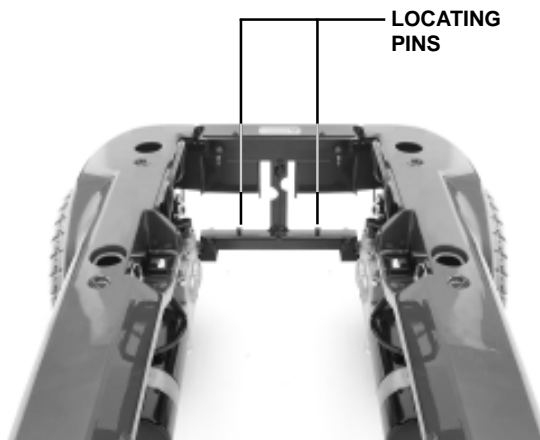


Figure 23. Connect Battery Well Frame

CARE AND MAINTENANCE

ROUTINE MAINTENANCE

Your Quantum Dynamo ATS is a sophisticated powered wheelchair. Like any motorised vehicle, it requires routine maintenance checks. You can perform some of these checks, but others require assistance from an authorised Pride Dealer. 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 questions about the care or operation of your power chair, contact your authorised Pride Dealer.



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 Quantum Dynamo ATS come in contact with water:

1. Dry your power chair as much as possible with a towel.
2. Allow your power chair to sit in a warm, dry place for 24 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 authorised Pride service centre.

TEMPERATURE

Your Quantum Dynamo ATS may be affected by extreme changes in temperature. Always keep your Quantum Dynamo ATS between the temperatures of 0°C/32°F and 50°C/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 50°C/122°F may cause your Quantum Dynamo ATS to operate at a reduced speed. This is a safety feature built into the controller that helps prevent damage to the motor and other electrical components. See "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 connections on the electronics tray at the rear of the power base to ensure that they are all tight and secured properly.
- When the battery condition metre is completely lit, the batteries are fully charged, and the controller and electrical system are OK.
- If one red bar on the battery condition metre is blinking slowly, the batteries are low and need to be charged, but the controller and electrical system are OK.
- If the battery condition metre is blinking rapidly, the controller has detected a fault in either its own circuits or in the power chair's circuits. See "Operation."
- Use a rubber conditioner on the tyre sidewalls to help preserve them. Check the tyres for wear.



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

- 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 area, with the battery terminals facing inward toward each other. Refer to the frame decal for the correct wiring layout.
- All wheel bearings are pre-lubricated 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 centre when you release it. Check the rubber boot around the base of the joystick for damage. Visually inspect the boot only. Do not handle or try to repair it. See your authorised Pride service centre if there is a problem.
- Visually inspect the joystick/controller harness. Make sure that it is not frayed or cut and that no wires are exposed. See your authorised Pride Dealer if there is a problem with the harness.

WEEKLY CHECKS

- Disconnect and inspect the joystick/controller harness from the electronics tray. Look for corrosion. Contact your authorised Pride Dealer 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 tyre inflation; there should be **2.4 bar (35 psi)** in each tyre. If a tyre will not hold air, replace the tube.
- Calibrate the joystick if a noticeable difference in performance is detected or if the joystick does not operate properly.
- 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 calibrate the joystick:

1. Position the joystick in the full reverse position and hold it there. Turn on the controller.
2. The battery condition metre lights up from one light to ten lights, and then back to one light. It does this twice, then blinks rapidly.
3. Turn off the controller.
4. Position the joystick in the full forward position and hold it there; then turn the controller on.
5. The battery condition metre lights up from one light to ten lights, and then back to one light. It does this twice, then blinks once, and then it blinks continuously.
6. Turn off the controller. Now the joystick and controller are set up to function properly together.

To check the brakes:

1. Turn on the controller and set the speed adjustment to the slowest setting.
2. After one second, check the battery condition metre. Make sure that it remains on.
3. Slowly push the joystick forward until you hear the electric brakes click.

NOTE: Your power chair may move when performing this test. Immediately release the joystick. You must be able to hear each electrical brake operating within a few seconds of joystick movement.

MONTHLY CHECKS

- Check that the anti-tip wheels do not rub the ground when you are operating your power chair; adjust them as necessary.
- Check for extreme wear on the anti-tip wheels. Replace them as necessary.
- Check for drive tyre wear. See an authorised Pride Dealer for repair.
- Check the rear casters for wear. Replace as necessary.
- Check the rear forks for damage or fluttering which indicates that they may need to be adjusted or the bearings may need to be replaced. See an authorised Pride Dealer for repair.
- Keep your power chair clean and free of foreign material such as hair, food, drink, etc.

YEARLY CHECKS

Take your power chair to an authorised Pride Dealer for yearly maintenance. This helps to 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. See "Batteries and Charging."



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

CLEANING INSTRUCTIONS



WARNING! Never hose off your Jet 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.

TYRES AND TUBES

If your Quantum Dynamo ATS is equipped with pneumatic tyres, you should check the air pressure at least once a week. This prolongs the life of your tyres and helps to ensure the proper operation of your chair. If you have a flat tyre, replace the tube. Replacement tyres and tubes are readily available through the Dealer where you purchased your power chair.



WARNING! Completely deflate the tyre before attempting repair!



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.

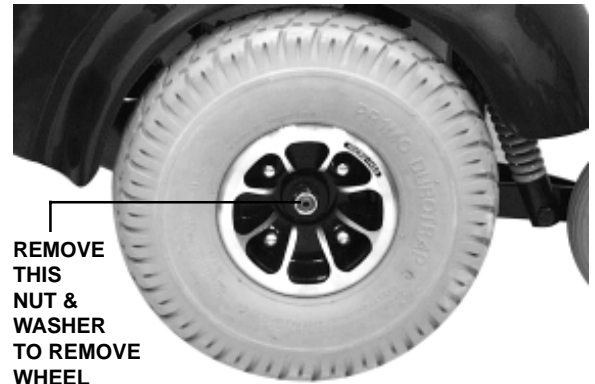


Figure 24. Drive Wheel

Follow these easy steps for a quick and safe tube or tyre replacement:

1. Completely deflate the tyre (if pneumatic).
2. Use a 17-mm socket spanner and driver to remove the nut from the wheel axle. See figure 24.
3. Pull the wheel off of the axle.
4. Separate the tyre and tube from the wheel.
5. Remove the old tube and/or tyre and replace with the new tube or tyre.
6. Slide the wheel back onto the shaft and torque the nut to 16 ft.-lbs.
7. Inflate the tyre to **2.4 bar (35 psi)** (if pneumatic).



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



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

BATTERY REPLACEMENT

1. Remove the seat.
2. Remove the battery boxes and set them on a solid, flat surface.
3. Unfasten the battery box straps on the bottom of the box.
4. Lift up the top cover.
5. Remove the rubber covers from the terminals. Using a 1/2-in. spanner, unscrew the terminal nuts and bolts and disconnect the battery wires from the battery terminals.
6. Remove the battery from the bottom cover.
7. Place the new battery into the bottom cover.
8. Connect the red battery wire to the positive (+) terminal. Make sure you tighten the nuts and bolts so that the connection is secure.
9. Connect the black battery wire to the negative (-) terminal. Make sure you tighten the nuts and bolts so that the connection is secure. Place the rubber covers over the terminals.
10. Place the top cover back onto the bottom cover.
11. Fasten the straps and make sure the connection is secure. Place the battery box aside.
12. For the second battery, repeat steps 3 - 11.
13. Make sure that the battery terminals are positioned opposite the battery charger.



WARNING! If you do not position the battery terminals on the opposite side of the charger, you run the risk of shorting out the batteries and severely damaging your power chair!

14. Place the rear battery box back into the battery well.
15. Place the front battery box back into the battery well.
16. Connect the rear battery box connector and the front battery box connector to the electronics tray.
17. Install the seat.
18. Connect the joystick/controller harness to its connector on the electronics tray.



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

CORRECTIVE MAINTENANCE

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

- Check the harness connections. Make sure they are tight.
- Check the 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 came with the load tester. If either one of the batteries fails the load test, replace both of them. If your Quantum Dynamo ATS still does not power up, contact your authorised Pride Dealer.

WHEN TO SEE YOUR AUTHORISED PRIDE DEALER FOR SERVICE

The following symptoms could indicate a serious problem with your Quantum Dynamo ATS. If necessary, contact an authorised Pride Dealer. When calling, have the model number, serial number, nature of the problem, and the trouble code if available.

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

LIFETIME LIMITED WARRANTY

Structural frame components, including: platform, fork, seat post, and frame welds.

TWO-YEAR LIMITED WARRANTY

Drive train, including: differential, motor, and brake.

ONE-YEAR LIMITED WARRANTY

Your Pride Power Chair is fully guaranteed for twelve (12) months from the date of purchase against faults arising due to defects in manufacture or materials. This warranty does not detract from, but is in addition to your legal rights.

All electronic parts, including controllers and battery chargers, have a one (1) year warranty. Servicing to the controller or battery charger must be carried out by your authorised Pride Dealer. Any attempt to open or dismantle these items renders the guarantee void on that item.

NOT COVERED UNDER WARRANTY

This guarantee does not extend to those items which may need replacement due to normal wear and tear (tyres, belts, bulbs, upholstery, plastic shrouds, motor brushes, fuses, and batteries), or damage to the product caused by misuse or accident for which Pride or its agent cannot be held responsible. This warranty does not include labour or service calls.

BATTERIES

Batteries are covered by a twelve (12) month warranty from the original manufacturer.

Gradual deterioration in performance due to being left in a discharged state, left in cold conditions for long periods of time, or worn out through heavy use is not covered.

SERVICE CHECKS AND WARRANTY SERVICE

Warranty service can be performed by your authorised Pride Dealer. Please contact your authorised Pride Dealer for advice on the current cost affecting the service visit.

QUANTUM[®]

REHAB

INNOVATIVE REHAB SOLUTIONS

A Division of Pride Mobility Products[®] Corp.

Quality Control - Quantum Dynamo ATS

Model # _____

Serial # _____



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

Date Inspected

Inspector

Thank you for
making the
Quantum
Dynamo your
choice in power
chairs.

We have
thoroughly
inspected your
Quantum Dynamo.
The following
check marks
indicate that it
has been test
driven and
inspected.

#1
In Quality
Control

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