

A Division of Pride Mobility Products® Corp.

1-800-800-8586 (Exeter, PA) • 1-888-570-1113 (St. Catharines, ON) • 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 Quantum Rehab Specialist.

Using your Pride product safely depends upon your diligence in following the warnings, cautions, 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, cautions, 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 and on the power chair to identify warnings, cautions, and important information. It is very important for you to read and understand them completely. Additional symbols are identified in II. "Safety."



WARNING! Failure to follow designated procedures can cause personal injury or 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 with white border).



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).

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# I. INTRODUCTION

#### INTRODUCTION

Welcome to Quantum Rehab, a division of Pride Mobility Products Corporation (Pride). Congratulations on the purchase of your new power chair. The Quantum design combines the most advanced state-of-the-art components with modern, attractive styling. We are certain that the design features and trouble-free operation of your new power chair will add convenience to your daily living.

At Pride, your safety is important to us. Please read and follow all of the instructions in this manual before you attempt to operate your power chair for the first time. These instructions were produced for your benefit. Your understanding of these instructions is essential for the safe operation of your new power chair.

Pride is not liable for damage to property or personal injury arising out of unsafe use of a power chair. Pride is also not liable for any property damage or personal injury arising out of the failure of any person and/or user to following the instructions and recommendations set forth in this manual or any other instructions or recommendations contained in other power chair related literature issued by Pride or contained on the power chair itself.

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.

If you experience any problems with your power chair that you are unable to solve, or if you do not feel capable of safely following any of the instructions and/or recommendations as contained in this manual, please contact your Quantum Rehab Specialist for assistance.

Once you understand how to operate and take care of your power chair, we are certain that it will give you years of trouble-free service and enjoyment.

### **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 Quantum Rehab Specialist.

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 customercare@pridemobility.com 800-800-8586 (US) 888-570-1113 (CAN)

# I. INTRODUCTION

### **Pride Owners Club**

My Quantum Rehab Specialist is:

As an owner of a Pride product, you are invited to register your product's warranty and enroll in the Pride Owners Club. You may do so by filling out and returning your enclosed 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.

Name:			
Address:			
D1 37 1			
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.

#### **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.



Pinch/Crush points created during assembly.



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



EMI-RFI! 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.



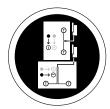
Maximum seating weight.



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 -



No step. No standing. Keep off!



Do not remove anti-tip wheels.



Do not use a cell phone, walkie/talkie, laptop, or other radio transmitter while operating.



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.

#### **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 Quantum Rehab Specialist 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 Quantum Rehab Specialist 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. See IX. "Care and Maintenance."

Perform the following inspections prior to using your power chair:

- Check for proper tire inflation. Maintain but do not exceed **35 psi** 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 electronics tray. Make sure they are secured properly.
- Check the brakes. See IX. "Care and Maintenance."
- Check battery charge. See VII. "Batteries and Charging."

NOTE: If you discover a problem, contact your Quantum Rehab Specialist 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.

#### **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 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 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 Vibe.

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 VIII. "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 backward. 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.

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.

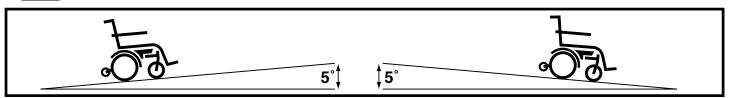


Figure 1. Maximum Safe Slope (Ascending and Descending)

### **Braking Information**

Your power chair is equipped with two powerful brake systems:

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

#### **Cornering Information**

While your power chair is equipped with 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.

#### Freewheel Mode

Your power chair is equipped with two manual freewheel levers to allow for manual maneuverability by a trained attendant. For more information about how to place your power chair into and out of freewheel mode, see IV. "The Vibe."

**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 figure 2.



WARNING! Do not attempt to have your power chair climb or descend an obstacle that is higher than 4 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.

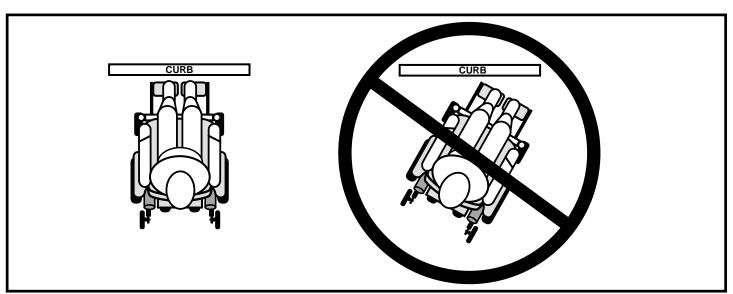


Figure 2. Curb Approach (Correct and Incorrect)

#### **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.

#### 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.

### **EMI & RFI**

Laboratory tests performed by the Food and Drug Administration (FDA) have shown that radio waves can cause unintended motion of electric mobility vehicles. Radio waves are a form of electromagnetic energy (EM). When EM adversely affects the operation of an electronic device, it is called Electromagnetic Interference (EMI) or Radio Frequency Interference (RFI). For more information, see III. "EMI/RFI."

#### **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 VIII. "Operation."
- Ensure your power chair is not in freewheel mode. See IV. The "Vibe."
- 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.
- 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.

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 legrests. Such use may cause the power chair to tip and cause personal injury.

#### **Positioning Belts**

Your Quantum Rehab Specialist, 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.

#### **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 VII. "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.

#### **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.

# III. EMI/RFI

#### EMI/RFI

Laboratory tests performed by the Food and Drug Administration (FDA) have shown that radio waves can cause unintended motion of power chairs. Radio waves are a form of electromagnetic energy. When this energy adversely affects the operation of an electronic device, it is called Electromagnetic Interference (EMI) or Radio Frequency Interference (RFI).



WARNING! Radio waves may interfere with the control of power chairs.

### Frequently Asked Questions (FAQs)

The following FAQs summarize what you should know about EMI/RFI. Use this information to minimize the risk that EMI/RFI will affect your power chair.

#### Where do radio waves come from?

Radio waves are emitted from the antennas of cellular phones, mobile two-way radios (such as walkie-talkies), radio stations, TV stations, amateur radio (HAM) transmitters, wireless computer links, microwave sources, and paging transmitters. Radio waves are a form of electromagnetic energy (EM). Because electromagnetic energy is more intense closer to the transmitting antenna (source of emission), the EM fields from two-way radios are of special concern to power chair users.

## If my power chair is affected by EMI/RFI, what kind of motion should I expect?

This is hard to predict. It would depend on a number of factors:

- Strength of the radio waves
- Construction of the power chair
- Position of the power chair (whether it is on level ground or on an incline)
- Whether or not the power chair is in motion

An affected power chair's movement can be erratic. It may move by itself or come to a sudden stop. Furthermore, it is possible for EMI/RFI to unexpectedly release the brakes on a power chair. Some intense sources of EMI/RFI can even damage the control system of the Vibe.

#### Is there any way to know for sure whether radio waves are responsible for the unintended motion of my power chair?

Unfortunately, interference from radio wave sources may be difficult to recognize, since the signals from these sources are invisible and may be intermittent. However, the FDA recommends that you report all incidents of unintended motion or brake release to the power chair manufacturer and, if possible, note whether there was a radio wave source nearby at the time of the incident.

### Has anyone been hurt from erratic, unintended motion of power chairs?

The FDA has reports of injuries that resulted from the apparent uncontrolled motion of power chairs. However, it is unclear how many of these incidents were actually caused by radio wave interference.

### Are all power chairs susceptible to EMI/RFI?

Each make and model of chair differs in its ability to resist electromagnetic interference. That is, each has a particular level of "immunity" to interference, measured in volts per meter (Vm). A higher immunity level offers greater protection. In other words, a power chair with a high immunity level is less likely to be affected by a strong radio source than one with a low immunity level.

# III. EMI/RFI

### What is the FDA doing about the problem?

The FDA has written to the manufacturers of power chairs and requested that they test their new products to be sure that they provide a reasonable degree of immunity against EMI/RFI. The letter states that power chairs should have an immunity of at least 20 V/m. This provides a reasonable degree of protection against the common sources of EMI/RFI.

The FDA has also requested that these manufacturers clearly label their products with the immunity level, or state that the immunity level is not known. The labeling and informational material supplied with the power chair must explain what the immunity level means, and the labeling or informational material must warn users about the possibility of EMI/RFI and how to avoid it. In addition, the FDA has recommended that manufacturers establish an educational program to inform users of power chairs, and their caregivers, about the problems associated with EMI/RFI, and the actions they can take to minimize the risk.

### What can I do to find out if my power chair is likely to be affected by EMI/RFI?

If you've had your power chair for a long time and haven't experienced any unintended motion, it is not likely that you will have problems in the future. But it is always possible that problems could arise if you are close to a source of radio waves. Therefore, it is very important to be alert to this possibility. The Vibe meets or exceeds an immunity level of at least 20 V/m.

## What can I do to reduce the risk that my power chair could be affected by EMI/RFI?

Here are some precautions you can take:

- Do not turn on or use hand-held personal communications devices, such as citizens band (CB) radios and cellular phones, while the power chair is on.
- Be aware of nearby transmitters, such as radio or TV stations and hand-held or mobile two-way radios, and try not to come close to them. For example, if you are in a power chair with an immunity level of 20 V/m, you should remain at least three feet from a hand-held two-way radio and ten feet from a mobile two-way radio.
- Be aware that adding accessories and/or components, or modifying the power chair may make it more susceptible to interference from radio wave sources. There is no easy way to evaluate their effect upon the overall immunity of the power chair.

### What should I do if my power chair moves unexpectedly?

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.

#### **THE VIBE**

The Vibe has two main assemblies: the seat and the power base. See figures 3 and 4. 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.

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.

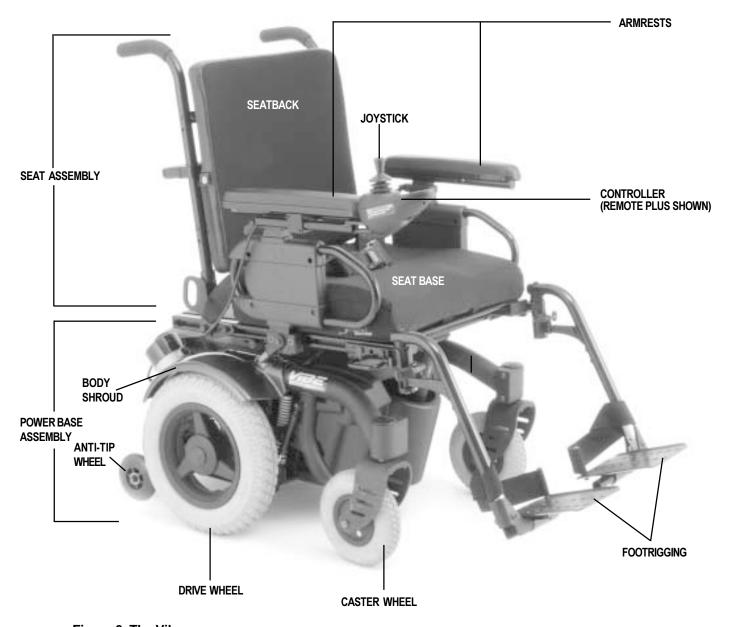
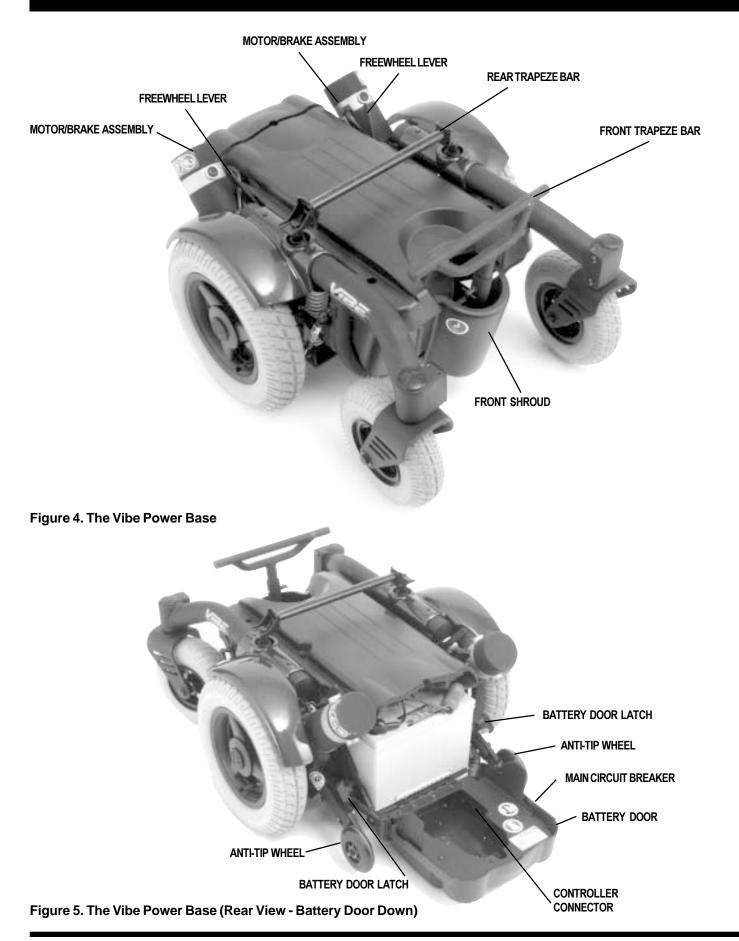


Figure 3. The Vibe

	SPECIFICATIONS					
Suspension:	Full suspension - Sport Trac					
Drive Wheels:	14 in., pneumatic, rear-mounted (14 in., solid are optional)					
Caster Wheels:	9 in. pneumatic, front-mounted (9 in. solid, 8 in. solid, and 6 in. solid are optional)					
Anti-tip Wheels:	4 in., solid, rear-mounted					
Maximum Speed:*	Up to 6 mph					
Brakes:	"Intelligent Braking" electronic regenerative, disc park brake					
Ground Clearance:	3.75 in.					
Turning Radius:	23 in. (w/o footriggings)					
Turning Diameter	46 in. (w/o footriggings)					
Overall Size:	Length: 35.5 in. (w/o footriggings)					
	Length: 48 in. (w/swingaway footrests)					
	Width: 25 in.					
Seating Options:	Specialty Seat (standard)					
	Medium-Back Seat (optional)					
	Synergy Seat (optional)					
	High-Back Seat (optional)					
	Reclining Seat (optional)					
	Cantilever (power-elevating option)					
Drivetrain:	Two motor, rear-wheel drive					
Batteries:	Two 12-volt, Group 34 batteries (recommended), or Group 24 batteries					
	Cantilever Power Seat Option Requires Group 34 batteries					
Range:*	Up to 25 miles					
Battery Charger:	8-amp, off-board					
Electronics:	50-amp PG Drives VSI Controller (standard)					
	70-amp PG Drives Remote Plus					
	70-amp Dynamic Europa					
Weight Capacity:	300 lbs.					
Component Weights:	Base: 90.5 lbs. (w/o batteries and w/pneumatic drive wheels)					
	Specialty Seat: 37 lbs.					
	Batteries: 53.5 lbs. each (Group 24), 41.5 lbs. each (Group 34)					

<sup>\*</sup>Depending on user weight and terrain.



#### **Electrical Components**

The electrical components are located on the battery compartment door at back of the power base. See figure 5.

Main Circuit Breaker: The main circuit breaker is a safety feature built into your Vibe. 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 Vibe 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 Quantum Rehab Specialist.

**Controller Connector:** This is where the controller connects to the power base. The VSI controller uses a large 9-pin connector. The Remote Plus and the Europa use smaller, multi-pin communications cable connectors.

#### **Manual Freewheel Levers**

For your convenience, your Vibe is equipped with two manual freewheel levers. See figures 6 and 7. These levers allow you to disengage the drive motors and maneuver the chair manually.

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



**WARNING!** It is important to remember that when your Vibe is in freewheel mode, the braking system is disengaged.

To operate the manual freewheel levers:

- 1. Pull the manual freewheel lever inward for freewheel mode (drive disengaged). See figure 6.
- 2. Push the manual freewheel lever outward for drive mode (drive engaged). See figure 7.

NOTE: If the lever is difficult to move in either direction, rock your Vibe back and forth slightly. The lever should then move to the desired position.

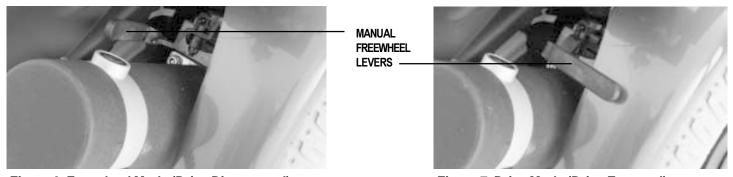


Figure 6. Freewheel Mode (Drive Disengaged)

Figure 7. Drive Mode (Drive Engaged)

# V. ASSEMBLY

#### **SEAT INSTALLATION**

It may be necessary to install the seat either prior to initial operation or after transporting your power chair. Most seats are attached to the Vibe power base with the Universal Mounting System (UMS). The UMS consists of universal parts that may be used on any medium back or high back seat, regardless of seat width or seat depth. The two main components are aluminum extrusions that can be mounted to any medium back or high back seat. These extrusions attach to a pair of trapeze bars that are mounted to the power base.



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. Set the trapeze bars to the desired height. To change the trapeze bar height, see VI. "Comfort Adjustments."
- 2. Tilt the seat back, and slide the rear extrusion onto the rear trapeze bar. See figure 8.
- 3. Lower the front extrusion onto the front trapeze bar until the seat locks into place.
- 4. Flip the seat latch safety down. See figures 8 and 9.



#### WARNING! Make sure the seat latch safety is flipped down before using your power chair.

- 5. Install the controller into one of the armrests. See VI. "Comfort Adjustments."
- 6. Pull the battery door straps and open the battery door. See figure 5.
- 7. Plug the controller cable into the connector. See figure 5.
- 8. Close the battery door.
- 9. Route the cable to ensure that the cable cannot be pinched in the seat hinge. See the accompanying *Instructions for Mounting the VSI, Dynamic, or Remote Plus Controller Cable on Jazzy Power Chairs with a Standard or Synergy Seating System.*
- 10. Secure the controller cable to the armrest receiver with one or more wire ties.

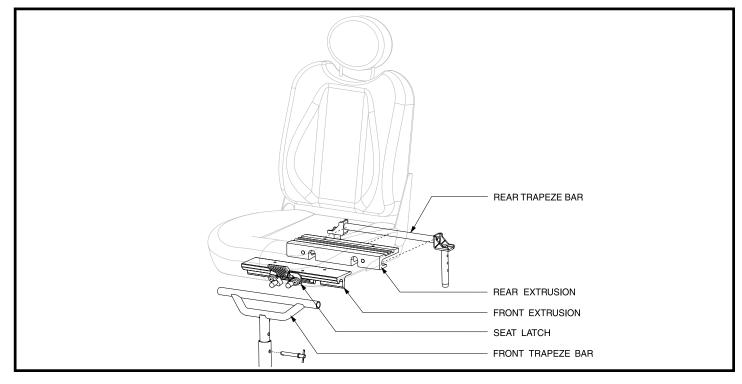


Figure 8. Universal Mounting System

#### **COMFORT ADJUSTMENTS**

After becoming familiar with your Vibe's operation, you may find the need to make some adjustments to increase your comfort, such as seat height and angle, armrest angle, footrest height and angle, and controller position. If your Vibe is equipped with a Synergy Seat or other specialty seat, refer to the information provided in separate manuals. If your Vibe is equipped with a medium back, a highback, or a reclining seat, refer to the following information.

WARNING! If your power chair was configured by your Quantum Rehab Specialist, 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 IV. "The Vibe" 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 hex key set
- metric/standard socket set and ratchet
- adjustable wrench

### **Seat Height and Seat Angle Adjustment**

The seat is attached to the power base through the UMS. See figure 8. You can change the seat height to one of three positions in 1-in. increments by raising the front and rear trapeze bars. If you raise or lower only one trapeze bar (front or rear), you can also change the seat base angle (dump).

NOTE: It is easier to raise/lower the trapeze bars with the seat removed.

#### To change the seat height or seat angle:

- 1. Power off the controller. See VIII. "Operation."
- 2. Make sure the power chair is in drive mode. See IV. "The Vibe."
- 3. Disconnect the two battery door latches from the battery door. See figure 5.
- 4. Open the battery door and disconnect the controller. See figure 5.
- 5. Flip up the seat latch safety to release the seat from the front trapeze bar. See figure 9.
- 6. Slide the seat forward and lift it off the power base. Set it aside.
- 7. Remove the ball detent pins from the rear trapeze bar. See figure 10.
- 8. Raise or lower the rear trapeze bar to the desired position. There are three holes in each pin. The holes are 1 in. apart.
- 9. Reinstall the ball detent pins into the rear trapeze bar.
- 10. Turn the two fasteners on the front shroud one-quarter turn in either direction.

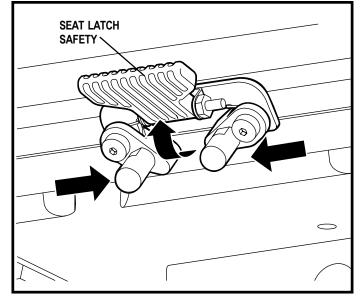


Figure 9. Seat Latch

- 11. Remove the front shroud from the power base. See figure 11.
- 12. Remove the detent pin from the front trapeze bar.
- 13. Raise or lower the front trapeze bar to the desired position.

NOTE: To change the angle, set either the front or rear trapeze bar higher or lower than the other.

- 14. Reinstall the ball detent pin into the front trapeze bar.
- 15. Place the seat back onto the trapeze bars.
- 16. Use the turnbuckle to adjust the front trapeze bar so that it fits into the front extrusion snugly. See figure 12. Loosen the locknuts on the turnbuckle. Then turn the turnbuckle clockwise to adjust the front trapeze bar backward or turn it counterclockwise to adjust the front trapeze bar forward. When you are finished adjusting the front trapeze bar, tighten both locknuts.
- 17. Reinstall the front shroud.
- 18. Reconnect the controller.
- 19. Close the battery door and secure the battery door latches.

#### **Seat Position**

You can move the seat forward or rearward by changing the extrusion mounting position.

#### To change the position:

- 1. Remove the seat.
- 2. Remove both extrusions from the bottom of the seat. See figure 8.
- 3. Reposition the extrusions on a different set of mounting holes. See figure 13. You must move both extrusions the same number of holes either forward or backward.
- 4. Fasten the extrusions back onto the bottom of the seat.
- 5. Reinstall the seat.

#### **Reclining Seat**

If your Vibe 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.

### To adjust the seatback angle:

- 1. Push down on the lever.
- 2. Move the seatback down or up to the desired position.
- 3. Release the lever.

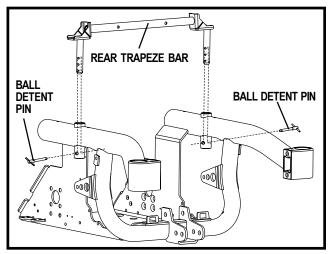


Figure 10. Rear Trapeze Bar Adjustment

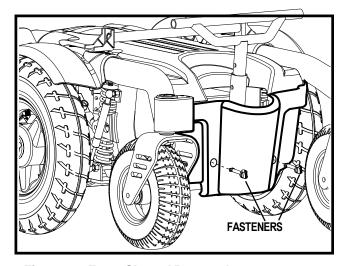


Figure 11. Front Shroud Removal

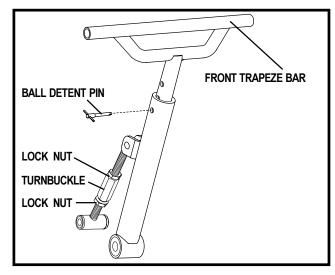


Figure 12. Front Trapeze Bar Adjustment

#### **SEATBACK ANGLE ADJUSTMENT**

If your Vibe 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 adjusting screws on both seat hinges. See figure 14.
- 2. Set the seatback at desired angle.
- 3. Reinstall the screws on both seat hinges and tighten.

## **Armrest Width Adjustment**

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

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

#### To change the armrest width:

- 1. Locate the two armrest knobs on each side of the armrest receiver bracket. See figure 14.
- 2. Loosen the knobs.
- 3. Slide the armrests in or out to the desired width.
- 4. Tighten the knobs.

### **Armrest Angle Adjustment**

To change the armrest angle:

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

### **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.

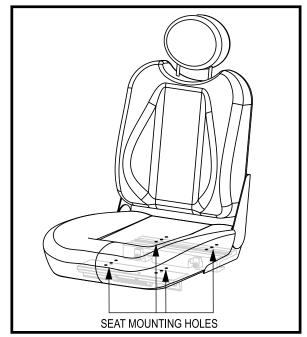


Figure 13. Seat Mounting Holes

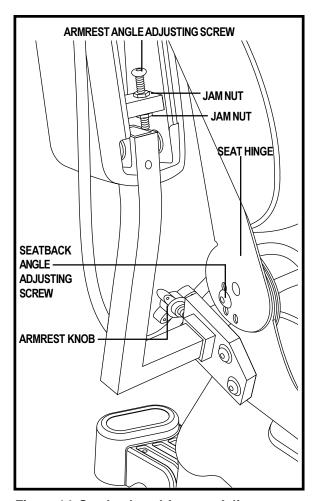


Figure 14. Seatback and Armrest Adjustments

### To change the controller position:

- 1. Open the battery door.
- 2. Unplug the controller. See figure 5.
- 3. Cut the wire tie(s) that attaches the controller cable to the armrest.
- 4. Use a hex key to loosen the setscrew. See figure 15.
- 5. Slide the controller out of the armrest.
- 6. Loosen the setscrew in the other armrest.
- 7. Place the controller in the other armrest.
- 8. Tighten the setscrew to secure the controller.
- 9. Use a wire tie to secure the controller cable to the armrest.
- 10. Plug in the controller to the battery door. See figure 5.
- 11. Close the battery door.



Swing-away Footrests enable you to rotate the leg rests to the side before you transfer on or off your Vibe.

#### To move the SFRs:

- 1. Push in the release lever. See figure 16.
- 2. Rotate the SFRs.

### To adjust the SFR length:

- 1. Remove the two screws from the side of each leg rest extension. See figure 16.
- 2. Slide the leg rest up or down to the desired length.
- 3. Reinstall the two screws.

# **Elevating Leg Rests (Optional)**

Elevating Leg Rests (ELRs) offer an infinite range of adjustment for the leg angle and a footrest adjustment range of 12–19 in.

# To move the ELRs:

- 1. Push in release lever A. See figure 17.
- 2. Rotate the ELRs.

### To adjust the ELR angle:

- 1. Push down release lever B. See figure 17.
- 2. Move the leg rest to the desired angle.

### To adjust the ELR length:

- 1. Remove the two screws from the side of each leg rest extension. See figure 16.
- 2. Slide the leg rest up or down to the desired length.
- 3. Reinstall the two screws.

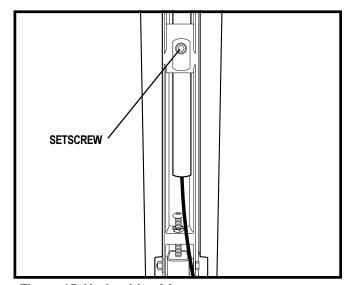


Figure 15. Underside of Armrest

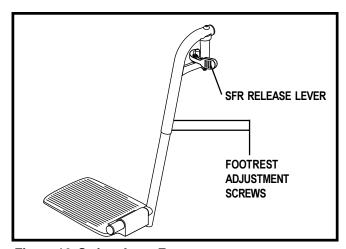


Figure 16. Swing-Away Footrests

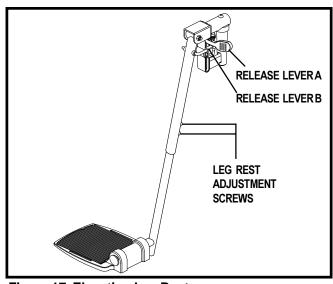


Figure 17. Elevating Leg Rests

## **Anti-Tip Wheels**

The anti-tip wheels are designed to give your Vibe increased stability on rough surfaces. The anti-tip wheels are preset at the factory for smooth surfaces or indoor use only. If you plan on using your Vibe 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 following occurs:

■ The anti-tip wheels constantly rub the ground.

WARNING! Consult your Quantum Rehab Specialist before attempting to change the anti-tip wheel height! Changing the anti-tip wheel height affects handling under acceleration!



WARNING! The higher you raise the anti-tip wheels, the more you increase your power chair's tendency to tilt backward while accelerating. You can compensate for this by having your Quantum Rehab Specialist make a small adjustment to the preprogrammed acceleration setting in the controller or by moving the seat assembly farther to the front of your power chair.



**PROHIBITED!** Do not remove the antitip wheels.

NOTE: Each drive tire must be inflated to 35 psi 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. Loosen bolt A. See figure 18.
- 2. Remove bolt B.
- 3. Raise or lower the anti-tip wheel. Each hole is 1/2-in. apart.
- 4. Reinstall bolt B.
- 5. Tighten bolt A.
- 6. Raise or lower the other anti-tip wheel so that it is at the same height.

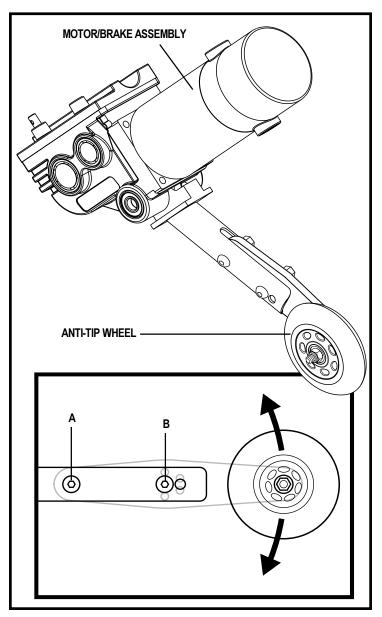


Figure 18. Anti-Tip Wheel Assembly



Figure 19. Cantilever Seat

#### **CANTILEVER SEAT OPTION**

Your power chair may be equipped with an optional cantilever seat. See figure 19. The cantilever seat is equipped with a speed inhibit system that reduces your power chair's speed by three quarters when the seat is elevated more than 1 - 2 in. The cantilever seat provides 12 in. of lift, and raising the cantilever seat can change your center of gravity. Always check to be sure the speed inhibit system is operating properly before using your power chair, and do not move around in your seat to any great extent when the seat is in a raised position.

The cantilever seat can enhance the capabilities of the power chair in the following ways:

- By raising the seat, your level of reach is extended to allow more freedom and independence in many environments.
- By raising your seat, you are closer to the eye level of standing persons. This provides better interaction.

For all the benefits your cantilever seat can provide you, there are limitations.

WARNING! Read and understand this owner's manual thoroughly before operating the power chair.



WARNING! Maintain recommended tire pressure in the drive wheels and the caster wheels to ensure stability. Failure to heed this warning can result in personal injury and/or property damage.

WARNING! The cantilever seat option is intended for use on a flat, level surface only. Never raise the seat from its lowest position on an inclined surface. Failure to heed this warning can result in the power chair tipping over and causing injury.



WARNING! Never raise the seat from its lowest position when operating your power chair on bumpy or uneven surfaces. Failure to heed this warning can result in the power chair tipping over and causing injury.

WARNING! Never raise the cantilever seat while your power chair is in freewheel mode.

WARNING! Always fasten the positioning belt when operating the cantilever seat.

### **Cantilever Seat Operation**

You can control the cantilever seat through either a toggle switch mounted to the armrest or through your joystick/controller. For information on how to raise and lower your cantilever seat through your controller, contact your authorized Pride Provider.

# To operate the cantilever seat:

- 1. Bring your power chair to a complete stop.
- 2. Push the toggle switch forward to raise the seat. When you release the toggle, the seat will stop. Once the seat reaches its highest extension, the lift action stops; you should continue to hear and/or feel the lift motor running. This is because there is a clutch mechanism that allows the motor to continue running after the lift has reached its limit. This clutch works at both the top and bottom extensions of the lift.

NOTE: Do not allow the motor to run more than a few seconds after the mechanism reaches the top or bottom limit.

# **Presence Sensing System**

The Cantilever seat is equipped with a "Presence Sensing System" that enables the electronics to cut power to the seat whenever there is an obstruction between the seat and the power base. Sensors are located on the bottom of the seat rails and can detect objects that are placed between the seat rails and the power base. When the cantilever system stops because of an obstruction, you have to reset the joystick before you can move the seat.

#### To reset the joystick:

- 1. Release the joystick to the neutral position.
- 2. Make sure the obstruction has cleared.
- 3. Use the joystick to move the seat.

#### **SPORT TRAC SUSPENSION**

The Sport Trac Suspension system on your power chair has been designed for optimum comfort and performance. This system was pre-set at the factory and requires no adjustment.



WARNING! Do not attempt to adjust suspension! Contact your authorized Pride Provider.

#### **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 20.

# 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 counterclockwise to increase the angle.

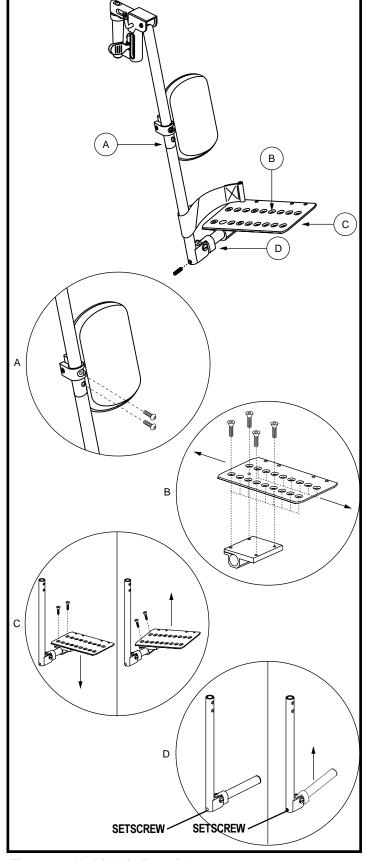


Figure 20. Multi-Axis Foot Plate

# VII. BATTERIES AND CHARGING

#### **BATTERIES AND CHARGING**

The Vibe 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 Vibe batteries. The battery charger is designed to optimize your Vibe's performance by charging the batteries safely, quickly, and easily. Vibe power chairs use an off-board charger to charge the batteries. The off-board charger is plugged into a port on the front of your controller. See VIII. "Operation." Follow the directions supplied with the off-board charger.



**WARNING!** You must recharge your Vibe's batteries with the supplied off-board 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.

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

#### Can I use a different battery charger?

You should use the charger supplied with the Vibe. 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). Your Vibe's charger will not operate after the batteries have been discharged to nearly zero voltage. If this happens, call your Quantum Rehab Specialist for assistance.

# VII. BATTERIES AND CHARGING

### How often must I charge the batteries?

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

### **■** Daily Use

If you use your Vibe on a daily basis, charge the batteries as soon as you are finished using your Vibe. Your Vibe 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. Do not charge the batteries for more than 24 hours at a charging cycle.

#### **■** Infrequent Use

If you use your Vibe 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.

#### 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.



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

### Why do my new batteries seem weak?

Deep-cycle batteries employ a much different chemical technology than that used in car batteries, nickel-cadmium (nicads), or in other common battery types. Deep-cycle batteries are specifically designed to provide power, drain down their charge, and then accept a relatively quick recharge. 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 your Vibe'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).

# VII. 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 Vibe'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 Vibe operation and limited battery life.

### How should I store my Vibe and its batteries?

If you do not use your Vibe regularly, we recommend maintaining battery vitality by charging the batteries at least once per week.

If you do not plan on using your Vibe for an extended period, fully charge the batteries prior to storage. Disconnect the battery harnesses and store the Vibe 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 Vibe to your final destination, repack your Vibe in the original shipping container and ship the batteries in separate boxes.

#### **CONTROLLER INFORMATION**

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. Also, it may be used to control some optional systems such as power elevating seats and lights.

#### **VSI Controller**

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 21.

### The VSI consists of:

- 1. joystick
- 2. keypad
- 3. off-board charger/ programming socket
- 4. actuator connector (optional)
- 5. controller connector

Typically, the VSI is mounted to one of the armrests and is connected to the motors, and batteries.

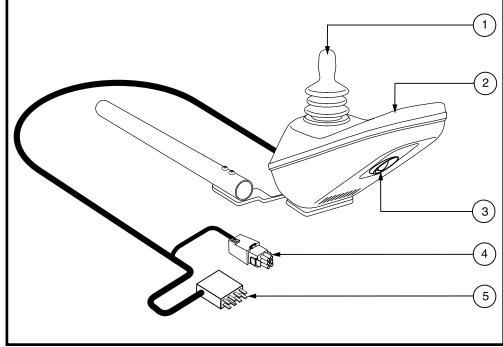


Figure 21. VSI Controller

#### **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.

# Keypad

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

#### On/Off Key

The on/off key powers 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. 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 "Trouble Codes."
- Ripple side to side of lights: The joystick was not in the neutral position when the controller was turned on. If you get "ripple side to side 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 side to side of lights", contact your Quantum Rehab Specialist.

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!

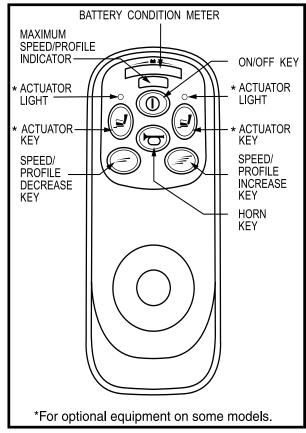


Figure 22. VSI Controller Keypad

### 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 Quantum Rehab Specialist 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.

#### **Actuator Keys and Actuator Lights (for optional equipment)**

Actuator keys and actuator lights are used for optional equipment such as power elevating seats or power elevating leg rests. For specific operation of the actuator keys and actuator lights, contact your Quantum Rehab Specialist.

# **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 and 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 Quantum Rehab Specialist.

### Off-board Charger/Programming Socket

You charge the power chair batteries through the 3-pin socket located on the front of the VSI. Off--board charger current should not exceed 12 amps. Contact your Quantum Rehab Specialist for more information.



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

NOTE: The socket may also be used for reprogramming the controller. Contact your Quantum Rehab Specialist for more information.

#### **Controller Connector**

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

#### 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.

#### **Trouble 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 decide to 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 lights. If you get one of these error codes, contact your Quantum Rehab Specialist.

Trouble Code	Diagnosis and Solution		
1	The batteries need charging or there is a bad connection to the batteries. Check the connections to		
	the batteries. If the connections are good, try charging the batteries.		
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 Quantum Rehab Specialist.		
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 Quantum Rehab Specialist.		
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 fault is indicated. Make sure that all connections are secure.		
9	The parking brakes have a bad connection. Check the parking brake and motor connections. Make		
	sure the controller system 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.		

#### **REMOTE PLUS CONTROLLER**

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 23.)
- 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

#### **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.

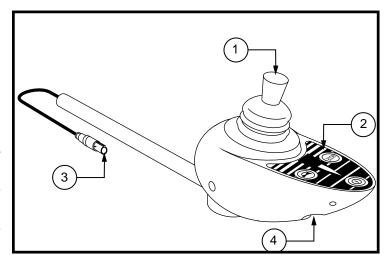


Figure 23. Remote Plus Master Remote



**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. It contains keys that you will use to control your power chair.

## On/Off Key

The on/off key powers the system 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" or "Power Accessories."

## **Speed Setting Indicator**

Indicates the selected speed setting.

#### **Power Accessory Indicator**

Indicates the selected power accessory. This is for optional accessories only.

## Horn Key

The horn key activates the horn.

# Right/Left Turn Indicator Keys

The right/left turn indicator keys toggle either the left or right turn indicators. Press once to turn on and press again to turn off. You can also turn off the selected indicator by pressing the opposite indicator key or the hazard key.

## **Light Key**

The light key turns headlights/taillights on and off independent of other indicators.

# **Hazard Key**

The hazard key activates both indicators at the same time. You can only cancel this by pressing the hazard key again.

#### **Battery Condition Meter**

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

■ Red, yellow, and green lights lit: Batteries charged; controller and electrical system OK.

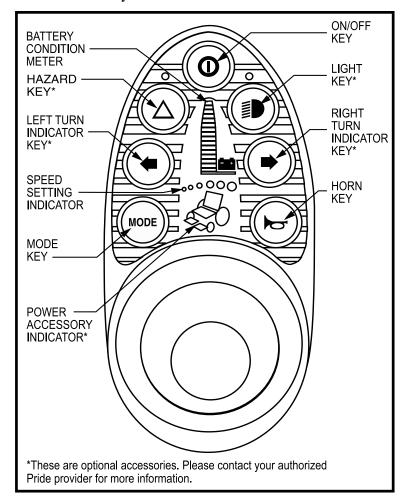


Figure 24. Remote Plus Keypad

- Red and yellow lights lit: Charge batteries if possible; controller and electrical system OK.
- Red lights only lit or slow flash: Charge batteries 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 neutral 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 Quantum Rehab Specialist.

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 (Mode Key)

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 pre-set at the factory. If your Quantum Rehab Specialist changes the order of these settings, please make note of these changes. Contact your Quantum Rehab Specialist for more information.

#### To select a speed setting:

- 1. Press the on/off key to power on the controller.
- 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 in the speed setting indicator.
- 4. To decrease chair speed, push the joystick to the left. Each time you push the joystick, you decrease the speed setting in the speed setting indicator.
- 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.

#### **Power Accessories**

If your power chair is equipped with power accessories such as a power seat or power elevating leg rests, you can operate them through the remote keypad. Contact your Quantum Rehab Specialist for information on how to operate these accessories.

#### Off-board Charger/Programming Socket

You charge the power chair batteries through the 3-pin socket located on the front of the controller. Off-board charger current should not exceed 12 amps. Contact your Quantum Rehab Specialist for more information.



WARNING! Only chargers with Neutrik NC3MX plugs should be connected to the charger socket. See your Quantum Rehab Specialist for more information.

NOTE: The socket may also be used for reprogramming the controller. Contact your Quantum Rehab Specialist for more information.

#### **Controller Communications Cable**

The controller communications cable provides the joystick module with a connection to the power module.

#### Power Module (Not shown)

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 meter 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 122° F), motor voltage is reduced. For every degree above 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 meter can also indicate possible problems with your power chair. The battery condition meter has ten lights. The lights provide information by the number of lights that are flashing. If any of the meter 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 meter. When you get a trouble code, contact your Quantum Rehab Specialist.

TROUBLE CODE	DIAGNOSIS	SOLUTION
10	High Battery Voltage	Check batteries.
9	Solenoid Brake Fault	Check motor/brake wiring.
8	Possible Controller Fault	See Quantum Rehab Specialist.
7	Possible Joystick Fault	See Quantum Rehab Specialist.
6	InhibitActive	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.

#### **DYNAMIC DX CONTROLLER**

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

The Dynamic DX system consists of the following components:

- Europa master remote (see figure 25.)
- communications cable(s)
- power module
- motor wiring harnesses
- battery wiring harnesses
- actuator lighting module (for optional systems)

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

## **Europa Master Remote**

The Europa master remote consists of the following:

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

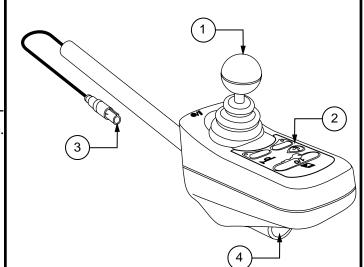


Figure 25. Europa Master Remote

# **Joystick**

The joystick controls the direction and speed of the power chair. When you move the joystick from the neutral (center) position, the electromagnetic brake will release and allow the power chair to move. The further you push the joystick from its neutral position, the faster your power chair will move. When you release the joystick and allow it to return to the neutral position, you engage the electromagnetic brake. This helps the power chair decelerate and come to a complete stop. You can also use the joystick control power actuators.



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.

# **Out Of Neutral At Power Up**

Your power chair joystick is equipped with Out Of Neutral At Power Up (OONAPU). If you power up the system and the joystick is not in the neutral position, the system status light flashes rapidly for either as long as the joystick is out of the neutral position or five seconds. If this has happened and the all the lights on the battery condition meter are flashing, you may have set flash code 1.

#### **Keypad**

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

## On/Off Key

The on/off key 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.

NOTE: If the joystick is not in the neutral (center) position when you turn on the power, you may cause a fault in the system. See "Out Of Neutral At Power Up."

## **System Status Light**

The system status light is normally on when the system is powered up, and off when the system is powered down. It will also flash trouble codes when the system detects a fault. See "Trouble Codes."

## **Magnetic Locking Area**

Your power chair is equipped with a feature that enables you to "lockout" unauthorized users. For this function, you will need the magnetic key supplied with your power chair. If you lose this key, contact your Quantum Rehab Specialist.

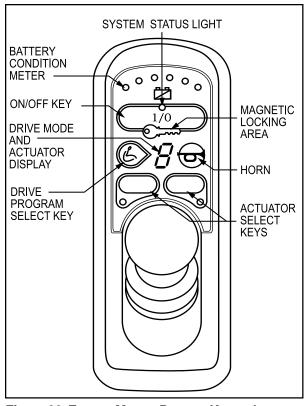


Figure 26. Europa Master Remote Keypad

#### To enable the lockout the system:

1. Hold the magnetic key on or near the key symbol. The system will beep and automatically power down.

#### NOTE: None of the remote lights should be lit.

- 2. Press the on/off key to power up the chair. The key symbol will flash, but you will not be able to drive your power chair. This means that the controller is still locked.
- 3. Hold the magnetic key on or near the key symbol again to unlock the controller. When the key symbol stops flashing, you may turn on the power chair.

NOTE: If you turn on the power chair while it is locked and don't unlock it after one minute, the power chair will automatically turn off itself.

#### **Battery Condition Meter**

The battery condition meter consists of six lights arranged in an arc over the battery icon. From left to right, the first two are red, the second two are orange and the last two are green. These lights give you an accurate indication of your usable battery capacity. If the battery has at least 85% of its rated capacity, all of the lights will be on. As the battery voltage drops, the number of lights reduces from right to left. When the battery capacity drops to 10% or below, all of the lights will flash once every second.

# **Drive Program Select Key**

The drive program select key enables you to select a drive program and an actuator mode. Your Dynamic DX controller was pre-programmed at the factory for five drive programs—1 (slowest) to 5 (fastest). The drive mode is indicated by a number in the center of the keypad.

NOTE: The drive mode settings are pre-set at the factory. If your Quantum Rehab Specialist changes these settings, please make note of these changes.

## To change the drive mode program:

- 1. Press the drive program select key.
- 2. Move the joystick right to increase the drive mode program.
- 3. Move the joystick left to decrease the drive mode program.
- 4. Press the drive mode select key.

# Drive Mode and Actuator Display (also Remote Status Display)

This is a seven-segment light that displays the drive program. It also displays a drive inhibit and actuator mode (if applicable), when they occur. This light will flash if there is an internal Dynamic DX Remote fault, or if an OONAPU fault has occurred. See "Out Of Neutral At Power Up."

#### **Power Accessories**

If your power chair is equipped with power accessories such as a power seat or power elevating leg rests, you can operate them through the remote keypad. Contact your Quantum Rehab Specialist for information on how to operate these accessories.

## Horn Key

The horn key activates the horn.

## **Battery Saver Feature**

When the battery capacity drops to below 21V (typically two lights), the controller will reduce power chair performance to conserve battery power.

## Off-board Charger/Programming Socket

You charge the power chair batteries through the 3-pin socket located on the front of the Europa. Off-board charger current should not exceed 8 amps. Contact your Quantum Rehab Specialist for more information.

NOTE: The socket may also be used for reprogramming the Europa. Contact your Quantum Rehab Specialist for more information.

#### Sleep Mode

The power chair controller features a sleep mode. Sleep mode is a built-in circuit that will automatically shut off the main power if the joystick is not moved in any direction for a specific amount of time. This time factor is programmed into the controller. The battery condition meter on the keypad indicate sleep mode by blinking once every five seconds. To restore power and continue, push the on/off key twice.

# Sleep Mode (If Enabled)

The power chair controller features a sleep mode. Sleep mode is a built-in circuit that will automatically shut off the main power if the joystick is not moved in any direction for a period of time. This time factor is programmed into the controller. To restore power and continue, push on/off key on the keypad.

#### **Trouble Codes**

The system status light is displayed within the on/off key. This light is lit if the system is turned on. It also flashes in groups called flash codes, to indicate system faults. The table below identifies the individual fault codes. If your keypad displays one of these codes, contact your Quantum Rehab Specialist.

FLASH CODE		
SEQUENCE	DIAGNOSIS	SOLUTION
••_	DX module fault	See your Quantum Rehab Specialist.
••—••—	DX accessory fault	See your Quantum Rehab Specialist.
•••_	Left motor (or connection) fault	Check left motor wiring.
••••—	Right motor (or connection) fault	Check right motor wiring.
•••••	Left park brake fault	Check motor/brake wiring.
•••••	Right park brake fault	Check motor/brake wiring.
••••••	Low battery fault	Check that the battery wiring is secure.
••••••	Over voltage fault	Check that the battery wiring is secure.
••••••	CANL fault	See your Quantum Rehab Specialist.
••••••	CANA fault	See your Quantum Rehab Specialist.
••••••	Stall timeout	Turn unit on, then off.
••••••	Module mismatch	See your Quantum Rehab Specialist.

NOTE: You must power the controller off and then on again to reset the controller, even if the source of the fault is removed/corrected.

In the event of a fault, the system status light displays diagnostic indications. Faults are encoded as follows: one (for a low battery voltage fault) to twelve (module mismatch) and are displayed by the light flashing the number of times prescribed by the fault code. The flash sequence (one to twelve) is followed by a long off period (2 seconds). If more than one fault exists, then the fault having the highest priority is indicated. The controller must be turned off and then on again even if the source of the fault is removed. If you cannot resolve the problem, contact your Quantum Rehab Specialist.

#### **CARE AND MAINTENANCE**

Your Vibe 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 Quantum Rehab Specialist. Preventive maintenance is very important. If you follow the maintenance checks in this section as scheduled, you can help ensure that your Vibe gives you years of trouble-free operation. If you have any doubt as to your Vibe's care or operation, contact your Quantum Rehab Specialist.



WARNING! Prevent injury. Do not service the power chair when the seat is occupied.

Your Vibe, 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 Vibe come in contact with water:

- 1. Dry your Vibe as thoroughly as possible with a towel.
- 2. Allow your Vibe 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 Vibe again.
- 4. If any inconsistencies are found, take your Vibe to your Quantum Rehab Specialist.

#### **Temperature**

- Some of the parts of your Vibe are susceptible to extreme changes in temperature. Always keep your Vibe 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 Vibe 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 VIII. "Operation."

#### **General Guidelines**

- Avoid knocking or bumping the controller, especially the joystick.
- Avoid prolonged exposure of your Vibe 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.
- When the battery condition meter is completely lit, the batteries are fully charged, and the controller and the electrical system are OK.
- If one red light on the battery condition meter is blinking slowly, the batteries are low and need to be charged, but the controller and the electrical system are OK.
- If the battery condition meter is blinking rapidly, the controller has detected a fault in either its own circuits or in your Vibe's circuits. See VIII. "Operation."
- Make sure the drive tires are inflated to 35 psi.



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 Vibe 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 well, with the battery terminals facing inward, toward each other. Refer to the battery wiring label 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 Quantum Rehab Specialist 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 Quantum Rehab Specialist if there is a problem with any cable.
- Check for flat spots on solid tires. Flat spots could adversely affect stability.

## **Weekly Checks**

- Disconnect and inspect the controller battery door. Look for corrosion. Contact your Quantum Rehab Specialist 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** in each tire. If a tire does not hold air, see your Quantum Rehab Specialist for replacement of the tube.
- Calibrate the joystick if a noticeable difference in performance is detected or if the joystick does not operate properly. To calibrate the joystick, power off the unit, place the joystick in the neutral position, and power the unit back on. If a problem still exists with your joystick's performance, contact your Quantum Rehab Specialist.
- 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 electric brakes click. Immediately release the joystick. You must be able to hear each electrical brake operating within a few seconds of joystick movement. Repeat this test three times, pushing the joystick backward, then left, and then right.

## To calibrate the joystick (Remote Plus only):

- 1. Position the joystick in the full reverse position and hold it there. Turn on the controller.
- 2. The battery condition meter 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 meter 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.

## **Monthly Checks**

- Check that the anti-tip wheels do not rub the ground when you operate the Vibe. Adjust them as necessary. See VI. "Comfort Adjustments."
- Check for extreme wear on the anti-tip wheels. Replace them as necessary.
- Check for drive tire wear. See your Quantum Rehab Specialist 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 Quantum Rehab Specialist for repair.
- Keep your Vibe clean and free of foreign material, such as mud, dirt, hair, food, drink, etc.

## **Yearly Checks**

Take your Vibe to your Quantum Rehab Specialist for yearly maintenance. This helps ensure that your Vibe 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 Vibe. See VII. "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 Vibe or place it in direct contact with water. Your Vibe 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 Quantum Rehab Specialist.



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. Pry off the hub cap. See figure 27.
- 5. Use a socket wrench to remove the drive wheel nut from the wheel hub.
- 6. Pull the wheel off the axle.
- 7. Remove the screws that fasten the two rim halves together.
- 8. Remove the old tube (or solid insert) from the pneumatic tire and replace it with a new tube (or solid insert).

- 9. Screw together the two rim halves.
- 10. Slide the wheel back onto the shaft.
- 11. Reinstall the drive wheel nut onto the wheel hub and tighten.
- 12. Reinstall the hub cap.
- 13. Inflate the pneumatic tire to **35 psi.**
- 14. Remove the power chair from the blocks.

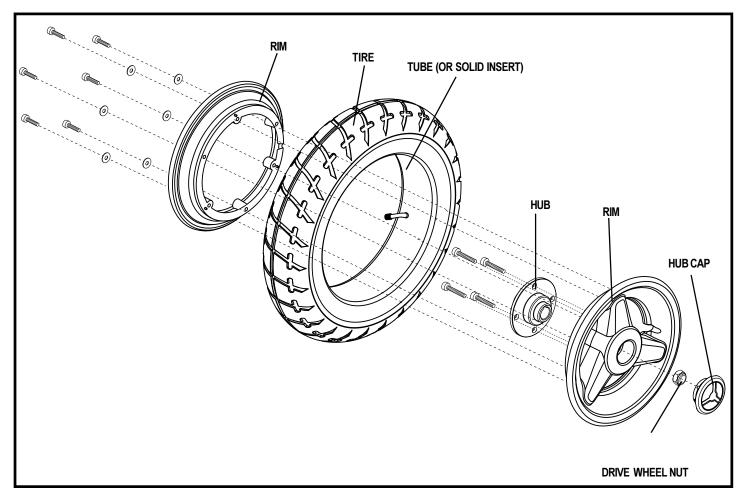


Figure 27. Wheel Assembly

# **Battery Replacement**

A battery wiring diagram is printed on a decal located on the battery door. See VII. "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! Pride 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.



- 1. Turn off power to the controller.
- 2. Make sure that the Vibe is in drive mode. See IV. "The Vibe."
- 3. Disconnect the battery door latches. See figure 28.
- 4. Slide the back battery to the rear of the power base. See figure 29.
- 5. Locate the battery quick disconnects on the frame and disconnect both of them. See figure 30.
- 6. Remove the batteries from the power base.
- 7. Disconnect the wiring harness from each battery.
- 8. Reinstall the wiring harnesses on new each battery. Make sure that you connect the red wire to the positive (+) battery terminal and the black wire to the negative (-) battery terminal. See figures 30 and 31.



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

- 9. Place the batteries back into the power base and connect the battery quick disconnects according the to battery wiring diagram label. See figure 31.
- 10. Close the battery door and fasten the battery door latches.



Figure 28. Battery Door Straps



Figure 29. Rear Battery

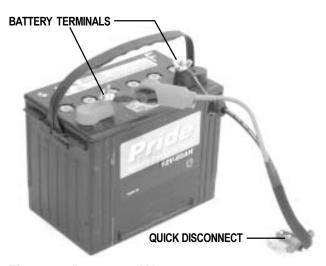


Figure 30. Battery and Harness

# When to See Your Quantum Rehab Specialist for Service

The following symptoms could indicate a serious problem with your Vibe. If necessary, contact your Quantum Rehab Specialist. 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 tires
- Jerky motion
- Pulling to one side
- Bent or broken wheel assemblies
- Does not power up
- Powers up, but does not move

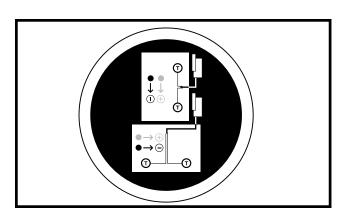


Figure 31. Battery Wiring Diagram

# **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 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 Vibe still does not power up, contact your Quantum Rehab Specialist.

# X. WARRANTY

#### LIFETIME LIMITED WARRANTY

For the lifetime of your Vibe 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:

■ Structural frame components

#### **TWO-YEAR WARRANTY**

For two (2) years 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:

■ Electronics

#### **EIGHTEEN-MONTH WARRANTY**

For eighteen (18) months 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:

■ Motor/gearbox assembly

## **Warranty Exceptions**

- Motor: If damage occurs to the commutator of a motor as a result of not replacing the motor brushes after heavy wear to the brushes. Motor brushes are wear items and are not warranted.
- Brake: One (1) year warranty for the electrical function of the brake. Brake pads are a wear item and are not warranted.

#### SIX-MONTH LIMITED WARRANTY

For six (6) months from 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:

- Plastic components, except body
- Rubber components (except tires and tubes)
- Bearings and bushings
- Casters and anti-tip wheels

Battery warranty is covered by the battery manufacturer. Battery warranty is not covered by Pride.

Warranty service can be performed by your Quantum Rehab Specialist or by Pride. 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 original purchaser.

# X. WARRANTY

# **Warranty Exclusions**

- ABS plastic body shrouds and footrest covers (wear items)
- 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 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 Mobility Products Corporation

## 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 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, so 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 assists Pride in providing the best possible technical and customer service.

# NOTES

# NOTES



# Quality Control - Quantum Vibe

Model #\_\_\_\_\_ Serial #



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

**Date Inspected** 

Inspector

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

We have thoroughly inspected your Quantum Vibe. The following check marks indicate that it has been tested, driven, and inspected.



