

Power Assist HD Instruction & Safety Manual

Please read this manual before operation, for
maintenance instructions and safe usage



The enabling power
of applied knowledge



Contents

Introduction.....	1
Safety Procedures.....	2
Parts Description.....	2
Installation Instructions.....	3
Operating the PMW-PSHD.....	5
Disassembly and Transportation.....	6
Battery Charging and Care.....	6
Troubleshooting.....	8
Specification.....	9
Warranty.....	9
Compatibility with wheelchairs.....	10

Introduction

The Power Assist HD (PMW-PSHD) is designed as an aid to a wheelchair attendant providing power to aid pushing in otherwise strenuous situations such as up steep hills, etc.

The PMW-PSHD features some ingenious concepts to help the installation and operation of the device. Some of these are covered by a pending patent.

The PMW-PSHD is designed to work in conjunction with most wheelchairs with seat widths between 16” and 24”.

The PMW-PSHD is dual-wheel (for added stability and traction).

The PMW-PSHD is to be controlled by an attendant with a manual wheelchair and user up to a combined weight of 400lbs (182kg).

The PMW-PSHD uses a 24V 12ah battery pack, and has a range of up to ten miles between charges.

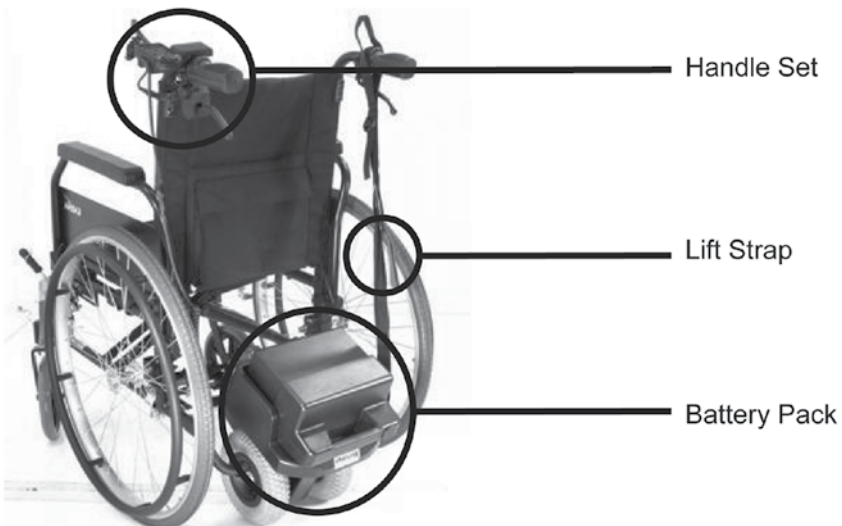


Safety Procedures

- The PMW-PSHD must not be used solely by the wheelchair user under any circumstances.
- Ensure the PMW-PSHD is installed as far to the rear of the wheelchair as is comfortable for the attendant to do so.
- When connecting / disconnecting the battery from the motor or the charger make sure both the power to the charger and PMW-PSHD handle control are switched off.
- Ensure the PMW-PSHD is secured in transit. It is also recommended that the battery is disconnected.
- Ensure that the battery is charged only with the battery charger supplied with the PMW-PSHD. Using another battery charger may cause damage or injury.
- The PMW-PSHD may be susceptible to certain types of electromagnetic waves. Avoid close proximity to mobile phones, commercial broadcast towers and emergency services' radios. Other household appliances are not known to pose any such risk. If involuntary movement occurs, switch off of the PMW-PSHD and report this to your dealer.
- The PMW-PSHD should not be used when it is snowing or during heavy rain. This may cause damage to the PMW-PSHD. PMW-PSHD should not be exposed to damp conditions or direct sunlight.

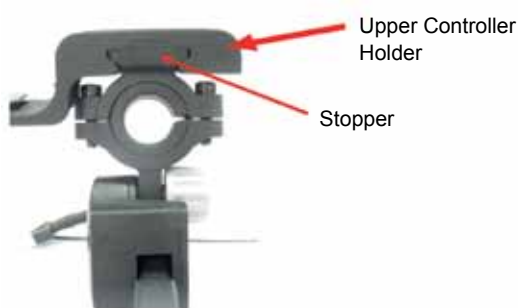
Note: Wheelchairs fitted with attendant cable brakes. On such wheelchairs, the attendant brake levers should be removed prior to fitting. If the attendant brakes do not have a separate parking brake facility, then parking brakes should be added to the wheelchair.

Parts Description





1. Handle Installation



a. Push from the stopper side to take away the upper controller holder.



b. Use an Allen key to tighten the bracket on the wheelchair handle tube. (Choose the size of the rubber pad according to the tube size).



c. Put the controller holder back

2. Bracket Installation



Install both brackets on the bottom horizontal tubing of the wheelchair, using an Allen Key.

Attach the two sections of Velcro together.

Ensure that the screws are sufficiently tight and do not rotate on the tubing.



3. Powerpack Installation



Feed the telescopic bar through the front end of the PMW-PSHD. Loosen the tristar knob on the bar and adjust to the correct length.

Tighten the knobs on the bar and at the front of PMW-PSHD.

Place the two ends of the bar on the rear of the Brackets, then push the powerpack forward until it locks in position.

4. Battery Installation



Place the battery pack in to the battery tray as shown in the photograph. Secure the battery pack on its tray.



Final Connection

Connect the cable from the power pack in to the underneath of the handset. Place the top loop of the lift-up strap around the opposite push handle to the handset.

Operating the PMW-PSHD

- **Direction:** Press the power button, the forward button will illuminate to indicate the direction of going forward. Press the backward button and its light will illuminate to indicate the PMW-PSHD will go backward.
- **Lift-up strap:** The PMW-PSHD comes with a lift-up strap to allow the wheelchair to move when there is no power. Lift up the PMW-PSHD with the red strap and hook the second loop around the push handle. Please note that failure to lift up the PMW-PSHD when reversing may cause the pack to flip over.
- **Maximum Speed:** Always set a maximum speed which you are comfortable walking with.
- **Pushing the Wheelchair When Not In Use:** We recommend that the powerpack is restrained with the lift-up strap when not in use.

Handle Set Operation



Please note there is a 2-second delay when starting up the PS-HA HD before the wheel will move. Wait 2 seconds before squeezing the trigger.

- **Trigger** – Squeeze the trigger to propel the PMW-PSHD. The more the trigger is squeezed, the faster the PMW-PSHD will travel. Release the trigger to stop the PMW-PSHD
- **Speed Dial** – Turn the dial clockwise to increase the maximum speed of the PMW-PSHD. Turn the dial anticlockwise to reduce the PMW-PSHD maximum speed.
- **Inner Knob** – This is used to determine the angle of the handle set.



Disassembly & Transportation

1. Switch the PMW-PSHD off at the ignition.
2. Disconnect / unclip the powerpack connector from underneath the handset.
3. Remove the lift-up strap from the push handle.
4. Lift the battery pack out of the battery tray by using the handle of the battery and then by pressing the PUSH button on the powerpack.
5. Remove the powerpack by pulling the Velcro strap whilst pulling the powerpack from the rear of the brackets(see the photo below)
6. Place all items in the carry holdall supplied.

Notes:

The battery supplied with the PMW-PSHD is classified as safe for air travel by compliance with IATA special provision A67.

The battery pack and power pack have fabric handles to make them easier to carry.



Battery Charging and Care

Follow the procedure below step by step:

1. Turn the power switch to (OFF)
2. Lift out the battery pack using the handle on the pack.
3. Plug the charger's power cord into the mains.
4. Plug the charger's round plug into the charging socket of the battery pack
5. Switch on the plug socket.
6. The charger's LED will illuminate orange to indicate the batteries are charging. The charging duration is about 8 hours. To ensure optimum performance a 12-hour charge is recommended
7. The orange LED will turn green when charging is complete.
8. Turn off the charger, disconnect the power cord and the round plug from the battery pack

Suggestions

1. Do not disconnect the charger cord if charging is not completed. The battery life will be seriously shortened or decayed if the battery is repeatedly used without being fully charged. Therefore be sure to charge the battery fully every time.
2. Always complete the charging until the LED light turns green. NEVER stop charging before it is complete.

3. When fully charged, the battery charger will still trickle charge the battery to ensure optimum range.
4. If you do not use your powerpack for a long time, it should be charged at least every week to keep the battery in a fully usable condition.
5. The ambient temperature will affect charging time. Charging time will be longer in the winter.
6. After charging, do not leave the charger socket plugged into the powerpack, as this will cause a power drain on the powerpack and temporarily reduce its range.
7. The batteries carry a six month manufacturer's warranty. This warranty only covers issues relating to manufacturing faults, and not faults relating to failure to recharge the batteries as instructed above.

Attention: Please follow the rules below to avoid accidents while charging.

1. Only use the supplied charger, and recharge the battery to its full capacity every time. You may damage the battery if you use a charger which is not to the correct specification.
2. Never disassemble or modify the charger.
3. Please charge in a well-ventilated space where there is no direct exposure to the sunlight. Do not charge in surroundings where it is humid or raining.
4. Do not charge in temperatures less than -10°C or higher than $+50^{\circ}\text{C}$ as the charger may not work well & batteries may become damaged.

Warning

1. Keep away from flammable objects while charging as this may lead to fire or battery explosion.
2. Do not smoke while charging as the battery may release hydrogen gas. Always charge your battery in a well-ventilated space.
3. Never connect or disconnect the plug or cord with wet hands whilst charging. Do not connect or disconnect the plug or cord when they are wet, it may lead to electric shock

CHARGER

The charger supplied has an LED which changes colour depending on its status:

- If the LED is lit ORANGE then the charger is switched on and charging
- If the LED is lit GREEN then the charger is switched on and has finished the bulk of its charging and the batteries can be used. However, we recommend that you leave the charger charging for a couple of hours after the green LED has lit. This will maintain and probably increase the capacity of your batteries
- The LED will also illuminate GREEN if the charger is switched on but not connected to the batteries.



Batteries

- Do not expose the battery pack to temperatures below -10° or above 50°C when charging or storing.
- The batteries are maintenance free and there is no need to inspect the battery liquid or refill with water.
- You are required to charge the batteries on a regular basis. Even if the powerpack is not used, it should be charged at least once a week.
- The battery pack contains two 12V 12ah batteries.
- The battery supplied with the PMW-PSHD is classified as safe for air travel by compliance with IATA special provision A67

Charging the Batteries

- Using the charger supplied, the charging duration is about 8 hours.
- However, to ensure optimum performance we recommend a 12-hour charge
- We also recommend that the batteries are not charged for more than 24 hours.
- When only two light indications shown on the battery meter, it will start to flash as a reminder to charge the batteries.

Trouble Shooting

Wheelchair does not move when trigger is pressed

- Check the PMW-PSHD is switched on
- Check the battery is fully charged.
- Check the connection between the battery and motor is correct.
- Check the wheelchair brakes are not applied.
- Check the drive wheel is in contact with the ground.

Wheelchair is difficult to push manually.

- Check the wheelchair brakes are not applied.
- Remove PMW-PSHD.

The PMW-PSHD is too fast / slow

- Try varying the speed with speed dial.
- Try recharging the batteries (if too slow).
- Check the wheelchair brakes are not applied.

Specifications

- Weight: 19.2kg (weight with battery) 9kg (battery pack)
- Max speed: 4mph / 6.4kph
- Max gradient: 6°
- Cruising range up to 10 miles (16km)
- Weight capacity: 182kg including wheelchair & user
- Motor: 24V 200W D.C.
- Battery: 2x 12V 12ah Sealed Lead Acid
- Charger: 2A 24V output
- Controller: PG - S - DRIVE 45A



Warranty

To improve the safety and lifespan of your PMW-PSHD it is recommended that you have it serviced on a regular basis.

There is a comprehensive twelve-month warranty from the date on which your new PMW-PSHD is delivered. The warranty covers the PMW-PSHD for replacement parts during this period. For more detail, please see the warranty conditions below:

1. Any work or replacement part installation must be carried out by an authorized service agent.
2. To apply the warranty should your PMW-PSHD require attention please contact the outlet from which you purchased the PMW-PSHD.
3. Should any part of the PMW-PSHD require repair or full or part replacement, as a result of a manufacturing or material defect within the warranty period, parts will be supplied free of charge. Note: The guarantee is not transferable.
4. Any repaired or replaced parts will be covered by the balance of the warranty period on the PMW-PSHD.
5. Parts replaced after the original warranty has expired will be covered by a three-month warranty.



1. Consumable items supplied will not generally be covered during the normal warranty period unless such items require repair or replacement clearly as a direct result of a manufacturing or material defect. Such items include: upholstery and tires.
2. The above warranty conditions apply to a brand new PMW-PSHD. Ex-demonstration PMW-PSHD supplied directly by Pride carries a six-month warranty period. If you are unsure whether your PMW-PSHD is covered contact your dealer.
3. Under normal circumstances, no responsibility will be accepted where the PMW-PSHD has required repair as a direct result of:
 - a. the PMW-PSHD part not having been maintained in accordance with the manufacturers recommendation
 - b. failure to use the manufacturer's specified parts
 - c. the PMW-PSHD or part having been damaged due to neglect accident or improper use
 - d. the PMW-PSHD or part having been altered from the manufacturer's specification or repairs having been attempted before the dealer is notified

In the event of your PMW-PSHD requiring attention, please contact your service agent / dealer and give all relevant details so they can act quickly. The manufacturer reserves the right to alter without notice any weights, measurements or other technical data shown in this manual. All figures, measurements and capacities shown in this manual are approximate and do not constitute specifications.

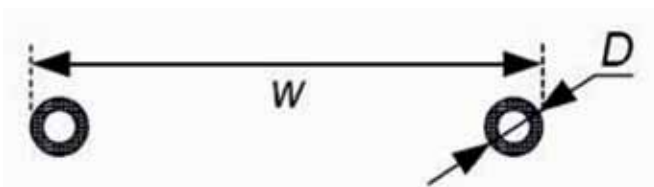
Our goods come with guarantees that cannot be excluded under the Australian Consumer law. You are entitled to a replacement or refund for a major failure and for compensation for any foreseeable loss or damage. You are also entitled to have the goods repaired if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Compatibility with Wheelchairs

The PMW-PSHD is suitable for most folding wheelchairs:

-
- With a distance between tubing edges (W) of 14½" to 24" (37cm – 61cm). This is usually, but not always, the same as the wheelchair seat width
- A round tubing diameter (D) between 7/8" - 1" (22mm – 25mm)

Please note that you should check with your dealer and/or the wheelchair manufacturer. Wu's does not accept any responsibility for other manufacturer's wheelchairs, and in some circumstances a risk assessment should be carried out prior to installation.





PO Box 82 Bentley WA 6982
T 08 9351 7500 F 08 9350 5299
info@unicarehealth.com.au
www.unicarehealth.com.au

Authorised Distributor

