

**drive**

 **DeVilbiss**<sup>®</sup>  
HEALTHCARE



Owner's Handbook

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## Introduction

- The PowerStroll 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 PowerStroll features some ingenious concepts to help the installation and operation of the device. Some these are covered by a pending patent GB 0723584.9
  - The PowerStroll is designed to work in conjunction with most wheelchairs with seat widths between 16" and 20" (40cm - 50cm). The PowerStroll will also fit some narrow width wheelchairs such as Drive Medical's Lightweight Aluminium. An optional extension bar is available to fit to wider wheelchairs with up to 24" (60cm) seat widths.
  - The PowerStroll is to be controlled by an attendant with a manual wheelchair and user up to a combined weight of 21 stone (135kg).
  - The PowerStroll uses a 24V 12ah battery pack, and has a range of up to ten miles between charges.
  - The PowerStroll is manufactured by Drive Medical Ltd and is CE marked. Drive Medical Ltd is an ISO 9001 and ISO 13485 certified Medical Device Manufacturer.
- The PowerStroll must not be used solely by the wheelchair user under any circumstances.
  - Ensure the PowerStroll is installed as far to the rear of the wheelchair as is comfortable for the attendant to do so.
  - Operate the PowerStroll at a speed that is both comfortable for the operator and wheelchair user.
  - When connecting / disconnecting the battery from the motor or the charger make sure both the power to the charger and PowerStroll handcontrol are switched off.
  - Ensure the PowerStroll 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 PowerStroll. Using another battery charger may cause damage or injury.
  - The PowerStroll 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 PowerStroll and report this to your dealer.
  - The PowerStroll should not be used when it is snowing or during heavy rain. This may cause damage to the PowerStroll. The PowerStroll 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.

## Safety Procedures

## Parts Description



### 2. Bracket Installation

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

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

Attach the two sections of Velcro together.

## Installation Instructions



### 1. Handset Installation

Loosen both screws on the plastic brackets. Attach the brackets around the push handle tubing, and reattach screws to secure. Slide the control panel on to the brackets.

Note: for user comfort, the control panel can be mounted on the left or right hand side push handle, with the panel inside or outside the seating area.



### 3. Powerpack Installation

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

Tighten the knobs on the bar and at the front of the powerpack.

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 Pack Installation

Place the battery pack in to the battery tray as shown in the photograph.

Slide the battery pack forwards until it locks in position.



#### 5. Final Connection

Connect the cable from the powerpack in to the underneath of the handset.

Place the top loop of the lift-up strap around the opposite push handle to the handset.

### Disassembly and Transportation

1. Switch the PowerStroll 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. Press the grey PUSH button on the Powerpack to release the battery pack. Slide the battery pack to remove.

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 PowerStroll is classified as safe for air travel by compliance with IATA special provision A67.

### 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.
- 9.



### Suggestion

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 in to the scooter, as this will cause a power drain on the powerpack and temporarily reduce its range.
7. The batteries carry a twelve-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, raining or dewy.
4. Do not charge in temperatures less than -10°C or higher than +50°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 PowerStroll 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.

## Operating the PowerStroll

- **Lift Up Strap.** The PowerStroll comes with a lift up strap to allow the wheelchair to move when the PowerStroll is not in use. Lift up the unit with the red strap and hook the second loop around the push handle.
- **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.

### Handset Operation



- **On / Off** - Press the On/Off button to switch the PowerStroll on and off.  
Please note there is a momentary delay when starting up the PowerStroll before the wheel will move. Wait 2 seconds before squeezing the trigger.
- **Trigger** - Squeeze the trigger to propel the PowerStroll. The more the trigger is squeezed, the faster the PowerStroll will travel. Release the trigger to stop the PowerStroll. The direction of travel is determined by the Forward and Reverse buttons.

- **Speed Dial** - Turn the dial clockwise to increase the maximum speed of the PowerStroll. Turn the dial anticlockwise to reduce the PowerStroll's maximum speed.
- **Battery Gauge** - The battery gauge will show how much power is remaining. The more of the gauge is lit, the more power is left in the batteries. The gauge also perform a sequence of flashes if it has detected a problem with the PowerStroll.

The problem may be listed below:

- 1 Flash - Flat battery. *Recharge battery.*
- 7 Flashes - Trigger. *Release the trigger and restart the PowerStroll.*

If you experience any other flash sequences restart the scooter. If the error persists contact your Drive Medical Dealer.

- **Forward Button.** Press this button to allow the PowerStroll to travel forwards. The LED next to the button will light if forward motion is selected.
- **Reverse Button.** Press this button to allow the PowerStroll to travel in reverse. The LED next to the button will light if reverse is selected.

### Specification

- Weight: 19.2kg (total)  
10.2kg (without battery)  
9kg (battery pack only)
- Max speed: 4mph / 6.4kph
- Max gradient: 8°
- Cruising range up to 10 miles (16km)
- Weight capacity:  
21 stone (135kg) including wheelchair & user
- Motor: 24V 150W D.C.
- Battery: 2x 12V 12ah Sealed Lead Acid
- Charger: 2A 24V output
- Controller: PG Drives S-Drive 45A

## Troubleshooting

### *Wheelchair does not move when trigger is pressed.*

Possible Solutions:

- Check the PowerStroll 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.*

Possible Solutions:

- Check the wheelchair brakes are not applied.
- Remove PowerStroll.

### *The PowerStroll 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.

## Warranty

To improve the safety and lifespan of your PowerStroll, it is recommended that you have it serviced on a regular basis. Recommended Service Schedules for PowerStrolls are available to service agents.

There is a comprehensive twelve-month warranty from the date on which your new PowerStroll is delivered. The warranty covers the PowerStroll 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 authorised Drive Medical dealer / service agent.
2. To apply the warranty should your PowerStroll require attention please contact the outlet from which you purchased the PowerStroll.
3. Should any part of the PowerStroll 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 PowerStroll.
5. Parts replaced after the original warranty has expired will be covered by a three-month warranty.
6. 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 (among others): upholstery and tyres.
7. The above warranty conditions apply to a brand new PowerStrolls. Ex-demonstration PowerStrolls supplied directly by Drive Medical carry a six-month warranty period. If you are unsure whether your PowerStroll is covered contact your dealer.
8. Under normal circumstances, no responsibility will be accepted where the PowerStroll has required assistance as a direct result of:
  - a. the PowerStroll part not having been maintained in accordance with the manufacturers recommendations
  - b. failure to use the manufacturer's specified parts
  - c. the PowerStroll or part having been damaged due to neglect, accident or improper use
  - d. the PowerStroll 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 PowerStroll 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.

## Compatibility with Drive Wheelchairs

The PowerStrolls are compatible with following Drive wheelchairs:

### Drive Wheelchairs

(product codes: SSP118FA-SF, K318ADDA)

### Budget Steel Wheelchairs

(product codes: CS1142SP and CS1142TS)

### Steel Chair Wheelchairs – self propel

(product codes: SSP16, SSP18, SSP18E and SUSP18)

### Steel Chair Wheelchairs – transit

(product codes: STS16, STS18, STS18E and SUTS18)

### Lightweight Aluminium Wheelchairs

(product codes: LAWC001 and LAWC002\*)

### Standard Aluminium Wheelchairs

(product codes: XSAWCSP18, XSAWCTS18\*, XSAWCSP20 and XSAWCTS20\*)

### Super Deluxe Wheelchairs

(product codes: XSSDSP16/18/20 & XSTS16/18/20\*)

### Spirit Wheelchairs (product code: XSES18)

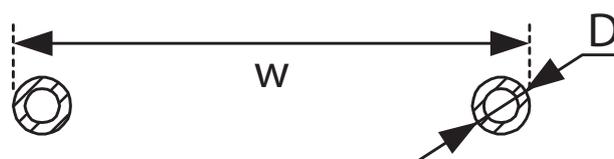
- \* The wheelchairs marked with '\*' will require the attendant brake levers and cable removing from the wheelchair prior to use. The actual brake unit can still be used as a parking brake with these parts removed.

The above list is current at time of printing, and the omission of a Drive wheelchair from this list does not mean that the PowerStroll is incompatible with it. For more information please contact your local Drive Medical dealer.

## Compatibility with Other Wheelchairs

The PowerStroll is suitable for most folding wheelchairs:

- with a distance between tubing edges ( $W$ ) of 14½" to 22" (37cm – 55cm). 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. Drive Medical does not accept any responsibility for other manufacturer's wheelchairs, and in some circumstances a risk assessment should be carried out prior to installation.

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