

The Company

Founded in 1984, Park House Healthcare Ltd is now recognised as a market leading supplier of specialist pressure relieving and pressure reducing equipment, hospital beds and moving and handling solutions to the NHS, Community and Nursing Home sectors.

Our innovative product portfolio encompasses a range of clinically proven healthcare solutions, which are fully supported by dedicated clinical training, professional product audit and complete maintenance and decontamination services.

Our purpose built state of the art Corporate Headquarters in West Yorkshire is central to our extensive network of service and logistics centres, strategically located throughout the country. 24 hour care, 365 days a year, dedicated personnel manage specific regions and divisions, ensuring one on one service and support is never far away.

With distributors in over 25 countries, Park House Healthcare Ltd is a truly international company and places important emphasis on providing tailored healthcare solutions and the highest level of customer care to our partners throughout the world.

Park House Healthcare Ltd is a respected Member of the British Healthcare Trade Association and has BS EN ISO 9001, ISO 13485 and ISO 14001 accreditations. All products are CE marked in accordance with the European Directive 93/42/EEC.



ISO9001 Certificate No: 8019
ISO14001 Certificate No: E4681
ISO13485 Certificate No: 29870

Due to its policy of continued development and improvement, Park House Healthcare Ltd reserves the right to amend any details and specifications without notice.

© Copyright Park House Healthcare Ltd. 2013/7



SOLAR

PA6900 Mattress Replacement System



User Manual



Park House
Healthcare

Park House Healthcare Ltd
Whitehall 26 Business Park,
1 Heathfield Lane, Birkenshaw,
West Yorkshire, BD11 2HW, UK.

Tel: 0845 0600 333

Fax: 0845 0600 334

Email: sales@parkhouse-hc.com

International Tel: +44 (0)1274 475000

International Fax: +44 (0)1274 475046

International Email: international@parkhouse-hc.com

Web: www.parkhouse-hc.com

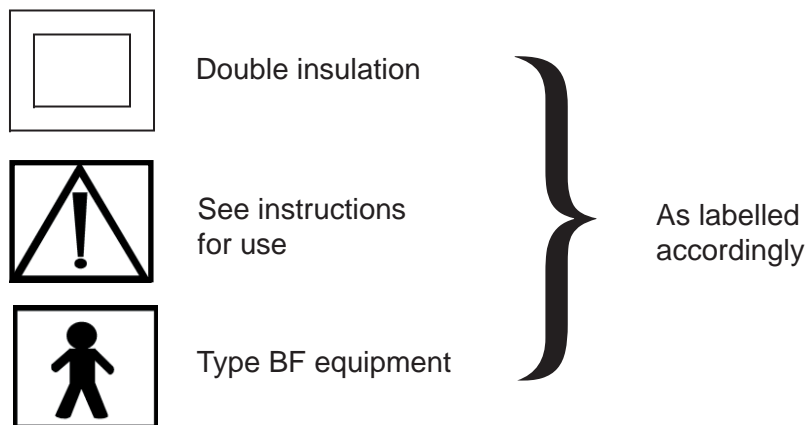
1. General Safety

Before you use your Solar Mattress Replacement system, please familiarise yourself with the information in this user manual. Keep this manual in a handy place for future reference.

For your safety and the efficient performance of the system the following precautions should be observed:

- **MAXIMUM PATIENT WEIGHT 32 stones / 203 kgs**
- Do not expose the pump to liquids of any kind
- Always protect the systems from open flames
- Avoid the use of Phenol based solutions when cleaning
- Store the system in a clean and dry environment
- Do not store in direct sunlight

NOTE: The pump in this system is fitted with a functional earth, and is labelled accordingly.



There is a possibility of electro-magnetic interference with other devices. If so increase distance between devices.

7. Guarantees And Warranties

Pump Unit - All new pumps have a guarantee for a period of 2 years following the date of dispatch.

Mattress - All new mattresses have a guarantee for a period of 2 years following the date of dispatch.

Guarantee - Park House Healthcare guarantees to repair or place any equipment issued to its customers, which is found to be faulty during the relevant guarantee or warranty period.

Park House Healthcare guarantees are subject to following conditions:

- a) That the equipment has been used for the purpose for which it was intended.
- b) That the usage has been on a 'fair wear and tear' basis.
- c) That Park House Healthcare cleaning / disinfection guidelines have been followed.
- d) That Park House Healthcare maintenance guidelines have been followed.
- e) That maintenance has been carried out by a Park House Healthcare approved engineer.

Warranty - Extended warranties can be purchased from Park House Healthcare, for more information contact Customer Services on 0845 0600 333.

Claims relating to Guarantee and Warranty

In the event of a fault being discovered within the warranty period, the customer must notify Park House Healthcare at the earliest opportunity.

If upon inspection, Park House Healthcare accepts liability then the equipment shall be repaired or replaced immediately.

If Park House Healthcare does not accept liability it shall inform the customer of its reasons for declination and provide the customer with an estimate on either the repair or replacement cost.

Park House Healthcare reserves the right to alter or amend this document without prior notice.

6. Troubleshooting

FAULT DESCRIPTION	THINGS TO CHECK	SOLUTION TO PROBLEM	IF STILL NOT WORKING
1. THE PUMP IS SHOWING NO INDICATORS TO SAY THAT IT IS ON	MAINS ARE PLUGGED IN	PLUG IN	RETURN PUMP TO YOUR SERVICE PROVIDER
	MAINS ARE PLUGGED IN	TURN ON	
	FRONT SWITCH IS ON	TURN ON	
	FUSES ON THE SIDE PUMP ARE NOT BLOWN	REPLACE WITH A 1 AMP FUSE	
	FUSE IN THE PLUG BLOWN	REPLACE WITH A 3 AMP FUSE	
2. THE LOW PRESSURE LIGHT IS CONSTANTLY FLASHING AND THE ALARM IS SOUNDING	THE HOSES ARE ALL CONNECTED	RELOCATE HOSES	RETURN SYSTEM TO YOUR SERVICE PROVIDER
	THE C.P.R. IS IN PLACE	RELOCATE C.P.R.	
	THERE ARE NO LEAKS IN THE MATTRESS SYSTEM	RETURN MATTRESS TO YOUR SERVICE PROVIDER	
3. THE PUMP IS ON BUT NOT INFLATING THE MATTRESS	DISCONNECT HOSES FROM PUMP TO SEE IF AIR IS COMING OUT	RETURN PUMP TO YOUR SERVICE PROVIDER	RETURN SYSTEM TO YOUR SERVICE PROVIDER
	THE HOSES ARE ALL CONNECTED	RECONNECT HOSES	
	THE C.P.R. IS IN PLACE	RELOCATE C.P.R.	
	THERE ARE NO OBVIOUS AIR LEAKS IN THE SYSTEM MATTRESS SYSTEM	RETURN YOUR MATTRESS TO YOUR SERVICE PROVIDER	
	CHECK THE PRESSURE IS IN THE SUGGESTED RANGE FOR THE WEIGHT OF THE PATIENT	TURN THE PRESSURE UP TO WITHIN THE CORRECT WEIGHT RANGE	
	THERE ARE NO KINKS IN THE TUBING RUNNING DOWN THE SIDE OF THE MATTRESS	UNTWIST ANY KINKS FOUND	
4. THE SYSTEM DOES NOT APPEAR TO BE ALTERNATING	THERE ARE NO KINKS IN THE TUBING RUNNING DOWN THE SIDE	UNTWIST ANY KINKS FOUND	RETURN SYSTEM TO YOUR SERVICE PROVIDER
5. THE PUMP IS OPERATING NOISILY	THE PUMP IS NOT RESTING AGAINST A SOLID SURFACE	RETURN PUMP TO YOUR SERVICE PROVIDER	

If your problem cannot be resolved using the above information, please contact Park House Healthcare.

WARNING

ELECTRICAL EQUIPMENT CAN BE HAZARDOUS IF MISUSED. ONLY AUTHORISED TECHNICAL PERSONNEL SHOULD REMOVE THE PUMP FOR MAINTENANCE.

WARNING

DO NOT USE THIS PUMP IN THE PRESENCE OF FLAMMABLE GASES.

WARNING

BEFORE CLEANING THE UNIT ENSURE THAT THE ELECTRICAL SUPPLY TO THE PUMP HAS BEEN DISCONNECTED. PLEASE REMOVE THE PLUG FROM THE POWER SUPPLY.

WARNING

IF THE PUMP IS SWITCHED OFF THE MATTRESS WILL DEFLATE.

CAUTION

DO NOT USE THIS SYSTEM AS A MEANS FOR LIFTING THE PATIENT.

TRANSPORT & STORAGE CONDITIONS

DO NOT GO OUTSIDE THE FOLLOWING RANGES IN A PERIOD NOT EXCEEDING 15 WEEKS.

AN AMBIENT TEMPERATURE RANGE OF - 40 ° C TO + 70° C.

A RELATIVE HUMIDITY RANGE OF 10% TO 100% INCLUDING CONDENSATION.

Fire Warning

This active mattress system complies with all UK fire safety standards.

In order to reduce the risk of fire:

1. **DO NOT SMOKE** - Smoking will contaminate the product and is **NOT** permitted around or on the mattress system. This is a common cause of fatal fires. This system uses room air for circulation through the mattress. A cigarette could burn a hole in the mattress surface and cause damage to the mattress system. Patient clothing, bed sheets and other items, may be combustible and could catch fire. Failure to observe this warning could result in a severe fire, property damage, physical injury or death.
2. **DO NOT** - use candles on or around the mattress system
3. **DO NOT** - use electric blankets with this mattress system
4. **DO** - keep hot equipment off the mattress surface. E.g. Hair dryer, curling tong, etc.
5. **DO** - keep matches and lighters away from children
6. **DO** - keep heaters away from the mattress system

Follow all manufacturer's instructions and warning.

In case of fire, exit and call 999.

Drying

Mattress covers and tube sets should be hung from a line or bar and drip dried in a clean indoor environment.

Mattress covers can be tumble dried on a low heat setting for 90 minutes. Drying temperature must not exceed 40°C. **Exceeding this temperature can cause significant damage to the mattress cover.** Covers must be completely dried before refitting to the tube set.

During cleaning procedures suitable protective clothing should be worn.

Ensure that mains power supply to the pump has been disconnected prior to cleaning.

5. Annual Maintenance

1. Inspect all Filters.
 - If filter is dirty, clean with a vacuum cleaner.
 - If filter is still dirty then replace with a new one.
2. Ensure that all the hoses inside and outside the pump are kink and split free. If any splits are found replace the tubes.
3. Ensure that all the hoses inside and outside the pump are not brittle. If any tubes are brittle then replace the tubes.
4. Check that the pump is giving enough MMHG on the maximum output. If not, adjust the comfort control. If still not high enough then replace the motor.
5. Check that all indicators are working; if not then replace the faulty indicators.

using an alcoholic wipe.

Do not use hyper carbonate or phenol based cleaning solutions.
Do not use any abrasive compounds or cleaning pads.

4.2 Mattress

General Cleaning

During general use the mattress and tube set may be cleaned using a neutral detergent solution. Using a single use wipe, clean the mattress cover and/or tube set with a solution of neutral detergent and hand hot water. Rinse thoroughly with clean water and a damp single use wipe. NOTE: The top, bottom and all four sides of the cover and tube set, including under the zip flaps MUST be cleaned. Make sure the cover and tube set are completely dried before refitting the cover.

Disinfecting the mattress

If the cover and/or tube set is heavily soiled or has been exposed to bodily fluids such as blood, it will require a more thorough cleaning procedure: Wipe the cover and/or tube set using a single use wipe and a 0.1% Chlorine Solution (1,000ppm) and cold water. If required a 1% Chlorine Solution (10,000ppm) and cold water can be used. Rinse thoroughly with clean water and a damp single use wipe. Make sure the cover and tube set are completely dried before refitting the cover.

Surfaces must be protected during use and rinsed and thoroughly dried after application of a disinfectant. Frequent or prolonged exposure to higher concentration disinfectant solutions may prematurely age the fabric cover of mattresses.

Laundering

Before laundering mattress covers should be completely removed. Where required mattress covers and tube sets can be laundered as follows:

Pre wash 80°C + 15 minutes
Main wash 80°C + 15 minutes

This should be followed by a cold rinse and extraction.

2. Product Description

The Solar is an alternating mattress replacement system used in the prevention and treatment of pressure ulcers. By using the established principles of alternating therapy the Solar offers patients a comfortable and relaxing support surface which can both prevent skin breakdown and enhance healing.

The Solar power unit is a compact, high output twin pump featuring an audible and visual low pressure alarm and a manual pressure control function. The 20 cell mattress unit provides a unique design which keeps the lower levels of the cells constantly inflated whilst alternating and deflating the upper level. The head section of cells remains static throughout the 9.5 minutes alternating cycle. The mattress has a heavy duty nylon base sheet with a vapour permeable P.U coated stretch cover.

Quick release couplings between the mattress and power unit enable easy patient transport arrangements. In the event of cardiac arrest, rapid deflation can be achieved by using the highly visible CPR facility.

3. Installation

1. Unpack the system and place the pump at the foot end of the bed.
 2. Remove the existing mattress and place the support surface on the bed frame with the cell/or vapour permeable cover uppermost. The inflation tubes should be at the foot of the bed.
 3. Connect the air hoses from the mattress with the air outlet connectors on the pump unit. These are quick release connectors and should be heard to click when connected securely.
- Note: The Solar pump must only be used with the Solar mattress.**
4. Plug in the power cord to the mains power supply (be sure the switch is in the off position before plugging in).
 5. Turn on the power supply. At this stage both the mains power and low pressure indicator will illuminate.
 6. When the low pressure indicator has extinguished adjust the

comfort control to the desired comfort setting and allow the system to cycle once.

7. Activate alarm mute button by pressing the alarm mute button on the left hand side of the pump.
8. Cover the support surface with a loosely fitted sheet. The patient may now be placed on the support surface and further bedding added.
9. **Maximum patient weight 203 kgs (448 lb / 32 stones).**

Operating Functions

- a) Low Pressure Alarm
If the pump unit detects low pressure an alarm will sound. This can be silenced on the side of the pump by pressing the black button labelled – Alarm Mute.
- b) Transport Mode
If required, disconnect the hoses from the pump and join together. The system will equalised and retain mattress pressure once the pump has been shut off.
- c) CPR Requirement
If rapid deflation of the mattress is required, simply pull the CPR tags. When the CPR function is initiated the alarm will sound. The alarm may be silenced by switching off the pump. As an additional aid to rapid deflation the two hoses can be disconnected from the pump.
- d) Infection Control
Should the mattress become infected please refer to cleaning instructions (section 4).

Support Setting Procedure

It is important to follow the correct support setting procedure to ensure the patient receives adequate support (lift) while achieving maximum pressure relief and comfort. Failure to do this could result in the patient being put at risk.

1. Lie the patient on the mattress
2. Weight settings indicate where to position the dial if the patient is sitting up.
3. **MAXIMUM PATIENT WEIGHT 203kgs (448lb / 32 stones)**
MINIMUM PATIENT WEIGHT LIMIT 31kgs (70lbs / 5 stones)

WEIGHT CONVERSION TABLE

Weight in Kg	Weight in lb	Weight in Stones & lb
31 - 60kg	68 - 133lb	5 stone - 10 stone
61 - 80kg	134 - 176lb	10 stone - 13 stone
81 - 100kg	177 - 220lb	13 stone - 16 stone
101 - 120kg	221 - 264lb	16 stone - 19 stone
121 - 140kg	265 - 308lb	19 stone - 22 stone
141- 203kg	309 - 447lb	22 stone - 32 stone

NOTE: ALL CIRCUIT DIAGRAMS AND PARTS ARE AVAILABLE FROM PARK HOUSE HEALTHCARE

NB - The above is a guide only and the dial can be adjusted accordingly to the individuals' comfort requirements.

4. Cleaning

The following guidelines are suggested by Park House Healthcare as being suitable infection control procedures. Further information is available upon request.

4.1 Pump unit

General cleaning may be affected by using a cloth dampened with a mild detergent and water solution. This approach may be followed either by wiping with a sodium hypochlorite solution to a dilution of 1000 ppm or by