Park House
Healthcare

PHASE III

PA7900 Mattress Replacement System

User Manual

CONTENTS

IMPORTANT SAFEGUARDS
READ ALL INSTRUCTIONS BEFORE USING

DANGER - To reduce risk of electrocution.

1. Always unplug this product immediately after using.
2. Do not use while bathing.
3. Do not place or store product where it can fall or be pulled into a tub or sink.
4. Do not place in or drop into water or other liquid.
5. Do not reach for a product that has fallen into water. Unplug immediately.

WARNING - To reduce risk of burns, electrocution, fire, or injury to persons:

1. This product should never be left unattended when plugged in.
2. Close supervision is necessary when this product is used on or near children.
3. Use this product only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.
4. Never operate this product if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropping in water, return the product to a service centre for examination and repair.
5. Keep the cord away from heated surfaces.
6. Never block the air opening of this product or place it on a soft surface, such as a bed or couch, where their openings may be blocked. Keep the air opening free of lint, hair, and other similar particles.
7. Never drop or insert any object into any opening or hose.
8. Connect this product to a properly grounded outlet only. See grounding instructions.

NOTE, CAUTION AND WARNING STATEMENTS

NOTE	-	Indicates some tips.
CAUTION	-	Indicates correct operating or maintenance procedures in order to prevent damage to or destruction of the equipment or other property.
WARNING	-	Calls attention to a potential danger that requires correct procedures or practices in order to prevent personal injury.

SYMBOLS

Class II

Protected against solid foreign objects of 12,5mm and greater; Protection against vertically falling water drops

“BF” symbol, indicate this product is according to the degree of protecting against electric shock for type BF equipment

Attention, should read the instructions!

Refer to instruction manual/booket
NOTE on ME EQUIPMENT “Follow instructions for use

Disposal of Electrical & Electronic Equipment (WEEE):
This product should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. For more detailed information about the recycling of this product, please contact your local city office, household waste disposal service or the retail store where you purchased this product.

Manufacturer

Authorised representative in the European community

SAVE THIS MANUAL FOR REFERENCE

1. Introduction

This manual should be used for initial setup of the system and for reference purposes.

1.1 General Information

The Phase III System is a high quality mattress replacement system suitable for the treatment and prevention of pressure ulcers.

The Phase III System has been independently tested and successfully approved to the following standards:

CE

EN 60601-1
EN 60601-1-2
EN 55011 Class B
EN 61000-3-2 Class A
EN 61000-3-3
EN 61000-4-2
EN 61000-4-3
EN 61000-4-4
EN 61000-4-5
EN 61000-4-6
EN 61000-4-8
EN 61000-4-11

1.2 Intended Use

This product is intended to reduce the incidence of pressure ulcers whilst optimising patient comfort.

NOTE : Equipment not suitable for use in the presence of a flammable anaesthetic mixture with air, oxygen or nitrous oxide.

2. Product Description

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

The Phase III power unit is a compact pump featuring; an audible and visual low-pressure alarm and a manual pressure setting 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 10 minute alternating cycle. The mattress has a heavy-duty nylon base sheet with a vapour permeable P.U. Coated stretch cover.

In the event of a cardiac arrest, rapid deflation is achieved by using the highly visible CPR facility.

3. Installation

3.1 Unpacking

The pump unit and mattress are packaged in separate boxes to secure the contents inside. When unpacking the boxes to remove the pump unit and mattress, check for any damage which may have occurred during shipping. Please report any damages to Park House Healthcare and remove the system from use.

3.2 Setting Up

1. Place the pump at the foot end of the bed.

2. Remove the existing mattress and place the Phase III on the bed frame with the cell/vapour permeable cover uppermost. The inflation tubes should be at the foot of the bed.

   ⚠ NOTE : The Phase III pump must only be used with the Phase III mattress.

3. Connect the air hoses from the mattress with the air outlet connectors on the pump unit. These are quick release connectors and should click into place securely.

4. Plug in the AC power cord to the AC outlet (be sure the switch is in the off position before plugging in)

   ⚠ NOTE : The plug also serves as a disconnect device.

5. Plug in and turn on the power. The power switch green neon will light.

6. Select the LIGHT, MEDIUM or HEAVY weight setting relevant to the patient's build. The light will continue to flash on the chosen setting until ready for patient use. Once up to the appropriate pressure the system will then go into static mode for 10 minutes. This is to enable correct positioning of the patient on a firm surface.

7. After 10 minutes in static mode, the system will automatically revert back to the chosen setting.

8. The keypad will lock out after 6 minutes of inactivity. To unlock the keypad, press the LIGHT and HEAVY buttons simultaneously.

4. Operation

⚠ NOTE : Always read the operating instructions before use.

4.1 Function Description

1. Static Mode
If required, the static button is on the front of the pump unit and once pressed the mattress will stop alternating. The deflated cells will inflate to match the inflated cells and then remain static. This function will last for 20 minutes and then automatically revert back to alternating mode.

2. Low Pressure Alarm
If the pump unit detects low pressure an intermittent alarm will sound. This can be silenced by pressing the ALARM RESET button on the front of the pump.

3. Mains Failure Alarm
If the pump unit detects that the mains have been switched off, or the power supply is cut, then a constant alarm will sound. This can be silenced by pressing the same ALARM RESET button. If the system is unplugged from the power source, the mattress will remain inflated for up to 24 hours, if no leaks are present, allowing for transportation of the patient.

4. CPR Requirement
If rapid deflation of the mattress is required, simply pull the CPR tag. When the CPR function is initiated the alarm will sound. The alarm may be silenced by pressing the same ALARM RESET button.

5. Infection Control
Should the mattress become infected then please refer to ‘cleaning’.

6. Static transportation mode
When the pump is disconnected at the mains the mattress will retain pressure in static mode for up to 24 hours. You can put the mattress in to transport mode manually by disconnecting the hoses from the pump and connecting them together.

4.2 Support Setting Procedure

It is important to follow the correct support setting procedure to ensure the patient receives adequate support (lift) and maximum pressure relief and comfort.

1. Select the correct patient weight setting as indicated below and press the appropriate button.
2. The mattress will now inflate and the light will flash until it is ready for patient use. The static mode will then engage to enable the carer to position the patient in bed and make them comfortable. The static mode will automatically revert back to the selected pressure setting after 10 minutes.

4.3 Weight Conversions

	LIGHT	MEDIUM	HEAVY
Weight in kilograms	31 - 83 kg	70 - 140 kg	127 - 247 kg
Weight in pounds	70 - 183 lbs	155 - 308 lbs	280 - 546 lbs
Weight in stones	4.5 - 13 stones	11 - 22 stones	20 - 39 stones

5. Cleaning

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

5.1 Pump Unit

It is important to follow the cleaning procedures for single patient use. 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 using an alcoholic wipe.
Wipe the pump unit with a damp cloth and a mild detergent, and keep it away from dust. If another detergent is used, choose one that will have no chemical effects on the surface of the plastic case of the pump unit.

⚠ CAUTION : Do not immerse or soak pump unit.
Do not use hyper carbonate or phenol based cleaning solutions.
Do not use any abrasive compounds or cleaning pads.

5.2 Mattress

General Cleaning

Using a single use wipe, clean the mattress cover 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 mattress, including under the zip flaps MUST be cleaned.

Disinfecting the cover

If the cover is heavily soiled or has been exposed to bodily fluids such as blood, it will require a more thorough cleaning procedure:

Wipe the cover 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 is completely dried before refitting to the mattress.

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

Laundering

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

Pre wash 80ºC + 15 minutes
Main wash 80ºC + 15 minutes

This should be followed by a cold rinse and extraction.

Drying

Mattress covers should be hung from a line or bar and drip dried in a clean indoor environment. Covers must be completely dried before refitting to the mattress.

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.

During cleaning procedures suitable protective clothing should be worn. Ensure that mains power supply to the pump has been disconnected prior to cleaning.

6. Storage

1. To store the mattress, lay the mattress out flat and upside down.
2. Roll from the head end towards the foot end with CPR valve open.

⚠ NOTE : Do not fold, crease or stack the mattresses. Avoid direct sunlight.

7. Maintenance

1. Ensure that all hoses inside and outside the pump are kink and split free. If any splits are found, replace the hoses.

2. Ensure that all the hoses inside and outside the pump are not brittle. Replace if needed.

3. Check that all indicators are working, if not the faulty indicators need to be replaced by your distributor.

4. Check the main power cord and plug for abrasions or excessive wear.

5. Check the mattress cover for signs of wear and damage. Ensure the mattress cover and hoses are connected together correctly.

6. Check the air hoses for kinks or breaks.

8. Troubleshooting

Problem	Solution
The pump is showing no indications it is working	• Check if the mains are plugged in. • Check if the mains are turned on. • Check if the switch is on. • Check if any fuse in the plug has blown. • Reset circuit breakers on the side of the pump.
The low-pressure light is constantly flashing and the alarm is sounding	• Check that the hoses are all connected. • Check that the CPR is in place. • Check if there is any leakage in the mattress system. • Check that all pipes are connected on the side of the mattress.
The pump is on but not inflating the mattress	• Disconnect hoses from pump and check if air is coming out. • Check that all hoses are connected securely. • Check that the CPR is in place. • Check that there are no kinks in the tubing running down the side of the mattress. • Ensure that the patient has not been placed on the mattress before it is fully inflated.
The system does not appear to be alternating	• Check that there are no kinks in the tubing running down the side of the mattress.
The pump is operating noisily	• Make sure the pump is resting against a solid surface.

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

9. Technical Description

Product Code		PA7900	
Pump		**Specification**	
Power Supply (refer to rating label on the product)		AC 230V, 50Hz, 0.25A (for 230V system)	
Fuse Rating		Circuit Breakers T1A/250V	
Cycle Time		10 min, 50/60Hz	
Dimension (L x W x H)		35 x 12.5 x 24 (cm)	
Weight		4 kg	
Environment	Temperature	Operation: Storage: Shipping:	10°C to 40°C (50°F to 104°F) -15°C to 50°C (5°F to 122°F) -15°C to 70°C (5°F to 158°F)
	Humidity	Operation: Storage: Shipping:	10% to 90% non-condensing 10% to 90% non-condensing 10% to 90% non-condensing
Classi cation		• Class II, Type BF, IP2I • Applied Parts: Air Mattress • Not suitable for use in the presence of a ammable anaesthetic mixture (No AP or APG protection) • Continuous operation	
Mattress		**Specification**	
Model		7” Mattress	
Dimension (in ated, L x W x H)		190 x 88 x 20 (cm)	
Weight		4 kg	
Pressure Range		30 - 50 mmHg	
Maximum Patient Weight		247 kg or 39 stones	

Contact the distributor or EU representative for further technical documents.

⚠ NOTE : The speci cations also apply to those areas operating with the same power supply

EMC Information

Guidance and Manufacturer’s Declaration **- Electromagnetic Emissions:**

This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment-Guidance
RF emissions CISPR 11	Group1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment
RF emissions CISPR 11	Class B	
Harmonic emissions IEC61000-3-2	Class A	The device is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network.
Voltage fluctuations / Flicker emissions IEC61000-3-3	Complies	

Guidance and Manufacturer’s Declaration **- Electromagnetic Immunity:**

This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

Immunity Test	IEC60601 test level	Compliance	Electromagnetic Environment-Guidance
Electrostatic Discharge (ESD) IEC61000-4-2	±6kV contact ±8kV air	±6kV contact ±8kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/ burst IEC61000-4-4	±2kV for power supply line ±1kV for input/out line	±2kV for power supply line ±1kV for input/out line	Mains power quality should be that of atypical commercial or hospital environment
Surge IEC61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s)	Mains power quality should be that of atypical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC61000-4-11	<5 % U_T (>95 % dip in U_T)for 0,5 cycle 40 % U_T (60 % dip in U_T)for 5 cycles 70 % U_T (30 % dip in U_T)for 25 cycles <5 % U_T (>95 % dip in U_T)for 5 sec	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	Mains power quality should be that of atypical commercial or hospital environment. If the user of this device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of atypical location in a typical commercial or hospital environment.
NOTE: U_T is the a.c. mains voltage prior to the application of the test level			

This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

Immunity Test	IEC60601 test level	Compliance	Electromagnetic Environment-Guidance
			Portable and mobile RF communications equipment should be used no closer to any part of this device, including cables, than there commended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.2\sqrt{P}$ 150kHz to 80MHz $d = 1.2\sqrt{P}$ 150kHz to 80MHz $d = 2.3\sqrt{P}$ 80 MHz to 2.5G MHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).[b] Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[c], should be less than the compliance level in each frequency range[d]. Interference may occur in the vicinity of equipment marked with the following symbol:
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz outside ISM bands[a]	3 Vrms	
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a) The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6,765 MHz to 6,795 MHz;13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz.

b) The compliance levels in the ISM frequency bands between 150 kHz and 80 MHz and in the frequency range 80 MHz to 2.5 GHz are intended to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas. For this reason, an additional factor of 10/3 is used in calculating the recommended separation distance for transmitters in these frequency ranges.

c) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the device.

d) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and this device:

This device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of this device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and this device as recommended below, according to the maximum output power of the communications equipment

Rated maximum output power of transmitter W	**Separation distance according to frequency of transmitter** m		
	150 kHz to 80 MHz $d = 1.2\sqrt{P}$	**80 MHz to 800 MHz** $d = 1.2\sqrt{P}$	**800 MHz to 2,5 GHz** $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.
Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

10. Guarantees and Warranty

10.1 Pump Unit

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

10.2 Mattress

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

10.3 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. The Company's 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 the Company's cleaning / disinfection guidelines have been followed.
d) That the Company's maintenance guidelines have been followed.
e) That maintenance has been carried out by a Park House approved engineer

10.4 Warranty

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

10.5 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.

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 and EN46002 accreditation, which is the specific quality standard for Medical Devices. All products are CE marked in accordance with the European Directive 93/42/EEC.

EC REP

ISO9001 Certificate No: 8019
ISO14001 Certificate No: E4681

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

Park House
Healthcare

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