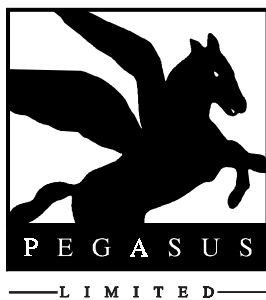


Bi≈Wave™ Carer



User Guide



Bi≈Wave™ Carer

Use and Care Instructions



The **BI≈WAVE CARER** System is suitable for patients showing any of the following characteristics:

- Assessed to be up to very high risk of pressure sore development.
- Require therapy to promote pressure sore healing.
- Have some mobility whilst in bed or are turned regularly.

The **BI≈WAVE™ CARER** System reduces skin surface pressure at frequent intervals. This encourages the blood flow necessary to maintain healthy tissue, thereby preventing pressure sores even in the most vulnerable patients.

The System also offers comfort for the patient and ease of use for the carer.

Immobile patients or those not able to be turned frequently and therefore at greater risk can be nursed on the **CAIRWAVE™** Therapy System.

BI≈WAVE CARER

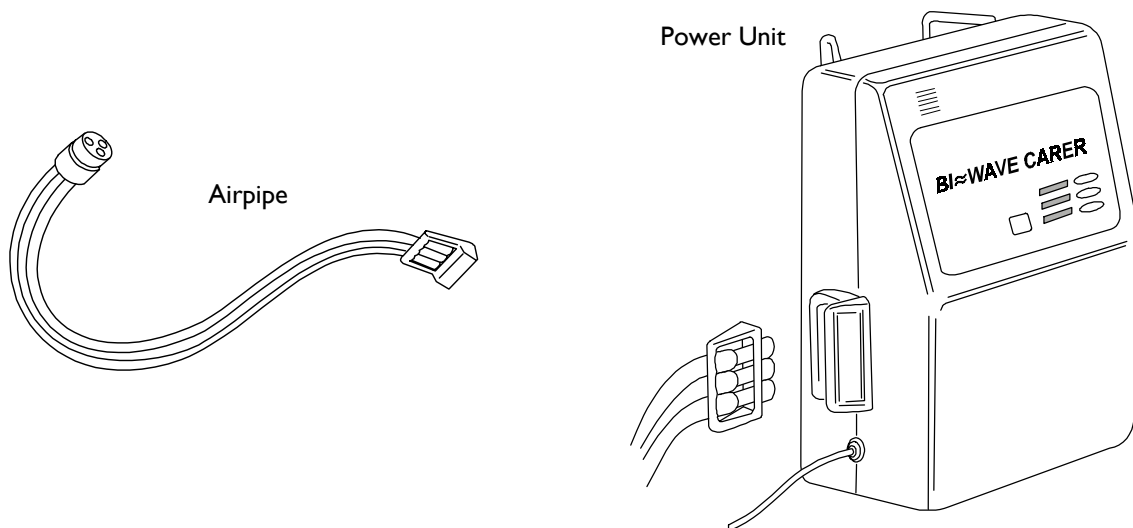
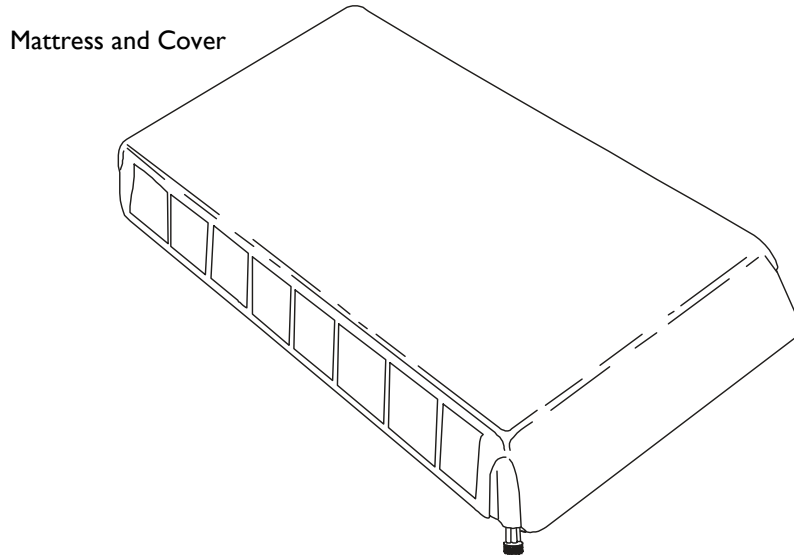
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SECTION A – GETTING STARTED

LIST OF PARTS

Check that all parts are present before assembling the system.



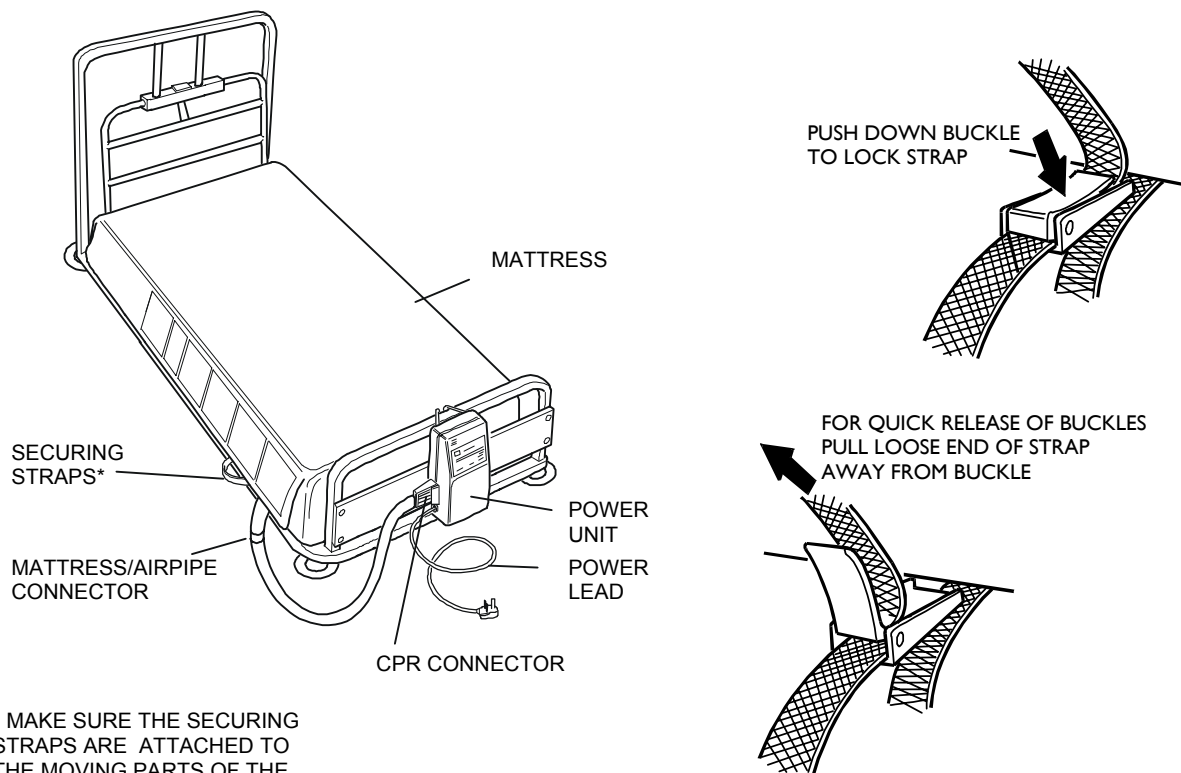
SETTING UP

The **BI=WAVE CARER** system can be used on all standard hospital, domestic and profiling beds.

To install the system, carry out the following procedure:

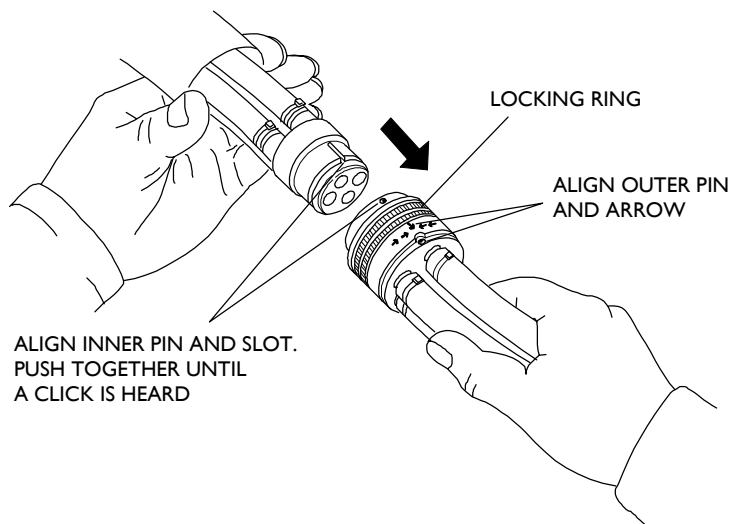
1. Lower the bed if possible. Remove the existing mattress from the bed frame.
2. Check that there is nothing to damage the mattress, such as sharp edges or springs. If your bed frame does not have a solid base the use of a fracture board or similar firm base is advisable to ensure maximum benefit.
3. Place the mattress on the bed with the airpipe at the foot of the bed.

4. Loosely secure the mattress to the moving parts of the bed frame using the straps provided. Do not fasten the straps to removable head or foot boards.
5. Hook the power unit over the foot of the bed or place on the floor if preferred.

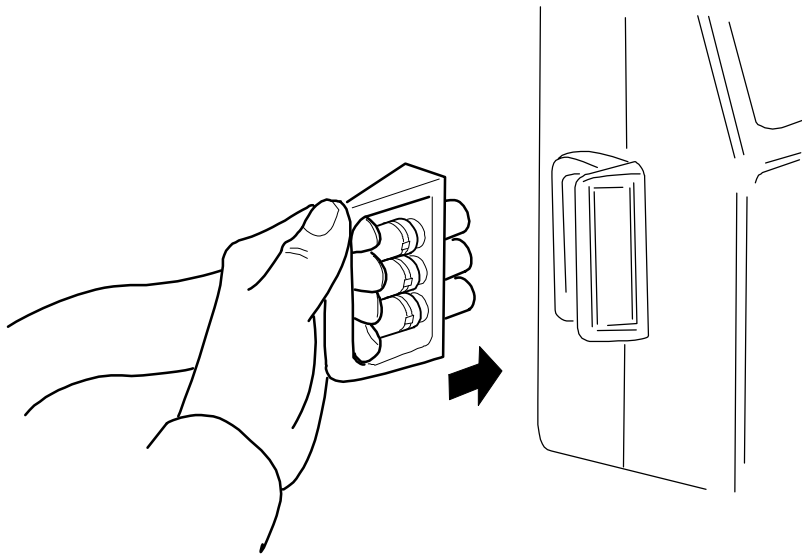


* MAKE SURE THE SECURING STRAPS ARE ATTACHED TO THE MOVING PARTS OF THE BED FRAME ONLY.

6. Connect the airpipe to the mattress by lining up the outer pin and arrow on the locking ring, then aligning the inner pin and slot and pushing the two halves of the connector firmly together until a click is heard.



7. Connect the airpipe CPR handle onto the power unit as shown, ensuring the 'PULL FOR CPR' label is visible.



8. Plug the mains lead into a suitable electrical socket and switch the power unit on. The power switch, located on the right side of the power unit, will illuminate green to show power is on. The audible alarm will sound and the three front panel lights will flash on then off once to complete the self test phase. The amber light will flash and continue flashing while the mattress is inflating.
9. The system will take approximately 25 minutes to reach full inflation pressure, at which time the green NORMAL light will come on and the amber light will extinguish. During this start up phase the red FAULT light may come on and the audible alarm sound, if this occurs turn the power unit off and back on again to reset the alarm.

Once inflated, check the securing straps and tighten if required. For maximum benefit, use only one sheet loosely placed over the mattress. If the sheet is tucked in ensure that it is left loose over the mattress to avoid hammocking.

Once a patient is placed on the mattress the system will adjust automatically to the patient characteristics (weight/position) to provide optimum clinical benefit for each patient. The mattress may feel firm at first until it has adjusted to the individual. Allow approximately 15 minutes for this automatic adjustment to be completed.

If the mattress does not perform as described above, please refer to Section F of this guide, 'Alarms and Fault Finding'.

SECTION B – PROFILING AND GATCHING

The **BI≈WAVE CARER** system mattress can be used in a profiled position to provide pressure relief for patients sitting up in bed, and/or a gatching position for patients where the lower section of their bed is raised.

CAUTION: Do not fasten securing straps to removable head or foot boards, this may impede their removal in an emergency.

PROFILING (Sitting Up)

If using a bed with a manually operated back rest, release the mattress securing straps, lift the head end of the mattress and adjust the back rest to the required angle.

Move the mattress to the desired position and, using the centre and foot end straps, secure the mattress to the the moving parts of the bed frame.

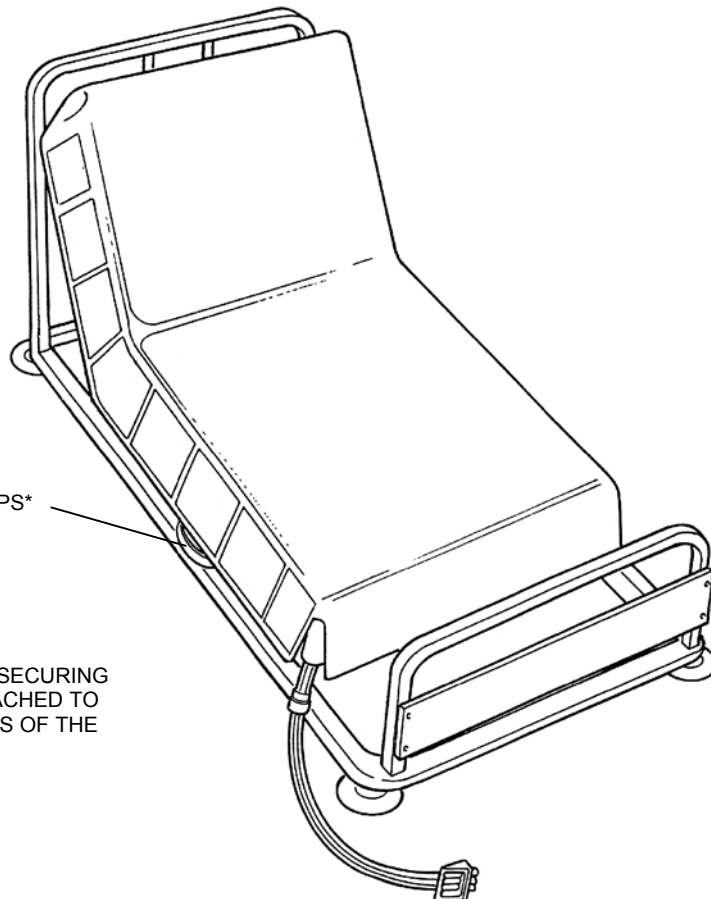
If using a bed with a powered/mechanical back rest, release the mattress securing straps and raise the back rest to the required position.

Move the mattress to the desired position and secure to the moving parts of the bed ensuring the straps are positioned and fastened so they are not stretched or interfere with the bed mechanism when used in its various positions.

DO NOT FASTEN
STRAPS TO
REMOVABLE
BED HEAD

SECURING STRAPS*

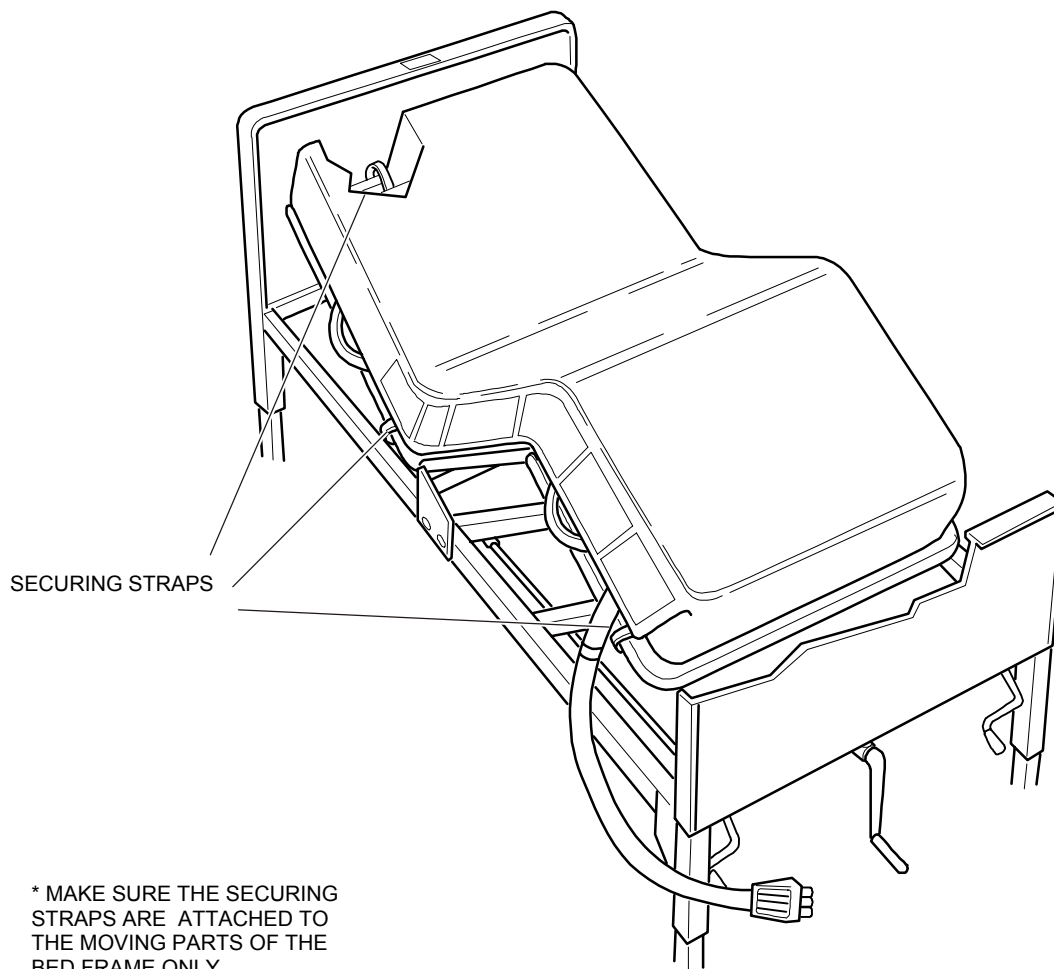
* MAKE SURE THE SECURING
STRAPS ARE ATTACHED TO
THE MOVING PARTS OF THE
BED FRAME ONLY.



GATCHING (Bending at the Knees)

Release the mattress securing straps and gatch the knee section as required, being careful not to disturb the power unit by putting unnecessary strain on the airpipe.

Move the mattress to the desired position and secure to the moving parts of the bed ensuring the straps are positioned and fastened so they are not stretched or interfere with the bed mechanism when used in its various positions.

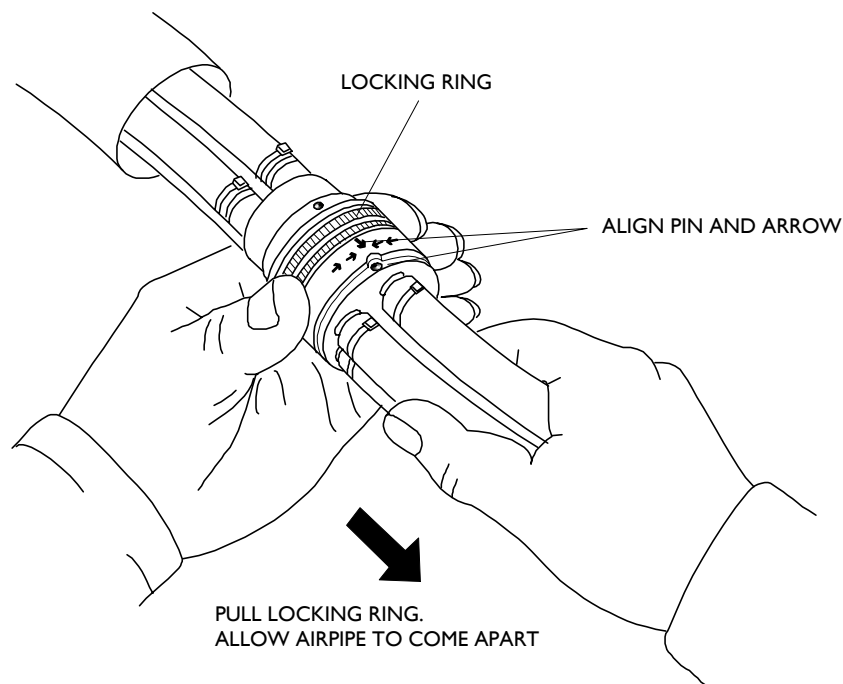


SECTION C – MOVING THE BED AND POWER CUTS

WARNING: The patient will not receive the benefits of the BI≈WAVE CARER System while it is disconnected and the power unit is turned off. Therefore they should be reconnected as soon as possible once the bed has been moved to its new position.

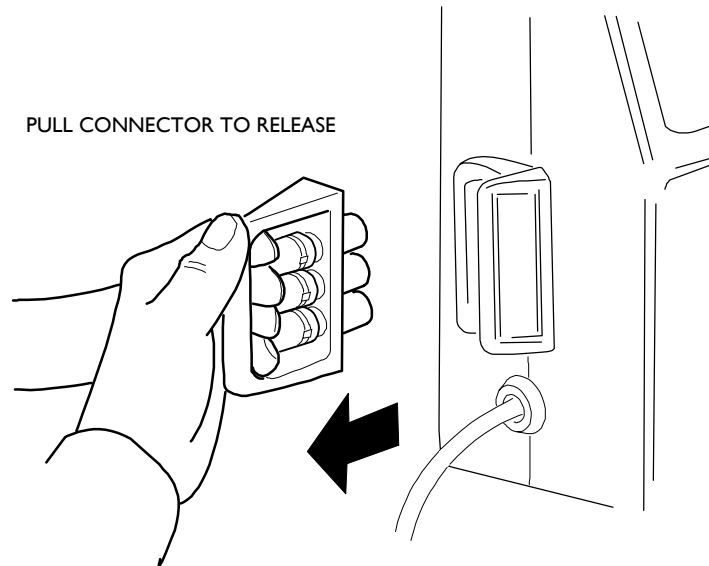
If you need to move the bed or carry out nursing procedures with the mattress still inflated (but static) or in the event of a mains power failure, then follow this simple procedure:

1. Disconnect the mattress from the power unit by turning the locking ring on the airpipe connector to line up the pin and arrow.
2. Push the locking ring so the pin and arrow move together and pull the two halves of the airpipe apart.
3. Turn off the power unit and unplug from the electrical socket. An audible alarm will sound to indicate unit is turned off. Cancel the alarm by pressing the alarm reset button on the power unit.
4. The mattress will remain inflated for over 24 hours. The bed can now be moved.
5. When the bed has been moved to its new location, reconnect the two halves of the airpipe, plug in the power unit to an electrical socket and turn the power unit on.



SECTION D – CPR (CARDIO PULMONARY RESUSCITATION)

In the event of cardiac arrest, disconnect the CPR handle from the power unit. The mattress will immediately begin to deflate, allowing cardio pulmonary resuscitation.



SECTION E – DEFLATION, REMOVAL, CARRYING AND STORAGE

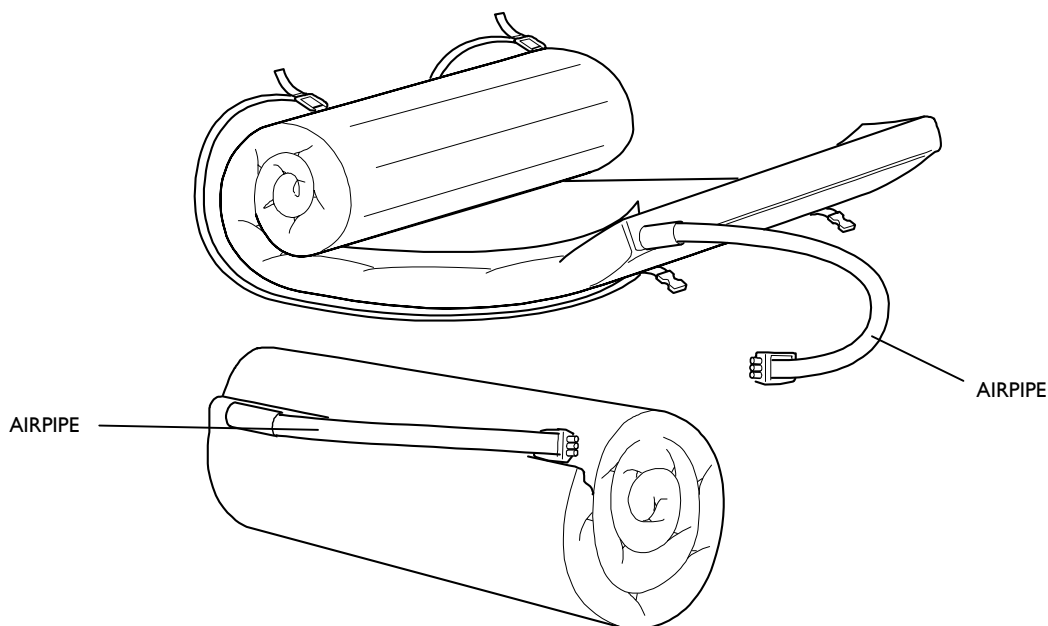
DEFLATION

To deflate the mattress, follow these easy steps:

1. Turn off the power unit and unplug from the electrical socket. An audible alarm will sound to indicate unit is turned off. Cancel this alarm by pressing the reset button on the power unit.
2. Disconnect the airpipe from the power unit as detailed in the CPR Section of this manual. The mattress will immediately start to deflate. If you wish to deflate quicker, apply downwards pressure to the mattress and press out as much air as possible.

REMOVAL

1. Roll the mattress from the head end, with the top surface inward, tucking in the loose straps until completely rolled. Lay the airpipe along the rolled mattress.



2. Unhook the power unit from the bed frame and coil the power lead for ease of storage.

CARRYING AND STORAGE

In order to help with carrying and storage of the system, a high quality carrying bag for the mattress and the power unit is available.

Please contact your supplier for details.

SECTION F – ALARMS AND FAULT FINDING

ALARMS

The **BI≈WAVE CARER** system is equipped with a sophisticated set of alarm functions. These alert the user to the status of the available mains supply and any mattress defect.

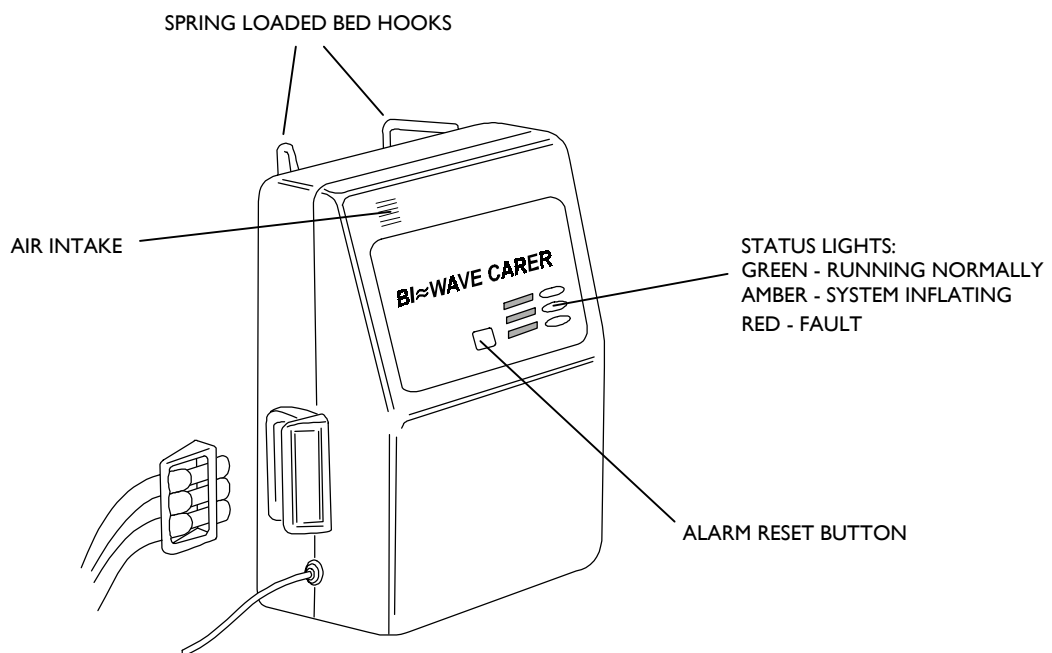
In normal conditions with mains power available, the power unit turned on and the mattress fully inflated and alternating, the power unit mains switch and the green status light on the power unit front panel will both be illuminated.

If there is a mains power failure or the power unit is switched off, an audible alarm will be heard and all the lights on the power unit and mains switch will go out.

The audible alarm may be cancelled by pressing the reset button on the power unit.

If the system develops a fault while in use, the red fault light will flash and an audible alarm will be heard. The audible alarm may be cancelled by pressing the reset button on the power unit, (if the alarm is cancelled in this way it will return after 30 minutes) or turning the mains power switch on the side of the power unit to the OFF (O) position and then back ON (I).

NOTE: The red fault light may flash in a series of two, three or four flashes. This is to assist your supplier if contacted about the fault.



FAULT FINDING

SYMPTOM	ACTION
No lights on power unit	Check power unit is connected to the mains power supply and that the power unit switch is turned to the ON (I) position
Status light red and alarm sounding or alarming but no lights	<p>Turn the mains switch on the power unit OFF then ON again</p> <p>If the mains light does not illuminate, mains power to the power unit has been lost. Check that the power unit is connected to the mains supply and that the power unit switch is turned to the ON (I) position</p> <p>If the alarm clears then returns after 30 minutes, check air connection between power unit and mattress, ensuring that all air connectors are pushed fully home and the air pipe is not folded or bent causing air flow to be reduced. Turn mains switch on power unit OFF then ON again</p>

If the problem persists, contact your supplier.

SECTION G – CLEANING

It is recommended that the system is cleaned regularly and after each patient use.

The power unit and mattress can be cleaned using the following simple procedure:

1. Mattress and Cover Cleaning

CAUTION: Do not high temperature Autoclave or use Phenolic based products for cleaning.

In many cases it will not be necessary to remove the mattress from the bed prior to cleaning.

- a. Liberally swabbing with hot water containing detergent, then drying.
- b. Swabbing with a solution of sodium hypochlorite (up to 10,000 parts per million available chlorine), then drying.

The mattress cover and airpipe cover can also be machine washed to a maximum temperature of 80°C. To remove the cover and airpipe see Section I, 'Cover Replacement'.

2. Power Unit Cleaning

CAUTIONS: Ensure the Power Unit is turned off and disconnected from the mains supply before cleaning.

Do not immerse the power unit while cleaning .

The power unit can be cleaned by wiping down with a cloth dampened with one of the solutions in 'a.' or 'b.' above.

The System may be decontaminated using ETO (Ethylene Oxide) or Draeger Method.

For further information, contact your supplier.

SECTION H – USER SERVICING AND SERVICE

The **BI≈WAVE CARER** System has been designed for ease of use and contains no user serviceable items. If you have any queries about the operation of the system contact your supplier.

If the system becomes defective during the warranty period, it will be repaired or replaced free of charge in accordance with the system warranty.

To help us identify the system when telephoning, please make a note of the serial number which you will find on the label on the rear of the power unit or on the foot end of the mattress.



SECTION I – COVER REPLACEMENT





To remove the mattress and airpipe covers:


1. Fully unzip the cover and remove the top section.
2. Release the elasticated ends of the airpipe cover and remove by pulling the cover over the airpipe connector.
3. Undo the 6 clips securing the mattress to the bottom cover section, pull the airpipes through the sleeve in the cover and lift the mattress out of the bottom cover section.

Replacement is the reverse of 1, 2 and 3 above with the following addition:

1. When fitting the airpipe cover, ensure the elasticated end fits fully over the retaining plate on the air connector. Loosely fit the strap around the internal pipes.

SECTION J – TECHNICAL DATA

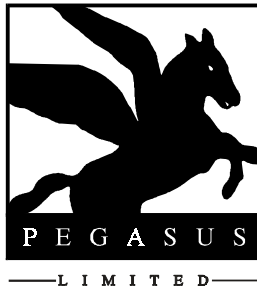
<p>Cycle Control</p> <p>Cycle Time</p> <p>Supply Voltage</p> <p>Power Rating</p> <p>Fuse Rating</p> <p>Noise Level</p> <p>Nominal Dimensions</p> <p>Electrical Safety</p> <p>Classification</p> <p>Mode of Operation</p> <p>Symbols</p> <p>Environment (Usage and Storage)</p> <p>EMC</p>	<p>Purpose designed distributor valve supplying operating air to the inflatable cells</p> <p>12 minutes</p> <p>220/240 Vac 50Hz</p> <p>40 watts/40VA</p> <p>2A</p> <p>NC30</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Mattress (Inflated)</td> <td style="width: 50%;">Power Unit</td> </tr> <tr> <td>Length: 1900mm</td> <td>Height: 300mm</td> </tr> <tr> <td>Width: 900mm</td> <td>Width: 220mm</td> </tr> <tr> <td>Height: 240mm</td> <td>Depth: 130mm</td> </tr> <tr> <td>Weight: 8.1kg</td> <td>Weight: 2.7kg</td> </tr> </table> <p>Conforms to BSEN 60601-1</p> <p>Class 2, Type B</p> <p>Continuous</p> <p style="text-align: center;"></p> <p style="text-align: center;">Alternating Current</p> <p style="text-align: center;">Mains Switch - 1 (On) Power connected to the mains supply 0 (Off) Power disconnected from mains supply</p> <p style="text-align: center;"> </p> <p style="text-align: center;">Class 2</p> <p style="text-align: center;"></p> <p style="text-align: center;">Type B</p> <p>Air Humidity: 10% to 85%</p> <p>Ambient Temperature: -10°C to +60°C</p> <p>This equipment complies with EMC requirements. If effects are noticed the affected equipments should be moved apart.</p>	Mattress (Inflated)	Power Unit	Length: 1900mm	Height: 300mm	Width: 900mm	Width: 220mm	Height: 240mm	Depth: 130mm	Weight: 8.1kg	Weight: 2.7kg
Mattress (Inflated)	Power Unit										
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	<p>This product carries the CE mark in accordance with EC Directive on Medical Devices (93/42/EEC).</p>
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Pegasus Limited cannot be held responsible for any damage caused to our products (by foreign objects – needles, sharps, eating utensils, etc) other than due to normal wear and tear as defined in the product warranty agreement. Nor for any injury or incident which relates to the use of cot sides, profiling or any other mechanical or electrical device used in conjunction with this product unless supplied and/or manufactured by Pegasus Limited.

NOTES

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