

Dyna-Form Air

Alternating Pressure Relief Overlay System




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## Introduction

Congratulations to purchasing the Dyna-Form Air Alternating pressure relief overlay system.

This high quality medical product if installed and cared for will provide many years of trouble free service, and outstanding clinical performance.

 Please take time to read the contents of this manual before installing the system.

 Please keep the manual in a safe place for future reference.

The Dyna-Form Air Alternating pressure relief overlay system is positioned on top of an existing mattress. The alternating pressure relief action has been demonstrated to reduce the risk of

pressure ulcers (bed sores caused by loss of skin blood flow).

The Dyna-Form Air Alternating pressure relief overlay system is suitable for the prevention of pressure ulcers and the treatment of pressure ulcers up to grade 2.

The Dyna-Form Air Alternating pressure relief overlay system is quiet, comfortable and simple enough for single caregiver installation.

Enjoy the ease of use and peace of mind with special features like the comfort control and rapid CPR deflation.


The small, lightweight control unit is quiet and robust.


The Dyna-Form Air Alternating pressure relief overlay system meets the comfort and clinical requirements of all your patients up to 150 kg (300 lbs).


## General Warnings


### General Warnings


These are general warnings that apply at any time. Specific warnings will be given within the specific operating procedures within this manual.


 Risk of explosion: Do not use in the presence of flammable gases such as anaesthetic agents. In line with MDA/2013/073 the manufacturer warns against the dangers of smoking in bed.


 Risk of injury: Do not use in the presence of smoking materials or open flames. Air circulation in the mattress will assist combustion.


 Risk of electrical shock: Only to be opened by suitably qualified service personnel.


 Never drop or insert any objects onto or into the product.


 Suffocation risk: The cover is not air permeable. Assure that the patient can use the product safely.


 Risk of injury: The manufacturer recommends the use of bedside rails whilst the product is used on a bed. Please refer to your local procedures

 To disconnect the device from mains pull the mains plug out of the mains socket.

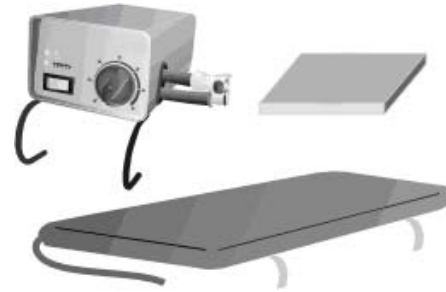
 Risk of electrical shock: Never partially or fully submerge electrical equipment in fluids.

 Risk of electrical shock: Always plug the equipment into a properly grounded mains socket.

 Risk of electrical shock: Do not spill food or liquids onto the control unit. If spillage occurs disconnect from the mains and allow at least 24 h drying time before re-use.

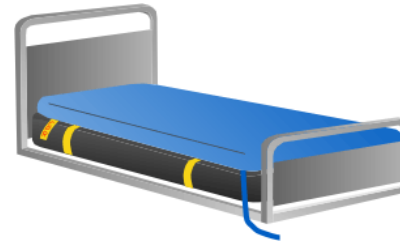
 Risk of damage: Keep the complete system away from radiators or other heat sources.

## Unpacking



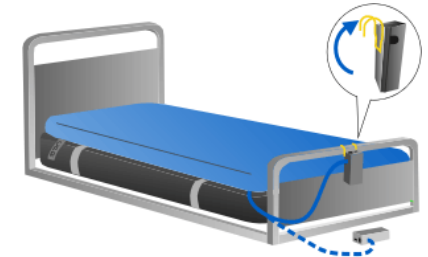
There are three components to the system, the control unit, the mattress and the user manual.

## Setting Up



Place the mattress overlay in its cover onto the existing mattress and attach the 6 fixing straps to the bed frame. The strap with the letters CPR must be positioned towards the head end of the bed. Check that the CPR valve is closed (see section CPR).

**⚠ Risk of damage or injury: Do not fit the straps to any part of the bed-frame but only to the mattress.**



On the back of the control unit are integrated hooks that swing out and suit most bed frames. Hang the control unit onto the outside of the foot board of the bed. Alternatively don't swing out the hooks to place the unit onto hard floor. Tidy the pipe but don't kink.

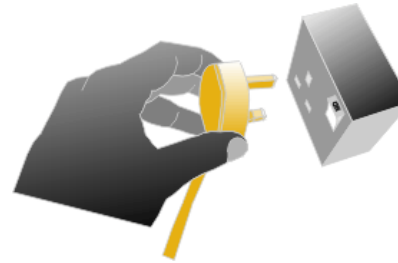
**⚠ Risk of injury: Make sure the pipes are not kinked. Don't place unit on thick carpet. Both can obstruct the air flow.**

## Setting Up



### Connect Mattress

Plug the air connectors of the mattress into the appropriate connectors on the control unit. Make sure you push the connector all the way, listen for a click.



### Power Connection

Connect the unit to a power supply that matches the voltage and frequency on the rating label on the back of the unit.

**⚠ Risk of injury: Store the mains cable in a secure manner underneath the bed to avoid tripping over.**




### Switch On

Toggle the on/off button once. The switch illuminates green; the system switches on and starts to inflate the mattress. Until the mattress has reached pressure the 'low pressure' indicator will illuminate. The inflation can take up to 30 minutes depending how flat the mattress was beforehand.

## Operation



 Risk of injury: Follow now the setting up procedure, see 'Correct Comfort Setting' section.



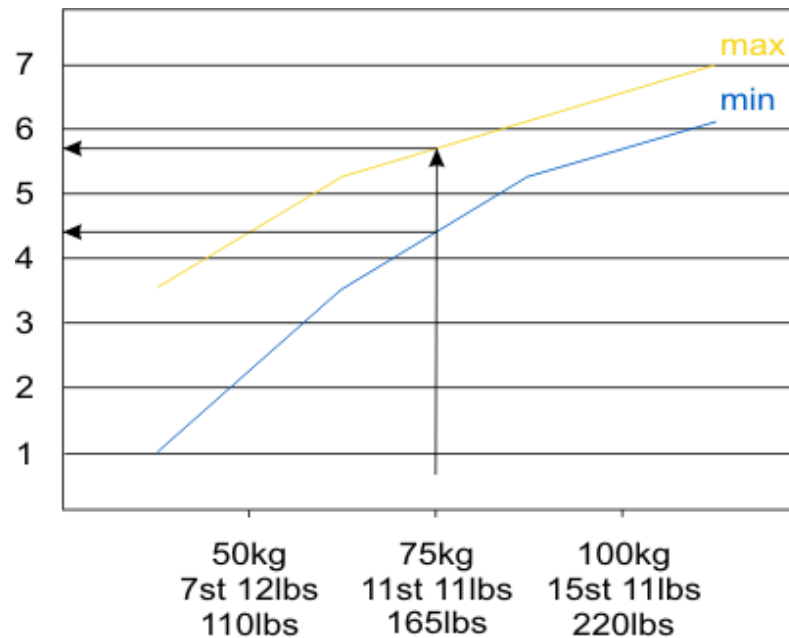
### Preparation of the bed

The mattress will be inflated when the low pressure indicator switches off and the normal pressure indicator comes on. Once the mattress is inflated, place a loose bed sheet on the mattress. The bed is now ready and the patient can be placed on the mattress.

### Correct Comfort Setting

The mattress pressure can be altered by turning the knob on the front of the control unit. Number 1 represents the lowest pressure (softer mattress) and number 7 the highest pressure (harder mattress). The correct setting will depend on the patient's weight and if the backrest is raised.

## Operation



### Comfort Setting Example:

If the patient weighs 75 kg (approx. 11 stone) then the comfort setting shall be set between a minimum of 4 ½ and a maximum of 5 ¾.

### Seating

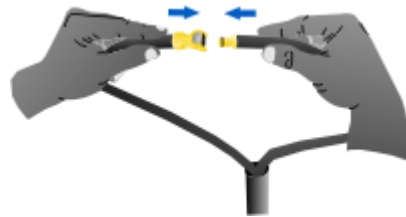
For seating raise the pressure by one. If the patient weighs 75 kg (approx. 11 stone) then the comfort setting shall be set between a minimum of 5 ½ and a maximum of 6 ¾. Return to lower settings when the patient lies down again.

⚠ Risk of injury: If the control unit is set higher or lower than suggested in this



## Transport

manual pressure relief might be compromised.



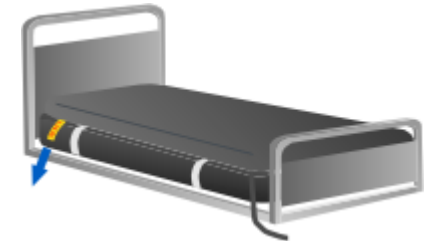
## Transport

When it is necessary to disconnect the mains cable from the mains supply (for example for moving the patient's bed) the alternation might just stop when one cell is inflated and one cell is deflated. Over a period of time this can be damaging to the patient. Therefore

disconnect both air pipes from the control unit and connect quickly together. The pressure equalises between the cells leaving a soft surface for the patient to lie on. However, it is necessary to re-instate alternation as soon as possible as even an equalised mattress will not provide full pressure relief.

⚠ Risk of injury: If the product is left disconnected from mains pressure relief is compromised. Connect to mains and switch on as soon as possible.

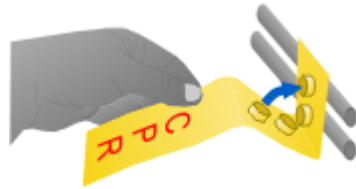
## CPR / Reanimation



## CPR / Reanimation

If a firm surface is needed in case of a cardiac arrest it is necessary to let the air out of the mattress quickly. Pull the tag marked 'CPR' firmly down so that you can feel two seals coming of the internal mattress pipes

## CPR / Reanimation



After resuscitation open the zip of the mattress cover until you have access to the CPR tag. Close the two valves again assuring that they are fully pushed home. The product can now be used again. Follow the appropriate steps in the section 'setting up'.

**⚠ Risk of injury:** Failure to close the valves properly will eliminate pressure relief.

## Cleaning

**⚠ Risk of injury:** Always disconnect the control unit from the mains before attempting to carry out any cleaning or maintenance. Do not submerge the unit in fluids.

**⚠ Risk of cross infection:** Take all necessary steps to avoid cross infection, if necessary talk to a hygiene specialist.

### Control Unit

Wipe off dust with a dry cloth. If necessary clean the exterior of the housing with a disinfectant solution or a mild detergent with a damp (not moist!) cloth. Alternatively wipe down with a sodium hypochlorite solution (not more than 10'000 parts per million available chlorine).

**⚠ Risk of damage:** Do not use phenol or hyper carbonate based solutions for cleaning the product. Do not heat or steam autoclave the control unit. Do not use abrasive compounds or pads.



### Air Filter

Check the air filter on the rear of the unit on a regular basis for built up of dust or dirt. If built up is visible turn off the control unit and disconnect from the mains.

## Cleaning

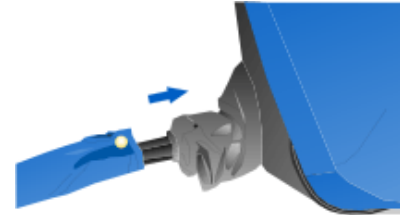
 Risk of damage: Do not use phenol based solutions.

Remove and discard the old air filter by unscrewing the lid. Replace with a new air filter and screw the lid back on.

### Mattress Cover

The mattress cover (and pipe cover) can be liberally swabbed with hot water at 60°C containing a mild detergent, then dry thoroughly.

Alternatively the cover can be liberally swabbed with a sodium hypochlorite solution (not more than 10'000 parts per million available chlorine). Then dry thoroughly.



### Washing

Removal of the mattress cover: Pull back the grey sleeve of the mattress cover that covers the air pipes (see picture). Then open the button of the pipe sleeve and pull it off over the air connectors. Then open the mattress zip and take the mattress out of the cover pulling the air pipes through the grey sleeve.

The mattress cover and pipe sleeve can be washed at a maximum of 60°C, then dry covers thoroughly. Do not tumble dry the covers. Do not iron the covers.



Assembly of the mattress is in reverse order of the previously described steps.

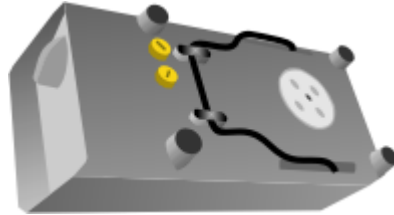
### Inner Mattress Components

When necessary the inner components of the mattress can be wiped down as described under the section mattress cover. Do not wash the inner components of the mattress.

## Trouble Shooting

Fault Occurring	Ensure That	Possible Solution (Next stage)	Still not working
No indication that the product is on	The mains plug is plugged in and the unit is switched on	Try another mains socket	Return the system to the nearest service station
	Fuses in the unit are not blown	Replace fuses (see section fuses)	
	The fuse in the plug is not blown	Replace with the correct fuse (3A)	
Low pressure indicator stays on	The hoses are connected and not kinked	Disconnect the hoses and re-connect them	Return the system to the nearest service station
	There are no leaks in the mattress	Replace the damaged mattress components with correct spares	
The pump is on but not inflating	The connectors are connected correctly	Disconnect the hoses and re-connect them	Return the system to the nearest service station
	There are no leaks in the mattress	Replace the damaged mattress components with correct spares	
	The pressure is in the correct range for the patient	Turn the pressure up or down within the correct pressure range (see section 'correct comfort setting')	
The system doesn't alternate	The hoses are connected and not kinked	Disconnect the hoses and re-connect them removing any kinks	Return the system to the nearest service station
The pump is noisy	The pump is not resting on a solid surface	Re-position the pump either on floor or hang on suitable surface	Return the system to the nearest service station

## User Service



### Fuses

The fuses are situated underneath the control unit. A suitable screwdriver is needed to change the fuses. To access the fuse unscrew the fuse holder cap anti clockwise. Exchange the fuse and screw carefully back clockwise. The product uses 1A, slow blow (T), 250V fuses.

## Service



### Service / Maintenance

 Risk of injury: Only authorised technical personnel should open this equipment.

When arranging a service or a repair please quote the serial number that can be found on the label underneath the pump or in the mattress cover.

## Warranty

The product has a warranty of 24 months for manufacturing errors. You need to contact the supplier at the earliest opportunity. The supplier will replace or repair the product free of charge depending on the failure that occurred.

Warranty is accepted if there is no user damage and if a regular maintenance schedule has been followed as advised by the supplier.

If the supplier does not accept warranty then the supplier will quote for the required repair work or replacement.



## Supplier Address

Direct Healthcare Services Limited

Unit 8, Withey Court

Western Industrial Estate

CF83 1BF

United Kingdom

Tel: 0845 459 9831

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Dyna-Form is a registered trade mark of Direct Healthcare Ltd.

Products undergo continuous further development. We therefore reserve the right to change the specifications of the product and the warranty conditions without prior notice.

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Manufactured in the UK