

Instruction Guide & User Manual



Curative Hybrid Very High Risk Mattress & Pump
Mattress Model: CS-HYB-MO
Pump Model: HYB-121/PUMP

CONTENTS

INTRODUCTION.....4
 Product Description
 Application
 Contra-Indications
 Working Principle

OPERATION.....5
 Static Mode
 Alternating Mode
 Profiled Bed – Clinical Considerations
 Installation
 Safety Instructions
 Pump Operation
 Mattress & Pump Characteristics

MAINTENANCE.....9
 Cleaning
 Maintenance & Repair
 Storage
 Transportation
 Other Considerations
 Parts & Accessories

WARNINGS & SYMBOLS.....11

TROUBLE SHOOTING.....12

COMPANY INFORMATION.....13

INTRODUCTION

Product Description

Designed, manufactured and sold by Care Shop - this amazing new product is designed with specific consideration towards heel damage and comfort for users at the heart of its capabilities. The usual benefits of a “hybrid” are naturally evident, providing a speedy delivery from a very high risk static mattress to that of a dynamic in a matter of seconds. As evidence suggests that heel damage can often be exacerbated with the use of true alternating system. Care Shop has chosen to uniquely combine a static “anti-shear wave management” device. When bed profiling occurs, even when adopting the Fowler position, heel damage can still occur. This unique patent pending design provides an innovative solution for Health care professionals, whilst coupling true comfort for patients.

The cyclical cells (x9) operate and deflate in a ten-minute alternating pattern, with a 1.5 minute equaling of cells in between the complete cycle, therefore providing direct pressure relief and patient stability throughout the whole dynamic process. The multi-stretch, vapor permeable cover, comprises of a high-level coating of polyurethane, which makes it easy to clean, whilst complying with strict infection control procedures. The rapid cell deflation system is unique in the sense that pressure relief happens much quicker than on a standard dynamic mattress system. This prompt deflation physically ventilates, thus allowing immediate relief between cycles, rather than awaiting deflation under patient weight as is often the case.

Application

This product is to be used for those patients who have existing tissue damage or pressure ulcers. It can also be used as a high / very high-risk preventative treatment item.

Contraindications

Patients with severe spinal injuries / fractures should not be using this product. Do not attach the mattress to the fixed part of the bed frame. It should be secured to the moving / working parts to ensure the bed can be profiled as required.

This product forms part of a holistic care package and should only be used by trained personnel. For training or further advice contact Care Shop on +44 (0)845 266 8744.

OPERATION

Working Principle

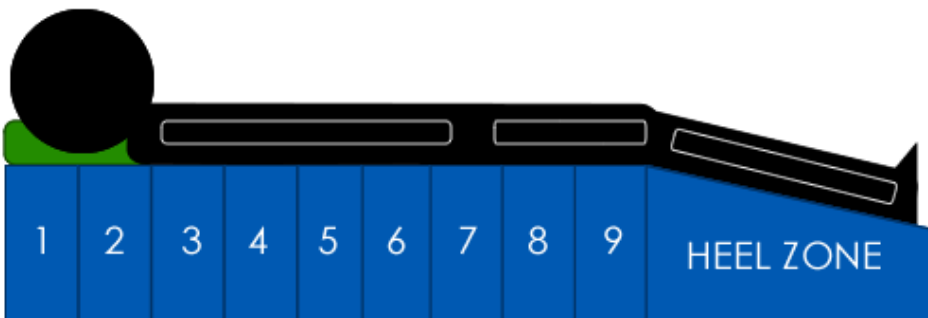
The dynamic mattress system consists of a dynamic air pump and an alternating air mattress. The air mattress has two distinct airway chambers:

1. Group A Chambers – Air tubes 2,4,6 & 8.
2. Group B Chambers – Air tubes 1,3,5,7 & 9.

A and B chambers alternate inflating and deflating by using the pump connected. This air alternating, mattress system enhances the blood circulation to treat and prevent pressure ulcers, when part of a holistic care package.

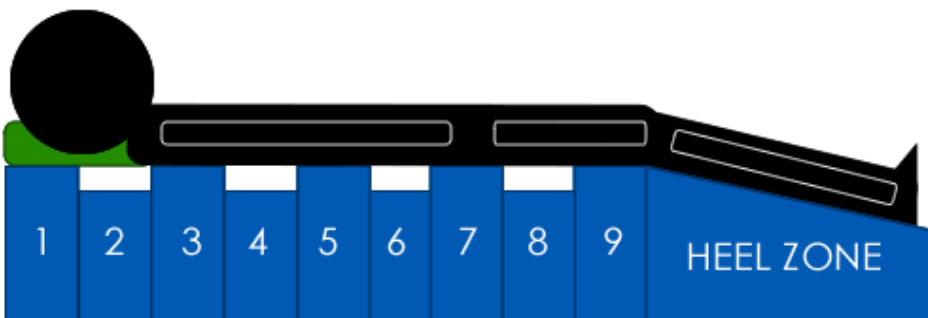
Static Mode

When the pump is adjusted to the static mode, air chambers A & B are both fully inflated until the maximum pump pressures are achieved. (Maximum pressures vary between different pump styles) Static mode is used for seating or patient transfer.



Alternating Mode

When started, both chambers A & B are initially inflated to the maximum pump pressure (Maximum pressures vary between different pump styles). Group A chambers deflate for 5 minutes followed by both A & B inflating for 1.5 minutes. This is followed by Group B chambers deflating for 5 minutes. This is one complete cycle.



OPERATION

Profiled Bed - Clinical and/or Carer Considerations

It is not advised to exceed 45 – degree angle on any dynamic / hybrid system (see below). unless the clinical condition dictates, (e.g. extensive breathing difficulties). Curative Hybrid Very High Risk Mattress will continue to operate beyond this but this may result in inappropriate patient setting and or product damage, not covered by warranty.



Installation

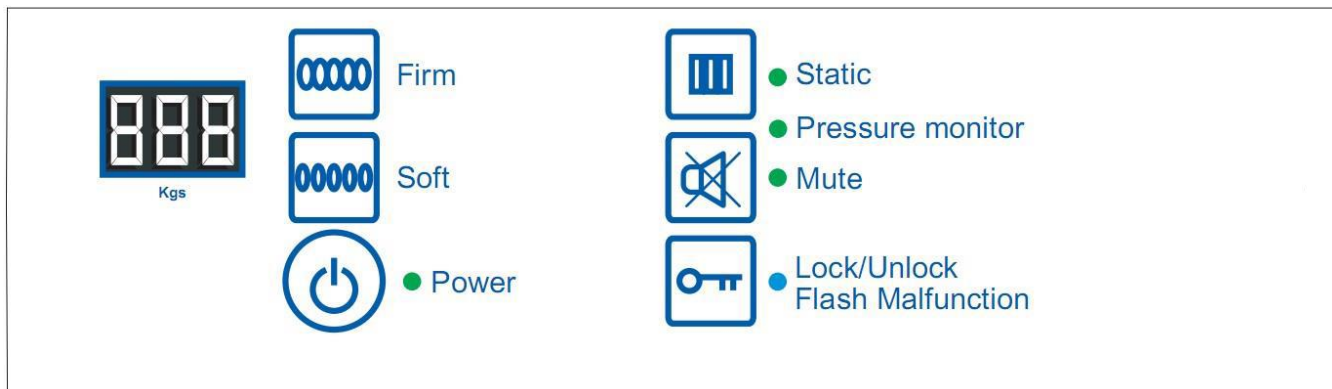
1. Remove all packaging & place the pump either at the end of the bed on its hooks or on a flat surface.
2. Ensure that there are no sharp or hard objects on the bed before unfolding the mattress & laying out flat. The air inlet should be located at the feet side of the bed.
3. The tubes should be connected securely in place without any signs of leakage.
4. Adjust the mode & pressure by the user's condition & weight to suit.

Safety Instructions

1. Ensure that there are no sharp objects, fire or abrasive materials in the vicinity. If the mattress is damaged. Remove the patient & transfer to an alternative mode of pressure relief.
2. If there is an issue with the pump, remove the patient & transfer to another mode of pressure relief.

OPERATION

Pump Operation



Power: Power On / Off

Soft / Firm: Pressure adjustment. Each single push adjusts $\pm 5\text{KG}$. Longer push adjusts $\pm 5\text{KG}$ rapidly.

Static: All tubes will inflate to maximum pump pressures (See page 8 for maximum pump pressures). No alternating takes place & the digital display will show "- - -". The pump will revert back to the previous alternating cycle after 30 minutes.

Pressure Monitor: The light is illuminated when pressure is normal & extinguished when pressure is abnormal. The light will continuously flash during the alternating cycle change-over.

Air Leakage / Low Pressure Alarm

- After working for 50 minutes and the pressure is lower than 15mmHg, the pump will alarm indicating an initialisation failure.
- During normal operation, when the pressure is lower than 6mmHg for 6 minutes, the pump will alarm indicating possible air leakage from the mattress.
- Pushing the mute key will silence the pump alarm.
- If the alarm sounds consistently and all attempts to remedy have failed, seek engineer assistance to rectify.

Power Off Alarm

The alarm will sound if power is lost to the pump.

OPERATION

Pump Characteristics

Pump	P09 Pump	P09+ Pump
Power	AC220V / AC110V	AC220V / AC110V
Pressure Range	10 – 52 mmHg	10 – 28 mmHg
Internal Fuse	F0.5A 250V	F0.5A 250V
Plug Fuse	3A	3A
Frequency	50Hz / 60 Hz	50Hz / 60 Hz
Power	8W	8W
Noise	≤45dB	≤45dB
Alternating Time	1 complete cycle is 11 ½ minutes which is 2 x 5-minute periods of alternative cell inflation with a change over time of 1 ½ minutes.	

Pump Pressures

P09 Pump

Weight (Kg)	Pressure (mmHg)	Weight (Kg)	Pressure (mmHg)
30	10	110	26
40	12	120	28
50	14	130	30
60	16	140	32
70	18	150	34
80	20	160	40
90	22	170	46
100	24	180	52

P09+ Pump

Weight (Kg)	Pressure (mmHg)	Weight (Kg)	Pressure (mmHg)
30	10	110	26
40	12	120	28
50	14	130	28
60	16	140	28
70	18	150	28
80	20	160	28
90	22	170	28
100	24	180	28

Due to the low pressure and sensitivity of the pump, tolerances of 20% are accepted within these models when conducting servicing and inspection protocol.

Mattress Characteristics

Pump	P09 Pump	P09+ Pump
Model	P09 pump & HH/MC Mattress	P09+ pump & HH/MC Mattress
Layers	2 – Hybrid cells with U-core	2 – Hybrid cells with U-core
CPR	1	1
Max Loading Weight	180 Kg	180 Kg

MAINTENANCE

Cleaning

Regular cleaning of the mattress is required as per the below instructions. Failure to follow these instructions may result in a void warranty situation.

STANDARD CLEANING PROCEDURE

Wipe down cover with a soft, disposable cloth which has been moistened with warm water & detergent (advisory at 40°C).

SEVERE INFECTION CONTROL PROCEDURE


Use a diluted solution of Sodium Hypochlorite (or similar) & fresh water (up to 10,000 ppm) In the following circumstances:

- Blood or bodily fluids has soiled the mattress
- Between different patients


Directions for use:

- Apply a fresh water base to the cover with a soft cloth
- Apply the solution
- Thorough fresh water wash down
- Ensure the cover is dried thoroughly


Machine wash
up to 85°C




Do not
dry clean




Occasional tumble
dry on low heat




Do not
bleach



Do not
iron



Do not
use phenol based
products such as
'Stericol' or Clearsol'



Maintenance & Repair

Maintenance & repair work should only be carried out by an appointed engineer who have been trained by Care Shop. and only original manufacturers parts should be used. Failure to do so could result in a void warranty situation.

Storage

Good ventilation will be required when storing the product & it should always be kept dry & away from direct sunlight. Temperature should be maintained in the region of 22°C ± 3°C when in use. Avoid repeat exposure to extreme temperatures.

MAINTENANCE

Transportation

- Care should be taken when loading, unloading and during transportation & refrain from placing heavy objects on top of the mattresses.
- Do not expose to direct sunshine for any period of time when loading and unloading & ensure a cover is used to protect the mattress when raining or snowing.
- Do not open with a knife or sharp objects as this may damage the mattress cover.



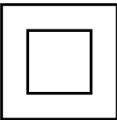





Other Considerations

- Original internal fuse is F0.5A 250V - (Plug 3A fuse). When replacing the fuse, ensure a similar type is used and that the fuse is disposed of in the appropriate manner.
- The mattress should be away from sharp objects to avoid any scratches or punctures.
- Put bed cover sheet or blanket over the mattress before use. No plastic or rubber sheets should be used.
- Ensure that all the tubes remain flat & any twists / kinks are avoided.
- If any air leakage is found, check all the tube connectors and air tubes carefully to see if any are loose or damaged.
- If any major problems or issues are found or the product is not working, stop using immediately and ask the engineer / manufacturer / provider for assistance.
- Any discarded mattress or covers should be treated in accordance with local rules and guidance in accordance with contaminated products.

Parts and Accessories:

- Mattress (1PC) / Pump (1PC) / Air tubes (1PC) / Mattress cover (1PC)

WARNINGS & SYMBOLS

	Warning – Follow guidance at all times as per the instructions within the user manual.
	BF application symbol – Provides a higher degree of protection against electric shock.
	Class II electrical appliance – Double insulated.
	Dispose of electrical equipment correctly (WEEE).
	Do not use broken or damaged electrical plugs or cables as this may lead to electric shocks.
	Ensure hands are dry before handling all electrical items.
	No exposure to water / splashing or it may cause electric shocks or fire.
	Only authorised / qualified personnel should dis-assemble, repair or rebuild this product.

TROUBLE SHOOTING

No.	Issue	Possible Cause	Possible Resolution
1	No power	<ul style="list-style-type: none"> The plug is not properly connected. Power Cut. The fuse is broken. The machine / system is broken. 	<ul style="list-style-type: none"> Make sure the power is correctly connected and the voltage is normal. Await re-connection of power / look at generator. Check the fuse, replace if broken. Call the local distributor for repair or replacement.
2	Air mattress leakage / Alarm Sounding	<ul style="list-style-type: none"> The mattress is not connected to the pump correctly. Air tube is disconnected or damaged. 	<ul style="list-style-type: none"> Check the tube connectors. Repair the air tubes or call for replacement.
3	Mattress is too hard or too soft	<ul style="list-style-type: none"> The air pressure is not adjusting to required level. 	<ul style="list-style-type: none"> Adjust the pump pressure according to the user weight until suitable and comfortable.
4	No full inflation after long inflating	<ul style="list-style-type: none"> Air hoses are loose or not connect properly. Air pump has not enough air pressure. 	<ul style="list-style-type: none"> Check all the air hoses and connectors. Adjust the pressure on the pump. If it is showing maximum pressure full inflation has not been achieved, the pump has a problem. Ask for repair or replacement.
5	Pump has strong vibration	<ul style="list-style-type: none"> The pump is not located on a flat area or not hooked properly on the bedframe. 	<ul style="list-style-type: none"> Put the pump on flat area or hook it in a suitable position on the bedframe.

COMPANY INFORMATION



Care Shop
Circle Court
Trafford Park Industrial Estate
Warren Bruce Road
Manchester
M17 1LB

Telephone: +44 (0)845 266 8744
Email: enquiries@careshop.co.uk

Disclaimer

Please be aware that all products should be disposed of in an environmentally friendly & infection control manner in compliance with any local or national requirements.