



**RELIEF AIRE**  
ALTERNATING PRESSURE SYSTEM WITH LOW AIR LOSS

## Operation Manual

H & R Healthcare  
1750 Oak Street  
Lakewood, NJ 08701  
Phone: 800-801-5533  
Fax: 732-367-6231  
[www.handrhealthcare.com](http://www.handrhealthcare.com)



Congratulations and thank you for purchasing this Relief Aire Alternating Pressure System with low air loss. PLEASE READ THIS OPERATION MANUAL CAREFULLY BEFORE SETTING UP AND USING THE DEVICE. Pay special attention to the warnings and other safety information. Use of genuine manufacturer components is essential for optimal performance. If you do not fully understand all the instructions, safety precautions, and warnings, do not use this device. If you have any questions or concerns, please contact H & R Healthcare at 800-801-5533.

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# 1.0 Indications



Attention: Please read enclosed document thoroughly



Medical equipment with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1 and CAN/CSA C22.2 NO 601.1



Declaration of Conformity to Medical Device Directive



International Electronics Approval



Do not immerse power unit in liquid or spray liquids directly on power unit



Protective Ground Wire



Type BF Equipment

## Indications

This alternating pressure system with low air loss is designed to treat and prevent wounds by facilitating blood circulation and decreasing pressure of each tissue's contact area. Always consult a physician or health professional before using this mattress system.

## Contraindications

This device is not indicated for treatment of certain patient conditions such as fracture of unstable vertebrae and illness of unstable vertebrae. Always consult a physician or health professional before using this device.

## 2.0 Safety Precautions

1. To ensure proper operation, please inspect and verify that all parts are set up properly and are anchored securely. Do not place anything on top of the power unit. Make sure power cord is underneath bed frame and does not pose a hazard.
2. It is recommended to limit bed linens to a single layer in order to allow moisture to escape efficiently through the coverlet. Breathable incontinent pads are recommended for use with this mattress system.
3. Avoid using this device near open flames, lighters, or cigarettes. Flammability hazard exists. This device draws air from the surrounding environment. Thus, cigarette smoking may damage internal components.
4. This system should be disinfected thoroughly between patients to avoid cross contamination.
5. Verify that patient weight does not exceed the weight capacity

of the bed frame, bed rails, or this mattress system.

### 3.0 Warnings

1. *Use this mattress with proper side rails to ensure that the gap between the side rail and the top of the mattress is not large enough to pose risk of head or neck entrapment. Failure to do so could result in serious patient injury.*
2. DO NOT disassemble the power unit if you are not a qualified technician. Please contact H & R Healthcare for all service.
3. This product is NOT AP/APG protected.
4. It is recommended that the patient be repositioned periodically while using this mattress.
5. Incorrect battery replacement may result in risk of explosion. Replace only with same or equivalent battery type recommended by the manufacturer.
6. If the equipment needs maintenance, contact H & R Healthcare as soon as possible. For equipment that is no longer functional, make sure to follow national and/or state requirements for disposal of the unit.

**CAUTION: ENSURE THAT THERE ARE NO PROTRUDING OBJECTS, SHARP POINTS, OR BED SPRINGS UNDER THE MATTRESS AS THESE COULD PUNCTURE THE AIR CELLS.**

### 4.0 System Package

#### Power Unit Package

- Power Unit x 1
- Power Cord x 1
- Operational Manual x 1

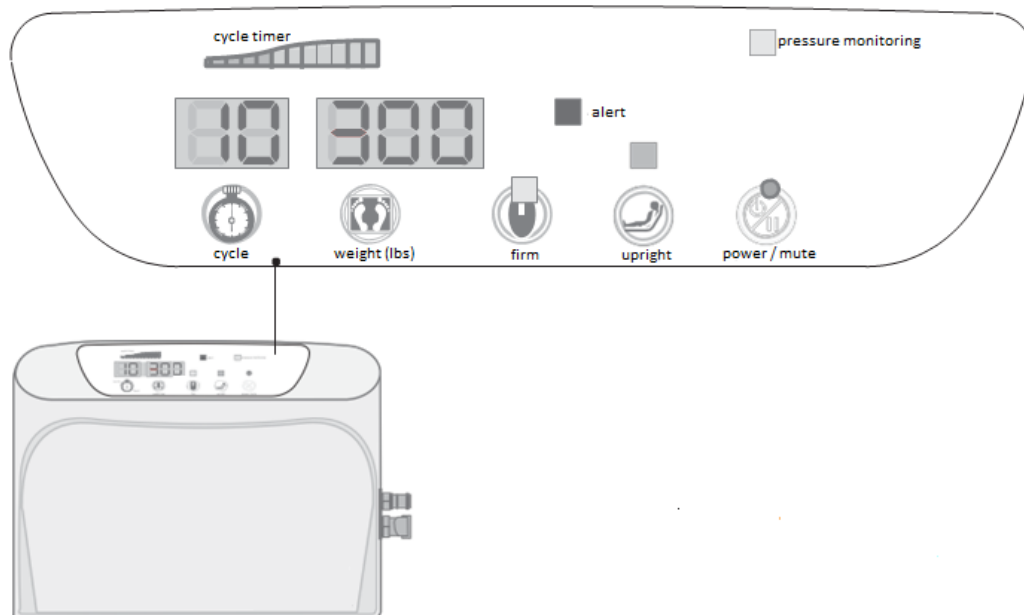
#### Mattress Package

- Mattress replacement unit with coverlet x 1

The air mattress operates at a max of 100° F.

## 5.0 Features

### Control Panel Features



#### Power/mute

Press the power/mute button to turn on the power unit and the green LED will light up. In the event of an abnormal power outage, the LED will change to orange, and an audible alarm will sound to notify medical staff. You may press power/mute button to turn off the audible alarm, or it will sound until power is restored or rechargeable battery is activated. Memory recall function recalls the previous setting after abnormal power outage or after the main power rocker switch is turned off. The mute function is only functional when audible alarm is in effect.

#### Weight (lbs)

Simply press the weight (lbs) button to adjust the patient weight to a maximum of 450 lbs. This number is for reference only! Please adjust the weight setting if the mattress is too soft or too firm to suit each individual patient. Caregivers should always perform a hand check by placing their hands underneath patient's pelvis area to check if there is sufficient air support to ensure the patient is not bottoming out.

#### Upright

Upright mode is used to prevent patient from bottoming out in upright position. Once the upright button is pressed, the green LED will light up to indicate that this mode is in operation. Make sure that the upright mode is switched

off when the patient is lying down to avoid incorrect pressure setting.

### Firm

Press firm button to inflate the mattress rapidly to maximum pressure; the yellow LED will light up to indicate this mode is in operation. Press the button again to restore the original setting or this mode will disable automatically after 20 minutes if unattended.

### Cycle

Use this function to set the alternating cycle time from 10 to 20 minutes to meet each patient's needs; set to "0" for static mode.

### Alert LED

This low pressure alert notifies medical staff that the mattress has insufficient pressure. An audible alarm will sound for 15 seconds at each cycle and the indicator will stay on until the problem has been resolved.

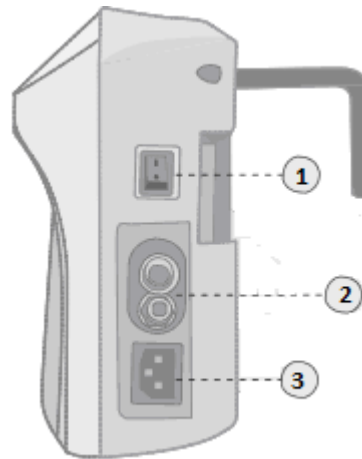
### Pressure monitoring LED

Power unit features an integrated pressure sensor which monitors the mattress' internal pressure to ensure maximum pressure relief. LED indicates that the system is monitoring the mattress' internal pressure while the compressor is inflating.

### Cycle timer LED

This shows the count down of cycle time; light will be off in static mode.

## Right Side Panel Features



### Rocker Switch (1)

Power unit's main power switch.

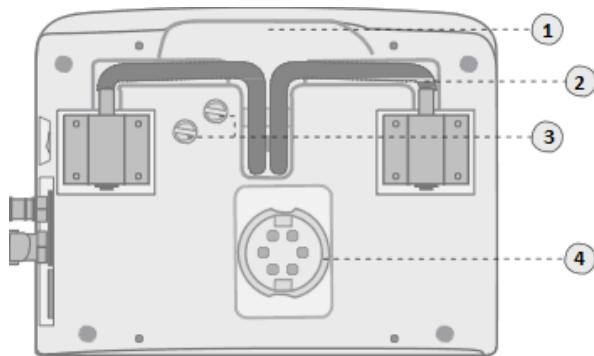
### Couplers (2)

Quick release female couplers are used to secure mattress air hoses to power unit.

### Power Receptacle (3)

Insert power cord firmly into receptacle.

## Rear Panel Features



### Convenient Handle (1)

The handle provides additional gripping surface for user to carry the power unit.

### Hanging Hooks (2)

Hanging hooks are designed to hang the power unit on most foot boards.

### Fuse (3)

Fuse Holder.

### Air Filter and Cap (4)

H & R Healthcare recommends that the filter be kept clean to ensure optimal performance of the power unit.

## 6.0 Mattress and Power Unit Installations

1. Remove existing mattress from bed frame.
2. Place H & R Healthcare mattress replacement on the bed frame with the logo at foot end. Secure the mattress at each side using

anchor straps. Ensure that the anchor straps do not interfere with any moving parts of the bed frame before proceeding to the next step.

3. Secure the power unit onto the foot board using hanging hooks.
4. Verify that the mattress' CPR latch is firmly inserted and the CPR tag is in place.
5. Firmly connect the air hose couplers to the couplers on the power unit.
6. Plug the power unit into an electrical outlet, and turn on the main power rocker switch on the right side of the power unit.
7. Press power/mute button to inflate the mattress system. Please wait approximately 30 seconds until the power unit is ready before making any program adjustment.
8. Wait approximately 30 minutes for the mattress to inflate fully.

## 7.0 Program Settings

1. Place the patient in the center of the mattress. Adjust the mattress' internal pressure according to the patient weight by using the weight (lbs) button on the control panel of the power unit. If the mattress is too soft or too firm, increase or decrease the mattress' internal pressure one increment at a time



and wait for the system to stabilize before making another change. Continue this process until comfort is achieved.

2. Caregivers should always perform a hand check by placing their hands underneath patient's pelvis area to check if there is sufficient air support to ensure the patient is not bottoming out.
3. **IMPORTANT: TUCKING THE SHEET IN TOO TIGHTLY REDUCES THE EFFECTIVENESS OF THE SYSTEM.**

## 8.0 Patient Transfer and Transport

### Transfer

It is recommended to have the mattress system in firm mode during transfer. Make sure the bed is secured before proceeding.

### Transport

In the event of a patient transport, two options are available.

1. Detach the mattress' air hose couplers from the power unit's quick release couplers and connect the two air hose couplers together to retain air in the mattress. The mattress will stay inflated for approximately 2 hours, depending on the patient's weight.
2. Unplug the power unit's power cord from the wall outlet and the mattress should stay inflated for

approximately 40 - 50 minutes. This mattress system also has a safety foam base underneath the air cells to support the patient for a short period of time in case of deflation. To resume normal operation, please follow 7.0 Program Settings.

## 9.0 Emergency CPR Deflation

In case of emergency, pull hard to remove the mattress' CPR latch for emergency deflation, and turn off the power unit by pressing the power/mute button on the control panel at the same time. The mattress will deflate from the weight of the patient. To resume normal operation, simply reinsert the CPR latch securely, press the power/mute button again and reset the patient weight.

## 10.0 Cleaning Instructions

Air mattress and power unit must be cleaned thoroughly between patients to avoid cross contamination. The following is a suggested guideline. Be sure to follow local infection control policies.

Regular cleaning can be performed at bedside with disinfectant followed by drying with a clean dry cloth. Use only mild detergents to clean the coverlet and the mattress. Any appropriate NON-PHENOLIC

cleaning agent may be used for heavy soiling from urine, blood, or other bodily fluids. Please ensure that air mattress and coverlet are completely dry before letting the patient lie on the surface again.

Do not use electric or tumble dryers. Do not iron.

**WARNING!** Always unplug the power unit before cleaning. Routine cleaning of power unit can be done by wiping down with damp cloth using disinfectant or mild detergent. Never spray liquids directly on the unit itself.

## 11.0 Routine Maintenance

Remove air filter from the rear panel of the power unit by opening up the filter cap. Inspect the filter for dirt or dust, and clean it with mild soap and water. Reinsert the dried air filter after cleaning and ensure that the cap is secure. If a replacement is needed, contact H & R Healthcare.

Only disinfected and dry systems should be stored. Disconnect the air hoses from the power unit. Roll up the mattress starting from the head end and working down toward the foot end. Use the straps to secure it.

## 12.0 Troubleshooting

Problem	Inspection Procedure	Possible Solutions
1. Power unit is not working.	Check if power cord is firmly plugged into both the control unit and the electrical outlet.	Secure power cord into control unit and/or electrical outlet.
	Check if the power switch is in the ON position.	Turn power switch to ON position.
	Check if power surge has shut down the power unit.	A power surge may overload the circuitry temporarily. Turn the unit off, and check the fuse for damage. Turn the unit on again with normal procedure.
	Make sure there is no power failure.	
	Power unit does not respond to possible solutions.	Please contact H & R Healthcare for assistance.

2. Low Pressure alert does not turn off after 30 seconds after the system is turned on.	Possible control failure.	Please contact H & R Healthcare for assistance.
3. Alert LED is lit during operation.	Check if there is leakage in air tubes connecting the power unit to the air cells or in the individual air cells.	Please contact H & R Healthcare for assistance.
4. Power unit is working, but mattress replacement is not inflating  and/or Bottoming out is occurring  and/or Patient leaves a deep indentation at the contact area which does not return back to its original shape.	Verify that CPR latch is properly inserted.	Insert CPR latch securely.
	Check if mattress' air hose couplers are properly connected to power unit's quick release couplers.	Secure air hose couplers firmly into place.
	Verify that patient weight setting is correct.	Increase or decrease weight setting until appropriate pressure is reached.
	Inspect air filter for dust.	Clean or replace air filter.
	Lift mattress coverlet to check if air cells are connected correctly.	Make sure all air cells are properly linked to air supply.
	Lift mattress coverlet to check if air tubes are kinked or obstructed.	Check and adjust air tubes' positions.
	Check if air cells are cut or cracked.	Please contact H & R Healthcare for assistance.
5. Alternating or static setting is not available.	Possible control failure.	Please contact H & R Healthcare for assistance.
6. Patient's wounds are not responding to pressure relief (reddening of skin).		Contact your physician and/or nursing service immediately.

## 13.0 Returns for Service

Service and repair must be performed by an H & R Healthcare authorized technician or representative. Please contact H & R Healthcare at 800-801-5533.

## 14.0 Warranty

H & R Healthcare warrants this product against manufacturer defects for one year from the date of placement.

Please inspect this product upon purchase and notify H & R Healthcare if there is any damage or missing parts.

Warranty coverage will not be extended to any product on which the production lot number has been removed or defaced, on which repair has been attempted by any person or agency not authorized by H & R Healthcare or, if in the sole opinion of H & R Healthcare, the system shows evidence of tampering, abnormal or unreasonable abuse, negligence, accident or operation without regard for the restrictions specified in the instructions which accompany the system. This warranty does not cover routine maintenance such as cleaning, adjustment, lubrications, and updating of equipment or parts. If, in the sole opinion of H & R Healthcare, the damage is not covered under this warranty, the purchaser will be responsible for labor and parts costs.

The warranty stated above is the only warranty made and is in lieu of all other warranties whether expressed or implied. H & R Healthcare, nor any of its agents, shall be held liable for consequential or incidental damages of any kind.

## 15.0 Product Specifications

### Mattress Dimension (MSR204)

80"/84" x 37" x 7.5"

### Number of Air Cells

20 Air Cells

### Power Control Unit Dimension (SR361)

11.5" x 8.5" x 4.5"

### Integrated Foam

2"

### Material

Power Unit - ABS fire retardant UL  
Mattress Cell - 100 % nylon with TPU lamination  
Coverlet - 100% nylon with PU backing

### Power /Input

AC100 - 120V / 60Hz  
AC220 - 240/V / 50Hz

### Power Consumption

Normal Operation: Max 1.0A

### Power Control Unit Weight

5.5 lbs

Fuse Rating

T1A / 250 V

Electrical Classification

Class 1 Type BF.

IPX0, do not immerse power unit in any liquid or spray any liquids directly on the power unit.

This system is not AP/APG Protected.

Continuous operation.

Agency Approval

EN60601 - 1, EN60601 - 1 - 2, EN61000 - 3 -2, EN61000 - 3 - 3, UL - 60601 - 1

Complies with Cal. Tech. Bulletin #117

Electromagnetic Compatibility

EN60601 - 1 - 2: 1993

Maximum Weight Capacity

450 lbs

H & R Healthcare reserves the right to change prices or design parameters and specifications without incurring any liability in connection with such modifications.