Warning

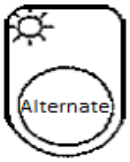
- Connect the Master Control unit to a proper power source
- Do not use the system in the presence of any flammable gases (such as Anesthetic Agents)
- Keep the pump and mattress away from sources of liquid and open flames
- The device is not AP/APG protected
- Keep the mattress system away from heating devices

⚠ Caution

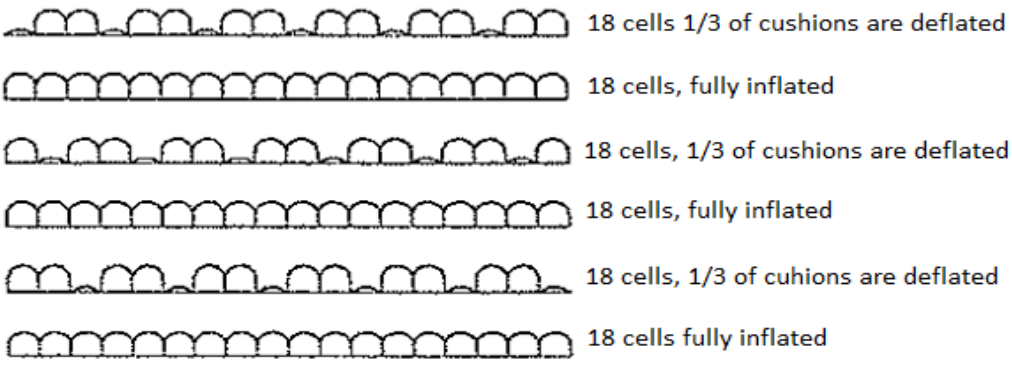
- Consult clinical instructor before use of the mattress
- Support surfaces should always be used in conjunction with a care plan that includes the turning/repositioning of the patient over a 24 hour period
- The control unit should only be repaired by an authorized distributor
- Do not drop the control unit or store it in direct sunlight or in extreme cold conditions

1. Product Description

The Rhythm Multi system is a unique and innovative specialized mattress replacement unit. The system utilizes low air loss technology with a high flow rate that provides pressure management for the treatment of pressure ulcers. The advanced 3:1 alternating function also provides active prevention for pressure relief, especially for those in acute care and long term care settings (the cells inflate and deflate in a 3:1 cycle, meaning 2/3rds of the body is always supported at any one time). The Rhythm Multi system offers “deep-cell therapy”; whereby, the cells completely collapse providing “0” pressure at the point of deflation. The soft-firm adjustment allows the patient to adjust the firmness or softness of the surface for optimal comfort through 1- digital scales. The surface also has 2 inches of enclosed convoluted foam to provide extra protection and comfort for the patient in the event of a power failure and the mattress deflates.



3-1 Alternation Cycle illustration



Control Unit Features (Pump)

- Alternating time can be adjusted in 3 min. increments to 95 min. In addition, the caregiver can select the “Static Function” stopping the alternating function and providing only low air loss therapy
- Pulsation
- The auto firm function provides uniform firmness for nursing procedures
- Power failures produce an audio alarm for added safety. The alarm can be disabled by pushing the ALARM RESET button on the front panel
- Double insulation provides near silent operation
- The foot board mounting rack provides convenient placement on the bed

Master Control Unit

Model No.	Rhythm • Multi
Size(cm)	45(L)x17.3 (W)x27.5(H)
Weight (kg)	5.8
Phase time	3 ~ 95
Rated voltage	AC 110-120V
Rated frequency	60 Hz
Max current	5A
Fuse rating	5A 250V
Classification	Class I, Type BF 
Operation temperature	15°C - 35°C
Operation humidity	30% -75%
Mode of operation	Continuous
Max. pressure	70mmHg
Max. operating pressure	55mmHg
Standard	IEC 60601-1 CAN/CSA C22.2 No. 601.1, IEC 60601-1-2

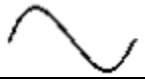
Mattress Features

- Individual air cushion designed for maximum pressure redistribution
- Air cells are vented to provide low air loss therapy
- Each air cushion is vented to provide true low air loss therapy
- Happy heel
- Slip sheet bottom provides easy transfer

Alternating Mattress Replacement

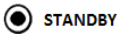
Model No.	FM-PHR0009
Size(cm)	89(W)x203(L)x24(H)
Weight (kg)	21 kg
Cells Material	Nylon w/PU backing
Cover Type	Zipper cover with removable foam base
Cover Material	Nylon woven fabric w/PU coating finish
Base Material	Woven Polyester fabric w/PVC backing

Symbol Definition

	Refer to Accompanying Document
	Waste Disposal
	Type BF Applied Part
	Alternating current
	Warning

2. Instructions for Proper Use

2.1 Remove the existing mattress from the bed frame
2.2 Replace the standard mattress replacement system (orient mattress so that the air tube is at the foot of the bed
2.3 Secure straps beneath the mattress to the bed frame
2.4 Hang the control unit on the foot board of the bed frame
2.5 Attach the air tube connectors to the socket on the left panel of the control unit (connectors and sockets are colour coated)
2.6 Verify that air hoses are not kinked under the mattress
2.7 Attach cover to mattress
2.8 Plus in the control unit and turn on the master power switch on the right side panel (the STANDBY LED will illuminate)

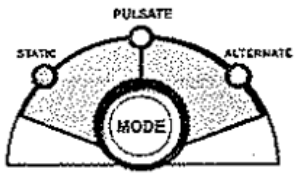


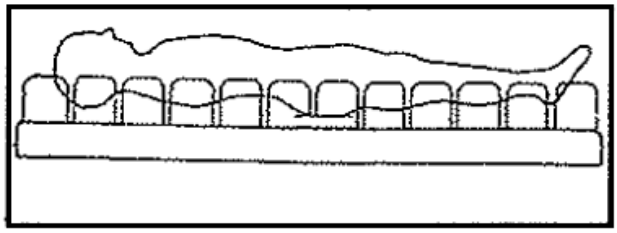
2.9 Push the STANDBY/OPERATE button on the front panel (OPERATED LED will now be illuminated and the control unit will be in operation)

2.10 Push the AUTO FIRM button for fast inflation.
Allow 4-7min for full inflation. After the mattress is fully inflated, the caregiver can transfer the patient to the mattress
(Note: the mattress can be inflated while a patient is laying on it)

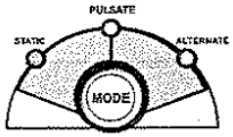
2.11 Push AUTO FIRM again to release the fast inflation mode
2.12 Alternation time can be adjusted by the CYCLE TIME button →

2.13 **Static Function**: Push the Mode button to select static mode and adjust the Comfort Control by pressing SOFT/FIRM button to achieve the maximum patient comfort. On the mode the system provides TRUE Low air loss Therapy. Perform a hand check by placing hand under the patient's buttocks between cells and foam. The patient should have at least 4cm of clearance between the buttocks and the bottom of the mattress.

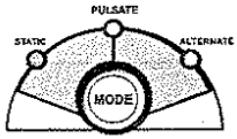




2.14 **Pulsate Function**: Push the Mode button to select pulsate mode and activate the pulsate function for additional pressure relief. Once activating the function, the mattress will be automatically deflating for low air flow loss for about 1 minute and after that, it will inflate to original press setting for one minute and go on for next cycle.



2.15 **Dynamic Function**: Push the Mode button to select Alternate mode and enable the 3-1 alternate function. This function should always cope with the work time.



2.16 Alternation time can be adjusted by the CYCLE button. The time can vary from 3 minutes to 95 minutes. (If Static Function is selected, the time window would not show any figure; if Alternation is selected the time shown and the total cycle time would approximately be the mode time multiplied by 2.

2.17 The Master Control Unit is equipped with power failure alarm. With the function enabled, the Control unit generates a horning sound to remind the operator that the main power has failed. The alarm can be disabled by pushing the Alarm Reset Button on the front panel

2.18 **LOCK-OUT**: The Master Control Unit is also equipped with a manual locking-out function. All function keys will be automatically disabled if the LOCK-OUT button has not been touched. When lock-out has been engaged, the "LOCK-OUT" button will illuminate.

UNLOCKING: Unlocking the control panel is easy. Simply press the "LOCK OUT" button on the control panel for 3-5 seconds or recycle the power by turning it off and on by the main power switch.

2.19 CPR Deflation: For quick mattress deflation, disconnect the hose connector from the controller and release the CPR quick deflation valve.

Suggestions
Ensure that there are no kinks in the hoses and the connectors are properly locked. The parts and/or accessories supplied are specifically designed for used with this control unit.
CAUTION Air outlet label ⚠ is Blower Exhaust; do not touch the blower exhaust during operation as the temperature can be high while operating.

3. Cleaning

Mattress Overlay

The mattress should be cleaned on the bed weekly using a damp soft cloth and mild detergent. If the top or bottom cover becomes severely soiled remove, clean as follows, and replace with a clean cover. Covers can be washed and thermally disinfected in a washing machine. (Never use phenol based cleaning solutions)

Industrial cleaning

Break wash	cold	10 mins
Main wash	60° C	6 mins
Main wash	72° C	10 mins
Extraction		2 mins
3 cold rinses		
Extraction		5 mins

Domestic cleaning

Pre-wash	cold	
Main wash	72° C	10mins
Extraction		2 mins
Cold Rinses		
Extraction		5 mins

Article I. Mattress cells can be wiped with a solution of sodium hypochlorite 1000ppm or any other non-phenolic germicidal solution.

⚠ CAUTION

SWITCH OFF THE ELECTRICAL SUPPLY TO THE PUMP AND DISCONNECT THE POWER CORD FROM MAIN SUPPLY BEFORE CLEANING

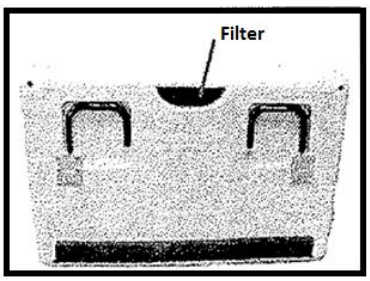
The easing of the pump is manufactured from ABS plastic. If soiled it can be wiped down with sodium hypochlorite solution to dilution of 1000ppm or any EPA approved, hospital grade. The air filter should also be cleaned and checked as often as possible at a minimum of every six months. Air Filter can be removed by pinching the centre of the filter and pulling outward from the back of the Therapy control unit.

Cleaning procedure for the air filter

1. Remove air filter and replace with a new filter
2. Use a soft bristle brush to remove dust and difficult dried-on soil

(Do not use phenol based cleaning solutions)

(Switch off the electrical supply to the pump and disconnect the power cord from the main supply before cleaning and inspection)



4. Storage and Care

Control Unit

- Check the power cord and plug for abrasions and excessive wear
- Plug in the unit and verify air flow from the hose connection ports
- Place in plastic bag for storage

Mattress Replacement System

- Check the air manifold for kinks or breaks. Replace if necessary
- Disconnect the hose connector from the Pump Unit and release the CPR quick deflation valve. Starting at the head of the mattress roll towards the foot of the bed. Use the base mounted straps to secure
- Place the system in a plastic storage bag

It is recommended that the following guidelines are used whenever the system is being stored or transported to another location

Temperature limitations	5° C – 60° C
Relative humidity	30% - 75%

5. Waste Disposal

This product has been supplied from an environmentally aware manufacturer that complies with the WEEE (Waste Electrical and Electronic Equipment Directive). This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to the legislation. Please be environmentally responsible and recycle this product through your recycling facility at its end of life.

6. EMC related notifications

<table>
<tr><th colspan="3">Guidance and manufactures declaration – electromagnetic emissions</th></tr>
<tr><td colspan="3">The air pump is intended for use in the electromagnetic environment specified below.
The customer or the user of the air pump should assure that it is used in such as environment</td></tr>
<tr><td>Emissions test</td><td>Compliance</td><td>Electromagnetic environment - guidance</td></tr>
<tr><td>RF emissions
CISPR 11</td><td>Group 1</td><td rowspan="2">The air pump 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.</td></tr>
<tr><td>RF emissions
CISPR 11</td><td>Class B</td></tr>
<tr><td>Harmonic emissions
IEC 610000-3-2</td><td>Class A</td><td rowspan="2">The air pump is suitable for use in all establishments, including domestic establishment and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes</td></tr>
<tr><td>Voltage fluctuations/flicker emissions IEC 61000-3-3</td><td>Complies</td></tr>
</table>

Guidance and manufacturers' declaration – electromagnetic immunity			
The air pump is intended for use in the electromagnetic environment specified below. The customer or the user of the air pump should assure that it is used in such an environment.			
***Immunity* Test**	**IEC 60601 Test level**	**Compliance level**	**Electromagnetic environment – guidance**
			Portable and mobile RF communications equipment should be used no closer to any part of the air pump, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Conducted RF IEC 61000-4-6	3 Arms 150 kHz to 80 MHz	3 Arms	**Recommended separation distance** $d = 1.2\sqrt{P}$
Radiated RF IEC 61000-4-3	3V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 800 MHz to 2.5 GHz 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 metres (m) Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol 
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. 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 and electromagnetic site survey should be considered. If the measured field strength in the locations in which the air pump is used exceeds the applicable RF compliance level above, the air pump should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the air pump. b. 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 equipment and the air pump

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

Rated Maximum output of power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d= 1.2 \sqrt{p}$	80MHz 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 metres (m) can be estimated using the equation applicable to the frequency of the transmitter, whereas *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.
NOTE 1: at 80 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.

7. Maintenance and Troubleshooting

No daily maintenance is required. The equipment should only be serviced by authorized technical personnel. In case of minor problems refer to the following.

Symptom	Inspection Procedure	Possible Solutions
The air is flowing out from the control unit but the mattress is not inflating.	1. Is the power source correct? Improper voltage may cause the pump to function abnormally and damage the control unit 2. Do the air tubes allow smooth airflow? Is an air tube kinked? 3. Is there any air leakage from the air cells? 4. Is there any air leakage from air tube between mattress and control unit? 5. Has the air tube been connected properly?	1. Use power regulator 2. Adjust the air tubes to enable smooth air flow 3. Replace with newer air tubes 4. Replace with new air tubes 5. Re-connect the air tubes
The Control Unit is not working	1.Check the power cord and the power voltage 2. Check the fuse	1. Use a power regulator 2. Replace with a new fuse
Some air cells have abnormal low air pressure while the air pressure for other air cells is normal.	1. Is the connection between air cells and the manifold kinked? 2. Is there any air leakage from the air cells?	1. Adjust the connection between cells and manifold 2. Replace with a new air cell

8. Warranty

- Blake Medical Distribution guarantees that this equipment is free from defects in materials and workmanship. Our obligation under this warranty is limited to the repair of equipment returned to the place of purchase within 24 months of delivery date
- We agree to service/adjust any equipment returned, and to replace or repair any part that is proven to be a warranty defect, at no charge
- This warranty excludes equipment damage through shipping, tampering, improper maintenance, carelessness, accident, negligence or misuse, or products that have been altered repaired or dismantled other than with the manufacture's written authorization and by its approved procedures and by properly qualified technicians
- In no event shall Blake Medical Distribution be liable for any direct, indirect or consequential damages or losses resulting from the use of the equipment