

An Anodyne Medical Device Company



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Distributed by:

Anatomic Concepts, Inc. 1691 North Delilah Street Corona, CA 92879 ReactiveAir Pro

Convertible Powered/ Non-Powered Dynamic Mattress System

U-SUS04-AC03-10 Printed in Taiwan Operation Manual

# ReactiveAir Pro

PLEASE READ THIS OPERATION MANUAL CAREFULLY BEFORE SETTING UP AND USING THIS DEVICE. Pay special attention to the warnings and other safety information. Only use Genuine Anatomic Concepts, Inc. Replacement parts and accessories; a reference list is included with this Manual for your convenience. IF YOU DO NOT FULLY UNDERSTAND ALL THE INSTRUCTIONS, SAFETY PRECAUTIONS, AND WARNINGS, DO NOT USE THIS DEVICE. IN THE UNITED STATES, PLEASE CALL CUSTOMER SERVICE AT 1.800.621.4844. INTERNATIONAL CUSTOMERS PLEASE CALL 405.840.2600.



# **NOTES:**

# **NOTES**:

OPERATION MANUAL - ENGLISH

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# 1.0 SYMBOLS REFERENCE



Attention! Please read accompanying documents



Double Insulated (Class II)



**Functional Ground** 



Type BF Equipment



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



Declaration of Conformity to Medical Device Directive



Underwriters Laboratory Agency Approval (United States/Canada)



International Electronics Approval

### **Indications:**

This device is indicated to assist in the treatment and/or prevention of pressure ulcers as part of a holistic program of pressure ulcer management. Always consult a physician before using this device.

### **Contraindications:**

Certain patient conditions (e.g. unstable cervical fracture) are contraindicated for use with this device. Always consult the patient's physician prior to use.

# 2.0 SAFETY PRECAUTIONS

### Installation:

Verify mattress anchor straps are attached to bed frame securely. Test all bed frame functions to verify no interference. Do not place anything on the power unit. Route power cord underneath bed frame and verify freedom from hazard. See Section 8.0 of this Manual ("Installation") for further installation instructions.

### **Bed Linens:**

This device incorporates a waterproof cover that is moisture vapor permeable; therefore it is recommended to limit bed linens to one sheet in order to maximize the system's performance. NOTE: Only "breathable" incontinent pads are recommended for use with this device.

# ① Open Flames:

Do not expose this device to open flames or cigarettes. This device draws room air continuously therefore cigarette smoke can damage internal components and is not permitted near this device. Cigarettes may ignite bed linens. CAUTION: DO NOT SMOKE CIGARETTES, PIPES, CIGARS, OR ANY OTHER RELATED PRODUCTS ON OR AROUND THIS SYSTEM. FLAMMABILITY HAZARD EXISTS.

#### **Cross Contamination:**

This device should be decontaminated between patient installations. Refer to section 15.0 of this Manual ("Cleaning Instructions") for proper instructions. Failure to disinfect may result in cross contamination.

### **Bed Frame Consideration:**

Verify that the patient weight, therapeutic support surface, bed rails, etc. do not exceed weight capacity of bed frame. Verify patient weight does not exceed this device's weight capacity.

# **16.0 Product Specifications**

### Model:

### ReactiveAir Pro

Mattress Dimensions:

80" x 36" x 7"

Power Unit Dimensions:

10" x 8.75" x 3.5"

Power Input:

AC 100-120 V / 60Hz

Power Consumption:

Normal Operation: Max: 8 W

Power Unit Weight:

5 lbs

Power Cord:

13' SJT #18AWG with hospital grade 3 prong plug

Fuse Rating:

T1A/250V

Operating Ambient Temperature Range: 60°-90° Fahrenheit

Electrical Classification:

- Class I, explosion risk if used in the presence of flammable anesthetics
- Type BF equipment
- MEDICAL EQUIPMENT, classified with respect to electric shock, fire and mechanical hazards only, in accordance with UL60601-1, CAN/CSA C22.2 No. 601.2
- IPXO, do not immerse power control unit in any liquid or spray any liquids directly on the power control unit.
   This system is not AP/APG protected
- Continuous operation

Agency Approval:

UL+cUL (UL60601-1), EN60601-1

Electromagnetic Compatibility:

- Meets EN60601-1-2:1993
- (CISPR 11 Classified as Class A, Group 1 ISM equipment)

Maximum Weight Capacity:

400 lbs

# 14.0 RETURNS FOR SERVICE

This device is NOT user serviceable. SERVICE AND REPAIR MUST ONLY BE PERFORMED BY AN AUTHORIZED ANATOMIC CONCEPTS, INC. TECHNICIAN OR REPRESENTATIVE. All service issues should be referred to your local Anatomic Concepts, Inc. dealer. All returns to Anatomic Concepts, Inc. must have a Return Material Authorization (RMA) Number issued by Anatomic Concepts, Inc. Customer Service. Products must be cleaned and disinfected prior to shipping. Unsanitary or soiled systems will be returned without servicing.

# 15.0 WARRANTY

Anatomic Concepts, Inc. warrants the ReactiveAir Pro systems to be free from defects in materials and workmanship from the date of purchase. The ReactiveAir Pro systems are warranted for a period of twelve (12) months.

Anatomic Concepts, Inc. standard warranty is extended to the original buyer purchasing the equipment directly from Anatomic Concepts, Inc. or through its authorized dealers. All warranty periods, where applicable, commence on the date of purchase from Anatomic Concepts, Inc.

Anatomic Concepts, Inc. sole obligation and liability under this warranty is limited to (at Anatomic Concepts, Inc.'s option) the repair or replacement by Anatomic Concepts, Inc. authorized personnel of any parts or assemblies, which upon test and examination by Anatomic Concepts, Inc., prove to be defective. This equipment may be returned prepaid to Anatomic Concepts, Inc. after notification has been given and approval obtained for the return. Please call your Anatomic Concepts, Inc. sales representative or Customer Service to arrange for warranty service.

This warranty does not cover normal maintenance such as cleaning, adjustment, or lubrication and updating of equipment or parts thereof. This warranty shall be void and not applicable if the equipment, including any of the parts, is modified without Anatomic Concepts, Inc. authorization; is attempted to be repaired by personnel not authorized by Anatomic Concepts, Inc.: is not maintained in accordance with the prescribed schedule; is used with accessories or parts not authorized; or is damaged due to misuse, mishandling, abuse, negligence, accident, fire, or inadequate packaging by owner for shipment. All reasonable freight charges for valid warranty returns will be reimbursed. Anatomic Concepts, Inc. makes no quarantee of clinical results.

THE WARRANTY STATED ABOVE (IN-CLUDING ITS LIMITATIONS) IS THE ONLY WARRANTY MADE BY ANATOMIC CON-CEPTS, INC. AND IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANATOMIC CONCEPTS, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND.

NOTE: If you have any questions regarding the ReactiveAir Pro systems warranties, please call Anatomic Concepts, Inc. Customer Service at 1-800-621-4844.

### 3.0 WARNINGS

### /!\ Entrapment:

When using side rails and/or assist devices, use a mattress thick enough and wide enough so that the gap between the top of the mattress and the bottom of the side rails and the gap between the side of the mattress and the side rails is small enough to prevent a patient from getting his or her head or neck between the mattress and the side rail. Failure to do so could result in serious patient injury or death.

### /!\ Patient Falls:

Failure to use bed rails in raised position could lead to accidental patient falls. Air mattresses have soft edges that may collapse when patients roll to that edge.



### Risk of Electric Shock:

DO NOT open back cover. This device is NOT user serviceable. This device should only be opened by qualified personnel approved by Anatomic Concepts, Inc. Refer all service to your local Anatomic Concepts, Inc. authorized dealer or call Customer Service at 1-800-621-4844.



# Oxygen Equipment:

Explosion risk if used in the presence of flammable anesthetics.



Danger! Risk of fire. Replace fuse as marked: T1A 250VAC. This product incorporates fusing only in the ungrounded phase conductor.

# ! Electrical:

Do not insert items into any opening of the power unit. This could short internal components, which could cause fire or electrical shock. This product is NOT AP/APG protected. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

# ⚠ Grounding Reliability:

Grounding reliability can only be achieved when plug is connected to an equivalent receptacle marked "Hospital Grade" or "Hospital Only". In the event that a 3-prong wall receptacle is not available for the 3-prong plug on the power unit, it is the personal liability and obligation of the customer to contact a qualified electrician before using the system. Verify the 2-pronged wall receptacle is replaced with the properly grounded 3-prong wall receptacle in accordance with the National Electrical Code. If you must use an extension cord, ONLY use a 3-prong extension cord that has the same or higher electrical rating as the device being connected. Route the power cord away from traffic.

### 4.0 INTRODUCTION

The ReactiveAir Pro is a convertible powered/non-powered dynamic mattress system designed to treat and/or prevent pressure ulcers otherwise known as bedsores. It is designed to replace a standard mattress and fit on most homecare or hospital beds. The ReactiveAir Pro is unique in that it can provide therapy in both the powered and non-powered modes by utilizing the Dynamic Pressure Delivery System. This patent pending system utilizes a series of intake and output valves in eight foam filled air sectors to create a dynamic surface in either mode. The ReactiveAir Pro mattress combines multiple patented technologies to provide a level of dynamic movement previously only found in powered support surfaces. The sectors utilize multiple foams to maximize the amount of air that transfers in and out as the patient is re-positioned. This series of air sectors has an anatomically zoned dual layer patented topper which enhances patient comfort and pressure redistribution. The 4-way stretch cover has been treated with anti-bacterial/anti-microbial agents to inhibit the growth of MRSA and other bacteria/fungus. The power unit adds enhanced therapy by providing alternating pressure every five minutes. It utilizes a small compressor to remain quiet and extremely energy efficient. The dial can be adjusted to alter the amount of alternating pressure according the patient's preference or comfort level.

# 5.0 RECEIVING INSPECTION

The ReactiveAir Pro ships in two packages; one for the power unit and one for the mattress assembly. Inspect the goods for shipping damage. If any damage is found, file a report with the carrier immediately. Prepare a written report and take pictures of the damage. Call Anatomic Concepts, Inc. customer service at 1-800-621-4844 within 5 days of the claim.

# **6.0 SYSTEM COMPONENTS**

# Components Supplied in the Power Unit Package:

- 1 each Power Unit
- 1 each Connecting Tube Assembly
- 1 each Operation Manual

### Components Supplied in the Mattress Assembly Package:

• 1 each - Mattress Replacement with Cover

# 12.0 ROUTINE MAINTENANCE

The ReactiveAir Pro is NOT user serviceable. The only routine maintenance that can be carried out by the user is cleaning or replacing the air filter. Anatomic Concepts, Inc. recommends that the air filter should be checked once a month or during service between patients. To access the air filter, locate the air filter cap on the back of the power unit. Refer to Section 7.0 ("Features") of this Manual.

### To clean or replace the air filter:

- Remove filter from backside of the power unit by twisting off the filter cap and removing the cap with filter from the power unit. Lift the filter cap out of the power unit and inspect the air filter. NOTE: Some older models require prying off the cap instead of twisting off.
- 2. Check for excess dirt or dust. The filter should be cleaned with mild soap and water or, if necessary, replaced with a Genuine Anatomic Concepts, Inc. replacement air filter.
- 3. Thoroughly air dry before reinserting.
- 4. To reinsert, place the air filter snugly in the filter cap. Place the filter cap in the opening on the back of the power unit and twist clockwise back into place. Be sure filter cap is secure.
- Spare filters are available from Anatomic Concepts, Inc. (item # Airo-FILTER).

### 13.0 TROUBLESHOOTING

The ReactiveAir Pro is a fully contained system that requires almost no maintenance between patients. If an obvious need arises (e.g. a markedly deflated area of the mattress, or conversely, an area that does not adequately deflate, etc.), the following maintenance check should be performed.

NOTE: These system checks should only be performed by Authorized Personnel!

### **Maintenance Steps:**

- 1. Fully unzip the cover and remove it entirely.
- Open the fire barrier sleeve and remove topper foam to expose foam air cell assembly and tube manifold/valve system.
- 3. With output/input valves exposed, place weight on the air cell to determine if air is escaping only from the output valve. Removal of the air tube may be necessary.
- If a foam air cell leaks anywhere other than the output valve, the foam air cell may need to be replaced.
- If air does not escape from the output valve it may be plugged. Inspect its condition for any blockage and remove the obstruction.

# 11.0 CLEANING INSTRUCTIONS

# Routine Cleaning While in Use By Single Patient:

### Mattress:

Routine cleaning of the mattress can be done at bedside by cleaning with mild detergent or soap and water followed by drying with a clean dry cloth. If the air mattress cover becomes heavily soiled, replace it with a Genuine Anatomic Concepts, Inc. cover or follow the Laundry/Decontamination instructions below. Soiled covers should be disposed of following hospital procedures or local environmental laws. Always ensure mattress and cover are completely dry before allowing patient back on surface.

### **Power Unit:**

WARNING! Always unplug power unit before cleaning. Power unit can be cleaned by wiping down with damp cloth using soap and water or mild neutral detergent. Never spray cleaners or liquids directly on power unit.

# Laundry/Decontamination Between Patients:

### **Mattress Replacement:**

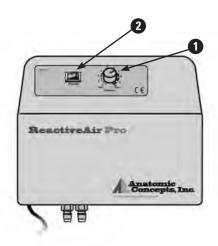
ReactiveAir Pro must be thoroughly cleaned between patients to avoid cross contamination. The following instructions are a good guideline, but local infection control policies should be followed.

- Don rubber gloves, eye protection, plastic gown and mask if necessary.
- Turn power control unit off and remove plug from outlet to avoid electric shock.
- Any soilage should be removed with disposable paper towels and disposed of properly prior to disinfection.
- Spray entire cover with EPA registered hospital grade disinfectant. Let stand for appropriate contact time according to manufacturer's instructions.
- 5. The zippered cover does not need to be removed for cleaning, nor should it be opened during use. The zipper is provided to allow repair or replacement of component parts if required. Please contact your Anatomic Concepts, Inc. representative if replacement parts are necessary.
- 6. Follow disinfectant with hot water and detergent.
- Adequate drying is a crucial factor in the care and maintenance. Drying may be affected by hanging out, spinning or tumbling at temperatures up to 130° C (266°F). Do not mangle.
- 8. Store in a cool, dry area.
- 9. Avoid excessive pressure and contact with non-colorfast materials.

### **Power Unit:**

- 1. Turn power off and unplug power control unit to avoid shock hazard.
- Dampen clean cloth with soap and water or mild detergent. Wipe power unit
- Disinfect power unit with hospital grade EPA registered disinfectant. Let stand for appropriate contact time according to manufacturer's instructions.
- 4. Dry using a clean dry cloth or disposable paper towels.
- 5. Wrap in plastic and store in a cool, dry area.

### 7.0 FEATURES



### **Control Panel Features:**

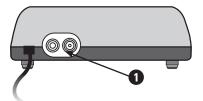
See Figure 7a above

### **Control Dial (1):**

Comfort Control dial is used to adjust level of alternating pressure. Level can be adjusted according to patient comfort or preference.

### Power Switch (2):

Power LED illuminates when power is ON.

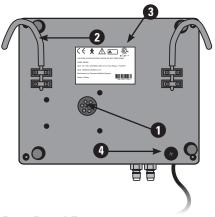


### **Bottom Panel Features:**

See Figure 7b above

### Coupler (1):

Quick couplers are used and male/female connectors will "click" into place to secure air hoses to power unit.



### **Rear Panel Features:**

See Figure 7c above

### Filter Cap (1):

No tools are necessary to remove filter cap. Anatomic Concepts, Inc. recommends that the filter should be inspected and cleaned or replaced with a Genuine Anatomic Concepts, Inc. replacement part once a month or during service between patients to ensure optimal performance of the power unit. Filter caps sold separately.

### Hanging Hooks (2):

Hanging hooks are designed to fit multiple foot board widths. Hooks can be folded back into the unit when not in use.

### Serial Number Label (3):

Label identifies serial number along with agency approvals, etc.

#### Fuse (4):

Fuse holder can be opened with flat head screw driver.

### 8.0 INSTALLATION

### **Mattress and Power Unit Installation:**

- 1. Remove existing mattress from hospital/homecare bed frame and store.
- Place the ReactiveAir Pro mattress directly on the bed frame with the logo at the foot end.
  - NOTE: Before proceeding, test all bed functions to verify no restrictions or interference.
- Using the integrated hooks, securely attach the power unit to the bed at the foot end or place on a smooth flat surface.
- 4. Connect the air hoses from the support surface to the power unit.
- 5. Plug the power unit into a wall outlet. Refer to section 3.0 of this Manual ("Warnings"). Anatomic Concepts, Inc. recommends the use of the appropriate 2- or 3-prong plug option on the power unit to ensure proper grounding. Be sure the power cord is safely away from possible hazards (eg foot traffic, bed tables, lifters, etc).
- 6. Turn on the power switch on the control panel of the power unit; the switch will light illuminate green to indicate the power unit is operating.
- The surface will take approximately 25 minutes to start alternating and the dial can be adjusted to change the level of alternation.

# 9.0 OPERATION

#### Non-Powered Mode:

The ReactiveAir Pro can be used in the non-powered mode if patients cannot tolerate alternating pressure therapy. Remove the connecting hose from the power unit to the mattress and the ReactiveAir will automatically adjust for patient movement etc. by utilizing the Dynamic Pressure Delivery System. The ReactiveAir has the ability to reconfigure and re-inflate itself any time the patient moves or is repositioned. Whenever the pressure gradient changes, the intake and output valves automatically adjust the sectors to again achieve a low-pressure balance providing vital therapy for even high-risk patients. The unique patient pending controlled release valve system of the ReactiveAir allows for these pressure changes to occur very slowly to minimize patient disturbances.

### **Powered Mode:**

The ReactiveAir Pro offers all the benefits of the ReactiveAir dynamic surface plus alternating pressure therapy. By adding the optional power unit, users can choose between gentle to aggressive alternating for enhanced therapy. NOTE: the dial on the control panel is not to set patient weight. The ReactiveAir has a 400lb weight capacity, and the knob is only to set the level of alternation. The ReactiveAir Pro still offers continuous therapy in power outages and offers comfort previously not found in treatment style support surfaces.

### **10.0 PATIENT TRANSPORT**

When a need arises to transport a patient on the ReactiveAir Pro, it is easiest to do so in the non-powered mode. Unplug the power unit and remove the connecting tubes from the power unit to the mattress. Ensure that there is no tripping hazard and transport may commence. Once transport is complete, plug in power unit and attach connecting tubes from power unit to mattress. Turn on power unit and select level of alternation desired.