



## Operation Manual

Protekt<sup>®</sup> Aire 8000-42/8000-48/8000-54/  
8000-60/8600AB/6500

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# **SAVE THESE INSTRUCTIONS**

## **READ ALL INSTRUCTIONS BEFORE USING**

### **IMPORTANT SAFEGUARDS**

When using any electrical products, and especially when children are present, basic safety precautions should be followed. Those precautions should include the following:

#### **DANGER**

To reduce the risk of electrocution:

- ▶ Always unplug this product immediately after use.
- ▶ Do not use while bathing.
- ▶ Do not place or store this product where it can fall or be pulled into a tub or sink.
- ▶ Do not place or drop this product into water or other liquids.
- ▶ Do not reach for this product if it has fallen into water. Unplug immediately.

#### **WARNING**

- ▶ To reduce the risk of burns, electrocution, fire or injury:
- ▶ This product should never be left unattended when plugged in.
- ▶ Close supervision is necessary when this product is used by, on or near children or invalids.
- ▶ Use this product only for its intended use as described in this manual.
- ▶ Do not use any attachments not recommended by the manufacturer.
- ▶ Never operate this product if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the product to a service center for examination and repair.
- ▶ Keep the cord away from heated surfaces.
- ▶ Never block the air openings of the product or place it on a soft surface, such as a bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair and the like.
- ▶ Never drop or insert any object into any opening or hose.
- ▶ Do not use outdoors or operate where aerosol (spray) products are being used.
- ▶ Connect this product to a properly grounded outlet only. See Grounding Instructions.

#### **GROUNDING**

Before any connection is made, make certain that this product is connected to a protective earth conductor via the three-wire power cord; the three-blade plug should be inserted only into a socket outlet that provides a protective earth contact. Please refer to page 9 for more information.

## **STATEMENTS & SYMBOLS**

*Note, caution, warning & danger statements*

### **NOTE**

Indicates some tips or some information users should be aware of.

### **CAUTION**

Indicate correct operating or maintenance procedure in order to prevent damage to or destruction of the equipment or other property.

### **WARNING/DANGER**

Call attention to a potential danger that requires correct procedures or practices in order to prevent personal injury.

# INTRODUCTION

This manual should be used for the initial set up of the system and for reference purposes.

## **GENERAL**

Protekt® Aire 8000 pump and mattress is high quality and affordable air mattress system suitable for medium and high-risk pressure ulcer treatment. They have been specifically designed for prevention of bedsores and offer an affordable solution to 24-hour pressure area care.

Protekt® Aire 8000 pump and mattress have been tested and certificated for the following standards:

CE

FDA

## **INTENDED USE**

Protekt® Aire 8000 pump and mattress is intended to reduce the incidence of pressure ulcers while optimizing patient comfort. It also provides the following:

- ▶ Individual home care setting and long-term care.
- ▶ Pain management as prescribed by a physician.

## **CONTRAINDICATION**

Patient conditions for which the application of pressure relieving therapy on an alternation system is contraindicated are as follows:

- ▶ Cervical or skeletal traction
- ▶ Unstable spinal cord injuries

# PACKAGE CONTENTS

Check inside the package. If any of the following items should be missing or damaged, please contact your local dealer or service center for replacement immediately.

## PUMP

Protekt® Aire 8000 pump and mattress is identical to which you purchased.



## MATTRESS

The mattress comes with a zippered base. 10" cell-on-cell construction with 5" upper layer alternating over 5" lower layer static.

## COVER SHEET

Mattress cover is quilted and has a zipper so that it can be zippered to the base.



## MANUAL

Always read this manual before using this product.

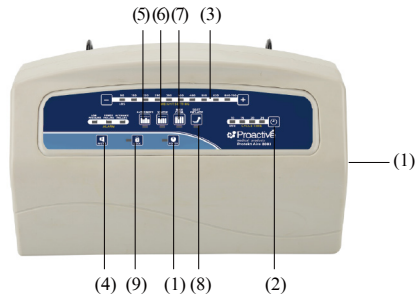
# PRODUCT FUNCTION

## **PUMP**

The functions of the Protekt® Aire 8000 pump are described below. Please refer to the below figures.

- ▶ **Power Switch(1)**  
The switch is at the right side of the pump.  
Turn ON/OFF the power and press Power button on the panel, the pump will start/stop operation.
- ▶ **Press Cycle Time(2)**  
The cycle time is selectable from the panel.  
The cycle time value can be either 10, 15, 20, or 25 minutes.
- ▶ **Press Pressure Range(3)**  
20-65mmHg adjustable pressure range selected by patients weight guide listed on panel providing pressure range options.
- ▶ **Alarm Mute(4)**  
The audible/visible alarm turns on when low pressure, power failure or alternate failure.  
To mute the audible alarm, press the Alarm Mute button. The visible alarm indicator will flash till problem solved.  
Re-press the Alarm Mute button to reactivate the alarm.
- ▶ **Alternate mode(5)**  
Press to set the air mattress in alternate mode.
- ▶ **Static mode(6)**  
Press to set the air mattress in static mode.
- ▶ **Max Firm(7)**  
Press to set the air mattress in quick inflation mode, which facilitates nursing and caring.
- ▶ **Seat Inflate(8)**  
Press to set the air mattress in seat inflate+alternate or seat inflate+static mode, pressure value will increase by 5mmHg, which facilitates seating.  
Under max firm mode, air mattress will reach the maximum pressure of 65mmHg with no additional 5mmHg pressure value increase.
- ▶ **Lock button(9)**  
Manual: press lock button for 3 seconds to lock the panel, press again for 3 seconds to unlock the panel.

1. Power switch
2. Pressure cycle time
3. Pressure range
4. Alarm Mute
5. Alternate
6. Static
7. Max Firm
8. Seat Inflate
9. Lock



## **MATTRESS**

The Protekt® Aire 8000 pump comes with cell type mattress of different materials (Nylon PVC, Nylon TPU or PU), provided optionally with the pump.  
Please refer to the specifications section for details.

# INSTALLATION

- Step 1 Place the mattress flat on the bed frame. The inflation tube should be towards the foot end. The foot end is also indicated with a picture of foot prints. See figure below.



- Step 2 Cover the mattress system with a cotton sheet to avoid direct skin contact and reduce friction.
- Step 3 Hang the pump unit on the foot board of the foot end of the bed frame and make sure it is stable.
- Step 4 Connect the inflation tubes from the mattress to the pump's inflating nozzles. Make sure they are properly attached.

**NOTE:**

**Make sure the air hoses are not kinked or tucked under the mattress. Also check to ensure the CPR valve is properly attached.**

- Step 5 Plug the power cord into an electrical outlet with grounded AC power. This product should be grounded. The power cord has a grounding wire with a grounding pin. This three-wire plug must be plugged properly into an outlet and grounded as shown in the figures in the Grounding Instructions section.

**NOTE:**

**Before inserting the plug into the outlet, make sure the voltage is compatible.**

- Step 6 Turn on the power by pressing the power switch at the right side of the unit. Proceed to the Operation section.
- Step 7 Make sure to disconnect the pump unit by unplugging the power cord when it is not in use.



# GROUNDING INSTRUCTIONS

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord that contains a grounding wire with a grounding plug.

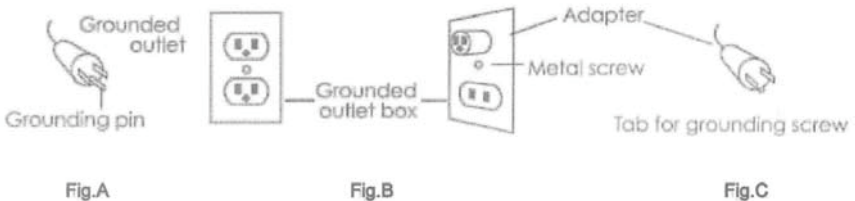
**DANGER – Improper use of the grounding plug can result in a risk of electric shock.**

If repair or replacement of the cord or plug is necessary, do not connect the grounding to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripe is the grounding wire.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded.

This product has a grounding plug that looks like the plug illustrated in figure A below. A temporary adapter, which looks like the adapter illustrated in figure B and C, may be used to connect this plug to a 2-pole receptacle as shown in figure B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (figure A) can be installed by a qualified electrician. The green colored rigid ear, lug, tab or the like extending from the adapter must be connected to a permanent ground such as properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by the screw.

If it is necessary to use an extension cord, use only a 3-wire extension cord that has a three-blade grounding plug and a 3-slot receptacle that will accept the plug on the product. Replace or repair if damaged.



# OPERATION

**NOTE:** Always read the operating instructions before use.

## ***General***

This product is designed to provide maximum comfort to home care patients. Make sure that you operate this product in a proper way to optimizing its value. Here we provide some general information you should be aware of.

**For products:** Do not use another pump with different specifications or even from the **Protekt®** series. It is dangerous to use a pump with pressure capacity greater than 120mmHg. This may result in cell-puncture.

Do not change any component by yourself. If there is need for replacement or repair, always contact your local dealer or service center.

**For patients:** When the Normal Pressure LED (green) comes on to indicate the pressure is adjusted to a desired firmness; the patient can then lie on the mattress.

Please cover the mattress with a cotton sheet to avoid direct skin contact and for the patient's comfort.

A firm surface will make it easier for the patient to transfer or reposition. Make use of the static mode function. It can support the patient by keeping the mattress from bottoming out when the patient is in a sitting position.

The system will automatically return to therapy mode (alternating pressure) after 30 minutes in static.

**Hand check:** Check to see if a suitable pressure is selected by sliding one hand between the air mattress and the foam base (or bed frame if there is no foam base) to feel the patient's buttock.

Users should be able to feel the space in between, and the acceptable range is approximately 25 to 40 mm (1" to 1-1/2"). This hand check procedure is issued by AHCPR.

# OPERATION

**NOTE:** Always read the operating instructions before use.

Please follow instructions below for detailed operating procedure of each type.

Step 1 Turn on the power. A beep sound will begin the operation.

Step 2 The pump will enter into static mode when the power is initially turned on. First it will inflate the mattress to 10-15 mmHg and then switch to alternating mode.

If 10-15mmHg cannot be reached within 30 minutes, the unit will stay in static mode and keep inflating. If 10-15mmHg still cannot be reached within 40 minutes, the alarm will beep and its LED will come on.

Press the Alarm Mute button to mute the alarm. The alarm LED will continue blinking. Press the Alarm Mute button again to re-enable the audible alarm.

Step 3 The alternating cycle time and pressure level are preset to the middle settings. Select from the touch panel to adjust the cycle time and pressure level to the patients specific requirements.

**NOTE:**

**Press the static mode button from the touch panel to provide a firm surface that makes it easier for the patient to transfer or reposition. The static mode can support the patient by keeping the mattress from bottoming out when the patient is in a sitting position.**

The system will automatically return to therapy mode (alternating pressure) after 30 minutes in static.

Step 4 During normal operation, the unit will monitor pressure. If the pressure is lower than the set pressure, the pump will automatically inflate the mattress to the set level and then stop. The alarm will beep and its LED will come on to alert a low pressure condition.

Press the Alarm Mute button to mute the alarm. The alarm LED will continue blinking. Press the Alarm Mute button again to re-enable the audible alarm.

Step 5 Press the Max Firm button to automatically inflate the mattress to the maximum level (above 65mmHg) for about 20 minutes. The pressure will return to a previously set level after 20 minutes.

In case there is a bad connection of tubing or any air leakage from the mattress, this will result in a low pressure condition, and it will activate the alarm.

**NOTE:**

**For suitable pressure, please refer to page 10 for the hand check procedure.**

# OPERATION

**NOTE:** Always read the operating instructions before use.

## **CPR FUNCTION**

When there is an emergency requirement to perform CPR on the patient, pull the 2 CPR straps at the head section of the mattress to release the air quickly from the mattress.

The CPR straps are located at the front right-hand side of the mattress.

## **PRESSURE SET UP**

Users can adjust the pressure level of the air mattress to a desired firmness by themselves or according to the suggestion from a health care professional.

**NOTE:** It is recommended to press Auto Firm on the panel when the mattress is first inflated. Users can then easily adjust the air mattress to a desired firmness according to the patient's weight and comfort.

## **LOW PRESSURE WARNING**

When abnormal pressure occurs, the Low Pressure indicator will come on. For some types of pumps, the audible alarm will be activated to bring attention to a low pressure condition.

Check if the connections are secure and correctly installed according to the relevant instructions.

**NOTE:** If the pressure is consistently low, open the zipper and confirm that all of the hoses are properly connected. Then check for any noticeable leakage in any of the tubes. If necessary, contact your local dealer to replace any damaged tubes or hoses.

# CLEANING

In this section, we describe the procedures to clean and decontaminate the pump. It is important to follow these procedures before using the system again.

The cleaning task is required at least once a week to maintain personal hygiene.

## ***PUMP***

- ▶ DO NOT immerse or soak the pump in any water or fluids.
- ▶ Check for external damage and move the pump to the cleaning area.
- ▶ Place the pump on a work surface and spray or wipe the outside of the case with quaternary ammonium solution.
- ▶ DO NOT spray any cleaning solution directly on the surface of the pump.
- ▶ DO NOT use a Hypocarbonate or Phenolic based cleaning solution as this may cause damage to the case. Allow the solution to incubate for 10 minutes or accordingly as stated by the cleaning product instructions.
- ▶ Wipe case with a clean cloth. Make sure all areas are clean (top and bottom, both sides).
- ▶ Spray cloth with cleaning solution and clean faceplate. DO NOT allow excess cleaning solution on faceplate or control panel. (If solution gets inside, damage will occur.)  
Allow surface to thoroughly dry after cleaning.
- ▶ After the pump is thoroughly cleaned and dried, proceed to plug in the pump and test to see if it runs normally.
- ▶ Unplug the pump and store with proper identification tag.
- ▶ Avoid long exposure to sunlight.

## ***MATTRESS***

- ▶ Brush off or wipe down all surfaces of the cover sheet with soap and water before wetting with any liquid disinfectant.
- ▶ Any obvious blood spots should be wet thoroughly with 1:9 Hypochlorite solutions (1 part bleach to 9 parts water) and allow drying for at least 10 minutes. Then blot with a clean, damp cloth.
- ▶ Unzip the top cover from the mattress.
- ▶ Brush or wipe down all surfaces with soap and water before applying any liquid.
- ▶ Covers are immersed and soaked in disinfectant for the required incubation time.
- ▶ After pre-soaking, the cover is rinsed through a regular cycle in a washer with no soap then laundered with mild detergent (wash temperature 93°F, rinse temperature 78°F or on the coldest setting).
- ▶ Covers are aerated until they are fully dry. (Drying temperature range 90-120°F or on the coldest setting.)
- ▶ The air cells are unsnapped from one side and are sprayed on all sides with a disinfectant. Let it sit for the required incubation time and wipe down with a clean cloth. (Make sure to disconnect all the air cells, one by one, and spray the disinfectant on all sides, including all the connecting tubes and hoses. Let it sit for least 10 minutes. )
- ▶ If there is a base after you remove all the air cells, the base has to be sprayed down with the disinfectant, inside and outside. Let it sit for the required incubation time and wipe down with a cloth.
- ▶ Repeat the process with the tubing set: spray, incubate, and then wipe clean.
- ▶ The carrying bag should be turned inside out and completely wiped down using the disinfectant solution. Allow it to thoroughly air dry. Once the inside is dry, turn it back: wipe down the outside of the bag with disinfectant.
- ▶ Dry the mattress on a flat surface area after cleaning, away from exposure to the sun.
- ▶ Avoid long exposure to sunlight.

# HANDLING AND STORAGE

- ▶ Lay the mattress out flat and upside down.
- ▶ Roll from the foot end towards the head end; the foot-end strap can then be stretched around the rolled mattress to prevent unrolling.
- ▶ Do not fold, crease or stack the mattress.

# MAINTENANCE

## *General*

- ▶ Check the power cord and plug to see if there are abrasions or excessive wear.
- ▶ Check the mattress cover for signs of wear or damage. Ensure the mattress cover and tubes are connected together correctly.
- ▶ Plug in the pump unit and check the airflow from the hose connection port. The airflow should alternate between ports every half-cycle time.
- ▶ Check the air hoses to see if there are any kinks or breaks. For replacement, please contact your local agent or dealer.
- ▶ Make sure the mattress tube is well connected.
- ▶ Check the pump unit and make sure both power indicators are off when the switch is turned off.

## *Low pressure*

Examine if there is any air leakage between the pump and the mattress connections or from the air mattress tubes:

- ▶ Check connectors between the air mattress and pump. If there is any disconnection, please reconnect it.
- ▶ Check the CPR Valves. Ensure their outlets are sealed.
- ▶ Check the air-connecting tubes. Ensure each single cell is not broken.
- ▶ Set the pressure-selector knob to Firm position. Keep the tubes fully inflated and inspect for air leakage.
- ▶ Check if there is any air leakage from cells. Ensure no leakage occurs. If any leakage occurs, please contact your local agent or dealer.

# TROUBLESHOOTING

| Problems                               | Solutions   |
|--|---|
| The pump doesn't work                  | <ol style="list-style-type: none"> <li>1. Check if the plug is inserted firmly into the outlet.</li> <li>2. Turn on the power switch again.</li> </ol> <ul style="list-style-type: none"> <li>▶ If the power LED is ON and the pump still doesn't work, contact your local dealer immediately.</li> <li>▶ If the power LED is OFF, there may be a faulty outlet. Try to connect the power cord to another outlet. If the power LED is still OFF, contact a qualified electrician for main power check.</li> </ul> |
| Incomplete inflation<br>(Low Pressure) | <ol style="list-style-type: none"> <li>1. For a quick check, adjust the pressure to Firm position.</li> <li>2. Check to see if the tubes connected to the pump are twisted or there is any leakage occurring.</li> </ol> <ul style="list-style-type: none"> <li>▶ Always keep the tubes straight.</li> <li>▶ Change tubes if there is any leakage.</li> <li>▶ Ensure the CPR valves are closed. Ensure every single cell is not broken.</li> </ul>  |
| Slow air flow                          | <p>A dirty filter may decrease the air flow.<br/>Wash the filter with mild detergent to keep it clean.</p> <ul style="list-style-type: none"> <li>▶ Check the air filter at the back of the pump unit at least once a month.</li> </ul>   |

# SPECIFICATIONS

## CLASSIFICATION OF ADAPTABILITY

| PUMP               | MATTRESS     | ADAPTABILITY | STAGE |
|--------------------|--------------|--------------|-------|
| Protekt® Aire 8000 | 10"X20 CELLS |              | I-IV  |

### NOTE:

**All specification is subject to change without notice.**

## Pump Unit

| Series             | Function  | Specifications   |
|--------------------|---|--|
| Protekt® Aire 8000 | ON/OFF switch<br>Pressure-selector touch panel<br>Cycle Time-selector touch panel<br>Alternate/Static/Seat inflate mode<br>Alarm: Low pressure/Power failure /<br>Alternate failure<br>Max Firm | Dimension: 13.6x4.5x7.3 inch<br>Power: 120V AC/60Hz<br>Pressure: 20~65 mmHg<br>Cycle time: 10, 15, 20, 25 min,<br>selectable |

## Mattresses

| Model/Item#                | Arrangement  | Dimension                | Material | Weight Capacity |
|----------------------------|--------------|--------------------------|----------|-----------------|
| Protekt® Aire 8000 / 80080 | 10"x20 CELLS | 42"(W) x 80"(L) x 10"(H) | Nylon/PU | 660 lbs.        |
| Protekt® Aire 8000 / 80085 | 10"x20 CELLS | 48"(W) x 80"(L) x 10"(H) | Nylon/PU | 750 lbs.        |

## System

| Item                     | Specifications  |
|--------------------------|---|
| Medical Equipment        | Class I<br>IPXO<br>AP/APG NO<br>Type BF   |
| Applied Part             | Mattress  |
| Power Supply             | AC 120V/60Hz, 10W 1A  |
| Pressure Range           | 20~65 mmHg  |
| Cycle Time               | 10,15,20,25 min. selectable   |
| Dimensions               | 13.6x4.5x7.3 inch   |
| Weight                   | 8.0 lbs   |
| Environment Requirements | 1. Operation Temperature: 50□~95□ (10□~35□)<br>2. Storage Temperature: 5□~122□ (-15□~50□)<br>3. Operation Humidity: 20%~80% non-condensing<br>4. Storage Humidity: 10%~90% non-condensing |
| Limited Warranty         | 2 years for pump and mattress   |

### NOTE:

The above specifications are also applicable to those areas operating with the same power supply range.