

# SOFTCAIRE SIMPLE DIGITAL W/ EC MATTRESS

WEIGHT CAPACITY: 350 LBS



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## IMPORTANT SAFEGUARDS

When using electrical products, especially when children are present, basic safety precautions should always be followed, including 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 product where it can fall or be pulled into a tub or sink.
- Do not place in or drop into water or other liquids.
- Do not reach for a product that has fallen into water. Unplug immediately.

### **Warning**

To reduce the risk of electrocution or injury to persons:

- A product should never be left unattended when plugged in.
- Close supervision is necessary when this product is used by, on, or near children or individuals with disabilities.
- Use this product only for its intended use as described in this manual.
- Do not use attachments that are 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.
- Do not 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 similar debris.
- Do not drop or insert any object into any opening or hose.
- Do not use outdoors or operate where aerosol (spray) products are being used.
- Use this product with a properly grounded outlet only.
- Do not disassemble, repair or rebuild the product without permission, otherwise may has risk of fire and danger in life.

### **Grounding**

Before any connection is made, ensure that this product will be connected to a protective earth conductor via the three-wire power cord; the three-blade plug shall be inserted only into a socket outlet that provides a protective earth contact.

## **STATEMENTS**

### **Note**

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

### **Caution**

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

## INTRODUCTION

### General

The Rhythm Healthcare SoftCaire Simple Digital system is designed for prevention, treatment and management of pressure ulcers. The Rhythm Healthcare SoftCaire Simple Digital pump is designed for ease of use, providing continuous pressure redistribution and support. Patients at medium risk of pressure ulcers are recommended to use Rhythm Healthcare SoftCaire Simple Digital system.

The Rhythm Healthcare SoftCaire Simple Digital system has been tested and certified for the following standards:

- ❖ CE
- ❖ UL

### Contraindication

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

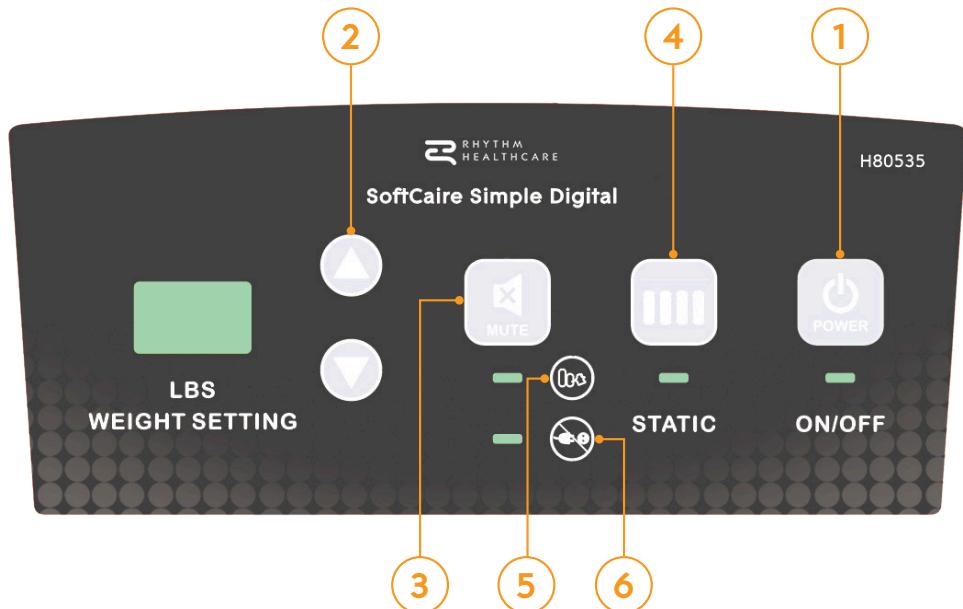
- Cervical or skeletal traction
- Unstable spinal cord injuries

## PACKAGE CONTENTS

Check inside the package. If any of the following items are missing or damaged, contact your provider for replacement.

|                                                                                                                          |                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pump Unit</b>                                                                                                         | <b>Mattress</b>                                                                                                                                          |
|                                        |                                                                        |
| <b>Cover Sheet</b>                                                                                                       | <b>Manual</b>                                                                                                                                            |
| <br>The cover sheet is easy to clean. | <br>Always read this and understand manual before using this product. |

## SOFTCAIRE SIMPLE DIGITAL FUNCTIONS



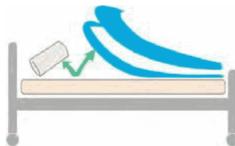
## PUMP FUNCTIONS

|  |                              |                                                                                                                                                       |
|--|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>1</b> Power Key           | Press the Power Button to start or stop the pump operation.                                                                                           |
|  | <b>2</b> Weight Setting      | Press up or down buttons to set the patient's weight.                                                                                                 |
|  | <b>3</b> Alarm Mute          | <ul style="list-style-type: none"><li>The audible alarm turns on when the mattress pressure is low.</li><li>Press the button to mute alarm.</li></ul> |
|  | <b>4</b> Static Mode         | Press to select Static Mode. The function will revert to alternating mode after 20 minutes.                                                           |
|  | <b>5</b> Low Pressure Alarm  | Low Pressure Alarm Indicator Light.                                                                                                                   |
|  | <b>6</b> Power Failure Alarm | Power Failure Alarm Indicator Light.                                                                                                                  |

### System Set Up

Instructions for setting up the system for the first time.

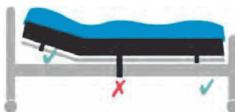
- a) Remove all covers, sheets and mattress from the bed.



- b) On a standard bed, position Mattress Replacement on top of bed, printed top cover facing up and air hoses towards the base of the bed. Attach to the bed by securing the adjustable straps under each end of your bed. Ensure buckles are securely fastened and straps are pulled tight. On a profiling bed, secure the side straps around the movable sections of the bed base.



- c) On a profiling bed, secure the side straps around the movable sections of the bed base. **DO NOT SECURE TO THE SIDE RAILS - STRAPS WILL TEAR OFF.**



- d) Confirm there are no sharp objects in the immediate area which may risk damage to the Mattress Replacement.

**Important:** Check that the attachment of the Mattress Replacement does not interfere with the movement or operation of the bed.

## SYSTEM SET UP - CONTINUED

### Pump Unit Set Up

a) Position Pump Unit by hanging hooks over foot board of the bed or place unit on the floor under the bed.



b) Attach the air hoses using the quick connector to the Pump Unit. Ensure air hoses do not kink between mattress, bed frame and Pump Unit.



c) Plug the power cord into an electrical outlet with grounded AC power.

**NOTE:** Before inserting the plug into the outlet, check that the voltage is compatible. Also ensure that the product is grounded. See page 3 for info.



d) Switch the power button on. Allow up to 40 minutes for full inflation.

e) When ready, the power indicator light will remain on. Lay the patient on the bed and select the appropriate comfort level.

Perform a "bottom out" test to ensure that patient is properly suspended. Slide your hand under the top cover along a deflated cell in the sacral (bottom) area. Secure sheets loosely enough to ensure they do not interfere with cell alternation. See page 9 for "Hand Check" instructions.

**NOTE:** Always read and understand the instructions before use.

### General

This product is designed to provide maximum comfort to patients. Ensure that you operate this product correctly to maximize its value. Here we provide some general information that you should be aware of.

### For products

- Only use the provided Rhythm Healthcare SoftCaire Simple Digital Pump with the SoftCaire EC mattress or other compatible Rhythm Healthcare pump (check with your provider for compatible models). It is dangerous to use a pump with pressure capacity greater than 120 mmHg. This may damage the air cells in the mattress.
- DO NOT change any component by yourself. This will void the warranty. If you need a replacement or repair, always contact your provider.

### For Patients

When the pressure has been adjusted to a desired level of firmness, the patient can then lie on the mattress. A firm surface facilitates easier patient transfers and repositioning. Utilize the Static Mode function for this purpose.

### Hand Check

Check that the pressure is properly adjusted for adequate support and suspension. Slide your hand between the air mattress and bed frame to feel the patient's sacral/gluteal area. There should be a space in between, and the acceptable range is approximately 1" - 1.5" (25 - 40mm).

### Please follow instructions below for the detailed operating procedure for each function.

**STEP 1** Turn on the power. The power light indicator will flash.

**STEP 2** The pump will enter Static Mode. It will inflate the mattress to 15mmHg then enter Alternate Mode. The power light indicator will stay on.

**NOTE:** If 15mmHg cannot be reached within 40 minutes, the alarm will beep, and the LED will illuminate. Press the Alarm Mute button to mute the alarm. The alarm LED will continue flashing.

## OPERATION - CONTINUED

**STEP 3** The alternating cycle time is fixed at 10 minutes. The default Weight/Pressure level is set to 176 lbs (80kg)/30mmHg. Press the Up/Down buttons on pump panel to adjust the weight/ pressure level to the patient's specific requirements.

**NOTE:** Press the Static Mode button on the pump panel to create a firm surface that aids the patient in transferring or repositioning. This mode helps prevent the mattress from bottoming out when the patient is in a sitting position. After 20 minutes, the system will automatically revert to alternating mode. To switch back to static mode, press the Static button again.

**STEP 4** During normal operation, the unit will monitor pressure. If the mattress pressure is lower than the set pressure, the pump will automatically inflate the mattress to the set level and then stop.

**NOTE:** If the tubing has a loose connection or any air leakage from the mattress, this will result in a Low Pressure condition, and the alarm will activate within 1 min.

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

### CPR Function

In case of an emergency requiring CPR, pull the CPR strap at the head section of the mattress to quickly release air. The CPR straps are located on the front right-hand side of the mattress.

### Weight/Pressure Set Up

Users can adjust the air mattress to the desired firmness based on the patient's weight or as recommended by their provider.

### Low Pressure Warning

If abnormal pressure occurs, the Low Pressure indicator will illuminate. For certain pump models, an alarm will also activate to signal a low pressure condition. Ensure all connections are secure and properly installed according to the instructions.

**NOTE:** If the pressure is consistently low:

- Open the zipper and verify that all hoses are securely connected.
- Check for any visible leaks in the tubes.

Contact your provider to replace any damaged tubes or hoses.

## CLEANING

This section outlines the procedures for cleaning and decontaminating the pump. It is essential to follow these steps before using the system again. To maintain proper hygiene, cleaning should be performed at least once a week.

### Pump Unit

- 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. Ensure all areas are clean (top, bottom, and both sides).
- Spray cloth with cleaning solution and clean faceplate. DO NOT allow excess cleaning solution on faceplate or pump 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 solution (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/34°C, rinse temperature 78°F/26°C or on the coldest setting).
- Covers are aerated until they are fully dry. (Drying temperature range 90°F -120°F/32°C -49°C 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. (Ensure you have disconnected 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 at least 10 minutes.)
- If there is a base after you remove all the air cells, the base must 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 carry 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.

## ENVIRONMENTAL REQUIREMENTS

### Operating Conditions

- Ambient Temperature: 41°F to 104°F (5°C to 40°C)
- Relative Humidity: 15% to 90%, non-condensing
- Atmospheric Pressure: 700hPa to 1060hPa

### Storage and Shipping Conditions

- Ambient Temperature: -13°F to 158°F (-25°C to 70°C)
- Relative Humidity: 10% to 90%, non-condensing
- Atmospheric Pressure: 700hPa to 1060hPa

## STORAGE AND MAINTENANCE

### 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 for any signs of fraying or excessive wear.
- Check the mattress cover for signs of wear or damage. Ensure the mattress cover and tubes are connected correctly and securely.
- 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 provider.
- Ensure the mattress tube is securely and correctly connected.
- On the pump unit, check that both power indicators are off when the power switch is turned off.

#### Low Pressure

Check for 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 is disconnected or loose, reconnect it ensuring it is securely connected.
- Check the CPR Valves. Ensure the outlets are sealed.
- Check the air-connecting tubes. Ensure there are no broken cells.
- Set the pressure at Max firm. Keep the tubes fully inflated and inspect for air leakage.
- Check for any air leakage from the cells. Ensure no leakage occurs. If there is any leakage, contact your provider.

## TROUBLESHOOTING

| Issues                                                       | Causes                                                | Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mattress fails to inflate or does not inflate completely.    | Pump issue                                            | <p>Pump does not work.</p> <p>After power is on, check if LED light turns on. If not, check the following:</p> <ol style="list-style-type: none"> <li>1. Check if power cord is plugged into appropriate voltage AC outlet.</li> <li>2. Check if fuse is loose or burned out. Ensure secure connection or replace with new fuse.</li> <li>3. Open pump and check if wires are securely connected and aren't loose.</li> </ol> <p>If visible indicator light is on:</p> <ol style="list-style-type: none"> <li>1. Check if wires connecting to compressor are loose. If not, replace lower PCB.</li> </ol> |
|                                                              |                                                       | <p>Air pressure from pump is too low.</p> <ol style="list-style-type: none"> <li>1. Ensure that the air pressure and airflow from the compressor are within normal ranges (100-125 mmHg, 8.0L). If the values are outside this range, replace the compressor.</li> <li>2. Check for air leakage from exchanger. If yes, replace with new exchanger.</li> <li>3. Check if silicone tubes inside pump are securely connected.</li> </ol>                                                                                                                                                                    |
|                                                              | Mattress issue                                        | <ol style="list-style-type: none"> <li>1. Quick connector on mattress is not securely connected to pump.</li> <li>2. Air tubes not securely connected. T connector and air valve are loose. CPR connector is not capped.</li> <li>3. One-way valve is broken.</li> <li>4. Air cell has leakage.</li> </ol> <ol style="list-style-type: none"> <li>1. Ensure quick connector on mattress is securely connected to pump</li> <li>2. Ensure T connector and air valve are securely connected, CPR and CPR connector are secure.</li> <li>3. Replace one-way valve.</li> <li>4. Replace air cell.</li> </ol>  |
| Mattress has pillow function, but air cell fails to inflate. | 1. One-way valve is assembled in the wrong direction. | 1. Assemble the one-way valve in the correct direction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## TROUBLESHOOTING - CONTINUED

| Issues                                                                                           | Causes                                                                                                                                                                                   | Solutions                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pump is working but synchronous motor does not work. Mattress does not alternate.                | <ol style="list-style-type: none"> <li>1. Synchronous motor is broken.</li> <li>2. Wires inside synchronous motor are not securely connected</li> <li>3. Lower PCB is broken.</li> </ol> | <ol style="list-style-type: none"> <li>1. Replace synchronous motor.</li> <li>2. Ensure wires are securely connected.</li> <li>3. Replace lower PCB.</li> </ol> |
| Pump and motor are working, but cycle time does not work correctly.                              | <ol style="list-style-type: none"> <li>1. Micro switch on exchanger is broken.</li> <li>2. Lower PCB is broken.</li> </ol>                                                               | <ol style="list-style-type: none"> <li>1. Replace micro switch.</li> <li>2. Replace lower PCB.</li> </ol>                                                       |
| When power is on, compressor stops working; but the exchanger keeps rotating.                    | <ol style="list-style-type: none"> <li>1. Pressure detector is broken.</li> </ol>                                                                                                        | <ol style="list-style-type: none"> <li>1. Replace upper PCB.</li> </ol>                                                                                         |
| Mattress pressure is low, but alarm is not activated.                                            | <ol style="list-style-type: none"> <li>1. Pressure detector is not working.</li> <li>2. Buzzer on upper PCB is broken.</li> </ol>                                                        | <ol style="list-style-type: none"> <li>1. Replace upper PCB.</li> </ol>                                                                                         |
| Push button on panel is not working, LED indicator is not on, and LED segment display is not on. | <ol style="list-style-type: none"> <li>1. Push button is not working.</li> <li>2. LED is broken.</li> <li>3. LED segment display is broken.</li> </ol>                                   | <ol style="list-style-type: none"> <li>1. Replace upper PCB.</li> </ol>                                                                                         |
| Mattress pressure is too high or too low.                                                        | <ol style="list-style-type: none"> <li>1. Pressure sensor is broken.</li> </ol>                                                                                                          | <ol style="list-style-type: none"> <li>1. Replace upper PCB.</li> </ol>                                                                                         |

## SPECIFICATIONS

### Technical Specifications

| Pump                                     | Mattress                                |
|------------------------------------------|-----------------------------------------|
| Item: SoftCaire Simple Digital           | Item: EC Mattress                       |
| Power Supply: 120V/60Hz, 1A              | Size: 80" x 36" x 5" + 3" Foam          |
| Air Output: 8 LPM                        | Top Cover: Nylon/PU Quilted with Zipper |
| Pressure Range: 20 mmHg–55 mmHg          | Air Cells: Nylon/PVC                    |
| Cycle Time: 10 minutes                   | Base: Durable Nylon /PVC                |
| Case Material: Flame Retardant ABS       | 17 Air Cells                            |
| Static Mode                              | CPR Valve for Emergency Procedures      |
| Power Failure Alarm, Low Pressure Alarm  | Pillow Function                         |
| Alarm Mute                               | Quick Connectors                        |
| Size: 10.6" x 6" x 4" (27 x 15.5 x 10cm) | Weight Capacity: 350lbs/180kgs          |
| Weight: 3.5lbs/1.6 kg                    |                                         |

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

## WARRANTY

Your Rhythm product is warranted to be free of defects in materials and workmanship for 18 Months to the original consumer purchaser. This warranty does not cover device failure due to misuse, negligence, improper storage or handling, improper operation, and unauthorized modifications. This warranty does not cover device failure due to owner misuse or negligence, or normal wear and tear. The warranty does not extend to non-durable components, such as rubber accessories, which are subject to normal wear and need periodic replacement. If the product is to be returned to Rhythm Healthcare, prior authorization will be required. This product is identified by a serial or lot number at the time of manufacture. Removing or defacing the serial or lot number label may void this warranty.

If you have a question about your Rhythm Healthcare product or this warranty, please email us at: [contactus@rhythmhc.com](mailto:contactus@rhythmhc.com)



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