

Operating Instructions

for the

Sentry

**Model 500 and 1000
Pressure Relieving System**

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1.1 Product Overview

The SENTRY is a microprocessor controlled **Alternating Pressure Relief** therapeutic mattress system.

The Alternating Pressure feature of the SENTRY provides pressure relief by sequentially deflating and inflating every other air cell on a timed interval. It is widely recognized that constant pressure to a bony prominence is a leading cause of skin breakdown. The continuous movement of the SENTRY alleviates such constant pressures while enhancing circulation.

The SENTRY provides a real-time display of air pressure for both the inflated and deflated cells on the electronic controller. The deflated air cells allow for pressure to be relieved while the inflated air cells support the patient's weight.

All settings are stored in non-volatile memory (it remembers even when the power is off) so the SENTRY can automatically return to its previous program when the power returns.

2.1 Unpacking and Inspection

Carefully remove the controller, mattress and all accessories from the shipping cartons. Inspect all components for any damage, which may have occurred in shipping. Promptly report all shortages or damage to SenTech Medical Systems, Inc.

Mattress Replacement: The box will contain a completely assembled mattress replacement system. This system is comprised of a 1.5” foam mattress, air cell assembly and top coverlet. (The overlay system does not contain the 1.5” foam mattress and is intended for placement on top of an existing mattress.)

Electronic Controller: The electronic controller is in a separate box, inside the mattress box, to secure its contents.

It is recommended that all shipping boxes and packing materials be saved and stored in the event shipment back to SenTech is required.

2.2 Installation Requirements

This system was designed to operate in a controlled environment, free from extreme temperatures and excessive dust and humidity. The controller can be plugged into any standard 120 Vac 60 Hz wall outlet and can be conveniently hung over the foot of most hospital and home care beds.

2.3 Installation of Soft Goods

Mattress Options

Mattress Replacement: No assembly of the mattress replacement components is required. To place on bed frame, remove the current mattress, which is being replaced. Place the SENTRY mattress assembly onto the bed frame. The hose connections should be situated at the bottom left of the bed. Secure the mattress replacement by attaching the straps to the bed frame.

- There are two sets of straps with D-rings on each side, and one set at the head of the mattress replacement, to secure the mattress system to the bed frame. Make sure the straps do not inhibit or interfere with any moving components of the bed frame.

Mattress Overlay: The mattress overlay is used in conjunction with the existing mattress. Simply place the overlay on top of the mattress with the hose connections placed at the bottom left of the bed. Secure by attaching the corner straps under the mattress.

2.4 Installation of Electronic Controller

1. Hang the SENTRY controller over the foot board of the bed frame.
2. Connect both of the hoses from the SENTRY mattress to the electronic controller. The order is irrelevant. *Each connection should tightly click into place.*
3. Plug into electrical outlet. Turn the POWER on with the power switch located next to the line cord, on the left side panel of the unit.

2.5 Programming Electronic Controller

1. Set the **SENTRY 500** by pressing either the up or down arrow to input the desired maximum pressure setting based on the pressure setting guidelines in section 2.6.
2. Set the **SENTRY 1000** by first selecting your desired therapy, either *ALTERNATING PRESSURE*, *STATIC*, or *CHAIR*. Then follow step 1.
3. For a firm surface throughout the entire bed, press *MAXIMUM INFLATE*. This is useful for patient transfer and certain medical protocols. Alternating Pressure will not operate while in *MAXIMUM INFLATE* mode. This mode will last for 20 minutes (unless interrupted by pressing *MAXIMUM INFLATE* again) then the system will automatically revert back to the previous operating mode.

2.6 Bed Pressure Setting Guidelines

Sentry 500 & Sentry 1000

Patient Weight	Bed Setting Alternating	Bed Setting Static	Chair Setting
100 lbs.	8-14	5-10	50-58
140 lbs.	14-20	8-12	55-63
180 lbs.	20-25	10-13	58-66
220 lbs.	25-29	12-15	62-70
260 lbs.	29-32	14-18	68-76
300 lbs.	32-38	16-20	74-85

3.1 Key Functions and Settings

Power: This switch is located next to the line cord, on the bottom left side of the unit. It is used to control the AC power. When power is supplied to the unit, the switch will illuminate.

Basic Features:

Up / Down Arrow (Model 500 and 1000) The up and down arrow keys are used to increase or decrease the patient data or pressure settings.

Alternating Pressure (Model 1000) This key places the controller in the alternating pressure mode. Section A and Section B alternate on a five minute cycle.

Static (Model 1000) This key places the controller in the static mode. The mattress will fully inflate to the maximum pressure setting you have programmed.

Chair (Model 1000) This key is only to be used when the controller is connected to one of SenTech Medical Systems Air Chair products. **Refer to Appendix A-1.**

Maximum Inflate (Model 1000) This switch (de)activates the maximum inflate (firm) mode. In this mode, all mattress cells are inflated to 40 mmHg to provide a firm, flat surface. This mode will last for 20 minutes (unless it is interrupted by the pressing of any function key) then the system will revert back to the pre-set operating mode. The pressure used in this mode can be varied from 32 to 50 mmHg by using the UP/DOWN keys, however this value is not stored in permanent memory. Maximum pressure defaults to 40 mmHg upon power-up.

3.2 CPR Operation

1. A CPR pull is located at the head of the mattress on the patients right side.
2. To activate the CPR, firmly pull the red tag labeled “CPR”.
3. All air cells will begin to deflate immediately.
4. Air will be completely evacuated in 10 to 25 seconds, depending upon the weight of the patient.
5. To resume operation of the mattress, close the CPR device by fully inserting the two CPR hoses into the connector.

4.1 Periodic Maintenance

Electrical cord should be routinely checked to ensure no defects have occurred.

Controller should be wiped down with disinfectant. **(DO NOT spray directly on controller)**

4.2 Cleaning Procedure:

- **Coverlet:** The top cover should be completely disinfected between patient use. While it is up to each facility to follow their own guidelines for infection control, SenTech recommends the cover be machine washed in cool water with detergent and an effective medical disinfectant. **(DO NOT USE BLEACH.)** The cover should soak in the disinfectant solution for a minimum of ten minutes for effective infection control. Rinse thoroughly. Dry using low heat. **(DO NOT USE HIGH TEMPERATURES)**. High temperature could destroy the coating that makes the coverlet waterproof, yet breathable.
- **Outside Shell:** Wipe down shell using the same disinfectant as above. Air dry.
- **Air Cell Assembly:** Wipe air cell assembly down by hand using medical disinfectant. Allow disinfectant to soak in then rinse thoroughly. Air dry only. DO NOT MACHINE WASH OR DRY!
- **Foam Mattress:** Foam mattress is fully enclosed in 10mil urethane and should not require cleaning other than wiping down with disinfectant. If foam should be compromised, this component should be replaced.

4.3 Troubleshooting Guide

<u>Problem</u>	<u>Cause</u>	<u>Solution</u>
1. Alarm light is on	The alarm is triggered when a cell(s) fails to reach its programmed pressure after three consecutive cycles. This is usually an indication of an air leak somewhere in the system.	<ul style="list-style-type: none">a) Be sure the CPR connection is in the closed position.b) Be sure all hoses are properly connected to the controller.c) Check all hoses along the inside of the mattress. Each hose should be tightly connected.d) Check each air cell to ensure there are no leaks. (It will be easier to detect a possible leak if you place the system in the MAX INFLATE mode.)e) Once the leak has been resolved, the alarm light will automatically turn off after three cycles. To reset the system more quickly, turn the power off and then on again to reset.
2. Patient is sinking or bottoming out and the alarm light is not on.	Although some sinking is normal for an air mattress, the pressure may be set too low for that patient's weight distribution.	<ul style="list-style-type: none">a) Increase set pressure. An increase of 3 to 5 mm/Hg is often sufficient.b) Wait at least one full cycle before determining if the pressure increase is adequate.

4.3 Troubleshooting Guide, Cont'd

<u>Problem</u>	<u>Cause</u>	<u>Solution</u>
3. The pressure setting was increased but the pressure does not appear changed.	The SET key may have been inadvertently pressed. This would default back to the patient weight setting.	Enter the correct pressure needed. Do not press SET.
4. Display readings appear scrambled.	Power surges can cause the controller to temporarily malfunction.	Turn controller power off for 5 seconds, then on again to reset.
5. Controller is inoperable.	May be caused by a power surge substantial enough to overload the internal circuitry. Or May be caused by internal damage.	Call SenTech Medical Systems, Inc. 800-474-4225
6. Display readings appear abnormally high.	May be caused by the hoses having a bend or kink and causing an uneven delivery of air.	Check hoses to eliminate any sharp bends or folds.

5.1 Safety

- 1. SENTECH RECOMMENDS THE USE OF SIDE RAILS IN THEIR HIGHEST POSITION AT ALL TIMES.**
- 2. DO NOT PLACE ANY ITEMS ON OR OVER THE ELECTRONIC CONTROLLER.**
- 3. DO NOT IMMERSE THE ELECTRONIC CONTROLLER IN ANY LIQUID.**
- 4. ONLY USE THE POWER CORD SUPPLIED WITH THE SYSTEM.**
- 5. PLACEMENT OF THE POWER CORD SHOULD BE OUT OF THE WAY AS TO AVOID TRIPPING OR DAMAGE TO THE CORD. SENTECH RECOMMENDS ROUTING THE CORD UNDER THE BED FRAME AND PLUGGING INTO THE WALL BY THE HEAD BOARD.**
- 6. USE CARE WHEN HANDLING OR TRANSPORTING THE ELECTRONIC CONTROLLER AS DROPPING MAY CAUSE INTERNAL DAMAGE.**
- 7. CAREGIVER SHOULD USE REASONABLE JUDGEMENT WHEN USING THIS PRODUCT**

Appendix A-1 Operating AIR CHAIRS (Model 1000 only)

The SENTRY 1000 electronic controller will operate the SenTech Bedside, Recliner and Recliner 550 AIR CHAIRS.

To Switch From the Mattress to the Air Chair:

If electronic controller will remain on the footboard of the bed:

1. Unplug the bed hoses on the left side of the controller.
2. Cap those two hoses to retain air in the mattress (caps available from SenTech)
3. Insert the two AIR CHAIR hoses into the electronic controller.
4. Follow AIR CHAIR set up instructions below.

If electronic controller will be moved away from the bed:

1. Unplug the bed hoses on the left side of the controller.
2. Move controller to desired location. Plug into electrical outlet.
3. Insert the two chair connectors into the electronic controller.
4. Follow AIR CHAIR set up instructions below.

AIR CHAIR SET-UP:

1. Turn controller power on.
2. On the front panel, press the CHAIR key. The pressure settings will automatically be converted from the bed mode to the chair mode.
3. If an override of the settings is desired, increase or decrease the pressure as necessary by using the up and down arrows on the far right side of the control panel..

Appendix B-1 Warranty Information

LIMITED WARRANTY

SenTech Medical Systems, Inc. warrants each of its products to perform in accordance with their respective specifications for the following periods from date of shipment from SenTech's facility.

Stage IV 2000, 3000, Thera-Turn 3000, Stage IV Star and Thera-Turn Star Systems

Compressor Pump: 3 years
Electronic Controller: 2 years
Soft Goods: 1 Year

Primary Care, Sentry 500, 1000, 1200 and Thera-Turn 1000, Systems

Compressor Pump: 2 years
Electronic Controller: 1 year
Soft Goods: 1 Year

Air Chair Systems

Compressor Pump: 2 years
Electronic Controller: 1 year
Soft Goods: 1 Year
Battery in Mobile Air Chair: 6 Months
Recliner Chair in Air Chair Systems: 2 years

During the warranty period, SenTech Medical Systems, Inc. will repair or replace any products that are not performing in accordance with their respective specifications, unless failure to perform is the result of (1) customer negligence or misuse or (2) repair by personnel not trained or authorized to conduct repairs by SenTech. Items not covered under warranty include, but are not limited to: staining of materials, punctures, cuts, damaged electrical cords, rips or tears, dents and lost or missing parts. Warranty repairs must receive a prior return authorization number and sent to SenTech by prepaid transportation, together with information describing the product's performance. It will be returned to the customer at SenTech's expense. Warranty repairs do not extend the life of the warranty period. During the warranty period, SenTech will provide one Bio-Med at no charge, excluding shipping.

Neither SenTech Medical Systems, Inc., its officers, directors, employees or agents shall be liable for consequential or other damages, including but not limited to personal injury, loss, or any other expense, directly or indirectly arising from the use of its products. The sole remedy for breach of the limited warranty granted herein shall be repair or replacement of the SenTech products.

All product specifications are subject to change without notice.

SenTech Medical Systems, Inc.
5353 NW 35th Avenue
Fort Lauderdale, FL 33309
(954)-739-4972
(800)-474-4225