

Leamington Mennonite Home  
Long Term Care

POLICY AND PROCEDURE

<b>CATEGORY:</b> Resident Care	<b>SUBJECT:</b> Low Air Loss Mattress	<b>SECTION:</b> L
<b>DATE:</b> September 2004	<b>Administrator:</b> _____ <i>J. W.</i>	<b>POLICY:</b> 4
<b>REVISION DATES:</b>	<b>Director of Care:</b> _____ <i>Cheryl Allick</i>	

**LOW AIR LOSS MATTRESS**

**PURPOSE:**

To provide therapeutic benefit to residents suffering from or at risk for developing pressure ulcers. The system is designed to provide unsurpassed wound care therapy and resident comfort.

**PROCEDURE:**

- After having an inservice conducted by the Company Representative and/or the DOC/RN, you should follow the Instructions and procedures as outlined (see enclosed instructions).
- Special attention to the # 11 instruction: to insure the proper inflation is appropriate for that resident, you must complete proper hand checks. This is done by placing four fingers between the resident's buttocks and the underlying foam base. These hand checks should be completed every shift. The pressure button is then set to the appropriate number. **Remember, too firm or too soft will defeat the purpose of the mattress.**

Note: the DynaLAL Low Air Loss Alternating Mattress has the same purpose – refer to the instructions for proper use. The hand checks still apply. This mattress does not take the place of turning and repositioning. With the Dyna mattress also note that when the hydro flickers or goes out you will need to reset it as it does not automatically do this.

## Instructions for the Plexus 2200 Low Air Loss Mattress

1. Remove standard mattress from bed frame (1). (Refer to Exploded View of Mattress and Bed).
2. Replace standard mattress with the P/2200 mattress (2). Make sure to orient mattress so the air tubing (3) exits the mattress at the foot of the bed.
3. Loop each of the four black nylon straps (4) to the bed frame and secure with the D-Rings provided.
4. Suspend control unit from the footboard using the two hooks located on the back of the unit as shown (5). If no footboard exists, place unit on a flat surface near the foot end of the bed. (Be careful not to position the unit on the floor in such a manner that it may become a hazard to foot traffic.)
5. Connect the free end of the tubing (3) to the respective mating connector located on the side of the pump (6). This "quick connect" fitting can be secured by simply mating the two ends together in a linear but opposing direction.
6. Check that the hose is secure by gently pulling. Ensure the air hose is not kinked or tucked under the mattress.
7. Cover P/2200 air mattress with the PLEXUS Therapeutic Low-Shear top sheet and attach to the mattress D-rings provided. (Verify top sheet is loosely fitting so as not to "hammock" patient above the mattress. If top sheet appears tight verify ICU size sheet is not covering a standard sized mattress.)
8. Carefully plug power cord into a properly grounded outlet. Unit will enter "STAND BY" mode. (Please see page nine for diagram).
9. To enter normal operation mode press ON/STAND BY switch on the control panel.
10. Place patient on the air mattress. (Note: The control unit can inflate the mattress with the patient laying on it.) For quicker inflation, MAX INFLATE can be activated.
11. For patient comfort, adjust pressure by pushing the "soft" or "firm" arrows. After adjustment, assure proper inflation of air cells by placing hand under the air cells making sure the width of approximately four fingers can slide between the patient's buttocks and the underlying foam base.
12. For mattress deflation when CPR is needed, disconnect the hose connector from the controller. Mattress will be fully deflated in less than 20 seconds.

## **Instructions for the Dyna LAL Low Air Loss Alternating Mattress**

- 6.1 Remove the existing mattress from the bed frame.
- 6.2 Replace the standard mattress with LAL Turning Mattress Replacement and make sure orient mattress so that the air tube is placed at the foot of the bed.
- 6.3 Secure the straps beneath the mattress to the bed frame.
- 6.4 Hang the Master control Unit on the footboard of the bed frame. Attach the air tubes connectors to socket on the left panel of the Master control Unit. Be careful on the color matching between the connectors and socket. (black connectors to black socket, red connector to red socket)
- 6.5 Ensure the air hoses are not kinked under the mattress. (Could be verified by simple visual check). For detail Air hose connection please refer Explode Diagram.
- 6.6 Zip the low shear pu top cover to the mattress (CSI – 71). Or use D-ring to buckle up the top cover and bottom cover (CSI – 72).
- 6.7 Carefully plug power cord into a properly grounded power source. Turn on the master mechanical power switch on the right side panel. The STANDBY LED should illuminate.
  
- 6.8 Push the STANDBY/OPERATE button on the front panel. The OPERATE LED should now be lit up and the Master Control Unit should now start to spin.
- 6.9 Push the AUTO FIRM button for fast inflation. Allow 4 – 7 minutes for full inflation. After the mattress is fully inflated, the caregiver can now transfer the patient on to the mattress. Push the AUTO FIRM again to release the fast inflation mode. (Note: The control unit can inflate the mattress with the patient laying on an inflating mattress.)

6.10 **Static Function:** Push the static button and adjust the Contort Control by pressing the 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 buttocks between sells and foam. The patient should have at least 4 cm of clearance between the buttocks and the bottom of the mattress.

6.11 Alternation time can be adjusted by the CYCLE button. The time could vary from 1 minute to 95 minutes. (IF select Static Function, the time window would not show any figure. The time shown on the time window is the mode time and the total cycle time would approximately be the mode time multiplied by 3.)

6.12 The Master control Unit is equipped with power failure alarm. This function enables the Control unit to generate a horn sound to remind the Medicare personnel of the power failure. The alarm can be disabled by pushing the Alarm Reset Button on the front panel.

6.13 **Dynamic Function:** Push the Alternate button to enable the 3-1 alternate function. This function should always cope with the work time. Detail illustration refer to fig – 1.

6.14 For mattress deflation or for CPR, disconnect the hose connector from the controller and release the CPR quick deflation valve.

### **Instructions for the Plexus 2500 Low Air Loss/Alternating Pressure Mattress**

1. Remove standard mattress from bed frame (1). (Refer to Exploded View of Mattress and Bed).
2. Replace standard mattress with the P/2500 mattress (2). Make sure to orient mattress so the air tubing (3) exits the mattress at the foot of the bed.
3. Loop each of the four black nylon straps (4) to the bed frame and secure with the D-Rings provided.
4. Suspend control unit from the footboard using the two hooks located on the back of the unit as shown (5). If no footboard exists, place unit on a flat surface near the foot end of the bed. (Be careful not to position the unit on the floor in such a manner that it may become a hazard to foot traffic.)
5. Connect the free end of the tubing (3) to the respective mating connector located on the side of the pump (6). This "quick connect" fitting can be secured by simply mating the two ends together in a linear but opposing direction.
6. Check that the hose is secure by gently pulling. Ensure the air hose is not kinked or tucked under the mattress.
7. Cover P/2500 air mattress with the PLEXUS Therapeutic Low-Shear top sheet and attach to the mattress D-rings provided. (Verify top sheet is loosely fitting so as not to "hammock" patient above the mattress. If top sheet appears tight verify ICU size sheet is not covering a standard sized mattress.
8. Carefully plug power cord into a properly grounded outlet. Unit will enter "STAND BY" mode. (Please see page nine for diagram).
9. To enter normal operation mode press ON/STAND BY switch on the control panel.
10. Place patient on the air mattress. (Note: The control unit can inflate the mattress with the patient laying on it.) For quicker inflation, MAX INFLATE can be activated.
11. For patient comfort, adjust pressure by pushing the "soft" or "firm" arrows. After adjustment, assure proper inflation of air cells by placing hand under the air cells making sure the width of approximately four fingers can slide between the patient's buttocks and the underlying foam base.
12. For mattress deflation when CPR is needed, disconnect the hose connector from the controller. Mattress will be fully deflated in less than 20 seconds.

## FEATURES OF THE P/2500 CONTROL UNIT

### 1. MAX INFLATE

- To assist in patient ingress/egress as well as normal nursing procedures, the air mattress can be maximally inflated by pushing the “MAX INFLATE” button on the control unit.
- Upon initiating the maximum inflate condition, the mattress will rapidly inflate to its highest (firmest) level and maintain that setting for 30 minutes or until “MAX INFLATE” button is pushed again.
  - “MAX INFLATE” button will remain illuminated while system is in maximum inflation mode.
  - If the “MAX INFLATE” button is pushed during max inflation mode, the button will cease illuminating and the system will return to previously chosen settings.
  - After 30 minutes in the “MAX INFLATE” mode, the system is programmed to automatically return to the therapeutic settings. This fail-safe feature prevents a high risk patient from inadvertently being left on a firmer than therapeutic laying surface.
  - NOTE: After automatically returning to the therapeutic mode, the “MAX INFLATE” button must be pushed twice to return to the “MAX INFLATE” condition. This action resets the automatic timer.

### 2. ON DEMAND ALTERNATING LOW PRESSURE THERAPY

- The P/2500 is the only air therapy system that gives the caregiver the option of whether or not to use alternating low pressure therapy.
- A simple push of a button on the control unit transforms the P/2500 from a basic low air loss therapy system to one which can also provide alternating low pressure.

### 3. FULLY ILLUMINATED POWER AND SOFT/FIRM CONTROLS

- The P/2500 provides the added benefit of patient comfort control.
- An LED panel reminds the caregiver of the system settings that are correct for their patient.

### 4. POWER LOSS SYSTEM SETTING MEMORY

- In the event of a power loss, the P/2500 will remember the SOFT/FIRM position that was set prior to current interruption.
- If optional battery back-up is used, operation will continue uninterrupted for at least one hour.

### 5. DURABLE AND RUGGED HOUSING

- To assure years of trouble free operation, the P/2500 control unit consists of impact resistant ABS plastic.
- The housing is very lightweight only 9 pounds.