# **USER MANUAL**

FLEXICAIR® Low Airloss Therapy Unit From Hill-Rom





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# **Symbol Definition**

This manual contains different typefaces and icons designed to improve readability and increase understanding of its content. Note the following examples:

- Standard text—used for regular information.
- Boldface text—emphasizes a word or phrase.
- **NOTE:**—sets apart special information or important instruction clarification.
- The symbol below highlights a WARNING or CAUTION:

#### Warning and Caution

- A WARNING identifies situations or actions that may affect patient or user safety. Disregarding a warning could result in patient or user injury.
- A CAUTION points out special procedures or precautions that personnel must follow to avoid equipment damage.
- The symbol below highlights a CAUGHT HAZARD WARNING:

#### **Caught Hazard Warning**



• The symbol below highlights a CHEMICAL HAZARD WARNING:

#### Chemical Hazard Warning



• The symbol below highlights an ELECTRICAL SHOCK HAZARD WARNING:

#### **Electrical Shock Hazard Warning**



# Intended Use

The management of patients who are particularly vulnerable to skin breakdown, with all its implications for the recovery process, is complex. The starting point is determining the treatment objectives, assessing the risk, and choosing the proper support. An inappropriate choice can result in complications that impede recovery and increase the length of hospitalization. Difficulties arise because differing clinical conditions and treatment objectives dictate different needs and, in progressing through the recovery process, a patient can require several different types of support.

The FLEXICAIR® II Low Airloss Therapy Unit is a wound management system to meet specific prevention, rehabilitation, and related patient-management objectives for the intermediate-risk patient.

The FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit is a wound management system to help with pressure sore prevention and treatment when ambulation is a priority or respiration is compromised.

Based upon the principle of low airloss technology, both units offer beneficial features as well as the clinical consultation and service of Hill-Rom.

The features, applications, and instructions for use of the units are described in this user manual. However, this user manual is intended **only** as a guideline. Remember that your Hill-Rom Clinical Sales Consultant is available around the clock to help assess each of your patients for risk and, on the basis of medical status and treatment objectives, assist you in selecting the treatment modality to achieve maximum patient benefit in the most cost-effective way. It is this commitment to serve both the patient and caregiver through products and a level of expertise that earned Hill-Rom its reputation as a resource in chronic wound management.

# Introduction

The prevention of pressure sore development and wound deterioration requires a support that minimizes the effects of the mechanical forces of pressure, shear, friction, and moisture upon fragile tissue.

Low airloss therapy is achieved by controlling the low-pressure distribution and the escape of air through inflatable cushions used to support the patient. As a result, each patient is supported, according to the individual need, at reduced pressures. The potential for shear and friction is reduced, pressure on bony prominences is minimized, and the skin is kept comfortably dry.

The FLEXICAIR® II Low Airloss Therapy Unit and the FLEXICAIR MC3® Low Airloss Therapy Unit maximize the benefits and safety of low airloss therapy technology for the patient and reduce caregiver involvement in technical, maintenance, and non-nursing activities.

# Features

The FLEXICAIR® II Low Airloss Therapy Unit and the FLEXICAIR MC3® Low Airloss Therapy Unit reduce pressure and decrease the potential for friction, shear, and maceration. In addition, their nursing management features and resemblance to a standard hospital bed make the units an efficient and effective preventive and rehabilitative support in the treatment of tissue breakdown. Select patients with existing pressure sores and/or surgical wounds on the basis of clinical status, treatment objectives, and priorities.

As a general guideline, use the FLEXICAIR® II Low Airloss Therapy Unit for the following:

- Patients at moderate-to-high risk for the development of pressure sores.
- Patients with existing early-stage pressure sores.
- Patients with advanced-stage or full-thickness pressure sores whose clinical status and treatment objectives require continuous high head elevation, frequent transfer, or frequent ambulation.

As a general guideline, use the FLEXICAIR MC3® Low Airloss Therapy Unit for the following:

- Patients who, due to clinical status, may develop pressure sores.
- Patients with existing early stage (Stage I and II) pressure sores.
- Patients with non-infected (Stage III or IV) wounds, when treatment objectives that require frequent ambulation and transfer take priority.
- Patients whose respiratory status requires continuous high head elevation.

FLEXICAIR® Low Airloss Therapy Units





# Patient Care Areas of Use

Conditions that increase the risk of pressure sore development or deterioration are seen in all areas of medicine. However, it is important to recognize the common factors that predispose a patient to pressure sores, and in which clinical settings they are most likely to occur.

Patient with one or more of the following conditions are at significant risk:

- Immobility
- Incontinence
- Poor nutrition
- Diminished level of consciousness
- Reduced subcutaneous tissue
- Dehydration
- Diminished circulation
- Multisystem failure
- Use of steroids or sedatives

These conditions are most prevalent in the following clinical settings:

- Gerontology
- Critical care
- Rehabilitation
- Orthopedics
- Neurosurgery
- Oncology
- Burn care
- Dialysis

# **Pressure Reduction**

A set of cushions inflated to specific air pressures forms the foundation of low airloss therapy. The unit provides support that matches the needs of the individual patient, distributes the body load uniformly over a maximum area, and minimizes pressure concentrations at the bony prominences.

# **Special Air Cushion Configuration**

The segmented design and arrangement of the air cushions compartmentalize support, providing greater flexibility and even displacement of the patient's weight. Consequently, a patient lying in the supine position is supported below capillary closing pressures.

# **Automatic Pressure Adjustment**

For low airloss therapy to be effective, airflow into the cushions must be adjusted when the patient changes head elevation. The units provide automatic pressure adjustment at four levels of patient elevation, significantly reducing the potential for human error and eliminating a time-consuming nursing responsibility. The patient can freely change head elevation without compromising pressure relief.

# **Patient Support**

The suspension system of the unit consists of 18 inflatable cushions divided into five zones corresponding to major body surface areas. When the system is activated, compressed air fills the cushions. To achieve the lowest skin contact pressures and provide optimal patient comfort, airflow is distributed through each zone. The resulting system provides sacral, scapular, and trochanteric support at less than capillaryclosing pressures and correspondingly low contact pressures across all body surfaces.

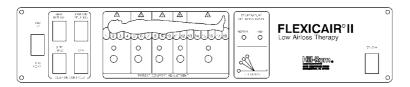
# **Comfort Controls**

The unit has two sets of controls:

- The controls that manage the therapeutic functions are located at the unit's footboard and at the center of the frame on each side.
- The controls that operate the bed frame are located in the siderails and at the foot end of the unit.

# Therapeutic Controls—FLEXICAIR® II Low Airloss Therapy Unit

## FLEXICAIR® II Low Airloss Therapy Unit Control Panel



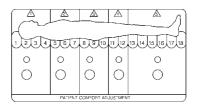
### On/Off Switch

To turn the unit on or off, press the **On/Off** switch in the right-hand corner of the control panel at the foot end of the unit. When the unit is on, the indicator light on the switch illuminates.

#### Patient Comfort Adjustment Control

To achieve optimal pressures at four different head elevation, trained Hill-Rom personnel program the unit on a patient-by-patient basis at the time of delivery. However, since patient comfort is subjective, the unit permits finer pressure adjustments without compromising its preset effectiveness.

To adjust the air cushions for comfort, locate the **Patient Comfort Adjustment** controls on the control panel. The five body zones displayed have independent control knobs to adjust the cushion pressures within each zone.



Turning the control knobs counterclockwise deflates the air cushions; turning the control knobs clockwise inflates the air cushions.

# NOTE:

After a control is set, a slight delay occurs before the pressures within the cushions adjust. Adjust the cushion pressures in gradual increments, and allow the patient approximately 30 seconds between adjustments to experience each change.

The pressure sensor indicators illuminate **green** to indicate normal function. A **red** light in any zone indicates that the patient is touching the bottom of the surface (see "Bottoming Signal" on page 22).

## **Elevation Indicator**

The **Elevation** indicator shows the degree of elevation. With each change in elevation, the unit registers the patient's position and automatically adjusts the cushion pressure to compensate.

#### **Temperature Operating Range Indicators**

The **Temperature Operating Range** indicators are located above the **Elevation** indicator:

- A green indicator indicates that the unit is operating at the Normal range for patient comfort.
- A red indicator indicates a High temperature condition. If a High temperature condition occurs, notify Hill-Rom Technical Support.

#### NOTE:

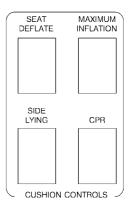
When the operating temperature exceeds a safe range, the unit shuts down. When the temperature returns to a normal range, the unit automatically resumes operation. If the unit shuts down, remove the patient from the unit, and notify Hill-Rom Technical Support. To enable easy transfer, the bed frame controls continue to operate.

#### **Cushion Controls**

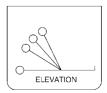
The following four **Cushion Controls** switches are located at the control panel:

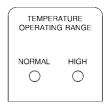
• Seat Deflate Switch—The unit accommodates ambulatory patients and facilitates wheelchair transfer. When Seat Deflate Mode is activated, the seat section deflates to enable the patient to transfer from the unit in a seated position.

To activate Seat Deflate Mode, press the **Seat Deflate Switch**. When Seat



Deflate Mode is activated, the **Seat Deflate** indicator illuminates. To deactivate Seat Deflate Mode, press the **Seat Deflate Switch** to the **Off** position to automatically inflate the cushions to their programmed levels.





• **Maximum Inflation Switch**—To facilitate the transfer of patients in the supine position, Maximum Inflation Mode inflates all sections of the unit to their maximum capacity. This provides a firm surface from which patients can more easily be moved.

To transfer a patient onto or off of the unit, press the **Maximum Inflation** switch to activate Maximum Inflation Mode. When Maximum Inflation Mode is activated, the red **Maximum Inflation** indicator illuminates, and an alarm sounds briefly. After Maximum Inflation Mode is active for 10 minutes, an alarm sounds for 10 minutes to remind the caregiver to deactivate Maximum Inflation Mode.

To deactivate Maximum Inflation Mode, press the **Maximum Inflation** switch to the **Off** position to automatically deflate the cushions to their programmed levels.

• Side Lying Switch—The Side Lying switch enables further protection of patients during prolonged periods of side lying of 15 minutes or longer. To provide added support to the trochanter area, the Side Lying switch distributes the cushion pressures appropriately. If the Side Lying switch is activated, its lamp illuminates.

When the patient returns to a supine position, press the **Side Lying** switch to the **Off** position to automatically revert the pressures in the air cushions to their programmed values.

• **CPR Switch**—To deflate the cushions for performing CPR, press the red **CPR** switch. When the **CPR** switch is activated, all air cushions deflate rapidly, leaving the patient on a firm surface. A cardiac board is **not** needed.

To inflate the cushions, press the **CPR** switch to the **Off** position to automatically return the air cushion pressures to their programmed levels.

#### Bed Up/Down Switch

Press the **Bed Up/Down** switch to raise or lower the bed frame to the desired position.

BED UP



DOM

# Therapeutic Controls—FLEXICAIR MC3® Low Airloss Therapy Unit

FLEXICAIR MC3® Control Panel

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# On/Off Button

To turn the unit on or off, press the **On/Off** button in the bottom center of the control panel at the foot end of the unit. When the unit is on, the indicator light on the button illuminates.

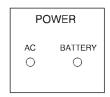
### Power Indicator

Two **Power** indicator lights in the center of the control panel indicate whether **AC** or **Battery** power is running the unit:

- The green indicator indicates that the unit is plugged into an appropriate power source and is operating in its normal mode on AC power.
- The **red** indicator indicates that the bed is in Transport Mode and is operating on **Battery** power. Once transport is complete, plug the unit into an appropriate power source for optimal battery charging.

# Weight Monitor Indicator

The **Weight Monitor** indicator illuminates when the built-in scale alarms. The indicator flashes when an alarm condition exists for weight loss or gain or bed exit.



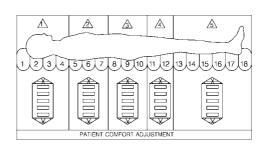




# Patient Comfort Adjustment Controls

To achieve optimal pressures at four different head elevations, trained Hill-Rom personnel program the unit on a patient-by-patient basis at the time of delivery. However, since patient comfort is subjective, the unit permits finer pressure adjustments without compromising its preset effectiveness.

To adjust the air cushions for comfort, locate the **Patient Comfort Adjustment** controls on the control panel. The five body zones displayed have independent buttons to adjust the cushion pressures within each zone.



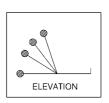
Pressing the bottom arrow of the button deflates the air cushions slightly; pressing the top arrow of the button inflates the cushions. Each time the button is pressed, the light-emitting diode (LED) increases or decreases one position to indicate that the zone pressure is raised or lowered.

# NOTE:

After a control is set, a slight delay occurs before the pressures within the cushions adjust. Adjust the cushion pressures in gradual increments, and allow the patient approximately 60 seconds between adjustments to experience each change.

#### **Elevation Indicators**

The **Elevation** indicators indicate that the unit functions properly. The indicator shows the degree of elevation— $0^{\circ}$ ,  $30^{\circ}$ ,  $45^{\circ}$ , or  $60^{\circ}$ . With each change in elevation, the unit registers the patient's position and automatically adjusts the cushion pressures to compensate.



# NOTE:

The **Elevation** indicators indicate the angle of elevation from the frame of the unit, **not** the cushion height. The patient's actual elevation may differ slightly from the angle indicated.

#### Temperature Operating Range Indicators

For maximum patient comfort, the unit operates at room temperature. The **Temperature Operating Range** indicators are located in the center of the control panel:

- A green indicator indicates that the unit is operating at the Normal range for patient comfort.
- A **red** indicator and an audible alarm indicate a **High** temperature condition. If a **High** temperature condition occurs, notify Hill-Rom Technical Support.

#### NOTE:

When the operating temperature exceeds a safe range, the unit shuts down. When the temperature returns to a normal range, the unit automatically resumes operation. If the unit shuts down, remove the patient from the unit, and notify Hill-Rom Technical Support. To enable easy transfer, the bed frame controls continue to operate.

### Side Lying Button

The **Side Lying** button enables further protection of patients during prolonged periods of side lying of 15 minutes or longer. To provide added support to the trochanter area, the **Side Lying** button distributes the cushion pressures appropriately. If the **Side Lying** button is activated, its lamp illuminates.

When the patient returns to a supine position, turn the **Side Lying** button off to automatically revert the pressures in the air cushions to their programmed values.

# **CPR Controls**

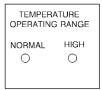
Achieve the CPR position by using any one of the red **CPR** buttons or STAT•FLAT® Release Handles:

- A **CPR** button is located on each side of the frame and at the footboard on the control panel.
- A STAT•FLAT® Release Handle is located on each side of the head end of the frame. For operation instructions, refer to "STAT•FLAT® Release Handles" on page 40.









# Maximum Inflation Button

To enable the transfer or positioning of patients, all air cushions may be inflated to maximum capacity. This provides a firm surface from which patients can more easily be moved.

To transfer a patient onto or off of the unit, press the Maximum Inflation button. When Maximum Inflation Mode is activated, the indicator illuminates, and an alarm sounds to remind the caregiver that, during Maximum Inflation Mode, the cushion pressures exceed the therapeutic levels.

To deactivate Maximum Inflation Mode, press the Maximum Inflation button again to automatically deflate the cushions to the programmed levels.

# **Cushion Alarm Off Button**

To silence the alarm, press the **Cushion Alarm Off** button. The alarm silences for 15 minutes and then reactivates unless Maximum Inflation Mode is deactivated or the Cushion Alarm Off button is pressed again.

#### Seat Deflate Button

The unit accommodates ambulatory patients and facilitates wheelchair transfer. When Seat Deflate Mode is activated, the seat section deflates to enable the patient to transfer from the unit in a seated position. A Seat Deflate button is located at each center side of the frame and at the footboard on the control panel.

To activate Seat Deflate Mode, press the Seat Deflate button. When Seat Deflate Mode is activated, the Seat Deflate indicator illuminates.

To deactivate Seat Deflate Mode, press the Seat Deflate button again to automatically inflate the cushions to their programmed levels.







## Bed Up/Down Controls

Press the **Bed Up** or **Down** arrow buttons to raise or lower the bed frame to the desired position.

# **Bed Frame Controls**

The bed frame controls are located on both siderails. International graphic symbols indicate all functions for patient positioning.

#### Head

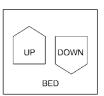
Press the **Head Up** or **Down** arrow button on the siderail to raise or lower the head end until the patient reaches the desired position.

#### <u>Knee</u>

Press the **Knee Up** or **Down** arrow button on the siderail to raise or lower the knee section until the patient reaches the desired position.

#### <u>Hilow</u>

Press the **Hilow Up** or **Down** arrow button on the siderail to raise or lower the bed frame to the desired position.

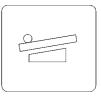




## Trendelenburg

To achieve Trendelenburg, perform the following:

- 1. Press the **Hilow Up** arrow button to raise the bed frame to its maximum height.
- 2. Pull out the **Trendelenburg** lever located at the foot end of the unit.
- 3. Push down on the **Trendelenburg** lever to lower the unit to the desired angle. For an accurate angle measurement, refer to the Trendelenburg gauges located on either side of the unit.





To disengage Trendelenburg, pull up on the

**Trendelenburg** lever to raise the unit until a click is heard, and then lower the frame to the desired height.

#### **Reverse Trendelenburg**

To achieve Reverse Trendelenburg, perform the following:

- 1. Press the **Hilow Up** arrow button to raise the bed frame to its maximum height.
- 2. Pull out the **Reverse Trendelenburg** lever located at the foot end of the unit.
- 3. Push down on the **Reverse Trendelenburg** lever to lower the unit to the desired angle. For an accurate angle measurement, refer to the Reverse Trendelenburg gauges located on either side of the unit.

To disengage Reverse Trendelenburg, pull up on

the **Reverse Trendelenburg** lever to raise the unit until a click is heard, and then lower the frame to the desired height.

# **Automatic Contour**

When the head end rises, the knee section simultaneously rises to  $15^{\circ}$  to improve comfort and minimize the patient's gravitation toward the foot end.





# **Bottoming Signal**

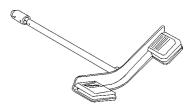
If the patient's torso, buttocks, or thighs touch bottom, the unit's bottoming sensor sounds an alarm, and the red indicator above the **Patient Comfort Adjustment** controls illuminates. A red indicator in Zone 2 or Zone 3 indicates that the patient is touching bottom in that zone.

To correct this condition, perform the following:

- 1. Inflate the air cushions to their maximum capacity by pressing the **Maximum Inflation** switch or button.
- 2. Perform **one** of the following:
  - On a FLEXICAIR® II Low Airloss Therapy Unit only, turn the Patient Comfort Adjustment control knob for the affected zone a <sup>1</sup>/<sub>4</sub>-turn clockwise.
  - On a FLEXICAIR MC3® Low Airloss Therapy Unit only, press the top arrow of the Patient Comfort Adjustment control for the affected zone once. Ensure that the Patient Comfort Adjustment control LED increases one position.
- 3. After the cushions inflate, deactivate Maximum Inflation Mode by turning the **Maximum Inflation** switch off or pressing the **Maximum Inflation** button again.
- 4. Perform **one** of the following:
  - On a FLEXICAIR® II Low Airloss Therapy Unit only, allow approximately 30 seconds for the cushion pressures to stabilize at the adjusted level.
  - On a FLEXICAIR MC3® Low Airloss Therapy Unit only, allow approximately 60 seconds for the cushion pressures to stabilize at the adjusted level.
- 5. Check the patient for bottoming. If the patient still touches bottom, repeat the procedure until either the patient no longer touches bottom, the **Patient Comfort Adjustment** control knob is fully clockwise, or all positions of the **Patient Comfort Adjustment** LED are completely illuminated. If the patient still touches bottom when the **Patient Comfort Adjustment** control knob can turn no further or the **Patient Comfort Adjustment** LED can no longer increase position, remove the patient from the unit, and immediately notify Hill-Rom Technical Support.

# **Central Brake and Steer**

To transport the unit, press the **Steer** pedal located beneath either side of the unit to lock the swivel on one caster so the unit rolls in a straight line.



# A WARNING:

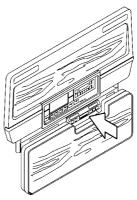
Set the brakes during patient transfer or once the unit is in position or left unattended. Failure to do so could result in patient injury, personal injury, or equipment damage.

To lock the unit into position, press either **Brake** pedal.

# Foot End Caregiver Controls

# A WARNING:

Lockout the patient control functions for patients in traction or another prescribed position or for patients with impaired judgement. Failure to do so could result in patient injury or equipment damage.



The following individual caregiver and lockout controls are located at the foot end of the unit:

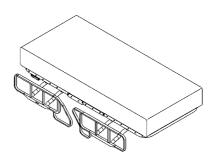
- Hilow control
- Trendelenburg control
- Reverse Trendelenburg control
- Hilow lockout control
- Head lockout control
- Automatic contour lockout control

# Siderails

# **A** WARNING:

Evaluate patients for entrapment risk according to facility protocol, and monitor patients frequently. Ensure that all siderails are fully latched when in the raised position. Failure to do so could result in serious injury or death.

For maximum patient safety, siderails with extenders are found on the unit. Siderails are intended to be a reminder to the patient of the unit's edges, **not** a patient-restraining device. Hill-Rom recommends the appropriate medical personnel determine the appropriate means necessary to ensure a patient remains safely in bed.



Patients with impaired mental or physical status may require special attention or restraint, especially when resting on low-friction specialty bed support surfaces.

Hill-Rom recognizes that certain healthcare situations may indicate the need for specialized siderail configurations. In response to this need, we offer, upon request, several siderail accessories.

# A WARNING:

Before leaving patients unattended, always raise the siderails to their full upright position. Failure to do so could result in patient injury or equipment damage.

To raise a siderail, pull it out, and rotate it up away from the unit until a distinct click sounds. When the patient is left unattended, fully raise the siderails, and place the bed frame in its lowest position.

To lower a siderail, press the **Push** release lever while rotating the siderail either down to the mattress level or under the bed frame.

# Siderail Storage

During patient transfer, store the siderails neatly under the bed frame to eliminate any gap between the bed and the transfer vehicle and to reduce the overall width of the bed to ease moving the unit.

# **Patient Restraint Brackets**

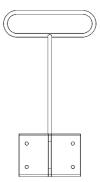
Two patient restraint brackets are located on each side of the seat section. These brackets accommodate most restraints and can be used as the patient's condition indicates. Hill-Rom recommends the appropriate medical personnel determine the level of restraint necessary to ensure a patient remains safely in bed.

Whenever high profile patients, such as the frail, elderly, medicated, or confused, are involved, Hill-Rom recommends the following minimum actions:

- Develop guidelines for high profile patients that indicate the proper method to monitor a patient, whether restrained or not, including the time interval and a visual check of the restraint.
- Develop training programs for all caregivers concerning the proper use and application of restraints.
- Maintain the unit at its lowest position whenever a caregiver is not in the room.
- Clarify the need for restraint devices to families or guardians.

# **Drainage Bag System**

Drainage bag holders are located in the center of both sides of the bed frame to accommodate multiple collectors. Any fluid in a collector located on the drainage bag holders is **not** weighed by the in-bed scale and, therefore, does **not** affect the accuracy of the patient's weight or other scale functions.

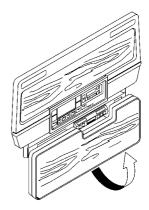


# Utility Shelf (FLEXICAIR MC3® Low Airloss Therapy Unit only)

# **A** WARNING:

Use the headboard and footboard transport handles to enable transfer, **not** the utility shelf. Use of the utility shelf to enable transfer could result in personal injury or equipment damage.

Use the pull-out utility shelf, located at the foot end of the unit, as a surface for documentation or charting or as an area to place the supplies and equipment used in a variety of patient care procedures, such as dressing changes. Do **not** use the utility shelf to enable transfer.



# NOTE:

The utility shelf has a weight limit of 60 lb (27 kg).

To engage the utility shelf, perform the following:

# **A** WARNING:

Do **not** use the utility shelf when the unit is in Trendelenburg or Reverse Trendelenburg or when the scale is used. Personal injury or equipment damage could occur.

- 1. Ensure that the unit is **not** in Trendelenburg or Reverse Trendelenburg position, and ensure that the scale is **not** in use.
- 2. Press the release clamps located on both sides of the utility shelf down toward the unit.
- 3. Pull the utility shelf out completely.
- 4. Rotate the utility shelf up and over the footboard so it is parallel to the floor, and press it down to lock in place.
- 5. Pull forward on the utility shelf to ensure that it is locked in the upright position.

To disengage the utility shelf, perform the following:

- 1. Lift up on the utility shelf to release it from the pins.
- 2. Rotate the utility shelf down toward the floor.
- 3. Slide the utility shelf in toward the foot end of the unit. The utility shelf automatically locks in place.

# IV Pole

One IV pole is provided with each unit.

# Receptacles

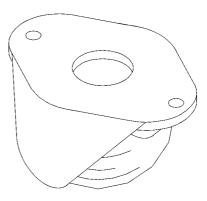
An IV pole receptacle is provided at all four corners of the unit.

# Storage

Storage areas for IV poles are located under the thigh section on both sides of the unit. When the IV pole is not in use, fully insert it into the storage area.

# NITE•GARD™ Light (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

To provide added patient safety upon bed exit, the NITE•GARD<sup>TM</sup> Light is located beneath the bed frame and automatically illuminates when the room lights are dimmed.



# **Specifications**

The standard unit includes the following:

- One IV pole
- 18 air cushions and six side panel attachments made from tightly woven nylon coated with polyurethane
- An integrated Transport Mode using encased sealed lead-acid batteries providing 24V at 38A-hour capacity

# FLEXICAIR® II Low Airloss Therapy Unit Features

Feature	Dimension
Overall length	88" (223 cm)
Width, with the siderails low- ered	36.5" (92.7 cm)
Width, with the siderails raised	41.5" (105.4 cm)
Height at the top of the siderails, with the bed hilow raised	48.4" (122.9 cm)
Height at the top of the siderails, with the bed hilow lowered	39.4" (100.1 cm)
Height of frame surface, with the bed hilow raised	30.5" (77.5 cm)
Height of frame surface, with the bed hilow lowered	21.8" (55.4 cm), with the patient supported approximately 6" (15 cm) above the frame surface
Bed frame ground clearance	7.5" (19.1 cm)
Weight	560 lb (254 kg)
Power requirements	115V AC, 60 Hz
Operating current	3.4A
Starting current	The in-rush current to the unit does not exceed 15A for more than a few milli- seconds, and then falls to below 9A in less than 1 second.
Electrical leakage	Less than 100 µA
Noise level	46 dBa at 3' (1 m)

# FLEXICAIR MC3® Low Airloss Therapy Unit Features

Feature	Dimension
Overall length	90" (229 cm)
Width, with the siderails low- ered	36.5" (92.7 cm)
Width, with the siderails raised	42.75" (108.59 cm)
Height at the top of the siderails, with the bed hilow raised	48.4" (122.9 cm)
Height at the top of the siderails, with the bed hilow lowered	39.4" (100.1 cm)
Height of frame surface, with the bed hilow raised	30.5" (77.5 cm)
Height of frame surface, with the bed hilow lowered	21.8" (55.4 cm), with the patient supported approximately 6" (15 cm) above the frame surface
Bed frame ground clearance, at the middle of the unit	7.5" (19.1 cm)
Bed frame ground clearance, at the ends of the unit	5.25" (13.33 cm)
Weight	690 lb (313 kg)
Power requirements	115V AC, 60 Hz
Operating current	3.4A
Starting current	The in-rush current to the unit does not exceed 15A for more than a few milli- seconds, and then falls to below 9A in less than 1 second.
Electrical leakage	Less than 100 µA
Noise level	46 dBa at 3' (1 m)

# Precautions



**A** WARNING:

Set the brakes during patient transfer or once the unit is in position or left unattended. Failure to do so could result in patient injury, personal injury, or equipment damage.



Lockout the patient control functions for patients in traction or another prescribed position or for patients with impaired judgement. Failure to do so could result in patient injury or equipment damage.



Before leaving patients unattended, always raise the siderails to their full upright position. Failure to do so could result in patient injury or equipment damage.



Evaluate patients for entrapment risk according to facility protocol, and monitor patients frequently. Ensure that all siderails are fully latched when in the raised position. Failure to do so could result in serious injury or death.



Use the headboard and footboard transport handles to enable transfer, not the utility shelf. Use of the utility shelf to enable transfer could result in personal injury or equipment damage.

# **A** WARNING:

Do not use the utility shelf when the unit is in Trendelenburg or Reverse Trendelenburg or when the scale is used. Personal injury or equipment damage could occur.

# **A** WARNING:

For patients weighing over 300 lb (136 kg) on a FLEXICAIR® II Low Airloss Therapy Unit or over 400 lb (181 kg) on a FLEXICAIR MC3® Low Airloss Therapy Unit, consult Hill-Rom Customer Support. Failure to do so could result in patient injury or equipment damage.

# A WARNING:

To maximize the benefit of airflow to the patient's buttocks, avoid using plastic linen savers or other impervious sheets. Whenever possible, use extra-absorbent air-permeable material to manage incontinence. Failure to do so could result in patient injury.

# A WARNING:

The STAT•FLAT® Release Handle lowers the head frame abruptly. Keep hands and IV lines clear of the head frame when initiating CPR. Failure to do so could result in personal injury or equipment damage.

# A WARNING:

Prohibit smoking in or near the unit. Patient injury, personal injury, or equipment damage could occur.

# A WARNING:

Follow the product manufacturer's instructions. Failure to do so could result in personal injury or equipment damage.

# **WARNING:**

Only facility-authorized personnel should perform preventive maintenance on the FLEXICAIR® Low Airloss Therapy Unit. Preventive maintenance performed by unauthorized personnel could result in personal injury or equipment damage.

# A WARNING:

Only facility-authorized personnel should troubleshoot the FLEXICAIR® Low Airloss Therapy Unit. Troubleshooting by unauthorized personnel could result in personal injury or equipment damage.



# SHOCK HAZARD:

The potential for electrical shock exists with electrical equipment. Establish policies and procedures to educate your staff on the risks associated with electrical equipment.

# SHOCK HAZARD:

Unplug the unit from its power source. Failure to do so could result in personal injury or equipment damage.

# SHOCK HAZARD:

Do not expose the unit to excessive moisture that would allow for liquid pooling. Personal injury or equipment damage could occur.

# SHOCK HAZARD:

Use caution if large spills occur on the unit. To protect the electrical components of the bed frame, wipe up large spills immediately. Failure to do so could result in patient injury, personal injury, or equipment damage.

# **A** CAUTION:

Do not use harsh cleansers/detergents, such as scouring pads and heavy duty grease removers, or solvents, such as toluene. xylene, and acetone. Equipment damage could occur.

# A CAUTION:

Ensure that the metal platform is dry before placing the mattress back onto the bed. Failure to do so could result in equipment damage.

# Safety Tips

# **Unit Positioning**

# A WARNING:

Always leave the unit in its lowest position when the patient is left unattended. Failure to do so could result in patient injury.

# Siderails



# A WARNING:

When the patient is left unattended, leave the siderails latched in their full upright position. Firmly tug on the siderail to ensure that it is latched. Failure to do so could result in patient injury or equipment damage.

#### NOTE:

A click sounds to indicate that the siderail is fully raised and latched.

#### NOTE:

Siderails are intended to be a reminder to the patient of the unit's edges, not a patient-restraining device. Hill-Rom recommends the appropriate medical personnel determine the appropriate means necessary to ensure a patient remains safely in bed. Patients with impaired mental or physical status may require special attention or restraint, especially when resting on low-friction specialty bed support surfaces.

# **Brakes**



# **A** WARNING:

Once the unit is in place, set the brakes, especially during patient transfer. Patients may use the unit for support when entering or exiting and could become injured if the unit moves unexpectedly. Test proper setting of the brakes by pushing or pulling the unit sideways. Failure to do so could result in patient injury or equipment damage.

# Spills

If spills occur around the siderail- or footboard-controls, perform the following:

- 1. Unplug the unit from its power source.
- 2. Immediately wipe up the spill from the unit.
- 3. Plug the unit into an appropriate power source.
- Check all bed frame controls (see "Bed Frame Controls" on page 20). If any do not function properly, contact Hill-Rom Customer Support for repair.

# Lockout Controls

# **A** WARNING:

To prevent a patient from adjusting his or her position, such as traction patients for whom certain movements may result in injury, use the lockout controls located on the control panel at the foot end of the unit. Failure to do so could result in patient injury or equipment damage.

# Instructions for Use

# Placing the Patient on the Unit

#### Transferring the Patient from a Bed or Stretcher

- 1. Trained Hill-Rom personnel individualize the pressure settings at the time of the initial patient placement.
- 2. Using the bed frame controls, adjust the height of the unit to match the bed or stretcher (see "Bed Frame Controls" on page 20).
- 3. Push the brake pedal to lock the wheels (see "Central Brake and Steer" on page 23).
- 4. Activate Maximum Inflate Mode:
  - On a FLEXICAIR® II Low Airloss Therapy Unit only, press the Maximum Inflation switch on the control panel. The air cushions inflate to their maximum pressures, and an alarm briefly sounds.

#### NOTE:

On a FLEXICAIR® II Low Airloss Therapy Unit, the alarm sounds again after 10 minutes to remind the caregiver to deactivate Maximum Inflation Mode.

- On a FLEXICAIR MC3® Low Airloss Therapy Unit only, perform the following:
- a. Press the **Maximum Inflation** button on the control panel. The air cushions inflate to their maximum pressures, and an alarm sounds.
- b. Silence the alarm by pressing the **Cushion Alarm Off** button. The alarm silences for 15 minutes.

#### NOTE:

On a FLEXICAIR MC3® Low Airloss Therapy Unit, the alarm sounds again after 15 minutes to remind the caregiver to deactivate Maximum Inflation Mode.

# **WARNING:**

For patients weighing over 300 lb (136 kg) on a FLEXICAIR® II Low Airloss Therapy Unit or over 400 lb (181 kg) on a FLEXICAIR MC3® Low Airloss Therapy Unit, consult Hill-Rom Customer Support. Failure to do so could result in patient injury or equipment damage.

# **A** WARNING:

To maximize the benefit of airflow to the patient's buttocks, avoid using plastic linen savers or other impervious sheets. Whenever possible, use extra-absorbent air-permeable material to manage incontinence. Failure to do so could result in patient injury.

- 5. Using a standard hospital draw sheet, lift the patient onto the unit. Place the patient with his or her buttocks centered over the ninth cushion from the top of the seat section. If necessary, use extraabsorbent air-permeable material to manage incontinence. Avoid using plastic linen savers or other impervious sheets.
- 6. Deactivate Maximum Inflation Mode by pressing the **Maximum Inflation** switch or button again. The pressures automatically adjust to their set levels.

#### Transferring the Patient from a Wheelchair

- 1. Trained Hill-Rom personnel individualize the pressure settings at the time of the initial patient placement.
- 2. Push the brake pedal to lock the wheels (see "Central Brake and Steer" on page 23).
- 3. Press the **Seat Deflate** switch or button. All cushions in the seat section deflate.
- 4. Elevate the head end of the unit no more than  $30^{\circ}$ .
- 5. Seat the patient in the deflated seat section. If necessary, the patient may use the inflated cushions of the adjacent sections for additional support on egress.
- 6. Proceed to swing the patient's legs onto the unit, and position the patient with his or her buttocks centered over the ninth cushion from the top of the seat section.
- 7. Once the transfer is complete, press the **Seat Deflate** switch or button again. The pressures automatically return to their set levels.

#### **Removing the Patient from the Unit**

#### Transferring the Patient onto the Bed or Stretcher

- 1. Using the bed frame controls, adjust the height of the unit to match the bed or stretcher (see "Bed Frame Controls" on page 20).
- 2. Push the brake pedal to lock the wheels (see "Central Brake and Steer" on page 23).
- 3. Activate Maximum Inflate Mode:
  - On a FLEXICAIR® II Low Airloss Therapy Unit only, press the Maximum Inflation switch on the control panel. The air cushions inflate to their maximum pressures, and an alarm briefly sounds.

#### NOTE:

On a FLEXICAIR® II Low Airloss Therapy Unit, the alarm sounds again after 10 minutes to remind the caregiver to deactivate Maximum Inflation Mode.

- On a FLEXICAIR MC3® Low Airloss Therapy Unit only, perform the following:
- a. Press the **Maximum Inflation** button on the control panel. The air cushions inflate to their maximum pressures, and an alarm sounds.
- b. Silence the alarm by pressing the **Cushion Alarm Off** button. The alarm silences for 15 minutes.

#### NOTE:

On a FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit, the alarm sounds again after 15 minutes to remind the caregiver to deactivate Maximum Inflation Mode.

- 4. Using a standard hospital draw sheet, lift the patient onto the bed or stretcher.
- 5. Deactivate Maximum Inflation Mode by pressing the **Maximum Inflation** switch or button again. The pressures automatically adjust to their set levels.

#### Transferring the Patient to a Wheelchair

- 1. Press the **Head Up** arrow button to raise the head end of the unit no more than  $30^{\circ}$ .
- 2. Push the brake pedal to lock the wheels (see "Central Brake and Steer" on page 23).
- 3. Press the **Seat Deflate** switch or button. All cushions in the seat section deflate.
- 4. Seat the patient in the deflated seat section. If necessary, the patient may use the inflated cushions of the adjacent sections for additional support on egress.
- 5. Proceed to swing the patient's legs off the unit, and transfer the patient to the wheelchair.
- 6. Once the transfer is complete, press the **Seat Deflate** switch or button again. The pressures automatically return to their set levels.

#### **Positioning the Patient**

Turn and position the patient in the same way as on a standard hospital bed. If necessary, activate Maximum Inflation Mode to provide a firmer surface for moving the patient. Once the patient is placed in the desired position, deactivate Maximum Inflation Mode to automatically return the cushions to their set pressures.

#### Side Lying

The Side Lying feature adjusts the overall air pressures to provide greater protection for the trochanteric area. Before placing the patient in the side lying position, press the **Side Lying** switch or button on the control panel. Activate the side lying feature **only** when the patient is side lying for 15 minutes or longer.

#### Sitting

The automatic pressure compensation feature functions throughout the range of head elevations. The low friction fabric and the segmented design of the air cushions reduce the potential for shear and friction that exists when raising the head end of any bed. However, because a certain amount of sliding can naturally be expected, routinely reposition the patient after elevating him or her to the sitting position.

#### Placing and Removing the Bedpan

Perform the following to place or remove the bedpan:

- 1. Turn the patient away from you to a side lying position.
- 2. Press the **Seat Deflate** switch or button on the control panel. All cushions in the seat section deflate.
- 3. While the seat section cushions deflate, perform one of the following:

Press the bedpan into the seat section, and turn the patient back onto the bedpan.

or

Remove the bedpan from the seat section.

4. Press the **Seat Deflate** switch or button again. The pressures automatically return to their set levels.

#### **CPR Mode**

# Performing CPR When the Patient is on a FLEXICAIR® II Low Airloss Therapy Unit

- 1. For easier access to the patient, remove the headboard from the unit by pulling straight up on its handles.
- 2. Press the red **CPR** switch on the control panel. The air cushions rapidly deflate to facilitate CPR and defibrillation.

#### NOTE:

A cardiac board is **not** necessary.

3. When CPR is complete, press the red **CPR** switch again. The cushions automatically inflate to their set pressures.

# Performing CPR When the Patient is on a FLEXICAIR MC3® Low Airloss Therapy Unit

On a FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit, achieve the CPR position by using any one of the following:

- A **CPR** button, located on each side of the frame and at the footboard on the control panel
- A STAT•FLAT® Release Handle, located on each side of the head end of the frame

When CPR Mode is activated, the cushions rapidly deflate, leaving a firm surface; a cardiac board is **not** necessary. A red **CPR** indicator illuminates until CPR Mode is deactivated.

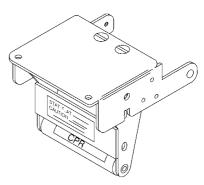
To deactivate CPR Mode, press any one of the three **CPR** buttons. The red **CPR** indicator goes out, and the air cushions automatically return to their programmed levels.

#### STAT•FLAT® Release Handles

### A WARNING:

The STAT•FLAT® Release Handle lowers the head frame abruptly. Keep hands and IV lines clear of the head frame when initiating CPR. Failure to do so could result in personal injury or equipment damage.

The STAT•FLAT® Release Handle enables rapid activation of CPR under AC power or battery power, when the head frame functions do not operate. To initiate CPR Mode, press the button at the head end of the STAT•FLAT® Release Handle, and pull the handle outward. The cushions rapidly deflate, and the head lowers immediately to the flat position.



#### CPR Button

Pressing any **CPR** button rapidly deflates all cushions. If the head end is elevated, press the RAPIDOWN<sup>TM</sup> Head Control on the siderail to lower the head end in less than 8 seconds, even from full elevation.

#### **Transport Mode**

Transport Mode enables the transfer of the patient on the unit while maintaining the therapeutic pressures.

#### **Transporting a Patient in Transport Mode**

To transport a patient on the unit, perform the following:

1. Using the bed frame controls, adjust the bed frame to the desired position (see "Bed Frame Controls" on page 20).

#### NOTE:

The bed frame controls are **not** operable under battery power.

- 2. Raise the siderails.
- 3. Disengage the brake.
- Unplug the unit from its power source. The unit automatically converts to battery power without deflation of the cushions. On a FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit only, the red Battery Power indicator on the control panel illuminates.
- 5. Transport the patient on the unit to the new location.

#### NOTE:

Under battery power, all therapeutic controls are fully operational. The time available in Transport Mode depends on the charge state of the batteries. When the batteries are sufficiently charged, battery power is available for two or three hours.

6. Once the transport is complete, plug the unit into an appropriate power source.

#### NOTE:

When the unit is plugged into an appropriate power source, the batteries automatically recharge. Typically, the batteries fully recharge in 16 hours if the unit is plugged into an appropriate power source following the transport.

Approximately 10 minutes prior to the loss of battery power, an alarm sounds. Also, on a FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit only, the red **Battery Power** indicator on the control panel flashes to alert the caregiver of the loss of battery power.

# Using CPR in Transport Mode (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

Since the bed frame controls are inoperable under battery power, use the STAT•FLAT® Release Handle for CPR during Transport Mode (see "STAT•FLAT® Release Handles" on page 40).

# Cardiac Chair Position (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

To position patients in the best configurations for some cardiac pathology, use the cardiac chair position by performing following:

- 1. Pull the patient up to the head end of the unit.
- 2. Press the **Knee Up** arrow button to fully raise the knee section.
- 3. Press the **Head Up** arrow button to fully raise the head end of the unit.
- 4. Manually raise the foot end of the bed, and lower the positioning bar.
- 5. Using the Trendelenburg or Reverse Trendelenburg lever, position the unit in the desired angle of Trendelenburg or Reverse Trendelenburg.

#### NOTE:

To return the unit to its normal position, perform the above procedure in reverse order.

The following conditions may be best managed in Trendelenburg with the patient's legs raised **above** heart level:

- Deep vein thrombosis (DVT)
- Edema
- Stassis ulcers
- Liver disease

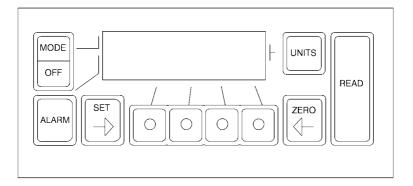
The following conditions may be best managed in Reverse Trendelenburg with the patient's legs lowered **below** heart level:

- Pulmonary edema
- Weaning from a ventilator
- Bed-to-chair transition

# Patient Scale (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

To operate the scale, first prepare the sleep surface by adding and documenting all necessities, including linens and pillows. Do **not** operate the scale when objects are on the utility shelf.

#### **Patient Scale Control Panel**



#### **Using the Scale**

#### Weighing the Patient

- 1. Perform **one** of the following:
  - Remove the patient from the unit, and zero the unit (see "Zeroing a Unit" on page 44).
  - If the patient **cannot** be removed from the unit due to his or her condition, enter an estimated patient weight into the display (see "Entering an Estimated Patient Weight" on page 44).
- 2. If necessary, return the patient to the unit.
- 3. Press the **Read** button. A tone sounds, and the patient's weight reading displays.
- 4. To change the reading from kilograms (kg) to pounds (lb), or vice versa, press the **Units** button.

#### Zeroing a Unit

Zero the unit by performing the following:

- 1. With the display blank, press and hold the **Zero** button, and then press the **Read** button. A tone sounds, and the tare weight displays.
- 2. Allow the display to clear.
- Press the Read button again. A reading of 0 lb (0 kg) ± 0.2 lb (0.09 kg) displays.

#### Entering an Estimated Patient Weight

In rare situations, it may be impossible to zero an empty unit due to the patient's condition. To enable the monitoring of weight changes and to use alarm modes in these instances, perform the following to enter an estimated patient weight into the display:

- 1. Estimate the patient's weight, or consult the patient's last recorded weight reading (see "Recalling the Last Weight Reading" on page 45).
- 2. Zero the unit with the patient still on it (see "Zeroing a Unit" on page 44).
- 3. Press and hold the **Zero** button, and then use the digit buttons directly below the display to enter a **negative** patient weight.
- 4. Release the **Zero** button. The tare weight **without** the patient's weight appears.
- 5. Press the **Read** button. The patient's weight appears.

#### Adding or Subtracting Items

Add or subtract weight other than the patient's from the sleeping surface by performing the following:

- 1. Weigh the patient (see "Weighing the Patient" on page 43).
- 2. With the display blank, press the **Read** button.
- 3. When the tone sounds, place or remove the items.
- 4. Allow the display to clear.
- 5. Press the **Read** button. A tone sounds, and the new weight reading appears.
- 6. Press and hold the **Zero** button, and then press the **Read** button.
- 7. Allow the display to clear.

8. To access the actual patient weight, press the **Read** button. A tone sounds, and the patient's weight appears.

#### NOTE:

Liquids in drainage bags or collection containers hanging on the drainage holder system of the unit are **not** weighed by the scale. Therefore, the amount of liquid does **not** affect the accuracy of the patient's weight and other scale functions.

#### Recalling the Last Weight Reading

If the last weight reading taken was not documented, recall it **before** taking a current weight reading by performing the following:

- 1. Simultaneously press and hold the **Set** button and the **Read** button. The display indicates the last weight reading stored in the memory of the scale.
- 2. Release the **Set** button and the **Read** button. The display clears.
- 3. If necessary, take the current weight reading (see "Weighing the Patient" on page 43).

### **Alarm Functions**

Alarms may be set to monitor the following:

- The patient exits the unit.
- The patient loses weight.
- The patient gains weight.

Before setting the alarms, first obtain the actual patient weight (see "Weighing the Patient" on page 43).

#### Patient Exit Alarm

The **Patient Exit** alarm provides an audible alarm and a visual signal to alert the caregiver that the patient has exited the unit. The **Patient Exit** alarm sounds within 5 seconds of the bed exit.

To set the Patient Exit alarm, perform the following:

- 1. Obtain the patient's weight (see "Weighing the Patient" on page 43).
- 2. Hold the **Set** button, and perform the following:
  - a. Press the **Mode** button to select Exit Mode.
  - b. Press the Alarm button to select Local.

- c. Using the digit buttons, enter a weight at least 20 lb (9 kg) less than the actual patient weight.
- 3. Release the **Set** button.

To silence the **Patient Exit** alarm, hold the **Set** button, and press the **Alarm** button to select **Silence.** 

To discontinue using the Patient Exit alarm, press the Off button.

#### Patient Weight Change Alarm

The **Patient Weight Change** alarm provides an audible alarm and a visual signal to alert the caregiver of a predetermined weight gain or loss and can be used in a variety of clinical situations, such as dialysis. The **Patient Weight Change** alarm sounds within 20 minutes of the weight change.

To set the Patient Weight Change alarm, perform the following:

- 1. Obtain the patient's weight (see "Weighing the Patient" on page 43).
- 2. Hold the **Set** button, and perform the following:
  - a. Press the **Mode** button to select **WT**+ for weight gain or **WT**for weight loss alarm limits.
  - b. Press the digit buttons to program the appropriate patient weight:
  - In WT+ Mode, program a weight greater than the actual patient weight. For example, if the patient weighs 125 lb (57 kg), and you want the Patient Weight Change alarm to signal a weight gain of 2 lb (1 kg), program a weight of 127 lb (58 kg).
  - In WT- Mode, program a weight less than the actual patient weight. For example, if the patient weighs 125 lb (57 kg), and you want the **Patient Weight Change** alarm to signal a weight loss of 2 lb (1 kg), program a weight of **123 lb (56 kg)**.
- 3. Release the **Set** button.

To silence the **Patient Weight Change** alarm, hold the **Set** button, and press the **Alarm** button to select **Silence**.

To discontinue using the **Patient Weight Change** alarm, press the **Off** button.

# **Caregiver Assessment and Intervention**

#### Burns

In most cases, use the unit for anterior grafts, between grafting procedures (if the patient is mobile), and to promote independence in the rehabilitative phase.

On a FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit, patient arm abductors and hyperextension cushions are available when the patient's condition dictates their use.

#### **Cardiac Arrest**

Activate CPR Mode (see "CPR Mode" on page 39). When CPR Mode is activated, the cushions rapidly deflate, leaving the patient on a firm surface to enable CPR procedures. A cardiac board is **not** necessary.

When in Transport Mode on a FLEXICAIR MC3® Low Airloss Therapy Unit, use the STAT•FLAT® Release Handle to rapidly lower the head end of the bed and deflate the cushions to enable CPR procedures (see "STAT•FLAT® Release Handles" on page 40).

# Congestive Heart Failure (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

Congestive heart failure patients experience fluid overload and require constant weight monitoring and frequent diuresis. The scale feature of the FLEXICAIR MC3® Low Airloss Therapy Unit enables the following:

- Accurate and convenient patient weights
- Continuous monitoring of the patient's weight gain or loss

#### **Patients on Injectable Diuretics**

When a patient is on diuretic therapy, frequent and accurate monitoring of the patient's weight is essential.

#### **Renal Failure and Dialysis**

Due to the importance of fluid balance, patients in renal failure require constant weight monitoring.

#### **Multiple Trauma**

Due to some patient conditions, such as immobility, the trauma patient may be at risk for tissue trauma, or may have previously experienced tissue damage. Such patients are likely candidates for fluid imbalance, thus requiring daily weighing.

#### Patients Who "Travel"

To alert the caregiver of a patient who has exited the unit, use the **Patient Exit** alarm (see "Patient Exit Alarm" on page 45). Within 5 seconds of the bed exit, an alarm sounds. For patients who "travel," such as the disoriented or elderly, use of the extended siderails, as well as proper restraint using the patient restraint brackets, is suggested.

#### Contractures

All bedridden patients are subject to the effects of immobility. Patients can be exercised on the unit as easily as on a traditional bed. Seat Deflate Mode enables weight-bearing exercises.

#### **Flap Surgery**

In certain patients, the unit has been successfully used in the treatment of posterior post-operation flaps. However, the CLINITRON® Air Fluidized Therapy Unit generally remains the treatment of choice for such patients.

#### Foot Drop

Implement traditional nursing interventions.

On a FLEXICAIR MC3<sup>®</sup> Low Airloss Therapy Unit, a foot drop pillow is available to provide therapeutic support and stability to affected extremities.

#### Grafts

In certain patients, the unit has been successfully used in the treatment of posterior post-operation grafts. However, the CLINITRON® Air Fluidized Therapy Unit generally remains the treatment of choice for such patients.

On a FLEXICAIR MC3® Low Airloss Therapy Unit, hyperextension cushions are available for neck grafts when clinically indicated.

#### **Hyperthermia**

When ordered by a physician, place a cooling blanket over the patient.

#### Hypothermia

Implement traditional nursing interventions.

#### Incontinence



To maximize the benefit of airflow to the patient's buttocks, avoid using plastic linen savers or other impervious sheets. Whenever possible, use extra-absorbent air-permeable material to manage incontinence. Failure to do so could result in patient injury.

To maximize the circulation of air to the patient's skin and prevent the softening of tissue caused by moisture, contain drainage with absorbent material or breathable underpads without plastic backing, such as CAIRPAD® Incontinence Pads. Avoid using linen savers and plastic linens due to their tendency to hold moisture against the patient's skin.

#### Neurology

For some neurologically impaired patients, the maintenance of proper body alignment is critical. Normally, proper alignment on a low airloss therapy unit is easy to maintain. However, through user error or equipment malfunction, cushions may deflate, putting proper body alignment at risk. The choice of a therapeutic support is based on the medical judgement of professionals; evaluate each case individually.

#### Nutritional Deficiencies (Total Parenteral Nutrition (TPN) or Tube Feedings) (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

The careful monitoring of fluid balance is necessary in conjunction with supplemental feedings. The scale of the FLEXICAIR MC3® Low Airloss Therapy Unit enables convenient and accurate monitoring of weight, which is indicative of fluid status.

#### Orthopedics

For some immobilized patients, the maintenance of proper body alignment is critical. Normally, proper alignment on a low airloss therapy unit is easy to maintain. However, through user error or equipment malfunction, cushions may deflate, putting proper body alignment at risk. The choice of a therapeutic support is based on the medical judgement of professionals; evaluate each case individually.

The FLEXICAIR MC3® Low Airloss Therapy Unit accommodates most standard traction equipment. For assistance, contact Hill-Rom Customer Support.

#### Peripheral Vascular Disease and Leg Ulcers (FLEXICAIR MC3® Low Airloss Therapy Unit Only)

Peripheral vascular disease and leg ulcers require optimal vascular return, easily accomplished in a cardiac chair position. In these cases, you may want to use Trendelenburg rather than Reverse Trendelenburg.

#### Pressure Sores

Patients with pressure sores should be selected on the basis of risk assessment, medical status, and treatment objectives. To help evaluate patients, a Hill-Rom Clinical Sales Consultant is always available.

#### Smoking



Prohibit smoking in or near the unit. Patient injury, personal injury, or equipment damage could occur.

The air cushions, like all fabric, can be damaged by cigarette burns. Prohibit smoking in or near the unit.

#### Trendelenburg and Reverse Trendelenburg Positioning

Trendelenburg and Reverse Trendelenburg positions are necessary in the treatment of many clinical conditions, including hypovolemic shock, cerebral edema, and hypotension. To place the unit in the Trendelenburg or Reverse Trendelenburg position, refer to "Bed Frame Controls" on page 20.

#### Hypotension

Hypotensive patients can easily be placed in Trendelenburg; however, with rapid head elevation, some patients may be at risk for orthostatic hypotension. When a patient's head is raised using the siderail controls, it is recommended that the caregiver pulse the controls for slower elevation.

#### Traction

The unit accommodates properly installed, standard traction equipment. It is recommended that the caregiver use the lockout features at the foot end of the bed to prevent the patient from accidentally activating the bed frame controls.

# Cleaning



## A WARNING:

Follow the product manufacturer's instructions. Failure to do so could result in personal injury or equipment damage.

# SHOCK HAZARD:

Unplug the unit from its power source. Failure to do so could result in personal injury or equipment damage.



# SHOCK HAZARD:

Do not expose the unit to excessive moisture that would allow for liquid pooling. Personal injury or equipment damage could occur.

# **A** CAUTION:

Do not use harsh cleansers/detergents, such as scouring pads and heavy duty grease removers, or solvents, such as toluene, xylene, and acetone. Equipment damage could occur.

### **A** CAUTION:

Ensure that the metal platform is dry before placing the mattress back onto the bed. Failure to do so could result in equipment damage.

If there is no visible soilage with possible body fluids, we recommend that you clean the unit with a mild detergent and warm water. If disinfection is desired, you may use a combination cleanser/disinfectant as explained in "Disinfecting" below.

In either case, ensure that the metal platform is dry before placing the mattress back onto the bed.

#### Steam Cleaning

Do not use any steam cleaning device on the unit. Excessive moisture can damage mechanisms in this unit.

#### **Cleaning Hard to Clean Spots**

To remove difficult spots or stains, we recommend that you use standard household cleansers and a soft-bristled brush. To loosen heavy, dried-on soil, you may first need to saturate the spot.

#### Disinfecting

When there is visible soilage and between patients, we recommend that you disinfect the unit with a tuberculocidal disinfectant. (For customers in the US, the disinfectant should be registered with the Environmental Protection Agency.)

Dilute the disinfectant according to the manufacturer's instructions.

#### **Caregiver Procedures**

Wipe down the air cushions with any standard hospital cleanser or disinfectant.

Use absorbent materials to protect the unit from incontinence. The base frame is covered with an easily cleaned, flexible plastic sheeting.

Use adhesive tape to temporarily patch tears in the air cushion. Small punctures in an air cushion should not affect the operation of the unit.

# SHOCK HAZARD:

Use caution if large spills occur on the unit. To protect the electrical components of the bed frame, wipe up large spills immediately. Failure to do so could result in patient injury, personal injury, or equipment damage.

If large spills occur on the unit, immediately wipe them up.

#### Hill-Rom Personnel Procedures

Hill-Rom service personnel replace cushions and disinfect the frame as needed at the request of the hospital staff.

For routine service, Hill-Rom service personnel are available during normal working hours. For emergency service, Hill-Rom service personnel are available seven days a week, 24 hours a day.

#### Maintenance

# A WARNING:

Only facility-authorized personnel should perform preventive maintenance on the FLEXICAIR® Low Airloss Therapy Unit. Preventive maintenance performed by unauthorized personnel could result in personal injury or equipment damage.

Since the unit is provided on a per-patient basis, special care is taken to ensure that units are delivered quickly and that, once delivered, each unit functions to maximum capability throughout its use.

A network of service locations provides for dependable unit delivery and service. During the course of the therapy, Hill-Rom provides all routine unit maintenance on the following:

- Air Cushions—Hill-Rom changes, launders, and repairs all air cushions.
- Filters and Consumable Parts—Hill-Rom checks and, if necessary, replaces all filters and consumable parts.
- **Bed Frame**—Hill-Rom cleans and disinfects the bed frame as appropriate for and between each patient.
- **Routine Maintenance**—Hill-Rom service personnel are available Monday through Friday during normal working hours for routine maintenance.
- Emergency Service and Repair—Hill-Rom service personnel are available 24-hours a day on an on-call basis for emergency service and repair.

### Troubleshooting



#### **A** WARNING:

Only facility-authorized personnel should troubleshoot the FLEXICAIR® Low Airloss Therapy Unit. Troubleshooting by unauthorized personnel could result in personal injury or equipment damage.

Hill-Rom maintains sole responsibility for the repair of the unit. Nonemergency service is available during usual working hours. Emergency service is available on a 24-hour basis.

Do not tamper with or remove the control panel without the permission of Hill-Rom.

#### Problem: Unit Does Not Turn On

- 1. Ensure that the unit is plugged into a functional and appropriate power source.
- 2. Check the circuit breaker on the unit. located on the electrical box under the head end of the unit. If necessary, press the rocker switch to reset the circuit breaker. To indicate a successful reset of the circuit breaker, its pilot light illuminates.

#### NOTE:

Do **not** use the circuit breaker as an on/off switch. To turn the unit on and off, use the **On/Off** switch on the control panel **only**.

- 3. If within a very short time, the circuit breaker trips again, do not attempt to reset it. Remove the patient from the unit, and contact Hill-Rom Customer Support.
- If no lights on the control panel illuminate, the power supply is 4. disrupted, and the battery is completely discharged or disconnected. Contact Hill-Rom Customer Support.

#### Problem: Bed Frame Controls Do Not Operate

If the height or the head end of the unit does not adjust, perform the following:

1. Ensure that the unit is plugged into a functional and appropriate power source.

#### NOTE:

The bed frame controls do **not** operate under battery power.

- 2. Inspect the lockouts located at the foot end of the unit. If the lockouts are engaged, deactivate them.
- 3. If the problem still exists, contact Hill-Rom Customer Support.



A HILLENBRAND INDUSTRY Batesville, IN 47006 USA Rental: (800) 638-2546 USA: (800) 445-3720 International: Contact your distributor. Website: www.hill-rom.com usr101 (280-002-0007)/March, 2003

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