

User-Service Manual  
TriLine Support Surface  
TxCair Plus and TxCair Plus Overlay Model

To avoid injury, read user's manual before using.



transforming wound management

### Important Precautions

**Important Notice:** The equipment must be installed and operated in the manner for which it was intended. Facility staff/user is responsible for reading and understanding the product user manual and contacting Joerns Healthcare if anything in this manual is unclear. Joerns will not be held responsible for any injuries resulting from failure to comply with the instructions and precautions in this manual.

**Warning:** Joerns specialty support surfaces are designed as mattress replacement systems. The risk of entrapment may occur when the equipment is placed on bed frames that leave gaps of even a few inches between the mattress and the headboard, footboard, and bed or side rails. The equipment is NOT to be used when such gaps are present.

Facility staff/user is responsible for ensuring that all mattresses properly fit the bed frames. Joerns is not responsible for the placement of its equipment on bed frames that leave gaps between the mattress and the headboard, footboard or bed or side rails which present a risk of harm to patients.

**Warning:** An optimal bed system assessment should be conducted on each patient by a qualified clinician or medical provider to ensure maximum safety of the patient. The assessment should be conducted within the context of and in compliance with the state and federal guidelines related to the use of restraints and bed system entrapment guidance, including the *Clinical Guidance for the Assessment and Implementation of Side Rails* published by the Hospital Bed Safety Workgroup of the U.S. Food and Drug Administration. Further information can be obtained at the following web address: <http://www.fda.gov/cdrh/beds/>.

When using the mattress system, always ensure that the patient is positioned properly within the confines of the bed. Do not let any extremities protrude over the side or between the bed rails when the mattress is being used.

**Danger Explosion Hazard:** Do not use in the presence of flammable anesthetics. Do not use in the presence of smoking materials or open flame. Air flowing through the air mattress will support combustion.

**Danger:** To reduce the risk of shock, adhere to the following instructions. Failure to do so could result in personal injury or equipment damage.

- Immediately after using the TxCair Plus, unplug it from its power source.
- Do not place or store the product where it can fall or be pulled into a tub or sink.
- Do not place or drop the product into water or other liquid.
- Do not remove the back of the control unit. Refer servicing to Joerns.

**Warning:** To reduce the risk of burns, shock, fire, or personal injury, adhere to the following instructions. Failure to do so could result in personal injury or equipment damage.

1. Use this product only for its intended purpose as described in this manual. Only use attachments and/or accessories that are recommended by the manufacturer.
2. If this product has a damaged power cord or plug, is not working properly, has been dropped or damaged, or has been dropped into water, do not operate it. For examination and repair, return the product to Joerns.
3. Keep the control unit and power cord away from heated surfaces, e.g. space heaters.
4. Never block the air openings of the product. Do not place the control unit on a surface, such as a bed or couch, where the air opening and/or filter compartment, located on the back of the control unit, may be blocked. Keep the air openings free of lint and hair.
5. Never drop or insert any object into any opening or hose.
6. Do not spill food or liquids onto the control unit. If a spill does occur, turn off the unit, disconnect it from its power supply and allow at least 24 hours for drying.
7. Do not use the product outdoors, or where aerosol-spray products are used.
8. Plug this product only into a properly grounded outlet. Refer to "Grounding Instructions".



9. Ensure nothing is placed on the power cord and ensure it is not located where it can be stepped on or tripped over.
10. Do not attempt to service the control unit. Please call Joerns for any service requests.
11. The therapy pad (top cover) of this product is not air permeable and may present a suffocation risk. It is the responsibility of the caregiver to ensure that the patient can use this product safely.

### **Save These Instructions for Future Reference**

### **Bed System Entrapment Information**

In April 1999, the U.S. Food and Drug Administration (FDA) in partnership with representatives from the hospital and post-acute bed industry, including Joerns Healthcare, national healthcare organizations, patient advocacy groups, and other federal agencies formed the Hospital Bed Safety Workgroup (HBSW). The workgroup's goal is to improve the safety of bed frames for patients and patients in all health care settings who are most vulnerable to the risk of entrapment. The efforts of the FDA and the HBSW culminated in the FDA's release of recommended guidelines intended to reduce the risk of entrapment, including dimensional limits for critical gaps and spaces between bed system components and clinical guidance for assessment and implementation of bed side rails in various health care settings.

Entrapment zones involve the relationship of bed components often directly assembled by the healthcare facility rather than the manufacturer. Therefore, compliance is the responsibility of the facility.

As the leading manufacturer of long-term care beds and a frontrunner in addressing this critical issue, Joerns Healthcare can offer you the expertise, assistance and products to bring your facility into compliance.

### **Joerns® Compliance Solutions**

Matching the right bed components in order to meet regulatory guidelines can be complex.

That's why Joerns offers a wide array of compliance options. We assist customers in selecting compliant accessories recommended for their specific bed model.

### **Creating a Safer Care Environment**

While the guidelines apply to all healthcare settings (hospitals, nursing homes and home care), long-term care facilities have particular exposure since serious entrapment events typically involve frail, elderly or dementia patients.

### **For More Information**

To learn more about compliance options with Joerns products, visit our website at [www.joerns.com](http://www.joerns.com), or contact our Customer Care representatives at 800.826.0270 and ask for free informational publications.

To learn more about entrapment zones, assessment methods, and guidelines concerning entrapment, contact Joerns Healthcare at 800.826.0270 or consult the FDA website: [www.fda.gov/cdrh/beds](http://www.fda.gov/cdrh/beds).



<b>Important Precautions .....</b>	<b>2</b>
<b>Introduction.....</b>	<b>5</b>
Moisture Control	
Shear and Friction Reduction	
<b>Indications for use.....</b>	<b>5-6</b>
Spinal Cord Injury	
Moisture Management	
Pressure Relief	
Pain Management	
<b>Features.....</b>	<b>6-7</b>
Therapy Control Unit Features	
Therapy Mattress System Features	
Therapy Pads	
<b>Grounding Instructions.....</b>	<b>7</b>
<b>Setup.....</b>	<b>7-8</b>
TxCair Plus Mattress	
TxCair Overlay	
<b>Operation.....</b>	<b>9-10</b>
Modes of Operation	
<b>Additional Features .....</b>	<b>10-11</b>
CPR	
Transport	
Power Failure	
CairRails	
Optional Accessories	
<b>Troubleshooting .....</b>	<b>11</b>
Therapy Surface Not Inflating	
Unable to Change Therapy Mode or Adjust Therapy Adjust	
<b>Nursing Procedures .....</b>	<b>11-12</b>
Recommended Linen	
Changing the Therapy Pad	
Patient Positioning and Comfort	
Incontinence	
<b>Safety information .....</b>	<b>12</b>
Patient Migration	
Traction	
Skin Care	
Bed Height	
<b>Cleaning .....</b>	<b>12-13</b>
Control Unit	
General Cleaning	
Disinfecting	
Therapy Pad	
Steam Cleaning	
Filter Cleaning	
<b>Maintenance.....</b>	<b>13</b>
<b>Storage and Care.....</b>	<b>13</b>
Control Unit	
Support Surface	
<b>System Specifications .....</b>	<b>14</b>
Weight	
Maximum Weight Capacity	
Dimensions	
Electrical Specifications	
Environmental Conditions	
Agency Approvals	
<b>Call for Assistance .....</b>	<b>14</b>
<b>Warranty .....</b>	<b>16</b>



## Introduction

The TriLine TxCair Plus, provided by Joerns Healthcare is a unique therapy system that provides pressure relief by combining low air loss with pulsation. Low air loss therapy has been demonstrated to reduce the risk of pressure ulcers as well as being a valuable aid in the treatment of pressure ulcers. The pulsation feature may provide additional patient comfort and enhance the lymphatic system.

**⚠ Warning:** The risk of entrapment can arise when equipment is placed on bed frames that leave gaps of even a few inches between the mattress and the headboard, footboard, and bed or side rails. The equipment is NOT to be used when such gaps are present. See “Important Precautions” section of this manual.

The TxCair Plus mattress replacement system is suitable for both the treatment of existing pressure ulcers Stage I through Stage IV as well as those who have been assessed at risk from the complications of immobility. The TxCair Plus is quiet, comfortable and simple enough for single caregiver installation, featuring rapid inflation in just five minutes or less. The user-friendly controls allow for easy adjustment of patient comfort.

Additionally, low friction and low shear materials, together with average interface pressures well below capillary closure levels, means that the TxCair Plus meets the comfort and clinical requirements of your patients up to 500 lbs.\*

We have ensured that the TxCair Plus addresses the four key areas in the treatment of compromised skin: moisture control, pressure relief, and reduction in both friction and shearing forces.

### Moisture Control

Patients are at risk for skin maceration if excess moisture is permitted to accumulate beneath the patient. This may be due to perspiration, incontinence or wound drainage.

On the TxCair Plus, moisture is controlled via the specially treated breathable, fluid-proof, urethane coated nylon therapy pad. The moisture vapor permeable fabric of the therapy pad allows a sufficient amount of air to circulate beneath the pad and wicks away excess moisture.

### Shear and Friction Reduction

Shearing occurs when the skin is stationary in relation to the support surface, while the underlying tissues and vessels are stretched and damaged. When a patient’s skin rubs against another surface, the result is friction. The top surface of the TxCair Plus therapy pad is constructed from a very smooth nylon fabric with low friction and low shear properties to protect the patient’s skin from these damaging forces.

## Indications for Use

**Note:** The selection of a pressure-relieving surface needs to be based on each individual patient’s clinical condition, diagnosis and/or co-morbidities. The choice and use of a support surface is one factor in a holistic program of wound care and treatment.

### Spinal Cord Injury

The TxCair Plus is not recommended for use by patients with unstable spinal fractures. Advice should be obtained from the appropriate physician before using the TxCair Plus system for these patients.

### Moisture Management

This product may be recommended for use by patients at risk for skin maceration due to excessive moisture from perspiration, incontinence or wound drainage.

### Pressure Relief

Pressure Ulcers	Rehabilitation
Neurology	Dermatology
Burns	Amputations

\*Some models available in 350 lb. safe working load

# TriLine Support Surface

## TxCair Plus and TxCair Plus Overlay

### Pain Management

AIDS  
Oncology

Arthritis

The TxCair Plus provides distribution of weight over a wide surface area, which relieves pressure against bony prominences and provides a soft, gentle therapy surface to lie on. For patients experiencing severe pain and discomfort due to pressure and/or positioning limitations, consider the TxCair Plus as an adjunct to pain management interventions.

**Note:** Pressure relief and pain management are conditions and diagnoses for which the TxCair Plus may be indicated. Occasionally, there are orthopedic and neurological patients that require body positioning to be maintained in specific alignment. The use of the TxCair Plus for these patients should be considered on an individual basis and discussed with the attending physician.

### Features

The TxCair Plus is comprised of two components:

- Therapy control unit
- Therapy mattress system/Therapy overlay system

### Therapy Control Unit Features

- True low air loss with greater than 100 liters of airflow per minute
- Three modes of operation – *Autofirm*, *Therapy* and *Pulsate*
- *Autofirm* mode provides maximum air inflation designed to assist both patients and caregivers during patient transfer and treatment
- *Pulsate* mode oscillates the air throughout the mattress every 30 seconds providing increased patient comfort
- Eight therapeutic settings to maximize patient compliance and promote healing
- Automatic panel lock out to avoid unwanted or accidental adjustments
- Closed loop pressure sensor control system eliminates concerns of changes in mattress interface pressure due to ambient temperature and pressure changes

- Integrated swing out hanging brackets for fixing to most bed types
- Quick disconnect hose feature allows for rapid attach and CPR deflate at the control unit
- Compact lightweight control unit is quiet, robust and powerful, with a reusable air filter
- Crisp, easy to read graphics for intuitive set up and therapy control

### Therapy Mattress System Features

#### TxCair Plus Mattress

- Twenty individual therapy cells help to evenly distribute the patient's weight and maximize pressure relief. Modular cell design mattress for ease of cleaning, re-assembly and cost effective service.
- Eight-inch deep therapy cells are constructed of highly durable, polyurethane coated nylon to provide adequate support and prevent bottoming out for most patients within weight limit
- Integrated low-pressure heel section provides lower interface pressures for high-risk patients
- Lower two-inch safety cell remains inflated without any power up to 12 hours
- Durable base tub is constructed from 100% heavy weight 1680 Denier nylon with 1.5 oz. urethane coating and incorporates bed attachment loops for stability
- Anti-kink, easy clean air supply hose set
- Integrated CairRails risk management side air bolsters— two-inch side bolsters that inflate on both sides of the patient along the mattress edge to provide additional support and to provide a gentle reminder to the patient that they are near the edge of the mattress. Constructed with lower ingress/egress area.
- Maximum weight capacity of 500 lbs.\*

#### TxCair Plus Overlay

- Twenty individual therapy cells help to evenly distribute the patient's weight and maximize pressure relief. Modular cell design mattress for ease of cleaning, re-assembly and cost effective service.
- Five-inch deep therapy cells are constructed of highly durable, polyurethane coated nylon to provide adequate support and prevent bottoming out for most patients within weight limit
- Integrated low-pressure heel section provides lower interface pressures for high-risk patients

\*Some models available in 350 lb. safe working load

- Durable base tub is constructed from 100% heavy weight 1680 Denier nylon with 1.5 oz. urethane coating and incorporates bed attachment loops for stability
- Anti-kink, easy clean air supply hose set

### Therapy Pads

Many healthcare facilities are facing the challenge of infection control. Joerns Healthcare's quilted therapy pads are treated with an antimicrobial to protect the therapy pad from the growth of mold, mildew and bacteria.

#### Key features and benefits:

- Treated with a highly effective bacteriostatic agent to inhibit the growth of bacteria and fungus.
- Constructed from a very smooth nylon fabric with low friction and shear properties to protect the patient's skin from damaging friction and shearing forces.
- Breathable, moisture vapor permeable fabric allows air to circulate beneath the pad and wicks away excess moisture. This keeps your patient dry and helps to prevent skin maceration.
- Designed for optimal comfort, moisture vapor transfer, stain resistance and ease of laundering.

### Grounding Instructions

**⚠ Warning:** Use a properly grounded, three-prong, 120V AC outlet for this product. Failure to use a grounded outlet could result in personal injury or damage to equipment or house wiring, including risk of fire. A qualified electrician should be contacted to correct the wiring and ensure a properly grounded outlet.

Before installing this product, have the electrical system checked to make sure the electrical circuits and the electrical service are properly grounded.

Having a three-prong outlet does not necessarily mean it is grounded. Sometimes two-prong outlets are replaced with a three-prong type even though there is no ground wire.

There is always a chance of a loose connection or poor installation of a ground wire that causes the loss of proper ground at the outlet. Inadequate grounding at electrical outlets can occur even if there is a ground wire. Wires can become loose over time at the connection to the outlet.

**Note:** To install new wires on a circuit requires a qualified electrician.

### How to Determine if Your Outlet has the Proper Grounding

Most hardware stores sell circuit testers (Figure 1) that can be used to test an outlet for proper grounding. The tester plugs into an outlet and by observing the indicator lights you can determine if the outlet is properly grounded. For a higher level of assurance, an electrician should be requested to thoroughly test the electrical system with more reliable equipment.



Figure 1

If repair or replacement of the cord or plug is necessary, please contact Joerns for assistance.

### Setup

**⚠ Warning:** For important precautions please see page two.

**⚠ Caution:** Do not place the control unit on the floor. Position the power cord to keep personnel from tripping over it.

### TxCair Plus Mattress

- Remove the existing mattress from the bed.
- Unroll the mattress with the hose connection at the foot end of the bed and the therapy cells facing up. Secure the straps on the mattress securely to the movable part of the bed frame.
- If the therapy pad is not already on the mattress, place it on the mattress. Attach the elastic straps to the mattress buckles around each corner of the mattress. Attach the additional straps to the movable part of the bed frame.
- Hang the control unit on the foot of the bed facing away from the bed. Attach the hose connector marked *CPR* to the control unit.

# TriLine Support Surface

## TxCair Plus and TxCair Plus Overlay

- Plug in the control unit and the orange *Standby* light will illuminate. Press the *Power* button. The control unit will start and the green light will illuminate. Keep the control unit ON while the patient is on the mattress.
- Fully inflate the mattress by selecting *Autofirm*. When the mattress is fully inflated, select the *Therapy* mode, and place the patient on the mattress.
- Select the appropriate *Therapy Adjust* level to prevent bottoming out (i.e. providing greater than one inch of air between the patient's sacral area/buttocks and the lower safety mattress) as outlined below:
  1. Begin by placing the head of the bed in the appropriate position based on the patient's clinical condition.
  2. Select the highest or most firm *Therapy Adjust* setting.
  3. Hand Check: Place a hand with three (3) fingers (if head of bed at 30° or higher) or four (4) fingers (if head of bed lower than 30°) stacked vertically beneath the cells of the mattress and above the safety mattress directly between the lowest point of the patient's sacral area/buttocks. The smallest finger should be resting on the safety mattress.
  4. Sequentially reduce the *Therapy Adjust* setting to the firmness level where the height of the three (3) or four (4) fingers can slide with minimal resistance between the patient's sacral area/buttocks and the lower safety mattress. This is the proper *Therapy Adjust* setting for the patient to assure proper inflation of the air cells and prevent bottoming out of the mattress.
  5. Document the patient's *Therapy Adjust* setting for future reference, and re-evaluate with the hand check as the patient's condition warrants.
- The CairRails risk management side air bolsters can be inflated or deflated as required. Locate the *Ready Valve* (Figure 2) on the hose assembly between the mattress and the control unit. Next, inflate/deflate the CairRails by moving the *Ready Valve* to the up (inflate) or down (deflate) position.

**Note:** When inflating or deflating CairRails it is recommended that the support surface be in *Autofirm* mode.

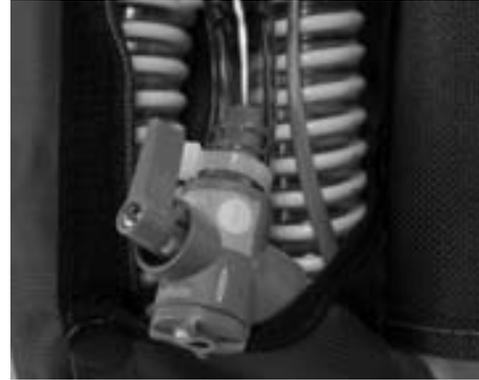


Figure 2

### TxCair Overlay

- Place the TxCair Overlay on top of the mattress with the hose connection at the foot end of the bed and the therapy cells facing up. Secure the straps to the mattress and movable part of the bed frame.
- If the therapy pad is not already on the overlay, place it on the overlay and secure the straps.
- Hang the control unit on the foot of the bed facing away from the bed. Attach the hose connector marked CPR to the control unit.
- Plug in the control unit and the orange *Standby* light will illuminate. Press the *Power* button. The control unit will start and the green light will illuminate. Keep the control unit ON while the patient is on the mattress.
- Fully inflate the overlay by selecting *Autofirm*. When the overlay is fully inflated, select the *Therapy* mode, and place the patient on the mattress.
- Select the appropriate *Therapy Adjust* level to prevent bottoming out as outlined below:
  1. Begin by placing the head of the bed in the appropriate position based on the patient's clinical condition.
  2. Select the highest or most firm *Therapy Adjust* setting.
  3. Hand Check: Place a flat hand with your palm up beneath the cells of the overlay and above the lower overlay enclosure directly between the lowest point of the patient's sacral area/buttocks.



4. Sequentially reduce the *Therapy Adjust* setting to the firmest level where your palm can easily slide beneath the patient's sacral area/buttocks and the lower overlay enclosure. This is the proper *Therapy Adjust* setting for the patient to assure proper inflation of the air cells and prevent bottoming out of the overlay.
  5. Document the patient's *Therapy Adjust* setting for future reference, and re-evaluate with the Hand Check as the patient's condition warrants.
- The CairRails risk management side air bolsters can be inflated or deflated as required. Locate the *Ready Valve* on the hose assembly between the mattress and the control unit. Next, inflate/deflate the CairRails by moving the *Ready Valve* to the up (inflate) or down (deflate) position.

**Note:** When inflating or deflating CairRails it is recommended that the support surface be in *Autofirm* mode.

## Operation

**Warning:** For important precautions please see page two.

**Caution:** The patient's head should be positioned in the center of the top section of the mattress. When using the mattress system always ensure that the patient is positioned properly within the confines of the bed. Do not let any extremities protrude over the side or between the bed rails when the mattress is being used.

### Power Button

The *Power* button is used to turn the power on and off.

### Standby

The unit starts up in *Standby*. Press the *Power* button to inflate the mattress. When the *Standby* light is on, it may also indicate that there has been a power interruption and the therapy control unit is ready to be turned back on. Press the *Power* button and reset the preferred mode of therapy and comfort level.



Figure 3

## Modes of Operation (Figure 3)

### Autofirm

*Autofirm* mode provides maximum air inflation designed to assist both patients and caregivers during patient transfer and treatment. The unit will automatically return to the mode it was in prior to *Autofirm* (either *Therapy* or *Pulsate*) in approximately 10 minutes.

### Therapy Modes: Therapy and Pulsate

- *Therapy*: The unit starts in the *Therapy* mode, which is the standard low air loss therapy.
- *Pulsate*: *Pulsate* oscillates the air throughout the mattress every 30 seconds providing increased patient comfort.

### Therapy Adjust

The *Therapy Adjust* function is located on the right side of the control panel. The TxCair Plus can be customized to meet individual patient needs within a therapeutic window. See "Setup" section for more information. This function will not work in *Autofirm* mode.

### Lockout

This feature is to prevent any unauthorized changes to the patient settings. To unlock and make adjustments to the settings press both up and down comfort arrows at the same time to disengage the *Lockout* function (figure 4). The *Lockout* function will return in approximately five minutes.

**Note:** The unit is designed to lock out all the adjustment controls after the patient has been positioned correctly. In approximately five minutes after the last button push the power on light begins to flash indicating *Lockout* is enabled.



Figure 4

### Additional Features

**Warning:** A possible fire hazard exists.

This product is suitable for use with oxygen administering equipment of the nasal, mask, or half bed-length, tent-type only. To prevent personal injury or equipment damage, ensure that the oxygen tent does not extend below the mattress.

### CPR

The hose connection at the control unit is marked *CPR*. Disconnect the hose from the control unit by lifting the latch and releasing the hose connector at the bottom of the control unit. Deflation times will vary based on patient weight and profile. To resume therapy, reattach the hose to the control unit.

### Transport

To transport the patient in bed, turn the control unit off. Unplug the power cord from the outlet. Do not disconnect the hose connection at the control unit. The lower support cell will prevent the patient from bottoming out for up to 12 hours.

### Power Failure

The TxCair Plus control unit has an advanced power failure system. In the event of a brief power interruption, up to 20 minutes, the TxCair Plus control unit will automatically restart and reset to the previous *Therapy Adjust* settings. The power interruption feature keeps the current settings in memory based on the frequency of use and level of battery charge.

In the event of a power failure in excess of 20 minutes, the control unit's *Standby* light will be illuminated after power restoration. Press the *Power* button and reset the preferred mode and comfort level as described in the "Operation" section.

### CairRails

Integrated CairRails risk management air bolsters offer a bilateral side bolster solution designed to address healthcare's growing concerns of liability in relation to patient falls and entrapment. CairRails are being recognized by some of the nations leading healthcare systems for improving their patient safety and risk management programs.

CairRails are recommended for patients requiring additional support during patient care and transfer. CairRails can help reduce costs while ensuring optimal clinical outcomes and increasing patient safety.

### Features and Benefits

- A bilateral side air bolster solution which can enhance your facilities entrapment/risk management program
- Easy to engage *Ready Valve* for instant inflation and deflation
- Transfer friendly-deflate for ease of assisted transfer or when bolsters are not required

- Unique contoured design allows ease of ingress/ egress, while providing additional protection, comfort and supports patient compliance
- Designed to fit on most key Joerns therapeutic support surfaces
- Promotes maximum independence by allowing caregiver to decide when added protection is required

### Inflation/Deflation

- Set the control unit to *Autofirm* mode or the highest *Therapy Adjust* setting to achieve quick inflation
- Locate the *Ready Valve* by unsnapping the flap on the hose set
- Turn the *Ready Valve* to inflate or deflate as desired
- Return the control unit to the desired settings and snap the open flap closed

**Note:** CairRails are meant to provide a documentable and functional intervention for the risk management issues of falls and entrapment but in no way guarantee the prevention of falls or entrapment occurrences.

When using the mattress system, always ensure that the patient is positioned properly within the confines of the bed. Do not let any extremities protrude over the side or between the bed rails when the mattress is being used.

### Optional Accessories

- Additional therapy pads
- Control unit hanger

## Troubleshooting

### Therapy Surface is Not Inflating

- Ensure the hose connection from the therapy mattress system (mattress) to the control unit is securely connected
- Ensure that the control unit is plugged into an AC outlet
- Ensure that the power is not on *Standby*; if on *Standby*, press the *Power* button
- Ensure that all air cells are connected to the internal mattress manifold
- Contact Joerns Healthcare at 800.966.6662 if problem persists

### Unable to Change Therapy Mode or Adjust Therapy Adjust

- Make sure the *Lockout* function is disabled. To disable, press the up and down *Therapy Adjust* arrows simultaneously
- Contact Joerns Healthcare at 800.966.6662 if problem persists

## Nursing Procedures

### Recommended Linen

Special linens are not necessary for the TxCair Plus. There is no need for a bottom sheet as the therapy pad should be covering the therapy cells at all times. The patient should never be lying directly on the therapy cells. Based upon the patient specific needs, the following linens may be utilized:

- Draw or slide sheet to aid in positioning and to further minimize friction and shearing
- Incontinence barrier pad for patients incontinent of urine and/or stool, and patients with heavily draining wounds
- Add top sheet, blanket and/or bedspread as needed for patient comfort
- Keep the amount of padding between the patient and bed to a minimum for optimum performance

### Changing the Therapy Pad

- Place the therapy pad over the therapy cells, fitting the corner of the cushions into the corner of the therapy pad. (Similar to a fitted sheet)
- Secure the therapy pad straps to the movable part of the bed frame

### Patient Positioning and Comfort

#### General Repositioning

Patients should be turned and repositioned per individual turning schedule or per facility policy. It may be helpful to activate the *Autofirm* mode to achieve a firm surface for repositioning purposes. The unit will automatically return to the mode it was in prior to *Autofirm* in approximately 12 minutes or you can manually return to therapy mode once patient has been repositioned.

Unless counter indicated, it is desirable to keep the back section of the bed in the flat position to provide optimal pressure relief and minimize the risk of shearing injuries.

### **Elevating Patient into Sitting Position**

The special properties of the TxCair Plus therapy pad reduce the opportunity for shear and friction that may occur when raising the back section of other bed systems. As with any surface, sliding can be expected, therefore patients should be repositioned after elevation. The knee gatch or knee section of the bed may be elevated first, to help prevent the patient from sliding when the back section is elevated.

### **Incontinence**

Moisture against the skin surface leads to maceration, or softening of the tissues. To prevent maceration, we recommend you use an incontinence barrier pad to absorb the excess moisture.

In the event of incontinence or excess drainage on the therapy pad, you should wipe off the excess fluid from the bed surface.

## **Safety Information**

### **Patient Migration**

Specialty bed products are designed to reduce or relieve pressure and the shearing and friction forces on the patient's skin. The risk of gradual movement and/or sinking into hazardous positions of entrapment and/or inadvertent bed exit may be increased due to the nature of these products.

### **Traction**

With any traction or unstable fractures, maintain physician-directed angle of articulation and guard against risks of patient migration or inadvertent deflation of patient surface.

### **Skin Care**

Monitor skin conditions regularly, particularly in areas where incontinence and drainage occur or collect, and consider adjunct or alternative therapies for high acuity patients. Early intervention may be essential to preventing serious skin breakdown.

### **Bed Height**

To minimize the risks of falls or injury the patient surface should always be in the lowest practical position when the patient is unattended. Make sure areas under and around the frame are clear of objects, persons and parts of body before adjusting height.

## **Cleaning**

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

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

**⚠ Caution:** Do not use harsh cleansers/detergents, such as scouring pads and heavy-duty grease removers, or solvents, such as acetone. Equipment damage could occur.

### **Control Unit**

Wipe off dust. If necessary, clean the housing exterior with a disinfectant solution or a mild detergent and a damp cloth. Then wipe dry.

### **General Cleaning**

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

- Patient care equipment that does not come in contact with mucous membranes or non-contact skin requires low-level disinfection. Wiping surfaces with a properly prepared detergent or disinfectant carries out low level disinfecting.
- Processing of dirty patient care equipment should take place in a designated area away from clean or sterile supplies and food preparation areas.

- Detergent/disinfectants should not be mixed with other germicides or detergents. Using the proper dilution insures the most effective killing power of the disinfectant.
- Wash hands often and well, including after removal of gloves.
- Patient care equipment that is used in isolation areas should be disinfected in accordance with all internal policies and procedures regarding such equipment.

### Disinfecting

When there is visible soilage and between patients, we recommend that you disinfect the unit and mattress with a tuberculocidal disinfectant.

Disinfectant should be registered with the Environmental Protection Agency (EPA).

- Use rubber gloves and eye protection
- Prepare detergent/disinfectant (registered by EPA as hospital disinfectant) solution according to instructions on label for correct use-dilution
- With support surface deflated, thoroughly wipe down entire mattress, as air cells will lie flat. Be sure to reach all areas underneath and in-between air cells. Allow to air dry.
- If dust or other soiling has accumulated along air hoses, remove using swabs moistened with detergent/disinfectant as necessary. Allow all components to air dry. Wrap mattress in plastic and return to storage area.
- Thoroughly wipe down outside of control unit and allow to air dry. Cover with plastic and return to storage area.
- Remove gloves and dispose; wash hands

### Therapy Pad

The therapy pad can be wiped down with a disinfectant solution or a mild detergent with a damp cloth. If heavily soiled, the therapy pad can be laundered in a washer and dryer with warm water (no more than 120° Fahrenheit). A non-bleach detergent should be used sparingly. Wipe dry or allow to air dry.

### Steam Cleaning

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

### Filter Cleaning

Check the air filter on the rear of the unit regularly for buildup of dust/dirt. If buildup is visible, turn off the control unit and disconnect the power cord from the wall outlet. Remove the filter by grasping the filter and pulling outward. Replace with the second supplied filter. Ensure the replaced filter covers the entire filter region.

Hand-wash the removed filter in warm soapy water and allow to air dry. When dry, store the filter in a safe place for the next filter maintenance.

### Maintenance

**⚠ Warning:** Only facility-authorized personnel trained by Joerns Healthcare should perform preventative maintenance. Preventative maintenance performed by unauthorized personnel could result in personal injury or equipment damage.

Any maintenance done without Joerns' authorization will invalidate any warranties on this product.

### Storage and Care

When the product is not in use, store the power cord properly. Failure to do so could result in personal injury.

**Note:** Clean the TxCair Plus as described in the previous section prior to storage.

### Control Unit

The power cord may be wrapped around the unit for convenience. Wrap the unit in a plastic bag for dust resistance then store the unit in an area appropriate for an electronic medical device.

### Support Surface

Gently roll up the support surface, expelling any residual air, for temporary storage. The mattress should be wrapped in plastic and/or a clean bag for storage.



## System Specifications

### Weight

Control Unit:.....7.5 lbs. (3.5 Kg)  
TxCair Plus Mattress: .....22 lbs. (10 Kg)  
TxCair Overlay:.....20 lbs. (9 Kg)

### Maximum Weight Capacity<sup>1</sup>

TxCair Plus Mattress: ..... 500 lbs.<sup>2</sup> (227 Kg)  
TxCair Overlay:..... 500 lbs.<sup>2</sup> (227 Kg)

### Dimensions

#### Control unit:

12" (30 cm) W x 10" (25 cm) H x 7" (18 cm) D

#### Mattress:

36" (89 cm) W x 80" (203 cm) L x 10" (25 cm) D  
42" (106 cm) W x 80" (203 cm) L x 10" (25 cm) D

#### TxCair Overlay:

36" (89 cm) W x 80" (203 cm) L x 5" (13 cm) D  
36" (89 cm) W x 84" (213 cm) L x 5" (13 cm) D

### Electrical Specifications

#### USA

120V AC, 60 Hz, 5A

## Environmental Conditions

### Operating Conditions

Ambient Temperature: +10°C to +40°C  
Relative Humidity: 30% to 75% Non-Condensing

### Storage and Shipping Conditions

Ambient Temperature: 10°C to +40°C  
Relative Humidity: 10% to 100%

### Agency Approvals

- UL Classified Medical Equipment UL 60601-1  
CAN/CSA C22.2 No. 60601.1

UL Classification refers to the power unit only, not the complete mattress replacement system.

## Call for Assistance

If you have any questions or require service on a Joerns product, please call Joerns Healthcare at 800.966.6662.

<sup>1</sup> Mattress weight capacity only; total weight must not exceed bed frame manufacturers' specified load capacity.

<sup>2</sup> Some models available in 350 lb. safe working load



Notes:

## Joerns Healthcare Warranty Program for TriLine TxCair Plus Support Surfaces

Joerns Healthcare warrants the TriLine TxCair Plus mattress and Overlay mattress to be sold free from defects in workmanship and materials, under normal and proper use, for a period of two (2) years on the mattress, and one (1) year on the cover and electromechanical mattress components (compressors, valves, printed circuit boards, hoses, and couplers). Damages arising from improper use will not be covered by this warranty.

Improper use is defined as, but not limited to, those caused by:

- Burns
- Use of improper chemical agents
- Needle punctures, cuts, or abrasions
- Excessive loads
- Staining
- Negligent or excessive usage
- Improper maintenance, handling and/or cleaning
- Failure to use in the manner indicated in the TxCair Plus user manual

Any modification, repair or alteration done to the TxCair Plus that was not authorized in writing by Joerns Healthcare will void this warranty.

Damage caused by use in unsuitable environmental conditions, abuse or failure to maintain the product in accordance with user and service instructions is not covered.

This warranty is extended to the original purchaser of the equipment.

### Parts

TriLine's TxCair Plus contains various parts that wear from normal use. Joerns Healthcare's obligation under this warranty is limited to supplying replacement parts, servicing or replacing, at its option, any product which is found by Joerns to be defective. When requested by Joerns, parts must be returned for inspection at the customer's expense. Credit will be issued only after inspection.

### Service

Most service requests can be handled by the facility Maintenance Department with assistance from the Joerns Healthcare Product Service Department.

Most parts requested can be shipped next day air at the customer's expense.

Should a technician be required, one will be provided by Joerns Healthcare at our discretion. Only the Joerns Healthcare Product Service Department can dispatch authorized technicians.

