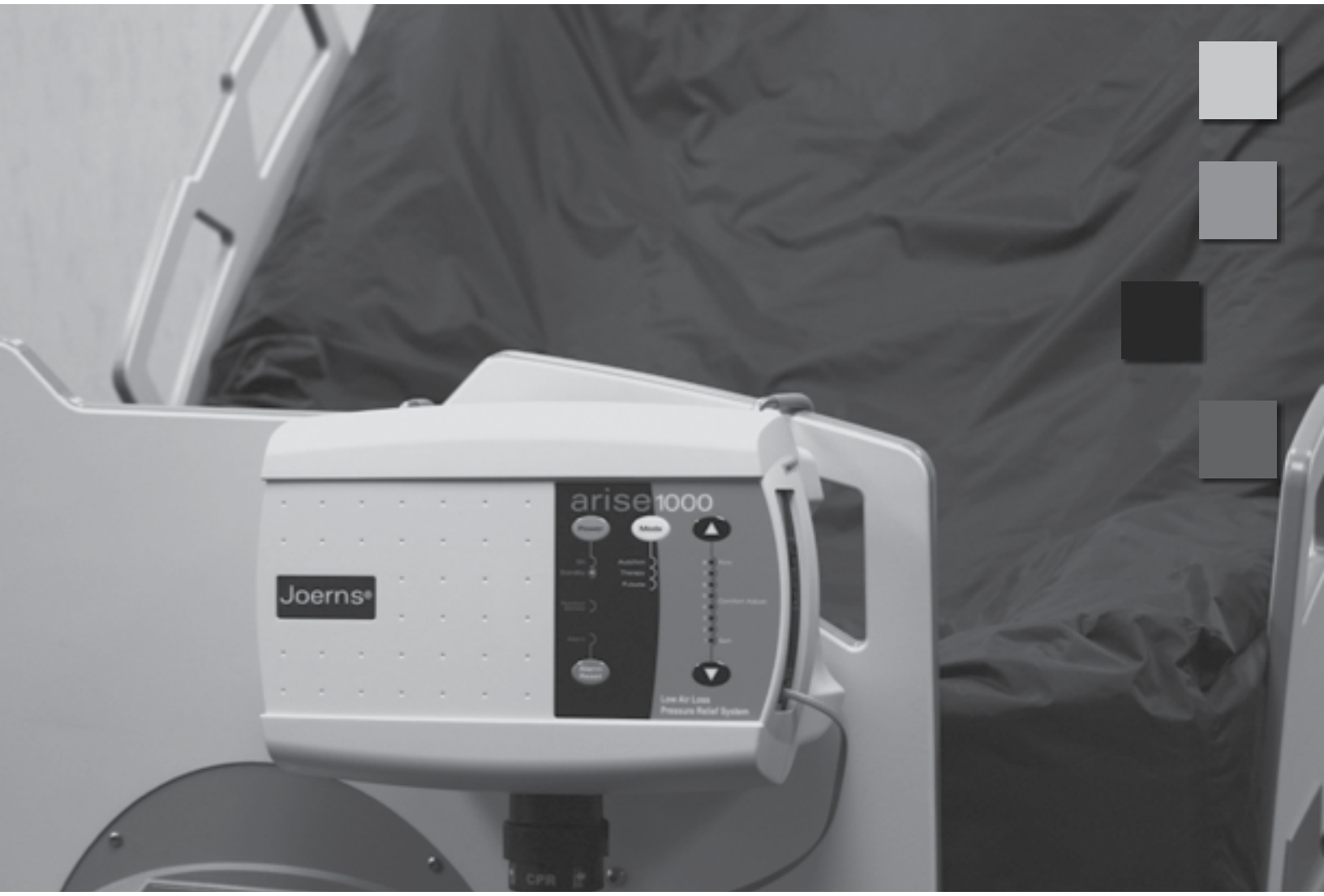
Joerns Healthcare

User-Service Manual
Joerns Support Surface

Arise® LAL Mattress Replacement,
Arise LAL Overlay, Arise 1000, Arise 1000EX

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 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 Healthcare's specialty support surfaces are designed as mattress replacement systems and overlays. The risk of entrapment may occur when the equipment is placed on bed frames or mattresses 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 and overlays 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.

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

⚠**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 spillage 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. Be sure 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 Healthcare 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, 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.

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Introduction

The Arise®, 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 Arise is available as a mattress replacement system and as a mattress overlay.

⚠ **Warning:** The risk of entrapment can develop 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 Arise mattress replacement systems and overlays are 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 Arise is quiet, comfortable and simple enough for single caregiver installation, featuring rapid inflation in just three to five minutes. The user-friendly controls allow for easy adjustment of patient comfort. The Arise offers special features to increase peace of mind such as a power interruption alarm and a patient position sensor which optimizes support for seated patients (Fowler Boost).

Additionally, low friction and shear materials, together with average interface pressures below capillary closure levels (32mm of Mercury), means that the Arise meets the comfort and clinical requirements.

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

Pressure Relief

The Arise is divided into three distinct anatomical zones: head, seat, and foot. Each zone is adjusted to ensure optimal pressure relief and provide a comfortable sleeping surface.

Maximum pressure relief is achieved through delivering a specific amount of air to each therapy cell and allowing controlled amounts of air to escape, thus equalizing the pressure between the patient and the therapy cells. This distributes the patient’s weight evenly over a wide surface area resulting in average pressure readings below capillary closure levels.

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 Arise, 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 Arise therapy pad is constructed from a very smooth nylon fabric with low friction and 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.

Pressure Relief

Pressure Ulcers	Rehabilitation
Neurology	Dermatology
Burns	Amputations

Pain Management

AIDS	Arthritis
Oncology	

The Arise® provides uniform 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 Arise as an adjunct to pain management interventions.

Note: Pressure relief and pain management are conditions and diagnoses for which the Arise may be indicated. Occasionally, there are orthopedic and neurological patients that require body positioning to be maintained in specific alignment. The Arise has safety features to prevent deflation of the therapy cells and to keep patients from bottoming out at all times. The use of the Arise for these patients should be considered on an individual basis and discussed with the attending physician.

Features

The Arise is comprised of two components:

- Therapy control unit
- Therapy mattress system

Therapy Control Unit Features

- True low air loss with up to 100 liters of airflow per minute
- Three modes of operation – *Autofirm, Therapy* and *Pulsate*
- *Pulsating* feature that oscillates the air throughout the mattress every 30 seconds
- *Autofirm* mode provides maximum air inflation designed to assist both patients and caregivers during patient transfer and treatment.
- Patient position sensor optimizes support for seated occupants (Fowler Boost)
- Compact lightweight control unit is quiet, robust and powerful, with a reusable air filter and integrated carrying handle for portability.
- Crisp, easy to read graphics for intuitive set up and therapy control
- Automatic panel lock out to avoid unwanted or accidental adjustments
- Eight therapeutic comfort control settings to maximize patient compliance and promote healing
- 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 frames
- Quick disconnect hose feature allows for rapid attach and CPR deflate at the control unit
- Audible and visual alarms for power interruptions

Therapy Mattress System Features

Arise® LAL Mattress and Overlay

- Twenty (80") or twenty one (84") 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.
- Lower two-inch support cell provides support in the event of a power failure.
- 6.5" deep mattress therapy cells and 5" deep overlay 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
- Durable base tub is constructed from 100% heavy weight 1680 denier nylon with a 1.5 oz. urethane coating and incorporates bed attachment loops for stability.
- Maximum weight capacity: Up to 500 lbs. based on model*
- CPR deflation in 30 seconds or less
- Anti-kink, easy clean air supply hose set
- Integrated CairRails risk management side 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.

Arise 1000 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.
- Lower two-inch therapy support cell provides additional therapeutic support and remains inflated for up to 12 hours in the event of a power failure.
- 6.5" 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
- Durable base tub is constructed from 100% heavy weight 1680 denier nylon with a 1.5 oz. urethane coating and incorporates bed attachment loops for stability.
- Maximum weight capacity: 1000 lbs.*
- CPR deflation in 30 seconds depending on the patient's weight and body shape.
- Anti-kink, easy clean air supply hose set
- Integrated CairRails risk management side 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.

Arise 1000 EX Mattress

- Caregiver operated mattress control panel to adjust the following mattress features:
  - Independent inflation and deflation control of the 6" wide side bolsters (left and right) when used in combination with the Joerns Bari10A bed (36, 42 or 48 inches wide) allows for close-in nursing procedures that may other wise be a strain on the care giver and transportation through narrow doorways.
  - Inflation and deflation of the CairRails
  - Inflation and deflation of the length extension cells which in combination with the Joerns® Bari10A bed allow the bed and mattress to extend from 80 to 88 inches in length.
- Sixteen (Eight paired) 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.
- Lower three-inch foam support cell provides additional therapeutic support and remains supportive in the event of a power failure or for patient transport.
- 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 the weight limit.
- Maximum weight capacity: 1000 lbs.*

* *Mattress weight capacity only; total weight must not exceed bed frame manufacturers' specified load capacity.*

Therapy Pads

Many healthcare facilities are facing the challenge of infection control. Joerns' 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 bacteriostat agent to inhibit the growth of bacterial and fungus
- Constructed from a very smooth nylon fabric with low friction and low shear properties to protect the patient's skin from damaging friction/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.
- Therapy pad is 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 Healthcare 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.

Comfort Adjust Setup

- 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 *Comfort 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 *Comfort 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 *Comfort 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 *Comfort 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 *Comfort Adjust* setting for future reference, and re-evaluate with the Hand Check as the patient's condition warrants.

Arise® LAL Mattress Setup

- Remove the existing mattress from the bed.
- Place the Arise LAL mattress with the hose connection at the foot end of the bed and the therapy cells facing up. Secure the six (6) straps on the mattress securely to the movable part of the bed frame.
- If the therapy pad is not already on the mattress, attach it securely to the mattress.
- Hang the control unit on the foot of the bed facing away from the bed. Attach the hose connector marked CPR to the underside of the control unit.
- Plug the Fowler Boost sensor into the side of the control unit.
- Plug in the control unit and the yellow *Standby* light will illuminate. Press the *Power* key. The control unit will start and the green light will illuminate.
- Allow three to five minutes for full inflation
- Select the appropriate *Comfort Adjust* setting (Refer to "Comfort Adjust Setup" section).
- The CairRails risk management side air bolsters can be inflated or deflated as required. Locate the turn valve on the hose assembly between the mattress and the control unit. Next, inflate/deflate the CairRails by moving the turn 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.

Arise® LAL Overlay Setup

- Place the Arise LAL 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 around the head and foot ends of the mattress. Fasten the two straps by the seat section securely to the sleep deck of the bed frame.
- If the therapy pad is not already on the overlay, attach it securely using the zippers.
- Hang the control unit on the foot of the bed facing away from the bed. Attach the hose connector marked *CPR* to the underside of the control unit.
- Plug the Fowler Boost sensor into the side of the control unit.
- Plug in the control unit and the yellow *Standby* light will illuminate. Press the *Power* key. The control unit will start and the green light will illuminate.
- Allow three to five minutes for full inflation. Place the patient on the overlay. Overlay can be inflated with patient on it, but will take longer, depending on patient weight/size.
  Note: Keep the control unit on while the patient is on the overlay.
- The CairRails air side bolsters are currently not available with the Arise LAL overlay.

Arise 1000 Mattress Setup

- Remove the existing mattress from the bed.
- Place the Arise 1000 mattress with the hose connection at the foot end of the bed and the therapy cells facing up. Secure the ten (10) straps on the mattress securely to the movable part of the bed frame.
- If the therapy pad is not already on the mattress, attach it securely to the mattress.
- Hang the control unit on the foot of the bed facing away from the bed. Attach the hose connector marked *CPR* to the underside of the control unit.
- Plug the Fowler boost sensor into the side of the control unit.
- Plug in the control unit and the yellow *Standby* light will illuminate. Press the *Power* key. The control unit will start and the green light will illuminate.
- Allow three to five minutes for full inflation
- Select the appropriate *Comfort Adjust* setting (Refer to "Comfort Adjust Setup" section).
- The CairRails risk management side air bolsters can be inflated or deflated as required. Locate the turn valve on the hose assembly between the mattress and the control unit. Next, inflate/deflate the CairRails by moving the turn 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.

Arise® 1000 EX Mattress Setup

- Remove the existing mattress from the bed.
- Place the Arise 1000 EX mattress with the hose connection at the foot end of the bed and the therapy cells facing up. Secure the eight (8) straps on the mattress securely to the loops provided on the Bari10A bed frame.
  Note: These straps should not be over tightened as they may interfere with the Bari10A bed deck elements during width reduction.
- If the therapy pad is not already on the mattress, attach it via the longitudinal zippers to the mattress. **Note:** This will require threading the hose set through the control window opening on the therapy cover located on the mattress side at the patients left foot. Also attach the snaps around the control panel opening from the therapy cover to the mattress control panel in four (4) places so that the control panel is not obscured (Figure 2).
- Hang the control unit on the foot of the bed facing away from the bed. Attach the hose connector marked *CPR* to the underside of the control unit.
- Plug the Fowler boost sensor into the side of the control unit.
- Plug in the control unit and the yellow *Standby* light will illuminate. Press the *Power* key. The control unit will start and the green light will illuminate.
- Allow three to five minutes for full inflation
- Select the appropriate *Comfort Adjust* setting (Refer to “Comfort Adjust Setup” section).
- The CairRails air bolsters can be inflated or deflated as required. Locate the control knob (Figure 2) on the lower right of the control panel on the mattress. Next, inflate/deflate the CairRails by moving the control knob to the up (inflate) or down (deflate) position.
- If the patient needs the extended width functionality of the bed (36", 42" or 48") then complete the following procedure. **Note:** this can be accomplished with the patient on the bed:
  1. Adjust the Bari10A bed frame with the knee section in the flat position.
  2. Widen the bed frame (see bed manual)
  3. Un-strap the mattress side straps from the Bari10A bed frame.
  4. Un-snap the pocket that contains the extension side cells so they are free to inflate.

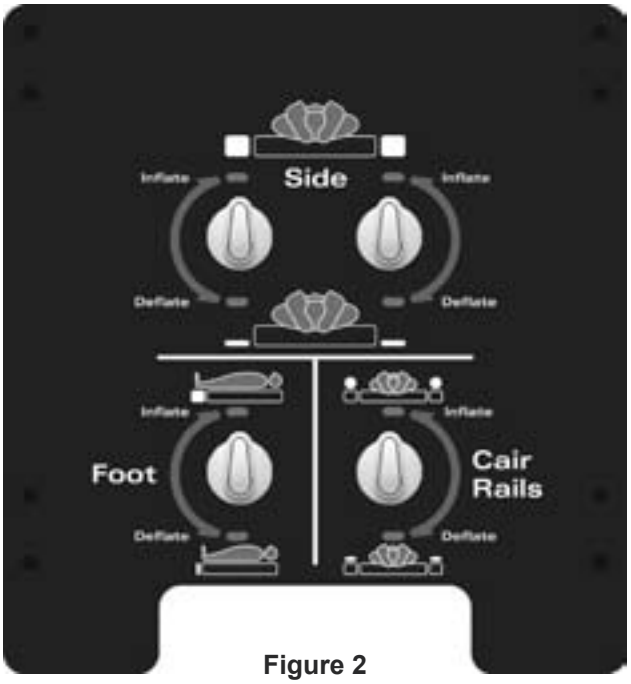

Figure 2

  5. Attach the extended width mattress side straps to the extended bed deck (**Note:** do not over tighten).
  6. Inflate the extension side cells by turning the lower left knob on the mattress control panel up. After 2-5 minutes the cells will inflate. Leave the knob in this position to maintain inflation.
- If the patient needs the extended length functionality of the bed (80" - 88" then complete the following procedure. **Note:** this can be accomplished with the patient on the bed:
  1. Adjust the Bari10A bed frame with the knee section in the flat position.
  2. Extend the bed frame (see bed manual)
  3. Un-strap the mattress foot straps from the Bari10A bed frame.
  4. Un-snap the pocket that contains the extension foot cells so they are free to inflate.
  5. Attach the extended length mattress foot straps to the extended bed deck (**Note:** do not over tighten).
  6. Inflate the extension foot cells by turning the lower left knob on the mattress control panel (Figure 2) up. After 2-5 minutes the cells will inflate. Leave the knob in this position to maintain inflation.

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.

Patient Comfort Controls and Monitoring (Figure 3)

Power Switch

The power switch is used to turn the power on and off.

Standby Light

The *Standby* indicator will illuminate when the unit is plugged into a power outlet. Press the *Power* button to turn the unit on and inflate the mattress. *Therapy* is the default mode at startup. 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.

Modes

Autofirm Mode

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 12 minutes.

The Arise® has two low air loss therapy modes, *Therapy* and *Pulsate*:

- *Therapy*: The unit starts in the *Therapy* mode, which is the standard low air loss therapy.
- *Pulsate*: *Pulsate* will slightly decrease the pressure in all cushions every 30 seconds then return to the programmed comfort adjust level.

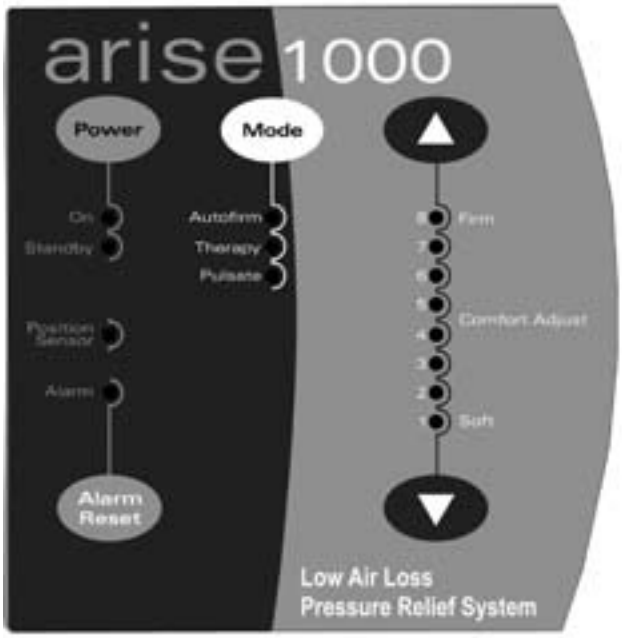

Figure 3
Note: Label artwork may vary slightly, but control functions are standard.

Comfort Adjust

The *Comfort Adjust* function is located on the right side of the control panel. The Arise can be customized to meet individual patient needs within a therapeutic window. Use the up and down keys to simultaneously increase or decrease pressure in all three zones (head, seat and foot). This function will not work in *Autofirm* mode. Refer to "Comfort Adjust Setup" section for selecting the proper *Comfort Adjust* setting.

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. 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.

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. CPR connection style may vary by model. To re-inflate the air cells, 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. Some models incorporate a foam safety cell.

For the Arise® 1000 EX mattress, the control unit can be disconnected from the mattress as the 3" foam base will continue to support the patient. If the Bari10A bed frame is to be reduced in width for transport it may be necessary to deflate the CairRails. This can be done at the mattress control panel (Figure 2, pg 10) by turning the lower right control knob down.

Power Failure

The Arise control unit has an advanced power failure notification alarm and Comfort Adjust setting memory capability. Upon power failure the control unit will flash a red Alarm light on the keypad and sound an audible signal every two (2) seconds for up to twenty (20) minutes. The power interruption feature keeps the current settings in memory based on the frequency of use and level of battery charge. The Alarm Reset will turn off audible and visual alarm.

Power Interruption (Brown out)
In the event of a brief power interruption, up to twenty (20) minutes, the Arise control unit will automatically restart and reset to the previous Comfort Adjust settings. The power interruption feature keeps the current settings in memory based on the frequency of use and level of battery charge.

Power Loss
In the event of a power failure in excess of twenty (20) minutes, the control unit's stand by 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.

Safety cell
In the event of a power failure, the lower support cells should remain inflated for up to 12 hours as long as the control unit remains connected. In case of an extended power failure, transfer the patient to a hospital mattress or other surface.

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.

Note: When inflating CairRails, it is recommended that the control unit be in *Autofirm* mode to achieve optimal results.

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.

Note: Side bolsters are meant to be used with side rails and 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.

Optional Accessories

- Additional therapy pads – available for purchase
- T-Bracket control unit hanger – available for purchase

Troubleshooting

Therapy Surface is not Inflating

1. Ensure the hose connection from the therapy mattress system (mattress) to the control unit is securely connected.
2. Ensure that the control unit is plugged into an AC outlet.
3. Ensure that the power is not on *Standby.* If on *Standby*, press the *Power* button.
4. Ensure that all air cells are connected to the manifold.

Unable to Change Therapy Mode or Adjust Comfort Control

Make sure the *Lockout* function is disabled. To disable, press the up and down comfort adjust arrows simultaneously.

Nursing Procedures

Recommended Linen:

Special linens are not necessary for the Arise®. While there is no need for a bottom sheet the therapy pad should be covering the therapy cells at all times. The patient should never be lying directly on the therapy cells. Depending upon the patient's 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

1. 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)
2. Zip the therapy pad along each side of the mattress tub.

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 head of the bed in the low position to provide optimal pressure relief and minimize the risk of shearing injuries.

Elevating Patient into Sitting Position
The special properties of the Arise therapy pad reduce the opportunity for shear and friction that may occur when raising the head of other beds. As with any surface, sliding can be expected, therefore patients should be repositioned after elevation. The knee gatch or foot of the bed may be elevated first, to help prevent the patient from sliding when the head of the bed 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/relieve pressure and the shearing/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" section.

1. 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.
2. Processing of dirty patient care equipment should take place in a designated area away from clean or sterile supplies and food preparation areas.
3. Detergent/disinfectants should not be mixed with other germicides or detergents. Using the proper dilution insures the most effective killing power of the disinfectant.

4. Wash hands often and well, including after removal of gloves.
5. 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, it is recommend that the unit and mattress be disinfected with a tuberculocidal disinfectant. Disinfectant should be registered with the Environmental Protection Agency (EPA).

1. Use rubber gloves and eye protection.
2. Prepare detergent/disinfectant (registered by EPA as hospital disinfectant) solution according to instructions on label for correct use-dilution.
3. 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.
4. 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.
5. Thoroughly wipe down outside of control unit and allow to air dry. Cover with plastic and return to storage area
6. 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 120º 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 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, properly store the power cord. Failure to do so could result in personal injury.

Note: Clean the Arise® 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: .....10 lbs. (4.5 Kg)
Mattress:.....24.5 lbs. (10 Kg)
Overlay: .....13.5 lbs. (6 Kg)

Maximum Weight Capacity*

Arise LAL Mattress: .....350 lbs. (159 Kg)
Arise LAL Overlay:.....350 lbs (159 Kg)
Arise 1000 Mattress:.....1000 lbs (454 Kg)
Arise 1000EX Mattress:.....1000 lbs (454 Kg)

Dimensions

Control unit:
13.5" (34 cm) W
11" (28 cm) H
7.5" (19 cm) D

Arise LAL Mattress:
35" (89 cm) W
80", 84" (203, 213 cm) H
8.5" (22 cm) D

42" (106 cm) W
80" (203 cm) H
10" (25 cm) D

Arise LAL Overlay:
35" (89 cm) W
80", 84" (203, 213 cm) H
5" (13 cm) D

Arise 1000 Mattress:
48" (122 cm) W
80" (203 cm) H
8.5" (22 cm) D

Arise 1000EX Mattress:
36", 42", 48" (91, 107, 122 cm) W
80", 88" (203, 224 cm) L
8.5" (22cm) D

* *Mattress weight capacity only; total weight must not exceed bed frame manufacturers' specified load capacity.*

Electrical Specifications

USA
120V AC, 60 Hz, 4A, less than 1A running

Environmental Conditions

Operating Conditions
Ambient Temperature: +10ºC to +40ºC
Relative Humidity: 30% to 75% Non-Condensing

Storage and Shipping Conditions
Ambient Temperature: -10ºC to +40ºC
Relative Humidity: 10% to 100%

Agency Approvals

- UL Classified Medical Equipment UL 60601-1 Can/CSA C22.2 No. 601.1

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 product, please call Joerns Healthcare at 800.862.0270.

Notes:

Notes:

Notes:

Joerns Healthcare Warranty Program

for Joerns® Arise® Support Surfaces

Joerns Healthcare, Inc. warrants the Arise mattress replacement systems and overlays to be sold free from defects in workmanship and materials, under normal and proper use. Warranty periods vary. Check with your customer care representative. 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 Arise user manual

Any modification, repair or alteration done to the Arise 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.

Parts

Joerns' Arise contains various parts that wear from normal use. Joerns Healthcare's obligation under it's warranty is limited to supplying replacement parts, servicing or replacing, at its option, any product which is found by Joerns Healthcare to be defective.

When requested by Joerns Healthcare, 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.

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