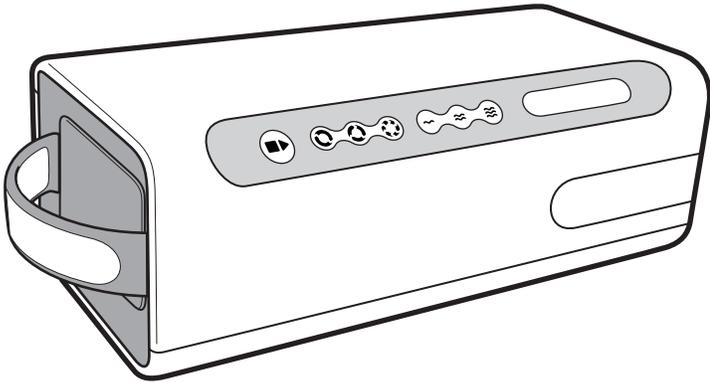
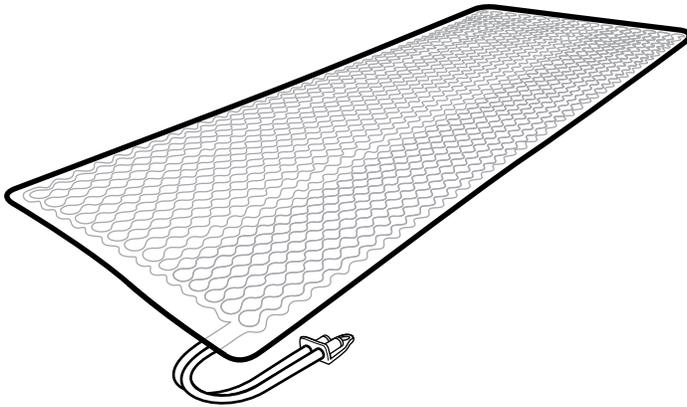


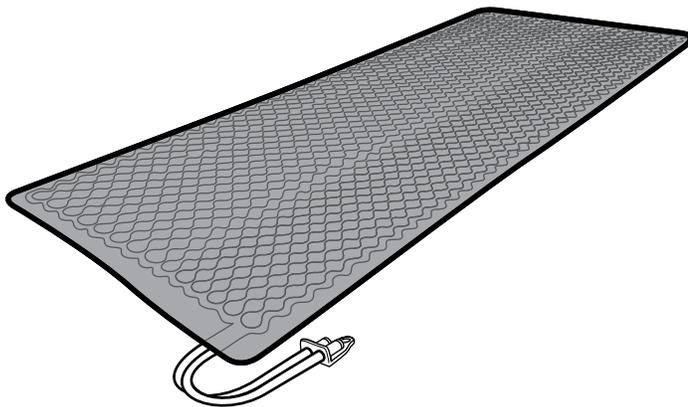
Instructions For Use



DABIRAIR[™]
CONTROLLERS
CA-1001 (Controller Starter Kit)



DABIRAIR[™]
MICROPRESSURE
DA-101884 (Surgical Overlay)
DA-303584 (MedSurg Bed Overlay)



DABIRAIR[™]
MICROCLIMATE
MC-303584 (MedSurg Bed Overlay-Micro)

DABIRAIR[™]
ACCESSORIES
CA-9001 (Hose Assembly)
CA-9002 (Power Cord)

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1.1 Important Before You Start

- Please read entire manual carefully and completely before using.
- As with any device, failure to carefully read and follow all instructions and safety information prior to use may result in decreased product performance or failure.

1.2 Safety Warnings

- It is the responsibility of the caregiver to ensure that the user can operate this product safely.
 - Power “OFF” or “STOP” Pneumatic Controller for cardiac arrest events. The unit is not intended for use during CPR. (See Section 6)
 - Properly route and secure Power Cord and hoses to avoid trip hazard.
 - Maintain accessibility to Power Cord such that it can be easily unplugged.
 - The Dabir System must be cleaned using the outlined guidelines within this manual. Cleaning conditions that do not reflect the recommended cleaning process may result in irreparable damage.
 - Disconnect the Pneumatic Controller from the wall power source prior to cleaning and inspecting.
 - Do not immerse or allow liquid to enter any part of the Pneumatic Controller.
 - Keep DabirAIR Micropressure Overlay vent free and clear of liquids, contamination and debris to avoid over inflation.
 - Do not operate the Pneumatic Controller in the presence of flammable liquids or gases.
 - Only use the DabirAIR Pneumatic Controller with manufacturer approved Overlays and Accessories to ensure proper system function.
 - The DabirAIR Micropressure and DabirAIR Microclimate products are OVERLAYS, and are not intended to be used without an underlying support mattress or pad.
 - Do not block air intake ports on the bottom of the Pneumatic Controller or the exhaust vent under the handle.
 - Do not place Pneumatic Controller on top of loose articles which may block air intake ports.
 - System must be at room temperature prior to operation. Allow Pneumatic Controller and Overlay to acclimate to room temperature for one hour prior to operation.
 - Do not place the Pneumatic Controller in direct sunlight.
 - The Pneumatic Controller must be stored and operated within designed operating conditions specified in this manual. Operating the Pneumatic Controller outside these ranges may cause damage to the device which could result in premature failure.
 - The Pneumatic Controller must be used with specified operating wall currents. All other alternative power sources and currents may result in irreparable damage to the system and possible hazardous event to the patient or caregiver.
 - Equipment may be hazardous if misused.
 - Modification of the device voids warranty and may compromise intended function. Service should be performed exclusively by the manufacturer or manufacturer’s representative.
 - If Pneumatic Controller is damaged during the shipping process, please contact the manufacturer for appropriate action.
 - If Pneumatic Controller is dropped during use with noticeable damage, please remove from service and contact the manufacturer for appropriate action.
 - Do not transport or carry the Pneumatic Controller with an Overlay attached.
 - This device requires the use of a shielded Power Cord for compliance with emissions limits. Do not operate device without manufacturer supplied Power Cord.
 - Do not use in an MRI environment.
 - Turn Dabir System “OFF” during patient transfer and before patient positioning.
 - It is the responsibility of the caregiver to adequately secure and protect the patient against patient falls.
- WARNING:** No modification of this equipment is allowed.

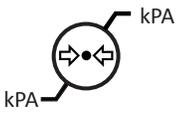
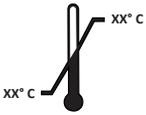
1.3 Labels and Descriptions

The Symbols below appear on the Pneumatic Controller, Overlays, Hose Assembly, Accessories and/or packaging.

Label	Description	Application
	<p>UL Mark ANSI/AAMI ES60601-1 AMD 1 (2012), "Medical Electrical Equipment - Part 1: General Requirements for Basic Safety and Essential Performance, Amendment 1.</p> <p>CAN/CSA-C22.2 No. 60601-1 (2014), "Medical Electrical Equipment - Part 1: General Requirements for Basic Safety and Essential Performance</p>	Pneumatic Controller label
	<p>UL Badge Indicates UL compliance on marketing, advertising, and packaging materials</p>	Pneumatic Controller label, Box labels, Overlay labels, Hose Assembly label
	<p>Non-Sterile Indicates a medical device that has not been subjected to a sterilization process.</p>	Overlay labels & Overlay Box labels
	<p>Caution Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to the device that may occur as a result of use or misuse.</p>	Instructions For Use
	<p>Manufacturer Indicates the medical device manufacturer.</p>	Box labels & Pneumatic Controller label
	<p>Date of Manufacture Indicates the date when the medical device was manufactured.</p>	Box labels, Pneumatic Controller label, Hose Assembly label, Overlay labels
	<p>Separate Collection Separate collection for electronic waste required.</p>	Box labels, Overlay Box labels, Overlay labels, Pneumatic Controller label, Hose Assembly label

1.3 Labels and Descriptions - Continued

The Symbols below appear on the Pneumatic Controller, Overlays, Hose Assembly, Accessories and/or packaging.

Label	Description	Application
	Follow instructions for use	Pneumatic Controller label, Box labels, Overlay labels, Hose Assembly label
	Defibrillation-proof Type BF Applied Part Indicates a defibrillation-proof type BF applied part complying with IEC 60601-1.	Pneumatic Controller label
 YYYY-MM-DD	Use-by Date Indicates the date after which the medical device is not to be used.	Overlay Box labels & Overlay labels
IP20	Protected Against Solid Foreign Objects Of 12.5mm Ø and greater. Not protected against liquid ingress.	Pneumatic Controller label
	This Way Up Indicates a medical device that can be broken or damaged if not handled in a specific orientation.	Pneumatic Controller Starter Kit Box label
	Keep Dry Indicates a medical device that needs to be protected from moisture.	Box labels
	Fragile, Handle With Care Indicates a medical device that can be broken or damaged if not handled carefully.	Pneumatic Controller Starter Kit Box label
	Humidity Limitation Indicates the range of humidity to which the medical device can be safely exposed.	Box labels
	Atmospheric Pressure Limitation Indicates the range of atmospheric pressure to which the medical device can be safely exposed.	Pneumatic Controller label & Pneumatic Controller label
	Temperature Limit Indicates the temperature limits to which the medical device can be safely exposed.	Box labels & Pneumatic Controller label

1.3 Labels and Descriptions - Continued

The Symbols below appear on the Pneumatic Controller, Overlays, Hose Assembly, Accessories and/or packaging.

Label	Description	Application
	Serial Number Indicates the manufacturer's serial number so that a specific medical device can be identified.	Box labels, Pneumatic Controller label, Serial ID labels, Overlay labels
	Catalogue Number Indicates the manufacturer's catalogue number so that the medical device can be identified.	Box labels, Pneumatic Controller label, Hose Assembly label, Overlay labels
	Batch Number Indicates the manufacturer's batch code.	Power Cord Box label
	Alternating Current Indicates that the equipment is suitable for alternating current only.	Pneumatic Controller label, Controller Starter Kit label
	Direct Current Indicates that the equipment is suitable for direct current only.	Hose Assembly label
	"ON" (power) Indicates connection to the mains.	Pneumatic Controller label
	"OFF" (power) Indicates disconnection to the mains.	Pneumatic Controller label
	Universal Serial Bus	Pneumatic Controller label
	FCC Declaration of Conformity Certifies that the electromagnetic interference from the device is under limits approved by the Federal Communications Commission	Pneumatic Controller label
	Non-ionizing Electromagnetic Radiation Indicates equipment in the medical electrical area that includes RF transmitters.	Instructions For Use label

1.4 About this Manual

This manual is your introduction to the Dabir Surfaces Patient Support System. Use it to initially set-up the DabirAIR Pneumatic Controller and Overlay. Keep it as a reference for day-to-day operation and as a guide for maintenance.

1.5 Indications of Use

The Dabir Surface Patient Support System is indicated for:

- Assisting in reducing pressure ulcer development when combined with a comprehensive pressure ulcer prevention plan.
- Reducing patient risk by minimizing impact of industry accepted causes of pressure ulcer formation.
- Use with patients weighing 50 to 400 lbs.

1.6 Contraindications

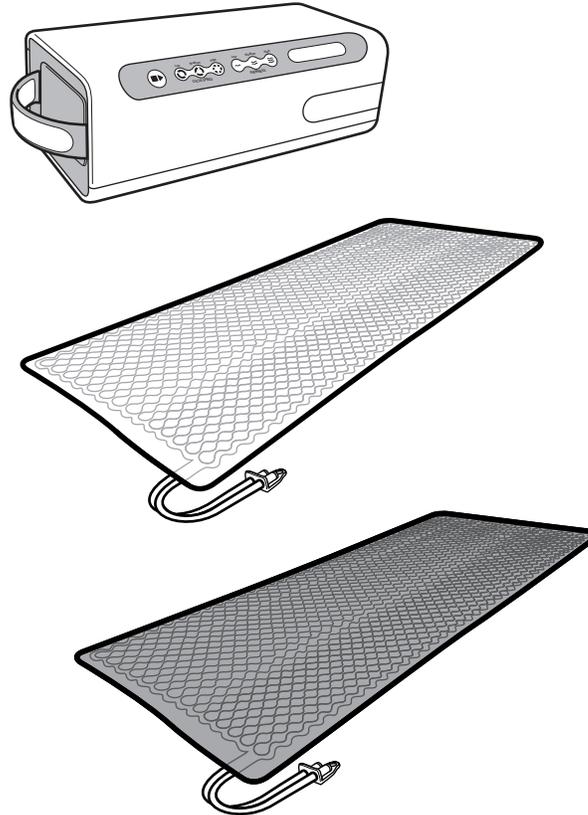
- Do not use the Dabir Surfaces Patient Support Systems for patients with unstable spinal fractures.

1.7 About the Dabir System

The Dabir Surfaces Patient Support System is a low-profile, disposable, alternating pressure relief system with optional microclimate feature.

The system consists of:

- **DabirAIR Pneumatic Control Unit**
 - Easy Power Activation
 - Smart Interconnect System
 - Start/Stop Touch Operation
 - Variable Cycle Speed Settings
 - Variable Firmness Settings
- **DabirAIR Micropressure Overlay**
 - Multi-Patient Use/Semi-Disposable
 - Alternating Nodal Support
 - Reduced Skin Shear
 - Easy Wipe-Down Cleaning
 - Covers with Standard Sheets
- **DabirAIR Microclimate Overlay**
 - Multi-Patient Use/Semi-Disposable
 - Alternating Nodal Support
 - Reduced Skin Shear
 - Removes Excess Heat/Moisture
 - Easy Wipe-Down Cleaning
 - Covers with Standard Sheets



1.8 How it Works

Dabir Technology was developed on the principle of supporting a person on small, closely spaced areas of contact (Comfort Nodes) that dynamically alternate in height to relieve at-risk tissue against pressure ulcer formation. The aim is to preserve the circulatory components of arterial, venous and lymphatic blood flow in between these areas of contact.

Skin Shear

By shortening the distance between areas in contact, skin stretch during alternating support and immersion is reduced, thereby decreasing the risk of skin shear.

Pressure

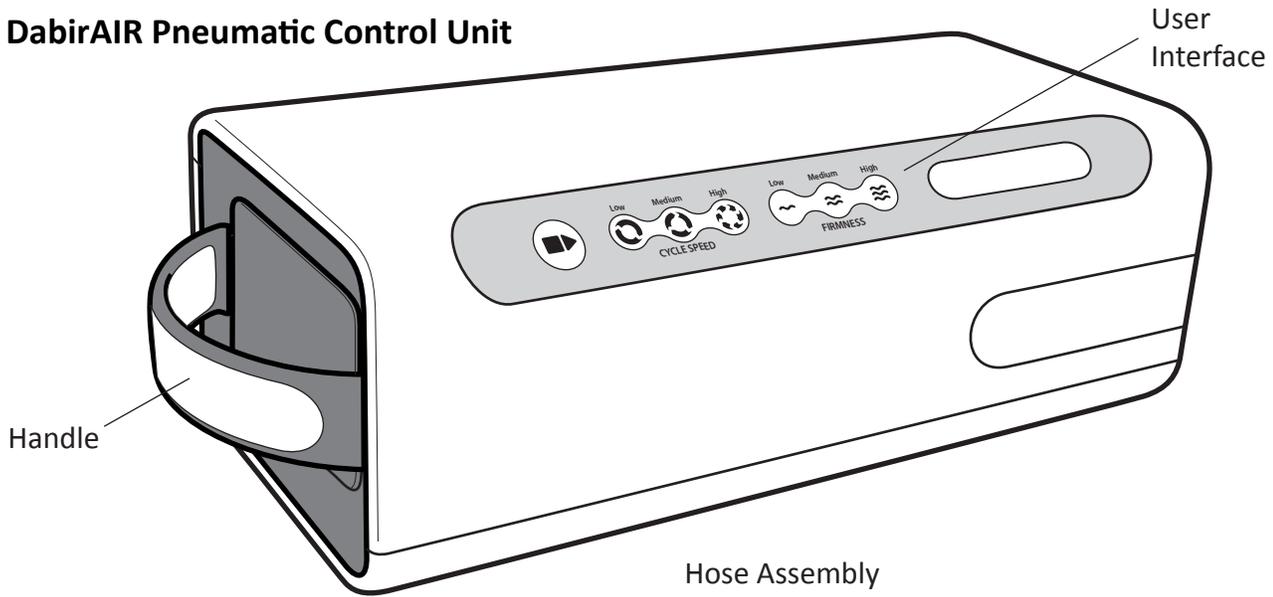
The DabirAIR Micropressure Overlays achieve alternating support and relief utilizing independent rows of small comfort nodes that are intended to promote interstitial blood flow between areas of contact.

Temperature & Moisture

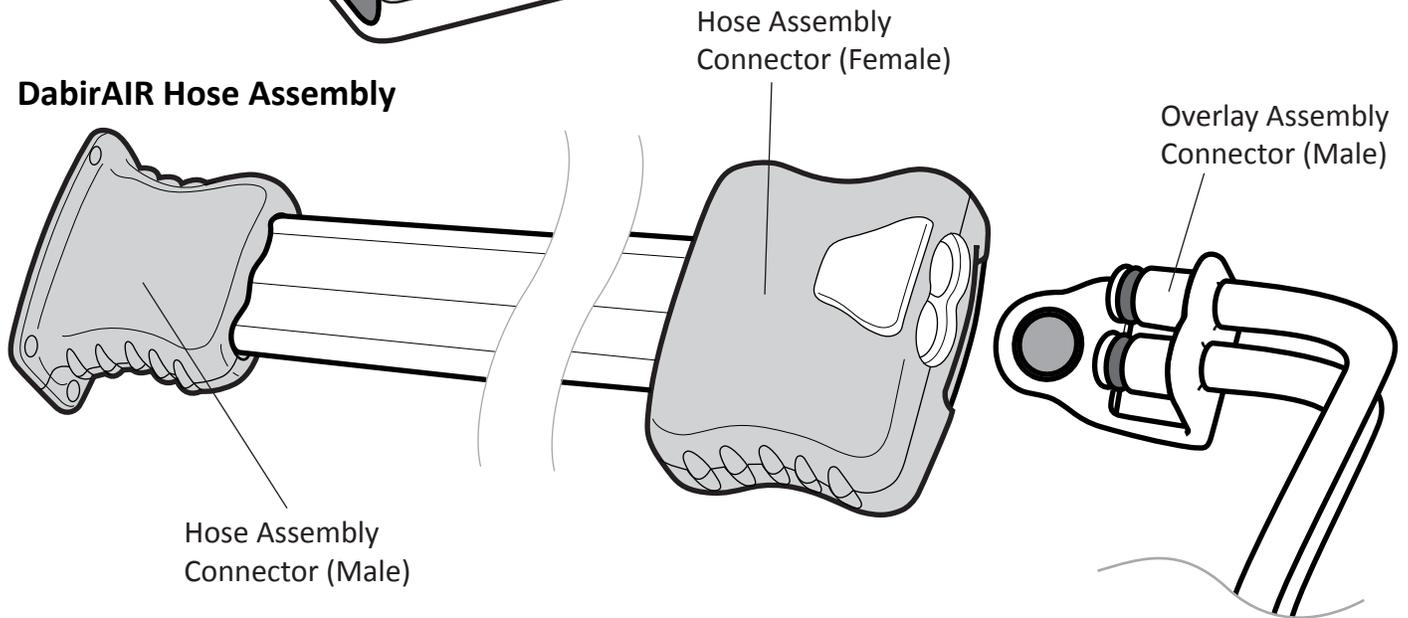
DabirAIR Microclimate Overlays provide Low-Air-Loss continuous airflow to remove excess heat and moisture from the patient's skin in areas of support.

2.1 Pneumatic Controller, Hose Assembly and Accessories

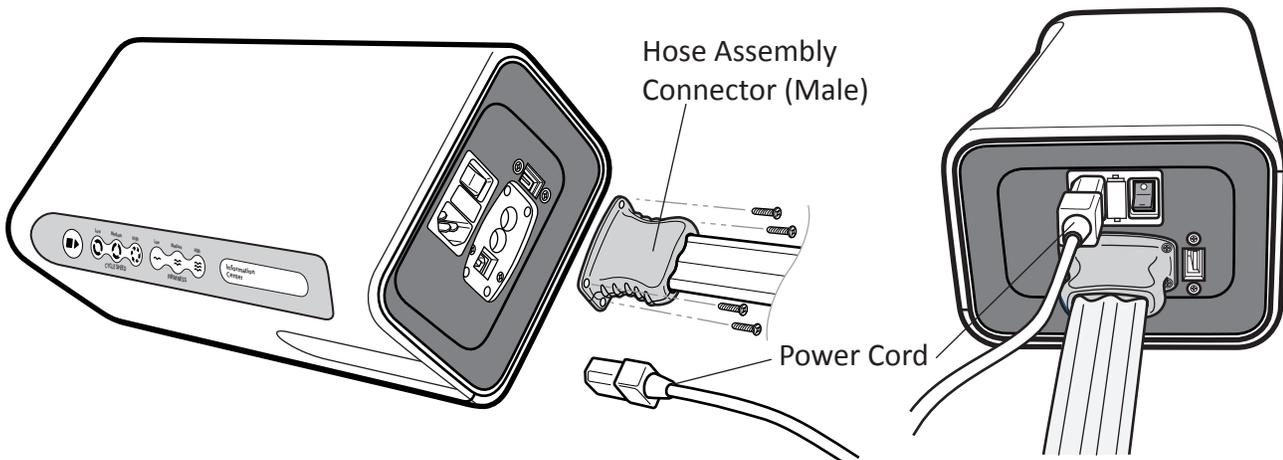
DabirAIR Pneumatic Control Unit



DabirAIR Hose Assembly

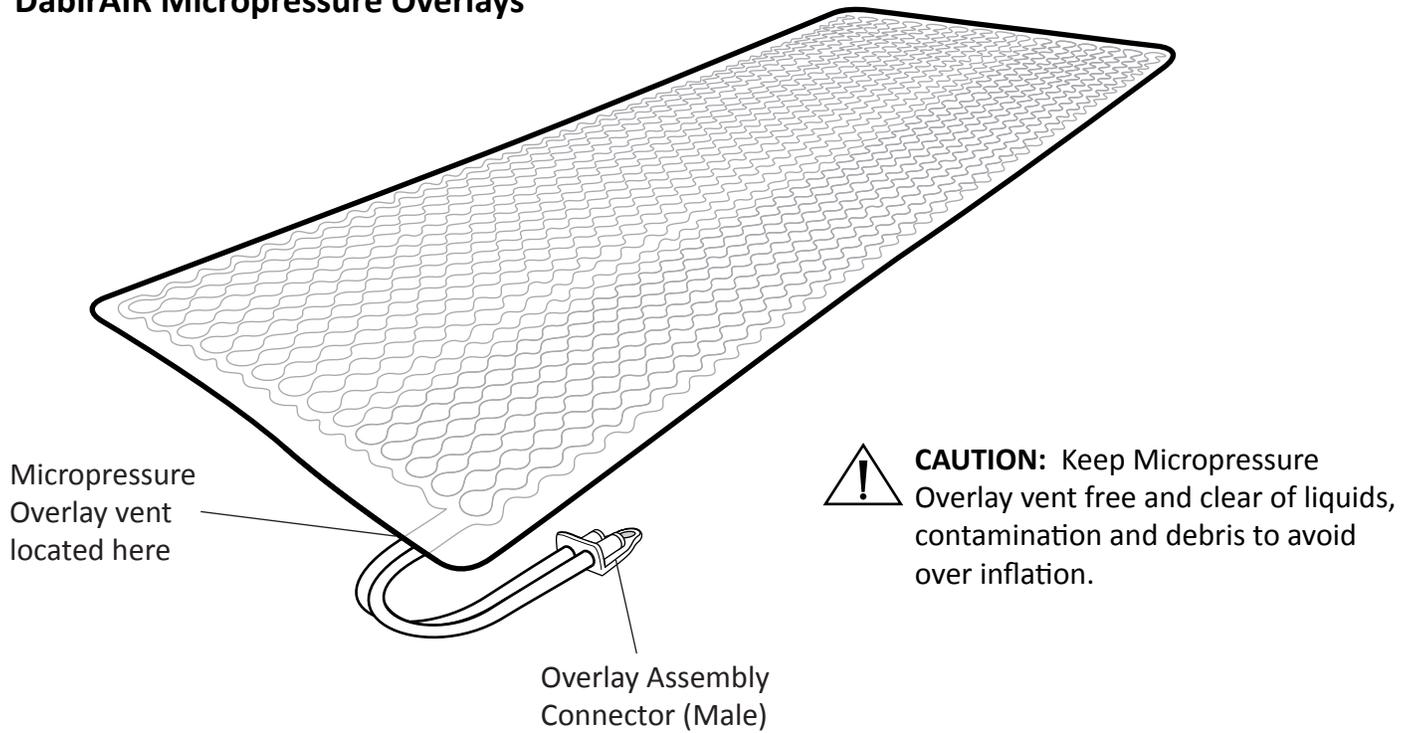


DabirAIR Accessories

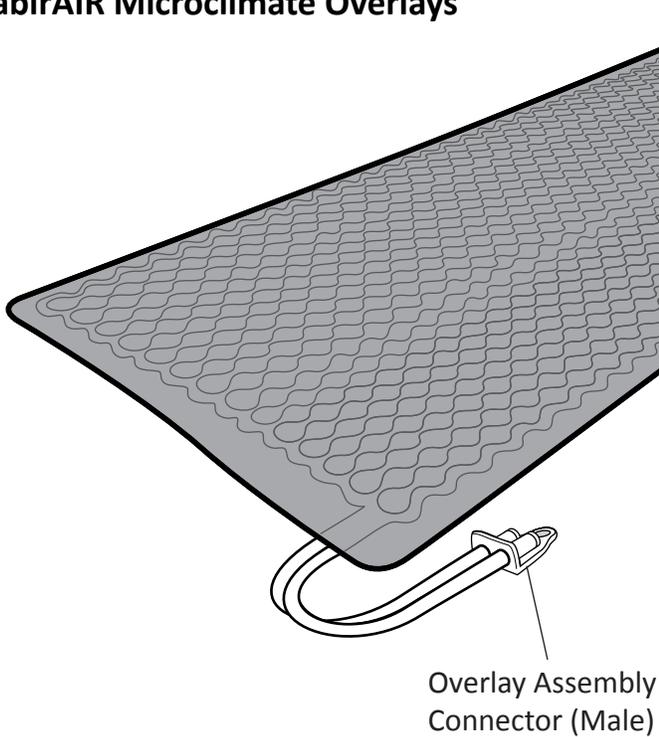


2.2 Overlays

DabirAIR Micropressure Overlays



DabirAIR Microclimate Overlays



3.1 Pneumatic Controller Pre-Assembly

1. Place Dabir Pneumatic Controller on a flat, stable surface, free and clear of loose articles which could block the air intake.

 **CAUTION:** Do not block air intake ports on the bottom of the Pneumatic Control Unit or the exhaust vent under the handle.

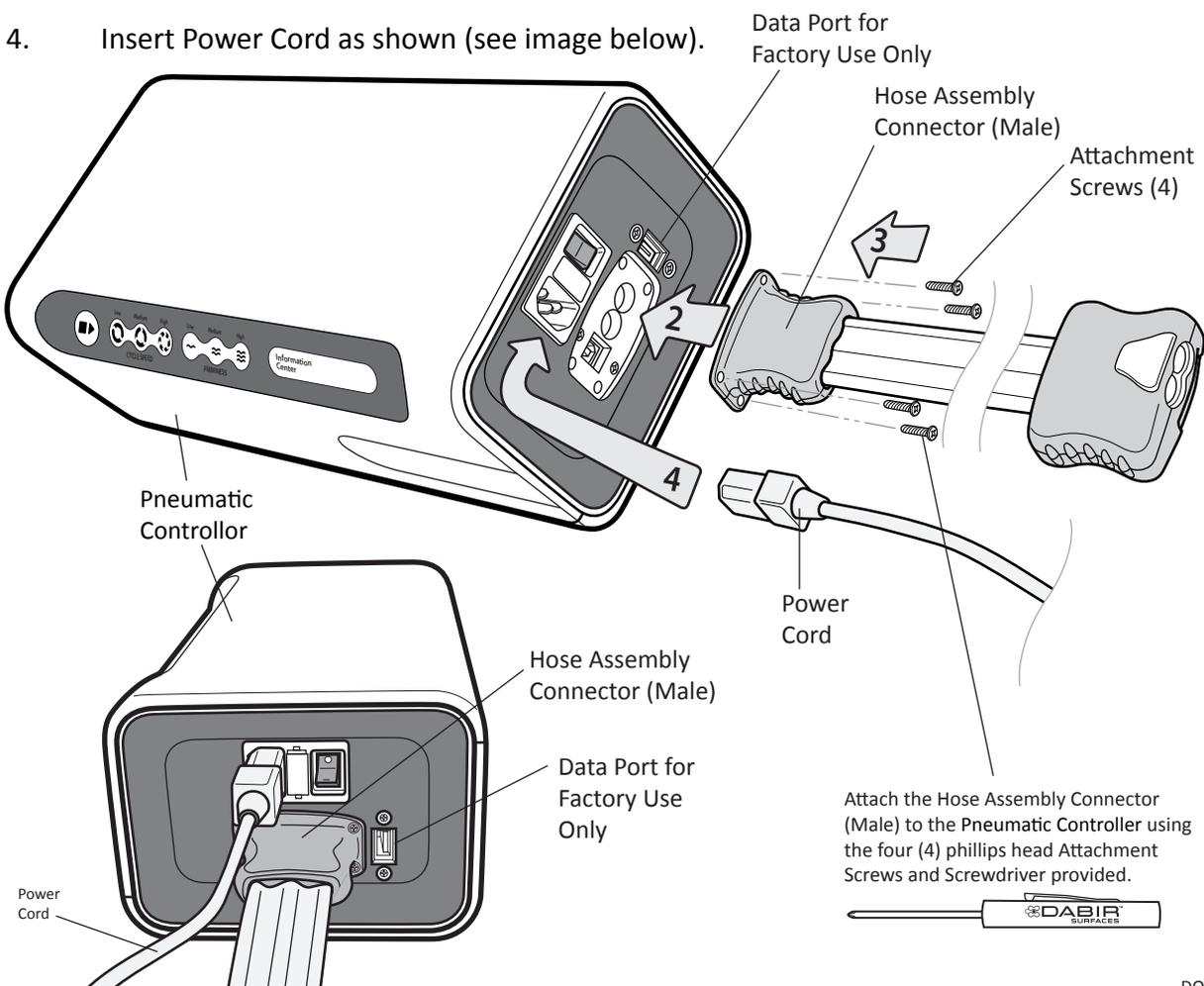
 **CAUTION:** Do not position Pneumatic Controller on top of loose articles which may block air intake ports.

2. Insert the Hose Assembly Connector (Male) into the receptacle of the Pneumatic Control Unit until fully seated (see image below).
3. Insert the four (4) Attachment Screws into the Hose Assembly Connector (Male) and tighten with the provided Screwdriver.

 **CAUTION:** Do not over-tighten the Attachment Screws.

 **CAUTION:** Do not use petroleum based lubricants on the Hose Assembly Seals. Use of these lubricants may cause the seals to swell and/or leak.

4. Insert Power Cord as shown (see image below).



3.2 System Installation

Overlay Installation

1. Place Overlay flat onto patient support surface, mattress or pad with “THIS SIDE UP” facing up. The hose routing position is preferred to be at the foot end.

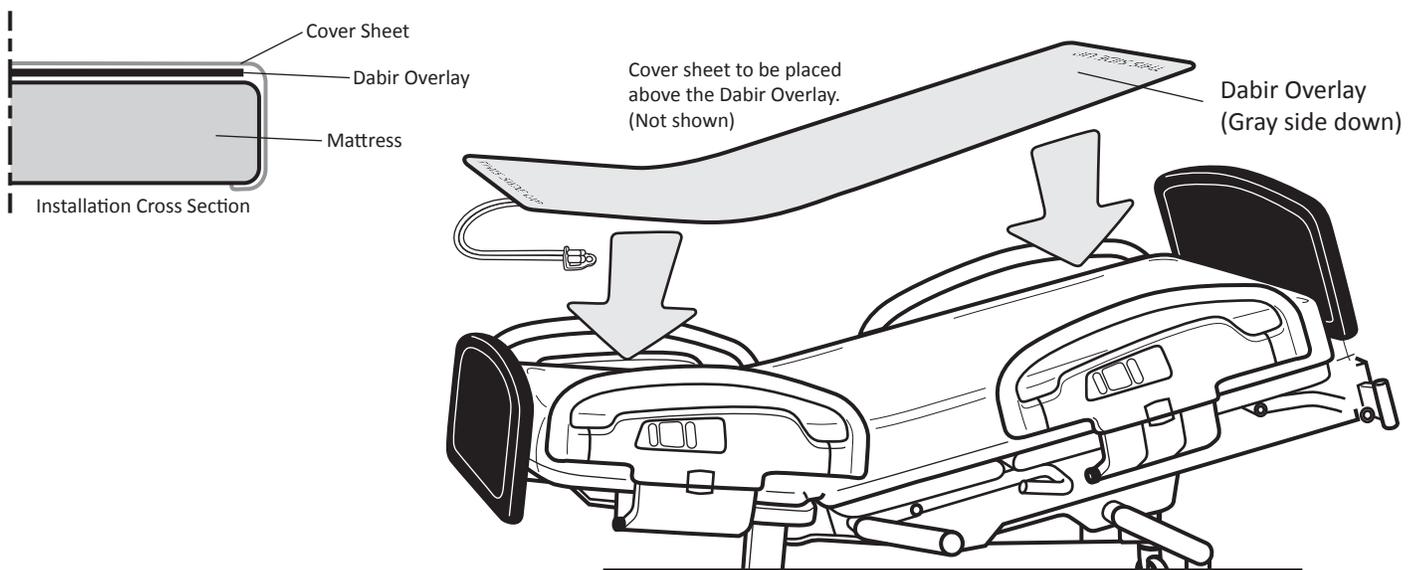


CAUTION: Ensure there are no sharp objects between the Overlay and patient support surface, mattress or pad. Avoid placement near sharp or hot objects to avoid puncture.



CAUTION: If Overlay is damaged or punctured in installation and/or usage, it must be replaced.

2. Power “ON” the Pneumatic Controller and touch the cycle “START/STOP” key. Inspect the Overlay to insure that all nodes are properly inflating and deflating. If the Overlay nodes are not inflating properly, inspect the Overlay and Hose Assembly routing to insure that there are no kinks restricting air flow.



MedSurg Bed Installation



CAUTION: Never place Overlay directly on bed frame. To assure proper function, the Overlay must be placed on top of a support mattress or pad.

3. Place facility supplied, standard cover sheet over the top of the Overlay and tuck edges underneath the mattress or pad unless otherwise specified in manufacturer’s instructions. Overlay and sheet must be flat and wrinkle free.



CAUTION: It is recommended that no additional layers be added between the patient and Dabir Overlay. Additional layers may negatively impact performance.



CAUTION: At the care-giver's discretion, Dabir Surgical Overlays (DA-101884) may be used without bedsheets for a single surgical procedure.

NOTE: Latex is not used in the manufacture of this product.

3.2 System Installation - Continued

Specific overlay usage details:

DabirAIR Micropressure Overlays

DabirAIR Overlays are intended to provide alternating support relief with reduced skin shear. Additional layers such as moisture barriers, incontinence pads, etc. may be used, but should be kept to a single layer only. Additional bulk or non-stretch layers placed between the covering bottom sheet and patient should be avoided.

DabirAIR Microclimate Overlays

DabirAIR Microclimate Overlays operate under the same principle as the DabirAIR Micropressure Overlays described above, but require micro air flow between the patient and cover sheet to effectively remove excess heat and moisture. Any additional layers added must be air permeable to assure proper performance. Placement of moisture barriers between the patient and cover sheet will impede air flow and reduce, or negate, Dabir's microclimate effectiveness.

Pneumatic Controller and Hose Assembly Installation

1. Place Pneumatic Controller in a safe, out of the way location, approximately three (3) feet away from the bed or support surface, less than six (6) feet from a power outlet, and in a place where the user has easy access to the control panel for operation.

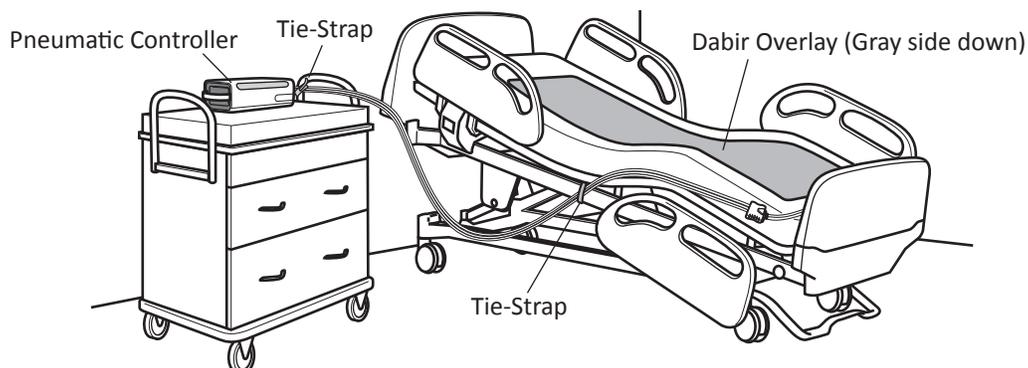
 **CAUTION:** To ensure proper device grounding, do not use an extension cord with this device. The Power Cord should be plugged directly into an acceptable wall power outlet.

2. Route Power Cord and Hose Assembly such that it does not present a trip hazard.
3. Using the supplied tie-straps, secure Hose Assembly to a fixed or stable structure. (See image below for recommended securing method.)

 **CAUTION:** If Pneumatic Controller is dropped during use with noticeable damage, please remove from service and contact the manufacturer for appropriate action.

 **CAUTION:** Ensure Hose Assembly is properly secured to prevent trip hazard and potential damage to the device. The Hose Assembly should not be bent, kinked or constrained in such a manner that might restrict air flow.

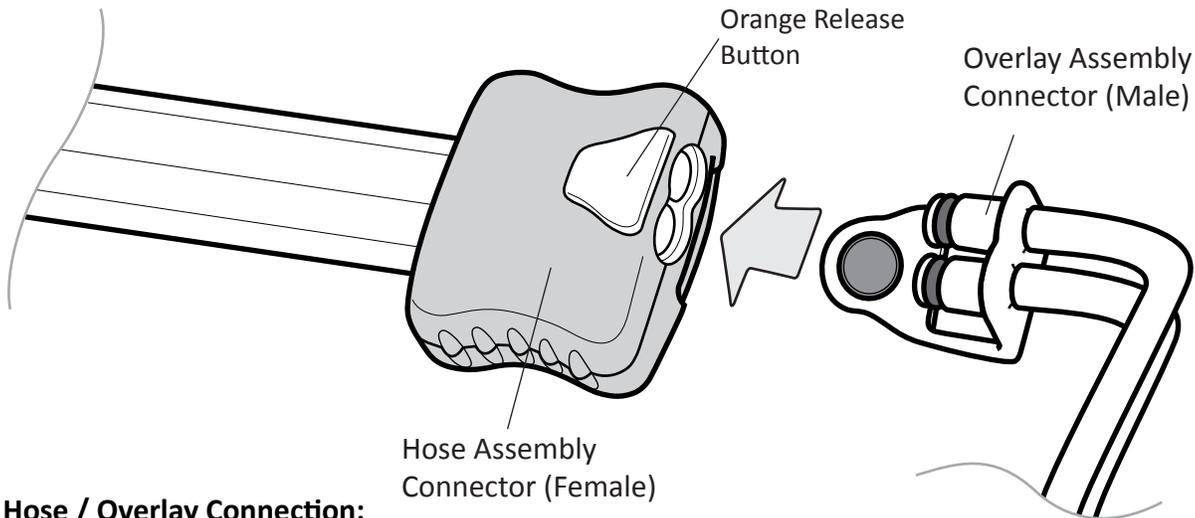
 **CAUTION:** Caregiver should not touch the patient and the Hose Assembly at the same time.



 **CAUTION:** Turn DabirAIR System "OFF" during patient transfer and/or before patient positioning.

3.2 System Installation - Continued

4. Connect Hose Assembly Connector (Female) to the Overlay Assembly Connector (Male).

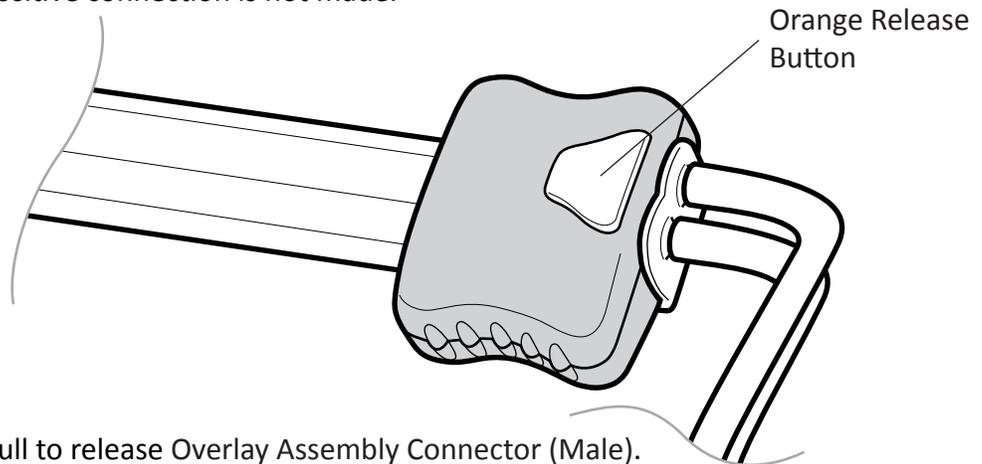


Hose / Overlay Connection:

Connection Procedure

With the system powered “OFF” or “STOPPED”, insert the Overlay Assembly Connector (Male) into the Hose Assembly Connector (Female) (see figure above). An audible “click” can be heard once the connectors are fully seated. Confirm connector seating with a slight pull.

NOTE: The connectors must be assembled as shown in the figure below to ensure proper operation. The device will not function if a positive connection is not made.



Disconnection Procedure

Depress orange button and pull to release Overlay Assembly Connector (Male).

CAUTION: To avoid depressurization noise, this operation should only be performed with the Pneumatic Controller powered “OFF” or “STOPPED”.

CAUTION: To avoid damage, do not over pull on connections or carry the Pneumatic Controller by the Hose Assembly.

CAUTION: Do not use petroleum based lubricants on the Overlay Connector Seals. Use of these lubricants can cause the seals to swell and/or leak.

4 Operating the Dabir System

Powering Pneumatic Controller "ON"

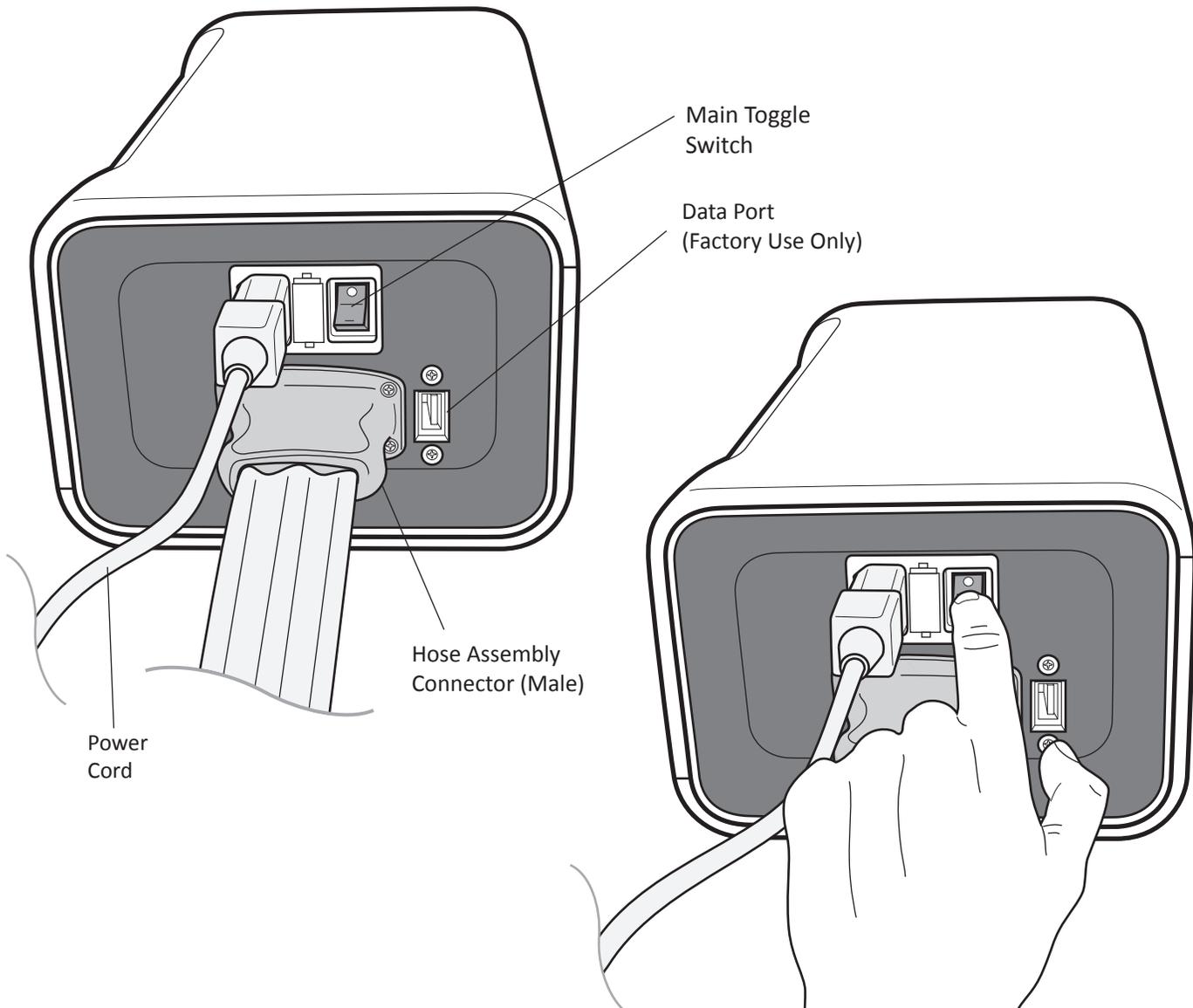
1. Plug the Pneumatic Controller Power Cord into an acceptable wall power outlet.

 **CAUTION:** To ensure proper device grounding, do not use an extension cord with this device. The Power Cord should be plugged directly into an acceptable wall power outlet.

2. Power Pneumatic Controller "ON" by depressing Main Toggle Switch. (see images below).

 **CAUTION:** Ensure Power Cord is clear of movable bed parts and placed to avoid a trip hazard or possible entrapment.

 **CAUTION:** Power "OFF" or "STOP" the Pneumatic Controller for cardiac arrest events. The unit is not intended for use during CPR.



5.1 Setting Cycle Speed

1. Three (3) cycle speed options are available:

LOW (Approx. 10 minutes – Default Setting)

MEDIUM (Approx. 7.5 minutes)

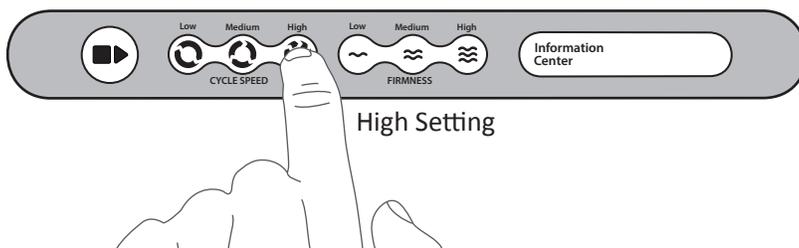
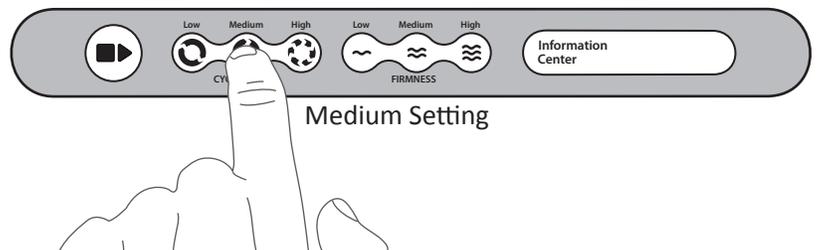
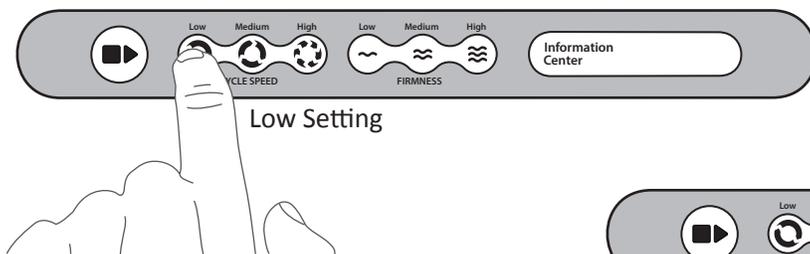
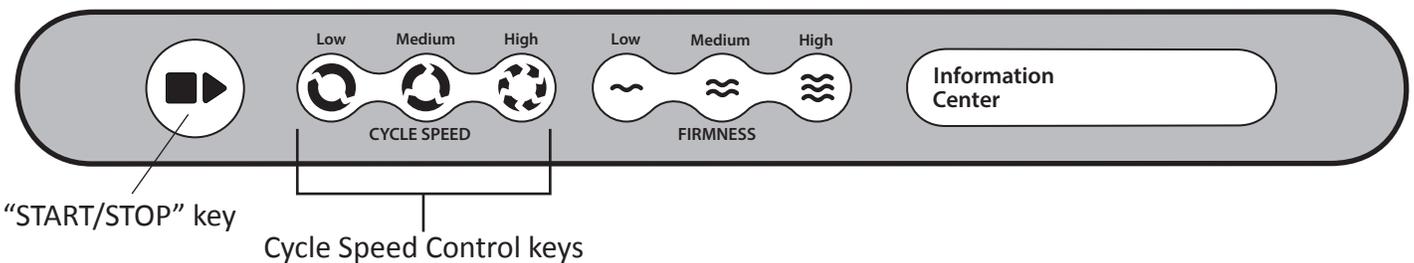
HIGH (Approx. 5 minutes)

2. Manually adjust cycle speed by touching the desired indicator key (see images below).

NOTE: The Dabir Pneumatic Controller utilizes touch activated controls for added reliability, improved product durability and easier cleaning. Use of thick gloves may impact performance when operating the control.

3. Touch the “START / STOP” button to initiate the cycle.

NOTE: The cycle speed and firmness can be changed independent of the “START / STOP” feature by simply touching the new desired setting.



5.2 Setting Overlay Firmness

1. The Pneumatic Control Unit User Interface is equipped with three (3) different firmness settings:
LOW (Default Setting)
MEDIUM
HIGH
2. Manually adjust comfort by touching the desired firmness option on the User Interface (see images below).

NOTE: Microclimate Overlays will only have one firmness setting. The LOW, MEDIUM and HIGH User Interface buttons all provide a “LOW” firmness when a Microclimate Overlay is connected.

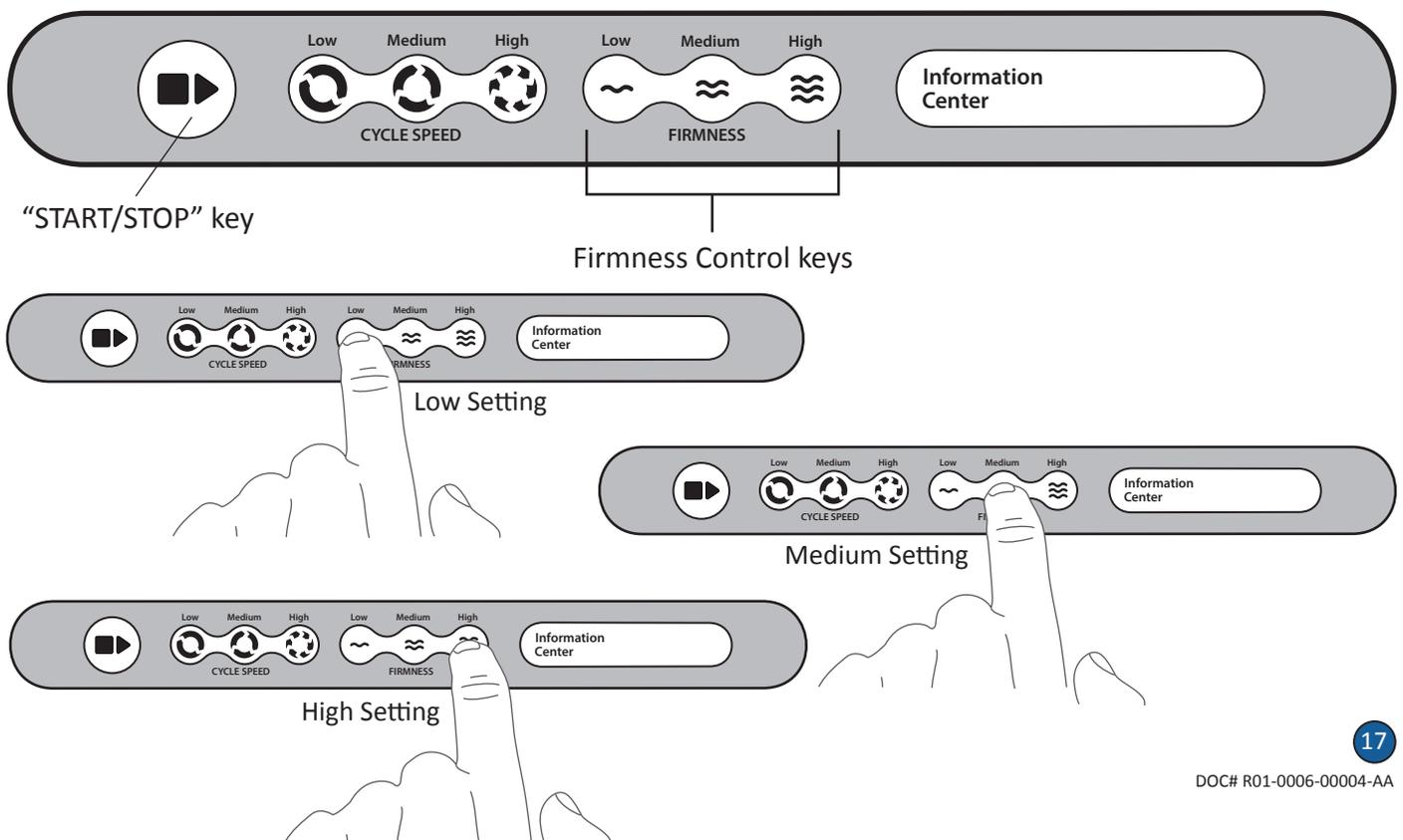
NOTE: The Dabir Pneumatic Controller utilizes touch activated controls for added reliability, improved product durability and easier cleaning. Use of thick gloves may impact performance when operating the control.

3. Touch the “START/STOP” key to initiate alternating cycles.

NOTE: The cycle speed and firmness can be changed in mid-cycle by simply touching the key for the desired setting.

 **CAUTION:** To avoid bottoming out on the Overlay, the “MED” or “HIGH” firmness settings are recommended for patients with greater BMI.

 **CAUTION:** To avoid bottoming out on the Overlay, a “MED” or “HIGH” firmness setting is recommended when utilizing firmer base support surfaces, mattresses or pads.



6 Interrupting, Rapid Deflate and Resuming Operation

Press the “START/STOP” key to pause or resume operation (see image below).

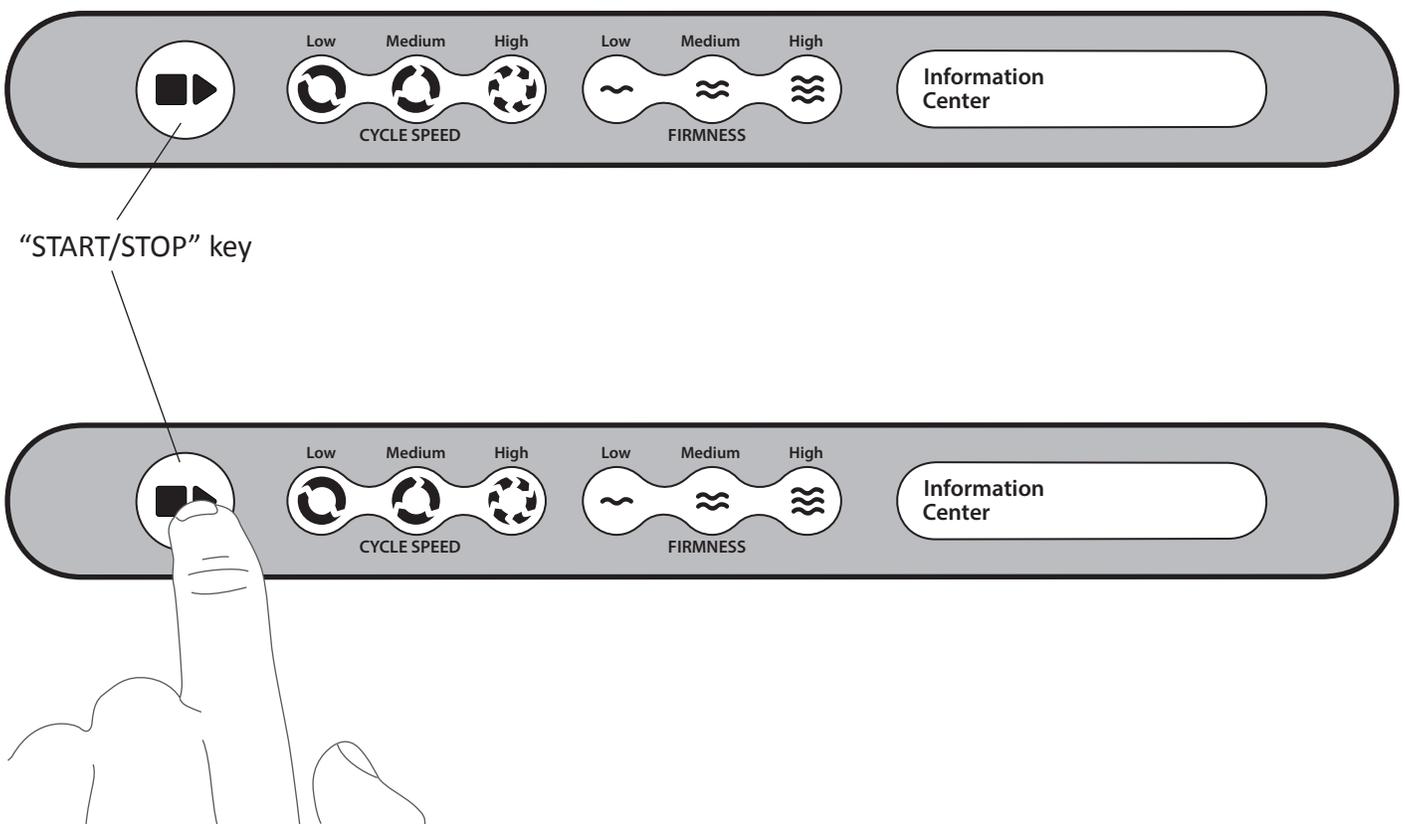
NOTE: Unless unit is powered “OFF”, the Pneumatic Controller will remain at the previous settings when operation is resumed.

To turn Pneumatic Controller off, toggle the main power switch to the “OFF” position. The Pneumatic Controller unit will return to default settings.

 **CAUTION:** Power “OFF” or “STOP” Pneumatic Controller for cardiac arrest events. The unit is not intended for use during CPR.

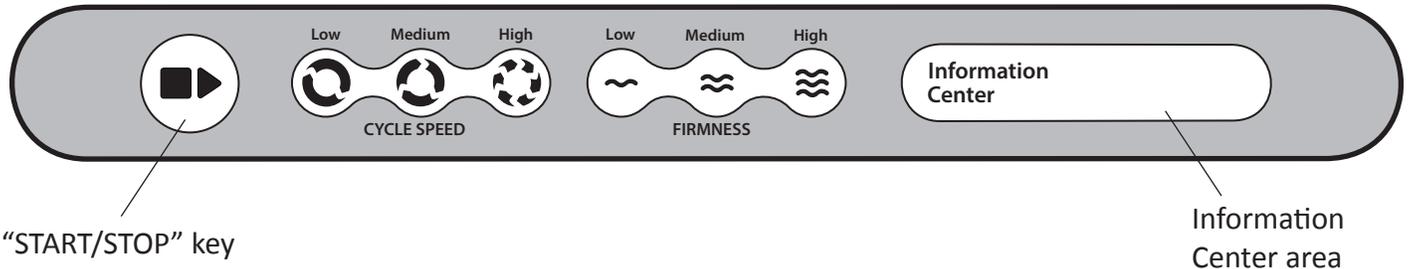
Audible Tones and Visual Indicators:

The Dabir Pneumatic Controller utilizes soft audible tones, illuminated graphics and information displays to enhance the users operating experience.



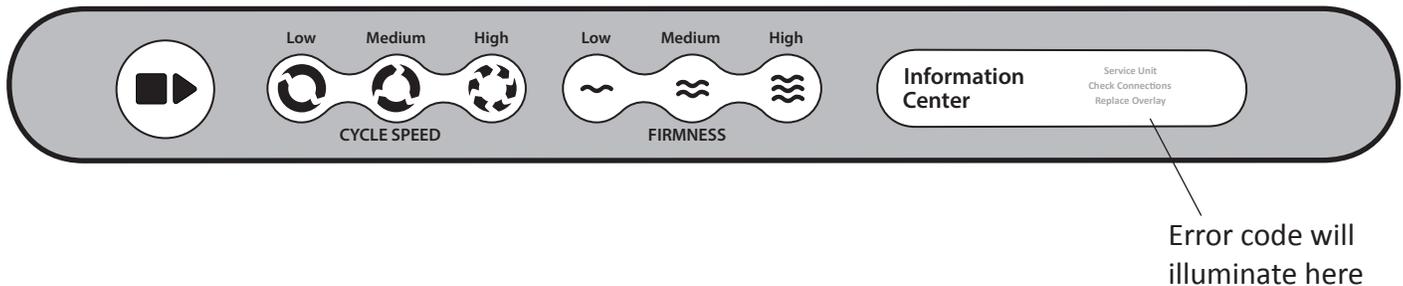
7 Information Center: Error Codes and Alarms

The User Interface panel includes an “INFORMATION CENTER” to aid users in diagnosing potential problems (see image below).



If the Pneumatic Controller detects a potential problem, one or more of the following three (3) text displays will illuminate with its associated feedback codes depending on the problem:

SERVICE UNIT	(Potential Code: Continuous, Blinking, Audible Tone)
CHECK CONNECTIONS	(Potential Code: Continuous, Blinking, Audible Tone)
REPLACE OVERLAY	(Potential Code: Continuous, Blinking, Audible Tone)



NOTE: See the table on the following page for specific error code messages and required action. Error codes will automatically be cleared once the problem is resolved and operation is resumed by touching the “START / STOP” key. In the event that proper function cannot be resumed, please contact the manufacturer.

7 Information Center: Error Codes and Alarms - Continued

Information Center Indicator	Buzzer	Meaning
<p>Check Connections</p> <p><i>Continuous</i></p>	<p>Frequency: 2kHz</p> <p>2sec ON after touching START/STOP button, then OFF continuous</p>	<p>The Pneumatic Controller is not properly communicating with the Overlay. Check the Hose Assembly to Overlay connection. Light will clear when proper connection is made and the unit will return to normal operation. If light does not clear, change the Overlay. If light still does not clear, contact the manufacturer or certified representative.</p>
<p>Check Connections</p> <p><i>Flashing</i></p> <p><i>2sec ON – 2sec OFF</i></p>	<p>Frequency: 2kHz</p> <p>2sec ON after touching START/STOP button, then OFF continuous</p>	<p>The Pneumatic Controller is not properly communicating with the Hose Assembly. Check the Hose Assembly connection to the Pneumatic Controller. Power the unit “OFF” and wait 5 seconds using the main toggle switch. Power the unit “ON” again. If the light does not clear, please contact the manufacturer or certified representative.</p>
<p>Replace Overlay</p> <p><i>Continuous</i></p>	<p>Frequency: 2kHz</p> <p>1sec ON – 30sec OFF</p>	<p>The Overlay has exceeded its usable life or its allowable shelf life and must be replaced. System will continue to run for 12hrs or until the unit is stopped or powered “OFF”.</p>
<p>Replace Overlay</p> <p><i>Flashing</i></p> <p><i>1sec ON – 3sec OFF</i></p>	<p>Frequency: 2kHz</p> <p>2sec ON after 24hr mark, then OFF continuous</p>	<p>The Overlay is within 24 hours of its usable life and within 36 hours of a forced shutdown by the Pneumatic Controller. Overlay must be replaced accordingly.</p>
<p>Service Unit</p> <p><i>Flashing</i></p> <p><i>2sec OFF – 2sec ON</i></p>	<p>Frequency: 2kHz</p> <p>3x - 0.5sec ON, 0.5sec OFF, then OFF continuous</p>	<p>The Pneumatic Controller did not achieve pressure set point upon startup. Power “OFF” using the Main Toggle Switch. Check Overlay and Hose Assembly for possible leaks. Power the Pneumatic Controller back “ON” again. If problem persists, please contact the manufacturer or certified representative.</p>
<p>Service Unit</p> <p><i>Continuous</i></p>	<p>Frequency: 2kHz</p> <p>3x - 0.5sec ON, 0.5sec OFF, then OFF continuous</p>	<p>The Pneumatic Controller has encountered a physical error. Power “OFF” using the Main Toggle Switch. Wait 5 seconds and power the Pneumatic Controller back “ON” again. If the problem persists, please contact the manufacturer or certified representative.</p>

8 Cleaning Procedures

The cleaning procedures listed below are recommended by the manufacturer. Proper cleaning procedures should be adjusted according to specific healthcare facility policy. Aggressive cleaning measures could potentially damage system components.



CAUTION: Turn Dabir System “OFF” during patient transfer and before patient positioning.



CAUTION: If the Overlay is damaged in any way during cleaning, it must be replaced.



CAUTION: Do not autoclave for cleaning.

Cleaning the DabirAIR Controller and Hose Assembly

Power “OFF” the Pneumatic Controller and disconnect the Power Cord from the wall outlet prior to cleaning. Clean by wiping with a moistened cloth using mild soap and water. Clean all exposed areas. Remove debris and allow the Pneumatic Controller to dry thoroughly.



CAUTION: Do not saturate cloth or apply cleaning fluids/liquids directly to the Pneumatic Controller or Hose Assembly to prevent fluid ingress of this electronic device. Inspect air intakes and exhaust ports located on the bottom side of the Pneumatic Controller and Handle End-plate respectively to ensure they are not obstructed.

Cleaning the DabirAIR Micropressure and Microclimate Overlays

Disinfect by wiping down all areas with a hospital grade disinfecting cleaner and water, making sure to remove any organic debris. Be sure to dry the Overlay thoroughly before using with patients. Cleaner residue may effect the Overlay slip resistance. If this occurs, wipe the Overlay with a water moistened cloth to remove the residue. Dabir Overlays are compatible with the following disinfecting cleaners or equivalent: Dispatch™ Hospital Cleaner – Clorox, Virex 256™ - Diversey, Isopropyl Alcohol.

Ensure there are no sharp objects between the Overlay and patient support surface, mattress or pad.

9 Routine Maintenance

The Dabir Surfaces Patient Support System

It is recommended that the Pneumatic Controller be returned to the manufacturer for annual maintenance and performance check after every 12 months of use. Routinely check all electrical connections, the Power Cord and Hose Assembly for signs of wear or damage and replace if applicable with manufactured certified replacement parts. For any non-serviceable damage noted, please contact the manufacturer or certified representative.

Serial Number Labels

The Pneumatic Controller serial number is located on the underside label.

The Hose Assembly serial number is located on the Hose Assembly label.

The Overlay serial number is located on the Overlay label.

All serial numbers are in the following format: LSYDDDDXXXXT

Please provide component serial numbers when requesting service.

10 Troubleshooting

Repairs and Technical Support

See Section 7: Information Center: Error Codes and Alarms for error codes and alarms.
For non-error codes and alarms troubleshooting, see the table below.

Problem	Potential Cause	Remedy
Pneumatic Controller does not power "ON".	No electric supply	Confirm Power Cord is plugged into the Pneumatic Controller and the appropriate wall outlet.
	Blown fuse	Contact manufacturer
	Internal malfunction	Contact manufacturer
Pneumatic Controller powers "ON" but does not operate when "START/STOP" button is pressed.	Connection issue or other malfunction	See Section 7, Page 19-20
Abnormal noises and/or vibration coming from the Pneumatic Controller.	Internal malfunction	Power "OFF" the Pneumatic Controller. Contact manufacturer.
Air leakage sounds	Hose connection issue or other leakage source	See Section 7, Page 19-20
Abnormal odors coming from the Pneumatic Controller.	Internal malfunction	Power "OFF" the Pneumatic Controller. Contact manufacturer.

If fuse is blown - contact Dabir technical support for service (DO NOT REPLACE).

How to reach us:

Dabir Surfaces maintains regular business hours from 9:00 a.m. to 5:00 p.m. Eastern time.

Technical and Warranty Support

support@dabir-surfaces.com

Tel: +1 (885) 478-0694

11 Specification Sheets

Controller Specifications	
Model:	CA-1001
Supply Voltage:	100-240 VAC
Supply Frequency:	50-60 Hz
Power Input:	170VA Max
Size:	356 x 178 x 127 mm (14in. x 7in. x 5 in.)
Weight:	3.95 kg (8.7 lb)
Case Material:	Plastic
Fuse Ratings:	2A, 5x20mm, Fast Acting
Type of protection against electric shock:	Class I
Degree of protection from electrical shock:	Type BF
Degree of protection from liquid ingress:	IP20
Mode of Operation:	Continuous
Environment Conditions:	
	Operation: 10°C to 35°C (50°F to 95°F) 30-80% RH
	Storage and Transport: -40°C to 60°C (-40°F to 140°F) 10-95% RH
	Maximum Operating Altitude: 3000m (9842 ft)

No Latex is used in the manufacture of this product.

Data subject to change.

Accessory Specifications

Replacement Hose Assembly

	Model:	CA-9001
	Weight:	0.73kg (1.6lb)
	Input:	5VDC ----- 250mA
		RF Transmitter
		Separate collection for electronic waste

Replacement Power Cord

	Model:	CA-9002
	Weight:	0.34 kg (0.75lb)
	Length:	10'
	Wall Plug:	NEMA 5-15P 3P Hospital Grade Green Dot
	Controller Plug:	IEC 60320-C13

No Latex is used in the manufacture of this product.

Data subject to change.

Overlay Models covered by this Installation Guide

Model:	Application	Width <i>mm (in)</i>	Length <i>mm (in)</i>	Weight <i>kg (lb)</i>	Microclimate Air Flow	Usable Life
DA-101884	Surgical Table	438 (17)	2134 (84)	1.54 kg (3.4)	N	120 Hrs
DA-303584	MedSurg Bed	838 (33)	2134 (84)	2.95 kg (6.5)	N	720 Hrs
MC-303584	MedSurg Bed	838 (33)	2134 (84)	2.95 kg (6.5)	Y	720 Hrs

No Latex is used in the manufacture of this product.

Data subject to change.

11 Specification Sheets - Continued

Model CA-1001 Manufacturer's Declaration – Electromagnetic Immunity

The **Model CA-1001** system is intended for use in the electromagnetic environment specified below. The customer or the user of the **Model CA-1001** system should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment/Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	Josh	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines		Mains power quality should be that of a typical commercial or hospital environment
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth		Mains power quality should be that of a typical commercial or hospital environment
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles < 5% UT (>95% dip in UT) for 5 s		Mains power quality should be that of a typical commercial or hospital environment. If the user of the Model CA-1001 requires continued operation during power mains interruptions, it is recommended that the Model CA-1001 be powered from an uninterruptible power supply or a battery.

NOTE: UT is the AC mains voltage prior to application of the test level.

11 Specification Sheets - Continued

Model CA-1001 Manufacturer's Declaration – Electromagnetic Immunity

The **Model CA-1001** system is intended for use in the electromagnetic environment specified below. The customer or the user of the **Model CA-1001** system should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment/Guidance
Conducted RF	3 Vrms	3 V	<p>Portable and mobile RF communications equipment should be used no closer to any part of the Model CA-1001, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d=1.2\sqrt{P}$ $d=1.2\sqrt{P} \text{ 80 MHz to 800 MHz}$ $d=2.3\sqrt{P} \text{ 800MHz to 2.3 GHz}$ <p>Where P is the maximum output power rating for the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,^a should be less than the compliance level in each frequency range.^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
IEC 61000-4-6	150 kHz to 80 MHz		
Radiated RF	3 V/m	3 V/m	
IEC 61000-4-3	80 MHz to 2.6 GHz		

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the **Model CA-1001** is used exceeds the applicable RF compliance level above, the **Model CA-1001** should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the **Model CA-1001**.

b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

11 Specification Sheets - Continued

Model CA-1001 Manufacturer's Declaration – Electromagnetic Emissions

The **Model CA-1001** system is intended for use in the electromagnetic environment specified below. The customer or the user of the **Model CA-1001** system should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment/Guidance
RF emissions CISPR 11z	Group 1	The Model CA-1001 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. The Model CA-1001 is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
RF emissions CISPR 11	Class A	
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Recommended Separation Distances Between Portable and Mobile RF Communications Equipment and Model CA-1001

The **Model CA-1001** system is intended for use in the electromagnetic environment specified below. The customer or the user of the **Model CA-1001** system should assure that it is used in such an environment.

Rated Maximum Output Power of Transmitter (W)	Separation Distance According to Frequency of Transmitter(m)		
	150 kHz to 80 MHz d=1.2√P	80 MHz to 800 MHz d=1.2√P	800 MHz to 2.5 GHz d=2.3√P
0.01	0.12	.12	0.23
0.1	0.38	.38	.073
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters radiated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

11 Specification Sheets - Continued

Changes or modifications not expressly approved by Dabir Surfaces, Inc. could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

12 Limited Warranty

Dabir Surfaces, Inc. warrants that the product (“Dabir Product”) accompanied by this Limited Warranty, shall be free from defects in material and workmanship under normal use for a period of one (1) year. Except where prohibited by applicable law, this warranty is valid, beginning from date of original purchase, for the specific period associated with the Dabir Product purchased, and is nontransferable and is limited to the original, end user purchaser. This warranty gives you specific legal rights, and you may also have other rights which vary under local laws.

Remedies

Dabir Surfaces, Inc. entire liability and your exclusive remedy for any breach of warranty shall be, at Dabir Surfaces, Inc. option, (1) to replace the Dabir Product, or (2) to refund the price paid, provided that the Dabir Product is returned to a location as specified by Dabir Surfaces, Inc. with a copy of the sales receipt, or dated itemized receipt, from an authorized reseller, and with a return authorization number provided by Dabir Surfaces, Inc. Shipping and handling charges may apply except where prohibited by applicable law. Dabir Surfaces, Inc. may, at its option, use new or refurbished or used parts in good working condition to replace any hardware product. Any replacement Dabir Product will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer or for any additional period of time that may be required in the end user’s jurisdiction.

This warranty does not cover problems or damage resulting from (a) accident, abuse, misapplication, or any unauthorized repair, modification or disassembly; (b) improper operation or maintenance, usage not in accordance with product instructions or connection to improper voltage supply; or (c) use of consumables, such as replacement batteries, not supplied by Dabir Surfaces, Inc. except where such restriction is prohibited by applicable law.

How to Obtain Warranty Support

Before submitting a warranty claim, you must contact Dabir technical support at: support@dabir-surfaces.com or by calling (885) 478-0694 to verify the product failure and to receive a Return Material Authorization (RMA) number. Returns will not be accepted without an RMA number. The addresses and customer service contact information for the Dabir Product can be found in the documentation accompanying your Dabir Product and on the web at www.dabir-surfaces.com. You must include a copy of the sales receipt, or dated itemized receipt, from an authorized reseller, along with a return authorization number provided by Dabir Surfaces, Inc. with your return. You must report any defect to Dabir Surfaces Inc. within the one (1) year period of the warranty.

The following information must be marked on the outside of each carton and/or pallet:

- Shipper’s name and address:
- Dabir Surfaces’ Ship to address as listed below:

Dabir Surfaces, Inc.
Attention: Repair Dept. / RMA #
7447 W. Wilson
Harwood Heights, IL 60706 USA

12 Limited Warranty - Continued

Limitation of Liability

DABIR SURFACES, INC. SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE OR DATA (WHETHER DIRECT OR INDIRECT) OR COMMERCIAL LOSS FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON YOUR DABIR PRODUCT OR FOR ANY OTHER CLAIM, EVEN IF DABIR SURFACES, INC. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ADDITION, TO THE EXTENT PERMITTED BY LAW, THE MAXIMUM LIABILITY OF DABIR SURFACES, INC. WITH RESPECT TO ANY DABIR PRODUCT FOR ANY CAUSE WHATSOEVER (WHETHER BREACH OF CONTRACT OR WARRANTY, TORT OR OTHERWISE), IS LIMITED TO THE AMOUNT ACTUALLY PAID OR PAYABLE BY YOU FOR THE DABIR PRODUCT THAT GAVE RISE TO SUCH LIABILITY. THE FOREGOING LIMITATIONS SHALL APPLY EVEN IF THE PROVISIONS OF THIS AGREEMENT FAIL OF THEIR ESSENTIAL PURPOSE. Some jurisdictions do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so the above limitation or exclusion may not apply to you. THE WARRANTIES SET FORTH HEREIN ARE IN LIEU OF AND TO THE EXCLUSION OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY AS TO THE MERCHANTABILITY OR FITNESS OF THE PRODUCT FOR A PARTICULAR PURPOSE OR AS TO ITS PERFORMANCE. Any statement, description or specification in Company's literature is for the sole purpose of identification of products sold by the Company and imparts no guarantee, warranty or undertaking by Company of any kind. Components and accessories not manufactured by Company are not included in this warranty and may be warranted separately by their respective manufacturers. Some jurisdictions may not permit this disclaimer so the above disclaimer may not apply to you.

National Statutory Rights

Consumers have legal rights under applicable national legislation governing the sale of consumer goods. Such rights are not affected by the warranties in this Limited Warranty.

No Other Warranties

No Dabir dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Registration

You do not need to register the product for the Limited Warranty to be effective.

Miscellaneous

This limited warranty shall be governed by and construed in accordance with the laws of State of Illinois, United States of America, as if performed wholly within the state and without giving effect to the principles of conflict of law. If any portion hereof is found to be void or unenforceable, the remaining provisions of this limited warranty shall remain in full force and effect. This Limited Warranty constitutes the entire limited warranty extended by Dabir Surfaces, Inc. with respect to Dabir Surface Patent Support System.

13 Contact Information

P/N: R01-0006-00004
Revision: AA
Print Date: MM/DD/YYYY

Manufacturing

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