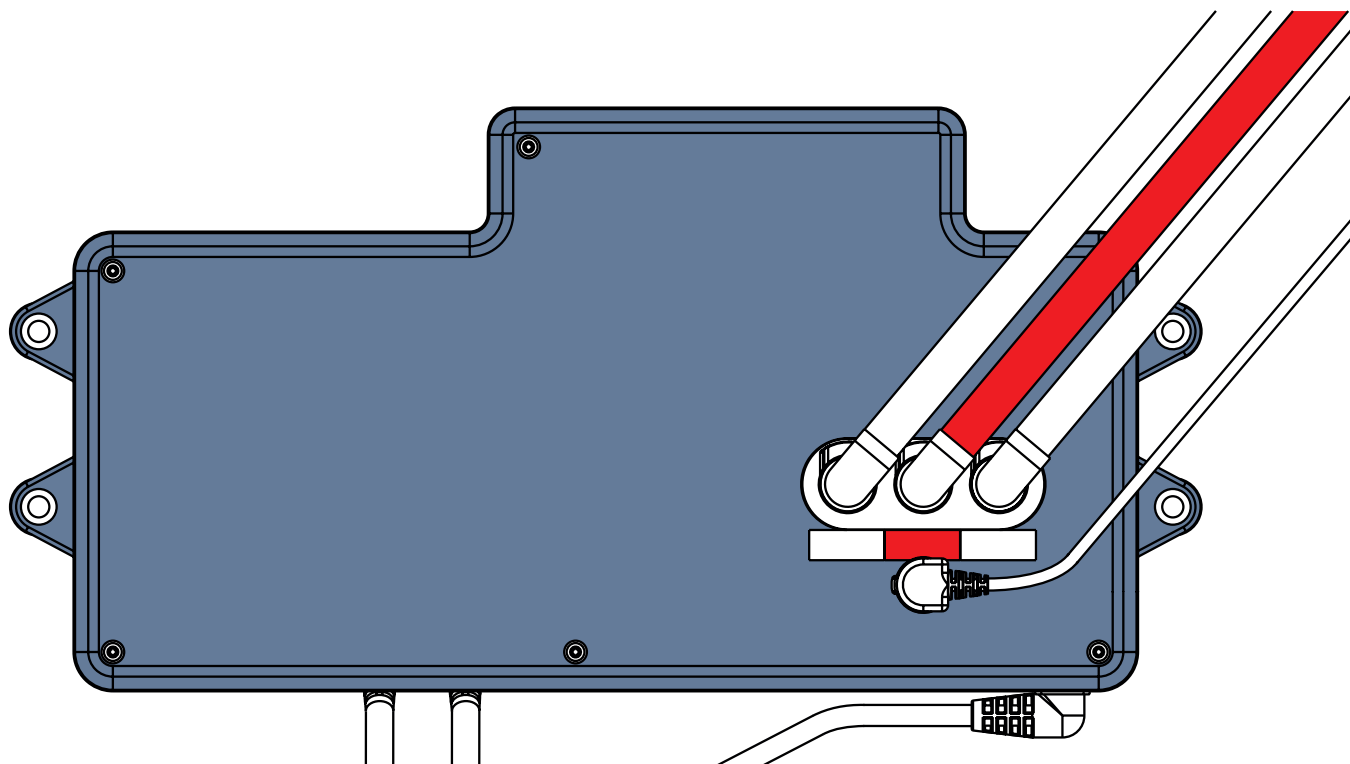


Instructions for Use and Technical Description



Air2Care IN & HybriMatt® 100 IN **Integrated Mattress System for Essenza 300** with Air2Care 6 IN, Air2Care 8 IN air mattresses and HybriMatt® 100 IN hybrid foam mattress



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Air2Care IN & HybriMatt 100 IN

Integrated Mattress System for Essenza 300

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1 Symbols and Definitions

1.1 Warning Notices

1.1.1 Types of Warning Notices

Warning notices are differentiated by the type of danger using the following signal words:

- ▶ **CAUTION** warns about the risk of material damage.
- ▶ **WARNING** warns about the risk of physical injury.
- ▶ **DANGER** warns about the risk of fatal injury.

1.1.2 Structure of Warning Notices



WARNING!

Type and source of risk!

- ▶ Measures to avoid the risk, if necessary.



CAUTION!

Type and source of risk!

- ▶ Measures to avoid the risk, if necessary.

1.2 Instructions

Structure of instructions:

- ▶ Perform this step.
- Results, if necessary.

1.3 Lists

Structure of bulleted lists:

- List level 1
 - List level 2
 - List level 3

1.4 Abbreviations

AC (~)	Alternating Current
APT	Alternating Pressure Therapy (Mode)
CE	European Conformity
CPR	Cardiopulmonary Resuscitation
dB	Sound Intensity Unit
DC (---)	Direct Current
CLP	Constant Low Pressure (Mode)
CUC	Configuration number
EMC	Electromagnetic Compatibility
FET	Field-effect transistor
HF	High Frequency
HPL	High Pressure Laminate
ICU	Intensive Care Unit
INT.	Duty Cycle
IP	Ingress Protection
IV	Intravenous
LED	Light Emitting Diodes
ME	Medical Electrical (Equipment)
ON	Activation
OFF	Deactivation
ppm	parts per million, millionth (1000 ppm = 0,1%)
REF	Reference Number (product type depending on configuration)
RF	Radio frequency
SCU	System Control Unit
SN	Serial Number
SW	Software
UDI	Unique Device Identification (for medical devices)
USB	Universal Serial Bus
WEEE	Waste Electrical and Electronic Equipment

2 IMPORTANT SAFEGUARDS AND STATEMENTS

When using electrical products, especially when children are present, basic safety present, basic safety precautions should always be followed, including the following:



WARNING!

If any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established!



WARNING!

To reduce the risk of electrocution:

- ▶ Always unplug this product immediately after use.
- ▶ Do not use while bathing.
- ▶ Do not place or store product where it can fall or be pulled into a tub or sink.
- ▶ Do not place in or drop into water or other liquids.
- ▶ Do not reach for a product that has fallen into water. Unplug immediately.



WARNING!

To reduce the risk of burns, electrocution, fire, or injury to persons:

- ▶ A product should never be left unattended when plugged in.
- ▶ Close supervision is necessary when this product is used by, on, or near children or invalids.
- ▶ Use this product only for its intended use as described in this manual.
- ▶ Do not use attachments not recommended by the manufacturer.
- ▶ Never operate this product if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the product to a service center for examination and repair.
- ▶ Keep the power supply cord away from heated surfaces.
- ▶ Never block the air openings of the product or place it on a soft surface, such as a bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair, and the like.
- ▶ Never drop or insert any object into any opening or hose.
- ▶ Do not use outdoors or operate where aerosol (spray) products are being used.
- ▶ Connect this product to a properly grounded outlet only.
- ▶ Do not play with the supply cord and air hose of the product to prevent strangulation.
- ▶ Never cover filter of SCU while in use.



WARNING!

Risk of injury due to incorrect use!

- ▶ No servicing and maintenance can be performed while the product is in use.



WARNING!

Risk of injury due to incorrect maintenance!

- ▶ No maintenance except for cleaning can be performed by patient.



WARNING!

Risk of injury due to incorrect use!

- ▶ This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.



WARNING!

Risk of injury due to incorrect use!

- ▶ To avoid the risk of electric shock, the Essenza 300 bed with any compatible integrated mattress must only be connected to a supply mains with protective earth.

**WARNING!**

No modification of the Air2Care IN & HybriMatt 100 IN compressor or of the Air2Care 6 IN, Air2Care 8 IN and HybriMatt 100 IN mattresses is allowed.

**WARNING!**

An additional multiple socket-outlet or extension cord shall not be connected to the medical electrical system of the Essenza 300 bed with Air2Care IN & HybriMatt 100 IN compressor.

**WARNING!**

Risk of injury due to incorrect use!

- ▶ Air2Care IN & HybriMatt 100 IN integrated mattress system must be used exclusively by or under supervision of trained and qualified nursing personnel!

**WARNING!**

Only authorised and trained person using an appropriate tool is allowed to change fuses, power supplies and compressors of the Air2Care IN & HybriMatt 100 IN integrated mattress system!

**CAUTION!**

Risk of material damage due to leakage into the mattress!

- ▶ Ensure the mattress cover is completely zipped to avoid risk of leakage into the mattress!
- ▶ Ensure the fabric zip protection covers the zip on all the mattress sides to avoid risk of leakage into the mattress!

3 INTRODUCTION

This manual should be used for the initial set up of the system and for reference purposes.

3.1 Product Label and Technical Label

The legal label and UDI label are located on the back of the SCU (system control unit). The serial number, model number, and the input rating can be found on the label. This information is required if any issue occurs.

3.1.1 Mattress Wash Label

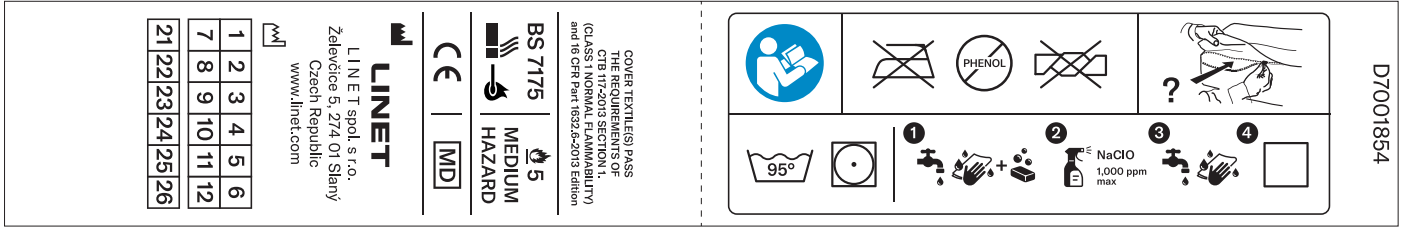


Fig. Wash Label of the Air2Care 6 IN mattress and Air2Care 8 IN mattress

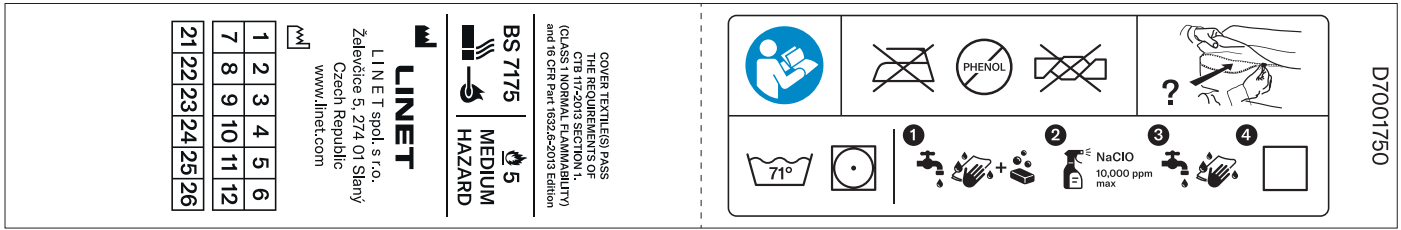


Fig. Wash Label of the HybriMatt 100 IN mattress with ENDURANCE cover or MICROCLIMATE cover

3.1.2 Fire Resistance Label



Fig. Fire Resistance Label for Air2Care 6 IN mattress and Air2Care 8 IN mattress



Fig. Fire Resistance Label for HybriMatt 100 IN mattress

3.2 RFID tag of the HybriMatt 100 IN mattress

RFID tag in mattress cover bears a serial number of the HybriMatt 100 IN mattress and the manufacturer's name (LINET). RFID tag is located at the beginning of the mattress cover zipper at mattress foot end on the left. RFID tag serves for a quick mattress identification.

To identify a mattress serial number:

- Use a compatible RFID reader emitting RF signal.

4 COMPATIBILITY OF MATTRESSES AND COMPRESSORS



WARNING!
HybriMatt 100 IN mattress is not compatible with previous version of the Air2Care IN compressor. If HybriMatt 100 IN mattress is connected to the Air2Care IN compressor, continuous beeping and Fowler Boost LED flashing will occur.

Air2Care 6 IN mattress and Air2Care 8 IN mattress are the air mattresses which must be used with a compatible compressor.
HybriMatt 100 IN mattress is the foam mattress with additional functions depending on the connected Air2Care IN & HybriMatt 100 IN compressor.
Air2Care 6 IN mattress, Air2Care 8 IN mattress and HybriMatt 100 IN mattress are compatible with the same Air2Care IN & HybriMatt 100 IN compressor but some functions are available only for the Air2Care 6 IN mattress or Air2Care 8 IN mattresses.

Exclusive functions of the Air2Care 6 IN mattress and Air2Care 8 IN mattress:

- Deflating an individual cell
- Fowler Boost Function
- AUTO Pressure Setting
- Prone Nursing

Compatibility Matrix		Mattress Type		
		Air2Care 6 IN	Air2Care 8 IN	HybriMatt 100 IN
Compressor Type	Air2Care IN	YES	YES	NO
	Air2Care IN & HybriMatt 100 IN	YES	YES	YES

5 INTENDED USE OF THE AIR2CARE IN INTEGRATED MATTRESS SYSTEM

The intended use of the Air2Care IN integrated mattress system is to provide a support surface for patients by pressure redistribution designed for management of tissue loads. The Air2Care IN mattresses are intended to be used with Air2Care IN & HybriMatt 100 IN integrated air compressor of the Essenza 300 LINET medical bed.

5.1 Indication

The mattress is recommended for use with patients who have been identified as having low to very high-risk rating of developing pressure injuries, (very high risk includes patients with a history of pressure injuries or currently have a pressure injury of any category) according to EPUAP/NPIAP standards for pressure injury prevention in line with local policy and guidelines.

The use of the mattress does not remove the need for regular repositioning of patients in line with best clinical practice.

NOTE: A full risk assessment of the patient's risk of developing a pressure injury must be carried out by an appropriately trained clinician and clinical judgement used to identify the suitability of the product for use with the patient.

5.2 Contraindications

Mattress system is contraindicated for patients with:

1. Cervical or skeletal traction
2. Unstable skeletal fractures
3. Unstable spinal fractures
4. Exceed the maximum patient weight of the mattress

Other contraindications may be identified on an individual patient basis depending on clinical risk assessment.

NOTE: For patients in prone position - before placing the patient into prone position a detailed clinical risk assessment should be carried out by an appropriately trained clinician.

5.3 Patient population

- ▶ Adult patients (weight ≥ 40 kg, height ≥ 146 cm, BMI ≥ 17), Application Environment 1 (ICU) and 2 (Acute) as in IEC 60601-2-52)

5.4 Intended User

- ▶ Caregivers (nurses/doctors) that are fully trained in use of the mattress. Before using the operators must familiarise themselves with all warnings and cautions contained in the instructions for use. Clinical risk assessment should be carried out by appropriately trained staff and clinical judgement used to ascertain that the product is suitable to meet the care needs of the individual patient.
- ▶ Technical, transport and cleaning personnel should be fully trained in the maintenance and service of the product and must familiarise themselves with all warnings and cautions contained in the instructions for use.

6 INTENDED USE OF THE HYBRIMATT 100 IN INTEGRATED MATTRESS SYSTEM

The intended purpose of the HybriMatt 100 IN pressure air mattress with foam cells is to provide a support surface for patients by pressure redistribution designed for management of tissue loads. This mattress is intended to be used with Air2Care IN & HybriMatt 100 IN integrated air compressor in the Essenza 300 medical bed. It can improve resting and comfort of the patient.

6.1 Indications

The mattress is recommended for use with patients who have been identified as having from low to very high-risk rating of pressure injuries development, (very high risk includes patients with pressure injuries in the past or patients who currently have a pressure injury of any category) according to EPUAP/NPIAP standards for pressure injury prevention in line with local policy and guidelines.

The use of the mattress does not remove the need for regular repositioning of patients in line with best clinical practice.

NOTE: A full risk assessment of the patient's risk of a pressure injury development must be carried out by an appropriately trained clinician and clinical judgement must be made to identify the suitability of the product for use with the patient.

6.2 User population of HybriMatt 100 IN

- ▶ Adult patients (weight $\geq$ 40 kg, height $\geq$ 146 cm, BMI $\geq$ 17)
- ▶ Application Environment 1 (ICU), 2 (Acute care), 3 (Long-term care) and 5 (Ambulatory), as in IEC 60601-2-52

6.3 Contraindications

Mattress system is contraindicated for patients:

1. exceeding maximum patient weight of the mattress

Mattress system in active mode with compressor is contraindicated for patients:

1. with cervical or skeletal traction
2. with unstable skeletal fractures
3. with unstable spinal fractures

Other contraindications may be identified on an individual patient basis depending on clinical risk assessment.

NOTE: For patients in prone position - before placing the patient into prone position a detailed clinical risk assessment should be carried out by an appropriately trained clinician.

6.4 Operator

- ▶ Caregivers (nurses/doctors) that are fully trained in use of the mattress. Operators must familiarize themselves with all warnings and cautions contained in the instructions for use before use of the mattress. Clinical risk assessment should be carried out by appropriately trained staff and clinical judgement should be made to ascertain that the product is suitable for meeting the care needs of the individual patient.
- ▶ Technical, transport and cleaning personnel should be fully trained in the maintenance and service of the product and must familiarize themselves with all warnings and cautions contained in the instructions for use.

7 PRODUCT DESCRIPTION

7.1 Air2Care IN Mattress (Type B Applied Part)

The Air2Care IN & HybriMatt 100 IN compressor comes with cell type mattress of different dimensions and constructions, provided optionally with the SCU.

Please refer to the specifications section for details.

Statement:

The mattress has been evaluated by EN ISO10993-1 biocompatibility. Users should not experience allergic reaction after in contact the mattress. However, if you suspect that you may have had or are having an allergic reaction, please consult a physician immediately.

7.1.1 Air2Care 6 IN Mattress

6-inch replacement system with cell-on-cell structure. The 20 transverse air cells in the air layer alternate in pressure, with the exception of 3 static head cells. CPR valves locate at the head section in case rapid deflation is required. Loops are implemented at the base of the mattress for air cells fixation.

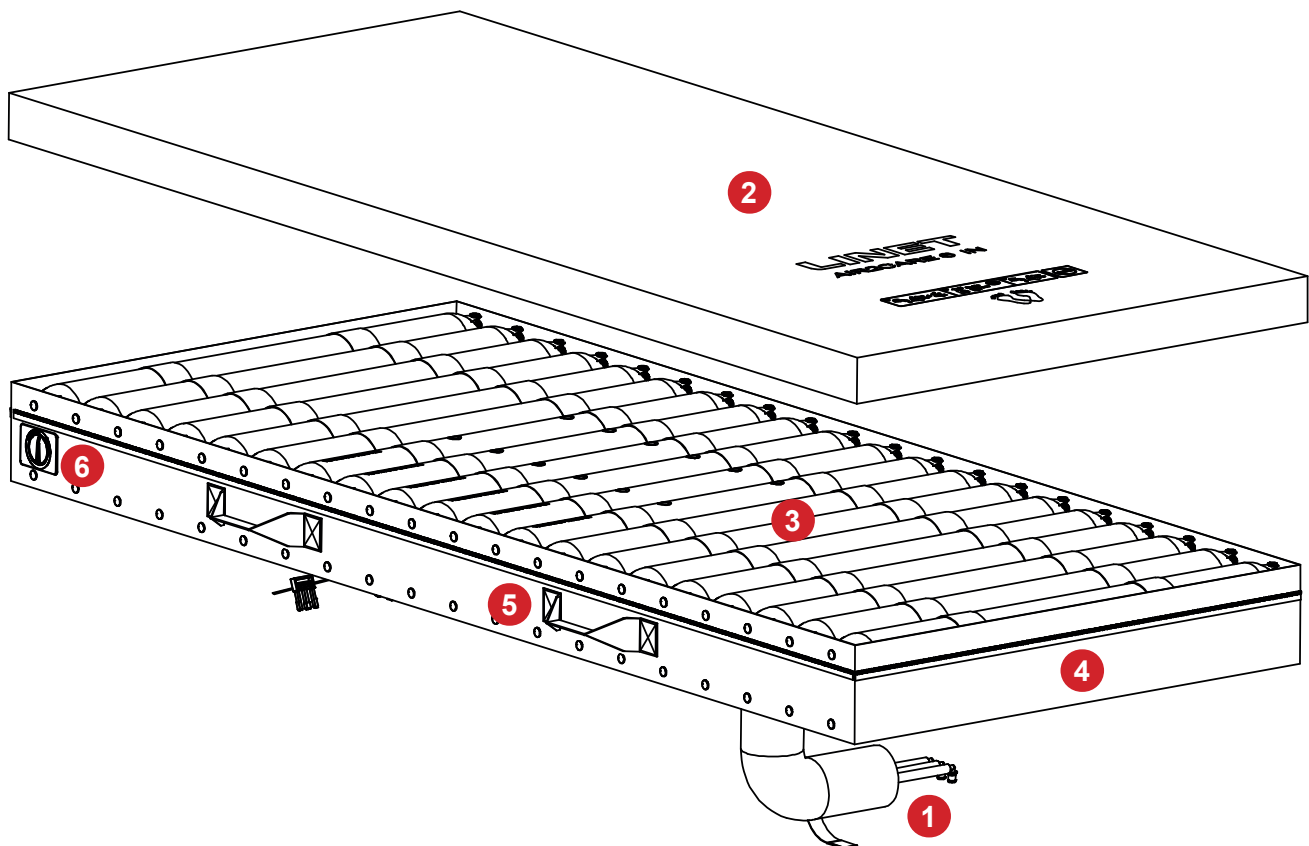


Fig. Air2Care 6 IN (mattress structure)

- 1. Three Air Hoses
- 2. Top Cover
- 3. Air Cells
- 4. Base
- 5. Handle
- 6. CPR Valve

7.1.2 Air2Care 8 IN Mattress

8-inch replacement system with cell-on-cell structure. The 20 transverse air cells in the air layer alternate in pressure, with the exception of 3 static head cells. CPR valves locate at the head section in case rapid deflation is required. Loops are implemented at the base of the mattress for air cells fixation.

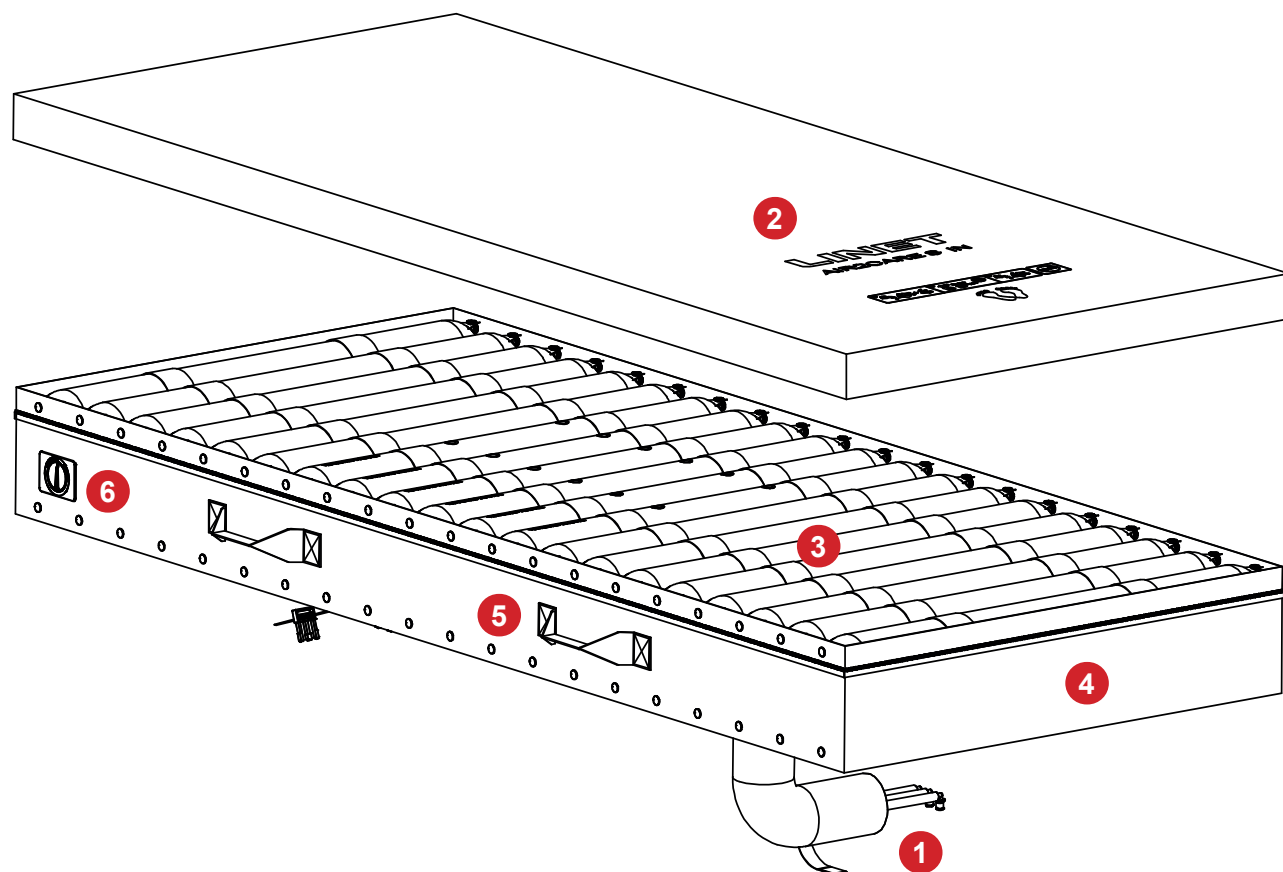


Fig. Air2Care 8 IN (mattress structure)

- 1. Three Air Hoses
- 2. Top Cover
- 3. Air Cells
- 4. Base
- 5. Handle
- 6. CPR Valve

7.1.3 Set of mattress cells

Each Air2Care IN mattress consists of 3 static mattress cells at mattress head end and 17 alternating mattress cells.



Fig. Structure of the 20 mattress cells

- 1. Static Mattress Cells
- 2. Alternating Mattress Cells

7.1.4 Deflating an individual mattress cell



WARNING!

Risk of injury due to incorrect use!

- ▶ The patient should be under regular supervision of hospital staff during treatment of pressure injuries!
- ▶ Deflating an individual mattress cell must only be performed in accordance with professional clinical assessment!
- ▶ It is forbidden to deflate any mattress cell in the mattress trunk zone!
- ▶ Ensure adequate patient support is maintained during normal mattress operation! Remember that APT Mode alternately deflates cells in a 1 – 2 cell cycle, hence it is recommended not to manually deflate more than one cell in mattress head zone and in mattress foot zone! Two adjacent deflated cells lead to the risk of pressure injuries development!
- ▶ Ensure you only disconnect the white hoses when any alternating mattress cell in foot zone is to be deflated! Disconnecting the red hoses in this case leads to the elimination of the mattress supporting function (patient's bottoming out) and to the higher risk of pressure injuries development!
- ▶ Ensure the red hoses are disconnected on both mattress sides if the first static mattress cell at mattress head end is to be deflated for prone nursing! This must be observed in order to avoid the risk of pressure injuries development due to patient's bottoming out!
- ▶ Deflated individual mattress cell must not be removed from its original position! Extra care must be taken not to interchange the individual cells! Deflated individual mattress cell must be fastened back to the mattress base cover! This must be observed in order to avoid the risk of pressure injuries development due to the mattress cell rolled up under the patient!
- ▶ Extra care must be taken not to foul the inside of the mattress when the mattress cover is unzipped!
- ▶ Deflating an individual mattress cell is forbidden for HybriMatt 100 IN mattress!

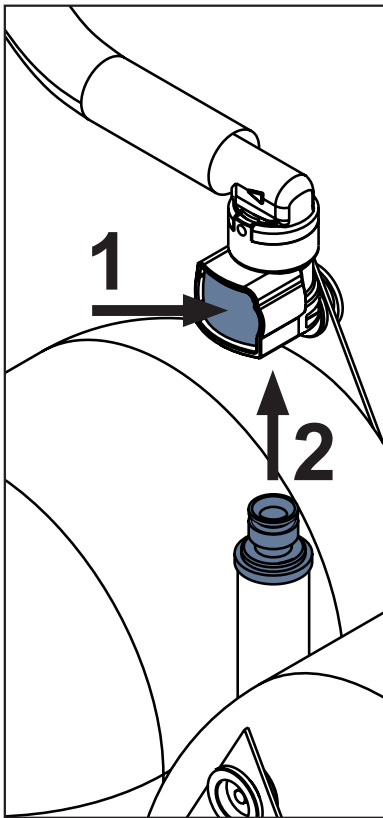


Fig. Disconnecting a hose from mattress cell

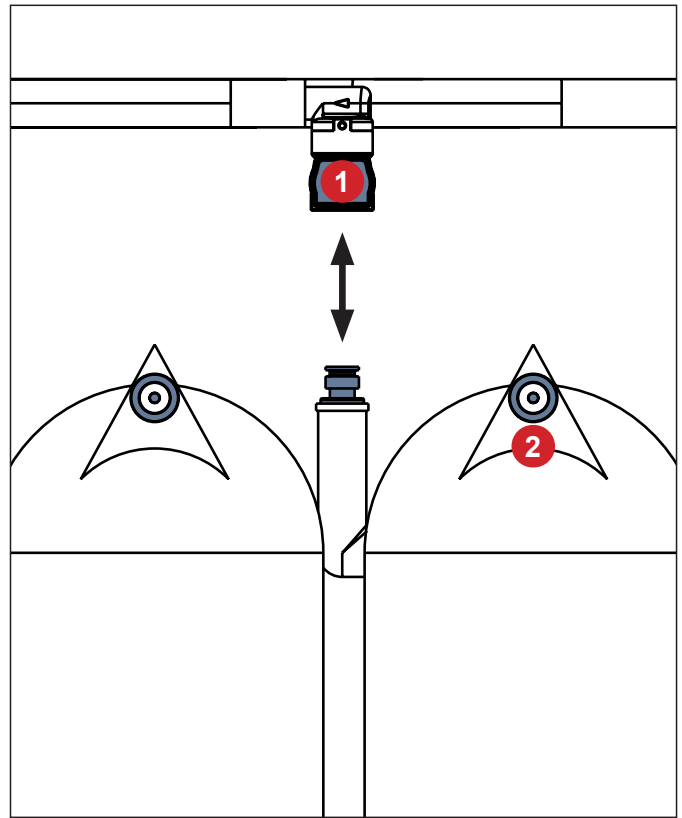


Fig. Description of connecting elements

1. Quick release element of the mattress air hose system
2. Fastening element connecting a mattress cell to the mattress base cover

To deflate an individual alternating mattress cell in mattress foot zone:

- ▶ Unzip the mattress cover.
- ▶ Select one of the four cells you want to deflate based on the expert clinical assessment.
- ▶ Unfasten the selected mattress cell from the mattress base cover to access the hoses between the cells.
- ▶ Disconnect the white hoses connected to the selected mattress cell. Press the corresponding quick release element of the corresponding white hoses to detach the white hoses from the selected mattress cell.
- ▶ Fasten the deflated mattress cell on both sides of the mattress base cover!
- ▶ Zip the mattress cover.
- ▶ Ensure the modified mattress is suitable for the intended patient.

To deflate an individual static mattress cell in mattress head zone:

- ▶ Unzip the mattress cover.
- ▶ Select one of the three cells you want to deflate based on the expert clinical assessment.
- ▶ Unfasten the selected mattress cell from the mattress base cover to access the hoses between the cells.
- ▶ Disconnect the red hoses connected to the selected mattress cell. Press the corresponding quick release element of the corresponding red hoses to detach the red hoses from the selected mattress cell.
- ▶ Fasten the deflated mattress cell on both sides of the mattress base cover!
- ▶ Zip the mattress cover.
- ▶ Ensure the modified mattress is suitable for the intended patient.

7.2 HybriMatt 100 IN mattress for Air2Care IN & HybriMatt 100 IN compressor



WARNING!

Risk of injury due to incorrect use!

- ▶ **Ensure the HybriMatt 100 IN mattress is clinically suitable for the patient if it is used without compressor! The Air2Care IN & HybriMatt 100 IN compressor is necessary for full range of the HybriMatt 100 IN functions!**

HybriMatt 100 IN is a hybrid foam mattress including cell system. Cells are connected into two groups for pressure distribution. Air tubes inside the mattress are separate for these two groups. Cells also includes pressure valve to gain pressure from atmosphere when needed. The system can be connected to compressor thanks to outer valves. The system works as a separate mattress or in connection with compressor. Separate mattress redistributes the pressure according to patient's position and movement. When the compressor is connected the mattress provides APT or CLP or MAX mode. Inside the mattress there is foam with different densities. On the top of mattress there is viscoelastic foam. Inside the cells there is PU foam. The pressure delivered by compressor can be adjusted by the Air2Care IN & HybriMatt 100 IN Control Panel.

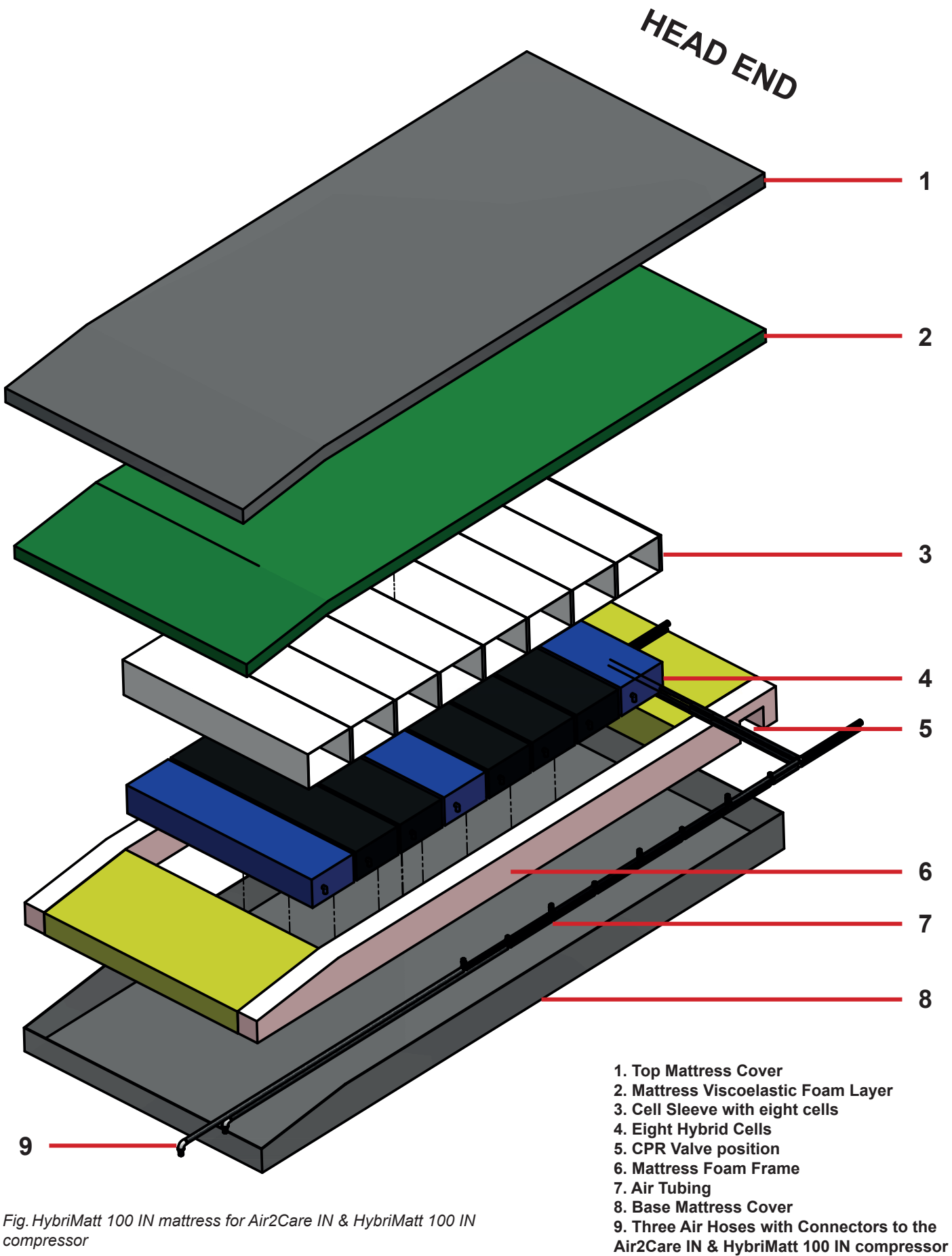
7.2.1 Passive Mode of the HybriMatt 100 IN mattress

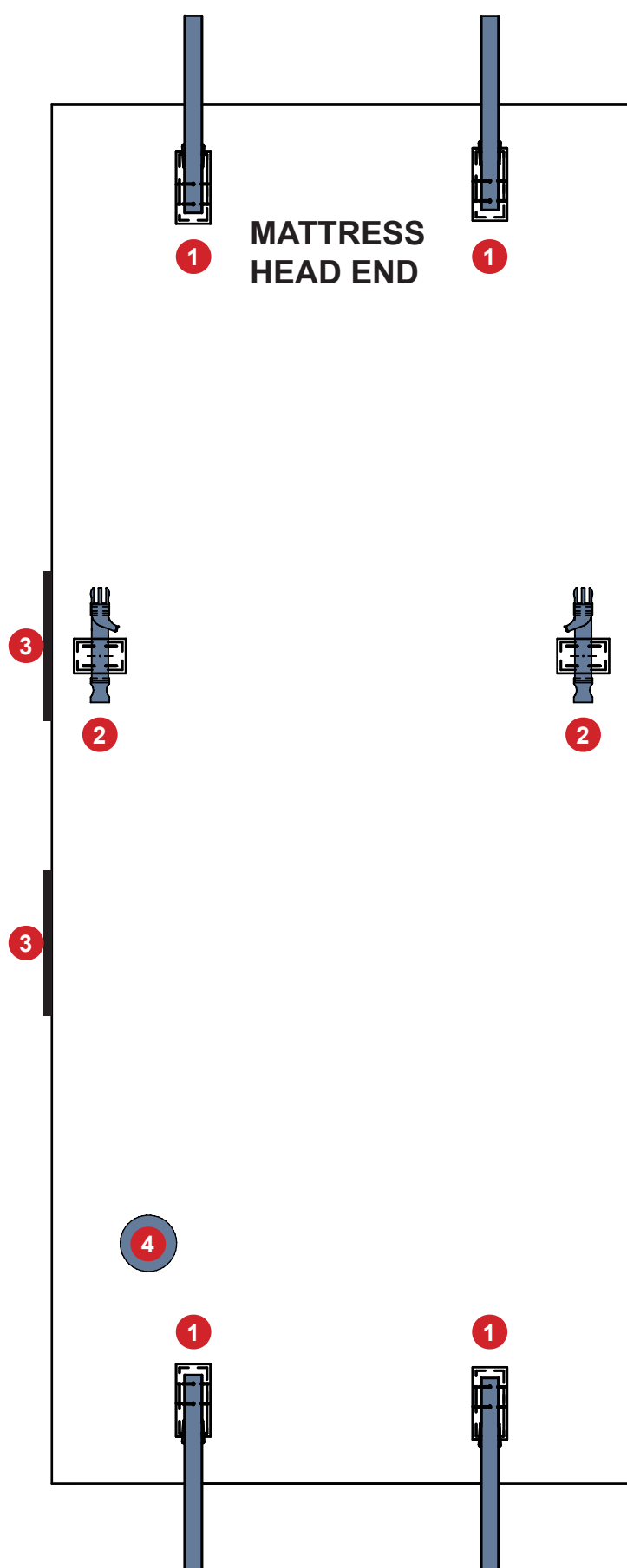
In the Passive Mode, HybriMatt 100 IN mattress is used as a foam mattress without air support depending on the integrated compressor.

To change the HybriMatt 100 IN mattress from active mode to passive mode:

- ▶ **Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button.**
- ▶ **Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.**
- ▶ **Unplug the Essenza 300 bed from the mains.**
- ▶ **Open at least one of the two CPR valves on mattress sides to release air from the mattress.**

7.2.2Description of the HybriMatt 100 IN mattress





1. Safety Straps with cam buckles (to fix mattress on the bed mattress support platform)
2. Safety Straps with side release buckles (to fix mattress on the bed mattress support platform)
3. Transport Handles
4. Three Air Hoses with connectors to the integrated Air2Care IN & HybriMatt 100 IN compressor

Fig. Description of HybriMatt 100 IN mattress bottom side

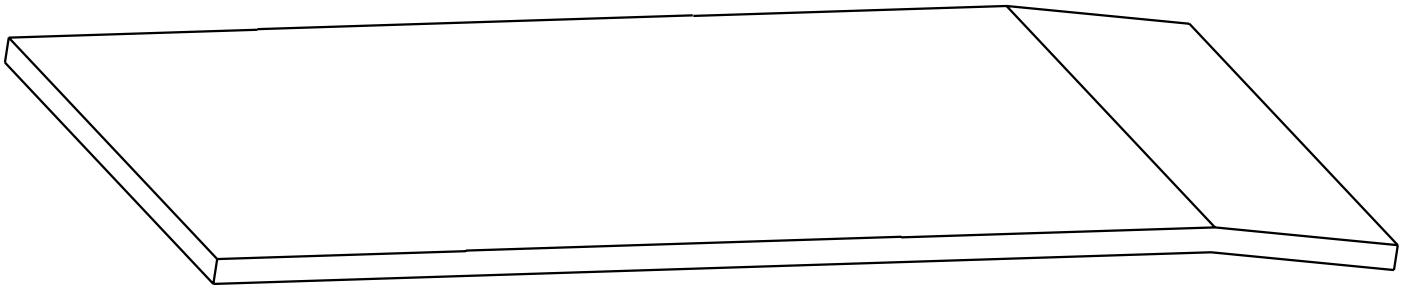


Fig. Mattress Viscoelastic Foam Layer

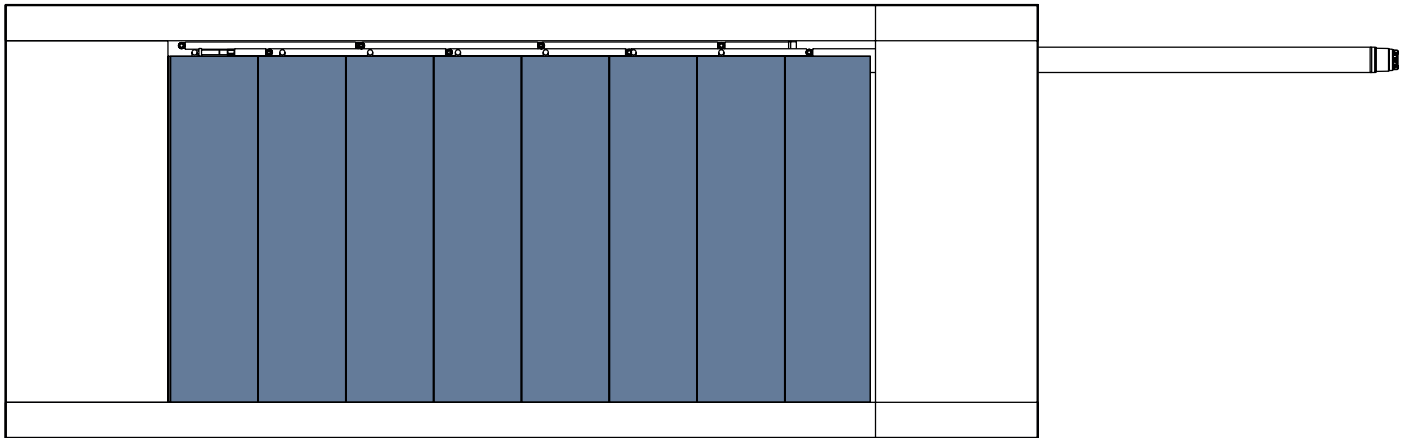


Fig. Mattress Structure with highlighted Cell Sleeve with eight cells

7.2.3 Fixation of the HybriMatt 100 IN mattress on the Essenza 300 mattress support platform

HybriMatt 100 IN mattress is designed for Essenza 300 mattress support platform.

HybriMatt 100 IN mattress is equipped with straps intended for fixing mattress on the Essenza 300 mattress support platform.

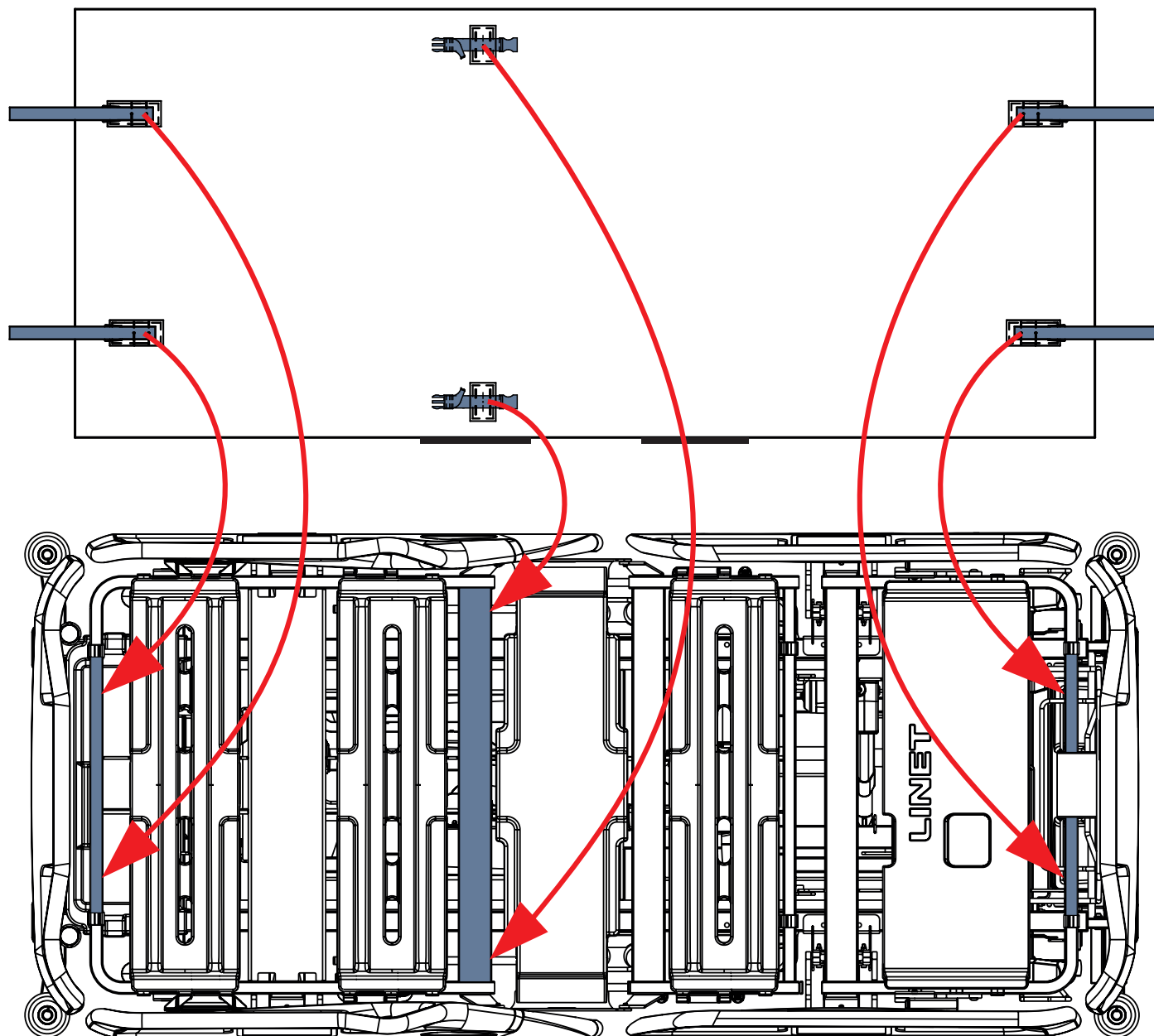


Fig. Fixation of the HybriMatt 100 IN mattress with straps on the mattress support platform of the Essenza 300 bed

To fix the safety strap with cam buckle:

- Loop black strap around metal bed frame and feed it back through the plastic clip.

To release the safety strap with cam buckle:

- Pull loose end of strap upward to release clip.

To fix the safety straps with side release buckles:

- ▶ Lock the side release buckle by connecting its male and female part together.

To release the safety straps with side release buckles:

- ▶ Release the buckle by pressing it from both sides and by disconnecting its male and female part.

7.3 Air2Care IN & HybriMatt 100 IN Compressor (SCU)

The Air2Care IN & HybriMatt 100 IN compressor is compatible with Air2Care IN mattresses and with HybriMatt 100 IN mattress.

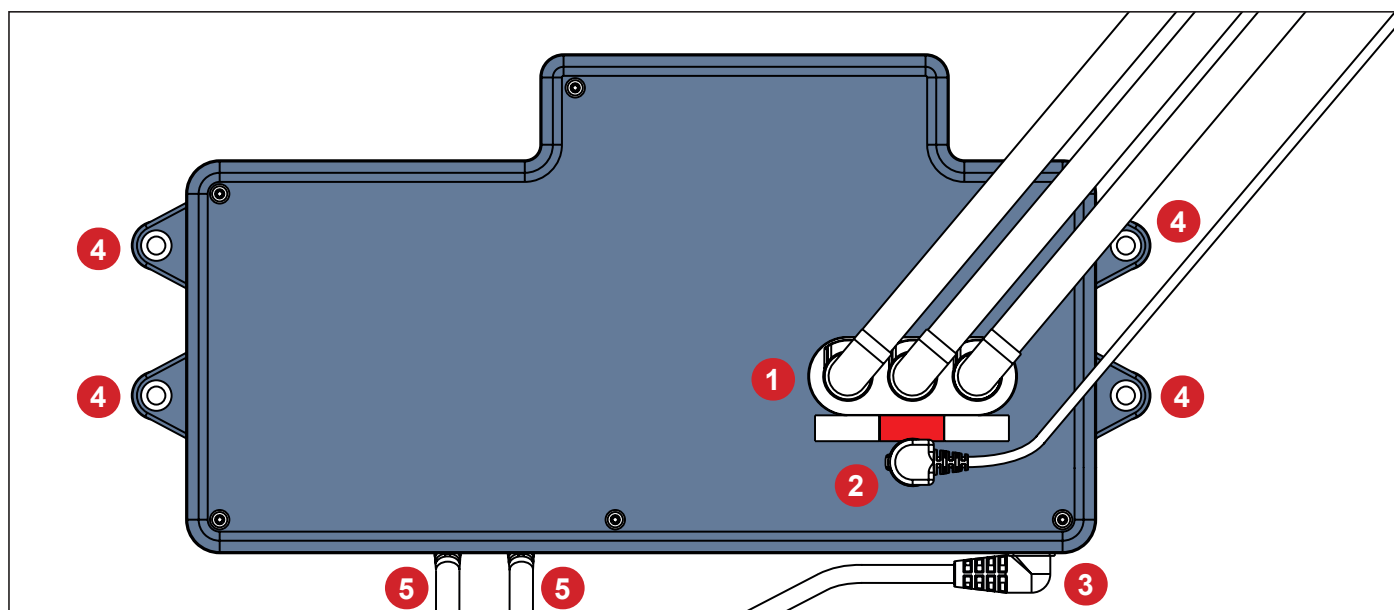


Fig. SCU top side with 3 Air Connectors

1. Three Air Connectors for Three Air Hoses
2. Fowler Boost Connection
3. Power Supply Connection
4. Lugs for fixing SCU on the mattress support platform of the Essenza 300 or Essenza 300 with Lateral Tilt
5. Two cables of Control Panels in siderails of the Essenza 300 or Essenza 300 with Lateral Tilt
6. Power Switch
7. Filter Cotton and Filter Cover
8. Fuses (2x 1A fuses)
9. USB plug (access for service intervention)

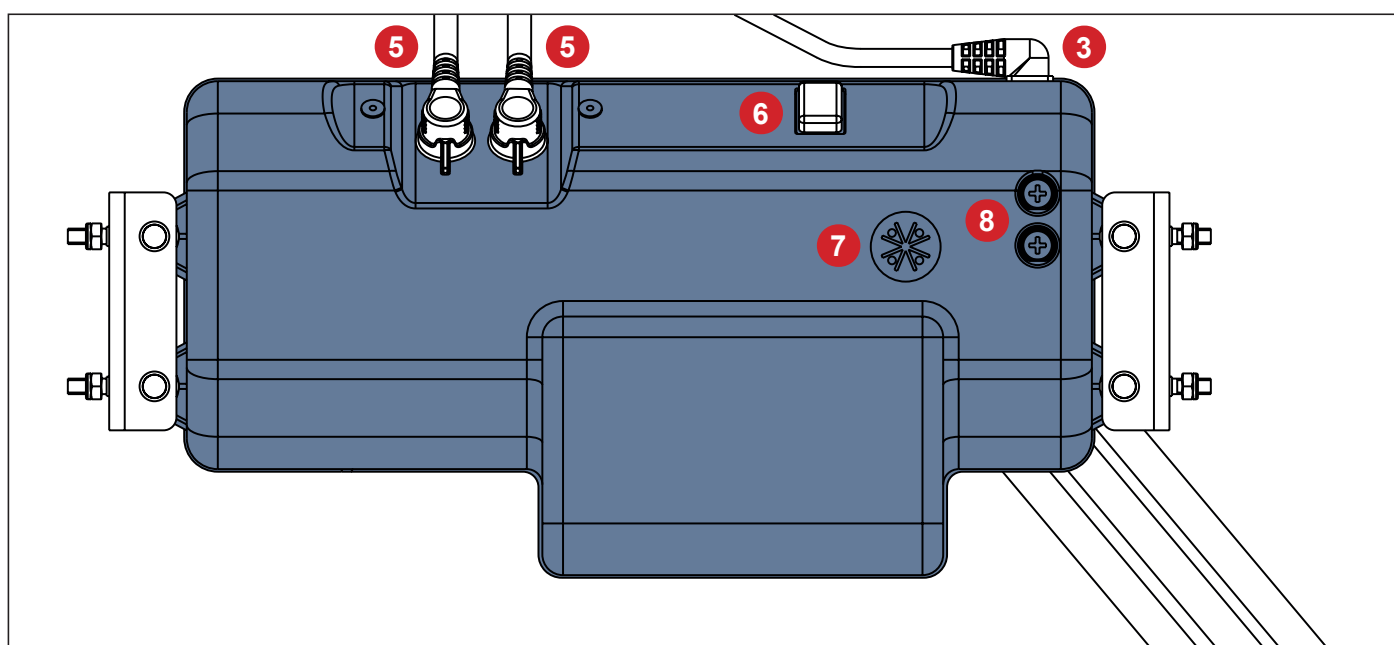


Fig. SCU bottom side with Power Switch

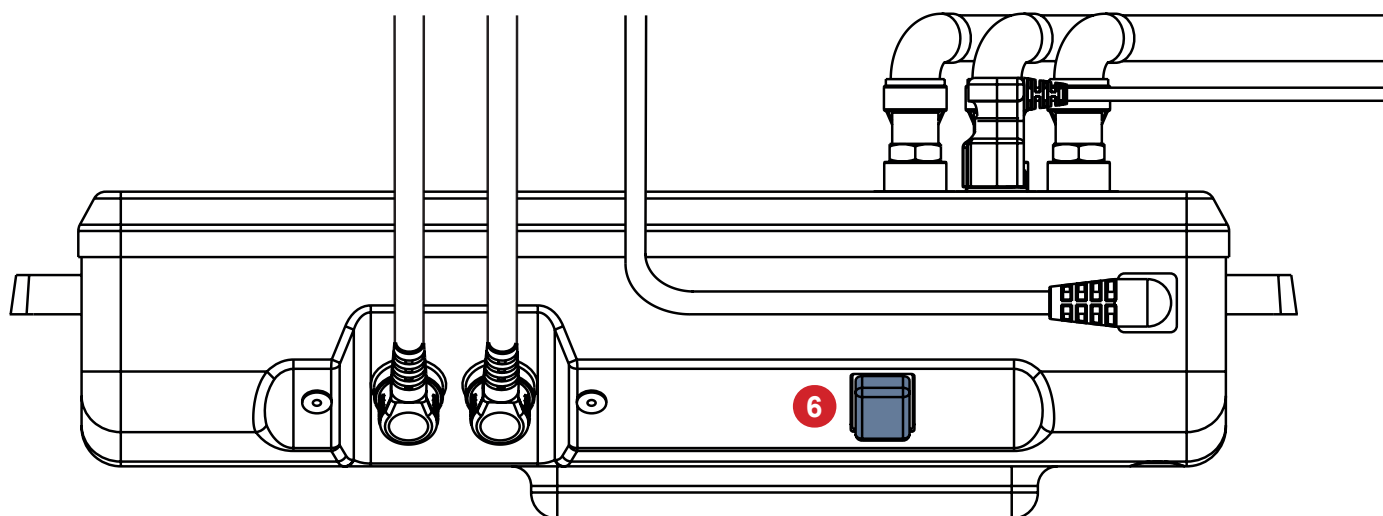


Fig. SCU side view (from the head end of the bed towards the foot end when the SCU is integrated to the bed)

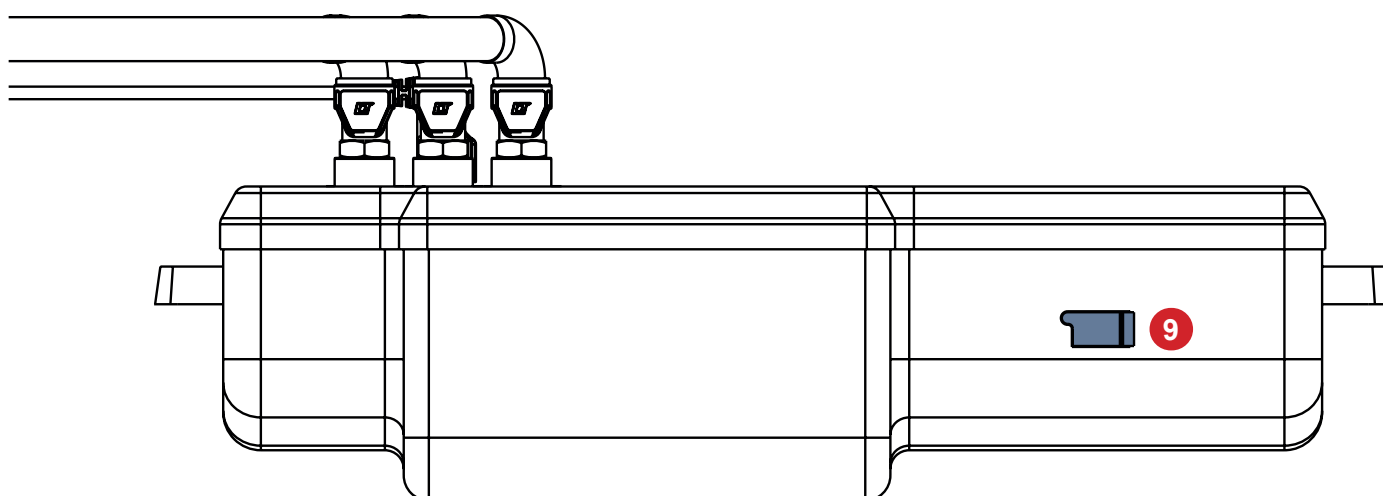


Fig. SCU side view (from the foot end of the bed towards the head end when the SCU is integrated to the bed)

7.3.1 Installation of the 3 Air Hoses to the Air2Care IN & HybriMatt 100 IN compressor

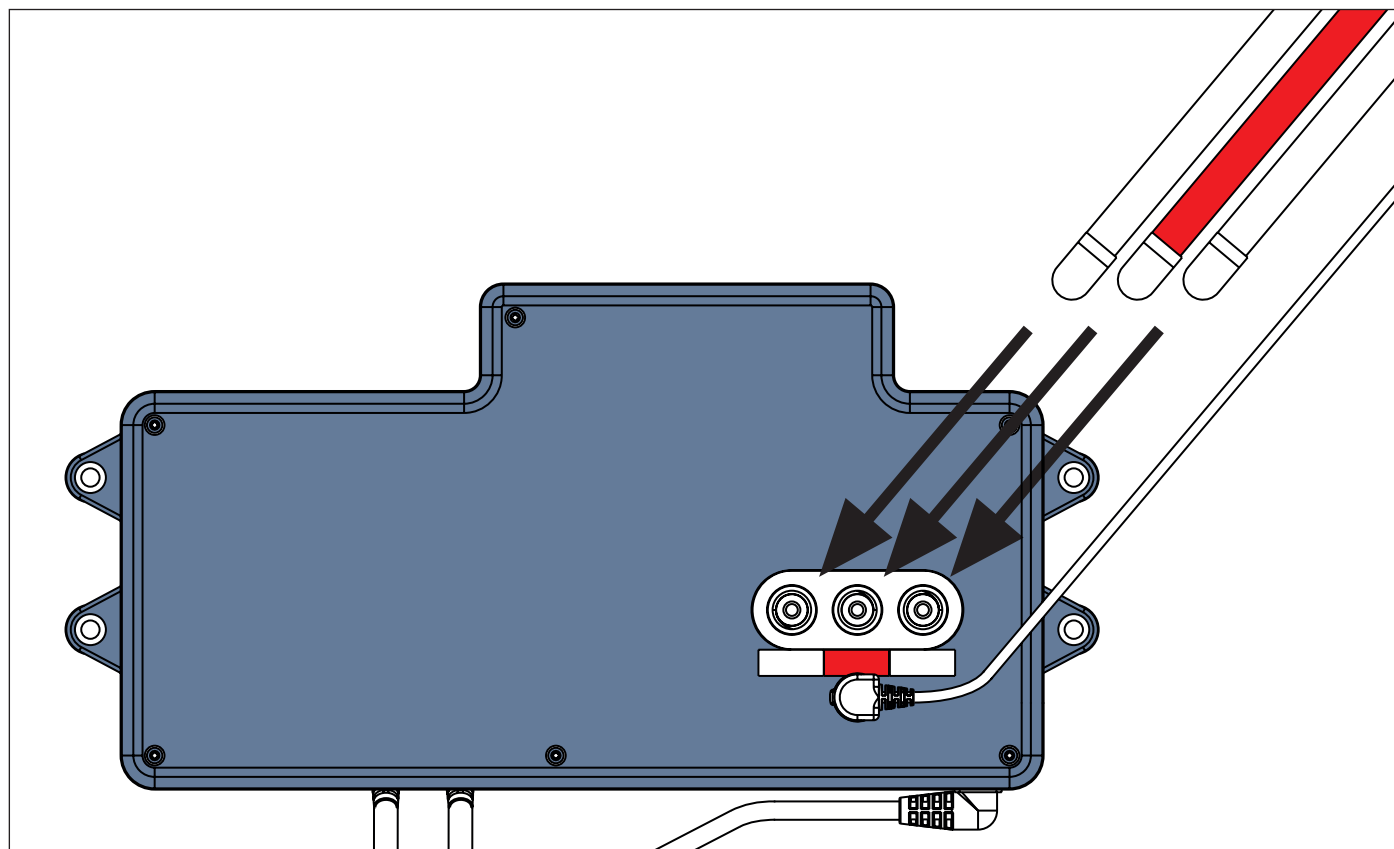


Fig. Installation of the 3 Air Hoses to the Air2Care IN & HybriMatt 100 IN compressor

Connect 3 Air Pipes to SCU when observing colour code.
Red Air Hose must be connected between 2 white Air Hoses that are interchangeable.

7.3.2 Fixation of the Air2Care IN mattresses on the Essenza 300 mattress support platform

Air2Care IN mattresses are designed for Essenza 300 mattress support platform.

Air2Care IN mattresses are equipped with straps intended for fixing mattress on the Essenza 300 mattress support platform.

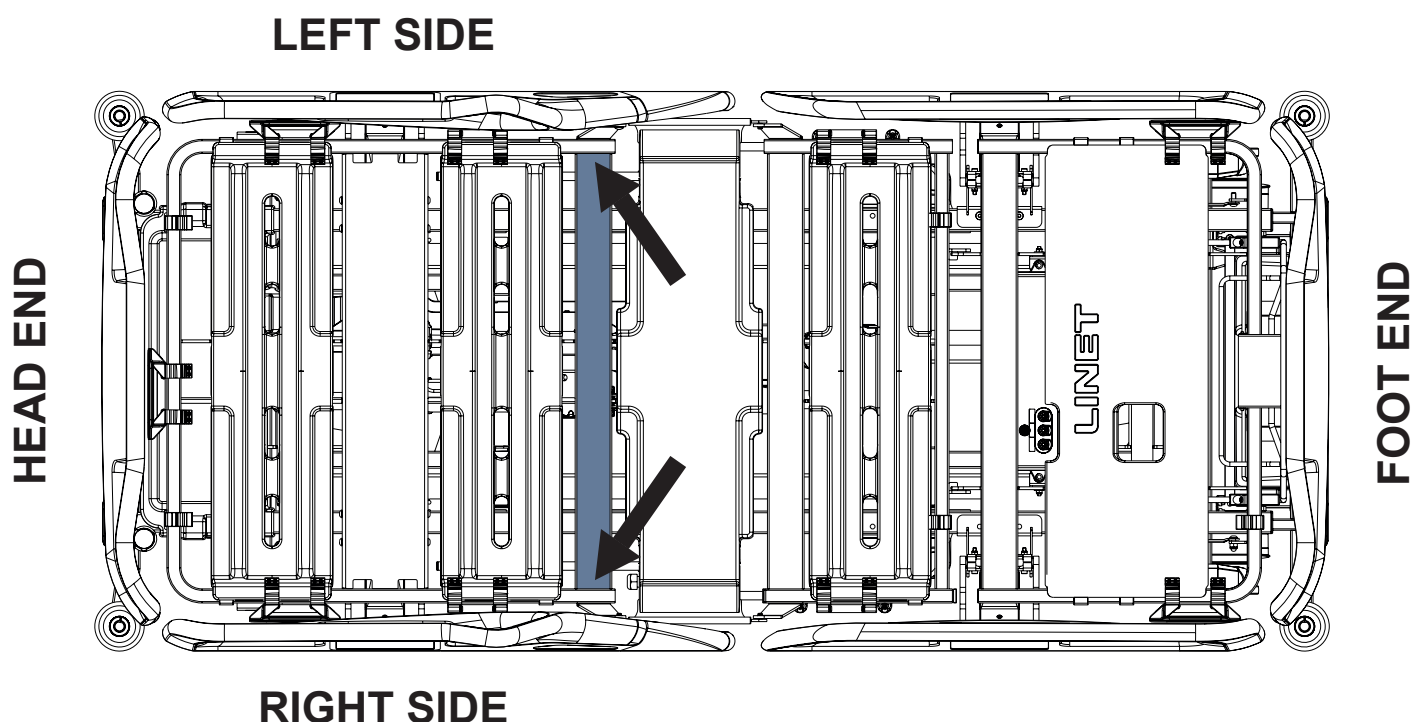


Fig. Fixation of the mattress with straps on the mattress support platform of the Essenza 300 bed



7.3.3 Power Source

System Control Unit (SCU) is powered by the bed when the Power Supply Cord of the bed is connected to the mains. Power Switch is located on the bottom side of the compressor. Mattress can be disconnected from the compressor without triggering the acoustic alert when the Power Switch is in OFF position.

Power Switch (6) should be turned ON during first instalation and then it should stay in the ON position anytime. This Power Switch must be turned off only in emergency situation when ON/OFF Button on the control panel does not work.

7.3.4 Pressure Measurement



WARNING!

The pressure measurement table below should only be taken as a reference when selecting the optimum weight pressure level.

The auto calculated pressure value may be different to the reference setting in the pressure measurement table. This is due to variation in individual patient's BMI and posture.

Provided the patients weight does not exceed the safe working load of the mattress type that is being used, also the patients BMI is in the normal range for their age and gender, the mattress will prevent the patient from bottoming out even if the weight setting does not correspond to the values in the pressure measurement table.

Level	mmHg	Air2Care 6 IN (kg)	Air2Care 8 IN (kg)	HybriMatt 100 IN (kg)
1	13	40	40	40
2	20	70	80	70
3	25	100	120	100
4	30	130	150	130
5	33	160	180	160
Max Firm Mattress	40mmHg			

The pressure in mattress air cells is measured by pressure sensors that is controlled by the main PCB. Pressure sensor is implemented on the main PCB. A hose is connected from the main PCB to the compressor to measure the pressure.

8 FUNCTION DESCRIPTION

Air2Care IN & HybriMatt 100 IN Control Panel

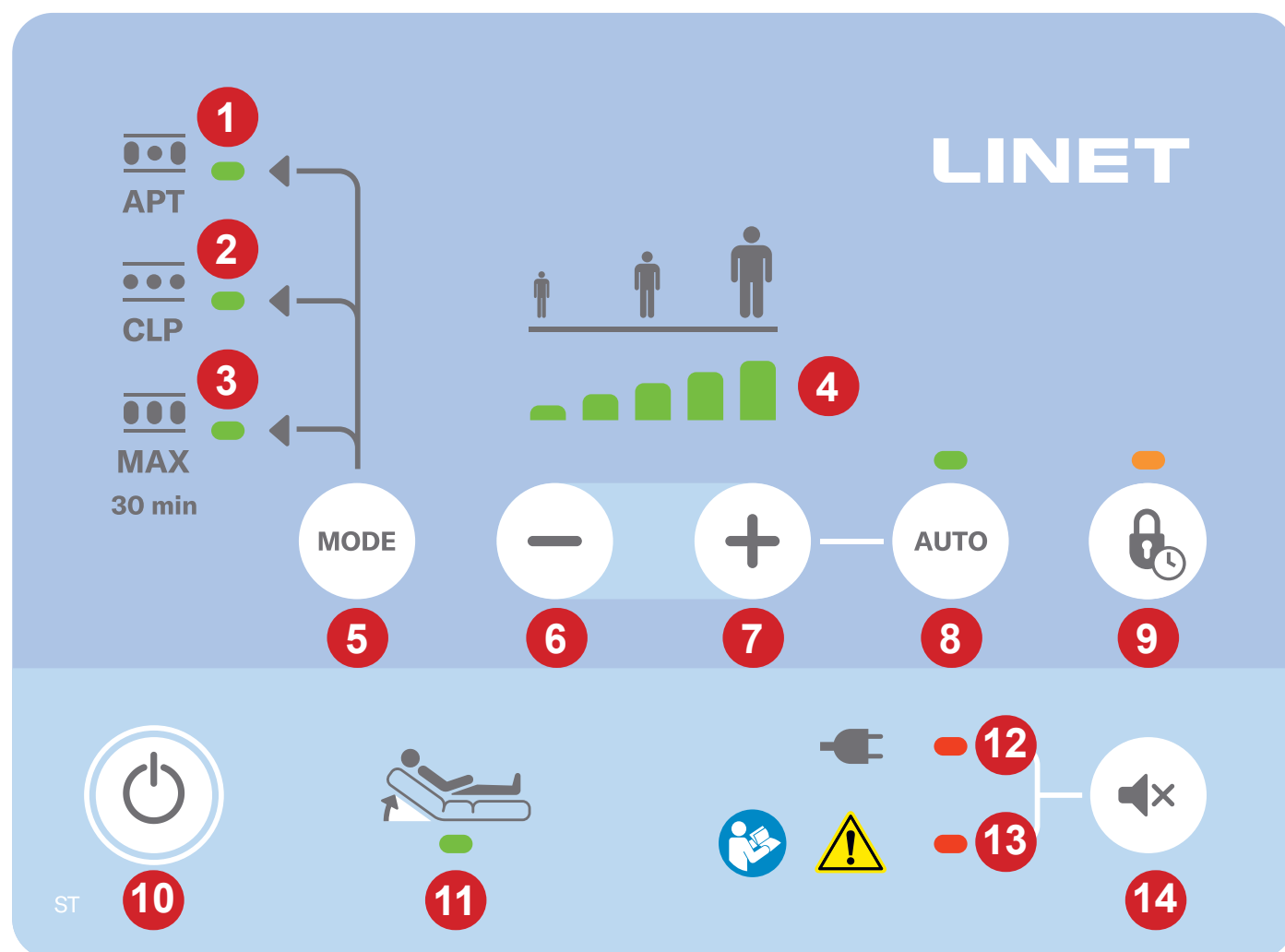


Fig. Keyboard of the Air2Care IN & HybriMatt 100 IN Control Panel

1. APT Mode LED Indicator
2. CLP Mode LED Indicator
3. MAX Mode LED Indicator
4. Pressure Level Indicators
5. MODE Button
6. Decrease Button (MINUS) for Manual Pressure Settings
7. Increase Button (PLUS) for Manual Pressure Settings
8. AUTO Pressure Setting Button with LED Indicator
9. Control Panel Lock Button with LED Indicator
10. ON/OFF Button
11. Fowler Boost LED Indicator
12. Mains Power Fault LED Indicator
13. System Error LED Indicator
14. Mute Button

8.1 AUTO Pressure Setting (8 - for Air2Care IN mattresses only)



WARNING!

Visual and hand checks should always be performed by a suitably trained clinical professional if there is any concern that the patient is or may bottoming out!



CAUTION!

When a patient's condition has significantly changed, the system will reassess the comfort weight setting level. The weight-pressure label in front of the SCU can be taken for reference when selecting the pressure level. A hand check is needed to determine if patient is bottoming out.

AUTO Pressure Setting is available only for Ai2Care 6 IN and Air2Care 8 IN mattresses.

Pressure setting for HybriMatt 100 IN is only manual. In this case AUTO Pressure Setting Button (8) does not react after pressing. If button is pressed, an acoustic alert will occur.

AUTO Pressure Setting is set by pressing AUTO Pressure Setting Button (8). LED indicator above the AUTO pressure setting button is ON when AUTO Pressure Setting is set. Pressure in mattress is set automatically and the auto setting process occurs every 5 hours. Green LED pressure level indicator will flash during calculation and will stop at the optimum pressure level upon completion. The system calculates optimum pressure level by evaluating the patient weight. If button is pressed during calculation process again, an acoustic alert will occur.

AUTO Pressure Setting can be canceled by manual setting. Manual setting is provided by buttons (6) and (7). When AUTO Pressure Setting is canceled, LED indicator above the AUTO Pressure Setting Button is OFF.

8.2 Manual Pressure Setting



WARNING!

Risk of injury due to incorrect pressure setting!

- ▶ Consult qualified hospital staff prior to adjusting pressure.



WARNING!

Risk of injury due to incorrect pressure level! The recommended pressure levels may not be the optimum for all situations but should be used in conjunction with clinical judgment based on the individual patient; e.g. weight, weight distribution, position and comfort needs.

- ▶ Do not reduce pressure level setting by more than 1 step for the patient's comfort.
- ▶ Regardless of the pressure level, make sure the patient is not lying directly on the bed frame.

Set recommended pressure level for HybriMatt 100 IN mattress manually according to the weight table below:

Level	mmHg	Air2Care 6 IN (kg)	Air2Care 8 IN (kg)	HybriMatt 100 IN (kg)
1	13	40	40	40
2	20	70	80	70
3	25	100	120	100
4	30	130	150	130
5	33	160	180	160
Max Firm Mattress	40mmHg			

8.3 APT Mode (1)

Press the MODE Button to enter APT Mode (1 : 2 alternating pressure cell cycle). The Green LED light will indicate the selection of the mode. Caregivers may adjust mattress comfort level by pressing — (6) OR + (7) button.

8.4 CLP Mode (2)

Press MODE Button to enter CLP constant low pressure therapy mode. The Green LED light will indicate the selection of the mode. Patient's body mass will be redistributed over greater surface area at a constant air pressure based on the comfort weight setting. Caregivers may adjust mattress comfort level by pressing — (6) OR + (7) button.

8.5 Fowler Boost (11 - for Air2Care 6 IN and Air2Care 8 IN mattresses only)

When mattress is raised up to seating state, the SCU will increase the mattress pressure by 5 mmHg to prevent patient from bottoming out. The Green LED light will indicate the selection of the mode. HybriMatt 100 IN mattress is not equipped with the Fowler Boost function. If Fowler Boost connector is not correctly fitted or non-compatible mattress is connected, continuous beeping and Fowler Boost LED flashing will occur.

8.6 MAX Mode (3)

Press MODE Button to set the MAX Mode, which facilitates nursing and caring. The corresponding green LED light will indicate the selection of the MAX Mode.

SCU will automatically revert from MAX Mode to the APT Mode and to the previously selected pressure level after 30 minutes of operation.

8.7 ON/OFF Button (10)

Compressor (SCU) can be turn on/off by the ON/OFF Button (10) on the control panel after 2 seconds of pressing. A single beep sounds for confirmation. The control panel must be unlocked for turning off the compressor.

The turning off the compressor is recommended before bed is unconnected from the mains power to avoid the Power Failure Alert. After bed is connected back to the mains, the compressor should be turned on via the ON/OFF Button (10).

8.8 Lock Button (9)

Press to lock or unlock the panel. If the orange LED above Lock button is ON, the panel is locked.

If the panel remain untouched for 5 minutes, the panel lock feature will lock the panel.

To unlock, press Unlock button for 2 seconds.

A single beep sounds for confirmation after locking and unlocking.

8.9 Leaking Alert (13)

Should there be a bad connection of tubing or any air leakage from the mattress, the Red Leaking LED light will light up and the audible alert will activate.

For system initialization, the alert will trigger when mattress is below 8 mmHg for 90 minutes.

During normal operation, the alert will trigger when mattress is below 8 mmHg for 30 minutes.

Press the MUTE sign to mute the audible alert. Once the pressure returns to normal, the SCU will resume operation in the previously set mode automatically, and the Red Leaking LED light will go out.

8.10 Power Failure Alert (12)

Should there be power failure outage, the Mains Power Fault LED Indicator (12) will light up and the Power Failure alert will activate immediately. Press the MUTE Button on the Control Panel to deactivate the audible alert. When power is back, the ON/OFF Button (10) must be pressed for two seconds to turn on the compressor.

8.11 MUTE Button (14)

Press the MUTE Button to mute the audible alert.

9 INSTALLATION



CAUTION!

Incorrect use due to incorrect installation or incorrect removal.

- ▶ Do not change order of the installation steps and removal steps!

- 1) Remove any mattress from the mattress support platform of the Essenza 300 medical bed or the Essenza 300 with Lateral Tilt medical bed.
- 2) Ensure the mattress support platform is in horizontal position.

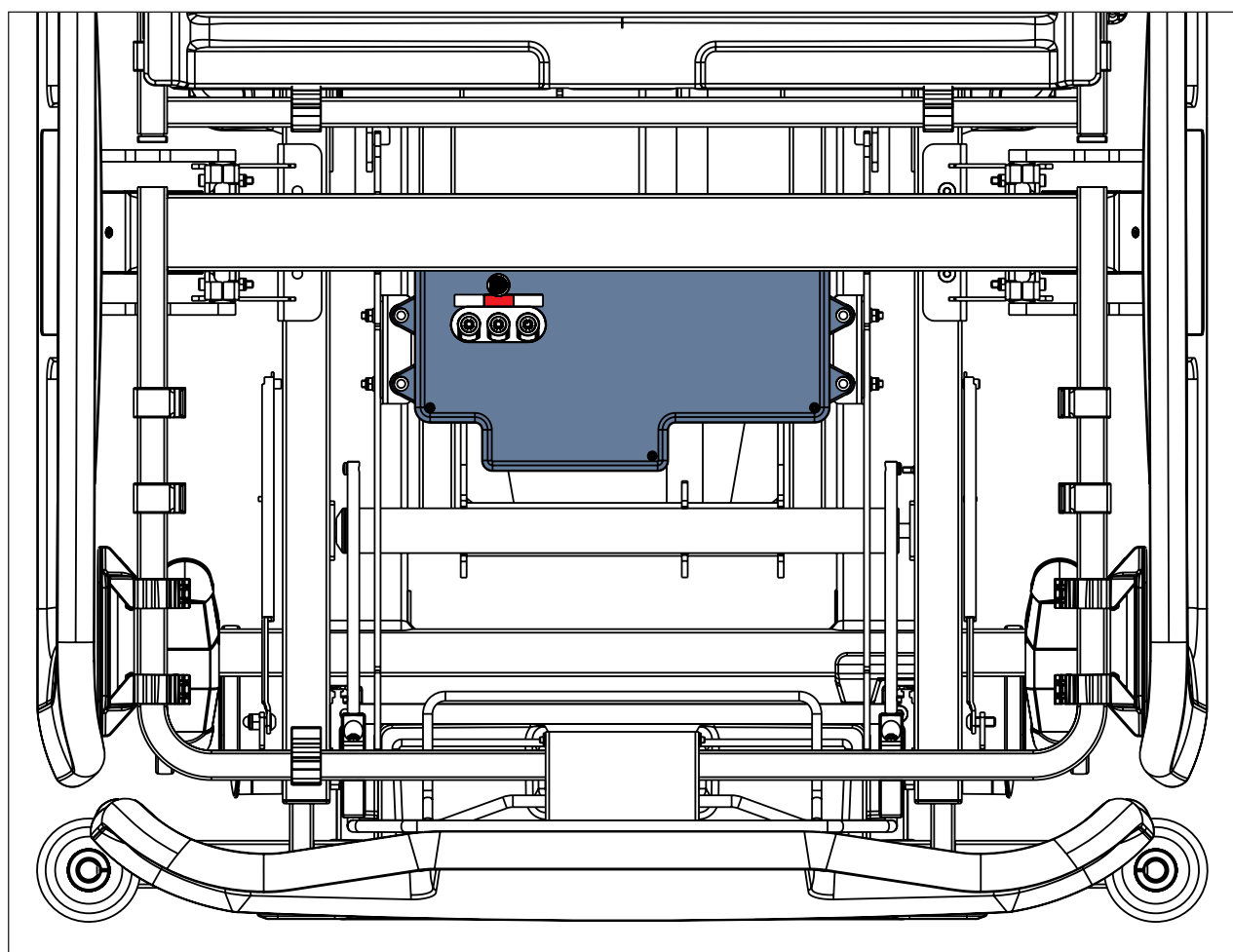


Fig. Orientation of the SCU in the calfrest frame (Essenza 300 medical bed without Lateral Tilt)

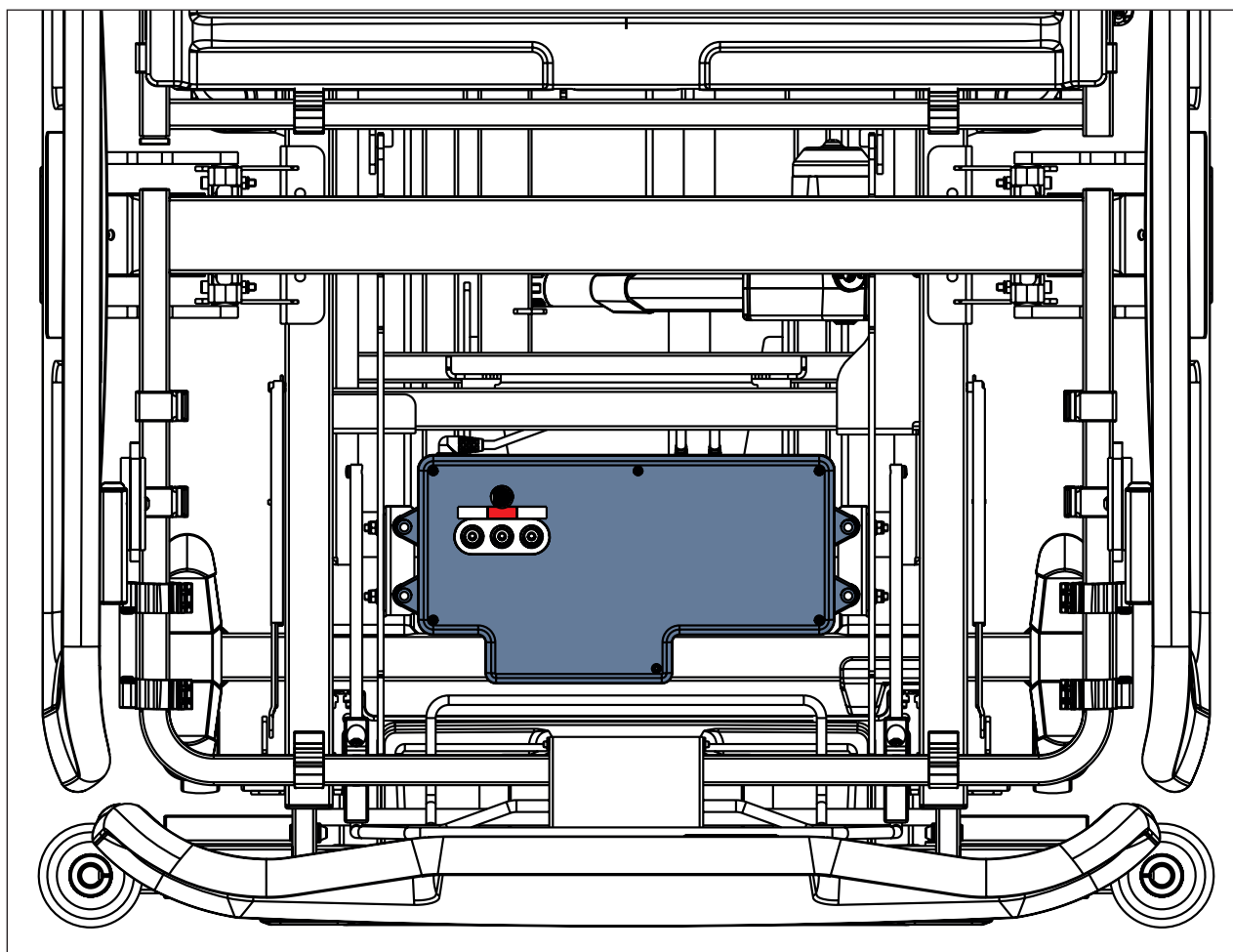


Fig. Orientation of the SCU in the calffrest frame (Essenza 300 medical bed with Lateral Tilt)

- 3) When standing opposite the calcrest at foot end of the bed, turn on the Power Switch on the bottom left side of the integrated compressor (SCU). For better access to the Power Switch, set the bed to the highest position. It should be done once only during the first installation.

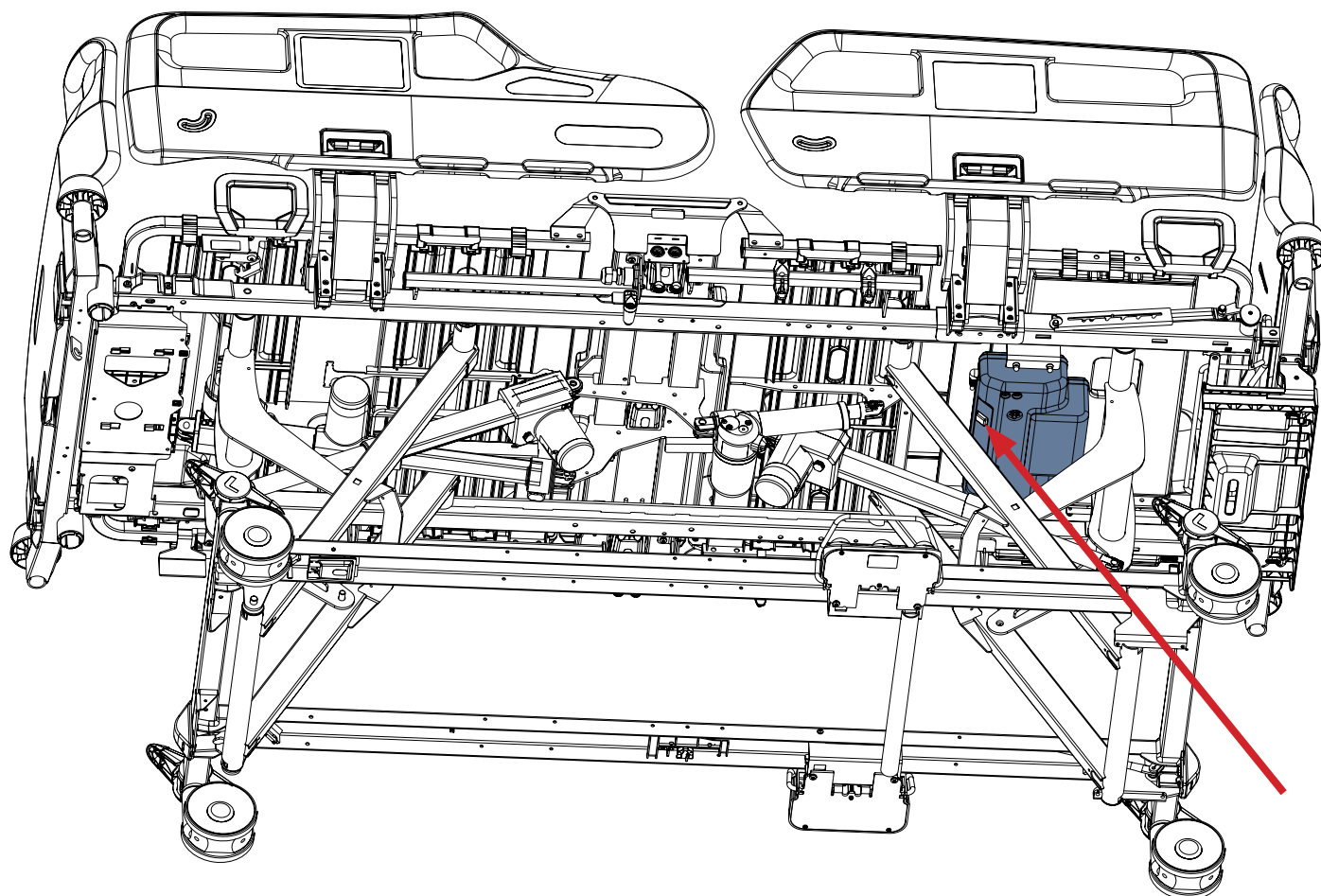


Fig. Access to the Power Switch (Essenza 300 medical bed in bottom view)

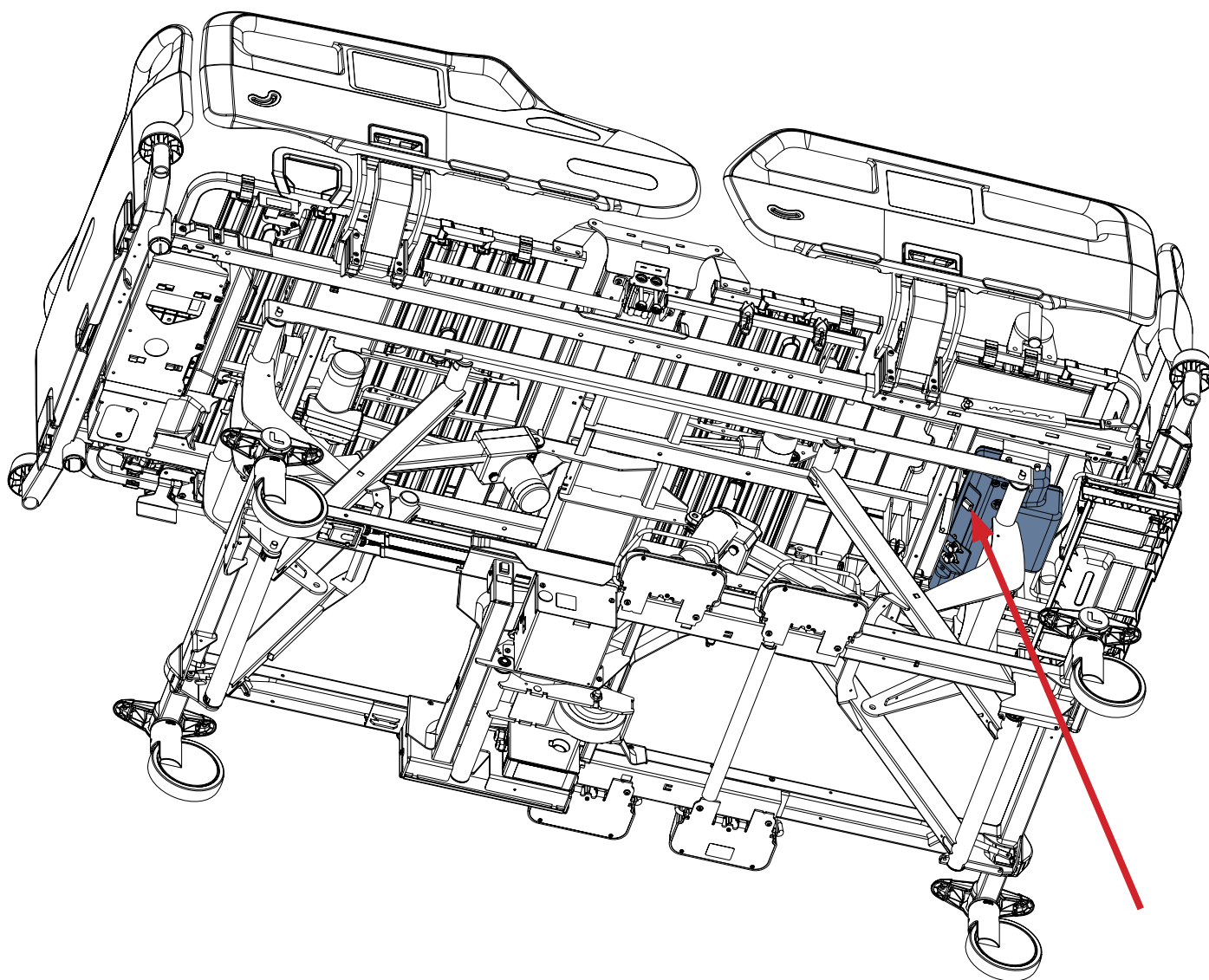


Fig. Access to the Power Switch (Essenza 300 medical bed with Lateral Tilt in bottom view)

- 4) Ensure the selected mattress is compatible with the Control Panels in siderails of the Essenza 300 bed. Put Air-2Care 6 IN mattress or Air2Care 8 IN mattress or HybriMatt 100 IN mattress on the mattress support platform of the bed.
- 5) Connect Fowler Boost cable from the mattress to the integrated compressor (SCU) under the mattress.
- 6) Connect the 3 Air Hoses from the mattress to the integrated compressor (SCU). The red Air Hose must be connected between the 2 white Air Hoses that are interchangeable.

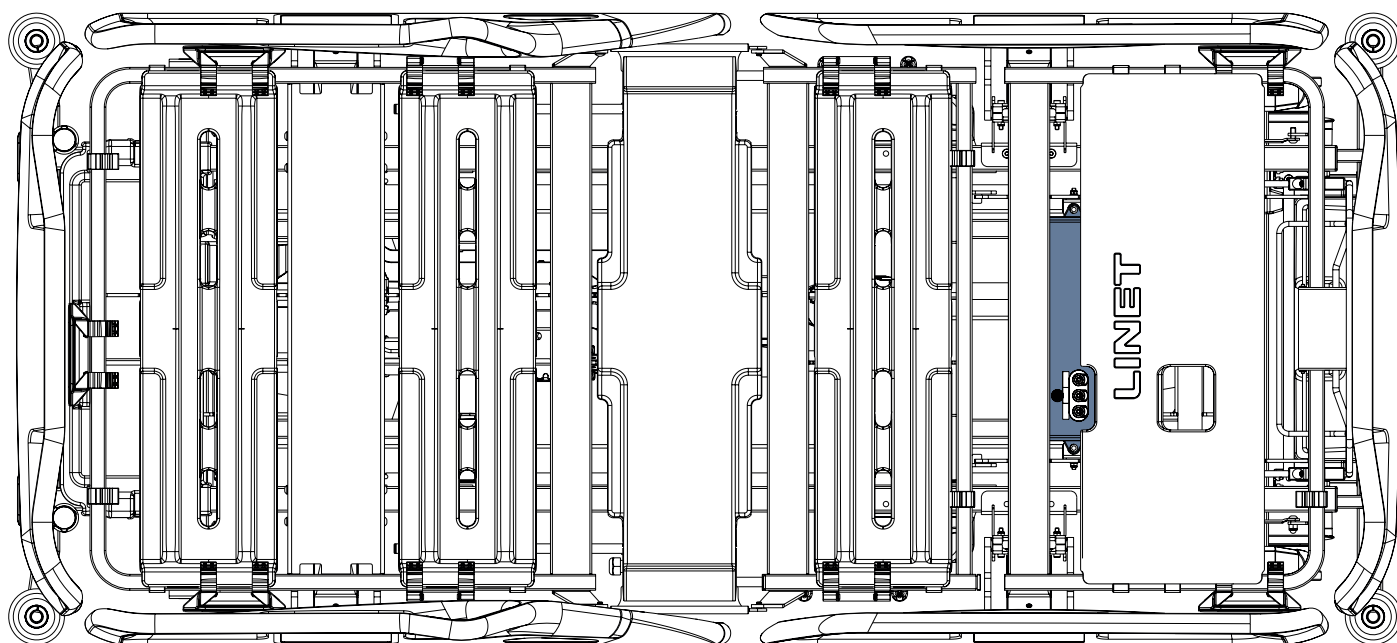


Fig. Position of the SCU under the Calfreth Plastic Cover (Essenza 300 medical bed)

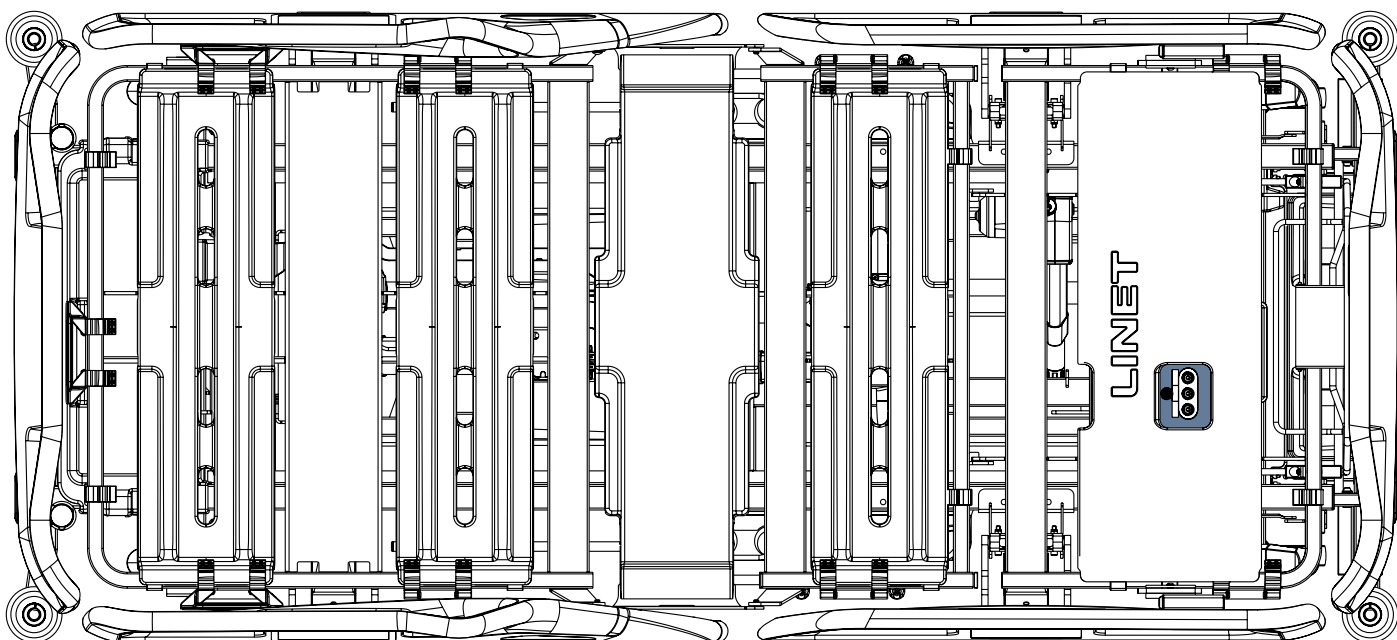


Fig. Position of the SCU under the Calfreth Plastic Cover (Essenza 300 medical bed with Lateral Tilt)

10 REMOVAL

- 1) Turn off the compressor via the ON/OFF Button on the control panel.
- 2) Ensure the mattress support platform is in horizontal position.
- 3) Disconnect the 3 Air Hoses from the integrated compressor (SCU).
- 4) Disconnect Fowler Boost cable from the integrated compressor (SCU).
- 5) Remove Air2Care 6 IN mattress or Air2Care 8 IN mattress or HybriMatt 100 IN mattress from the mattress support platform of the bed.
- 6) Put any compatible mattress on the mattress support platform of the Essenza 300 medical bed or the Essenza 300 with Lateral Tilt medical bed.

11 OPERATING INSTRUCTIONS



CAUTION!

Always read the operating instructions before use.

This system is designed to provide maximum comfort to patients. Follow the information provided below to optimize the functionality of the system.



CAUTION!

The plug of power supply cord is used as the separation means from the mains. Do not to position the product to make it difficult to operate this disconnection device!

11.1 For product

- ❖ DO NOT use another SCU with different specifications unless instructed to do so by your local dealer.
- ❖ DO NOT change any component on your own. If there is need for replacement or repair, always contact your local dealer.
- ❖ Always turn off the compressor by the ON/OFF Button on the control panel immediately before disconnecting the mattress from the compressor!
- ❖ It is not allowed to use Air2Care 6 IN or Air2Care 8 IN or HybriMatt 100 IN mattress with damaged Fowler Boost cable!

11.2 Passive Transport Mode

11.2.1 Passive Transport Mode of the Air2Care IN mattresses



WARNING!

Risk of patient's bottoming out on the mattress that is not sufficiently inflated!

- ▶ Ensure the mattress MAX Mode has been set before setting the mattress Passive Transport Mode.
- ▶ Always ensure the mattress is inflated enough before putting a new patient on the mattress.



WARNING!

Risk of injury due to incorrect positioning of a patient!

- ▶ Prior to more than 30 minutes of the Passive Transport Mode, consult qualified hospital staff.

The Passive Transport Mode is intended for transporting a patient in bed on the mattress. When Air2Care IN mattress is disconnected from power supply, mattress valve will get locked to keep the mattress inflated during transport. Air2Care IN mattresses will hold pressure for 30 minutes. Before disconnecting the mattress, it is recommended to adjust mattress MAX pressure mode to reduce risk of patient's bottoming out. Any Mode cannot work in the Passive Transport Mode.

11.2.2 Passive Transport Mode of the HybriMatt 100 IN mattress

The Passive Transport Mode is intended for transporting a patient in bed on the mattress. Passive Transport Mode of the HybriMatt 100 IN mattress equals its passive mode when it is used just as a foam mattress without air support depending on the integrated compressor.

To change the HybriMatt 100 IN mattress to Transport Mode:

- ▶ Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button.
- ▶ Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.
- ▶ Unplug the Essenza 300 bed from the mains.
- ▶ Open at least one of the two CPR valves on mattress sides to release air from the mattress.

11.3 CPR



WARNING!

Risk of injury due to incorrect use!

- ▶ When the Plastic Siderails are lowered, you may need to lift the mattress to access the CPR valve fully.

In case of an emergency the CPR valve is located on both sides of the mattress at the head end.

To activate the CPR mode, turn the valve to the “CPR” position to release air from the mattress quickly.

To reinflate the mattress after CPR mode, turn the valve back to the “CLOSE” position and inflate the mattress.

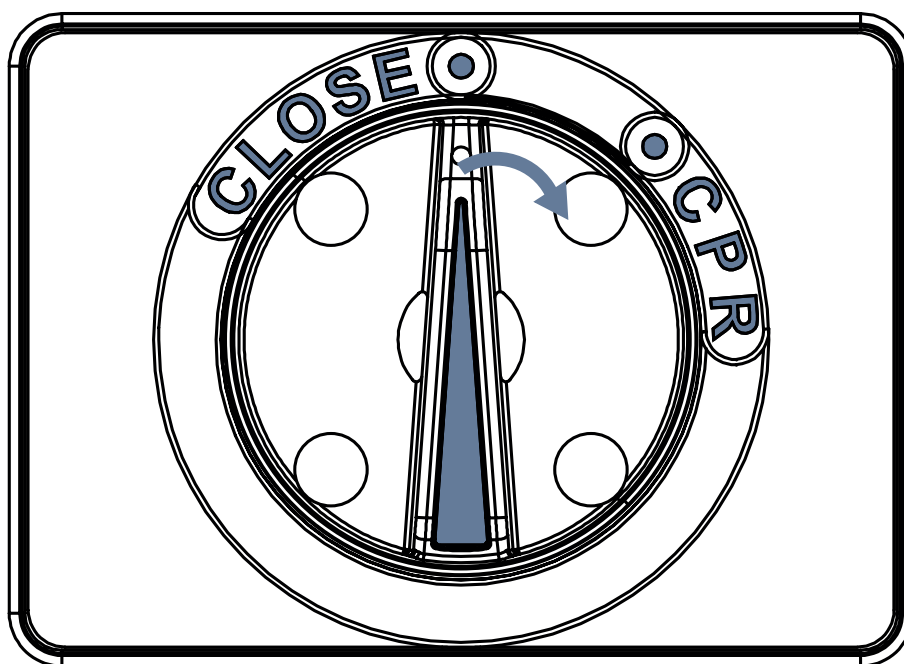


Fig. CPR Knob Adjustment for CPR Mode Activation

11.4 Supine Nursing with Air2Care 6 IN and Air2Care 8 IN mattresses



WARNING!

Risk of injury due to incorrect use!

- ▶ Ensure adequate patient support is maintained during normal mattress operation! Remember that APT Mode alternately deflates cells in a 1 – 2 cell cycle, hence it is recommended not to manually deflate more than one cell in mattress head zone and in mattress foot zone! Two adjacent deflated cells lead to the risk of pressure injuries development! It is forbidden to deflate any mattress cell in the mattress trunk zone!

11.5 Prone Nursing with Air2Care 6 IN and Air2Care 8 IN mattresses



WARNING!

Risk of injury due to incorrect use!

- ▶ Ensure adequate patient support is maintained during normal mattress operation! Remember that APT Mode alternately deflates cells in a 1 – 2 cell cycle, hence it is recommended not to manually deflate more than one cell in mattress head zone and in mattress foot zone! Two adjacent deflated cells lead to the risk of pressure injuries development! It is forbidden to deflate any mattress cell in the mattress trunk zone!
- ▶ Ensure the red hoses are disconnected on both mattress sides if the first static mattress cell at mattress head end is to be deflated for prone nursing! This must be observed in order to avoid the risk of pressure injuries development due to patient's bottoming out!

11.6 Disconnect Device



WARNING!

To fully disengage the power to the SCU, disconnect the Power Supply Cable of the SCU from the bed control unit!

- ▶ Only authorised and trained service technician is allowed to disconnect the Power Supply Cable of the SCU from the bed control unit!

11.7 Handling and Storage

To store the mattress:

- ❖ Lay the mattress out flat and upside down.
- ❖ Roll from the foot end towards the head end; the foot-end strap can then be stretched around the rolled mattress to prevent unrolling.
- ❖ Do not fold, crease, or stack the mattress.

11.8 Correct Use of the Air2Care IN mattresses with Air2Care IN & Hybri-Matt 100 IN compressor

Intension	Intended User	Procedure
Installation of Air2Care 6 IN or Air2Care 8 IN mattress on the mattress support platform	Caregiver	1. Secure correct mattress position. 2. Connect three mattress air hoses into the integrated compressor. 3. Connect the Fowler boost cable to the integrated compressor. 4. Secure mattress by straps to mattress support platform. 5. Plug the Essenza 300 bed into the mains. NOTE: When non-compatible mattress is connected to the compressor, audible alert will start beeping once compressor is ON.
Start of Air2Care 6 IN or Air2Care 8 IN mattress use	Caregiver	1. Plug the Essenza 300 bed into the mains. 2. Turn on the integrated compressor under the bed Calfreth via Power Switch. 3. Press and hold ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel for 2 seconds. An acoustic signal will beep. 4. Mattress starts to inflate. Mode LED Indicators and Pressure Level Indicators are flashing. 5. Mattress stabilises. Mode LED Indicators and Pressure Level Indicators are lit. 6. Mattress calculates an automatic pressure level. Pressure Level Indicators are flashing. Mode LED Indicators are not lit. 7. Once mattress is inflated and ready to use, only APT Mode LED Indicator and calculated Pressure Level Indicator are lit. It could take up to 45 minutes until mattress is fully inflated. NOTE: Initial calculation of the automatic pressure setting takes place without patient on the bed so the expected calculated pressure level will be the first one.
Putting patient on the mattress	Caregiver	1. Extend the bed if patient is too tall. 2. Place a compatible Mattress Foam Extension in front of the mattress head end on the bed Backrest. 3. Ensure patient is correctly positioned on the mattress.
Change of mattress pressure mode	Caregiver	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Change pressure mode on the Air2Care IN & HybriMatt 100 IN Control Panel to CLP or APT. 3. Set up mattress pressure level according to patient weight or patient comfort.
Transport mode of Air2Care 6 IN or Air2Care 8 IN mattress	Caregiver, transport personnel	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Select MAX Mode and wait until the mattress is fully inflated. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Unplug the Essenza 300 bed from the mains. 4. Open at least one of the two CPR valves on mattress sides to release air from the mattress.

Intension	Intended User	Procedure
Automatic Pressure Setting of Air2Care 6 IN or Air2Care 8 IN mattress	Caregiver	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Press AUTO Pressure Setting button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Mattress starts to inflate. Mode LED Indicators and Pressure Level Indicators are flashing. 4. Mattress stabilises. Mode LED Indicators and Pressure Level Indicators are lit. 5. Mattress calculates an automatic pressure level. Pressure Level Indicators are flashing. Mode LED Indicators are not lit. 6. Once mattress is inflated and ready to use, only APT Mode LED Indicator and calculated Pressure Level Indicator are lit. It could take up to 45 minutes until mattress is fully inflated. 7. Place patient on the mattress. Calculation of the automatic pressure level starts based on the patient's weight. Pressure Level Indicators are flashing. Mode LED Indicators are not lit. 8. Ensure the pressure level for the patient is calculated. APT Mode LED Indicator and calculated Pressure Level Indicator are lit. NOTE: AUTO Pressure Setting is re-calculated every 5 hours or when there is a significant weight change on the mattress.
Fowler Boost effect of Air2Care 6 IN or Air2Care 8 IN mattress	Caregiver	1. Adjust the bed Backrest to 30° or more. 2. Fowler Boost effect occurs automatically when Air2Care 6 IN or the Air2Care 8 IN mattress is connected to the integrated compressor. Pressure in the whole mattress increases about 5 mm Hg during this effect. 3. Fowler Boost LED Indicator on the Air2Care IN & HybriMatt 100 IN Control Panel is lit.
CPR of Air2Care 6 IN or Air2Care 8 IN mattress	Caregiver	1. Open the CPR valve at mattress head end to release air from the mattress. Follow your hospital guideline and policy for CPR of patient on hybrid or passive mattress.
Cell exchange	Technical personnel who is trained to service Air2Care 6 IN and Air2Care 8 IN mattresses	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Unzip the mattress cover completely. 6. Remove foam frame placed around mattress cells. 7. Detach air tubing from the mattress cell via quick release connector. 8. Remove the cell from cell holder and replace it with a new compatible cell. 9. Attach air tubing to the new mattress cell via quick release connector. 10. Place the foam frame around mattress cells. Slope foam should be placed under the patient's feet. 11. Zip the mattress cover again. 12. Close the CPR valves on both mattress sides. 13. Ensure the mattress is secured by straps to mattress support platform. 14. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.

Intension	Intended User	Procedure
Cleaning of Air2Care 6 IN or Air2Care 8 IN mattress	Caregiver, technical personnel	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Clean the outside of the mattress. 6. Unzip the mattress top cover and inspect the top cover for staining. If stained or penetrated, replace the top cover. 7. Check the other components inside the mattress for staining. Clean and replace them as necessary. Clean mattress cells if they are stained. 8. Once all parts have been inspected and cleaned, zip up top cover and reconnect the mattress to the compressor as required. 9. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.
Mattress Cover Replacement	Technical personnel who is trained to service Air2Care 6 IN and Air2Care 8 IN mattresses	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Disconnect three mattress air hoses from the integrated compressor. 6. Disconnect the Fowler boost cable from the integrated compressor. 7. Unstrap mattress from the mattress support platform. 8. Unzip mattress cover completely. 9. Unfasten all the mattress cells from the mattress base cover. 10. Pull three mattress air hoses through the mattress cover. 11. Unzip a new mattress cover completely and put the base mattress cover on the bed mattress support platform. The part of the base mattress cover where the air hose entrance is located must be oriented towards bed foot board. 12. Place cells with air tubing on the base mattress cover. 13. Pull three mattress air hoses through the mattress cover. 14. Fasten all the mattress cells on both sides of the base mattress cover. 15. Zip the mattress cover. 16. Secure mattress by straps to mattress support platform. 17. Connect the three mattress air hoses to the integrated compressor. 18. Close the CPR valves on both mattress sides. 19. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.

11.9 Correct Use of the HybriMatt 100 IN mattress with or without Air2Care IN & HybriMatt 100 IN compressor

Intension	Intended User	Procedure
Decision if HybriMatt 100 IN system will be used in active mode or passive mode for patient at risk of pressure injury	Caregiver with education in pressure injury prevention	1. Evaluate patient condition and evaluate risk of developing pressure injury according to hospital pressure injury prevention guideline or EPUAP/NPIAP Practice clinical guideline (2019).
Installation of HybriMatt 100 IN mattress on the mattress support platform	Caregiver	1. Secure correct mattress position. 2. Connect three mattress air hoses into the integrated compressor. 3. Connect the Fowler boost cable to the integrated compressor. 4. Secure mattress by straps to mattress support platform. 5. Plug the Essenza 300 bed into the mains. NOTE: When non-compatible mattress is connected to the compressor, audible alert will start beeping once compressor is ON.
Start of HybriMatt 100 IN mattress use in active mode	Caregiver	1. Plug the Essenza 300 bed into the mains. 2. Turn on the integrated compressor under the bed Calcrest by Power Switch. 3. Press and hold ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel for 2 seconds. An acoustic signal will beep. 4. Mattress starts to inflate. Mode LED Indicators and Pressure Level Indicators are flashing. 5. Mattress stabilises. Mode LED Indicators and Pressure Level Indicators are lit. 6. Once mattress is inflated and ready to use, only APT Mode LED Indicator and third Pressure Level Indicator are lit. It could take up to 15 minutes until mattress is fully inflated.
Start of HybriMatt 100 IN mattress use in passive mode	Caregiver	1. Place patient on the mattress support platform. NOTE: Unless ON/OFF button is pressed, the integrated compressor does not start to inflate the HybriMatt 100 IN mattress so it could be used as a passive mattress.
Putting patient on the mattress	Caregiver	1. Extend the bed if patient is too tall. 2. Place a compatible Mattress Foam Extension in front of the mattress head end on the bed Backrest. 3. Ensure patient is correctly positioned on the mattress.
Change from active mode of the HybriMatt 100 IN mattress to passive mode of the HybriMatt 100 IN mattress	Caregiver	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Unplug the Essenza 300 bed from the mains. 4. Open at least one of the two CPR valves on mattress sides to release air from the mattress.

Intension	Intended User	Procedure
Change from passive mode of the HybriMatt 100 IN mattress to active mode of the HybriMatt 100 IN mattress	Caregiver	1. Ensure the three mattress air hoses are connected into the integrated compressor. 2. Ensure the Fowler boost cable is connected into the integrated compressor. 3. Ensure the CPR valves are closed. 4. Press and hold ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel for 2 seconds. An acoustic signal will beep. 5. Mattress starts to inflate. Mode LED Indicators and Pressure Level Indicators are flashing. 6. Mattress stabilises. Mode LED Indicators and Pressure Level Indicators are lit. 7. Once mattress is inflated and ready to use, only APT Mode LED Indicator and third Pressure Level Indicator are lit. It could take up to 15 minutes until mattress is fully inflated.
Change of mattress pressure mode when HybriMatt 100 IN mattress is in active mode	Caregiver	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Change pressure mode on the Air2Care IN & HybriMatt 100 IN Control Panel to CLP or APT. 3. Set up mattress pressure level according to patient weight or patient comfort.
Transport mode of the HybriMatt 100 IN mattress	Caregiver, transport personnel	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Unplug the Essenza 300 bed from the mains. 4. Open at least one of the two CPR valves on mattress sides to release air from the mattress.
CPR of HybriMatt 100 IN mattress	Caregiver	1. Open the CPR valve at mattress head end to release air from the mattress. Follow your hospital guideline and policy for CPR of patient on hybrid or passive mattress.
Cell exchange	Technical personnel who is trained to service HybriMatt 100 IN mattress	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Unzip the mattress cover completely. 6. Remove foam frame placed around mattress cells. 7. Detach air tubing from the mattress cell via quick release connector. 8. Remove the cell from cell holder and replace it with a new compatible cell. 9. Attach air tubing to the new mattress cell via quick release connector. 10. Place the foam frame around mattress cells. Slope foam should be placed under the patient's feet. 11. Zip the mattress cover again. 12. Close the CPR valves on both mattress sides. 13. Ensure the mattress is secured by straps to mattress support platform. 14. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.

Intension	Intended User	Procedure
Cleaning of the HybriMatt 100 IN mattress	Caregiver, technical personnel	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Clean the outside of the mattress. 6. Unzip the mattress top cover and also the viscoelastic foam layer and inspect the top cover for staining. If stained or penetrated, replace the top cover. 7. Inspect the viscoelastic foam layer for staining. If stained, replace the viscoelastic foam layer. 8. Check the other components inside the mattress for staining. Clean and replace them as necessary. Clean mattress cells if they are stained. Replace white Cell Sleeve with a new compatible one if it is stained. 9. Once all parts have been inspected and cleaned, zip up the viscoelastic foam layer and top cover and reconnect the mattress to the compressor as required. 10. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.
Viscoelastic Foam Layer Replacement	Caregiver, technical personnel	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Unzip the mattress cover completely. 6. Unzip the viscoelastic foam layer on the both sides of the mattress top cover. 7. Remove the viscoelastic foam layer. 8. Zip the new viscoelastic foam layer on the both sides of the mattress top cover. 9. Zip the mattress cover. 10. Close the CPR valves on both mattress sides. 11. Ensure the mattress is secured by straps to mattress support platform. 12. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.

Intension	Intended User	Procedure
Mattress Cover Replacement	Technical personnel who is trained to service HybriMatt 100 IN mattress	1. Unlock the Air2Care IN & HybriMatt 100 IN Control Panel on the Essenza 300 foot plastic siderail by Lock Button. 2. Turn off the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel. 3. Open at least one of the two CPR valves on mattress sides to release air from the mattress. 4. Lower the bed siderails. 5. Disconnect three mattress air hoses from the integrated compressor. 6. Disconnect the Fowler boost cable from the integrated compressor. 7. Unstrap mattress from the mattress support platform. 8. Unzip mattress cover completely. 9. Unzip the viscoelastic foam layer on the both sides of the mattress top cover. 10. Remove foam frame placed around mattress cells. 11. Detach cells from the base mattress cover by toggles at first cell, fifth cell and eighth cell if the cell order is counted from the mattress head end. Detach cells from the base mattress cover by toggles at first cell, fourth cell and eighth cell if the cell order is counted from the mattress foot end. 12. Pull three mattress air hoses through the mattress cover. 13. Unzip a new mattress cover completely and put the base mattress cover on the bed mattress support platform. The part of the base mattress cover where the air hose entrance is located must be oriented towards bed foot board. 14. Place cells with air tubing on the base mattress cover. 15. Pull three mattress air hoses through the mattress cover. 16. Attach first cell, fifth cell and eighth cell to the base mattress cover by toggles if the cell order is counted from the mattress head end. Attach first cell, fourth cell and eighth cell to the base mattress cover by toggles if the cell order is counted from the mattress foot end. 17. Place the foam frame around mattress cells. Slope foam should be placed under the patient's feet. 18. Zip the new viscoelastic foam layer on the both sides of the mattress top cover. 19. Zip the mattress cover. 20. Secure mattress by straps to mattress support platform. 21. Connect the three mattress air hoses to the integrated compressor. 22. Close the CPR valves on both mattress sides. 23. Turn on the integrated compressor by the ON/OFF button on the Air2Care IN & HybriMatt 100 IN Control Panel.

12 CLEANING GUIDELINES



WARNING!

Risk of infection due to incorrect cleaning and disinfection!

- ▶ Ensure the mattress and compressor are correctly cleaned and correctly disinfected as it is necessary for safe use of the mattress system together with the concrete patient!
- ▶ Ensure the mattress and compressor are used with correctly cleaned and correctly disinfected accessories!



CAUTION!

Material damage due to incorrect cleaning/disinfection!

- ▶ Do not use pressure or steam cleaners.
- ▶ Follow the instructions and observe the dosages recommended by the manufacturer. Never exceed recommended concentrations stated in this document. Always rinse and dry before putting the mattress back into service, even if the chemical manufacturer states their cleaning agent need not to be rinsed.
- ▶ Ensure that disinfectants are selected and applied exclusively by qualified hygiene experts.

Follow the below procedure to clean and decontaminate the system. It is important to follow these steps before using the system again. Cleaning task is required at least once a week to maintain personal hygiene.

12.1 System Control Unit (SCU)

- ▶ DO NOT immerse or soak the SCU in any water or fluids.
- ▶ Check for external damage and move the SCU to the cleaning area.
- ▶ Place the SCU on a work surface and spray or wipe the outside of the case with quaternary ammonium solution.
- ▶ DO NOT spray any cleaning solution directly on the surface of the SCU.
- ▶ DO NOT use a Hypo carbonate or Phenolic based cleaning solution as this may cause damage to the case. Allow the solution to incubate for 10 minutes or accordingly as stated by the cleaning product instructions.
- ▶ Wipe case with a clean cloth. Make sure all areas are clean (top and bottom, both sides).
- ▶ Spray cloth with cleaning solution and clean faceplate. DO NOT allow excess cleaning solution on faceplate or control panel (If solution gets inside, damage will occur). Allow surface to thoroughly dry after cleaning.
- ▶ After the SCU is thoroughly cleaned and dried, proceed to plug in the SCU and test to see if it runs normally.
- ▶ Unplug the SCU and store with proper identification tag.
- ▶ Avoid long exposure to sunlight.

12.2 Mattress

**CAUTION!**

If used by different patients, ensure it is cleaned and disinfected in between patients!

12.2.1 Cleaning of the Air2Care IN mattresses

- ▶ Wipe down all surfaces of the cover with soap and water before wetting with any liquid disinfectant.
- ▶ Any obvious blood spots should be wet thoroughly with 1:9 Hypochlorite solution (1 part bleach to 9 parts water) and allow drying for at least 10 minutes. Then blot with a clean, damp cloth.
- ▶ Unzip the top cover from the mattress.
- ▶ Wipe down all surfaces with soap and water before applying any liquid.
- ▶ Covers are immersed and soaked in disinfectant for the required incubation time.
- ▶ After pre-soaking, the cover is rinsed through a regular cycle in a washer with no soap then laundered with mild detergent (wash temperature 93°F/34°C, rinse temperature 78°F/26°C or on the coldest setting).
- ▶ Covers are aerated until they are fully dry.
- ▶ The air cells are unsnapped from one side and are sprayed on all sides with a disinfectant. Let it sit for the required incubation time and wipe down with a clean cloth. (Make sure to disconnect all the air cells, one by one, and spray the disinfectant on all sides, including all the connecting tubes and hoses. Let it sit for least 10 minutes.)
- ▶ If there is a base cover after you remove all the air cells, the base cover has to be sprayed down with the disinfectant, inside and outside. Let it sit for the required incubation time and wipe down with a cloth.
- ▶ Repeat the process with the tubing set: spray, incubate, and then wipe clean.
- ▶ The carrying bag should be turned inside out and completely wiped down using the disinfectant solution. Allow it to thoroughly air dry. Once the inside is dry, turn it back: wipe down the outside of the bag with disinfectant.
- ▶ Dry the mattress on a flat surface area after cleaning, away from exposure to the sun.
- ▶ Avoid long exposure to sunlight.

12.2.2 Cleaning of the HybriMatt 100 IN mattress

General Guidance:

- ▶ Do not use any strong acids or alkalines (optimum pH range 6 – 8. Do not exceed pH of 9). Some hard surface cleaners have pH values outside this range, these are not suitable for use on coated textiles.
- ▶ Only use detergents that are suitable for cleaning medical equipment and for use on coated textiles.
- ▶ Do not use abrasive powders, steel wool, or other material and cleaning agents that might damage the mattress. Do not scrub mattress surface.
- ▶ Never use any corrosive or caustic detergents.
- ▶ Never use detergents that deposit calcium carbonate.
- ▶ Never use detergents with solvents that might affect the structure and consistency of the plastics (benzene, toluene, acetone, phenol, etc.).
- ▶ Use only hospital-approved cleaners and observe local directives concerning infection control.
- ▶ Always rinse with water after cleaning and dry thoroughly before use.

Mattress parts to be cleaned	Recommended Cleaning Agents (General cleaning)
Top Cover	Standard hospital detergents, Alcohol or Quaternary Ammonium based disinfectants, Chlorine based disinfectants containing up to 1000ppm Chlorine, followed by rinsing with water and drying thoroughly before use.
	Decontamination: Blood spills/Clostridium difficile etc Chlorine based disinfectants containing up to 10,000 ppm Chlorine. Dwell time on surface at 10,000 ppm of 2 minutes, followed by rinsing with water and drying thoroughly before use. PU coated fabrics may feel dry to the touch, but still retain moisture. Wait until the surface is no longer cold to the touch before putting PU coated fabrics back into service.
Base Cover, Air Cells, Foam Base	As procedures above.

Due to the variety of laundry equipment, chemicals and conditions in use, customers should satisfy themselves through pre-testing. It is essential that articles be thoroughly rinsed and dried after all cleaning procedures and before storage or reuse. Wet or damp PU surfaces are more prone to mechanical damage than when dry.

As stated above, after application of a suitable cleaner, the surface must be rinsed with water and dried before use. (Even if the cleaner instructions say that this is not required.) This prevents a build up of chemicals on the mattress surface which could be reactivated during use and affect biocompatibility and durability. The High MVP coating may swell and change appearance during cleaning. This will recover after being thoroughly dried.

NOTE Continued use of high concentration, chlorine-based disinfectants may significantly reduce the performance and the working life of a coated material.

Type of Cleaning	Parts to be cleaned
Routine Cleaning and Disinfection	■ Exposed mattress parts ■ Exposed SCU parts
Full Cleaning and Disinfection	■ Exposed mattress parts ■ Exposed SCU parts ■ Internal parts of mattress ■ Internal parts of mattress cover

Routine Cleaning and Disinfection

Cleaning the mattress:

- ▶ Check mattress cover top for any signs of damage.
Replace or repair and completely disinfect mattress cover top if damaged.
- ▶ Check inside of mattress cover top for signs of liquid ingress.
Replace or clean and completely disinfect mattress cover top if damp inside.
- ▶ Leave mattress cover on mattress.
- ▶ Clean with 60°C warm water and cleaning detergent.
- ▶ Rinse mattress with cold water.
- ▶ Let mattress dry or wipe dry.
- ▶ Wipe mattress with disinfectant.
- ▶ Rinse mattress with cold water.
- ▶ Let mattress dry or wipe dry.

Cleaning the SCU:

- ▶ Wipe SCU with disinfectant.
- ▶ Let SCU dry or wipe dry.

Full Cleaning and Disinfection

Cleaning the mattress:

- ▶ Deflate mattress and remove cover.
 - ▶ Check mattress cover top and base for any signs of damage.
- Replace or repair and completely disinfect mattress cover top and base if damaged.
- ▶ Check mattress cover top and base for signs of liquid ingress.
- Replace or clean and completely disinfect mattress cover top and base if damp inside.
- ▶ Rinse mattress with cold water.
 - ▶ Let mattress air dry or wipe dry.
 - ▶ Wipe mattress with disinfectant.
 - ▶ Rinse mattress with cold water.
 - ▶ Let mattress air dry or wipe dry.

Cleaning the mattress cover:

- ▶ Remove the mattress cover.
- ▶ To wash the mattress top cover or mattress base cover in the hospital approved washing machine, maintain a maximum temperature of 71°C/160°F for up to 3 minutes during the wash cycle while using hospital approved detergents and rinsing agents. Recommended washing temperature is 60°C/140°F during the whole wash cycle.
- ▶ Dry the mattress cover in tumble dryer at low temperature. Fill only 80% of the dryer capacity.

Cleaning the air pipe:

- ▶ Wipe air pipe with cleaning agent or disinfectant.
- ▶ Let air pipe dry.

13 MAINTENANCE



WARNING!

Risk of injury when working on the mattress system!

- ▶ Ensure that the mattress system is disconnected from the mains power prior to installation, putting into service, maintenance and deinstallation.



WARNING!

Risk of injury due to defective mattress system!

- ▶ Have a defective mattress system repaired immediately.
- ▶ If the defect cannot be repaired, do not use the mattress system.



CAUTION!

Material damage due to incorrect maintenance!

- ▶ Ensure that maintenance is performed exclusively by manufacturer's customer service or by authorised service personnel certified by the manufacturer.
- ▶ If the defect cannot be repaired, do not use the mattress system.

13.1 General

- ▶ Check the power cord and plug to see if there are abrasions or excessive wear.
- ▶ Check the mattress cover for signs of wear or damage. Ensure the mattress cover and tubes are connected correctly.
- ▶ Plug in the SCU and check the airflow from the hose connection port. The airflow should alternate between ports every half-cycle time.
- ▶ Check the air hoses to see if there are any kinks or breaks. For replacement, please contact your local agent or dealer.
- ▶ Make sure the mattress tube is well connected.
- ▶ Check the SCU and make sure both power indicators are off when the switch is turned off.
- ▶ Check external air filter in back side of the compressor for dust and dirt. If dust or dirt is visible, replace filter. The filter must be replaced at least once every 6 months.

13.2 Spare Parts

The serial label is located on the SCU and on the mattress. The serial labels contain information for claims and ordering replacement parts.

Information about spare parts is available from:

- Manufacturer's customer service
- Sales department

13.3 Electrical Safety Check and Preventive Maintenance

13.3.1 Electrical Safety Check



WARNING!

Risk of injury due to incorrect electrical safety checks!

- ▶ Ensure that electrical safety checks are performed exclusively by manufacturer's customer service or by authorised service personnel certified by the manufacturer.
- ▶ Ensure that the electrical safety checks are recorded in accordance with local regulations and Manufacturer's recommendation.

Electrical safety check of the compressor and mattress must be performed at least once every 12 months.

The procedure for performing the electrical safety check is stipulated in EN 62353:2014.

13.3.2 Preventive Maintenance

Preventive maintenance is the routine service operations of equipment to ensure safe use, prevent unexpected failures and extend life span.

To ensure the correct Preventive Maintenance:

- ▶ Ensure that preventive maintenance is performed exclusively by manufacturer's customer service or by authorised service personnel certified by the manufacturer.
- ▶ Ensure that preventive maintenance is performed in strict accordance with the Service Manual and the mandatory process steps described in the Preventive Maintenance – Checklist.
- ▶ Ensure that the electrical safety checks are recorded in accordance with local regulations and Manufacturer's recommendation.

Preventive maintenance of the compressor and mattress must be performed at least once every 12 months.

NOTE On request, the manufacturer will provide service documentation (e.g. circuit diagrams, component part lists, descriptions, calibration instructions etc.) for service personnel for the repair of ME equipment designated by the manufacturer as repairable by service personnel.

13.4 Low pressure



WARNING!

No modification of this equipment is allowed.

Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.



WARNING!

LAY OPERATOR or LAY RESPONSIBLE ORGANIZATION should contact the MANUFACTURER or the MANUFACTURER'S representative for assistance in setting up, using or maintaining the product and to report unexpected operation or events.



CAUTION!

Power supply cord and Fuse can be only replaced by SERVICE PERSONNEL!

Examine if there is any air leakage between the SCU and the mattress connections or from the air mattress tubes:

- ▶ Check connectors between the air mattress and the SCU. If there is any disconnection, please reconnect it.
- ▶ Check the air-connecting tubes. Ensure each single cell is not broken.
- ▶ Set the pressure at MAX Mode. Keep the tubes fully inflated and inspect for air leakage.
- ▶ Check if there is any air leakage from cells. Ensure no leakage occurs. If any leakage occurs, please contact your local agent or dealer.

13.4.1 Fuse Change

It is recommended to check the fuses or to replace them in the case of low pressure.

To change fuses:

- 1) Turn off the power, unplugged the power supply cord.
- 2) Unscrew the sleeve from fuse holder on the bottom enclosure of the SCU, replace the fuse inside of sleeve with same specification of fuse, screw the sleeve back to fuse holder.
- 3) Fuse rating: 250V T1AL

13.5 Filter Replacement



CAUTION!

Risk of material damage due to incorrect maintenance!

- ▶ Only authorised and trained hospital personnel equipped with an appropriate tool are allowed to replace the clogged filter in SCU.
- ▶ Check external air filter in back side of the compressor for dust and dirt. If dust or dirt is visible, replace filter. The filter must be replaced at least once every 6 months.

To replace the clogged filter with a new one:

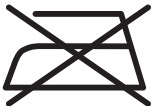
- ▶ Ensure the SCU is turned off.
- ▶ Carefully remove the plastic Filter Cover from the SCU bottom side.
- ▶ Replace the clogged Filter Cotton with the new compatible Filter Cotton.
- ▶ Insert the plastic Filter Cover back to the SCU bottom side.

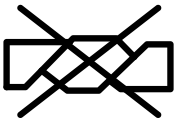
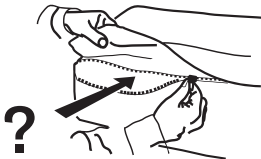
14 TROUBLESHOOTING

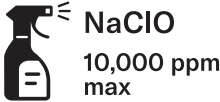
Problems		Reasons	Maintenance
Mattress fail to inflate or do not inflate completely.	SCU issue	1. SCU does not work.	1. After powered on, check if visible LED light turns on. If not, please check the below issues: 1.1 Check if power cord is plugged into appropriate voltage AC outlet. 1.2 If problem is still present, contact service department approved by manufacturer!
		2. Air pressure from SCU is too low.	1. Check the pressure settings. 2. If problem is still present, contact service department approved by manufacturer!
	Mattress issue	1. Quick connector on mattress does not connect well with SCU. 2. Air tube connected to T/L connector and air valve are loose, CPR connector is not capped.	1. Make sure quick connector on mattress is connected well with SCU. 2. Make sure T/L connector and air valve is connected well, CPR connector is capped well. 3. Contact service department approved by manufacturer!
SCU is working but synchronous motor does not work; thus, mattress does not alternate.		1. Synchronous motor is out of order. 2. Wires inside synchronous motor not connected well. 3. Lower PCB is out of order.	1. Contact service department approved by manufacturer!
SCU and motor keep working, but cycle time is incorrect.		1. Micro switch on the exchanger is out of order. 2. Lower PCB is out of order.	1. Contact service department approved by manufacturer!
When powered on, compressor stop after working some time; but the exchanger keep rotary.		1. Pressure detector is out of order.	1. Contact service department approved by manufacturer!
Mattress pressure is low but alert is not activated.		1. Pressure detector is out of order.	1. Contact service department approved by manufacturer!
Push button on panel is not operated well, and LED indicator does not light up.		1. Push button is not operated well. 2. LED is out of order.	1. Contact service department approved by manufacturer!
Mattress pressure is too high or too low.		1. Pressure sensor is out of order.	1. Contact service department approved by manufacturer!
Power failure alert can't be activated after power failure.		1. Battery is out of order.	1. Contact service department approved by manufacturer!

15 SYMBOLS

Symbol	Meaning
	Power ON.
	Power OFF.
	Alternating current.
	Manufacturer.
	Manufacturing Date.
	Serial Number.
	Type B Applied Part.
	Read instructions for use.
IP44	Degree of protection against harmful ingress of water and particulate matter.

Symbol	Meaning
	CE MARK (EUROPEAN CONFORMITY).
	GENERAL WARNING SIGN.
	CAUTION SIGN.
	DO NOT IRON.
	TUMBLE DRY ON LOW HEAT SETTING (MAX. 60°C).
	MACHINE WASH AT MAX. 95°C FOR 3 MINUTES.
	DISPOSAL OF ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE): THIS PRODUCT SHOULD BE HANDED OVER TO AN APPLICABLE COLLECTION POINT FOR THE RECYCLING OF ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE DETAILED INFORMATION ABOUT THE RECYCLING OF THIS PRODUCT, PLEASE CONTACT YOUR LOCAL CITY OFFICE, HOUSEHOLD WASTE DISPOSAL SERVICE OR THE RETAIL STORE WHERE YOU PURCHASED THIS PRODUCT.
	DO NOT USE PHENOL.
	MEDICAL DEVICE (compatible with Medical Device Regulation).
	ONLY SUITABLE FOR INDOOR USE.

Symbol	Meaning
	DO NOT WRING.
	DRY.
	MATTRESS COVER MATERIALS ARE FIRE RESISTANT TO BS7175, SOURCE 0, 1 AND 5.
	HANDWASH WITH DETERGENT (INITIAL TEMPERATURE OF HOT WATER SHOULD NOT EXCEED 50°C).
	DISINFECT USING SOLUTION CONTAINING LESS THAN 1000 PPM OF CHLORINE (REFER TO INSTRUCTIONS FOR USE).
	WIPE WITH WATER.
	REGULARLY INSPECT THE INSIDE OF THE COVER FOR CONTAMINATION.
	CONTROL PANEL LOCK BUTTON (PRESS THE CONTROL PANEL LOCK BUTTON TO LOCK OR UNLOCK THE CONTROL PANEL. IF THE CONTROL PANEL REMAIN UNTOUCHED FOR 5 MINUTES, THE CONTROL PANEL WILL LOCK.)
	MUTE BUTTON (PRESS THE MUTE BUTTON TO MUTE THE AUDIBLE ALERT)

Symbol	Meaning
	ON/OFF BUTTON (PRESS THE ON/OFF BUTTON TO TURN ON/OFF THE COMPRESSOR.)
	DISINFECT USING SOLUTION CONTAINING LESS THAN 10000 ppm OF CHLORINE (REFER TO INSTRUCTIONS FOR USE).
	MACHINE WASH AT MAX. 71°C FOR 3 MINUTES.
	AUTHORIZED REPRESENTATIVE IN GREAT BRITAIN
	UNIQUE DEVICE IDENTIFICATION (FOR MEDICAL DEVICES)

16 ACOUSTIC ALERTS AND SIGNALS

Single beep sounds after pressing a button when corresponding function is not supported with current mattress or function is not supported on current setting on the control panel. Or this function has already been activated.

Single beep after 2 seconds sounds after pressing the ON/OFF Button or the Lock Button when it means the correct confirmation.

Continuous beeping appears after leaking or during Power Failure Alert. Or if mattress is disconnected.

17 TECHNICAL SPECIFICATIONS

All technical data are rated data and are subject to construction and manufacturing tolerances.
Air2Care IN & HybriMatt 100 IN integrated mattress system is suitable for continuous operation.

17.1 Mechanical Specifications of the Air2Care IN Mattresses

Parameter	Value
Dimensions	
■ Air2Care 6 IN mattress (inflated) - length x width x height	200 cm × 86 cm × 15 cm
■ Air2Care 8 IN mattress (inflated) - length x width x height	200 cm × 86 cm × 20 cm
Weight	
■ Air2Care 6 IN mattress (inflated)	9 kg
■ Air2Care 8 IN mattress (inflated)	10 kg
Cycle	
■ Air2Care 6 IN mattress	6 – 11 cells, 10 min
■ Air2Care 8 IN mattress	6 – 11 cells, 10 min
Maximum Patient Weight (Safe Working Load)	
■ Air2Care 6 IN mattress	160 kg
■ Air2Care 8 IN mattress	180 kg
Inflation time	
■ Air2Care 6 IN mattress	30 min
■ Air2Care 8 IN mattress	45 min
Deflation time of the inflated mattress (CPR)	
■ Air2Care 6 IN mattress	40 s
■ Air2Care 8 IN mattress	60 s
Deflation Time in Passive Transport Mode	
■ Air2Care 6 IN mattress	0,5 hour
■ Air2Care 8 IN mattress	0,5 hour
Mattress Cover Fire Resistance	according to BS7175 - ignition source 5
Mattress Top Cover Fire Resistance according to 16 CFR 1632	not applied
Mattress Fire Resistance according to BS7175 - ignition source 5	not applied
Mattress Fire Resistance according to 16 CFR 1632	not applied
Mattress Fire Resistance according to 16 CFR 1633	not applied
Mattress Fire Resistance according to UNI 9175	not applied
Top Cover Biocompatibility	according to ISO 10993-5 (cytotoxicity), according to ISO 10993-10 (skin sensation and irritation)

17.2 Mechanical Specifications of the HybriMatt 100 IN Mattress

Parameter	Value
External Mattress Dimensions (length x width)	200 x 86
Mattress Height	15 cm
Weight of the Inflated HybriMatt 100 IN Mattress	13 kg
Maximum Mattress Load (Maximum Patient Weight)	230 kg
Mattress Cover	MICROCLIMATE cover ENDURANCE cover
Mattress Heel End Bevel	7°
Mattress Cover Fire Resistance	according to BS7175 - ignition source 0, 1, 5
Mattress Top Cover Fire Resistance	not according to 16 CFR 1632
Mattress Fire Resistance	according to BS7177 - ignition source 7, not according to 16 CFR 1632
Maximum Washing Temperature of the MICROCLIMATE cover	71°
Maximum Washing Temperature of the ENDURANCE cover	71°
Maximum Drying Temperature of the MICROCLIMATE cover	55°
Maximum Drying Temperature of the ENDURANCE cover	55°
Top Cover Biocompatibility	according to ISO 10993-5 (cytotoxicity), according to ISO 10993-10 (skin sensation and irritation)

17.3 Mechanical Specifications of the Air2Care IN & HybriMatt 100 IN Compressor

Parameter	Value
External Dimensions of System Control Unit (length x width x height)	22 x 39,5 x 13,5 cm
Weight of the Air2Care IN & HybriMatt 100 IN System Control Unit	2 kg
Sound Pressure Level of System Control Unit	35 dBA

17.4Electrical Specifications of the Air2Care IN & HybriMatt 100 IN Com-pressor

The mattress is the Type B Applied Part.

Parameter	Value
Input Voltage, Frequency:	
Version 1	220 — 240 VAC, 50 Hz
Version 2	220 — 240 VAC, 60 Hz
Version 3	100 — 127 VAC, 60 Hz
Version 4	100 VAC, 50 Hz
Version 5	220 VAC, 60 Hz
Maximum Power Input	20 VA
Ingress Protection according to EN 60529	IP44
Fuses	2x T1A 250V
Electric Protection Class	Class I with Applied Parts Type B
Electrical Safety	In conformity with IEC 60601-1
Electromagnetic Compatibility	IEC 60601-1-2

17.5Air2Care IN Environment Conditions



WARNING!
Risk of damaging the product due to incorrect environment conditions!
► Do not use the Air2Care IN Integrated Mattress System under the environmental conditions outside of those specified in the Air2Care IN Environment Conditions chapter!



CAUTION!
Risk of damaging the product if its packaging is exposed to environmental conditions outside of those speci-
fied in the Air2Care IN Environment Conditions chapter!

Parameter	Value
Use Conditions	
Ambient Temperature	10°C — 40°C
Relative Humidity	30% — 75 %
Atmospheric Pressure	700 — 1060 hPa
Storage and Transport Conditions	
Ambient Temperature	-40°C — 70°C
Relative Humidity	20% — 90 % (non-condensing environment)
Atmospheric Pressure	795 — 1060 hPa

17.6 HybriMatt 100 IN Environment Conditions



WARNING!
Risk of damaging the product due to incorrect environment conditions!
► Do not use the HybriMatt 100 IN Integrated Mattress System under the environmental conditions outside of those specified in the HybriMatt 100 IN Environment Conditions chapter!



CAUTION!
Risk of damaging the product if its packaging is exposed to environmental conditions outside of those specified in the HybriMatt 100 IN Environment Conditions chapter!

Parameter	Value
Use Conditions	
Ambient Temperature	10°C — 40°C
Relative Humidity	30% — 75 %
Atmospheric Pressure	795 — 1060 hPa
Storage and Transport Conditions	
Ambient Temperature	-40°C — 70°C
Relative Humidity	10% — 100 % (non-condensing environment)
Atmospheric Pressure	795 — 1060 hPa

18ELECTROMAGNETIC COMPATIBILITY

Air2Care IN & HybriMatt 100 IN integrated mattress system is intended for hospitals except for near active HF surgical equipment and the RF shielded room of a medical system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Air2Care IN & HybriMatt 100 IN integrated mattress system has defined no essential performance.



WARNING!
It is recommended to avoid the use of this device next to or in block with other device, because it could lead to improper operation. If such use is needed, this device and the other equipment should be under surveillance to verify proper operation. (Does not apply for compatible LINET medical bed.)

- List of used cables:
- **Mains cable**, maximum length 6 m



WARNING!
Use of the accessories, converters and other cables, than specified and provided by manufacturer of this Air2Care IN & HybriMatt 100 IN integrated mattress system could lead to increase of electromagnetic emission or lower the electromagnetic immunity of this Air2Care IN & HybriMatt 100 IN integrated mattress system and lead to improper operation.



WARNING!
Mobile RF communication device (including end use devices like antenna cables and external antenna) should not be used closer than 30 cm (12 inches) from any part of this Air2Care IN & HybriMatt 100 IN integrated mattress system, including cables specified by manufacturer. Otherwise this could lead to deterioration of functionality of this Air2Care IN & HybriMatt 100 IN integrated mattress system.



WARNING!
Do not overload the Air2Care IN & HybriMatt 100 IN integrated mattress system (SWL) and consider 13 Maintenance chapter in order to maintain the basic safety with regard to electromagnetic disturbances for the expected service life.

18.1 Manufacturer Instructions - Electromagnetic Emissions

Emission Test	Compliance
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Class A
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies

18.2 Manufacturer Instructions - Electromagnetic Emissions

Immunity Tests	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV for contact discharge ± 15 kV for air discharge
Radiated RF IEC 61000-4-3 Proximity fields from RF wireless communications equipment IEC 61000-4-3	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz See Table 1
Fast electrical transients / burst IEC 61000-4-4	±2 kV for power line repetition frequency 100 kHz
Surge IEC 61000-4-5	± 1 kV Line-to-line ± 2 kV Line-to-ground
Conducted RF IEC 61000-4-6	3 V (0,15 MHz – 80 MHz) 6 V in ISM bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m
Voltage dips, short interruptions on power supply input lines IEC 61000-4-11	0 % UT; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° a 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycle Single phase: at 0° 0 % UT; 250/300 cycle

Table 1 - IMMUNITY to RF wireless communications equipment

Test frequency (MHz)	Band (MHz)	Service	Modulation	Immunity Test Level
385	380 - 390	TETRA 400	Pulse modulation 18 Hz	27
450	430 - 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	28
710 745 780	704 - 787	LTE band 13, 17	Pulse modulation 217 Hz	9
810 870 930	800 - 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE band 5	Pulse modulation 18 Hz	28
1 720 1 845 1 970	1 700 - 1 990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	28
2 450	2 400 - 2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE band 7	Pulse modulation 217 Hz	28
5 240 5 500 5 785	5 100 - 5 800	WLAN 802.11 a/n	Pulse modulation 217 Hz	9

NOTE There are applied no deviations to requirements of IEC 60601-1-2 ed. 4.

NOTE There are no known other measures for keeping the basic safety based on EMC phenomena.

19 DISPOSAL

19.1 Environment Protection

The company LINET® is aware of the importance of environmental protection for future generations. Within this company the environmental management system is applied in accordance with the internationally agreed standard ISO 14001. The compliance with this standard is annually tested by the external audit executed by an authorised company. Based on the **WEEE** - Waste, Electric and Electronic Equipments Directive the company LINET, s. r. o. is registered in the List of Electric and Electronic Equipment Producers (**Seznam výrobců elektrozařízení**) on the Ministry of the Environment of the Czech Republic (Ministerstvo životního prostředí).

Materials used in this product are not environmentally hazardous. LINET® products meet valid requirements of national and European legislation in the areas of **RoHS** and **REACH**, so they do not contain any prohibited substances in excess quantities.

None of the wooden parts is made of tropical wood (such as mahogany, rosewood, ebony, teak etc.) or made of timber from the Amazon region or from similar rainforests. Product noise (sound pressure level) meets requirements of the regulations for the protection of public health against undesirable effects of noise and vibration in protected interior spaces of buildings. Used packaging materials are in accordance with requirements of the Packaging Act (**Zákon o obalech**).

For disposal of packaging materials after installation of products contact your sales representative or manufacturer's customer service about the possibility of a free take-back of packaging through an authorized company (more details on www.linnet.cz).

19.2 Disposal

Materials used in this product and in the LINET® accessories burden the environment but at the same time the whole range of these materials can be very effectively reused and recycled. Mechanical disassembly of the product and material sorting into the basic waste types (plastic, metal, wooden materials) should be performed after the end of product life. The main objective of the obligations arising from the European Directive on Waste, Electric and Electronic Equipments is to increase the re-use, material recovery and recovery of electric and electronic equipment at the required level, thereby avoiding the production of waste and thereby avoiding the possible harmful effects of hazardous substances contained in electric and electronic equipment on human health and the environment. LINET® electric and electronic equipments that have a built-in battery or accumulator are designed so that the used batteries or accumulators can be safely removed by LINET® qualified service technicians. There is an information about its type on the built-in battery or accumulator.

19.2.1 Within Europe

To dispose of the electric and electronic equipment:

- ▶ The electric and electronic equipment must not be disposed of as household waste.
- ▶ Dispose of this equipment at designated collection points or take-back points.
- ▶ Dispose of the product or its components in accordance with local laws and regulations!
- ▶ Hire an approved waste disposal company for disposal!

To dispose of the other equipment:

- ▶ The equipment must not be disposed of as household waste.
- ▶ Dispose of this equipment at designated collection points or take-back points.

LINET® participates in a collective system with take-back company REMA System.

By bringing electric and electronic equipment to a take-back point, you participate in recycling and you save primary raw material resources while protecting your environment from effects of unprofessional disposal.

19.2.2 Outside Europe

- ▶ Dispose of the product or its components in accordance with local laws and regulations!
- ▶ Hire an approved waste disposal company for disposal!

20 WARRANTY



WARNING!
Follow the national requirement to dispose unit!

LINET ® will only be held responsible for the safety and reliability of products that are regularly serviced, maintained and used in accordance with the safety guidelines.

Should a serious defect arise that cannot be repaired during maintenance:

- ▶ Do not continue to use the integrated mattress system.

The warranty on this product and its conditions depend on the agreement between the buyer and the seller, in addition to the legal minimum guarantee provided by law.

The warranty covers all material and manufacturing-related failures and errors. Failures and errors caused by incorrect use and external effects are not covered. Normal wear and tear is not covered. Justified complaints will be fixed free of charge during the warranty period. In order to claim under warranty, refer to the serial number printed on the mattress bar code label or accessed via RFID tag. Proof of purchase, with the date of purchase, is required for all warranty service.

21 STANDARDS AND REGULATIONS

21.1 Air2Care IN & HybriMatt 100 IN

Applied norms are stated on Declaration of Conformity.

21.2 Manufacturer

The manufacturer adheres to a certified quality management system in compliance with the following standards:

- ISO 9001
- ISO 14001
- ISO 13485
- MDSAP (Medical Device Single Audit Program)