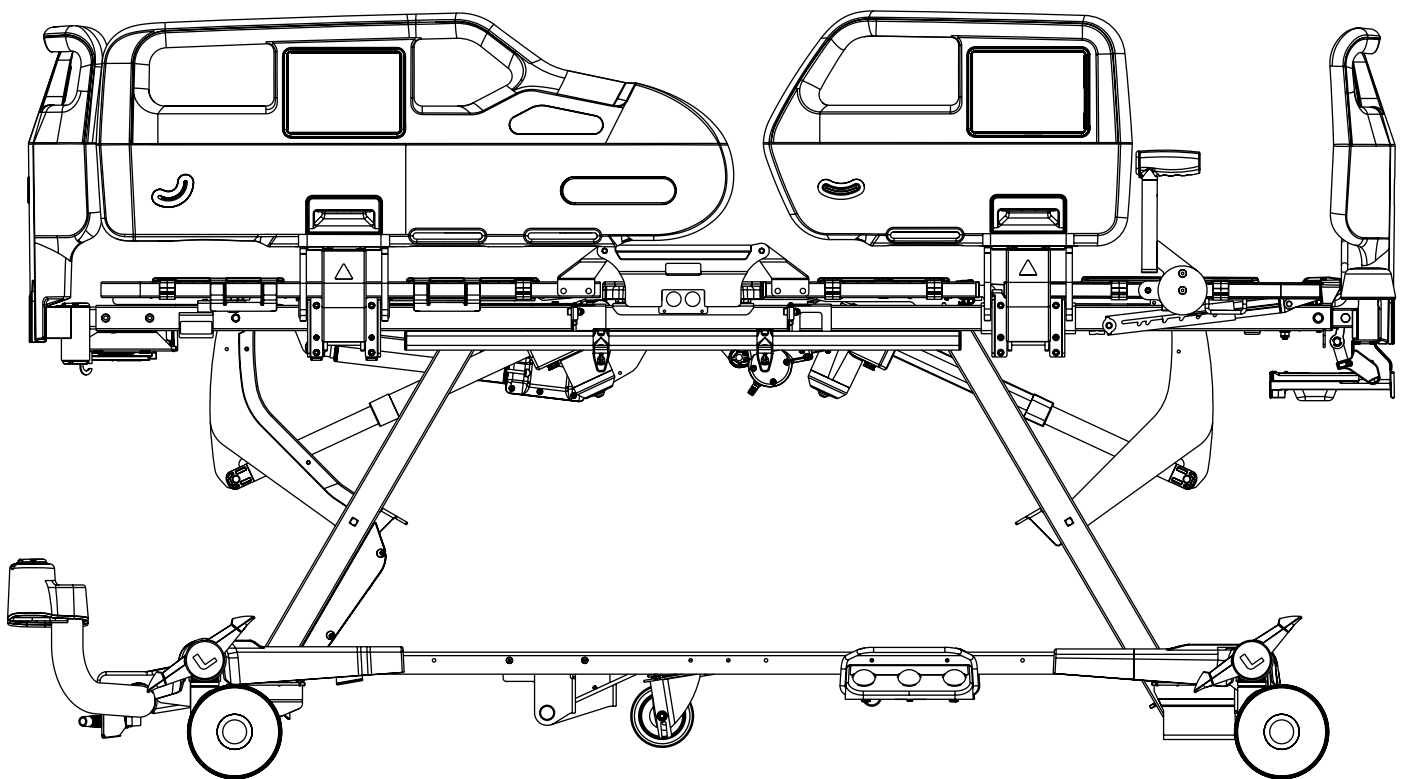




LINET

Instructions for Use and Technical Description



Essenza[®] 400

Medical Bed for Intensive Care with Scales

CE
0197

**UK
CA**

D9U001EZ4-0101

Version: 00

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Essenza® 400

Medical Bed for Intensive Care

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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



DANGER!
Dangerous electricity!
 ▶ Measures to avoid the risk.



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 QR code (on the title page)



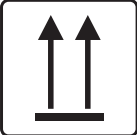
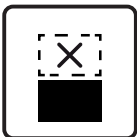
CAUTION!

Videos accessed via the QR code do not replace the valid instructions for use!

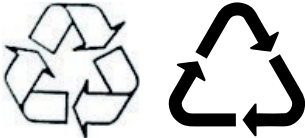
To read the QR code:

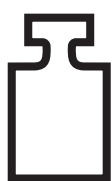
- ▶ Use a smartphone or tablet with a built-in camera and a QR code scanning application. If your camera application does not support QR code scanning, you can download a QR code reader from the App Store or Google Play.
- ▶ Open the camera or the QR code reader application and point it directly at the QR code. Wait until the reader focuses and scans the code.
- ▶ Tap the web address that appears and open the page in your browser. The QR code directs you to: **https://qr.linnet.com/essenza-400_en**.
- ▶ Select a language icon to set the interface to your preferred language, then select the video with the instructions you need.

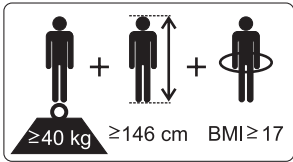
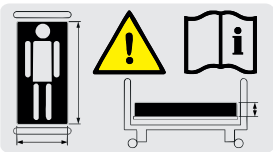
1.5 Symbols on the Package

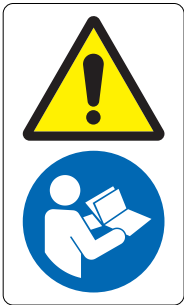
 	FRAGILE, HANDLE WITH CARE
	THIS WAY UP
 	KEEP DRY (PROTECT FROM HUMIDITY)
	PAPER RECYCLING SYMBOL
	DO NOT USE HAND TRUCK HERE
	DO NOT STACK DURING STORAGE
	OVERSEAS PACKAGE: STACKING LIMIT BY NUMBER (4 PACKAGES FOR STORAGE)
	OVERSEAS PACKAGE: STACKING LIMIT BY NUMBER (2 PACKAGES FOR TRANSPORT)
	READ INSTRUCTIONS FOR USE
	DO NOT POLLUTE THE ENVIRONMENT

1.6 Symbols on the Bed

	READ INSTRUCTIONS FOR USE
	SAFE WORKING LOAD
	WARNING AGAINST CRUSHING OR TRAPPING
	JACK FOR ATTACHMENT OF CONDUCTOR FOR POTENTIAL Equalization
	GENERAL WARNING SIGN
	CAUTION SIGN
	ONLY SUITABLE FOR INDOOR USE
	MAXIMUM WEIGHT OF PATIENT
	WEIGHT OF Bed (depending on configuration)
	RECYCLING SYMBOLS
	DO NOT POLLUTE THE ENVIRONMENT

	MANUFACTURER
	MANUFACTURING DATE
	REFERENCE NUMBER (PRODUCT TYPE DEPENDING ON CONFIGURATION)
	SERIAL NUMBER
	MEDICAL DEVICE (COMPATIBLE WITH MEDICAL DEVICE REGULATION)
	WEEE SYMBOL (RECYCLE AS ELECTRONIC WASTE, DO NOT PUT INTO THE HOUSEHOLD WASTE)
	BATCH NUMBER (ACCESSORIES)
	UNIQUE DEVICE IDENTIFICATION (FOR MEDICAL DEVICES)
	MAXIMUM MASS OF MOBILE HOSPITAL BED (MAXIMUM MASS OF EMPTY Bed + SAFE WORKING LOAD)
	CE MARKING FOR ESSENZA 400 (PRODUCT NORMATIVELY HARMONIZED FOR EUROPEAN ECONOMIC AREA)

	CE MARKING FOR ESSENZA 400 WITH SCALES (PRODUCT NORMATIVE- LY HARMONIZED FOR EUROPEAN ECONOMIC AREA)
	UK CONFORMITY ASSESSED (UKCA) MARKING (PRODUCT NORMATIVE- LY HARMONIZED FOR GREAT BRITAIN ECONOMIC AREA)
	AUTHORIZED REPRESENTATIVE IN GREAT BRITAIN
	AUTHORIZED REPRESENTATIVE IN SWITZERLAND
	STOP BUTTON (PRESS TO INTERRUPT BED POSITIONING)
	DESIGNATION OF MEDICAL BED FOR ADULTS (PHYSICAL DESCRIPTION OF AN ADULT)
	ONLY USE MATTRESS RECOMMENDED BY MANUFACTURER
	DO NOT PUT ANY OBJECTS ON UNDERCARRIAGE
	LEVER INTENDED FOR EMERGENCY CPR POSITION ADJUSTMENT
	THERMAL PROTECTION FOR TRANSFORMER

	GENERAL SAFETY ISOLATING TRANSFORMER
	DO NOT OPEN A CASE MARKED WITH THIS SYMBOL
	CALFREST LOAD LIMIT
	EARTH GROUND
	APPLIED PARTS TYPE B
	WARNING, READ INSTRUCTIONS FOR USE
	EAC MARKING (EURASIAN CONFORMITY)

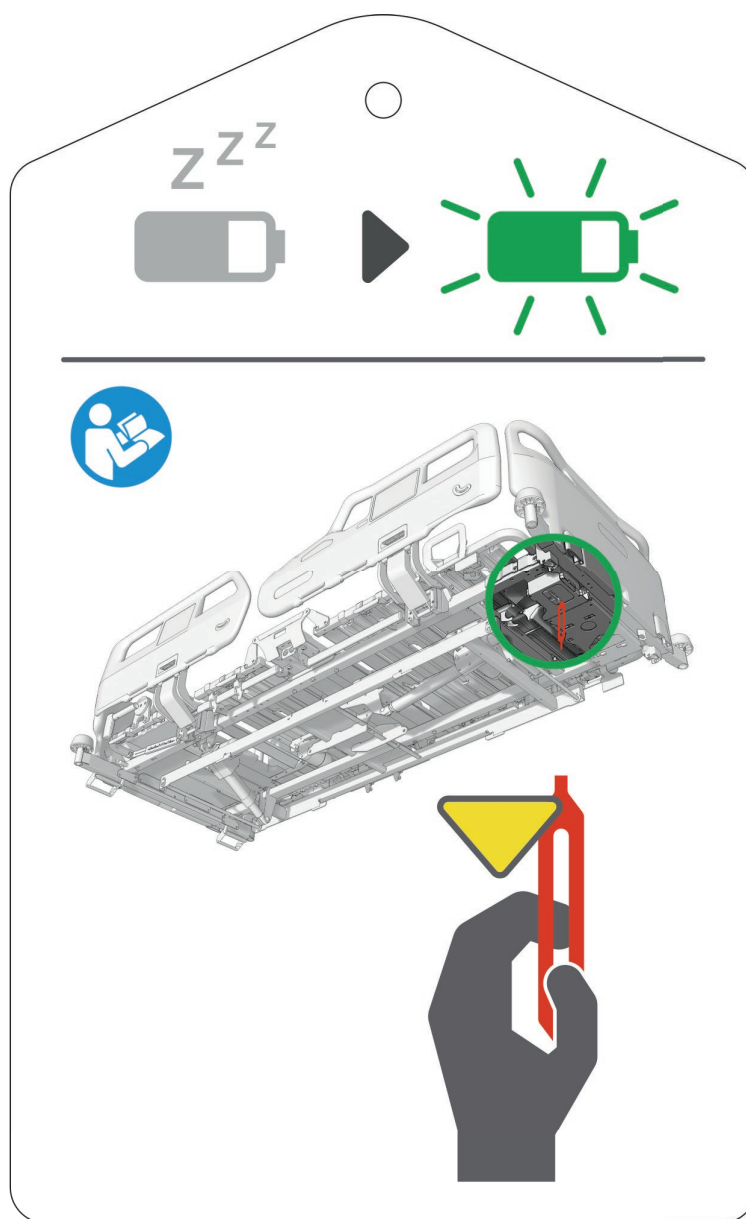
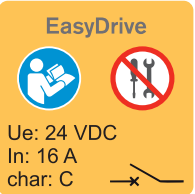


Fig. Accumulator Activation Instructions: Remove isolating foil from the control unit under the Backrest

1.7 Symbols on the EasyDrive

	CIRCUIT BREAKER MARKING
	WARNING
	WEEE SYMBOL (RECYCLE AS ELECTRONIC WASTE, DO NOT PUT INTO THE HOUSEHOLD WASTE)
	EASYDRIVE SYSTEM SWITCH LABEL (ON / OFF) - the switch is situated above this label
	BATTERY SWITCH LABEL (CIRCUIT BREAKER 16A) - the switch is situated under the plug

1.8 Serial Label with UDI

1.8.1 Essenza 400

Serial label of the Essenza 400 is placed on the left head end side of the mattress support platform frame. The serial label contains information about Address of Manufacturer, Manufacturing Date (Year-Month-Day), Product Reference Number, Product Serial Number, Global Trade Item Number (GTIN), Unique Device Identification (UDI), symbols, weight specifications and electrical specifications.

1.9 Acoustic Signalling

SOUND	MEANING
REPEATED MELODY: 0,152s sound + 0,138s silence + 0,152s sound + 0,138s silence + 0,152s sound + 2,578s silence	Bed Exit Alert.
	Fault of scales.
REPEATED MELODY: 0,125s sound + 0,125s silence + 0,125s sound + 0,125s silence + 0,125s sound + 0,125s silence	Bed with scales is overloaded.
MELODY: 0,125s sound + 0,125s silence + 0,125s sound + 0,125s silence	Actual weight value exceeds limits for Taring or Zeroing.
	Bed with scales is disconnected from the mains when operator turns the Bed Exit Alert Announcer on.
	Bed accumulator is discharged or defective or missing when operator turns the Bed Exit Alert Announcer on.
750Hz BEEP lasting 0,1s	Bed Exit Alert Announcer activated.
550Hz BEEP lasting 0,1s	Bed Exit Alert Announcer deactivated.
BEEP lasting 0,15s	Taring the scales is finished.
	Zeroing the scales is finished.
3000Hz BEEP lasting 0,3s	More buttons without programed preset are pressed.
	Start of motion to the Extra Low Position after the reaching of the flat mattress support platform.
	Reaching of the configured endpoint angles of the mattress support platform or backrest.
	Positioning despite a locked function.
	Safestop Alert.
	Actuator Error.
500Hz BEEP lasting 0,3s	Volume change of Bed Exit Alert Announcer.
REPEATED BEEP: 0,15s sound + 0,15s silence	Bed Exit Alert Announcer is activated and the bed with scales becomes disconnected from the mains.
REPEATED BEEP: 1s sound + 0,9s silence	STOP button Error.
	Brake Alert: acoustic signal indicating the bed is not braked when plugged into the mains (only version with Brake Alert).
CONTINUOUS BEEP (unless a CPR button is pressed)	Calibration of the accelerometers is finished.

1.10 Audible Messages

Essenza 400 bed is equipped with four audio notifications designed to provide instructions to caregivers or patients. These notifications are available in 16 languages.

AUDIBLE MESSAGES	MEANING
Please remain in the bed, assistance is coming.	Announcement of the Bed Exit Alert related to the Inner Zone Monitoring or to the Outer Zone Monitoring or to the Sensitive Zone Monitoring.
Bed Exit Alert ON.	Bed Exit Alert Announcer is activated.
Bed Exit Alert OFF.	Bed Exit Alert Announcer is deactivated.
The bed is not connected to power.	Bed is disconnected from the mains.
	The notification sounds anytime a positioning button was pressed on the accumulator powered bed.

1.11 Visual Signalling

MAINS POWER LED INDICATOR (17)	MEANING
lit (ON) when bed is plugged into the mains	bed is mains powered
not lit (OFF)	bed is not mains powered
flashing: 0,5s lit / 0,5s not lit	control unit overheated
flashing: 0,05s lit / 0,05s not lit	calibration mode

ACCUMULATOR CHARGE STATUS LED INDICATOR (16)	MEANING
lit (ON) when bed is plugged into the mains	accumulator fault: accumulator not connected or low voltage
not lit (OFF) when bed is plugged into the mains	accumulator works correctly
flashing (0,2s lit / 1,6s not lit) when bed is plugged into the mains	accumulator is charging
flashing (0,1s lit / 0,1s not lit) when bed is only accumulator powered	accumulator low (Positioning does not work. Beep sounds anytime a positioning button was pressed.)
not lit (OFF) when bed is only accumulator powered	accumulator works correctly
flashing: 0,05s lit / 0,05s not lit	calibration mode

FOOT CONTROL LOCK LED INDICATOR (2)	MEANING
lit (ON)	locked function
not lit (OFF)	unlocked function
flashing once per second	unlocked function but in the mode of lock selection
flashing 4 times per second	locked function but in the mode of lock selection

BACKREST ADJUSTMENT LOCK LED INDICATOR (6)	MEANING
lit (ON)	locked function
not lit (OFF)	unlocked function
flashing once per second	unlocked function but in the mode of lock selection
flashing 4 times per second	locked function but in the mode of lock selection

THIGHREST ADJUSTMENT LOCK LED INDICATOR (3)	MEANING
lit (ON)	locked function
not lit (OFF)	unlocked function
flashing once per second	unlocked function but in the mode of lock selection
flashing 4 times per second	locked function but in the mode of lock selection

BED HEIGHT ADJUSTMENT LOCK LED INDICATOR / TRENDLENBURG TILT LOCK LED INDICATOR / REVERSE-TRENDLENBURG TILT LOCK LED INDICATOR (8)	MEANING
lit (ON)	locked function
not lit (OFF)	unlocked function
flashing once per second	unlocked function but in the mode of lock selection
flashing 4 times per second	locked function but in the mode of lock selection

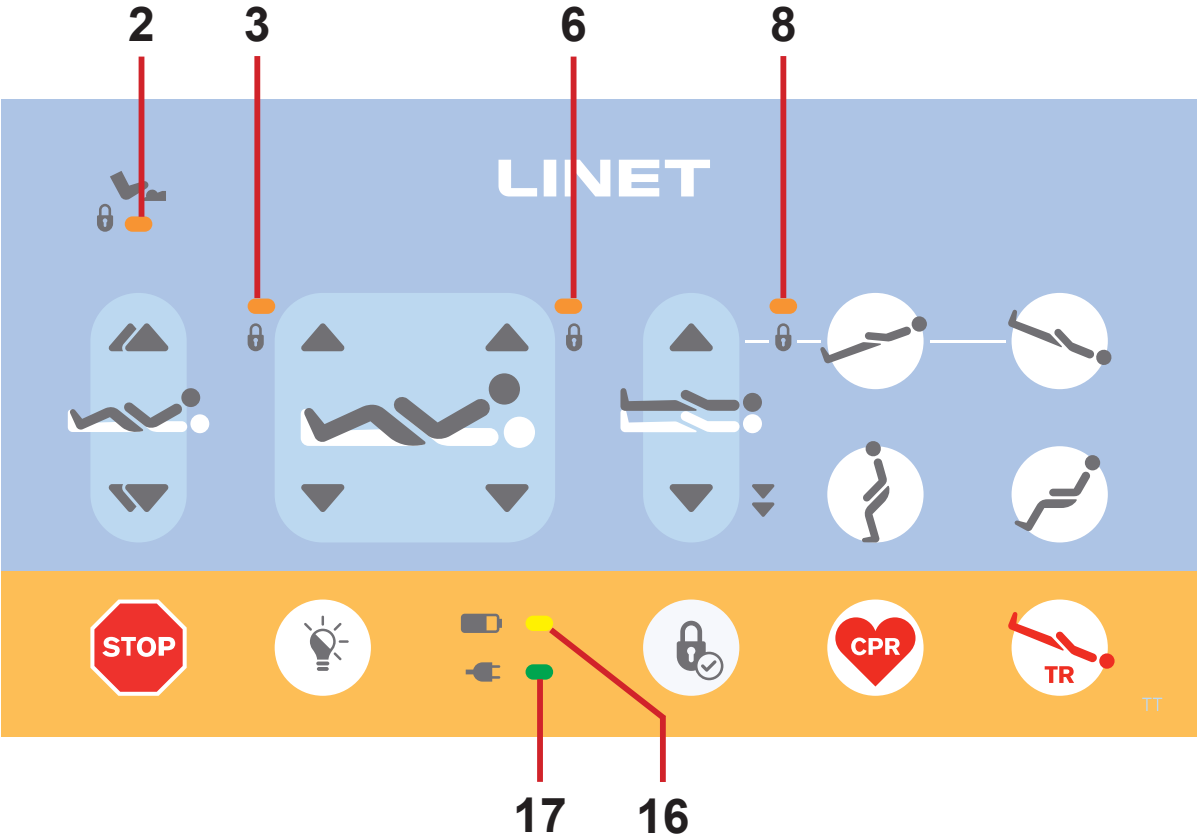


Fig. Visual Signalling of Attendant Control Panel for Essenza 400

1.12 Definitions

Adult	Patient having a physical size equal to or more than 146 cm, a mass equal to or more than 40 kg and a body mass index (BMI) equal to or more than 17 (according to IEC 60601-2-52).
Basic Bed Configuration	The pricelist model configuration, not including a mattress.
Clearance of Undercarriage	The height from the floor to the lowest point of the undercarriage between the castors, for the manipulation of accessories under a braked bed in the standard position.
Duty Cycle	Cycle of operation of the motor: time of activity/time of rest.
Ergoframe	Ergoframe is the kinematic system of Mattress support platform Adjustment whose effect is the reduction of pressure on the patient's abdomen and pelvic area and frictional forces on the patient's back and legs.
Maximum Mass of Mobile Hospital Bed	Sum of Empty Bed Maximum Mass and Safe Working Load.
Reference number	Reference number depends on configuration.
Safe Working Load	The highest allowable load on the bed. The Safe Working Load is the sum of: – the patient – the mattress – the accessories of the medical bed (only if they are supported by the support system of the medical bed) and – the load supported by those accessories (excluding patient weight).
Siderail Height	The height of the upper crossbar or the edges of the siderails (not the highest point of the siderail controls) from the patient surface.
Standard Bed Position	– The mattress support platform with regard to the floor is in the middle position – The Mattress Support Platform, including its individual parts, has to be in a horizontal position (level - 0°). – The siderails are always locked in the upper position.
Bed Weight	The value depends on the product configuration, accessories or customer adjustments.
Type B Applied Parts	The degree of protection against electric shock regarding the product parts in contact with patient.

1.13 Abbreviations

AC (~)	Alternating Current
CE	European Conformity
CPR	Cardiopulmonary Resuscitation
dB	Sound Intensity Unit
DC (—)	Direct Current
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
LCD	Liquid Crystal Display
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)
SCU	System Control Unit (integrated mattress)
SN	Serial Number
SWL	Safe Working Load
UDI	Unique Device Identification (for medical devices)
USB	Universal Serial Bus
WEEE	Waste Electrical and Electronic Equipment

Abbreviations related to scales	
Max	maximum capacity of the weighing instrument
Min	minimum capacity of the weighing instrument
e	verification scale interval
T	tare value

2 Safety Instructions


WARNING!

Risk of injury due to incorrect use!

- ▶ **Essenza 400 bed should be left in its lowest position when the patient is unattended in order to reduce risk of injury due to falls!**


WARNING!

Risk of injury due to incorrect use!

- ▶ **Siderails of Essenza 400 should be located in the „up“ position to reduce the risk of the patient accidentally slipping or rolling off the mattress!**


WARNING!

Ensure any button of the control elements is not involuntarily pressed by persons, by the bed accessories, by the mattress or by the other objects!

- ▶ **To avoid unintended activation of moving parts during any use of the bed, always check that none of the buttons on the control elements of the bed is pressed!**
- ▶ **Always ensure any control panel keyboard is not covered by anything, loaded by anything or pressed by anything!**


WARNING!

Risk of injury due to incorrect use!

- ▶ **Staff expert assessment is needed to consider all individual cases of contraindications!**


WARNING!

Risk of trapping or squeezing because of patient's body constitution disproportionate to the size of mattress support platform!


WARNING!

Risk of injury due to incorrect use!

- ▶ **Certain bed positions are not suitable for specific diagnosis/medical conditions. Fowler position is not suitable for spinal cord injuries! Trendelenburg position is not suitable for patients with higher intracranial pressure!**


WARNING!

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!

This medical device is not intended for oxygen enriched environment!


WARNING!

This medical device is not intended for use with flammable substances!


WARNING!

This medical device is not portable medical electrical equipment!



WARNING!

Patient is allowed to use selected control elements only if hospital personnel had assessed that the patient's physical and psychological state is in accordance with use of them and only if the hospital personnel had trained the patient in accordance with the instructions for use!



WARNING!

An additional multiple socket-outlet or extension cord shall not be connected to the medical electrical system of Essenza 400.



WARNING!

Inappropriate handling of the power supply cord of Essenza 400, e. g. by kinking, shearing or other mechanical damages is hazardous!



WARNING!

During specific investigations or treatments, the significant risks of reciprocal interference posed by Essenza 400 (ME equipment) may occur.



WARNING!

To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.



WARNING!

Incompatible siderails and mattresses can cause an entrapment hazard!



WARNING!

Incompatible mattresses can create hazards!



WARNING!

The bed is intended for one adult.

► Follow the Intended use chapter.



WARNING!

When routing cables from other equipment in the Essenza 400 bed avoid squeezing those between parts of the Essenza 400 bed!



WARNING!

No modification of this equipment is allowed.

Do not modify this equipment without authorization of the manufacturer.



WARNING!

If this Essenza 400 medical bed (ME equipment) is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.

**WARNING!**

Only authorised and trained person using an appropriate tool is allowed to change fuses, accumulators, control units, power supplies and non-detachable power supply cords!

**WARNING!**

Make sure the duty cycle (2 min ON/18 min OFF) is not exceeded during bed positioning!

**WARNING!**

No part of the Essenza 400 ME equipment shall be serviced or maintained while in use with a patient!

**WARNING!**

Patient is allowed to use selected control elements of the ME equipment unless servicing and maintenance of the ME equipment is performed!

**WARNING!**

Patient must not perform any maintenance of the Essenza 400 ME equipment!

Additional Instructions for correct use:

- ▶ Follow the instructions for use carefully.
- ▶ Use the bed exclusively if it is in perfect working order.
- ▶ If necessary, check the bed functions daily or at each shift change.
- ▶ Ensure any user has read and understood this manual completely before operating the product.
- ▶ Use the bed exclusively with the correct mains supply.
- ▶ Ensure that the bed is operated exclusively by qualified personnel who have been trained according to the instructions for use.
- ▶ Ensure the bed is operated by qualified personnel trained in using the bed in accordance with the instructions for use by manufacturer or by person approved by the manufacturer, eventually by authorized representative or by person approved by the authorized representative.
- ▶ Ensure that the patient (health permitting) has been informed about the operation of the bed and all applicable safety instructions.
- ▶ Contact service department of the manufacturer immediately to let it replace any damaged parts by the original spare parts.
- ▶ Move the bed exclusively on even, hard-surfaced floors.
- ▶ Replace any damaged parts immediately with original spare parts.
- ▶ Ensure that maintenance and installation are performed exclusively by qualified personnel who have been trained by the manufacturer.
- ▶ Before peak loads or unavoidable excess loads (CPR), place Mattress Support Platform to the lowest position.
- ▶ Ensure that only one adult patient lies on the bed at any time.
- ▶ Take care to avoid injuries or squeezing when operating moving parts.
- ▶ When using lifting pole or infusion stand, ensure that nothing will be damaged when you move or adjust the bed.
- ▶ Brake the castors when the bed is occupied.
- ▶ Keep the Mattress Support Platform in the lowest position when the patient is unattended by healthcare personnel in order to minimize risk of patient falls.
- ▶ Ensure that siderails are operated exclusively by healthcare personnel.
- ▶ Never use the bed in areas where there is a hazard of explosion.
- ▶ Enable or disable functions on control elements as appropriate for the patient's physical and mental state. Afterwards ensure the lock function was used as required.
- ▶ Ensure that parts of the bed intended for movement are not blocked.
- ▶ Never handle the mains plug with wet hands.
- ▶ Disconnect the product from the mains exclusively by pulling the mains plug.
- ▶ When pulling the mains plug, always hold the plug, not the cable.
- ▶ Position the mains cable so that there are no loops or kinks in the cable. Protect the cable from mechanical wear and tear.
- ▶ Improper handling of mains cable can cause an electric shock hazard, other serious injuries or damage to the integrated mattress system.
- ▶ Ensure that the stipulated duty cycle of motor is not exceeded.
- ▶ To change fuses or cables contact service organisation authorized by manufacturer.
- ▶ To prevent failures, use exclusively the manufacturer's original accessories and mattresses.
- ▶ Ensure that the stipulated safe working load is not exceeded.
- ▶ If the patient's condition could lead to an entrapment, leave the mattress support platform in the flat position whilst unattended.
- ▶ Adjust bed height when transporting the bed in order to facilitate overcoming possible obstacles.
- ▶ Do not exceed maximum load of 80 kg for mattress support platform extension.
- ▶ Do not hang anything on any cable.
- ▶ Do not modify bed and its components without the manufacturer's approval.
- ▶ Use the mattress exclusively as specified in this manual and in perfect working order.
- ▶ Use the mattress exclusively in its original state and do not modify it in any way.
- ▶ Have the mattress used exclusively by or under supervision of trained and qualified nursing personnel.
- ▶ Have the mattress serviced and installed exclusively by qualified personnel trained and authorised by the manufacturer.
- ▶ Do not exceed the maximum patient weight limit (see Mechanical Specifications).
- ▶ Do not use the bed in the case its parts have been removed unless these parts are designed to be removed.
- ▶ To avoid injury or crushing, take extra caution when operating any moving parts of the bed.
- ▶ Never use the mattress replacement system compatible with the Essenza 400 bed near radiators or other heat sources.
- ▶ Select a suitable location for the placement of bed accessories and other objects to prevent involuntary activation of buttons or controls which may result in the adjustment of bed positioning.
- ▶ Never place any accessories or Handset Control Panel on the siderails where keyboards are located.
- ▶ After each emergency situation always check if any of the control elements is not involuntarily pressed by the bed accessories or by the mattress.
- ▶ To avoid unintended activation of moving parts during any use of the bed always check that none of the control elements of the bed is pressed by persons, mattress or other objects.

3 Intended use of the Essenza 400 medical bed (1EZ4) with scales

The intended use is the hospitalization of the patient in the intensive and acute care units, which includes above all the following aspects:

- ▶ Adjustment of the specific positions needed for the preventive reasons, routine nursing, treatments, mobilization, physiotherapy, examinations, sleeping, and relaxation.
- ▶ Providing the safe environment for the patient during all relevant procedures. The particular requirements on patient safety are the subject of the clinical evaluation, including evaluation of the risk/benefit ratio. The relevant safety issues are the part of the risk management file.
- ▶ Patient in-bed indoor transport out of the patient room.
- ▶ Providing the suitable working conditions for the caregivers to perform the routine and specific tasks during the patient hospitalization.
- ▶ Indicative measurement of the patient weight, used as supportive feature without direct diagnostic effect. It helps staff to assess the general patient status and apply the nutrition and medications.

3.1 User population

- ▶ Adult patients (weight ≥ 40 kg, height ≥ 146 cm, BMI ≥ 17) in the intensive and acute care units (Application Environment 1 and 2, as in IEC 60601-2-52), alternatively in Application Environment 3 and 5
- ▶ Clinical caregiver (nurses, doctors)
- ▶ Non-clinical caregiver (health care assistants, occupational therapists, transport personnel)
- ▶ Technical personnel, cleaning personnel

3.2 Use environment

In Application Environment 1 as in IEC 60601-2-52:

- ▶ intensive/critical care provided in a hospital where 24 h medical supervision and constant monitoring is required and provision of life support system/equipment used in medical procedures is essential to maintain or improve the vital functions of the PATIENT

In Application Environment 2 as in IEC 60601-2-52:

- ▶ acute care provided in a hospital or other medical facility where medical supervision and monitoring is required and bed used in medical procedures is often provided to help maintain or improve the condition of the PATIENT

In Application Environment 3 as in IEC 60601-2-52:

- ▶ long-term care in a medical area where medical supervision is required and monitoring is provided if necessary and ME EQUIPMENT used in medical procedures may be provided to help maintain or improve the condition of the PATIENT

In Application Environment 5 as in IEC 60601-2-52:

- ▶ outpatient (ambulatory) care, which is provided in a hospital or other medical facility, under medical supervision where ME EQUIPMENT, is provided for the need of persons with illness, injury or disability for treatment, diagnosis or monitoring

3.3 Contraindications

- ▶ The medical device is not intended for the pediatric patients use.
- ▶ Limited patient handling leads to development of pressure injury.
- ▶ Certain positions are not suitable for specific diagnoses/medical conditions (e.g. spinal cord injuries vs. Fowler position, higher ICP patients vs. Trendelenburg). Staff expert assessment / nursing consideration is needed in all individual case of contraindication.

3.4 Operator

- ▶ Clinical caregiver (nurses, doctors)
- ▶ Non-clinical caregiver (health care assistants, occupational therapists, transport personnel)
- ▶ Technical personnel, cleaning personnel
- ▶ Patient (based on individual patient status assessment by caregiver the patient can utilize dedicated device functions)

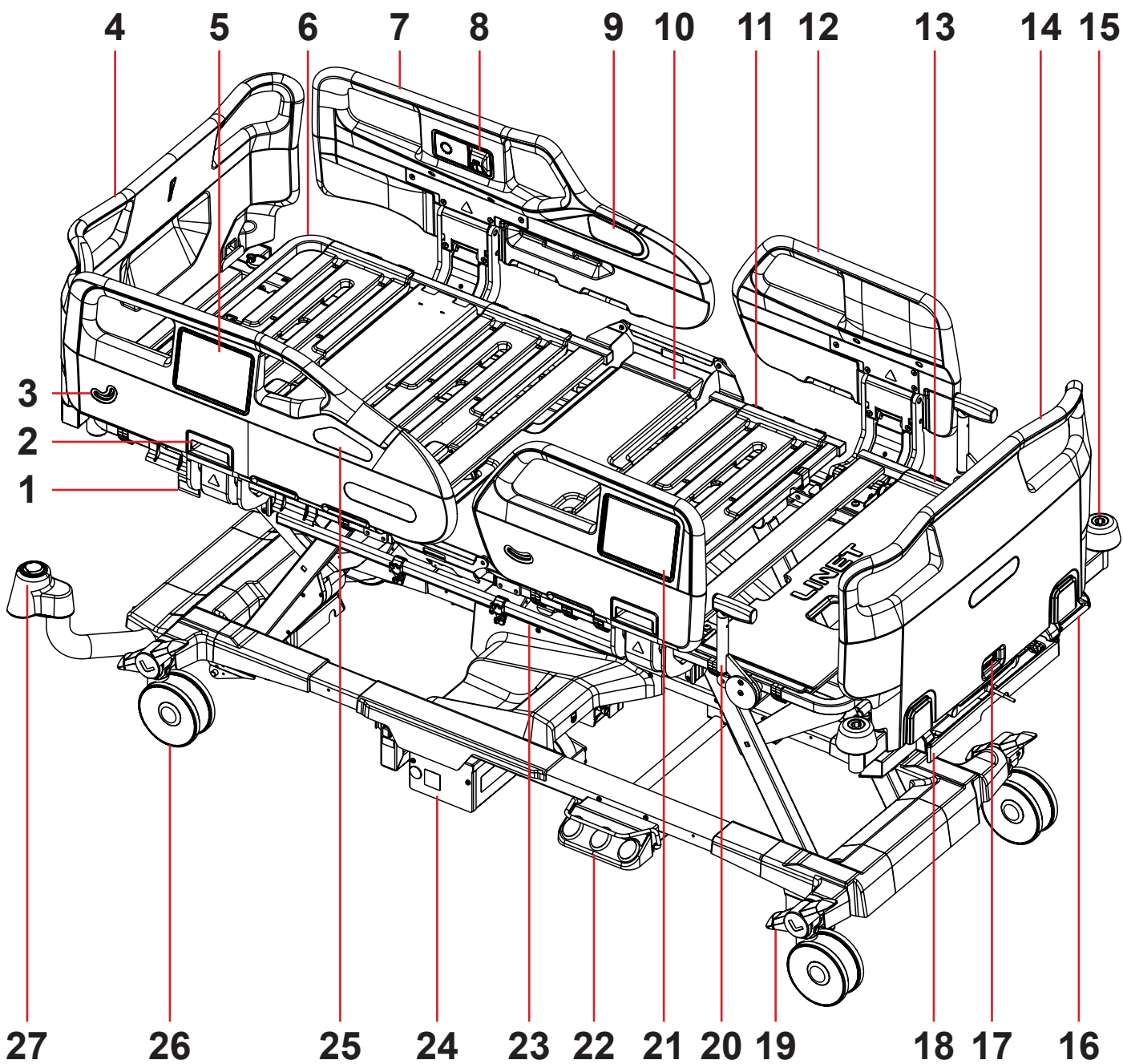
3.5 Operating principle

- ▶ Mattress support platform parts are positionable by 4 linear actuators based on DC motors with end switches. Drives are operated by control unit which receives user instructions from buttons on controls and keyboards of the bed. Bed enables also mechanical adjustments.

4 Product Description

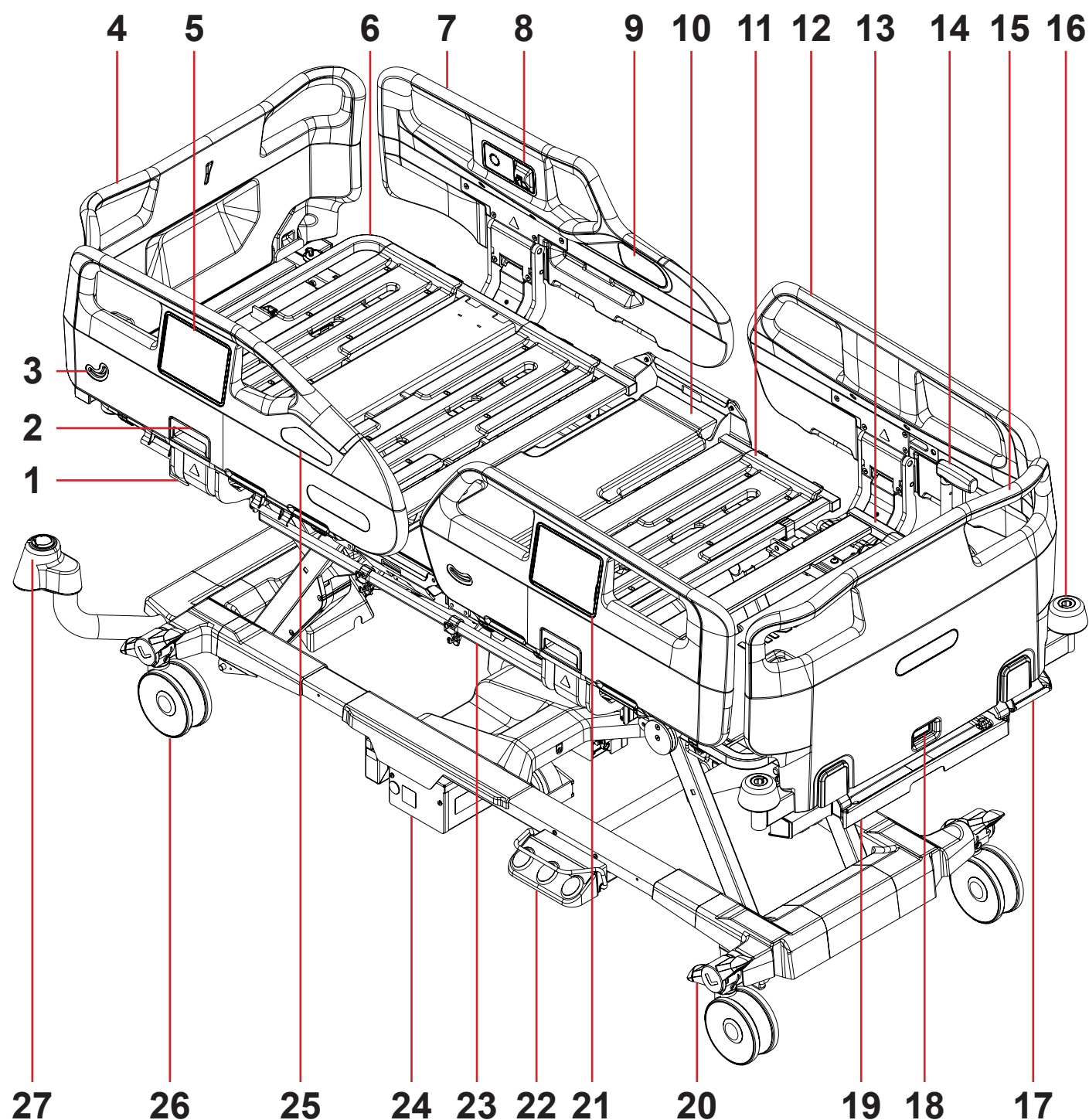
Following pictures show basic visible features of the Essenza 400 medical bed with two types of the plastic siderails.

4.1 Essenza 400 with 3/4 coverage split plastic siderails



-
1. CPR Lever for Emergency Backrest Release
 2. Siderail Release Mechanism with Siderail Release Handle
 3. Angle Indicator
 4. Head Board
 5. Siderail Control Panel
 6. Backrest
 7. Head Plastic Siderail
 8. USB charger
 9. Patient Control Panel
 10. Seat Section
 11. Thighrest
 12. Foot Plastic Siderail
 13. Calfrest
 14. Foot Board
 15. Corner Bumper with accessory bushing
 16. Bed Extension Handle (Advanced Bed Extension)
 17. Foot Board Safety Lock
 18. Plastic Linen Shelf (also for Attendant Control Panel)
 19. Castor Control Lever
 20. Mobi-Lift Handle
 21. Control Panel of Scales and Integrated Mattress
 22. Bed Height Foot Control
 23. Accessory Rail
 24. EasyDrive
 25. Mobi Pad
 26. Castor
 27. Bushing for Lifting Pole and/or Infusion Stand on the accessory adaptor

4.2 Essenza 400 with full coverage split plastic siderails



1. CPR Lever for Emergency Backrest Release
2. Siderail Release Mechanism with Siderail Release Handle
3. Angle Indicator
4. Head Board
5. Siderail Control Panel
6. Backrest
7. Head Plastic Siderail
8. USB charger
9. Patient Control Panel
10. Seat Section
11. Thighrest
12. Foot Plastic Siderail

-
- 13. Calfrest
 - 14. Mobi-Lift Handle
 - 15. Foot Board
 - 16. Corner Bumper with accessory bushing
 - 17. Bed Extension Handle (Advanced Bed Extension)
 - 18. Foot Board Safety Lock
 - 19. Plastic Linen Shelf (also for Attendant Control Panel)
 - 20. Castor Control Lever
 - 21. Control Panel of Scales and Integrated Mattress
 - 22. Bed Height Foot Control
 - 23. Accessory Rail
 - 24. EasyDrive
 - 25. Mobi Pad
 - 26. Castor
 - 27. Bushing for Lifting Pole and/or Infusion Stand on the accessory adaptor

5 Technical Specification

All technical data are rated data and are subject to construction and manufacturing tolerances.

5.1 Identification of Type B Applied Parts

- Mattress Support Platform Frame, Parts of Mattress Support Platform
- Siderails
- Head Board and Foot Board
- Handset Control Panel
- Patient Control Panels
- Mattress

5.2 Mechanical Specifications



WARNING!

Risk of injury due to mattress incompatibility!

- Value of the *Maximum Siderail Height above Mattress Support Platform* must be checked by medical personnel to confirm the compatibility of the medical bed with a mattress prepared for patient!

5.2.1 Mechanical Specifications of the Essenza 400

Parameter	Value
External Bed Length	219 cm (221 cm for bed with Accessory Adaptor with 2 Bushings for Lifting Pole at bed head end)
External Bed Width	99,5 cm
Maximum Siderail Height above Mattress Support Platform:	42 cm
Siderail Dimensions (length x height): plastic head siderail; short plastic foot siderail	101,3 cm; 58,7 cm x 37,4 cm
plastic head siderail; long plastic foot siderail	101,3 cm; 89,3 cm x 37,4 cm
Maximum Mattress Dimensions (length x width)	200 cm x 90 cm
Maximum Mattress Height	20 cm
Bed Extension	0 cm / 20 cm / 30 cm
Calfrest Extension	0 cm – 20 cm
Castor Diameter: 125 Tente Linea double castor 150 Tente Linea double castor 150 Tente Integral simple castor 150 Tente Integral Soft Brake simple castor	12,5 cm 15 cm 15 cm 15 cm
Minimum — Middle — Maximum Mattress Support Platform Height above floor (without mattress): Essenza 400 with 125 Tente Linea double castors Essenza 400 with 150 Tente Linea double castors Essenza 400 with 150 Tente Integral simple castors Essenza 400 with 125 Tente Integral simple castors Essenza 400 with 150 Tente Integral Soft Brake simple castors	27,5 cm – 37,4 cm – 75,9 cm 30 cm – 39,9 cm – 78,4 cm 33,3 cm – 43,2 cm – 81,7 cm 30,8 cm – 40,7 cm – 79,2 cm 32,8 cm – 42,7 cm – 81,2 cm

Parameter	Value
Maximum Clearance under the Undercarriage in Standard Position (with 125 Tente Linea double castors)	14,1 cm (9 cm under the foot controls)
Maximum Clearance under the Undercarriage in Standard Position (with 150 Tente Linea double castors)	16,6 cm (11,5 cm under the foot controls)
Maximum Clearance under the Undercarriage in Standard Position (with 150 Tente Integral simple castors)	19,9 cm (14,8 cm under the foot controls)
Maximum Clearance under the Undercarriage in Standard Position (with 150 Tente Integral Soft Brake simple castors)	19,4 cm (14,3 cm under the foot controls)
Maximum Backrest Angle	70°
Maximum Thighrest Angle	35°
Maximum Calfrest Angle	25°
Maximum Angle between Calfrest and Thighrest	240°
Ergoframe Distances (Backrest Distance / Thighrest Distance)	5 cm / 3 cm
Maximum Trendelenburg Tilt Angle	14°
Maximum Reverse-Trendelenburg Tilt Angle	14°
Average Bed Weight	175 kg
Maximum Lifting Pole Load	75 kg
Safe Working Load (SWL)	300 kg
Maximum shares of the Safe Working Load in the Application Environment 1 and 2:	
■ Patient	235 kg
■ Mattress	15 kg
■ Accessories and Load on the Accessories	50 kg
Maximum shares of the Safe Working Load in the Application Environment 3 and 5:	
■ Patient	265 kg
■ Mattress	15 kg
■ Accessories and Load on the Accessories	20 kg
Maximum Mass of Mobile Hospital Bed (Maximum Mass of Empty Bed + Safe Working Load)	510 kg
Maximum Patient Weight	
Application Environment 1, 2	235 kg
Application Environment 3, 5	265 kg
Maximum Sound Pressure Level	53 dBA

5.3 Electrical Specifications

Parameter	Value
Input Voltage, Frequency: version without integrated mattress version 1 with integrated mattress version 2 with integrated mattress version 3 with integrated mattress version 4 with integrated mattress version 5 with integrated mattress	100 — 240 V AC, 50/60 Hz 100 — 127 V AC, 60 Hz 220 — 240 V AC, 50 Hz 220 — 240 V AC, 60 Hz 100 V AC, 50 Hz 220 V AC, 60 Hz
Maximum Power Input	max. 480 VA
Ingress Protection according to EN 60529	IPX4
Electric Protection Class	Class I (with type B Applied Parts)
Duty Cycle	max. 2 minutes ON / 18 minutes OFF
Bed Accumulator	AKU Pb VRLA 2 x 12 V / 1,2 Ah / Fuse 15A
EasyDrive Accumulator	AKU Pb 24 V / 7 Ah
Control Unit Fuses: version without integrated mattress version with integrated mattress	2x T4A L 250 V 2x T4A L 250 V, 2x T1A L 250 V
Plug Type of the Power Supply Cord	E/F (CEE 7/7)

5.4 Environment Conditions



WARNING!

Risk of damaging the product due to incorrect environment conditions!

► Do not use the Essenza 400 bed under the environmental conditions outside of those specified in the Environment Conditions chapter!



CAUTION!

Risk of damaging the product if its packaging is exposed to environmental conditions outside of those specified in the 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	-20°C — 50°C
Relative Humidity	20% — 90 %
Atmospheric Pressure	795 — 1060 hPa

5.5 Electromagnetic Compatibility

Bed 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.

Bed has defined no essential performance based on the bed electric system.



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.

List of used cables:
► **Mains cable**, maximum length 5 m



WARNING!
Use of the accessories, converters and other cables, than specified and provided by manufacturer of this bed could lead to increase of electromagnetic emission or lower the electromagnetic immunity of this bed 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 Essenza 400 bed, including cables specified by manufacturer. Otherwise this could lead to deterioration of functionality of this bed.



WARNING!
Do not overload the bed (SWL), respect the duty cycle (INT. on the serial label) and consider chapter Maintenance (see „23 Maintenance“ on the page 159) in order to maintain the basic safety with regard to electromagnetic disturbances for the expected service life.

5.5.1 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

5.5.2 Manufacturer instructions - electromagnetic susceptibility

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	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless communications equipment IEC 61000-4-3	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° and 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 V/m
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.

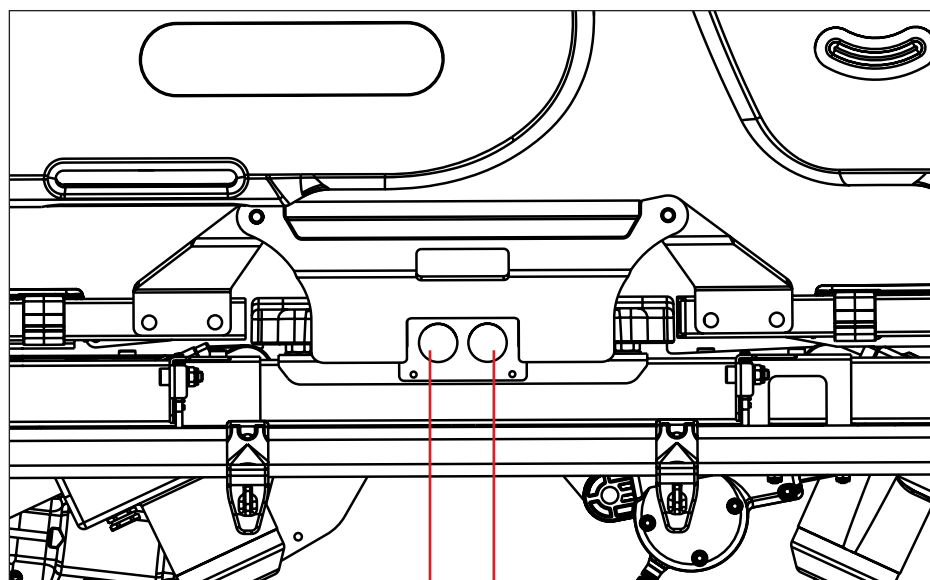
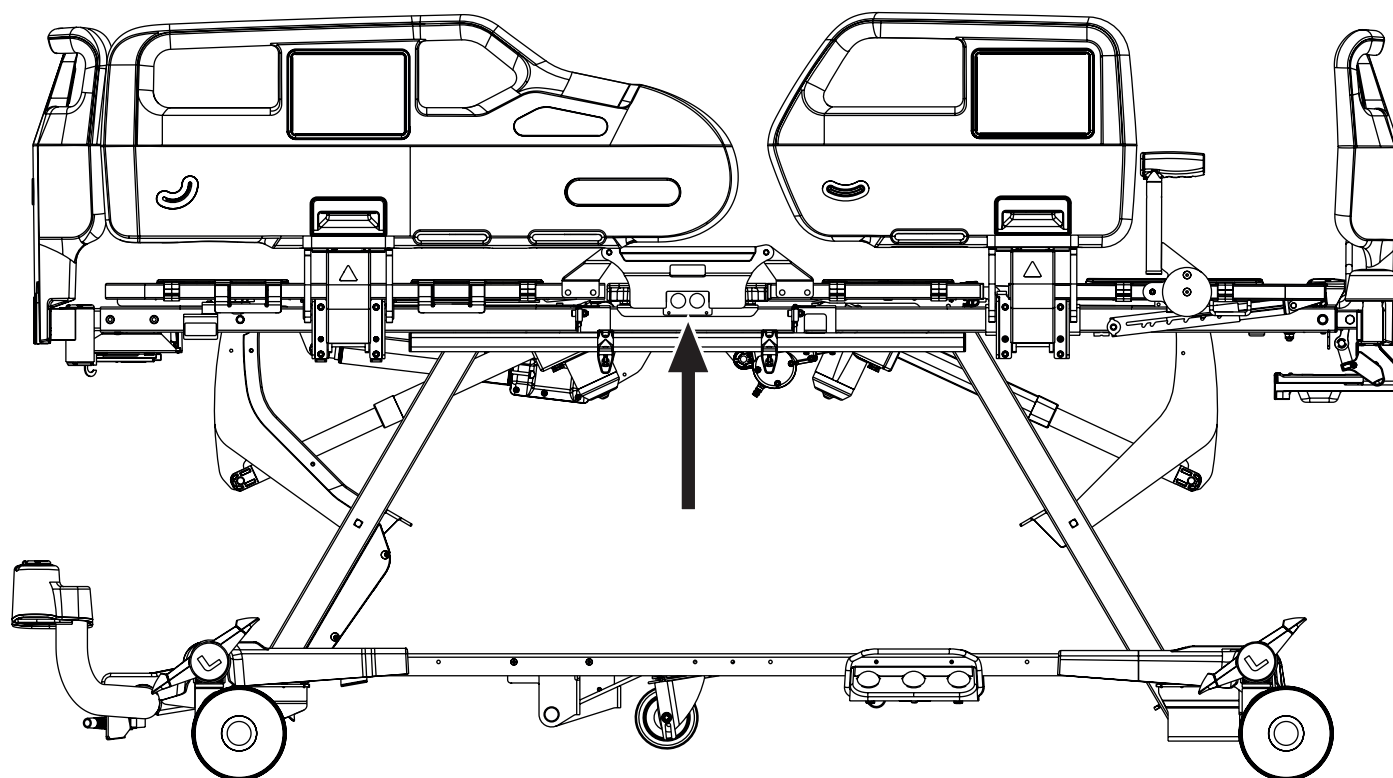
NOTE There are no known other measures for keeping the basic safety based on EMC phenomena.

5.6 Available Connectors



WARNING!

Use the connectors only according to their intended use and with the respect to special restrictions in order to avoid possible damage of the bed.



1 2

1. Plug&Play for Handset Control Panel
2. Plug&Play for Attendant Control Panel

Available Connector	Intended Use	Restrictions
1) Plug&Play for Handset Control Panel (right bed side)	Special connection for optional wired handset for bed control (intended for patient).	Connect only the LINET Handset Control Panel!
2) Plug&Play for Attendant Control Panel (right bed side)	Special connection for optional wired ACP for bed control (intended for nurse).	Connect only the LINET Attendant Control Panel compatible with Essenza 400!
3) USB connectors (2 pieces, bed sides depending on the type of siderails, see „18.9 USB charger“ on the page 128)	USB charger for patient's personal mobile devices (i.e. mobile phones, tablets).	Maximum available power output 5 V DC / max. 2 A, use only for charging!
4) Connector for EasyDrive Control Panel (see „18.12 EasyDrive“ on the page 130)	Special connection for optional wired EasyDrive Control Panel for use of the EasyDrive system (intended for nurse).	Only connect the LINET EasyDrive Control Panel!
5) Mains power plug (head end)	Main AC power supply of the bed.	Connect only to wall receptacle compatible with the provided plug type!
6) Nurse Call port (head end of the under-carriage)	Optional connection to analogue Nurse Call signaling hospital network.	Connect only the UL 1069 compatible nurse call signaling system via 37 pin D sub connector. Maximum input voltage 28 V, maximum input current 0,5 A standby, 1A short term!

6 Use and Storage Conditions

**DANGER!****Danger to life due to electric shock!****To ensure the bed's class I protection against electric shocks:**

- ▶ Ground the mains.
- ▶ Use exclusively Hospital Grade or Hospital Only receptacles for grounding.

Essenza 400 is designed for use in rooms for medical purposes. Electrical installations connected to the Essenza 400 must therefore meet local norms laying down the necessary conditions for electrical installations.

To increase the safety of electrical equipment:

- ▶ Disconnect the Essenza 400 from the mains in exceptional cases (i.e. lightnings, earthquake).

Respect values of the parameters connected with environment conditions in the chapter Technical Specification during use and storage of the product.

Essenza 400 is not suitable for indoor environments containing flammable gases (except oxygen cylinders).

Essenza 400 is not suitable for continuous operation. Duty cycle equals to 2 minutes in operation during 20 minutes.

7 Scope of Delivery and Product Variants

7.1 Delivery

- ▶ Upon receipt, check that the shipment is complete as specified on the delivery note.
- ▶ Notify the carrier and supplier of any deficiencies or damages immediately as well as in writing or make a note on the delivery note.

7.2 Scope of Delivery

- Essenza 400 Medical bed
- Instructions for Use

7.3 Essenza 400 Variants

Variable bed features:

- **Air2Care IN & HybriMatt IN integrated mattress**
 - Air2Care 6 IN mattress
 - Air2Care 8 IN mattress
 - HybriMatt 100 IN mattress
 - HybriMatt 200 IN mattress
- **Castors**
 - Central Castor Control System (castors with diameter 125 mm, castors with diameter 150 mm, simple castors, double castors)
 - Fifth Castor
 - EasyDrive (only compatible with Tente Integral Soft brake simple castors with diameter 150 mm)
- **Mattress Support Platform Extension**
 - Simple Bed Extension
 - Advanced Bed Extension
- **Patient Restraint Holders**
- **Accessory Rail**
 - Pair of the accessory rails at seat section (compatible with Safestop function)
 - Pair of the accessory rails at bed head end and pair of the accessory rails at bed foot end
 - Pair of the accessory rails at bed head end
 - Pair of the accessory rails at bed foot end
- **Siderails**
 - 3/4 coverage split plastic siderails (plastic siderails with short foot siderails, compatible with Accessory Adaptor with 2 Bushings for Lifting Pole in the undercarriage at bed head end)
 - Full coverage split plastic siderails (plastic siderails with long foot siderails, compatible with Accessory Adaptor with 2 Bushings for Lifting Pole in the undercarriage at bed head end)
- **Head Board and Foot Board**
 - Standard Plastic Head Board and Foot Board (Narrow Plastic Head Board is incompatible with Accessory Adaptor with 2 Bushings for Lifting Pole at bed head end)
- **Corner Bumpers**
 - with accessory bushings
 - 4 Corner Bumpers in outer corners of the mattress support platform
- **Bushings for Lifting Pole**
 - 2 Bushings for Lifting Pole in inner corners of the mattress platform at bed head end
 - 2 Bushings for Lifting Pole in inner corners of the mattress platform at bed head end and Accessory Adaptor with 2 external Bushings for Lifting Pole at bed head end (only compatible with Narrow Plastic Head Board without side corner bumpers at bed head end)
- **Control Elements**
 - Attendant Control Panel for Essenza 400
 - Siderail Control Panel for Essenza 400
 - Handset Control Panel
 - Patient Control Panel
 - Bed Height Foot Control
 - Mobi Pad
 - Control Panel of Scales and Integrated Mattress
- **Pair of Mobi-Lift Handles**
- **Accumulator back-up**
- **Bed Illumination**
- **Safe Height Visual Signalling (green light)**
- **Extra Low Position**
- **USB charger (USB-A port or USB-C port)**
- **Plastic Linen Shelf**
- **X-ray cassette Holder (only compatible with X-ray ready Backrest)**
- **Brake Alert**
- **i-Brake**
- **Scales**
- **Bed Exit Alert Announcer**
- **Nurse Call**
- **WiredLess Nurse Call ready bed**

8 Putting into Service


WARNING!
Risk of injury when working on the bed!

- ▶ Ensure that the bed is disconnected from the mains connection prior to putting into service, putting out of service and maintenance.
- ▶ Ensure that the castors are locked prior to putting into service, putting out of service and maintenance.


CAUTION!
Risk of material damage due to incorrect putting into service!

- ▶ Ensure that putting into service is performed exclusively by manufacturer's customer service or trained hospital personnel.


CAUTION!
Risk of material damage due to temperature difference!

- ▶ If there is a considerable temperature difference between the bed and the place of operation (after transport/storage), leave bed unconnected for 24 hours for the difference to balance itself.

NOTE For safe, easy handling, LINET ® recommends having two technicians put the bed into service.

Set up the bed as follows:

- ▶ Unpack the bed.
- ▶ Check the delivery (see „7 Scope of Delivery and Product Variants“ on the page 37).
- ▶ Remove isolating foil from the accumulator box (see „8.1 Accumulator Activation“ on the page 40).
- ▶ Raise siderails up.
- ▶ Install equipment and accessories.
- ▶ In case of delivery with dismantled head board and foot board, mount the head board and foot board correctly.
- ▶ Set up the bed exclusively on a suitable floor surface (see „8.7 Transport“ on the page 48).
- ▶ Ensure that the Power Supply Cord is not in collision with something and it is not stretched when adjusting the bed.
- ▶ Check that the plug is inserted correctly into the mains.
- ▶ Do not leave any extension cords or power strips loose on the floor.
- ▶ Ensure that all of the required mechanical and electrical prevention mechanisms are available on site.
- ▶ There is no mains switch on the bed, i.e. the Power Supply Cord is the only means to isolate the bed from the mains.

Ensure that the Power Supply Cord is always accessible.

- ▶ Have the Power Supply Cord changed and maintained exclusively by qualified and trained service technicians authorised by the manufacturer if the Power Supply Cord is damaged or most likely damaged.

8.1 Accumulator Activation

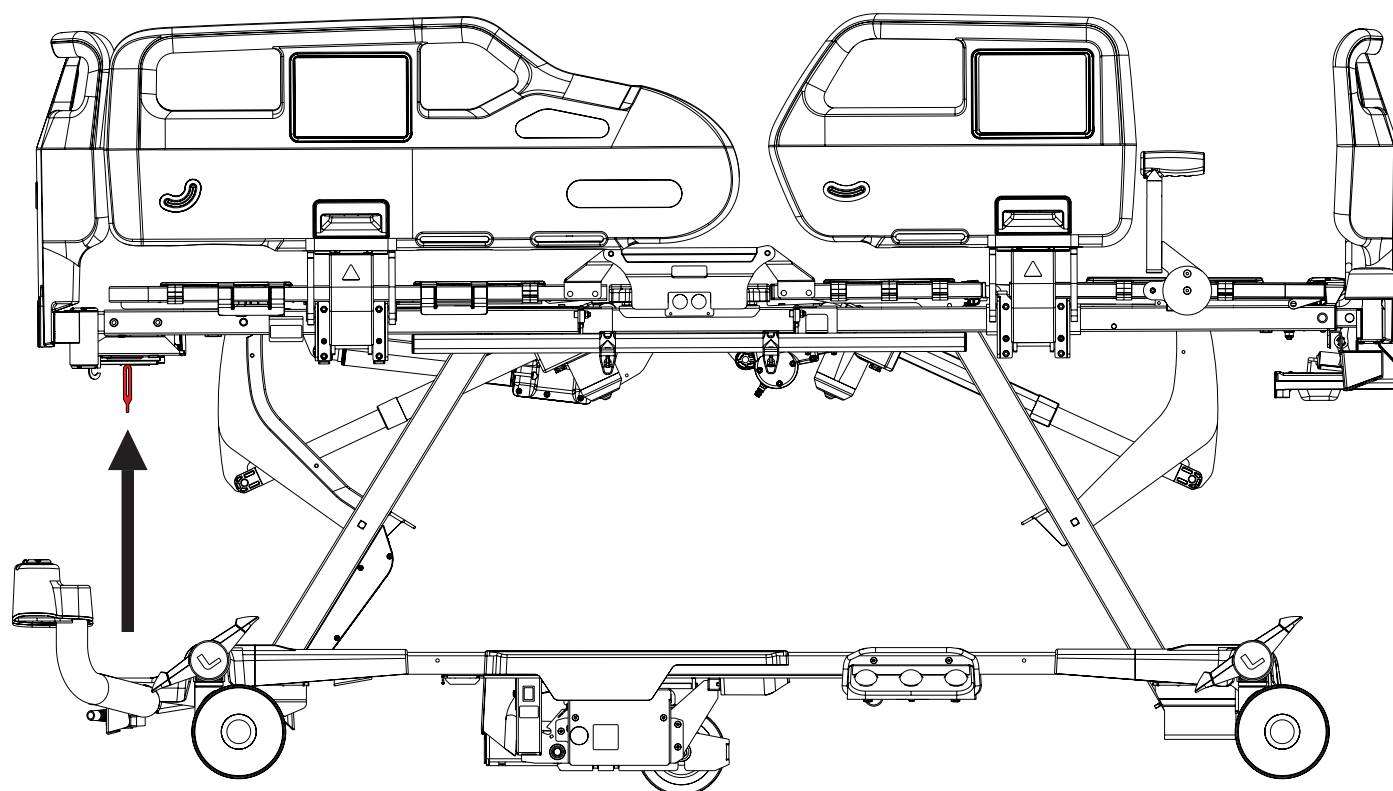


Fig. Position of Isolating Foil under the Backrest

8.1.1 Removing the Isolating Foil

To remove isolating foil:

- ▶ Remove isolating foil from the control unit under the Backrest by pulling the strap.
- ▶ Check if isolating foil is complete and undamaged as shown in figure Shape of Isolating Foil.
- ▶ If isolating foil is damaged, contact the manufacturer's service department immediately.

NOTE Isolating Foil is sharp-edged. Remove it carefully not to cut yourself.

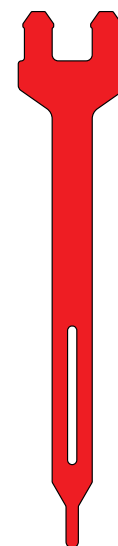
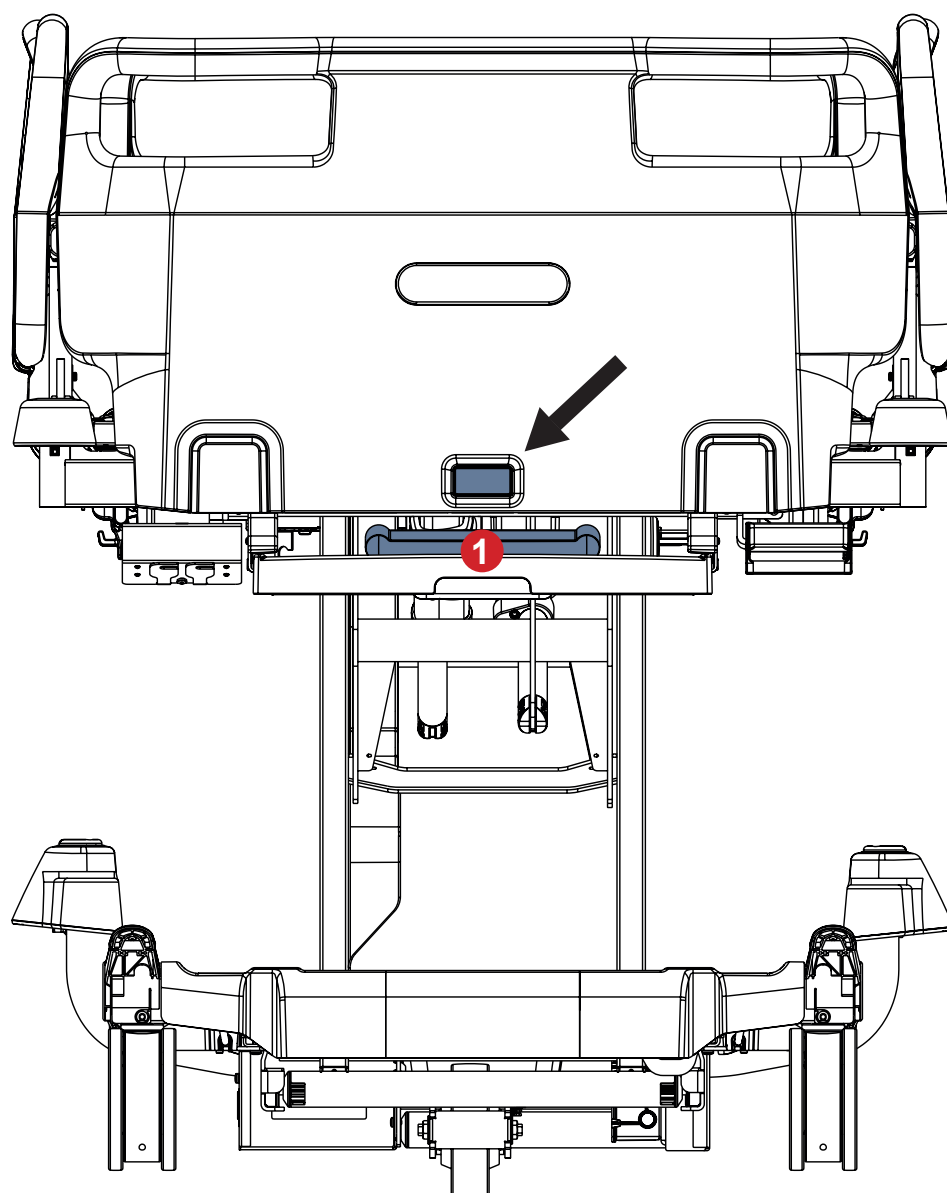


Fig. Shape of Isolating Foil

8.2 Plastic Foot Board with one Safety Lock

There are 2 types of the Plastic Head Board and Foot Board depending on the compatibility of Head Board with additional 2 Bushings for Lifting Pole in the undercarriage at bed head end. Only the Narrow Head Board without side corner bumpers is compatible with the additional 2 Bushings for Lifting Pole. Standard Head Board and Foot Board are interchangeable in the case of the compatible configuration without the additional 2 Bushings for Lifting Pole. Narrow Head Board and Foot Board are interchangeable in the case of the compatible configuration with the additional 2 Bushings for Lifting Pole. Bed Head Board and Bed Foot Board must always be of the same type.



1. Attendant Control Panel in the Plastic Linen Shelf

Fig. Standard Plastic Foot Board

Dismount the Foot Board as follows:

- ▶ Unlock Foot Board Safety Lock.
- ▶ Pull Foot Board from sleeve fittings.

Install the Foot Board as follows:

- ▶ Unlock Foot Board Safety Lock.
- ▶ Slide Foot Board into sleeve fittings.
- ▶ Lock Foot Board Safety Lock.

8.3 Plastic Head Board with one Safety Lock



CAUTION!

Risk of collision due to a Standard Head Board incompatible with the additional 2 Bushings for Lifting Pole in the undercarriage at bed head end!

► Ensure the Head Board you want to fix at bed head end is compatible with your bed configuration if Standard Head Board and Narrow Head Board are available in your ward!

There are 2 types of the Plastic Head Board and Foot Board depending on the compatibility of Head Board with additional 2 Bushings for Lifting Pole in the undercarriage at bed head end. Only the Narrow Head Board without side corner bumpers is compatible with the additional 2 Bushings for Lifting Pole. Standard Head Board and Foot Board are interchangeable in the case of the compatible configuration without the additional 2 Bushings for Lifting Pole. Narrow Head Board and Foot Board are interchangeable in the case of the compatible configuration with the additional 2 Bushings for Lifting Pole. Bed Head Board and Bed Foot Board must always be of the same type.

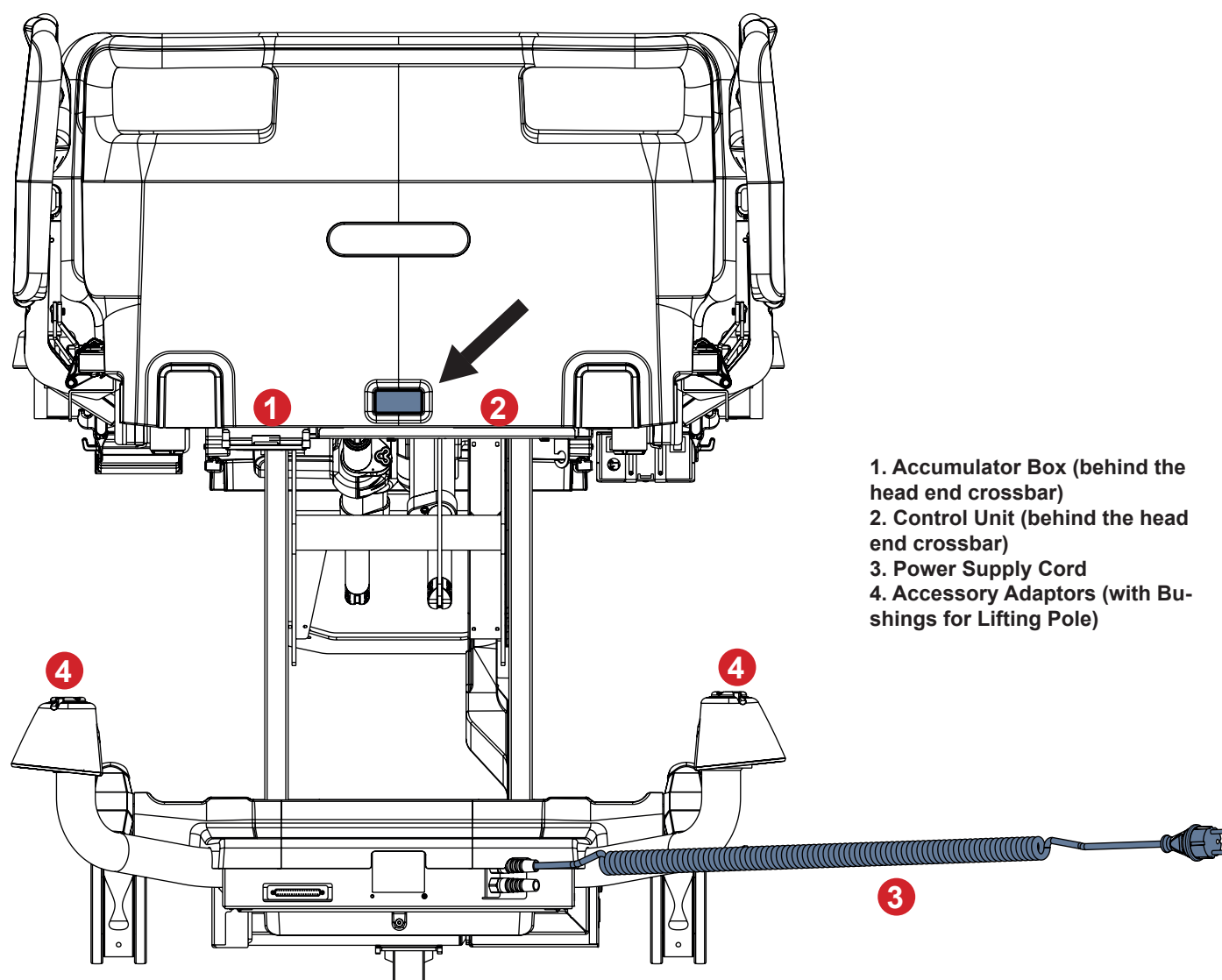


Fig. Plastic Head Board

Dismount the Head Board as follows:

- ▶ Unlock Head Board Safety Lock.
- ▶ Pull Head Board from sleeve fittings.

Install the Head Board as follows:

- ▶ Unlock Head Board Safety Lock.
- ▶ Slide Head Board into sleeve fittings.
- ▶ Lock Head Board Safety Lock.

8.4 Mattress Support Platform

Essenza 400 has Mattress Support Platform with four sections.

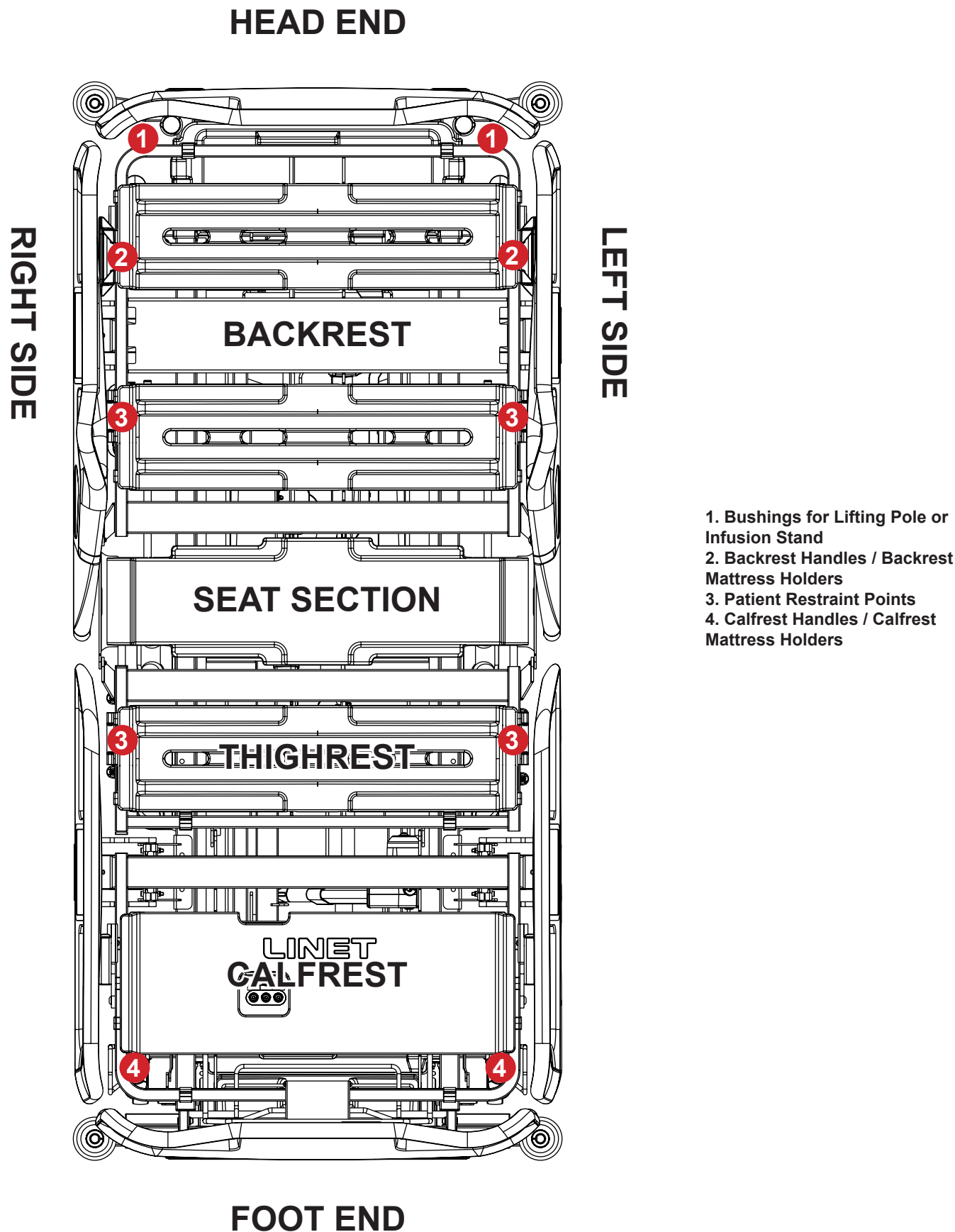


Fig. 4-part Mattress Support Platform with Plastic Siderails

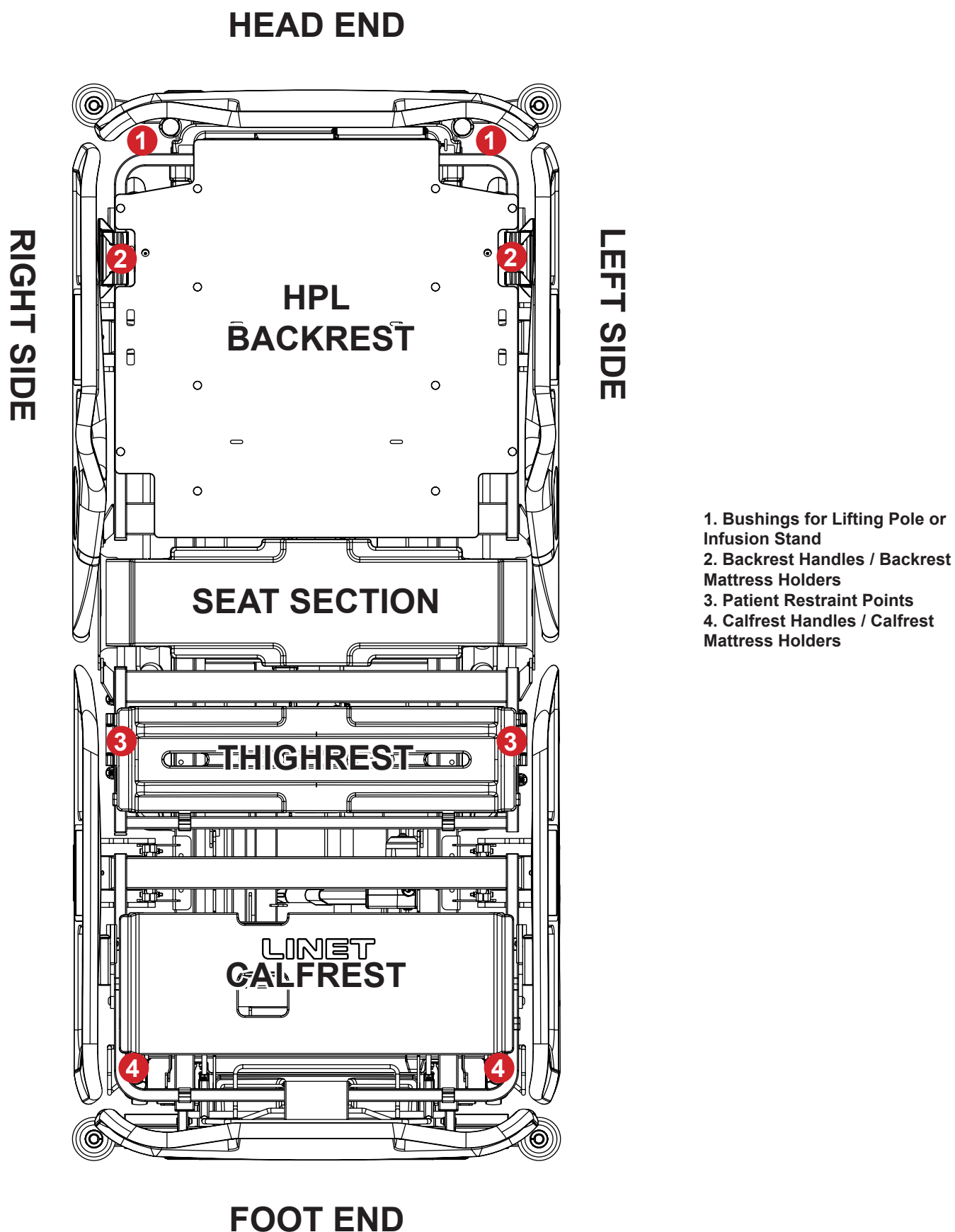


Fig. 4-part Mattress Support Platform with Plastic Siderails and X-ray ready Backrest

8.4.1 Handles and Patient Restraint Points

Variants of Handles / Mattress Holders:

- in the middle of the Backrest upper part and on the sides of the Backrest upper part
- on the sides of the Calfrest lower part

Variants of Patient Restraint Points:

- on the sides of the Backrest lower part
- on the sides of the Thighrest upper part
- on the sides of the Calfrest upper part

8.5 Potential Interconnection



DANGER!

Danger to life due to electric shock!

To protect patient against static electric shock:

- Connect potential equalization male connector to the potential equalization female connector.

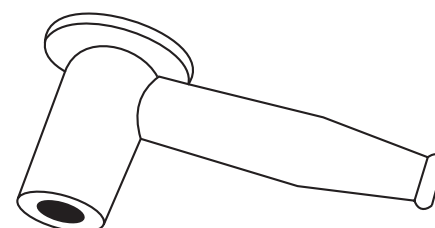


Fig. Potential equalization female connector

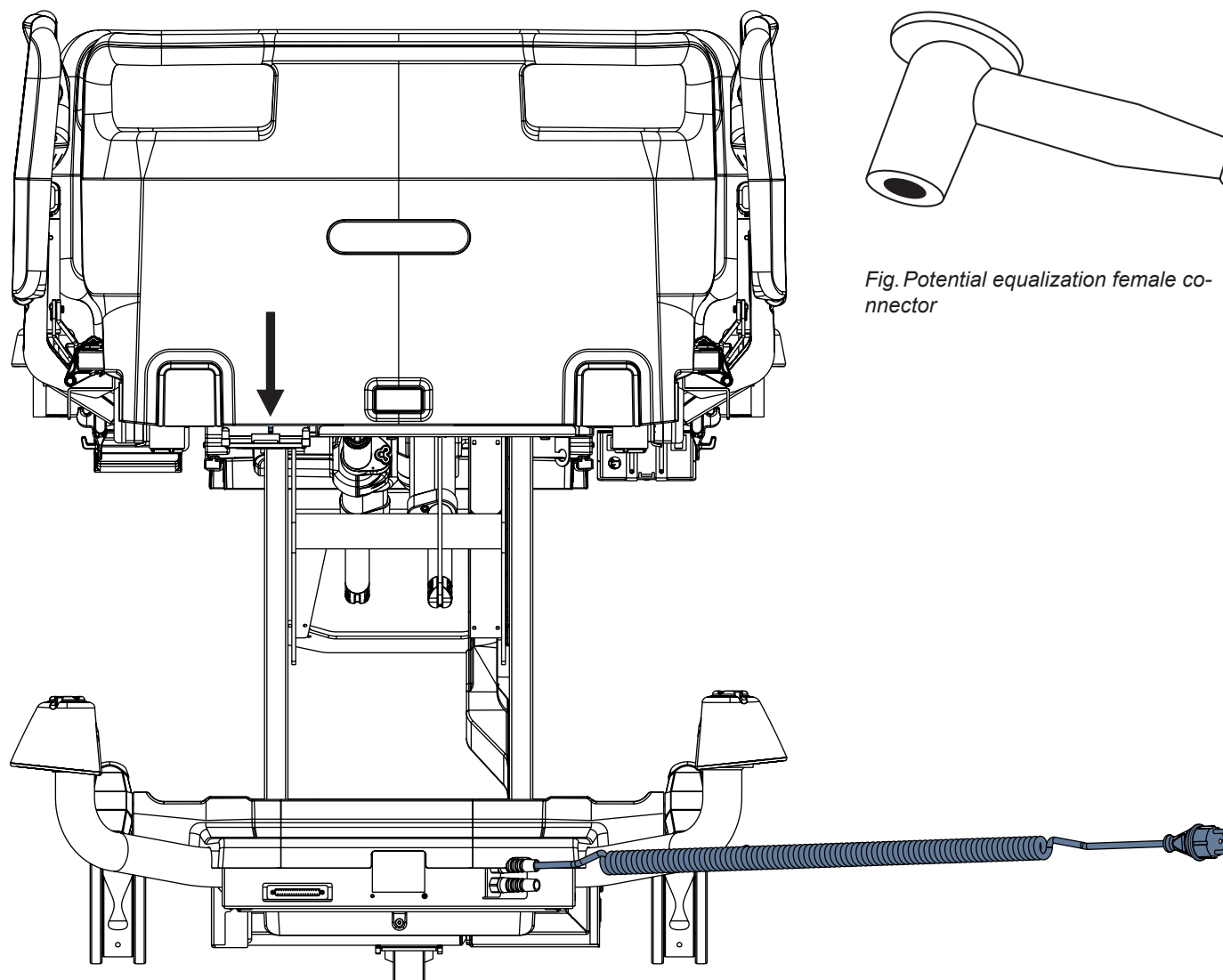


Fig. Potential equalization male connector at head end of the bed

The bed is equipped with a standard protective connector. This connector is used for potential equalization between the bed and any intravascular or intracardiac device connected to the patient to protect the patient from static electric shocks.

Use equalization connector if the patient is connected to any intravascular or intracardiac device.

Before connecting the patient to an intravascular/intracardiac device:

- ▶ Connect the ground wire of the device to the potential equalization connector on the bed on which the patient in question is lying.
- ▶ Use a standard hospital connector.
- ▶ Make sure that the connectors match.
- ▶ Make sure that there is no possibility for inadvertent disconnection.

Before moving the bed:

- ▶ Disconnect the patient from the intravascular or intracardiac device.

8.5.1 Potential equalization conductor

To use the potential equalization conductor correctly:

- ▶ Potential equalization male connector must be accessible to the operator with the Essenza 400 ME equipment.
- ▶ Avoid any accidental disconnection of the potential equalization conductor!
- ▶ Potential equalization male connector must allow the conductor to be detached without the use of a tool.
- ▶ Potential equalization male connector shall not be used for a protective earth connection!

Potential equalization conductor is a conductor other than a protective earth conductor or a neutral conductor, providing a direct connection between electrical equipment and the potential equalization busbar of the electrical installation. The power supply cord of the bed does not incorporate a potential equalization conductor. The potential equalization conductor must be ended by standard potential equalization female connector.

Before moving the bed:

- ▶ Disconnect the potential equalization connector from the socket.

8.6 Before Use

Prepare the bed for use as follows:

- ▶ Connect the bed to the mains.
- ▶ Charge the accumulator.
- ▶ Raise and tilt the mattress support platform to the highest position.
- ▶ Lower and tilt the mattress support platform to the lowest position.
- ▶ Check that the castors as well as brake levers work correctly.
- ▶ Check that the bed extension works correctly.
- ▶ Check that it is possible to remove the head board and foot board.
- ▶ Check all of the functions on the control elements.
- ▶ Check that the siderails function properly.
- ▶ Dispose of all packaging (see „24 Disposal“ on the page 161).

8.7 Transport

For a safe transport, observe the following:

- ▶ Ensure that no cables are run over when moving the bed.
- ▶ Ensure that the power supply cord is attached with a hook (at the head end of the bed).
- ▶ Adjust bed height to at least 20 cm below maximum height.
- ▶ Push bed by handles on Head Board or Foot Board.
- ▶ Move the bed exclusively on suitable floor surfaces.
- ▶ Ensure the bed is braked when it should not move (see „11.2 Castor Control“ on the page 59).
- ▶ For longer distances, ensure the castor direction determining function is activated.
- ▶ Ensure that the castors are not braked before moving the bed.

Suitable surfaces:

- Tile
- Hard linoleum
- Poured flooring

Unsuitable surfaces:

- Too soft, unsealed or defective flooring
- Soft wooden flooring
- Soft and porous stone floors
- Carpeted floors with underlay
- Soft linoleum

8.7.1 Transport Position



WARNING!

Hospital staff is responsible for assessing the suitable adjustment of the mattress support platform in accordance with patient's state and needs!



WARNING!

Placement of the accessories and of the compatible medical devices must not cause any hazard for patient or for hospital staff or for the other persons and any damage to the product or to the surroundings during transport of the Essenza 400 bed!



WARNING!

Siderails in down position can cause patient's fall from the Essenza 400 bed during transport of the Essenza 400 bed!

Transport Position of the Essenza 400 bed:

- ▶ siderails up and locked
- ▶ height of the mattress support platform in accordance with ergonomically suitable drive
- ▶ not tilted mattress support platform
- ▶ parts of the mattress support platform adjusted according to the patient's state and needs
- ▶ Power Supply Cord disconnected from the mains power and correctly inserted to the Hook for hanging Power Supply Cord

8.8 Firmware

The control unit of the bed includes firmware that can be updated only by an authorised service technician.

9 Power Supply Cord



WARNING!

Where the integrity of the external protective conductor in the installation or its arrangement is in doubt
► Use the other power source that is not in doubt.



WARNING!

Inappropriate handling of the power supply cord, e. g. by kinking, shearing or other mechanical damages is hazardous!



WARNING!

When routing Power Supply Cord in a Essenza 400 avoid squeezing the cable between parts of the Essenza 400!



WARNING!

An additional multiple socket-outlet or extension cord shall not be connected to the Essenza 400!



WARNING!

Use exclusively the power supply cord in perfect condition!

► Ensure the power supply cord is not damaged before each use!



WARNING!

Power Supply Cord must not be tightened or stretched during use!

► Ensure the Power Supply Cord hangs loosely between the Essenza 400 and the wall where the Power Supply Cord is connected to the mains.

Essenza 400 medical bed is the ME equipment with non-detachable Power Supply Cord. Attachment plug is means of connecting and disconnecting Essenza 400 from the mains. Power Supply Cord must be attached with a hook at the head board during transport.

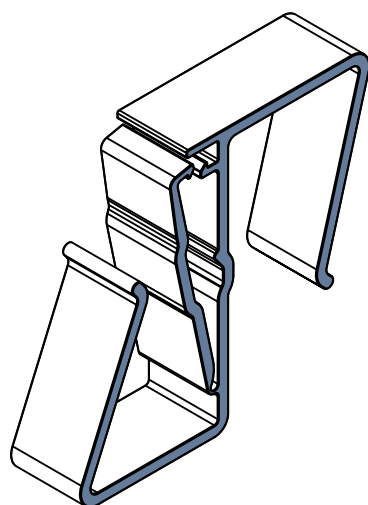


Fig. Hook for hanging the power supply cord

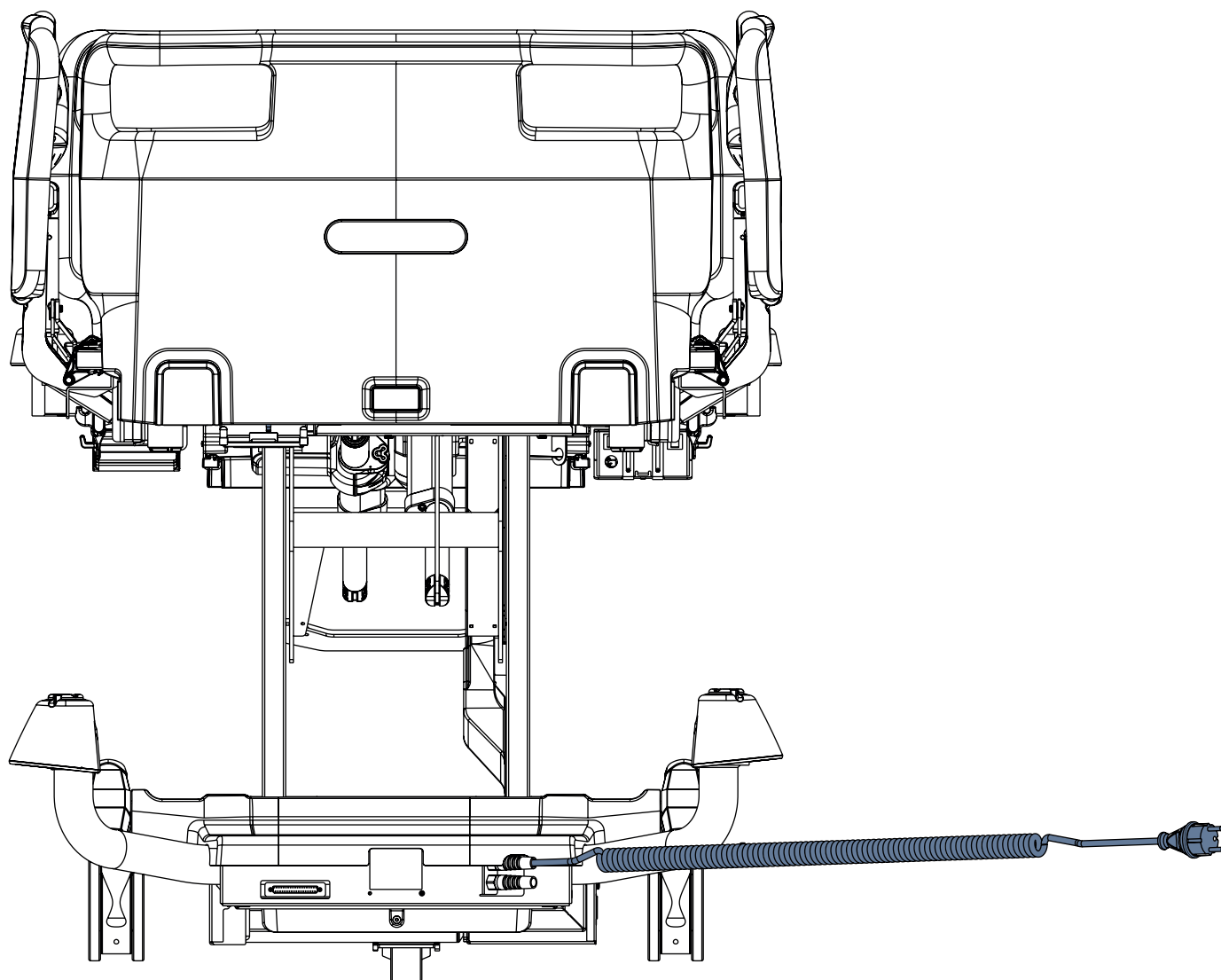


Fig. Power Supply Cord on the undercarriage at head end of the bed

To avoid running over the power supply cord with castors:

- ▶ Place the power supply cord into the hook so that both openings of the hook hold the power supply cord.
- ▶ Ensure the power supply cord placed into the hook does not touch the floor before and during bed transport.

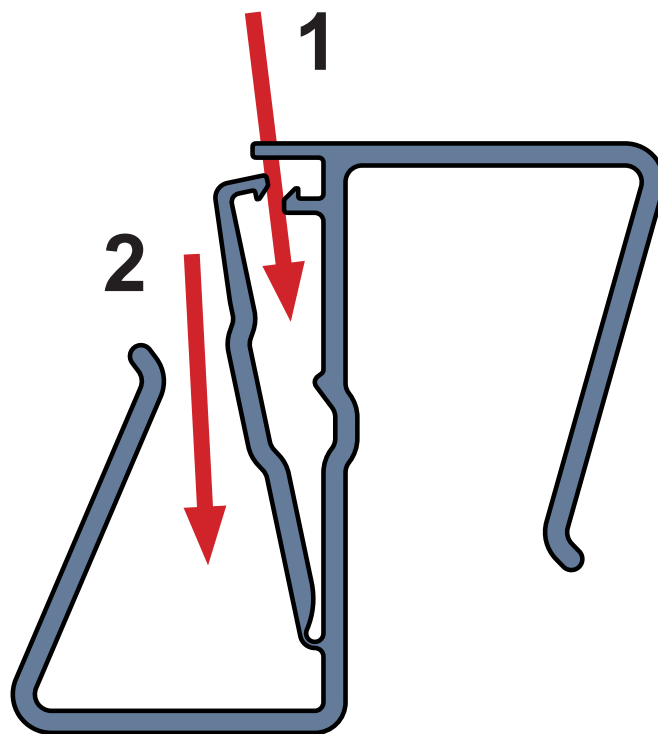


Fig. Instructions to place power supply cord into the hook

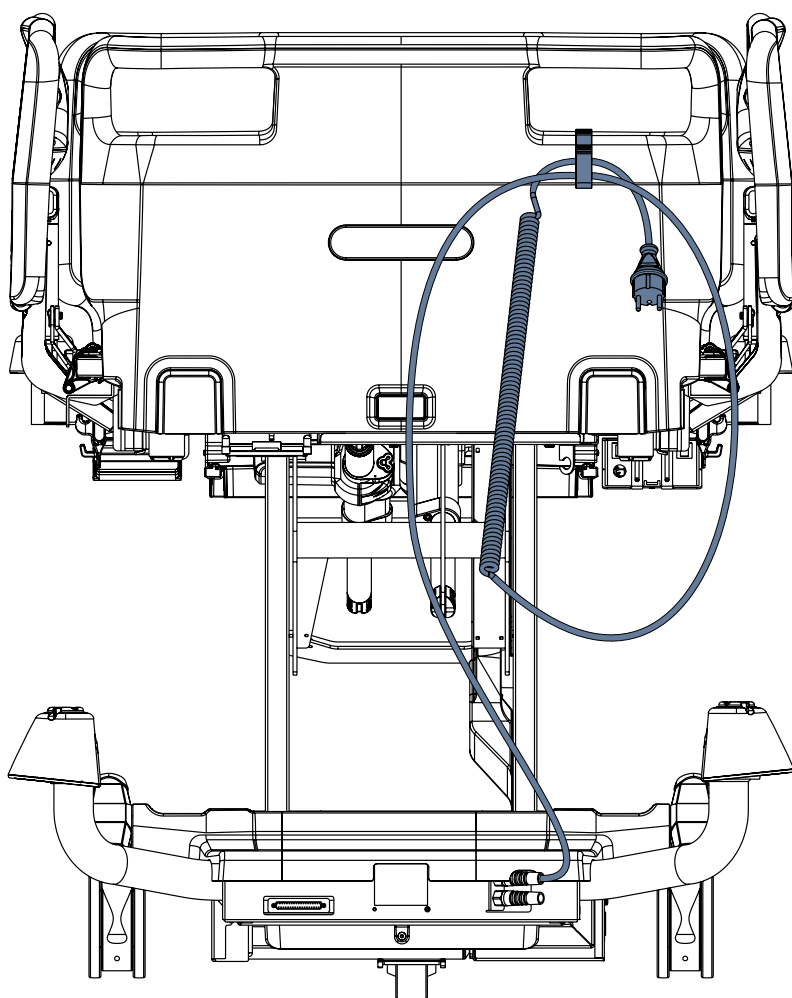


Fig. Correct placement of the power supply cord in the hook for hanging the power supply cord

10 Accumulator of the bed



WARNING!

Risk of material damage to the bed accumulator due to incorrect charging!

- ▶ When the bed is not connected to the mains and accumulator is not sufficiently charged all electrical functions of the bed are blocked! After some long period without charging the battery, the battery will be deeply discharged and lose its full functionality!



WARNING!

Risk of damaging the product due to incorrect maintenance!

- ▶ Only authorised and trained service technician is allowed to replace the bed accumulator! Shape of the accumulator box does not allow different ways of insertion.

Purpose

The accumulator serves as a backup during power failures or for emergency bed positioning.

- ▶ Use only accumulator approved by the manufacturer.
- ▶ Check the functionality of the accumulator at least once a month and have the accumulator changed if necessary.

The manufacturer will assume no responsibility for any damage to the bed or the accumulator caused by:

- non-observance of the manufacturer's instructions in the instructions for use.
- using accumulator not approved by the manufacturer.

Warranty

The manufacturer provides a **6-month** warranty for the full function of the accumulator.

Bed Accumulator lifetime could be up to 5 years if operated under optimum conditions.

Accumulator capacity can be significantly reduced if:

- ▶ too high ambient temperature
- ▶ many accumulator charge/discharge cycles
- ▶ recurrence of deep discharge
- ▶ bed is often powered only by the accumulator

Charging

The accumulator supplied with the bed is delivered insufficiently charged.

Charging of the accumulator before use of the bed takes approximately 4 hours.

Charging of the accumulator runs automatically when the power cable is connected to the mains.

To charge the accumulator:

- ▶ Connect the bed to the mains.

Storage

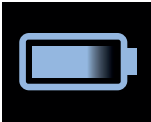
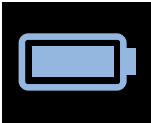
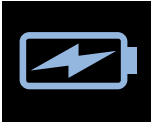
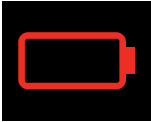
For declared lifetime period of leaded accumulators is recommended during storage:

- ▶ To prevent accumulator from deep discharging and to keep accumulator at least partly charged by regular recharging.
- ▶ To store accumulator on the dry places with temperature from 10°C to 40°C.
- ▶ To prevent accumulators from being in the sunshine.

Signalling

The corresponding indicators on the Attendant Control Panel, the Siderail Control Panel and the Control Panel of Scales and Integrated Mattress indicate the accumulator charge status.

10.1 Accumulator Statuses on the display of the Control Panel of Scales and Integrated Mattress

Indication	Meaning
	Partly charged.
	Fully charged.
	Charging.
	Deeply discharged.
	Accumulator fault.

10.2 Replacing the accumulator



CAUTION!

Damage to the bed due to incorrect accumulator replacement!

- ▶ Have the accumulator replaced exclusively by qualified personnel.
- ▶ Exclusively use the accumulator approved by the manufacturer.



CAUTION!

Material damage due to overheating!

If the accumulator is faulty, degassing may occur. In rare cases this might cause deformations of the accumulator case, control panel housing or cable.

- ▶ Stop using the bed immediately (see „10.3 Removing the Bed from Service“ on the page 55).
- ▶ Inform the manufacturer's service department.



CAUTION!

Risk of reducing accumulator durability due to incorrect use!

- ▶ Use bed on accumulator only in crisis situations (e.g.: power blackout, patient complications during transport, etc.).
- ▶ After reconnecting bed to the mains charge accumulator to full capacity (see chart Accumulator charge status).
- ▶ Have the accumulator replaced exclusively by a qualified service organisation of the manufacturer.

Faulty accumulator

The accumulator is regarded as faulty if at least one of the following conditions applies:

- ▶ Accumulator charging constantly
- ▶ Low voltage on accumulator
- ▶ Low charging current of accumulator

This status is indicated by the accumulator status indicator being constantly lit. These statuses are summarised and written to black box in the control unit.

To cancel this status:

- ▶ Press **STOP** button.

Discharged accumulator

This status is indicated by the accumulator status indicator flashing quickly.

This status will be cancelled automatically when the bed switches to sleep mode (bed is disconnected from the mains, no button is pressed).

To cancel this status:

- ▶ Press **STOP** button.

10.3 Removing the Bed from Service

Remove the bed from use as follows:

- ▶ Disconnect the bed from the mains.
- ▶ Disconnect the ground wire.
- ▶ Deactivate the accumulator.
- ▶ Remove accessories.

To prevent damage during storage:

- ▶ Pack or cover the bed and accessories.
- ▶ Ensure that storage conditions are the same as the operating conditions.

11 Manipulation



WARNING!

Risk of injury when adjusting the bed position and siderail position!

- ▶ Ensure that there are no body parts between the Mattress Support Platform elements and the Mattress Support Platform frame when adjusting the bed.
- ▶ Ensure that there are no body parts between the siderails and the Mattress Support Platform frame when adjusting the bed position and siderail position.
- ▶ Ensure that there are no body parts below the Mattress Support Platform frame before adjusting the bed.
- ▶ Do not position Essenza 400 ME equipment to make it difficult to operate the attachment plug of the Power Supply Cord!



CAUTION!

Risk of damaging the bed when adjusting the bed position and siderail position!

- ▶ Avoid any collision during bed positioning and siderail adjustment!



CAUTION!

Risk of damaging the bed when overloading the Calfrest!

- ▶ Respect the maximum allowed load of the calfrest!

11.1 Plastic Siderails

The siderails are components of the bed in contact with patient.

The nursing personnel are responsible for the siderails being raised up while the patient is in the bed.



WARNING!

Risk of injury, damaging or unintentional movement of the bed due to incorrect placement of accessories or Handset Control Panel!

- ▶ Never place any accessories or Handset Control Panel on the siderails in the area where keyboards are located.



WARNING!

Risk of injury due to incorrectly latched siderail!

- ▶ Ensure that siderail is secured in the upper or lower position. Audible „click“ indicates the siderail locked in the upper position. Push the siderail forward and backward to ensure the siderail is fixed in the upper position!



WARNING!

Risk of injury due to incorrect position of siderails!

- ▶ Ensure that siderails are folded up while the patient is in bed. Prevent patient from falling off the bed when a siderail is folded down! Hospital personnel is responsible for meeting this requirement.
- ▶ Ensure the CPR lever is accessible when necessary!

11.1.1 Description of the Plastic Siderails

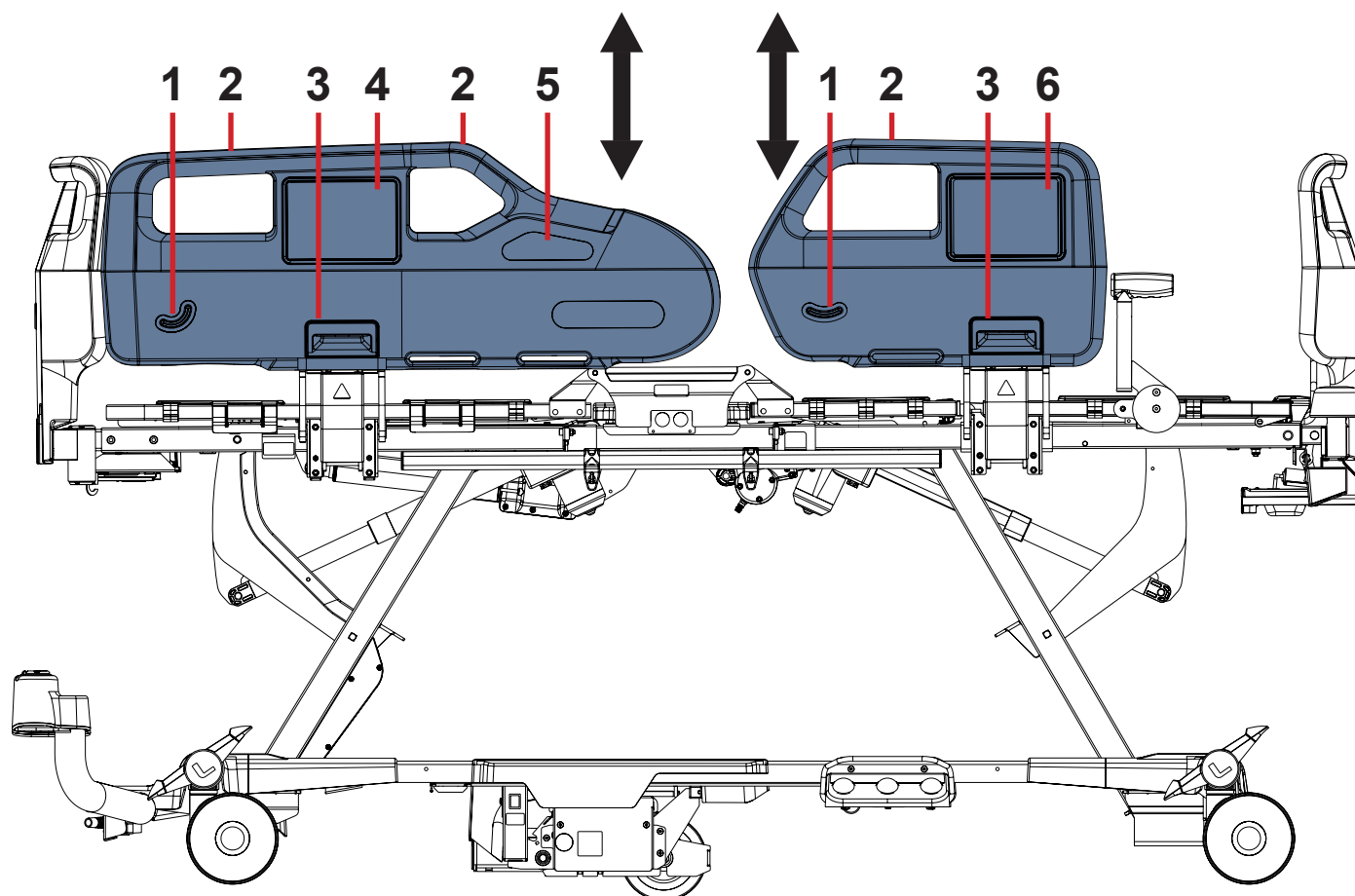


Fig. Manipulation with 3/4 coverage split plastic siderails

- 1. Angle Indicator
- 2. Siderail Handle
- 3. Siderail Release Mechanism with Siderail Release Handle
- 4. Siderail Control Panel
- 5. Mobi Pad
- 6. Control Panel of Scales and Integrated Mattress (Air2Care 6 IN or Air2Care 8 IN or HybriMatt 100 IN or HybriMatt 200 IN)

MANIPULATION

To raise siderail up:

- ▶ Grab siderail by Siderail Handle (2).
- ▶ Pull siderail up until it latches. You will hear audible „click“.
- ▶ Push the siderail forward and backward to ensure the siderail is fixed in the upper position!

To release siderail down:

- ▶ Grab siderail by Siderail Handle (2).
- ▶ Unlock siderail by pulling Siderail Release Handle (3) to yourself.
- ▶ Fold down siderail slowly.

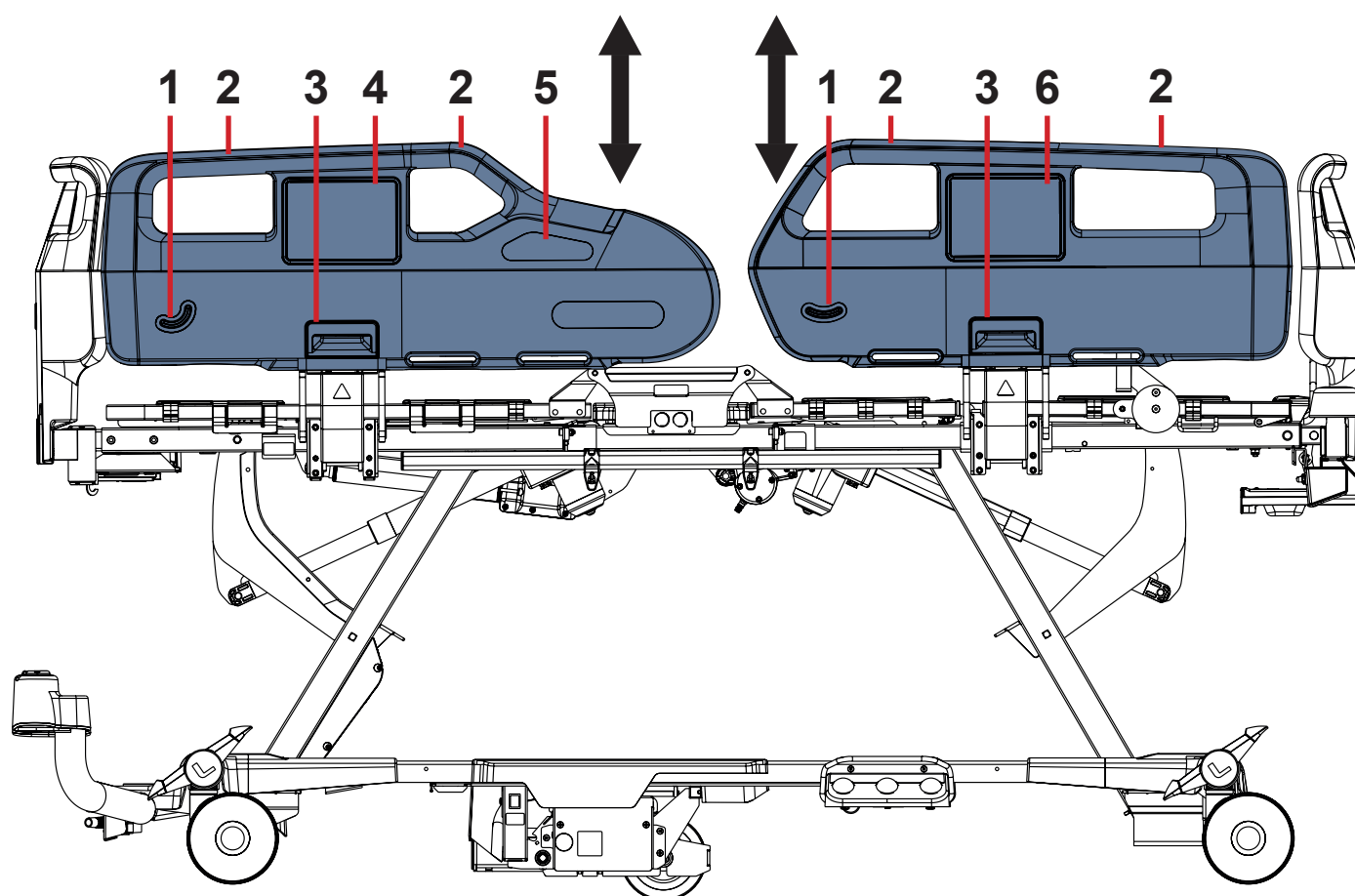


Fig. Manipulation with full coverage split plastic siderails

- 1. Angle Indicator
- 2. Siderail Handle
- 3. Siderail Release Mechanism with Siderail Release Handle
- 4. Siderail Control Panel
- 5. Mobi Pad
- 6. Control Panel of Scales and Integrated Mattress (Air2Care 6 IN or Air2Care 8 IN or HybriMatt 100 IN or HybriMatt 200 IN)

MANIPULATION

To raise siderail up:

- Grab siderail by Siderail Handle (2).
- Pull siderail up until it latches. You will hear audible „click“.
- Push the siderail forward and backward to ensure the siderail is fixed in the upper position!

To release siderail down:

- Grab siderail by Siderail Handle (2).
- Unlock siderail by pulling Siderail Release Handle (3) to yourself.
- Fold down siderail slowly.

11.2 Castor Control



CAUTION!

Risk of material damage due to incorrect transport and involuntary movement!

- ▶ Prior to transport, ensure that the bed is disconnected from the mains.
- ▶ Hang the power supply cord on the transport hook on the Head Board before bed transport.
- ▶ Ensure the castors are braked prior to putting into service, removal from service and maintenance.
- ▶ Ensure the castors are braked when the bed is occupied.
- ▶ Ensure the castors are braked when the bed should not move.
- ▶ Ensure the castors are braked before bed positioning.
- ▶ Have the bed transported exclusively by nursing personnel. Two persons are needed for bed transport without using the EasyDrive.
- ▶ Observe the path for any obstacles and avoid collisions and possible damages to any bed parts on the undercarriage.
- ▶ It is allowed to press the brake pedal only if bed is not moving.

The bed is equipped with central castor control and brake system.

A directional castor can be situated at bed head end or bed foot end depending on bed configuration.

The castor control levers are located in the four corners of the undercarriage.

Castor Configurations of the Essenza 400 bed:

- ☐ 125 mm Tente Integral simple castors + Fifth castor
- ☐ 150 mm Tente Integral Soft Brake simple castors
- ☐ 150 mm Tente Integral Soft Brake simple castors + Fifth castor
- ☐ 150 mm Tente Integral Soft Brake simple castors + EasyDrive
- ☐ 150 mm Tente Linea double castors + Fifth castor
- ☐ 150 mm Tente Linea double castors
- ☐ 125 mm Tente Linea double castors + Fifth castor
- ☐ 125 mm Tente Linea double castors

Each castor control lever is equipped with green pedal and red pedal.

Red colour refers to braking and green colour refers to steering.

Each castor control lever has 3 control positions.

All castor control levers are interconnected such that all pedal functions belong to each pedal.

In following table the pedal functions are described.

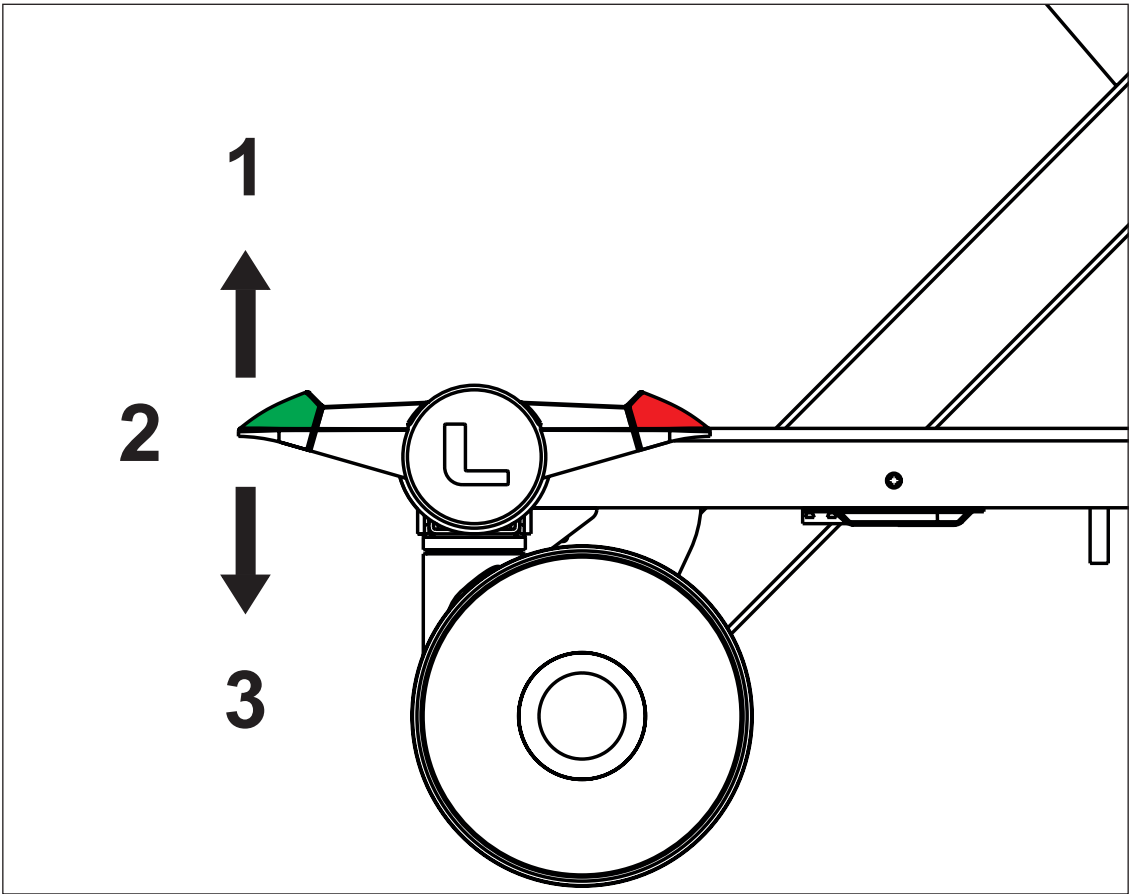


Fig. Three Positions of Castor Control Lever

Pedal Colour	Upper Position (1)	Middle Position (2)	Lower Position (3)
GREEN	BRAKED	UNRESTRICTED MOVEMENT	STEERING / FIFTH CASTOR / EasyDrive
RED	STEERING / FIFTH CASTOR / EasyDrive	UNRESTRICTED MOVEMENT	BRAKED

12 Control Elements


WARNING!

Ensure any button of the control elements is not involuntarily pressed by persons, by the bed accessories, by the mattress or by the other objects!

- To avoid unintended activation of moving parts during any use of the bed, always check that none of the buttons on the control elements of the bed is pressed!
- Always ensure any control panel keyboard is not covered by anything, loaded by anything or pressed by anything!

The Essenza 400 medical bed is operated by different control elements.

Control elements depending on the Essenza 400 configuration:

- Attendant Control Panel for Essenza 400
- Siderail Control Panel for Essenza 400
- Handset Control Panel
- Patient Control Panel
- Mobi Pad
- Bed Height Foot Control
- Control Panel of Scales and Integrated Mattress

Control Elements for Essenza 400

	Attendant Control Panel for Essenza 400	Siderail Control Panel for Essen- za 400	Handset Control Panel	Patient Control Panel	Bed Height Foot Control	Mobi Pad
Backrest Adjustment	✓	✓	✓	✓		
Thighrest Adjustment	✓	✓	✓	✓		
Calfrest Adjustment						
Autocontour Adjustment	✓	✓	✓	✓		
Bed Height Adjustment	✓	✓	✓		✓	✓
Examination Position					✓	
Emergency Trendelenburg Position	✓	✓				
Trendelenburg Tilt	✓	✓				
Reverse-Trendelenburg Tilt	✓	✓				
Bed Extension Adjustment						
Emergency CPR Position	✓	✓				
Cardiac Chair Position	✓	✓				
Mobilization Position	✓	✓				
Extra Low Position	✓	✓				
Nurse Call Button (optionally available)		✓		✓		

12.1 Attendant Control Panel for Essenza 400

Ensure that exclusively trained nursing staff operates the Attendant Control Panel for Essenza 400.

The use of the Attendant Control Panel for Essenza 400 is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 68).

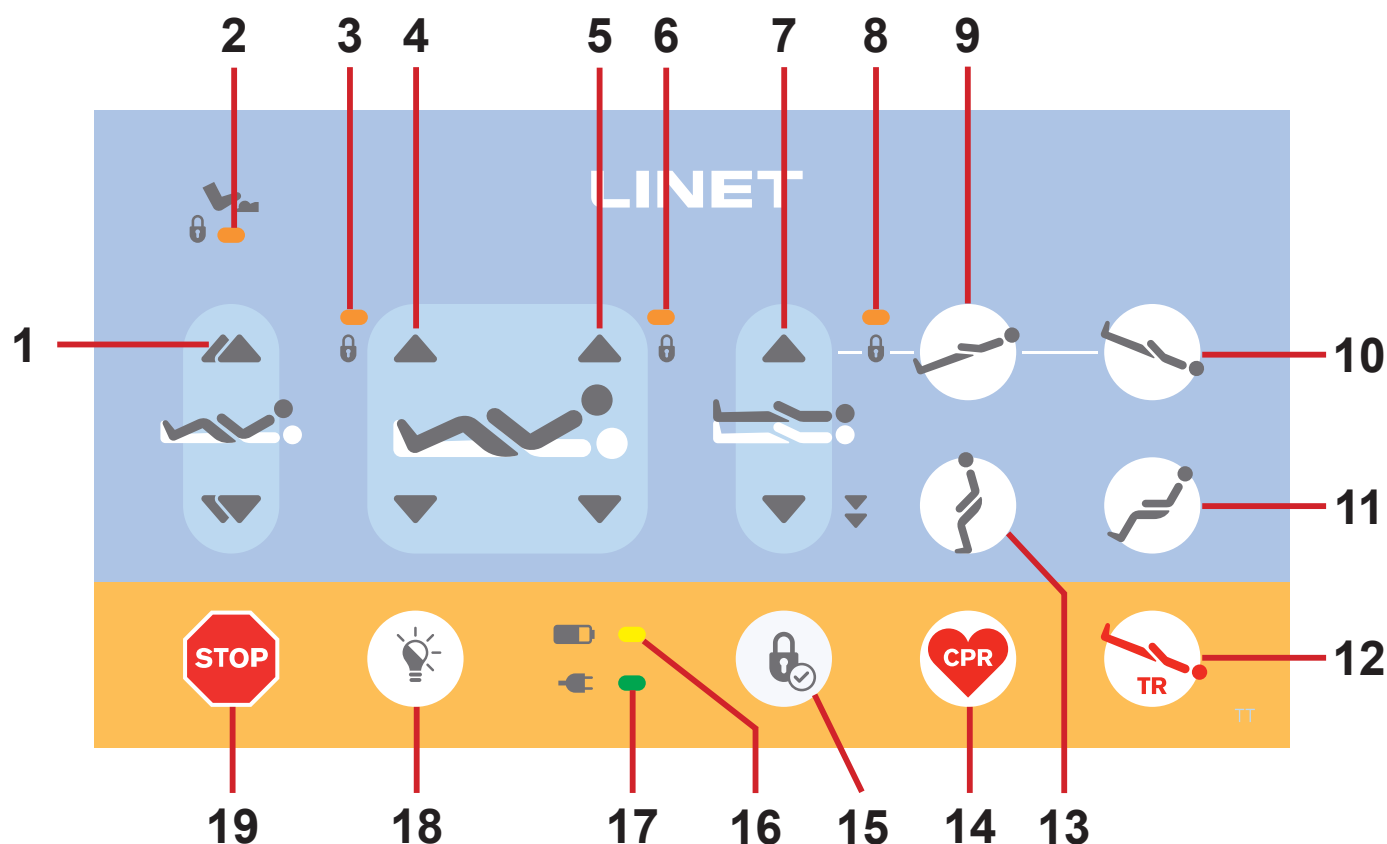


Fig. Attendant Control Panel for Essenza 400

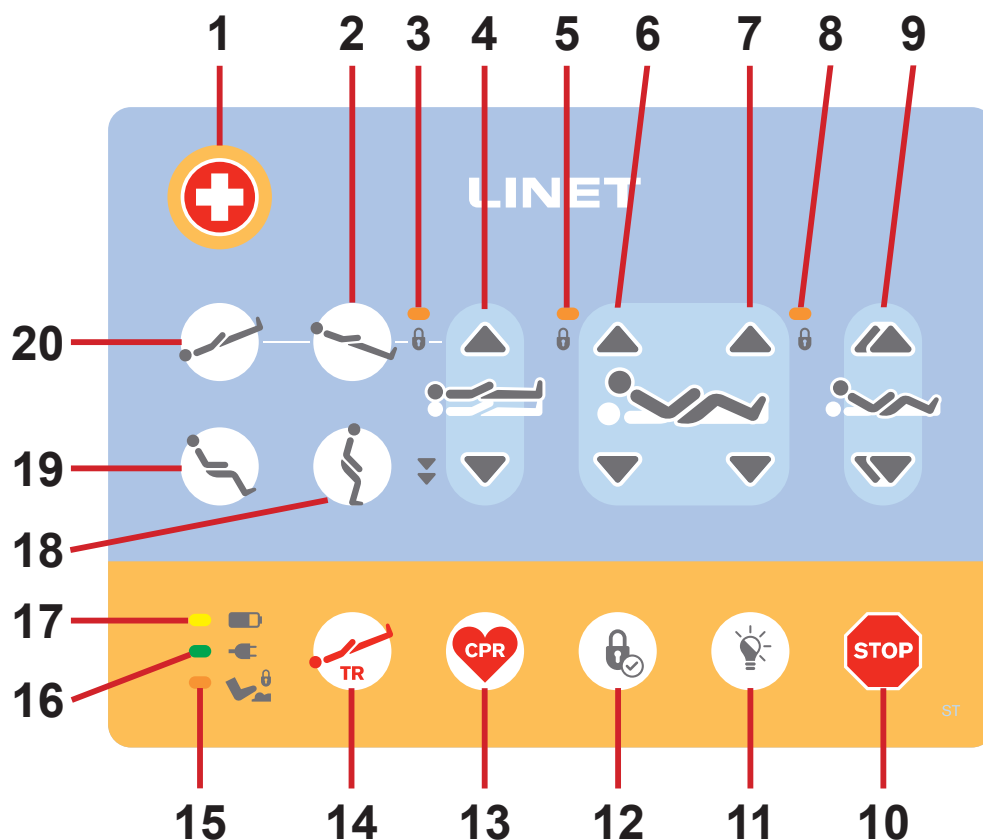
1. Autocontour Adjustment Buttons (up/down)
2. Foot Control Lock LED Indicator (ON - locked)
3. Thighrest Adjustment Lock LED Indicator (ON - locked)
4. Thighrest Adjustment Buttons (up/down)
5. Backrest Adjustment Buttons (up/down)
6. Backrest Adjustment Lock LED Indicator (ON - locked)
7. Bed Height Adjustment Buttons (up/down + Extra Low Position)
8. Bed Height Adjustment Lock LED Indicator / Trendelenburg Tilt Lock LED Indicator / Reverse-Trendelenburg Tilt Lock LED Indicator (ON - locked)
9. Reverse-Trendelenburg Tilt Button
10. Trendelenburg Tilt Button
11. Cardiac Chair Position Button
12. Emergency Trendelenburg Position Button
13. Mobilization Position Button
14. Emergency CPR Position Button
15. Lock Button
16. Accumulator Charge Status LED Indicator
17. Mains Power LED Indicator
18. Bed Illumination Control Button
19. Central STOP Button

12.2 Siderail Control Panel for Essenza 400

Ensure that exclusively trained nursing staff operates the Siderail Control Panel for Essenza 400.

The use of the Siderail Control Panel for Essenza 400 is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 68).

Siderail Control Panel can optionally be equipped with illuminated keyboard.



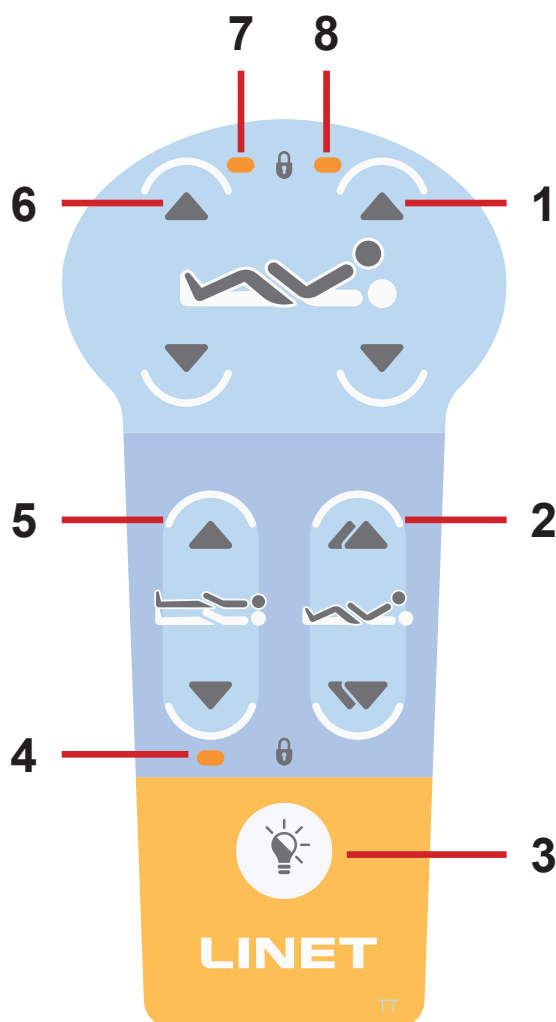
1. Nurse Call Button (optionally available)
2. Reverse-Trendelenburg Tilt Button
3. Bed Height Adjustment Lock LED Indicator / Trendelenburg Tilt Lock LED Indicator / Reverse-Trendelenburg Tilt Lock LED Indicator (ON - locked)
4. Bed Height Adjustment Buttons (up/down + Extra Low Position)
5. Backrest Adjustment Lock LED Indicator (ON - locked)
6. Backrest Adjustment Buttons (up/down)
7. Thighrest Adjustment Buttons (up/down)
8. Thighrest Adjustment Lock LED Indicator (ON - locked)
9. Autocontour Adjustment Buttons (up/down)
10. Central STOP Button
11. Bed Illumination Control Button
12. Lock Button
13. Emergency CPR Position Button
14. Emergency Trendelenburg Position Button
15. Foot Control Lock LED Indicator (ON - locked)
16. Mains Power LED Indicator
17. Accumulator Charge Status LED Indicator
18. Mobilization Position Button
19. Cardiac Chair Position Button
20. Trendelenburg Tilt Button

12.3 Handset Control Panel

Patient is allowed to use the Handset Control Panel only if hospital personnel had assessed that the patient's physical and psychological state is in accordance with use of this control element and only if the hospital personnel had trained the patient in accordance with these instructions for use.

The use of the Handset Control Panel is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 68).

Keyboard of the Handset Control Panel can optionally be illuminated.



1. Backrest Adjustment Buttons (up/down)
2. Autocontour Adjustment Buttons (up/down)
3. Flashlight Button
4. Bed Height Adjustment Lock LED Indicator (ON - locked)
5. Bed Height Adjustment Buttons (up/down)
6. Thighrest Adjustment Buttons (up/down)
7. Thighrest Adjustment Lock LED Indicator (ON - locked)
8. Backrest Adjustment Lock LED Indicator (ON - locked)

Fig. Handset Control Panel

To switch on the flashlight:

- Press and hold Flashlight button.

Flashlight emits light as long as the Flashlight button is pressed.

To disable bed positioning functions for patient, use:

- Attendant Control Panel for Essenza 400
- Siderail Control Panel for Essenza 400

12.4 Patient Control Panel

Patient is allowed to use the Patient Control Panel only if hospital personnel had assessed that the patient's physical and psychological state is in accordance with use of this control element and only if the hospital personnel had trained the patient in accordance with these instructions for use.

The use of the Patient Control Panel is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 68).

Patient Control Panel includes also the Nurse Call button (see „18.14 Nurse Call Connection“ on the page 141).

Patient Control Panel can optionally be equipped with illuminated keyboard

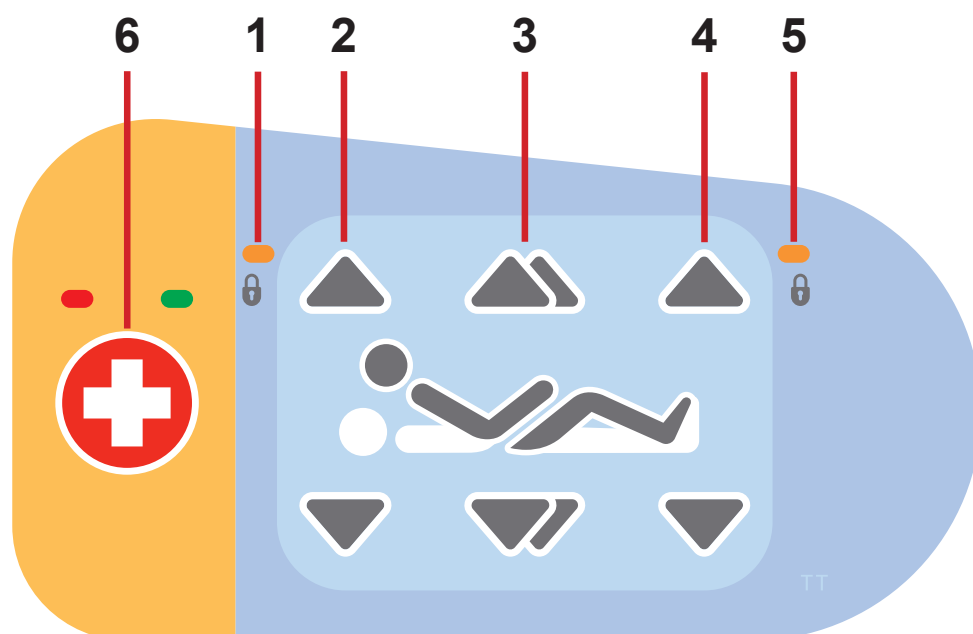


Fig. Patient Control Panel

1. Backrest Adjustment Lock LED Indicator (ON - locked)
2. Backrest Adjustment Buttons (up/down)
3. Autocontour Adjustment Buttons (up/down)
4. Thighrest Adjustment Buttons (up/down)
5. Thighrest Adjustment Lock LED Indicator (ON - locked)
6. Nurse Call Button (optionally available)

To disable bed positioning functions for patient, use:

- Attendant Control Panel for Essenza 400
- Siderail Control Panel for Essenza 400

12.5 Bed Height Foot Control

The foot control is optional and allows setting the bed height with one's feet.

Ensure that exclusively trained nursing staff operates the Bed Height Foot Control.

The use of Bed Height Foot Control is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 68).

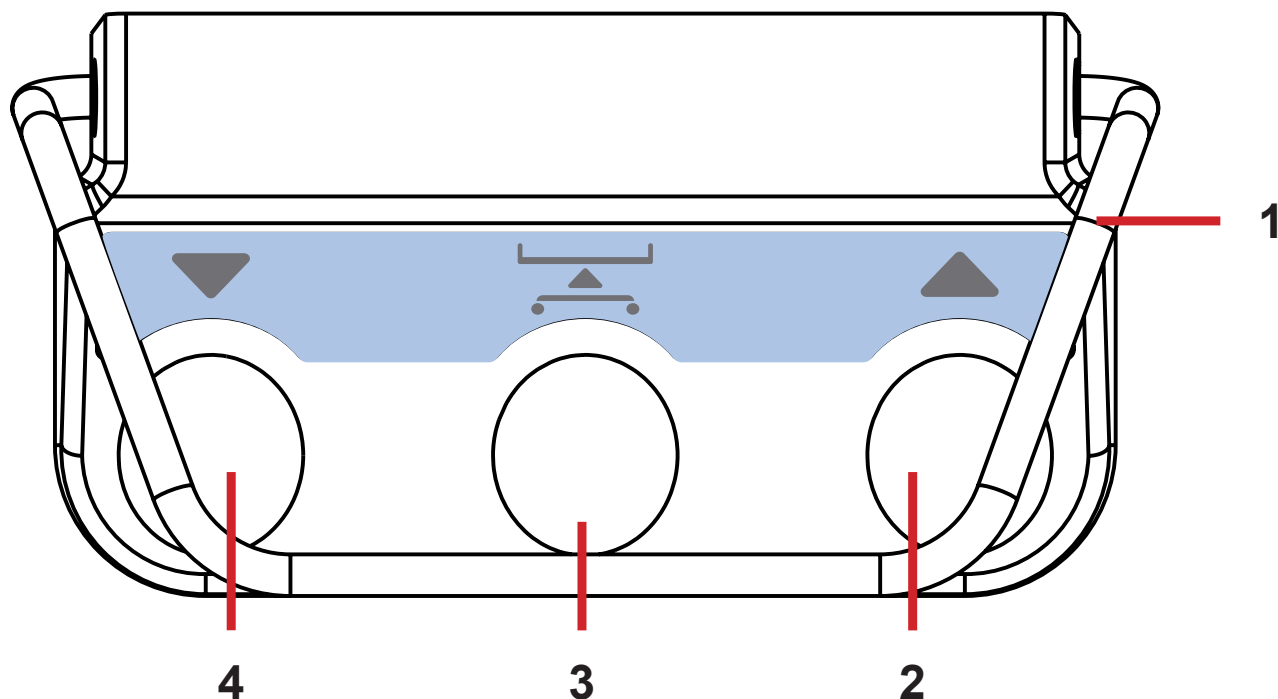


Fig. Bed Height Foot Control

1. Protection Frame against Unwanted Activation
2. Raise Pedal (Mattress support platform up)
3. Examination Position Pedal
4. Lower Pedal (Mattress support platform down)

Press the selected pedal twice in 2 seconds:

- Bed Height Foot Control is activated for 30s after this procedure.

12.6 Mobi Pad

Patient is allowed to use the Mobi Pad only if hospital personnel had assessed that the patient's physical and psychological state is in accordance with use of this control element and only if the hospital personnel had trained the patient in accordance with these instructions for use.

The use of the Mobi Pad is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 68).

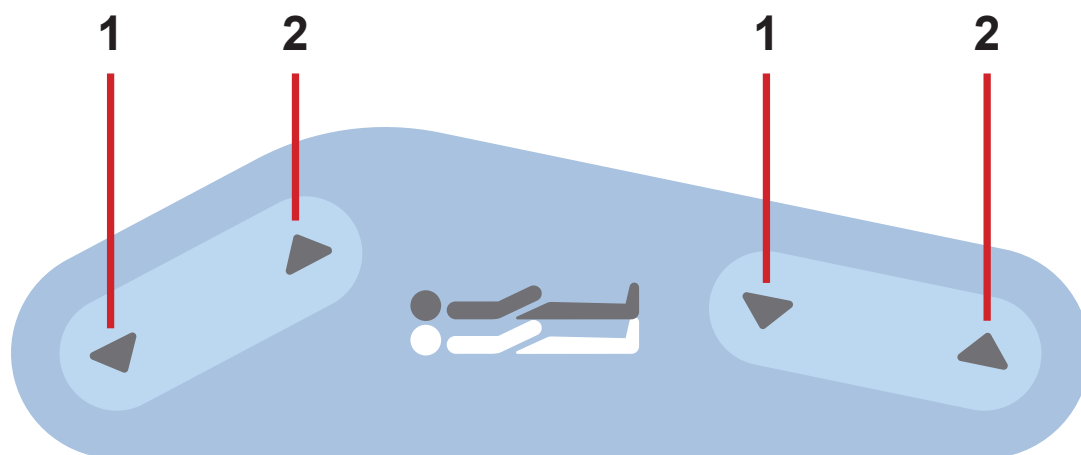


Fig. Mobi Pad

1. **Mattress Support Platform Down**
2. **Mattress Support Platform Up**

To disable bed positioning functions for patient, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

13 Bed Positioning



WARNING!

Risk of inappropriate reduction of the available bed positioning ways! Foot Control Pedals are not accessible in the Extra Low Position! Backrest Handles and Calfrest Handles are not ready for use when siderails are in lower position!

- ▶ The hospital personnel is responsible for adjusting the appropriate bed position for each patient!



WARNING!

Risk of injury when adjusting the bed!

- ▶ Ensure that there are no body parts between the Mattress Support Platform parts and the Mattress Support Platform frame when adjusting the bed.
- ▶ Ensure that there are no body parts below the Mattress Support Platform frame before adjusting the bed.



WARNING!

Risk of injury or material damage when adjusting the bed!

- ▶ Ensure that there are no installed accessories that may collide with moving parts of the bed.
- ▶ Extra care must be taken to avoid collisions of the accessories with bed parts during bed positioning.



WARNING!

Risk of injury due to incorrect use!

- ▶ Medical personnel is responsible for siderails adjustment in accordance with patient's safety in bed!



CAUTION!

Risk of squeezing hand due to incorrect Backrest adjustment!

- ▶ Take extra care during Backrest adjustment to avoid squeezing your hand!



CAUTION!

Risk of squeezing hand due to incorrect Thighrest adjustment!

- ▶ Take extra care during Thighrest adjustment if Thighrest is equipped with control unit of the Air2Care IN & HybriMatt IN integrated mattress to avoid squeezing your hand!



CAUTION!

Risk of squeezing hand due to incorrect Calfrest adjustment!

- ▶ Take extra care during Calfrest adjustment to avoid squeezing your hand!



CAUTION!

Risk of damaging control elements and their cables due to incorrect positions of the control elements during lowering to the Extra Low Position!

- ▶ Ensure the control elements (e. g. Attendant Control Panel or Handset Control Panel) are located on the safe positions on the bed before and during lowering to the Extra Low Position!

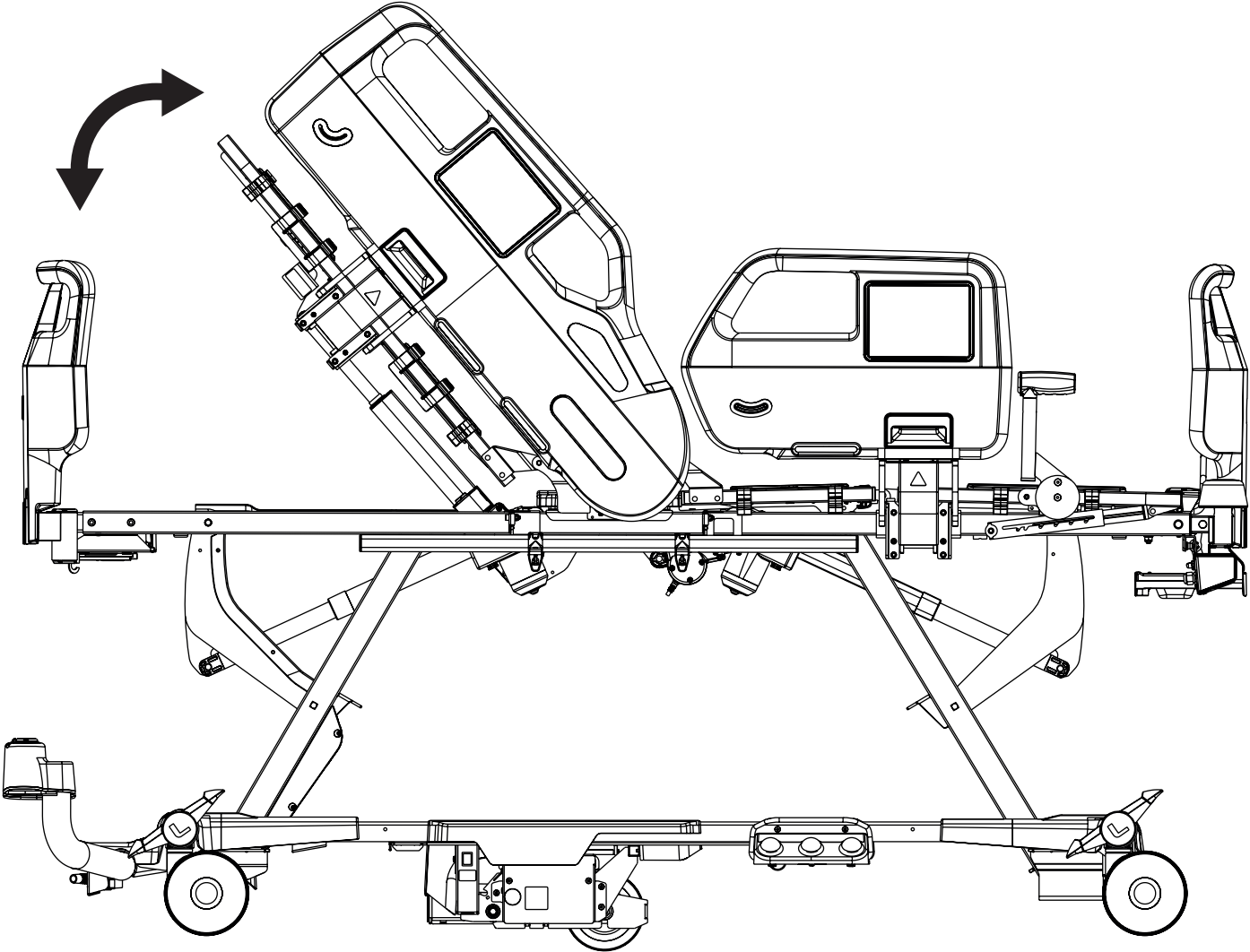


CAUTION!

Risk of damaging accessories due to incorrect positions of the accessories during lowering to the Extra Low Position!

- ▶ Ensure the accessories are located on the safe positions on the bed before and during lowering to the Extra Low Position!

13.1 Backrest Adjustment



To adjust Backrest, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400
- ▶ Handset Control Panel
- ▶ Patient Control Panel

Buttons intended for Backrest adjustment:			



WARNING!
Risk of injury due to incorrect use!
► Ensure that there is no leg or the other body part between the Plastic Head Siderail folded down and the Plastic Foot Siderail folded down when patient sits in the middle of the bed and somebody lowers Backrest! Medical personnel are responsible for instructing the patient to avoid this risk if the patient is allowed to use Handset Control Panel or Patient Control Panel!

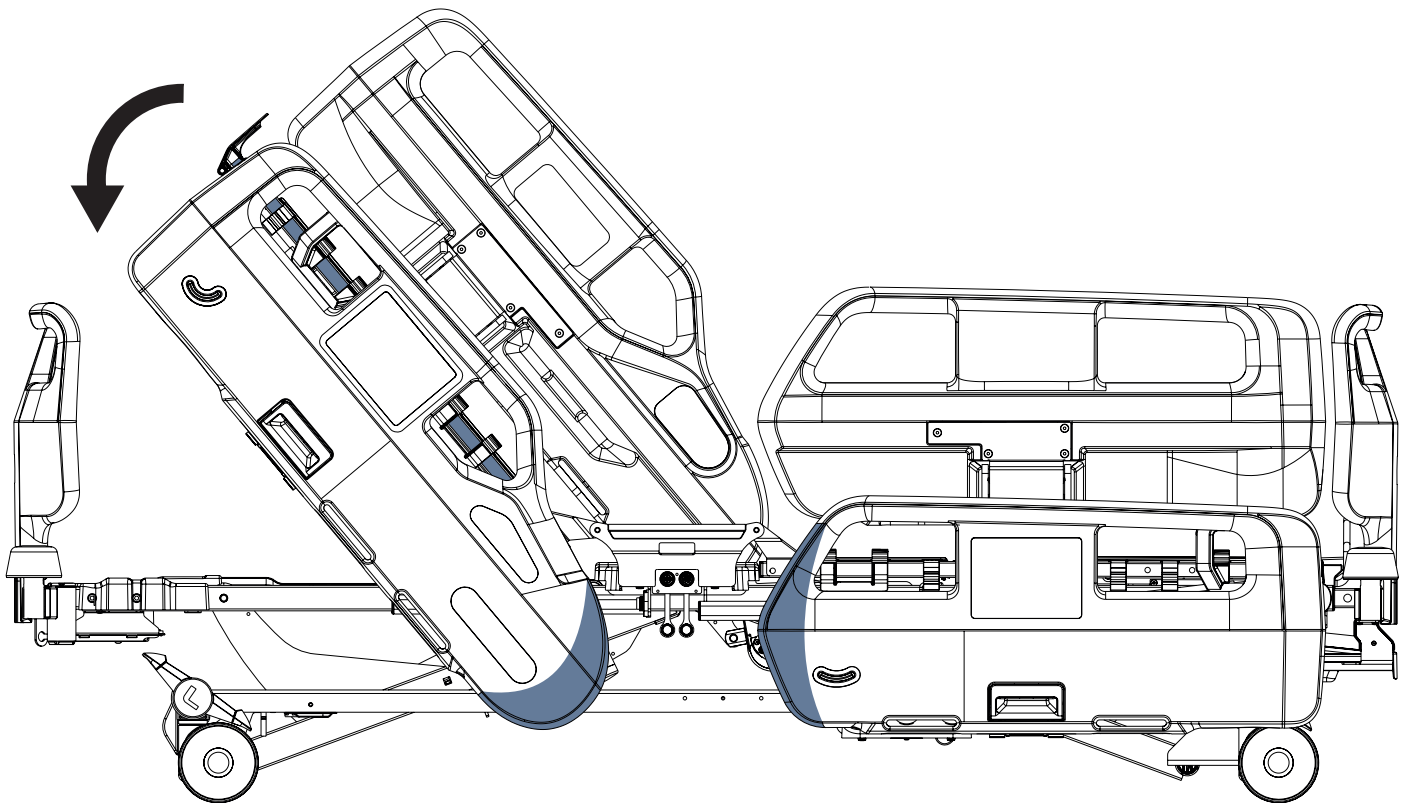


Fig. Bed adjustment unsuitable for sitting in the middle of the bed

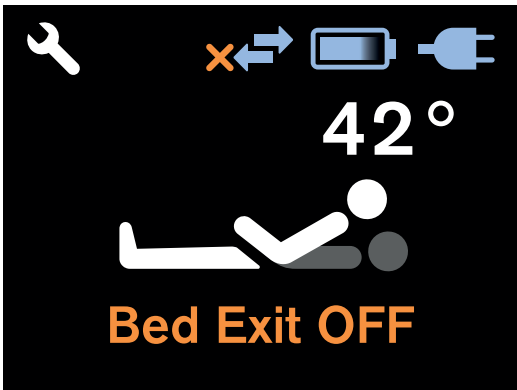
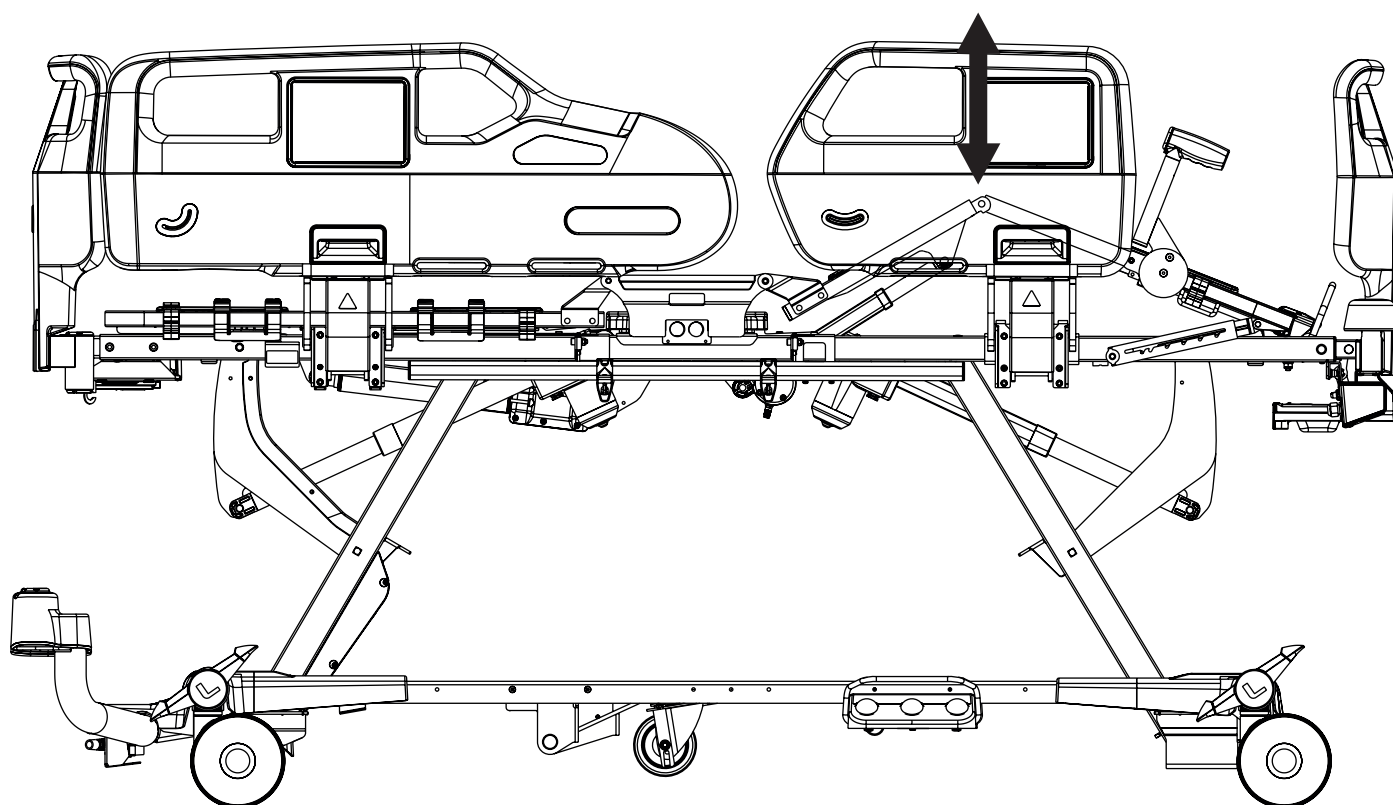


Fig. Backrest Angle Indication



Fig. Maximum Backrest Angle in accordance with Sensitive Zone Monitoring

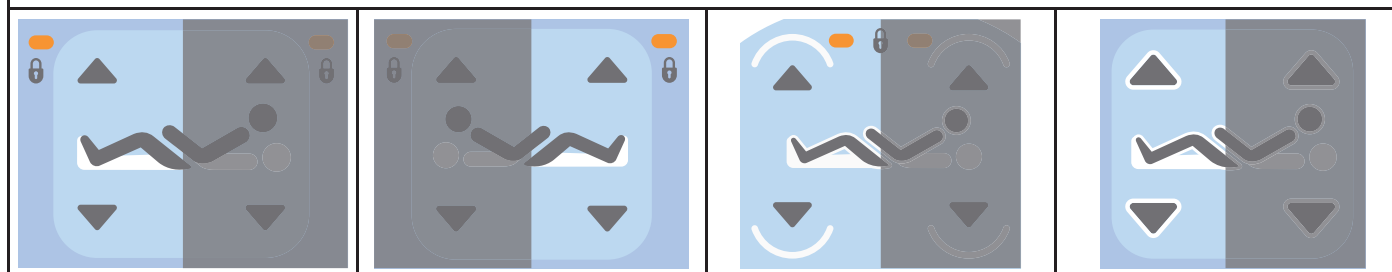
13.2 Thighrest Adjustment



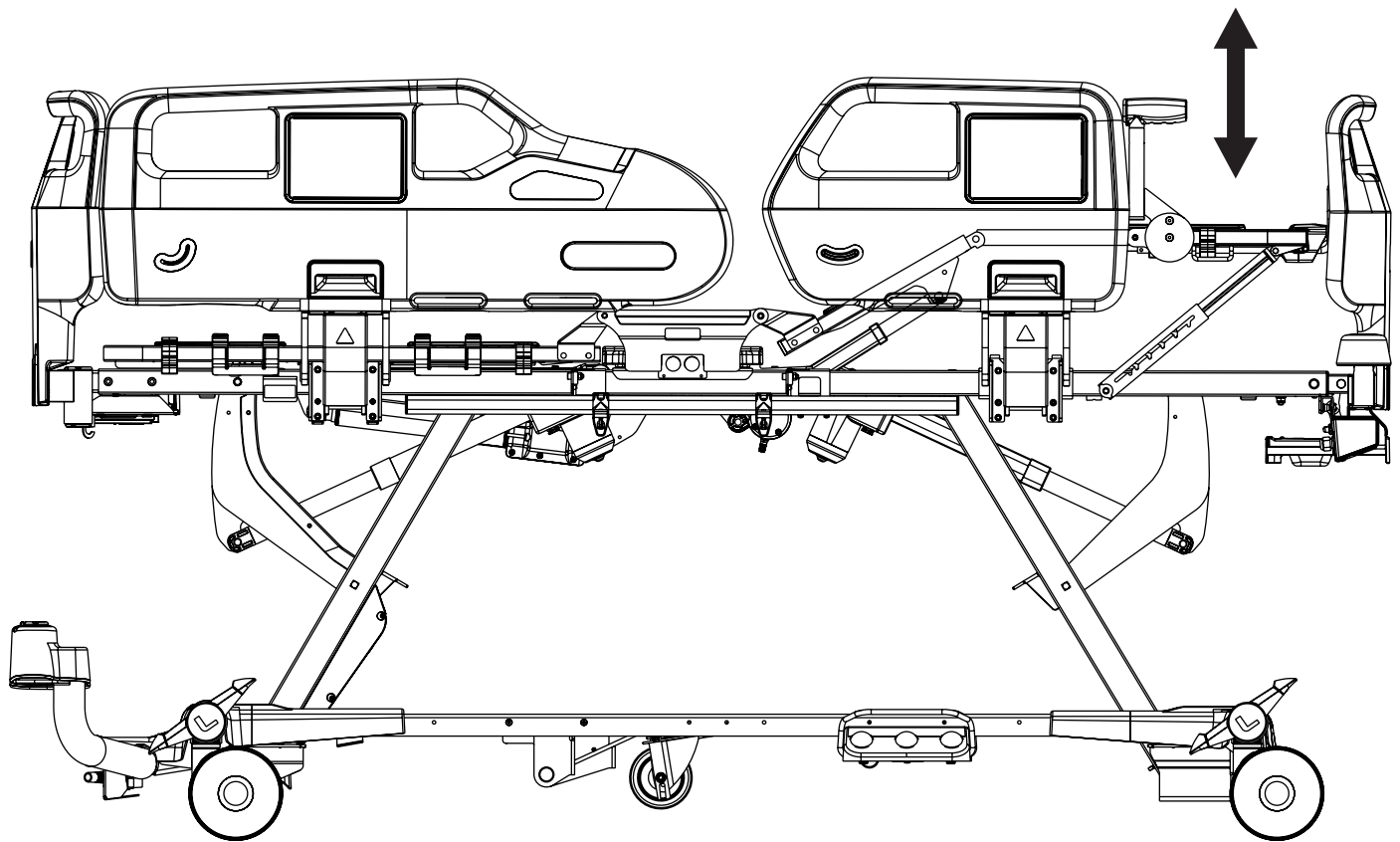
To adjust Thighrest, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400
- ▶ Handset Control Panel
- ▶ Patient Control Panel

Buttons intended for Thighrest adjustment:



13.3 Calfrest Adjustment



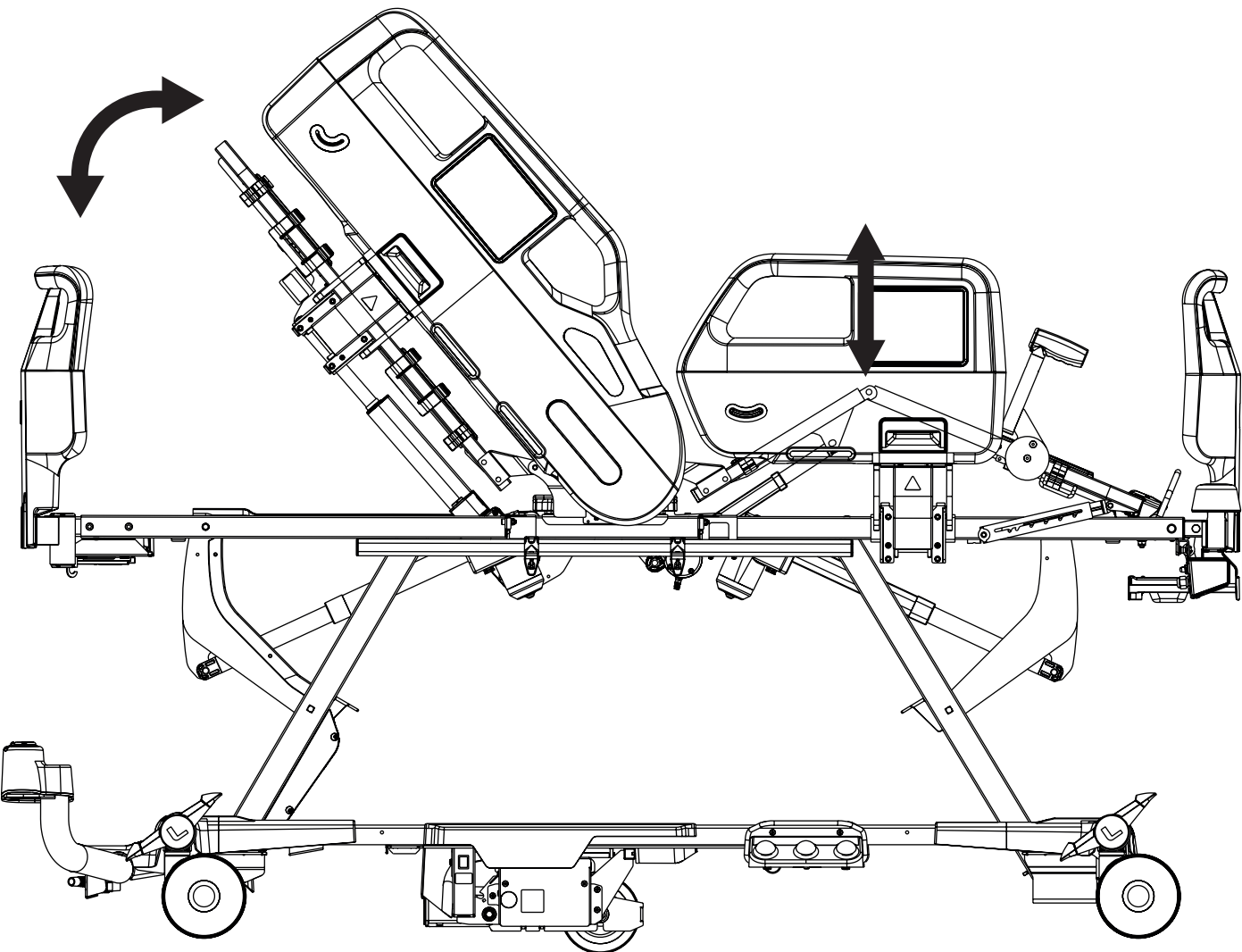
To lift Calfrest:

- ▶ Grab the bottom part of the Calfrest Handle with one hand and the Siderail Release Handle with the other hand.
- ▶ Lift Calfrest with one hand to intended position and fold the foot siderail down with the other hand.
- ▶ Lower the Calfrest so that catch fits in the ratchet-bar.

To lower Calfrest:

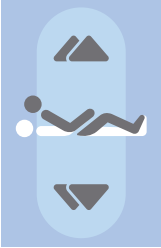
- ▶ Lift Calfrest slightly by the Calfrest Handle.
- ▶ Lower Calfrest to intended position.
- ▶ Ensure the catch fits in the ratchet-bar during slight lifting of the Calfrest.

13.4 Autocontour Adjustment

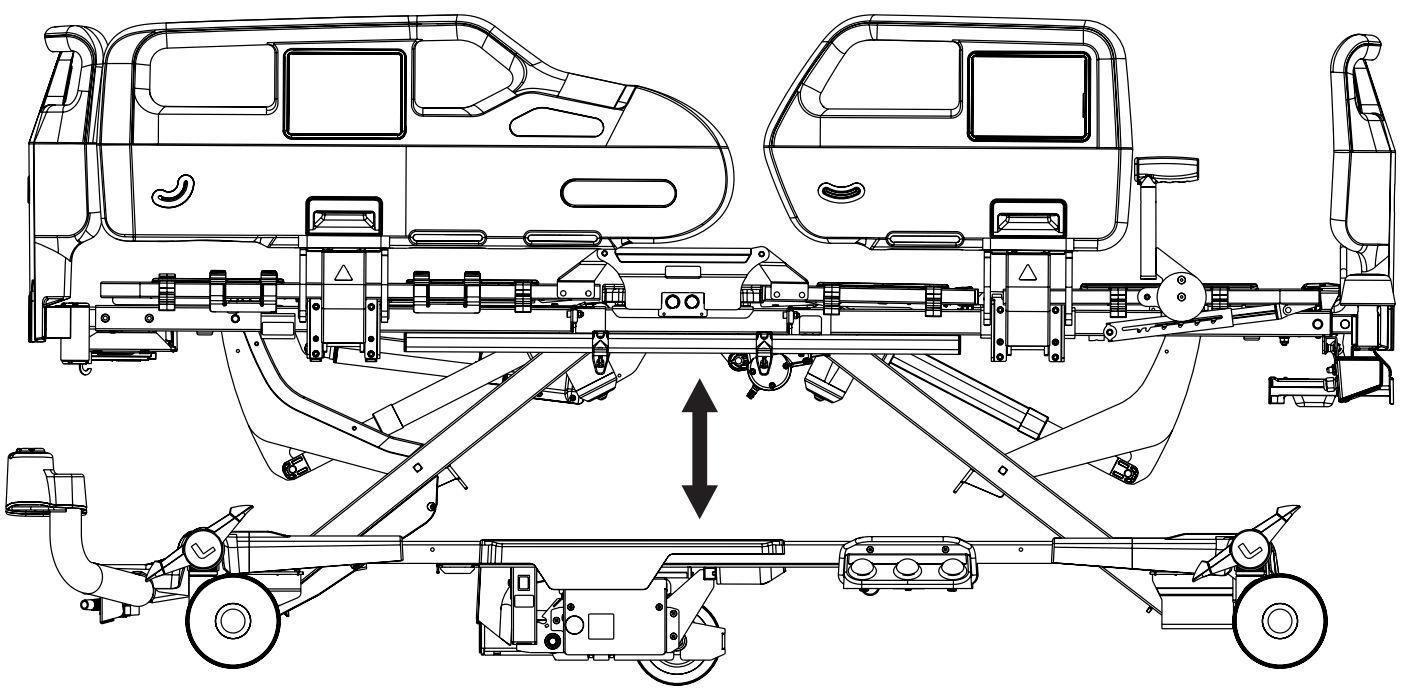


To adjust Autocontour, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400
- ▶ Handset Control Panel
- ▶ Patient Control Panel

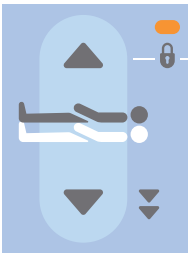
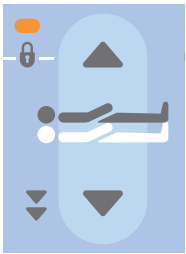
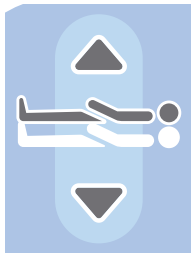
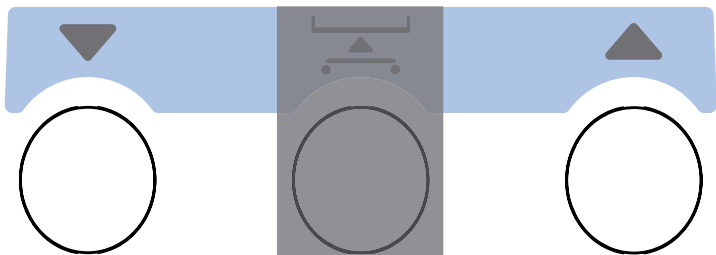
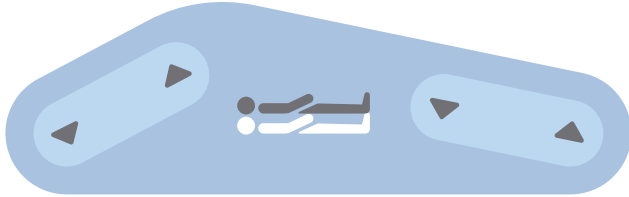
Buttons intended for Autocontour adjustment:		
		

13.5 Bed Height Adjustment



To adjust Bed Height, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400
- ▶ Handset Control Panel
- ▶ Patient Control Panel
- ▶ Bed Height Foot Control
- ▶ Mobi Pad

Buttons intended for Bed Height adjustment:				
				
				

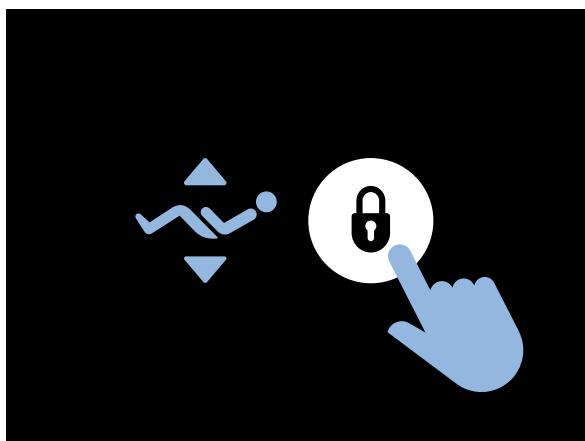
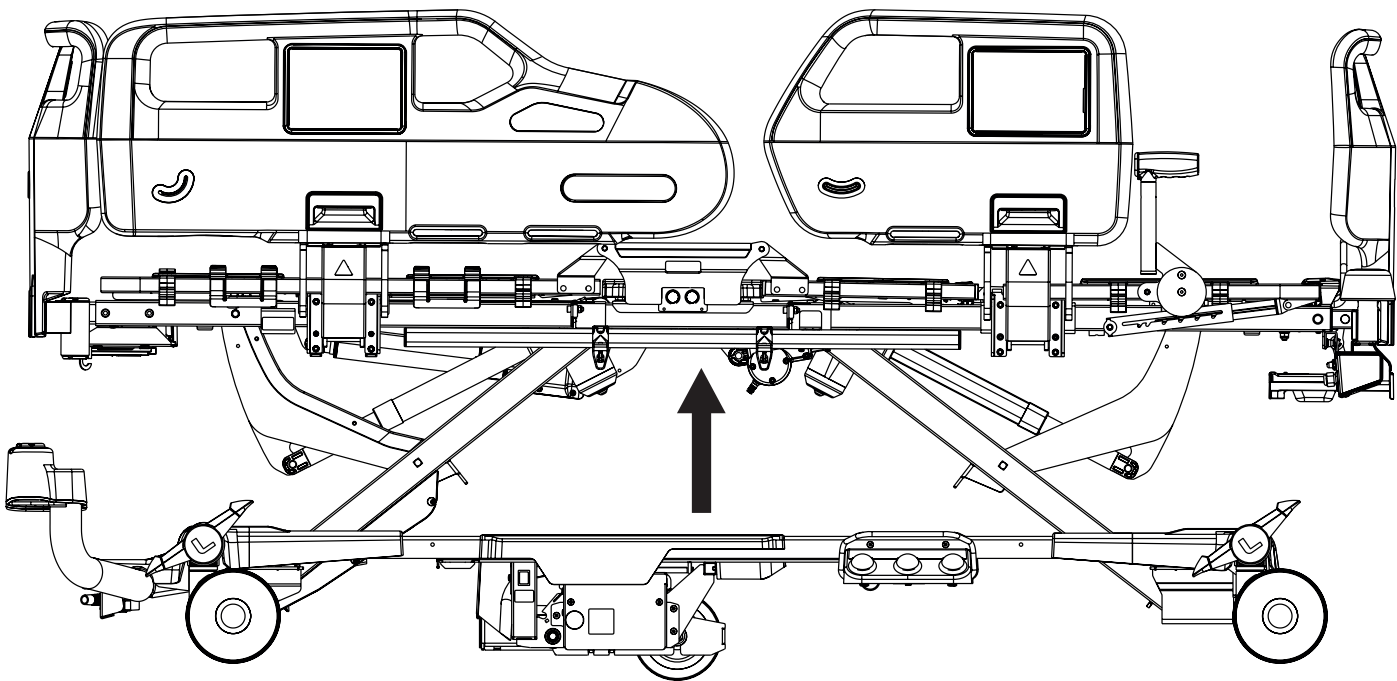


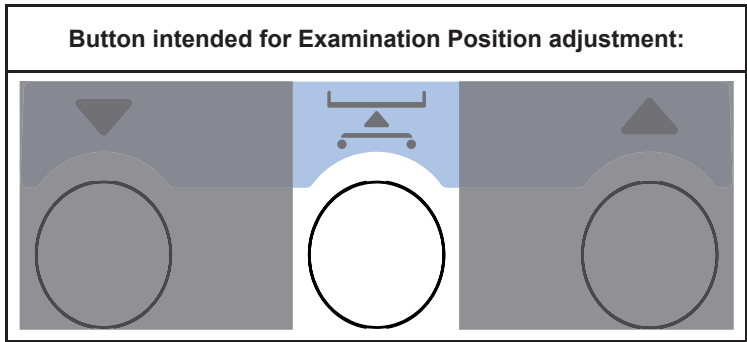
Fig. Indication of locked bed height adjustment (press Lock button to enable the bed height adjustment)

13.6 Examination Position

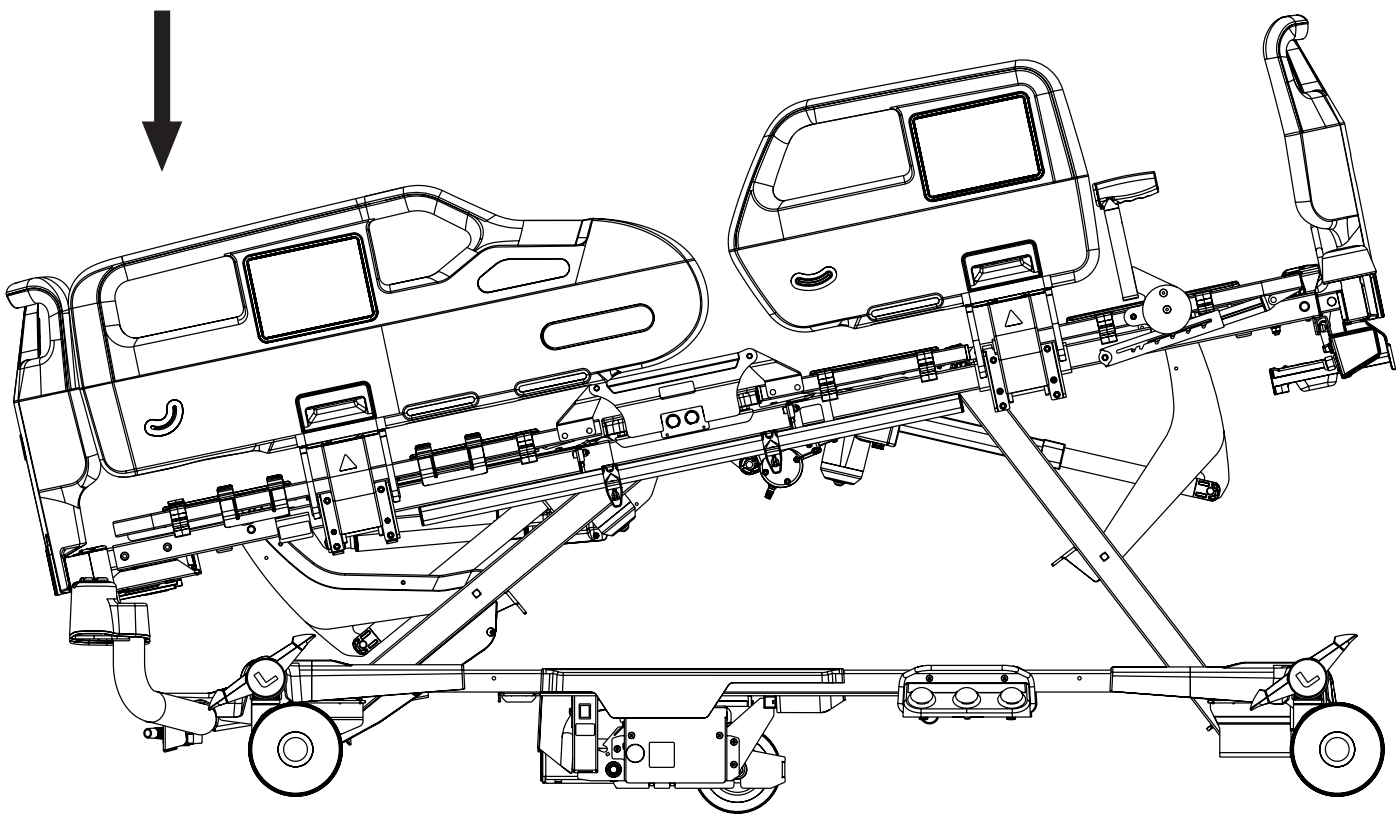


To adjust Examination Position, use:

- Bed Height Foot Control



13.7 Emergency Trendelenburg Position



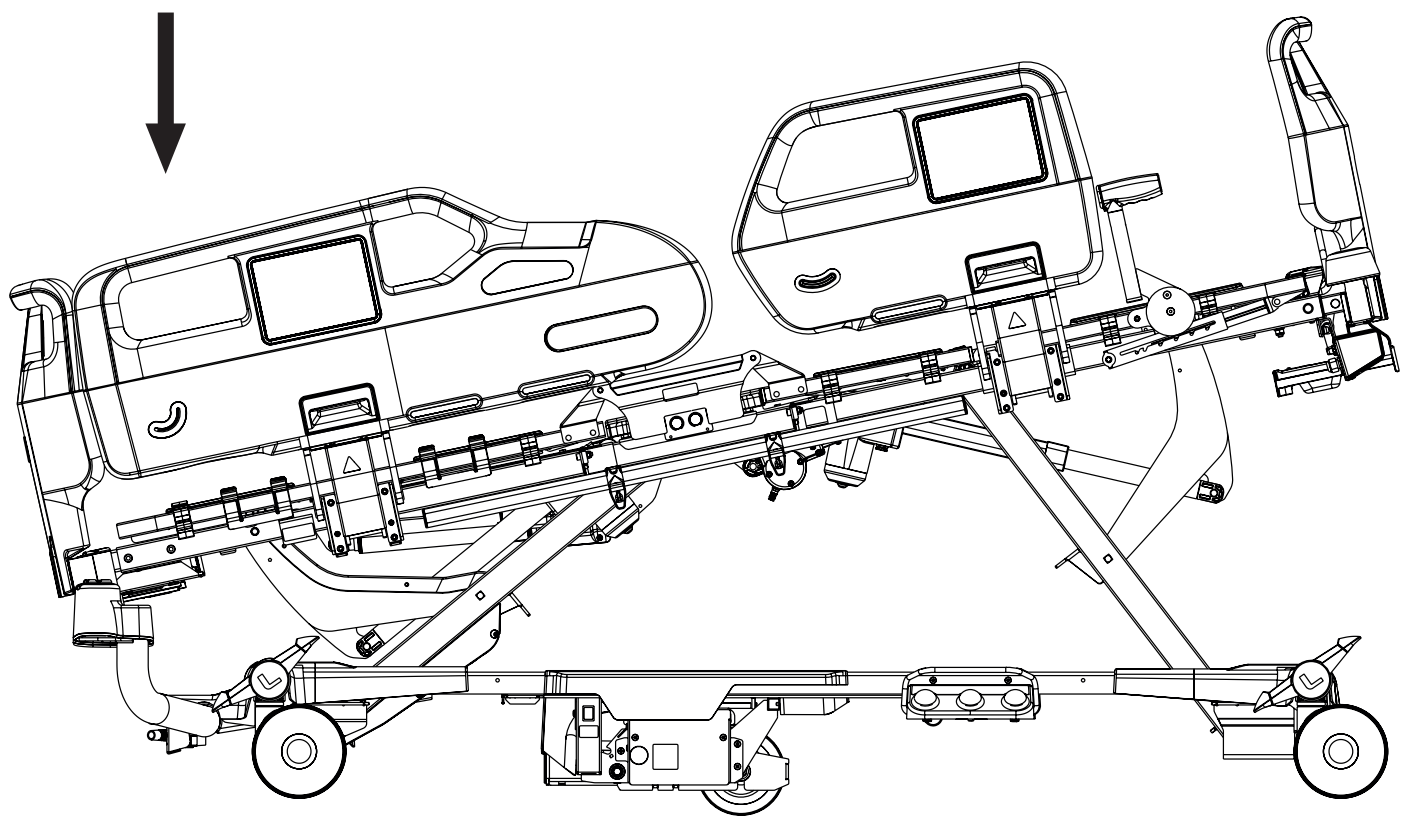
WARNING!
Risk of injury due to improper use of Trendelenburg Position!
▶ Hospital staff is responsible for assessing if the physical and psychological state of the patient is in accordance with use of the Trendelenburg Position.

To adjust Emergency Trendelenburg Position, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

Buttons intended for Emergency Trendelenburg Position adjustment:	

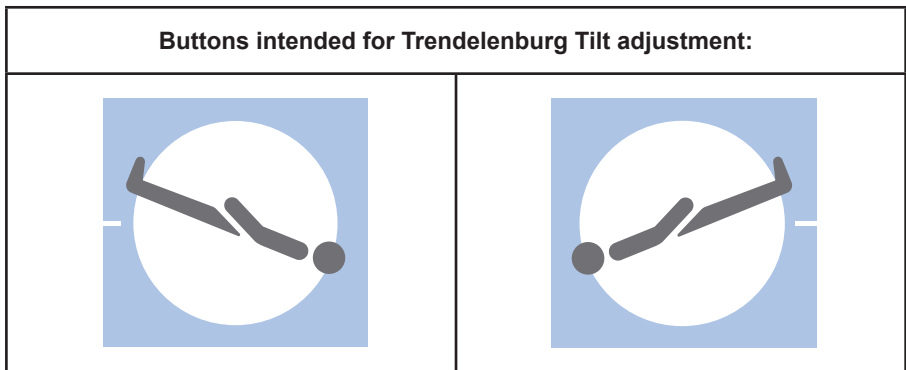
13.8 Trendelenburg Tilt



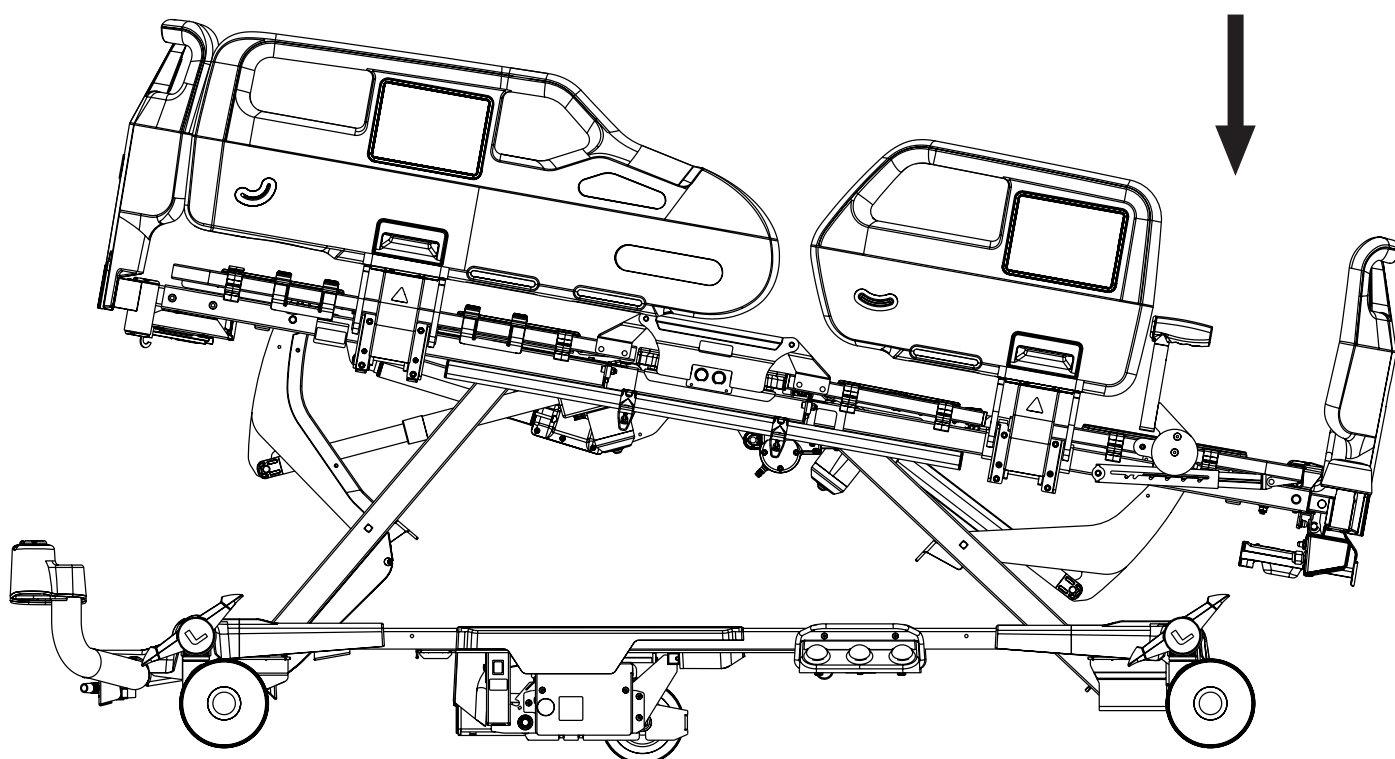
WARNING!
Risk of injury due to improper use of Trendelenburg Position!
▶ Hospital staff is responsible for assessing if the physical and psychological state of the patient is in accordance with use of the Trendelenburg Position.

To adjust Trendelenburg Tilt, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400



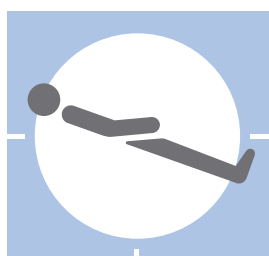
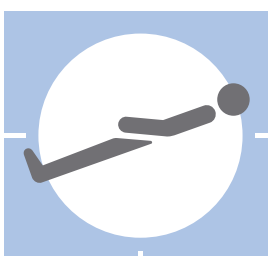
13.9 Reverse-Trendelenburg Tilt



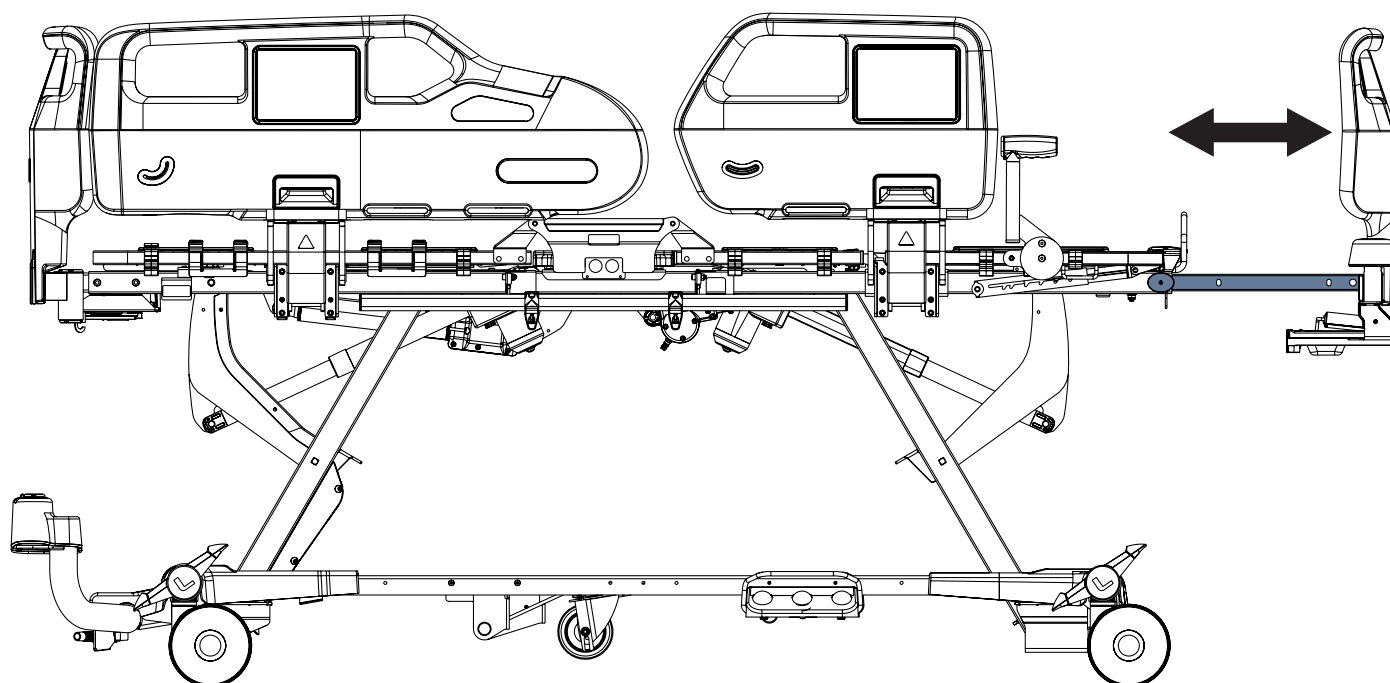
To adjust Reverse-Trendelenburg Tilt, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

Buttons intended for Reverse-Trendelenburg Tilt adjustment:



13.10 Bed Extension Adjustment



Simple Bed Extension

To extend the bed:

- ▶ Pull out the Safety Catches at Foot End on the both sides of the frame.
- ▶ Turn the Safety Catches by 90°.

The Safety Catches are released.

- ▶ Pull the Foot Board to the selected position.
- ▶ Turn the Safety Catches by 90° and push them in to fix the extension position.

To shorten the bed:

- ▶ Pull out the Safety Catches at Foot End on both sides of the frame.
- ▶ Turn the Safety Catches by 90°.

The Safety Catches are released.

- ▶ Push the Foot Board to the selected position.
- ▶ Turn the Safety Catches by 90° and push them in to fix the extension position.

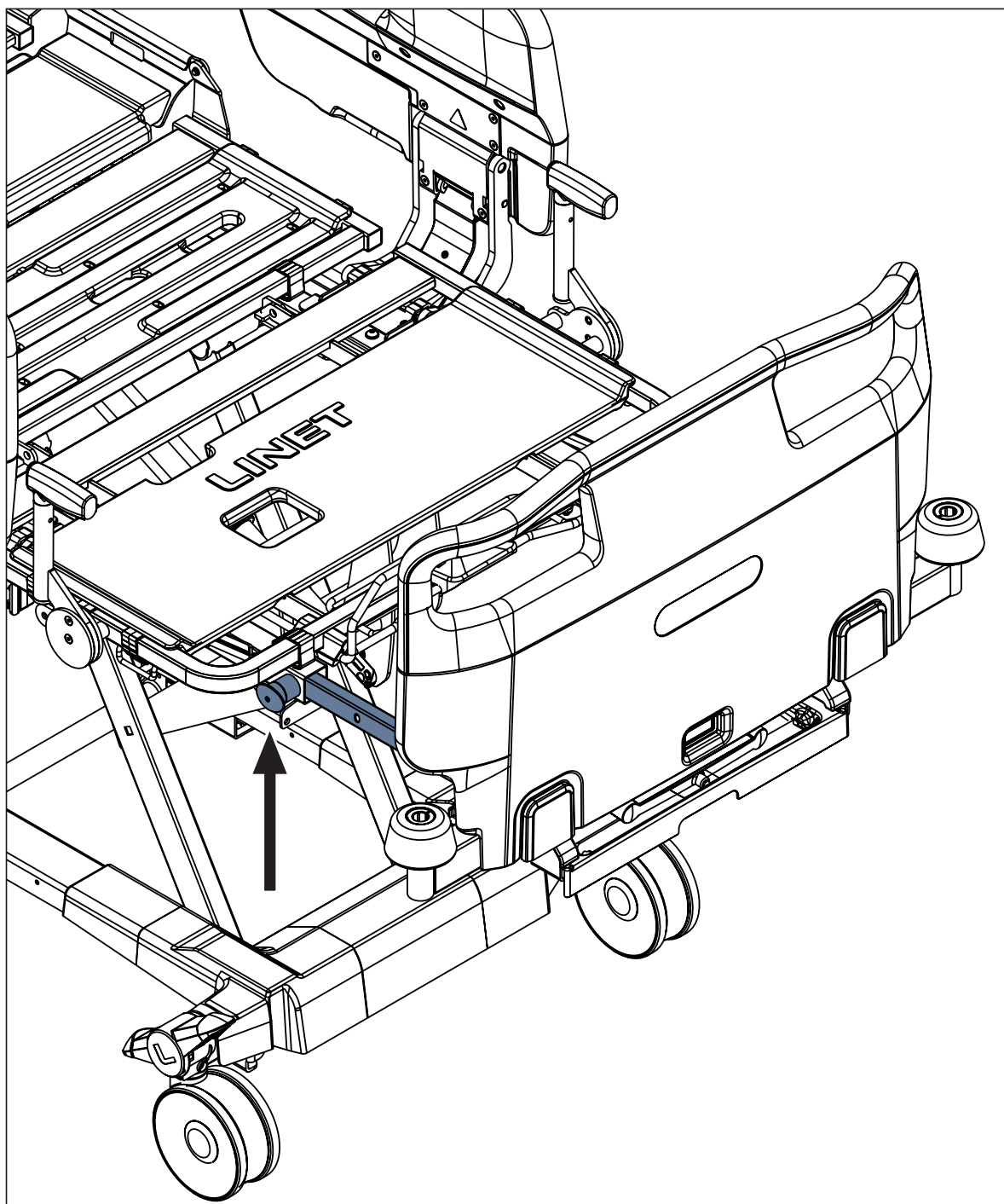
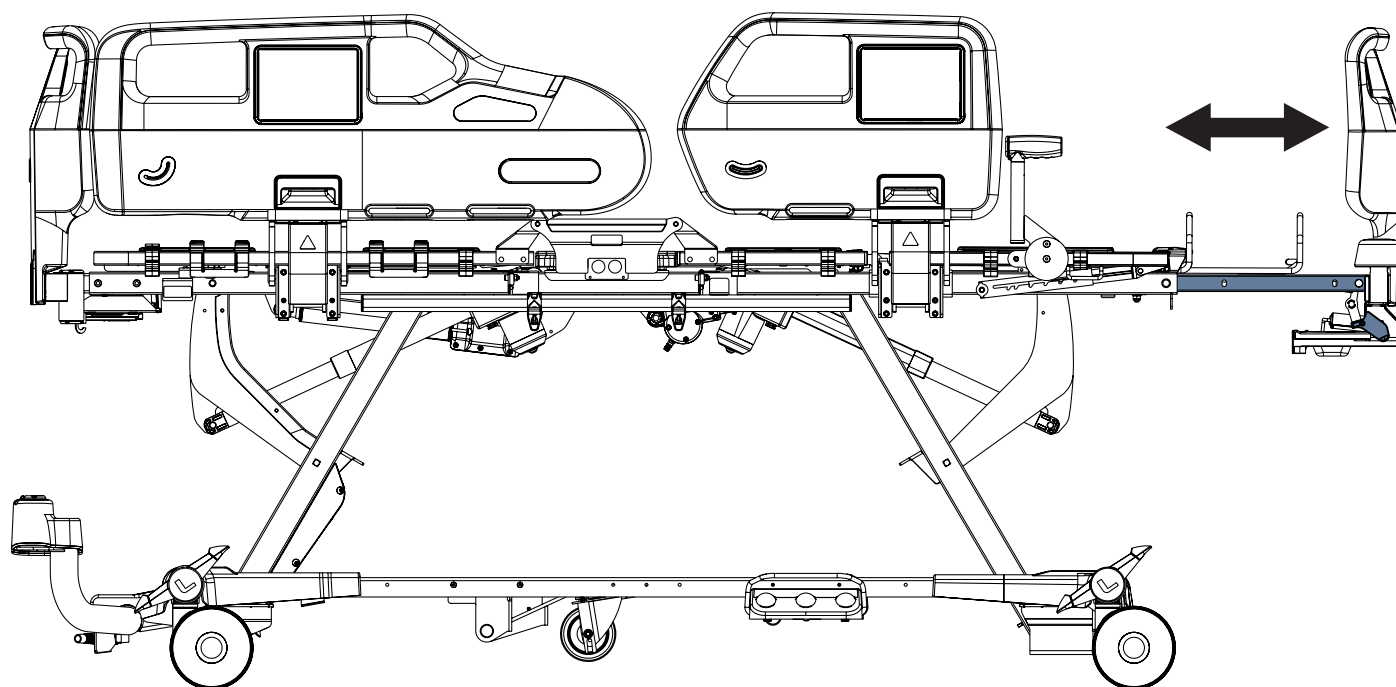


Fig. Position of Bed Extension Safety Catch



Advanced Bed Extension

To extend the bed:

- ▶ Pull Bed Extension Handle to you and keep it in this position.
- ▶ Extend the bed by pulling the foot board to you.
- ▶ Push the foot board to fix it in the required extended position.
- ▶ Move the foot board inwards and outwards to check if it is fixed.

To shorten the bed:

- ▶ Pull Bed Extension Handle to you and keep it in this position.
- ▶ Shorten the bed by pushing the foot board backwards to the required position.
- ▶ Move the foot board inwards and outwards to check if it is fixed.

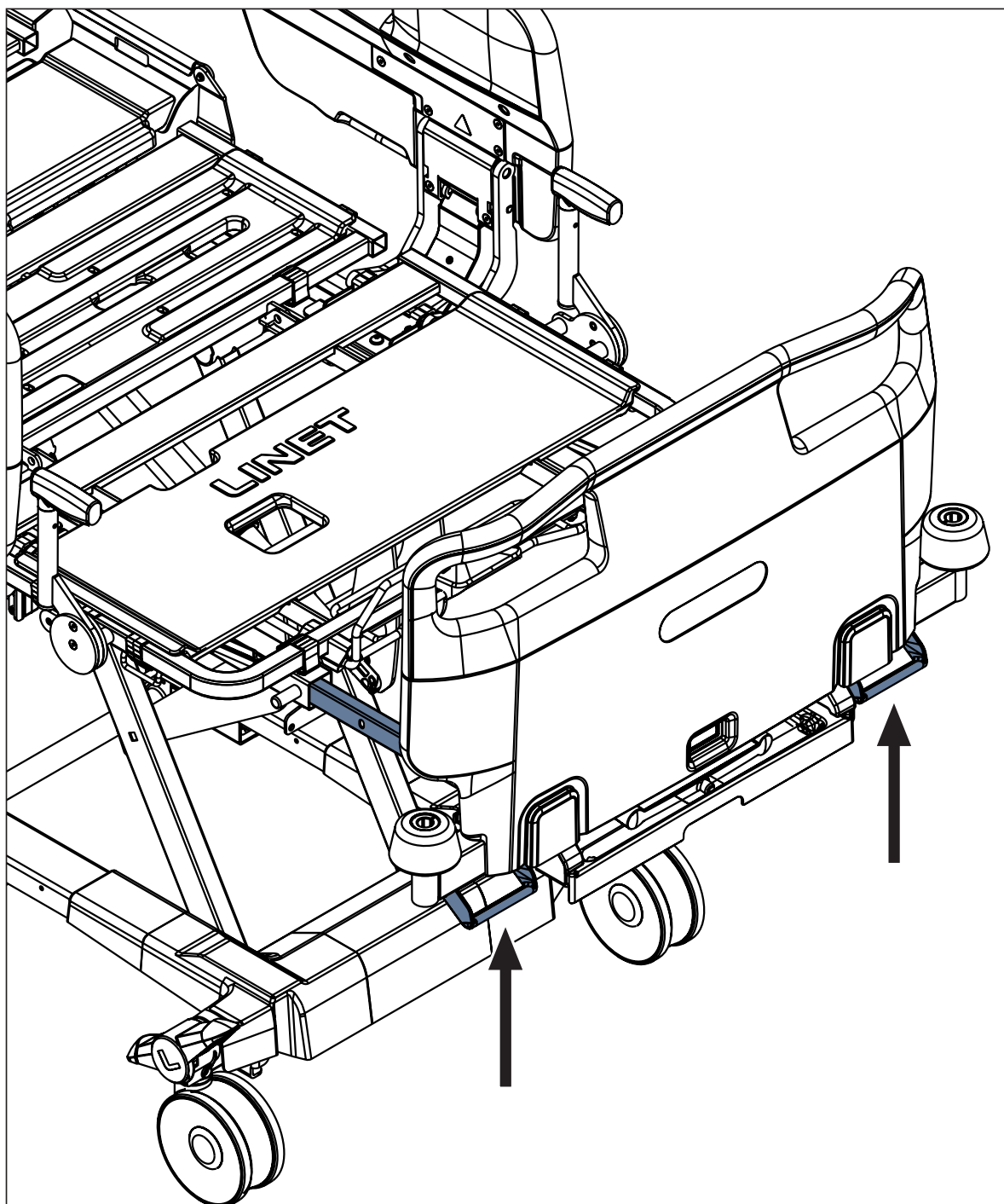


Fig. Position of Bed Extension Handles under the Foot Board

13.11 Calfrest Extension Adjustment



CAUTION!

Risk of material damage due to incorrect use!

- ▶ Avoid overloading the wire construction of Calfrest Extension and avoid shaking the wire construction of Calfrest Extension up and down violently when pulling Calfrest Extension Holders out and pushing Calfrest Extension Holders back to the original position.
- ▶ Avoid overloading the wire construction of Calfrest Extension and avoid shaking the wire construction of Calfrest Extension up and down violently when wire construction of Calfrest Extension is in extended position.

It is necessary to adjust Bed Extension before adjusting the Calfrest Extension. Calfrest Extension allows mattress support platform to be extended by 20 cm for use of the 220 cm long mattress on the Essenza 400 bed. It is allowed to use also 200 cm long mattress in combination with 20 cm long mattress foam extension. Safe Working Load of the wire construction of Calfrest Extension in extended position is 75 kg.

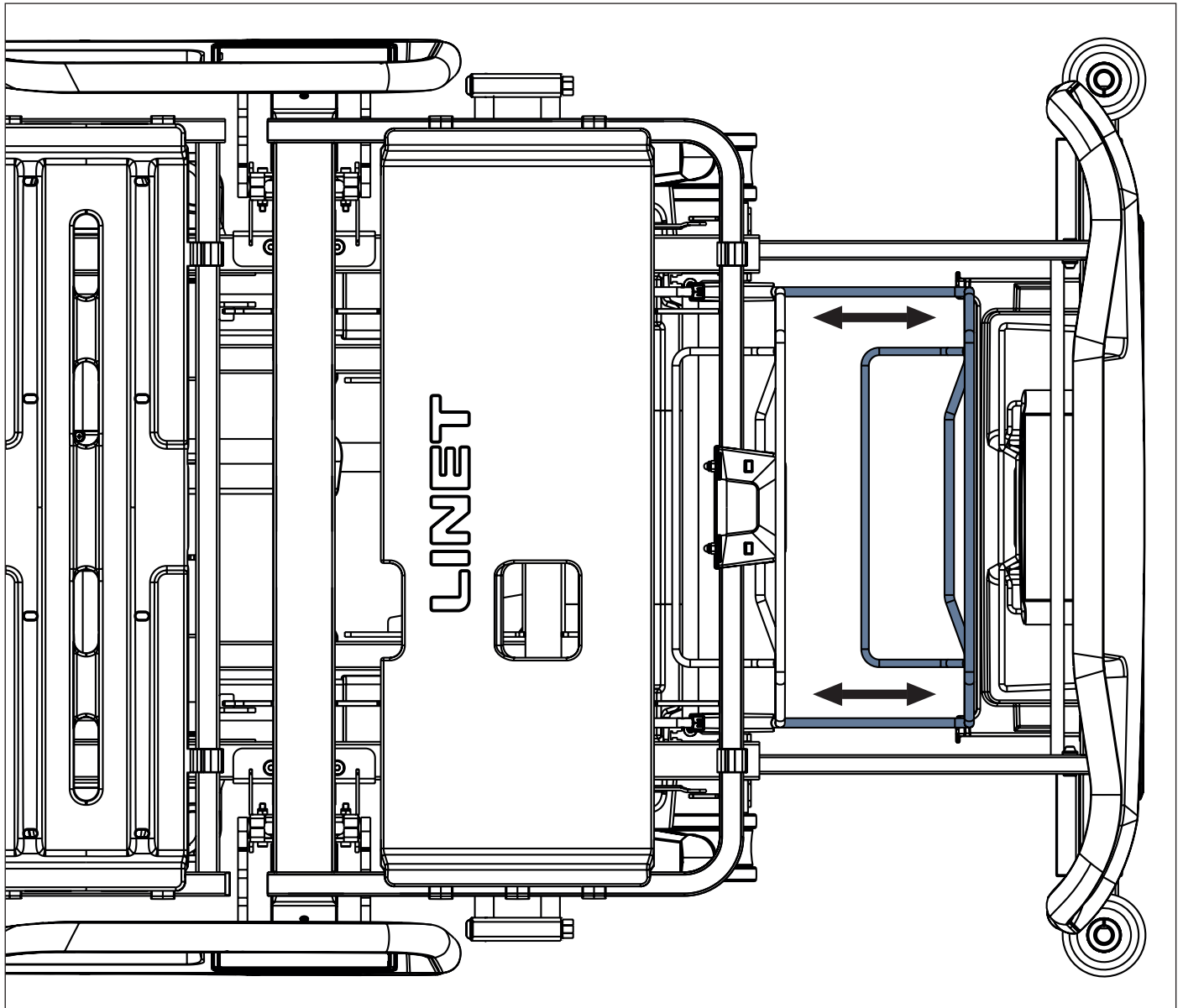


Fig. Adjustment of Calfrest Extension Holder

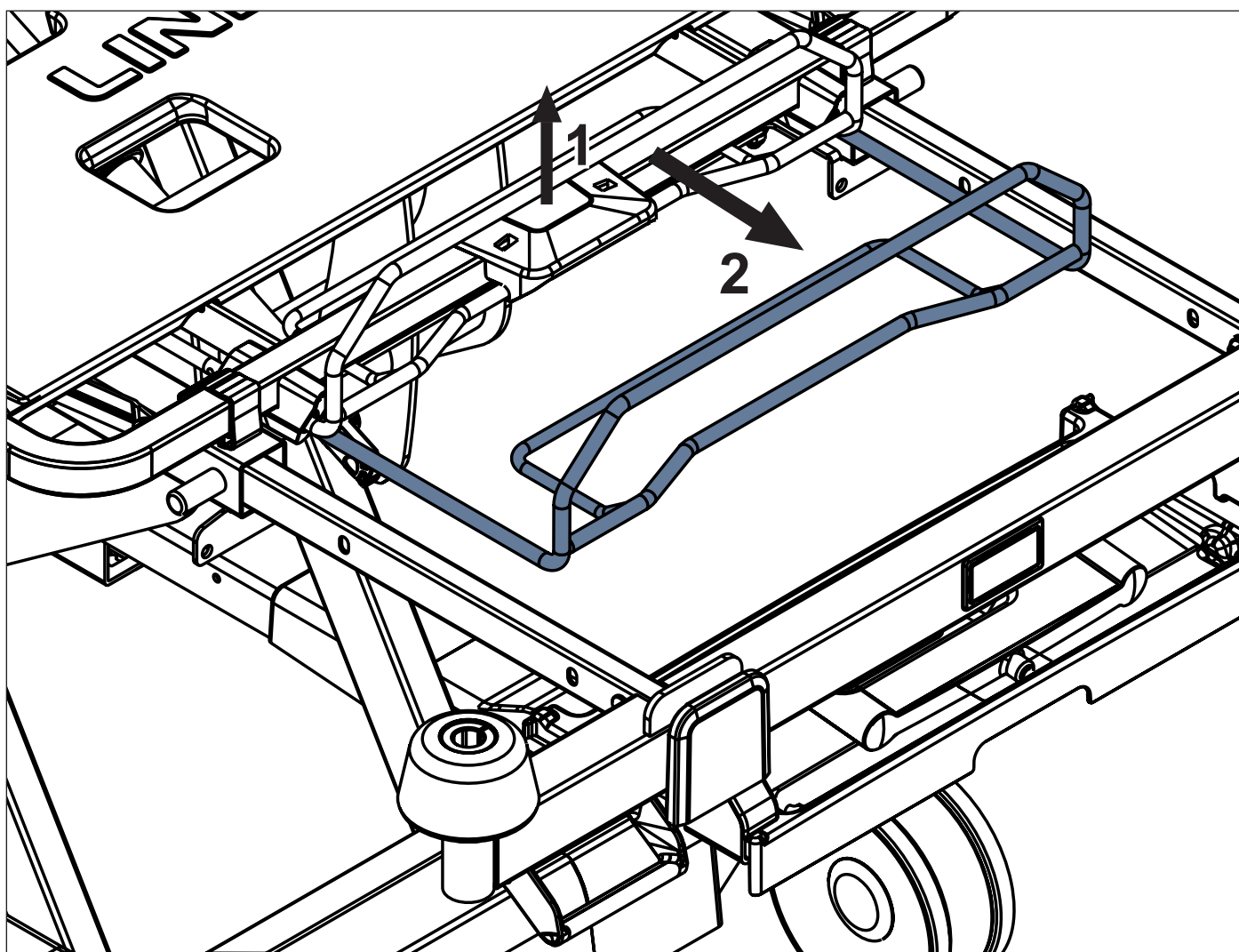


Fig. Two steps of the Calfrest Extension Adjustment

13.11.1 Calfrest Extension Adjustment

To adjust Calfrest Extension:

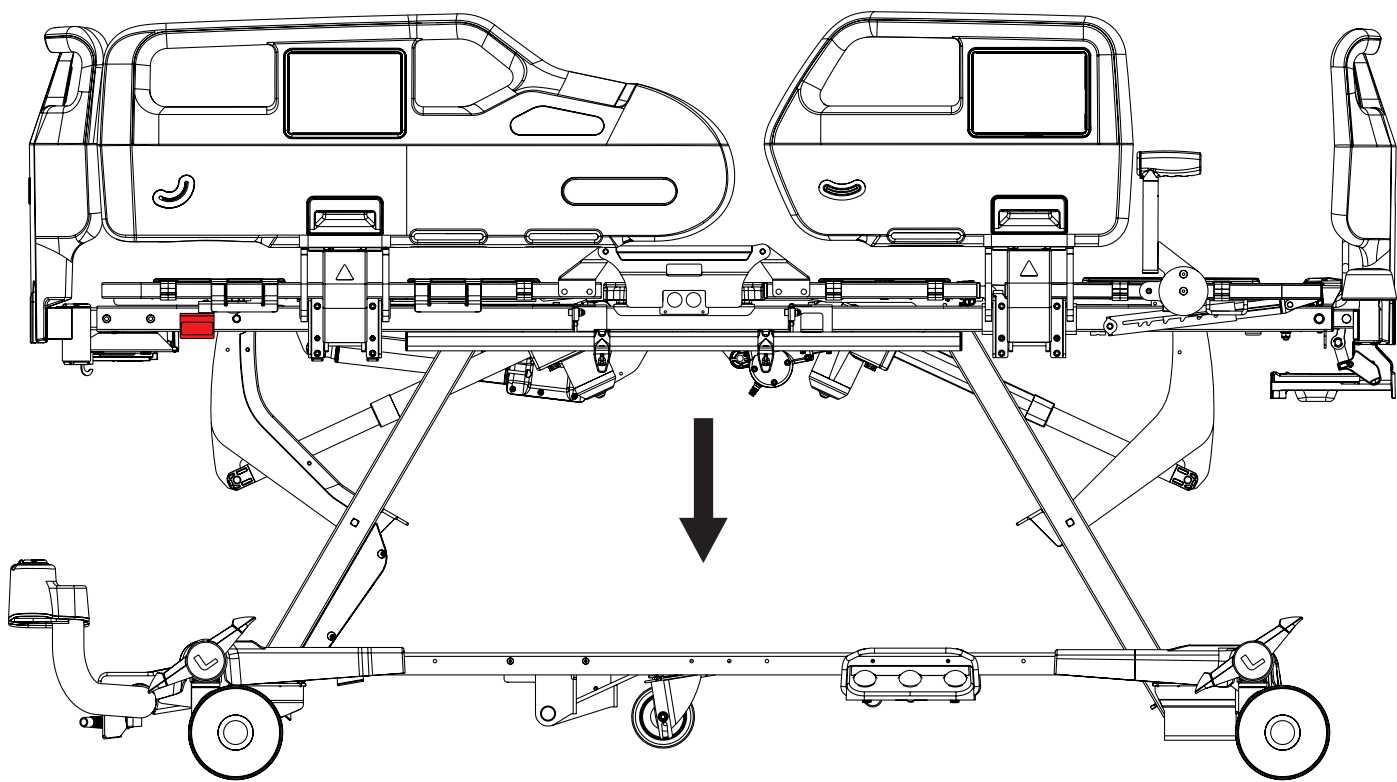
- ▶ Adjust Bed Extension to the second position.
- ▶ Unlock the Calfrest Extension Holder by lifting the securing element. (1)
- ▶ Pull Calfrest Extension Holder to a required position. (2)

Mattress support platform is prepared to be used with 220 cm long mattress or with 200 cm long mattress in combination with 20 cm long mattress extension.

To prepare Essenza 400 bed for use with 200 cm long mattress again:

- ▶ Push Calfrest Extension Holder back to its original position.
- ▶ Adjust Bed Extension as required.

13.12 Emergency CPR Position



Essential performance of the Essenza 400 medical bed consists in manual Backrest release by CPR lever.

To adjust Emergency CPR Position, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

Buttons intended for Emergency CPR Position adjustment:

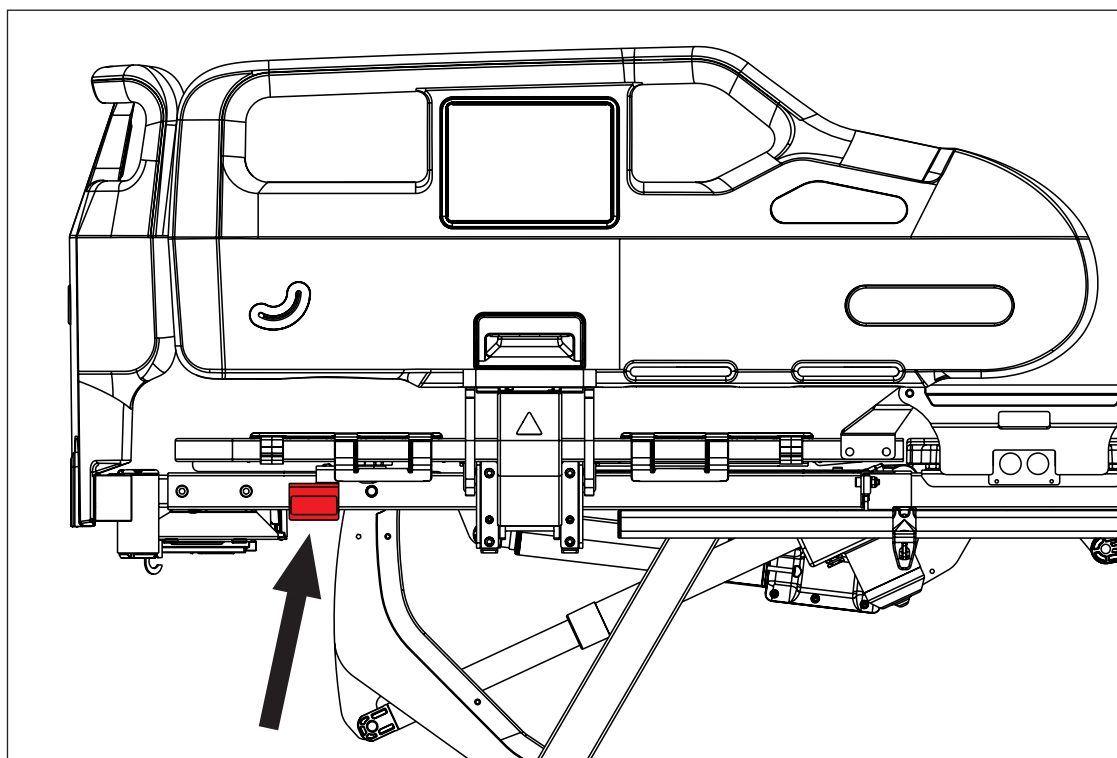



Fig. CPR lever under the Backrest of the bed with Plastic siderails



WARNING!

Risk of injury due to incorrect use!

- ▶ Ensure the CPR lever is accessible when necessary!



WARNING!

Risk of injury due to lowering the backrest too quickly!

- ▶ Ensure that there are no body parts between any movable parts of the bed.
- ▶ Push the Backrest down by the Backrest handle only.

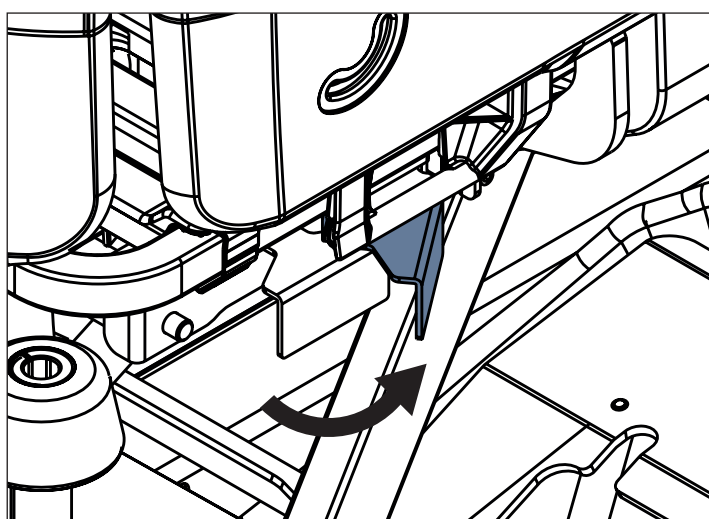
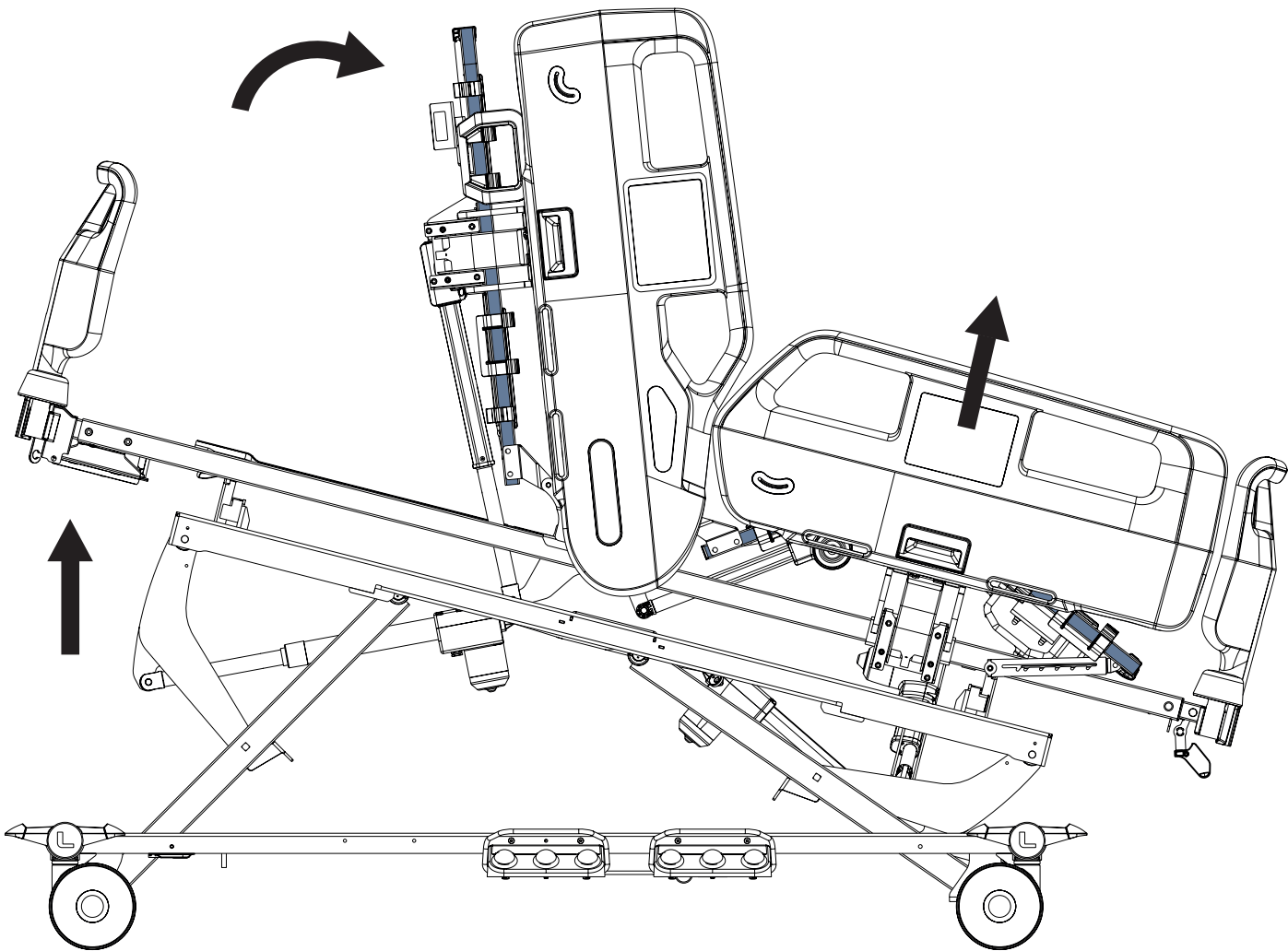


Fig. Manipulation with CPR lever in version with plastic siderails

To adjust Emergency CPR Position manually:

- ▶ Pull and hold CPR lever.
- ▶ Push Backrest down.

13.13 Cardiac Chair Position

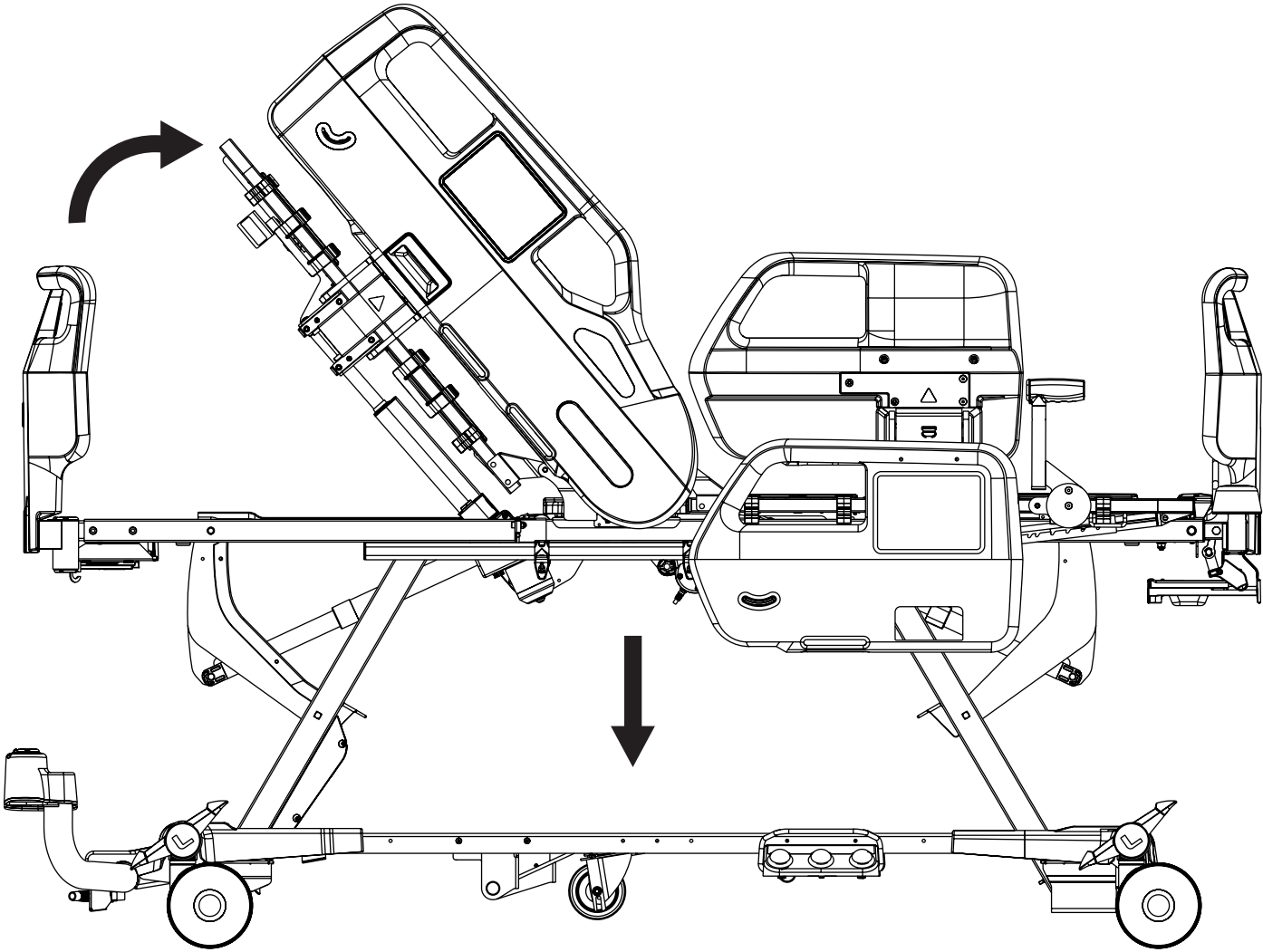


To adjust Cardiac Chair Position, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

Buttons intended for Cardiac Chair Position adjustment:	
	

13.14 Mobilisation Position

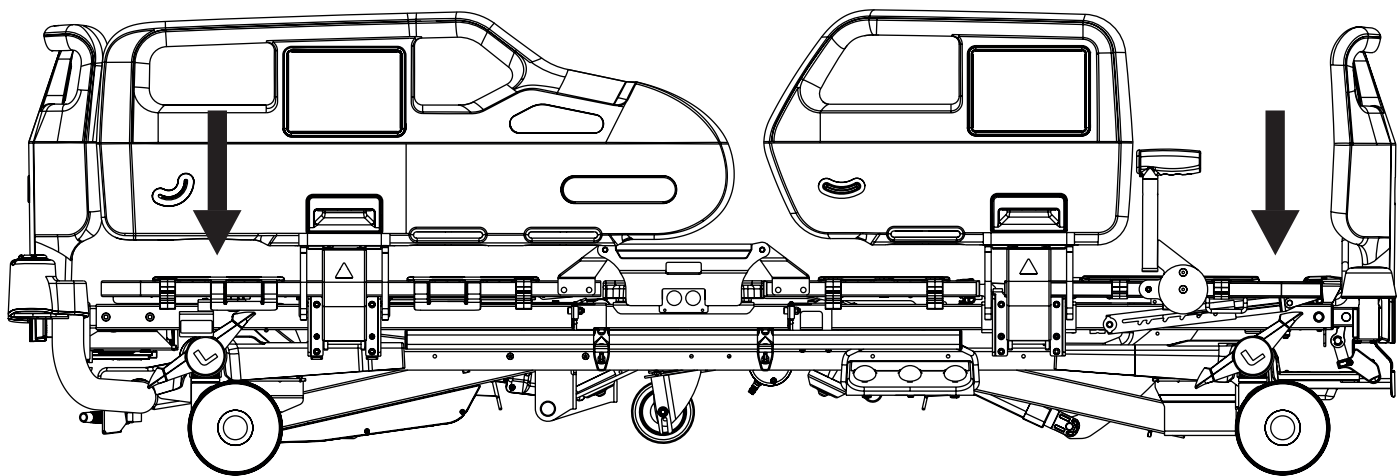


To adjust Mobilisation Position, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

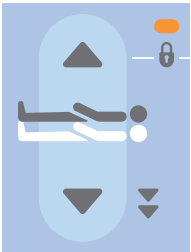
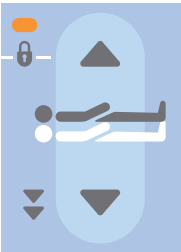
Buttons intended for Mobilisation Position adjustment:	
	

13.15 Extra Low Position



To adjust Extra Low Position, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400

Buttons intended for Extra Low Position adjustment:	
	



WARNING!

When setting the Extra Low Position (the lowest position of the bed) with the lowered plastic split siderails, there is a risk of injury to the lower limbs of persons standing in the immediate vicinity of the bed or the patient sitting at the bed edge (entrapment between the siderail lower edge and the floor).

- ▶ Make sure that there is no risk mentioned above by checking and alerting people near the bed before setting it to the lowest position!
- ▶ Do not adjust the lowest position of the bed if there is a risk of injury mentioned above!



WARNING!

When setting the Extra Low Position (the lowest position of the bed), once the so-called basic height is reached, downward movement will first temporarily stop and at the same time an acoustic signal (beep) will sound. If the bed is equipped with a light signal, the normal white light will change to green. An acoustic signal, a temporary stop of movement and a change in the colour of the light signal inform the personnel of the potential risk of injury if any of the siderails are in the down position when the lowest position is set. This risk only applies to plastic split siderails.

- ▶ Take extra care during Extra Low Position adjustment!

Essenza 400 has the possibility of adjusting the bed height to the lowest position in accordance with the table of technical parameters. The lowest bed height is intended as part of measures to reduce the risk of patient falls, especially for high-risk patients.

To use the lowest position function effectively and safely, follow the following precautions:

- ▶ The decision to set the lowest position is made by the healthcare staff after evaluating the risk of falling in the specific condition of the patient (mobility, mental state, age, primary diagnosis).
- ▶ The lowest bed position shall be adjusted exclusively by trained healthcare staff using the dedicated control elements (see „12 Control Elements“ on the page 61).
- ▶ As part of measures to reduce the risk of falling, use the siderails in the upper position when setting the lowest position.
- ▶ Make sure that there is no accessory in probable collision with floor.
- ▶ Make sure that there is no cable or hose that could be pinched or damaged by bed movement to the Extra Low Position.
- ▶ Make sure that there is no need for bed transport after reaching the Extra Low Position because the castor control levers are not accessible in the Extra Low Position.
- ▶ Make sure that there is no need for quickly reached highest position of the mattress support platform after reaching the Extra Low Position because the Bed Height Foot Controls are not accessible in the Extra Low Position.

13.16 Ergoframe

Ergoframe® is the kinematic system of Backrest and Thighrest Adjustment resulting in extension of the Mattress support platform in the seat section. Ergoframe enlarges the space for pelvic area during Auto-contour. Because of increase of the space the force applied results in decrease of the pressure that can cause pressure injuries in the pelvic area. Ergoframe maintains a stable ergonomic position of the body and spine of the patient, thus limiting unwanted movement of the patient by moving down or up in beds. Unified movement eliminates the patient's shift over the mattress and thus maintains a uniform position of the patient's body that is not bound to the position of the bed parts.

14 Locking and Unlocking the Bed Positioning Functions

To disable Bed Positioning Functions for patient, use:

- ▶ Attendant Control Panel for Essenza 400
- ▶ Siderail Control Panel for Essenza 400
- ▶ Handset Control Panel

If the bed does not react to individual bed positioning adjustment:

- ▶ Check whether the function is disabled on the Attendant Control Panel or on the Siderail Control Panel or on Handset Control Panel.

Disabling individual bed positioning functions on the Attendant Control Panel or on the Siderail Control Panel or on the Handset Control Panel will affect all control elements.

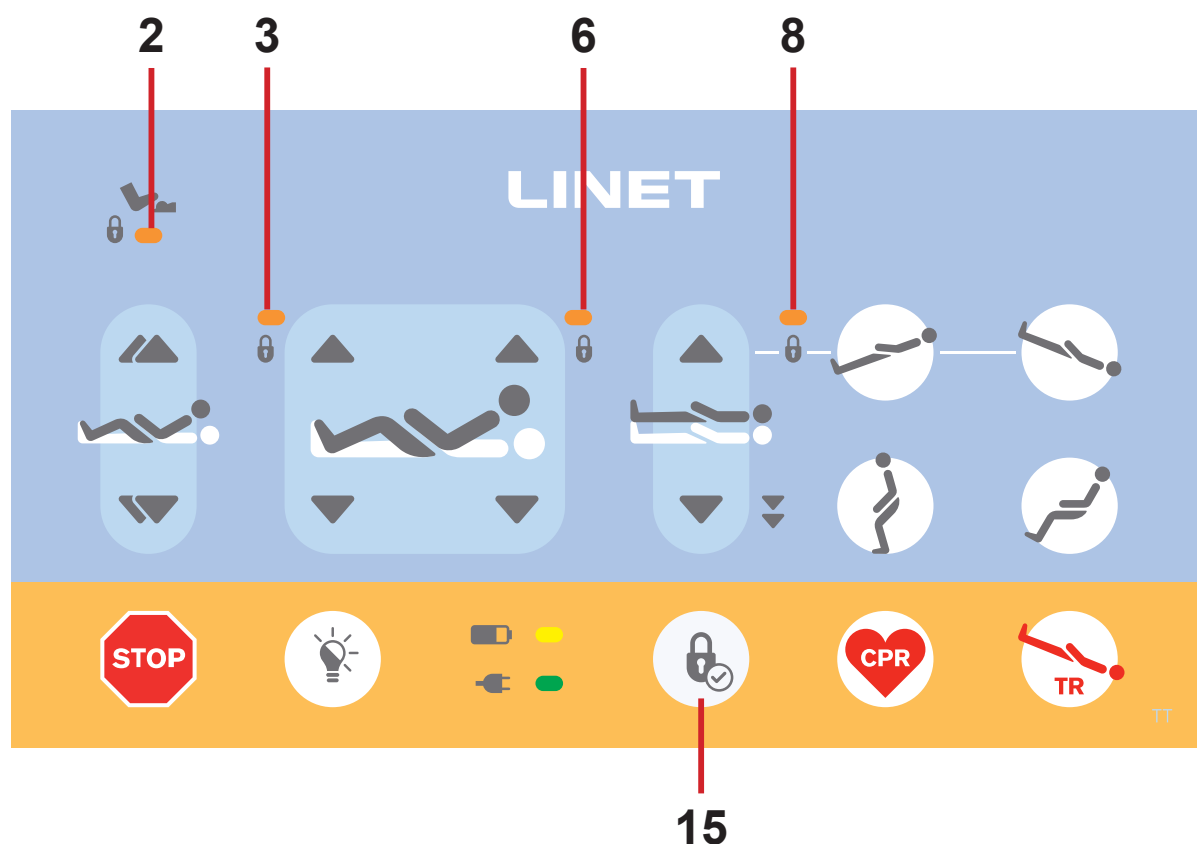
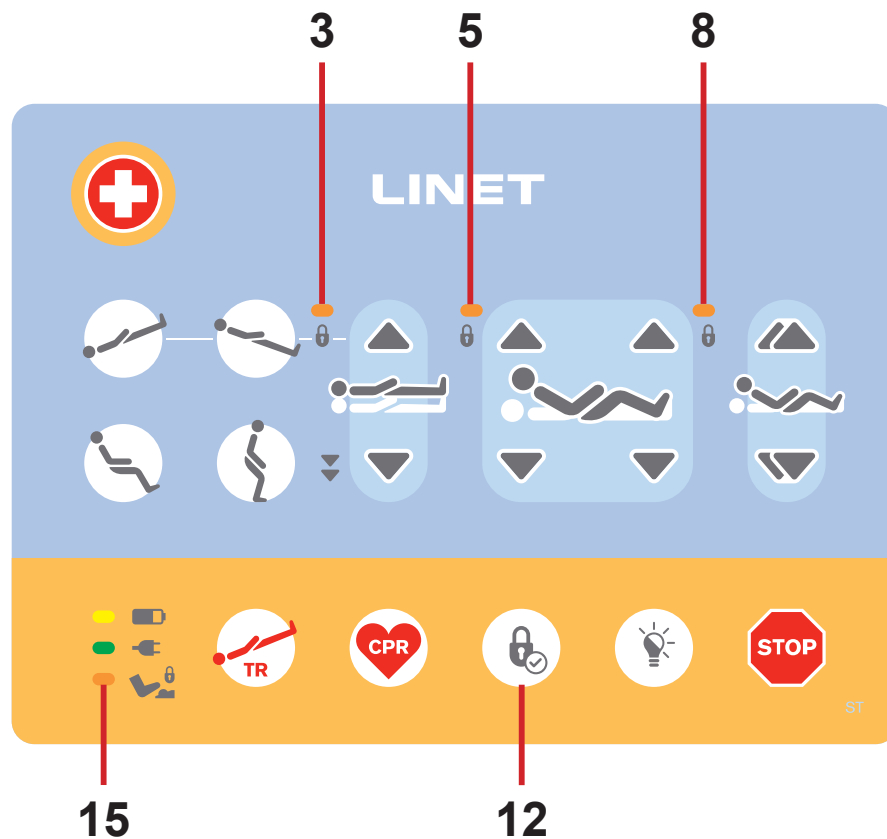


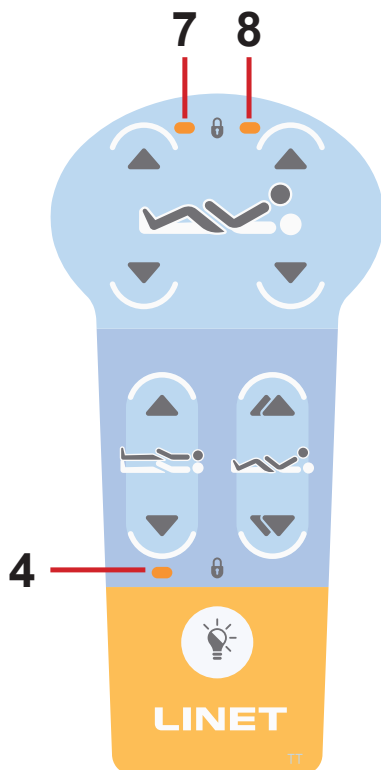
Fig. Lock Button and Lock LED Indicators on the Attendant Control Panel

- 2. Foot Control Lock LED Indicator (ON - locked)
- 3. Thighrest Adjustment Lock LED Indicator (ON - locked)
- 6. Backrest Adjustment Lock LED Indicator (ON - locked)
- 8. Bed Height Adjustment Lock LED Indicator / Trendelenburg Tilt Lock LED Indicator / Reverse-Trendelenburg Tilt Lock LED Indicator (ON - locked)
- 15. Lock Button



- 3. Bed Height Adjustment Lock LED Indicator / Trendelenburg Tilt Lock LED Indicator / Reverse-Trendelenburg Tilt Lock LED Indicator (ON - locked)
- 5. Backrest Adjustment Lock LED Indicator (ON - locked)
- 8. Thighrest Adjustment Lock LED Indicator (ON - locked)
- 12. Lock Button
- 15. Foot Control Lock LED Indicator (ON - locked)

Fig. Lock Button and Lock LED Indicators on the Siderail Control Panel



- 4. Bed Height Adjustment Lock LED Indicator (ON - locked)
- 7. Thighrest Adjustment Lock LED Indicator (ON - locked)
- 8. Backrest Adjustment Lock LED Indicator (ON - locked)

Fig. Lock LED Indicators on the Handset Control Panel

14.1 Locking

To lock Backrest Adjustment:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- Lock LED Indicators **4, 7** and **8** on the Handset Control Panel are flashing.
- ▶ Press any **Backrest Adjustment Button** during flashing of the LEDs.
- Lock LED Indicator **6** on the Attendant Control Panel is illuminated.
- Lock LED Indicator **5** on the Siderail Control Panel is illuminated.
- Lock LED Indicator **8** on the Handset Control Panel is illuminated.
- Backrest Adjustment is disabled for the corresponding control element.

Lock Button for Locking and Unlocking:



To lock Thighrest Adjustment:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- Lock LED Indicators **4, 7** and **8** on the Handset Control Panel are flashing.
- ▶ Press any **Thighrest Adjustment Button** during flashing of the LEDs.
- Lock LED Indicator **3** on the Attendant Control Panel is illuminated.
- Lock LED Indicator **8** on the Siderail Control Panel is illuminated.
- Lock LED Indicator **7** on the Handset Control Panel is illuminated.
- Thighrest Adjustment is disabled for the corresponding control element.

To lock Bed Height Adjustment, Trendelenburg Tilt Adjustment and Reverse-Trendelenburg Tilt Adjustment:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- Lock LED Indicators **4, 7** and **8** on the Handset Control Panel are flashing.
- ▶ Press any **Bed Height Adjustment Button** during flashing of the LEDs.
- Lock LED Indicator **8** on the Attendant Control Panel is illuminated.
- Lock LED Indicator **3** on the Siderail Control Panel is illuminated.
- Lock LED Indicator **4** on the Handset Control Panel is illuminated.
- Bed Height Adjustment, Trendelenburg Tilt Adjustment and Reverse-Trendelenburg Tilt Adjustment are disabled for the corresponding control element.

To lock Foot Control Pedals:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- ▶ Press any **Foot Control Pedal** during flashing of the LEDs.
- Lock LED Indicator **2** on the Attendant Control Panel is illuminated.
- Lock LED Indicator **15** on the Siderail Control Panel is illuminated.
- Functions of the Foot Control Pedals are disabled.

14.2 Unlocking

To unlock Backrest Adjustment:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- Lock LED Indicators **4, 7** and **8** on the Handset Control Panel are flashing.
- ▶ Press any **Backrest Adjustment Button** during flashing of the LEDs.
- Lock LED Indicator **6** on the Attendant Control Panel is not illuminated.
- Lock LED Indicator **5** on the Siderail Control Panel is not illuminated.
- Lock LED Indicator **8** on the Handset Control Panel is not illuminated.
- Backrest Adjustment is enabled again for the corresponding control element.

Lock Button for Locking and Unlocking:



To unlock Thighrest Adjustment:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- Lock LED Indicators **4, 7** and **8** on the Handset Control Panel are flashing.
- ▶ Press any **Thighrest Adjustment Button** during flashing of the LEDs.
- Lock LED Indicator **3** on the Attendant Control Panel is not illuminated.
- Lock LED Indicator **8** on the Siderail Control Panel is not illuminated.
- Lock LED Indicator **7** on the Handset Control Panel is not illuminated.
- Thighrest Adjustment is enabled again for the corresponding control element.

To unlock Bed Height Adjustment, Trendelenburg Tilt Adjustment and Reverse-Trendelenburg Tilt Adjustment:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- Lock LED Indicators **4, 7** and **8** on the Handset Control Panel are flashing.
- ▶ Press any **Bed Height Adjustment Button** during flashing of the LEDs.
- Lock LED Indicator **8** on the Attendant Control Panel is not illuminated.
- Lock LED Indicator **3** on the Siderail Control Panel is not illuminated.
- Lock LED Indicator **4** on the Handset Control Panel is not illuminated.
- Bed Height Adjustment, Trendelenburg Tilt Adjustment and Reverse-Trendelenburg Tilt Adjustment are enabled again for the corresponding control element.

To unlock Foot Control Pedals:

- ▶ Press Lock Button.
- Lock LED Indicators **2, 3, 6** and **8** on the Attendant Control Panel are flashing.
- Lock LED Indicators **3, 5, 8** and **15** on the Siderail Control Panel are flashing.
- ▶ Press any **Foot Control Pedal** during flashing of the LEDs.
- Lock LED Indicator **2** on the Attendant Control Panel is not illuminated.
- Lock LED Indicator **15** on the Siderail Control Panel is not illuminated.
- Functions of the Foot Control Pedals are enabled again.

14.2.1 Locked function indication on the display of the Control Panel of Scales and Integrated Mattress

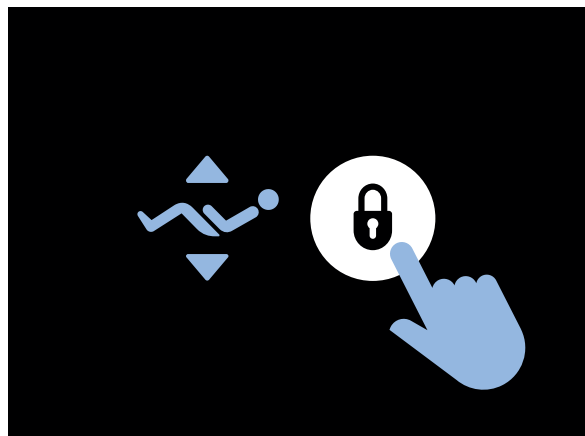


Fig. Indication of locked bed height adjustment (press Lock button to enable the bed height adjustment)

15 Scales Control


WARNING!

Risk of injury due to incorrect use of scales!

► Scales system LW26 has no direct diagnostic effect on the application of nutrition and medications!
Staff expert assessment is needed to consider the correct application of nutrition and medications!

Essenza 400 bed with scales is equipped with Control Panel of Scales and Integrated Mattress.
Control Panel of Scales and Integrated Mattress is situated on the foot plastic siderail.
Control Panel of Scales and Integrated Mattress is intended for Scales control.

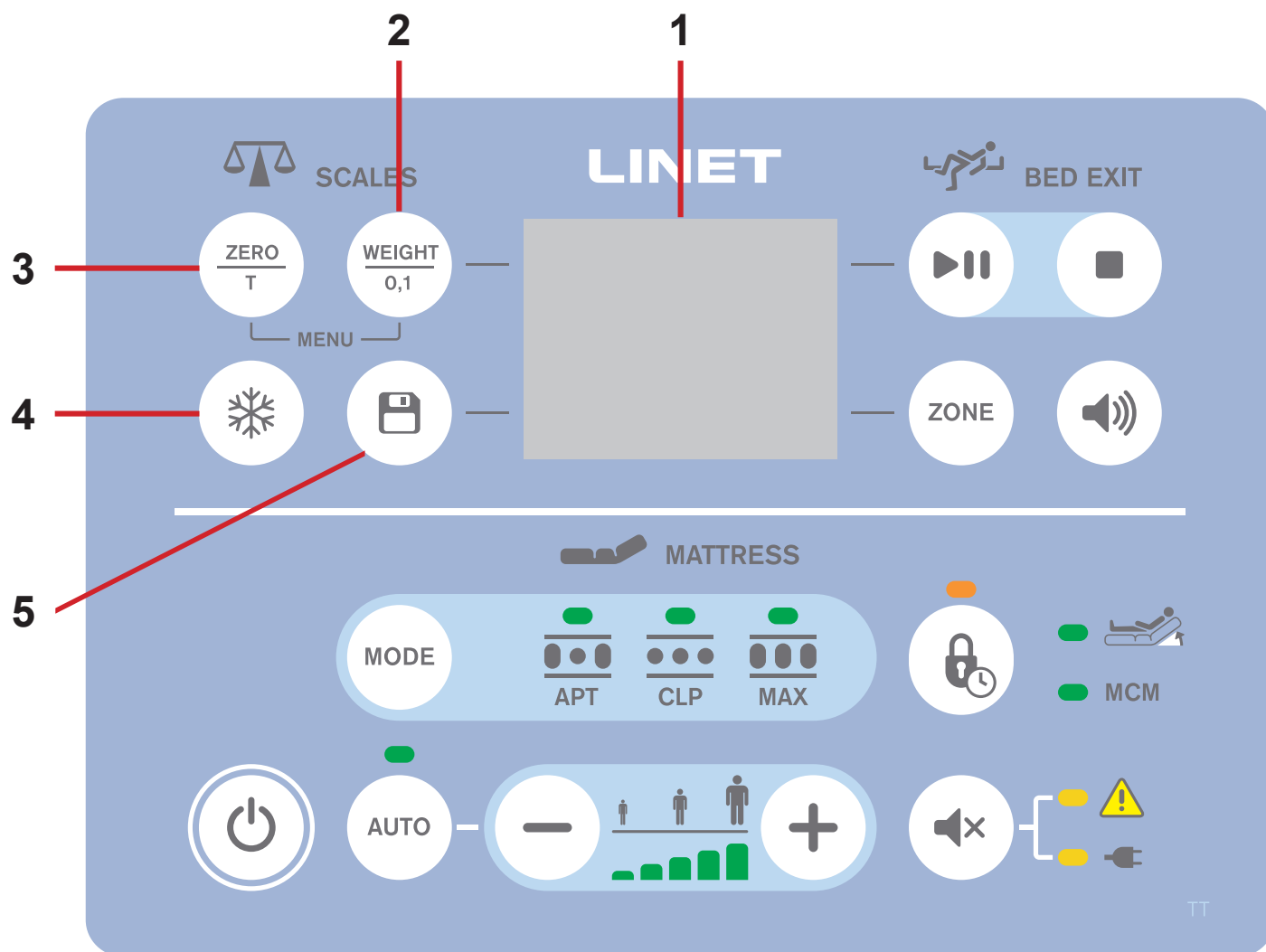


Fig. Control Panel of Scales and Integrated Mattress (Scales section with keyboard and display)

1. Display
2. WEIGHT button / Scale Interval Switch button (0,5kg/0,1kg)
3. ZERO/T button (tare scales or calibrate the zero)
4. Hold mode button
5. Memory button (save weight value)

15.1 Preparation



CAUTION!
Incorrect use of scales due to incomplete preparation!
► Before each patient admission zero the scales.
► Do not add accessories on the bed and do not remove accessories from the bed during weighing!

- Install mattress and accessories to prepare bed before patient admission and using the scales.

15.2 Displaying

Display shows the calibrated and metrological weight value.
Default Verification Scale Interval is 0,5 kg.



Fig. Displayed weight value

- 6. Weight value with unit of weight (kg)
- 7. Stabilized Scales Indicator
- 8. Specification of the Scales

To display weight value:
► Press ZERO/T button (3) or WEIGHT button / Scale Interval Switch button (2).
Weight value is shown for 30s.

To change scale interval:
► Press and hold WEIGHT button / Scale Interval Switch button (2) to display value with actual scale interval 0,1 kg.

Indication	Meaning
	Scales are not stabilized.
	Scales are stabilized.

15.2.1 Discrete Mode

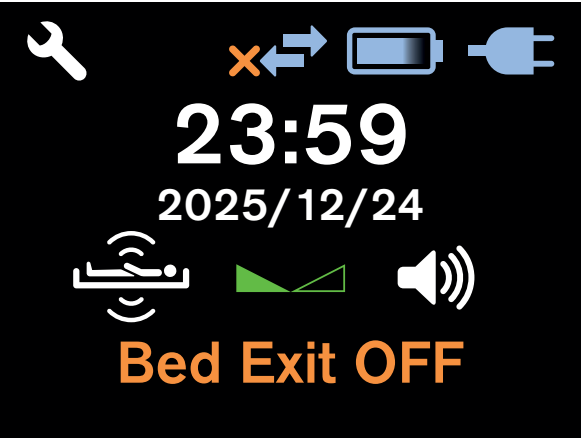


Fig. Discrete Mode with displayed Time and Date

Weight value is not shown on the display unless ZERO/T button or WEIGHT button has been pressed.

Weight value is displayed in the Discrete Mode for 1 minute.

15.2.2 Saving Weight Value



Fig. Confirmation screen of weight value saving

To save a weight value:
► Press TICK for confirmation.



Fig. Waiting for stabilized scales after confirmed weight value saving

15.3 Taring

Taring can be done in a range of 6,4kg to 319,5kg. Taring is used to set “0” on the display before placing the patient on the bed. Taring must be done with an unloaded bed with mattress, bed sheets, pillows and necessary accessories, without the patient. It is recommended to position mattress support platform about 20 cm above the lowest horizontal position.

To zero scales:

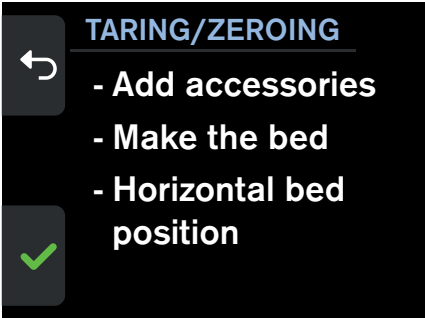
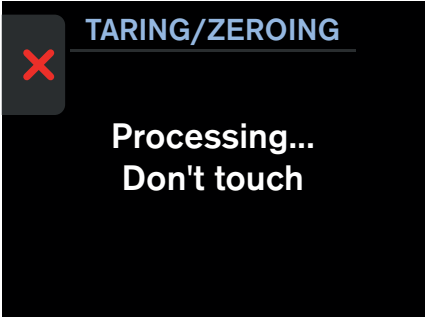
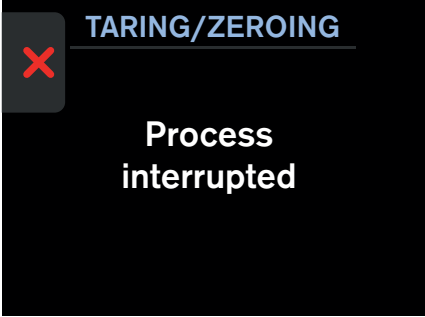
- ▶ Ensure that nothing and nobody touches the bed except you.
- ▶ Press and hold ZERO/T Button until instructions appear on the display and weight value starts to flash.
- ▶ Release ZERO/T Button.
- ▶ Add required accessories.
- ▶ Make the bed.
- ▶ Set horizontal bed position.
- ▶ Press ZERO/T Button again.
- ▶ Wait until a beep indicates stabilized scales.

“0” is shown on the display.

Place the patient on the bed.

To cancel Taring:

- ▶ Press WEIGHT button / Scale Interval Switch button (0,5kg/0,1kg).

Status of the Taring	Signalisation
1) First step of the Taring: instructions after the press and hold of the ZERO/T Button: - Add required accessories. - Make the bed. - Set horizontal bed position. - Select tick by pressing the Memory button.	
2) Second step of the Taring: Wait until the end of the process: Processing... Don't touch	
Process interrupted.	

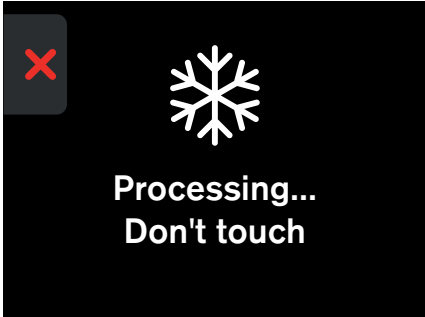
15.4 Hold Mode

Hold Mode can be used only when scales are stabilized.
It allows adding or removing bed accessories and other items without changing the weight value.

- To activate Hold Mode:**
- ▶ Wait until the scales are stabilized. The Stabilized Scales Indicator (7) is illuminated when the scales are stabilized.
 - ▶ Press Hold mode button.
 - ▶ Follow the Hold Mode Guide.

Snowflake icon appears on the display instead of weight value when the Hold Mode is set.

- To deactivate Hold Mode:**
- ▶ Select cross on the Hold mode screen by pressing WEIGHT button / Scale Interval Switch button.
- Display shows the original weight value.

Hold Mode Guide Steps	Signalisation
1) Instruction after the press and hold of the Hold mode button: - Add required accessories or remove required accessories. - Select tick by pressing the Memory button.	
2) Wait until the end of the process: Processing... Don't touch	
Process interrupted.	

15.5 Bed Overload

If load on the bed is over 330 kg:

- Display shows „Hi“.



Fig. Mattress support platform is overloaded (pop-up screen)

15.6 Bed Underload

If the bed is underloaded:

- Display shows „Lo“.

15.7 Weighing in tilt

It is possible to use the scales in any position of the mattress support platform of the Essenza 400 with scales if its undercarriage is situated on the horizontal floor.

15.8 Calibration of the Zero

Calibration of the Zero is only possible in a range of $\pm 6,4$ kg from factory zero. Calibration of the Zero is used to reset weight on the display and set up user zero, which sets the maximum weight range of the weighing system. Calibration of the Zero must be done with an empty, unloaded bed, without the mattress and accessories. Calibration of the Zero is done after installation, weight verification or servicing.

To calibrate the Zero:

- Position the bed about 20 cm above the lowest position and set the mattress support platform to the horizontal position. Ensure that nothing touches the bed except you.
- Press and hold ZERO/T Button until weight value starts to flash. Release ZERO/T Button.
- Press ZERO/T Button to confirm Calibration of the Zero.

“0” is shown on the display and a long acoustic signal confirms Calibration of the Zero.

To cancel the Calibration of the Zero:

- Press WEIGHT button during Calibration of the Zero.

15.9 Basic technical parameters of the LW26 scales system

Parameter	Value	Unit
Capacity of the Weighing Instrument	Configuration Parameter: 5 000 – 500 000	g
Lowest Load Range	0 – Maximum Capacity of the Weighing Instrument minus Verification Scale Interval	g
Scale Interval (Displayed Scale Interval and Verification Scale Interval)	Configuration Parameter: 50 – 5 000	g
Displayed Scale Interval (optional for US market)	Configuration Parameter: 100 – 10 000	lb
Number of Tensometric Sensors	Configuration Parameter: 1 – 4	piece
Highest Tare Value	Maximum Capacity of the Weighing Instrument minus Verification Scale Interval	g
Range of the User Zero from Factory Zero (symmetrically negative and positive value)	Configuration Parameter: 0 – 250	‰
Highest Weight Value with zero Tare Value (from User Zero)	9 Verification Scale Intervals above the maximum Capacity of the Weighing Instrument	g
Lowest Weight Value with zero Tare Value (from User Zero)	–9 Verification Scale Intervals from User Zero, Range of the User Zero from Factory Zero	g
Overload Notification	Configuration Parameter: 5 000 – 500 000	g
Maximum Load on each Tensometric Sensor (Mattress Support Platform included)	Configuration Parameter: 10 000 – 1 200 000	g
Period of transition to the Discrete Mode since the last press of the ZERO button, the WEIGHT/CLEAR button or the kg/lb button or since the Taring	30	s
Period of the automatic cancelling of Taring	30	s
Period of transition from the full backlight brightness to the reduced backlight brightness since the last press of a button, since the Taring or since the system start	180 (after no pressed button), full backlight brightness during processing phase of the Taring and processing phase of the Hold Mode	s
Period of switching off since the last press of a button, since the system start when the scales system is powered by batteries	7	s
Level of the reduced backlight brightness in relation to the full backlight brightness	30	%

16 Bed Exit Alert Announcer



WARNING!

It is not possible to use Bed Exit Alert Announcer when Essenza 400 with scales is disconnected from the mains power! No Bed Exit Alert can be triggered when Essenza 400 with scales is disconnected from the mains power!



WARNING!

Do not use Bed Exit Alert Announcer and do not rely on the acoustic Bed Exit Alerts if no beep sounds after the activation of the Bed Exit Alert Announcer!

Essenza 400 bed with scales is equipped with Control Panel of Scales and Integrated Mattress.
Control Panel of Scales and Integrated Mattress intended also for Bed Exit Alert Control is situated on the foot plastic siderails.

Bed Exit Alert Announcer is intended for informing the hospital personnel about highly probable patient's absence in ordered position on the Essenza 400 bed with scales. **Bed Exit Alert Announcer** triggers alerts when it detects that patient is not present in the expected position. Hospital personnel must stand before the Control Panel of Scales and Integrated Mattress on the foot plastic siderail when setting the Bed Exit Alert Announcer functions. The Bed Exit Alert consists of the specific melody and the spoken sentence 'Please remain in the bed, assistance is coming.'

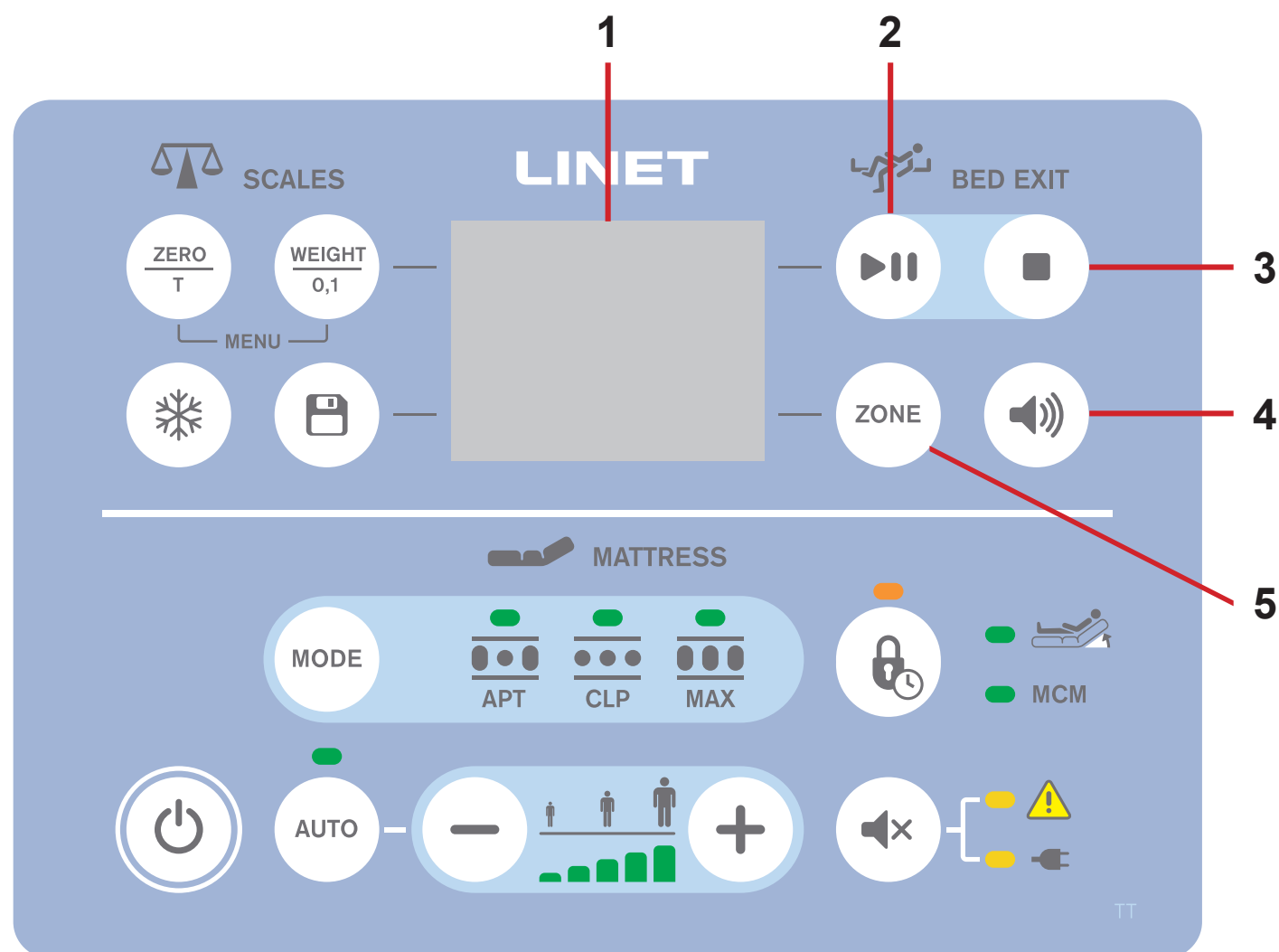


Fig. Control Panel of Scales and Integrated Mattress (Bed Exit Alert section with keyboard and display)

1. Display
2. PLAY/PAUSE button
3. STOP button
4. Bed Exit Alert Volume button
5. Bed Exit Alert ZONE button (Inner Zone or Outer Zone or Sensitive Zone settings)

16.1 Preparation

- Place a patient on the bed with suitable mattress.
- Place the patient towards the middle of the bed for the correct function of the Bed Exit Alert Announcer in Inner Zone.

To verify the functionality of the alert system:

- Ensure a beep sounds after the activation of the Bed Exit Alert Announcer!
- Do not use Bed Exit Alert Announcer and do not rely on the acoustic Bed Exit Alerts if no beep sounds after the activation of the Bed Exit Alert Announcer!

16.2 Displaying

Display shows statuses and settings of the Bed Exit Alert Announcer.



Fig. Display description (Bed Exit Alert Announcer)

Indicator	Meaning
	Inner Zone Monitoring
	Outer Zone Monitoring
	Sensitive Zone Monitoring

6. Indicator of Monitored Zone (Inner Zone or Outer Zone or Sensitive Zone)
7. Status of Bed Exit Alert Announcer

Status	Meaning
Bed Exit ON	Bed Exit Alert Announcer is activated and alerts can be triggered.
Bed Exit OFF	Bed Exit Alert Announcer is deactivated and alerts cannot be triggered.
Bed Exit PAUSE 10 min	Bed Exit Alert Announcer is PAUSED and alerts cannot be triggered for 15 minutes.
Bed Exit WAITING	Operator activates Bed Exit Alert Announcer without patient on the bed. Bed Exit Alert Announcer will be activated after patient will be detected on the bed.

16.3 Activation

To activate Bed Exit Alert Announcer:

- ▶ Press PLAY/PAUSE button (2) when patient is on the bed.
- BED EXIT ON is displayed on the display.
Beep sounds after the activation of Bed Exit Alert Announcer.
Inner Zone Monitoring is activated by default.

If you press PLAY/PAUSE button (2) without patient on the bed, the Bed Exit Alert Announcer is not activated.
Corresponding pop-up screen appears on the display.
Minimum patient weight for Bed Exit Alert Announcer is **35 kg**.
Bed Exit Alert Announcer will be activated after patient will be detected on the bed.



Fig. Insufficient load for Bed Exit Alert Announcer (pop-up screen)

16.4 Monitored Zone

Bed Exit Monitoring provides Inner Zone Monitoring or Outer Zone Monitoring or Sensitive Zone Monitoring.
The Inner Zone detects shifts in weight on the mattress support platform within a limited field of coverage.
The Sensitive Zone detects shifts in weight on the mattress support platform within a limited field of coverage more sensitively than Inner Zone Monitoring.
The Outer Zone detects whether weight is on the mattress support platform.
Inner Zone Monitoring is set by default.

To set Outer Zone Monitoring:

- ▶ Press Bed Exit Alert Zone button (5) or repeat it to set the Outer Zone Monitoring.
- Outer Zone Monitoring Icon appears on the display and the Outer Zone Monitoring is activated.

To set Inner Zone Monitoring:

- ▶ Press Bed Exit Alert Zone button (5) or repeat it to set the Inner Zone Monitoring.
- Inner Zone Monitoring Icon appears on the display and the Inner Zone Monitoring is activated.

To set Sensitive Zone Monitoring:

- ▶ Press Bed Exit Alert Zone button (5) or repeat it to set the Sensitive Zone Monitoring.
- Sensitive Zone Monitoring Icon appears on the display and the Sensitive Zone Monitoring is activated.



Fig. Maximum Backrest Angle in accordance with Sensitive Zone Monitoring

16.5 PAUSE

During PAUSE mode the Bed Exit Alert Announcer is temporarily interrupted and alerts are not activated.

PAUSE period is terminated automatically and the Bed Exit Alert Announcer is reactivated again when patient returns just to the selected zone.

To PAUSE Bed Exit Alert Announcer:

- ▶ Press PLAY/PAUSE button (2).

Before terminated PAUSE period when patient is in ordered position, the Bed Exit Alert Announcer is reactivated again.

To extend the PAUSE period:

- ▶ Press PLAY/PAUSE button (2) to extend the countdown to 15 minutes period again.

To terminate the PAUSE period:

- ▶ Press PLAY/PAUSE button (2).

16.6 Bed Exit Alert

Audible alert is triggered when patient has left selected monitored zone or when PAUSE period has terminated and patient is not just in the ordered position.

To stop Alert:

- ▶ Press STOP button (3).

Bed Exit Monitoring is deactivated and BED EXIT OFF is displayed on the screen.

The audible alert is muted.

To pause Alert:

- ▶ Press PLAY/PAUSE button (2).

Countdown timer (15 min) appears on the display.

The audible alert is muted.



Fig. Visual signalisation of the Bed Exit Alert on the display

16.7 Alert Volume

It is possible to set alert volume before and during triggered audible alert.
Maximum alert volume level is set by default.
It is not possible to mute completely the audible alert in this volume setting.

To lower alarm volume level:

- ▶ Press Bed Exit Alert Volume button (4).
Indicator with lower volume level appears on the display.
Volume is lowered.

To return to maximum alarm volume level:

- ▶ Press Bed Exit Alert Volume button (4) after minimum alarm volume level has been reached.
Indicator with highest volume level appears on the display.

16.8 Deactivation

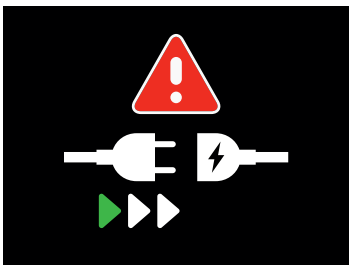
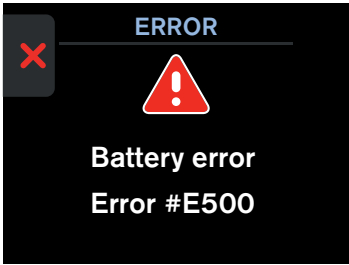
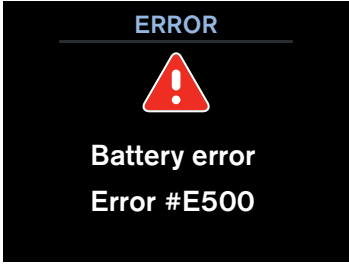
To deactivate Bed Exit Alert Announcer:

- ▶ Press STOP button (3).
Bed Exit OFF is displayed on the display.



Fig. Bed Exit OFF on the display

16.9 Pop-up screens related to Bed Exit Alert Announcer

Status (Pop-up screen)	Meaning	How to change the status
	Essenza 400 with scales is disconnected from the mains when operator turns on the Bed Exit Alert Announcer.	Connect Power Supply Cord to the mains and activate the Bed Exit Alert Announcer.
	Bed Exit Alert Announcer is activated and Essenza 400 with scales becomes disconnected from the mains.	Connect Power Supply Cord to the mains.
	Insufficient load on the mattress support platform for Bed Exit Alert Announcer.	Place patient on the mattress.
	Audible alert triggered when patient has left selected monitored zone or when PAUSE period has terminated and patient is not just in the ordered position.	Check patient's position and stop the audible alert.
	Non-critical error related to the bed accumulator.	Ensure the bed is plugged into the mains power. Press CROSS to cancel the error status. If the non-critical error remains, notify the manufacturer's service department.
	Critical error related to the bed accumulator.	Notify the manufacturer's service department.

16.10 Basic technical parameters of the Bed Exit Alert Announcer

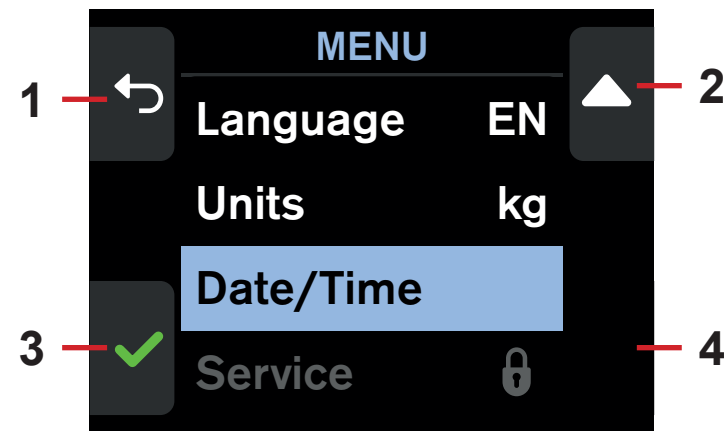
Parameter	Value	Unit
Minimum Load for Bed Exit Alert Announcer activation	35	kg
Dimensions of the monitored Inner Zone	400 × 350	mm × mm
Minimum decrease of patient weight to alert activation	15	%
Automatic alert deactivation after patient's return to bed	7	s
Period of interrupted monitoring (PAUSE) after the press of PAUSE button	15	min
Period of patient's being outside the bed to the automatic end of PAUSE after patient's return to the bed	≥ 5	s
System reaction to the decrease of weight or to the patient's leaving the monitored zone	≤ 1,5	s
Alert activation during scales system failure and activated monitoring	≤ 3	s
Alert activation during scales system failure ascertained immediately after (re)start if the monitoring was activated before switching off	≤ 1,5	s

17 Settings Menu

Operator is allowed to enter the MENU and set the available parameters.

To enter Settings Menu:

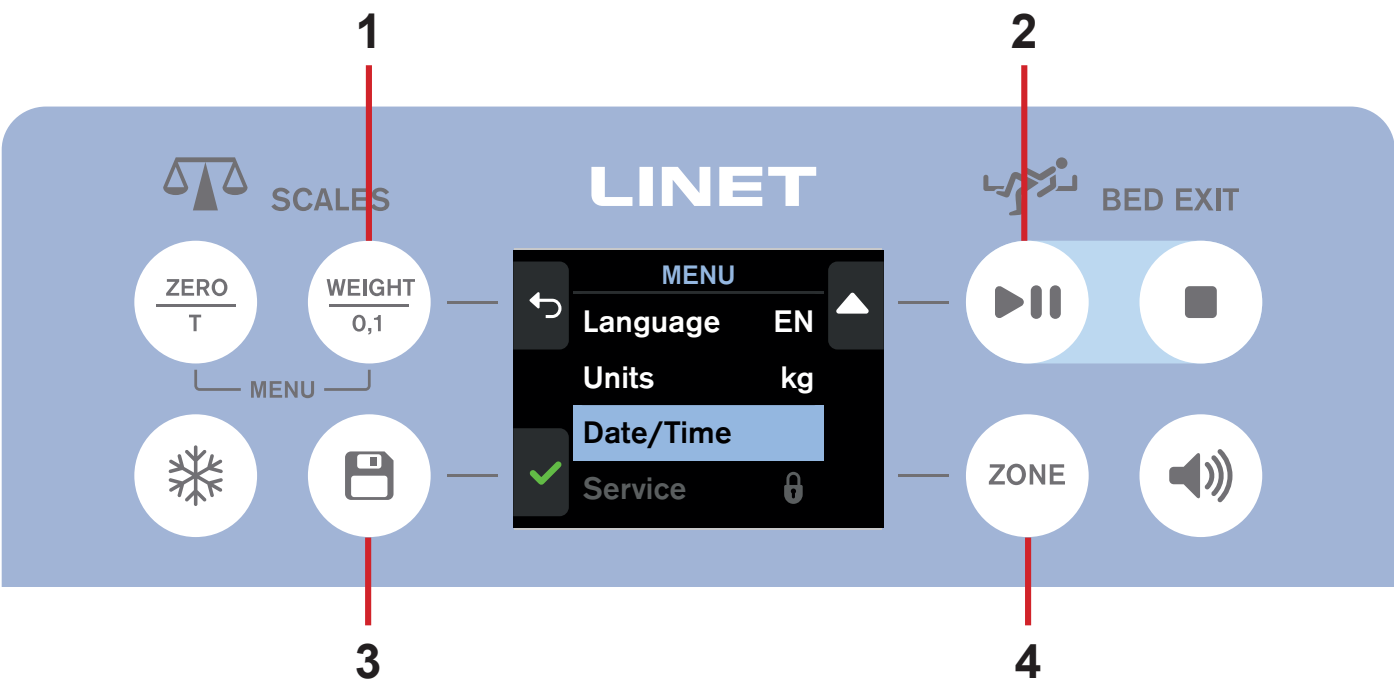
- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button at the same time for more than 1 second.



Items in the MENU:

- ☐ New Patient Settings
- ☐ History of weight values
- ☐ Settings of Weight Value Displaying
- ☐ Language Settings
- ☐ Weight Unit Settings
- ☐ Date/Time Settings
- ☐ Service Settings
- ☐ Verification Settings
- ☐ Settings of Versions

- 1. Back
- 2. Up in the list of items
- 3. Select or Confirm
- 4. Down in the list of items



17.1 New Patient Setting

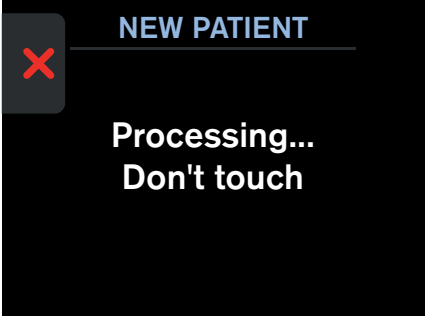
It is recommended to use New Patient function when replacing patient and no patient lies on the mattress support platform.

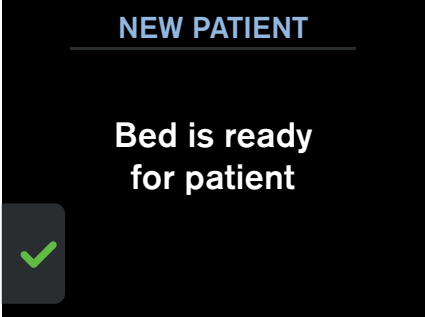
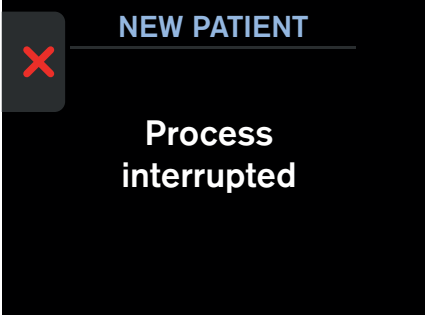
The New Patient setting has following effects on the Essenza 400 bed:

- Taring the scales (only if the scales are stabilised)
- Deleting the history of weight values

To activate New Patient mode:

- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button for more than 1 second.
- ▶ Enter the **NEW PATIENT** in the MENU by pressing the Memory button when the corresponding line is selected.
- ▶ Follow the New Patient Guide.

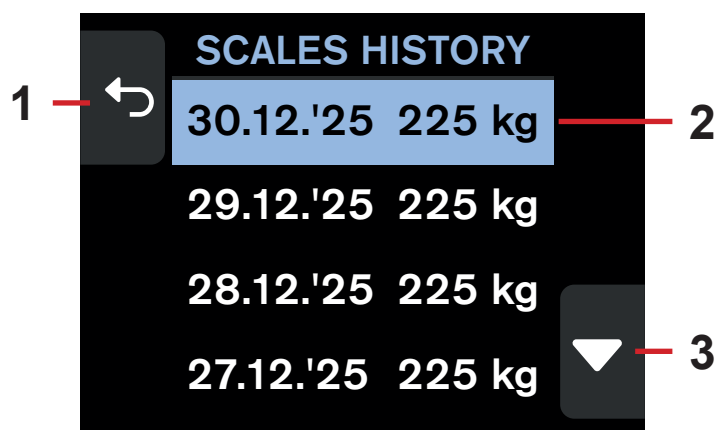
New Patient Guide Steps	Signalisation
1) Pereform two steps of the New Patient guide by pressing the Memory button: - Tare scales. - Delete history of weight values.	
2) Follow the instructions: - Add required accessories. - Make the bed. - Set horizonzal bed position. - Select tick by pressing the Memory button.	
3) Wait until the end of the process: Processing... Don't touch	

New Patient Guide Steps	Signalisation
4) Confirmation that bed is ready for a new patient. - Select tick by pressing the Memory button.	
Process interrupted.	

17.2 History of weight values

To enter history of weight values:

- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button for more than 1 second.
- ▶ Enter the **SCALES HISTORY** in the MENU by pressing the Memory button when the corresponding line is selected.



Records in the history of weight values consist of date and weight value.

Fig. Scales History screen

1. Back to MENU
2. Weight value with date
3. Down in the list of items

To move between the records of weight values:

- ▶ Press PLAY/PAUSE button (up) or Bed Exit Alert ZONE button (down) repeatedly until the desired line is selected.

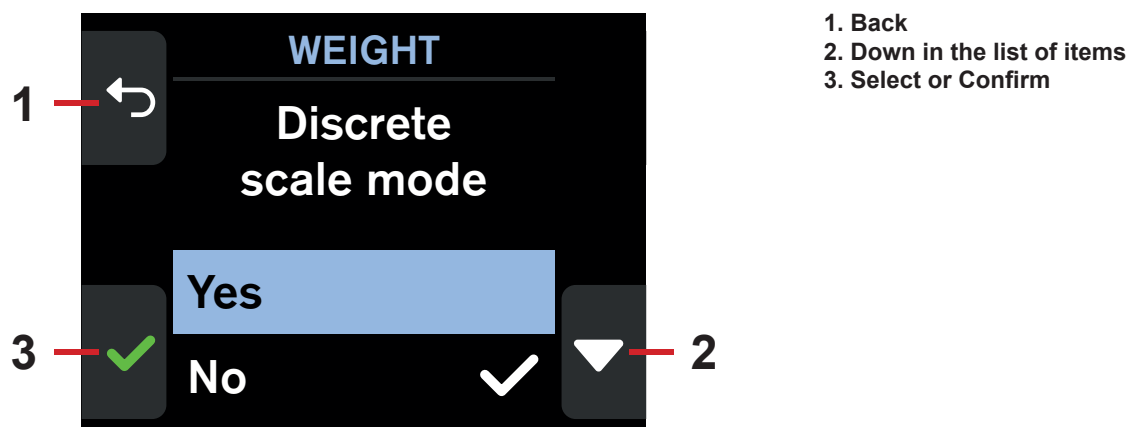
To leave the Settings Menu:

- ▶ Press ZERO/T button.

17.3 Settings of Weight Value Displaying

To enter the settings of weight value displaying:

- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button for more than 1 second.
- ▶ Enter the **WEIGHT** in the MENU by pressing the Memory button when the corresponding line is selected.



To set Discrete Mode of the Scales:

- ▶ Press PLAY/PAUSE button (up) or Bed Exit Alert ZONE button (down) until the desired line (**Yes** or **No**) is selected.
- ▶ Select tick by pressing the Memory button.

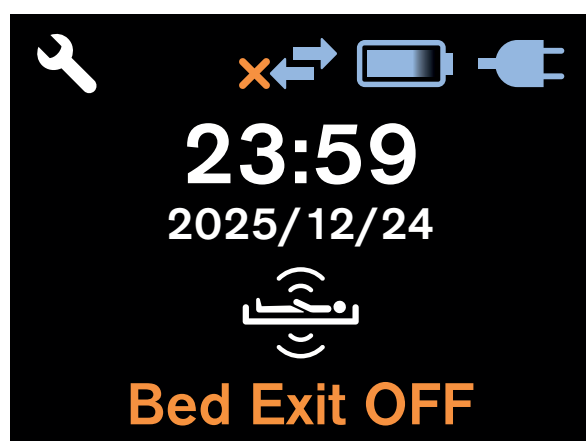
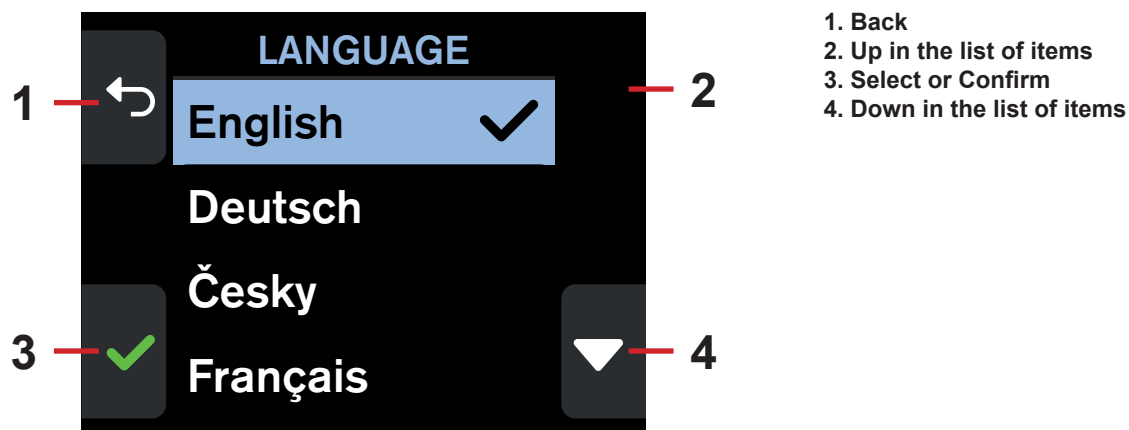


Fig. Time and Date displayed in the Discrete Mode of the Scales

17.4 Language Settings

To enter the settings of weight value displaying:

- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button for more than 1 second.
- ▶ Enter the **LANGUAGE** in the MENU by pressing the Memory button when the corresponding line is selected.



- 1. Back
- 2. Up in the list of items
- 3. Select or Confirm
- 4. Down in the list of items

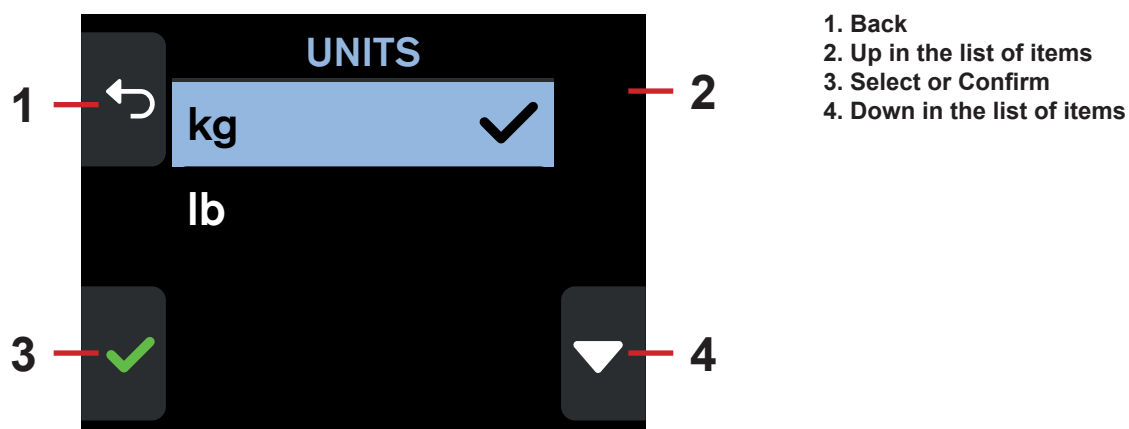
List of the available languages:

- ☐ English
- ☐ German
- ☐ Czech
- ☐ French
- ☐ Italian
- ☐ Spanish
- ☐ Swedish
- ☐ Dutch
- ☐ Portuguese
- ☐ Finnish
- ☐ Romanian
- ☐ Norwegian
- ☐ Latvian
- ☐ Hungarian
- ☐ Lithuanian
- ☐ Polish

17.5 Weight Unit Settings

To enter the settings of weight value displaying:

- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button for more than 1 second.
- ▶ Enter the **UNITS** in the MENU by pressing the Memory button when the corresponding line is selected.



To set unit of weight:

- ▶ Press PLAY/PAUSE button (up) or Bed Exit Alert ZONE button (down) until the desired line (**kg** or **lb**) is selected.
- ▶ Select tick by pressing the Memory button.

17.6 Date/Time Settings

To enter Date/Time Settings:

- ▶ Press ZERO/T button and WEIGHT button / Scale Interval Switch button for more than 1 second.
- ▶ Enter the **DATE/TIME** in the MENU by pressing the Memory button when the corresponding line is selected.

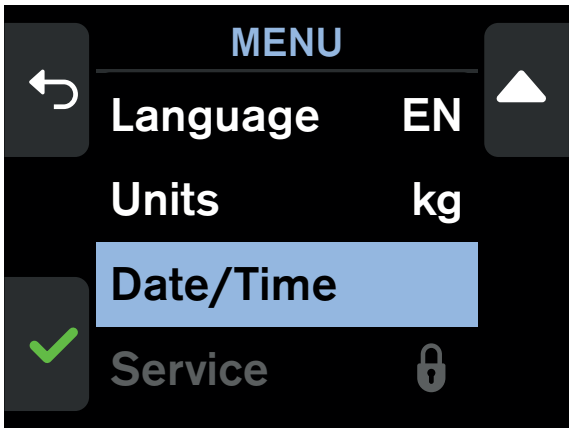


Fig. Date/Time Settings

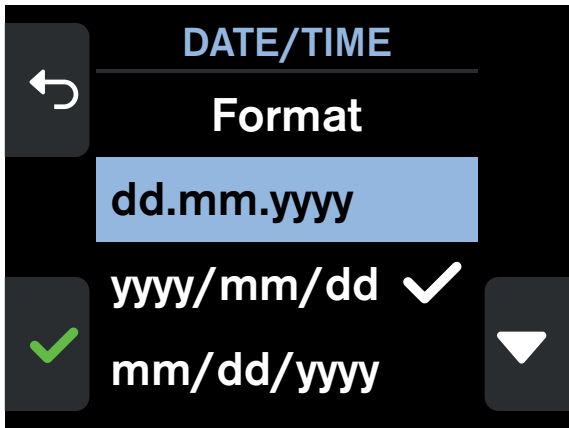


Fig. Date Format Settings

To choose a Date Format:

- ▶ Select a line with desired date format.
- ▶ Press the Memory button.

Date Format	Meaning
dd.mm.yyyy	day.month.year
yyyy/mm/dd	year/month/day
mm/dd/yyyy	month/day/year

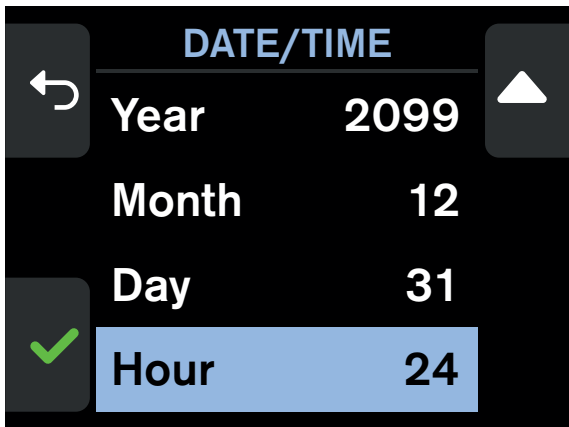


Fig. Time Settings

Items in the Time MENU:

- ☐ Year
- ☐ Month
- ☐ Day
- ☐ Hour
- ☐ Minute

To set time:

- ▶ Select a line with desired time unit by pressing PLAY/PAUSE button (up) or Bed Exit Alert ZONE button (down) repeatedly until the desired line is selected.
- ▶ Press the Memory button.
- ▶ Press PLAY/PAUSE button (up) or Bed Exit Alert ZONE button (down) repeatedly until the desired value is set.
- ▶ Press the Memory button.

To leave the Settings Menu:

- ▶ Press ZERO/T button.

17.7 Service Settings

Only authorized and trained service technician is allowed to enter the Service Settings and set the available parameters.

18 Equipment

Product equipment depends on product configuration.

18.1 Accessory Rail with plastic hooks

Accessory rail with plastic hooks is intended for hanging accessories.

It is located on the sides of bed.

Maximum load of the Accessory Rail is 10 kg without leverage.

Maximum load of the plastic hook intended for the Accessory Rail is 2 kg.

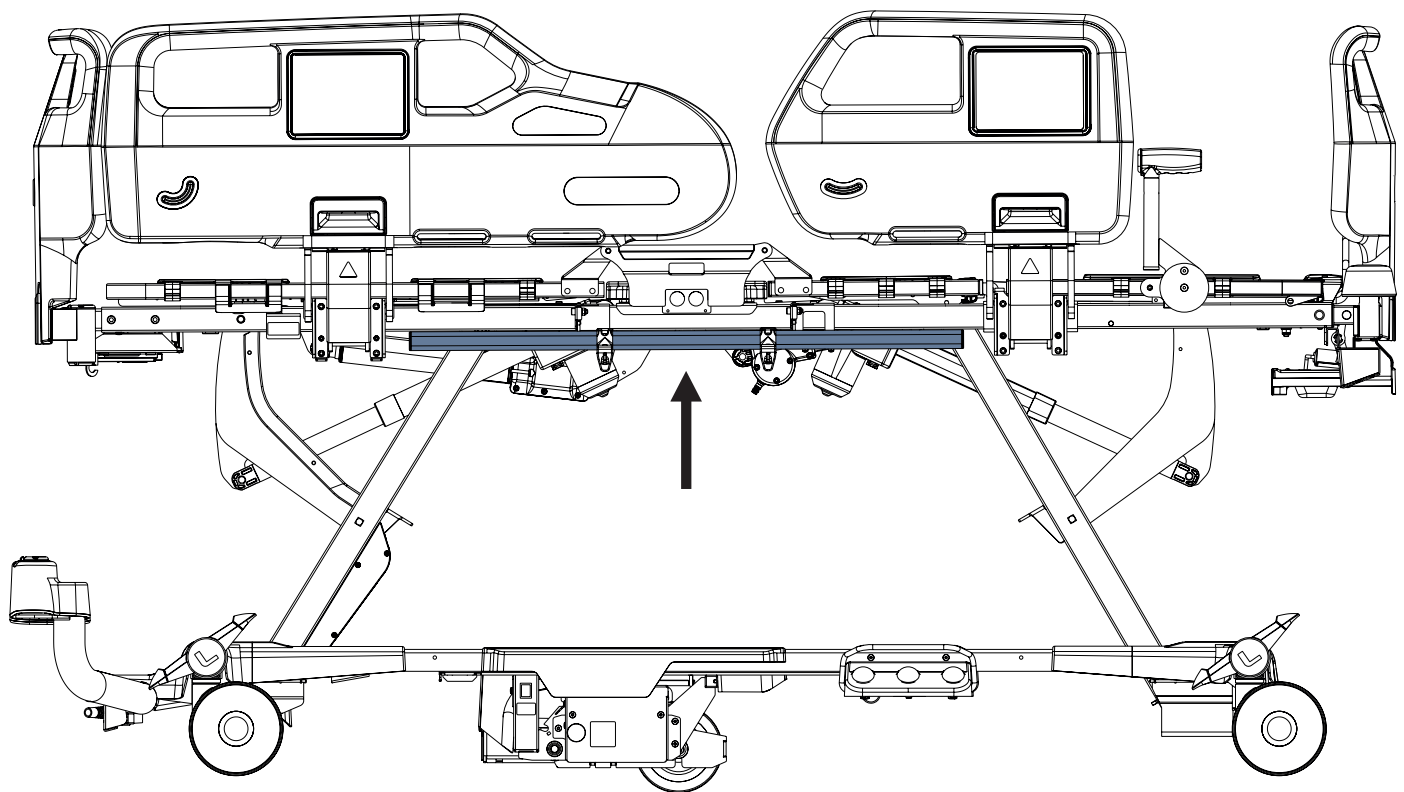


Fig. Accessory Rails with plastic hooks on the bed with plastic siderails

18.2 Urinary Bag Holders in Plastic Siderails


CAUTION!

Risk of collision between Urinary Bags suspended from the Urinary Bag Holders and bed undercarriage or floor!

► Take extra care during lowering to the Extra Low Position if an Urinary Bag is suspended from an Urinary Bag Holder!

Eyelets in the Plastic Siderails are intended for hanging Urinary Bags.

Maximum Load of a compatible Urinary Bag is 3 kg.

A Plastic siderail should be lifted in up position if an Urinary Bag is suspended from an Urinary Bag Holder.

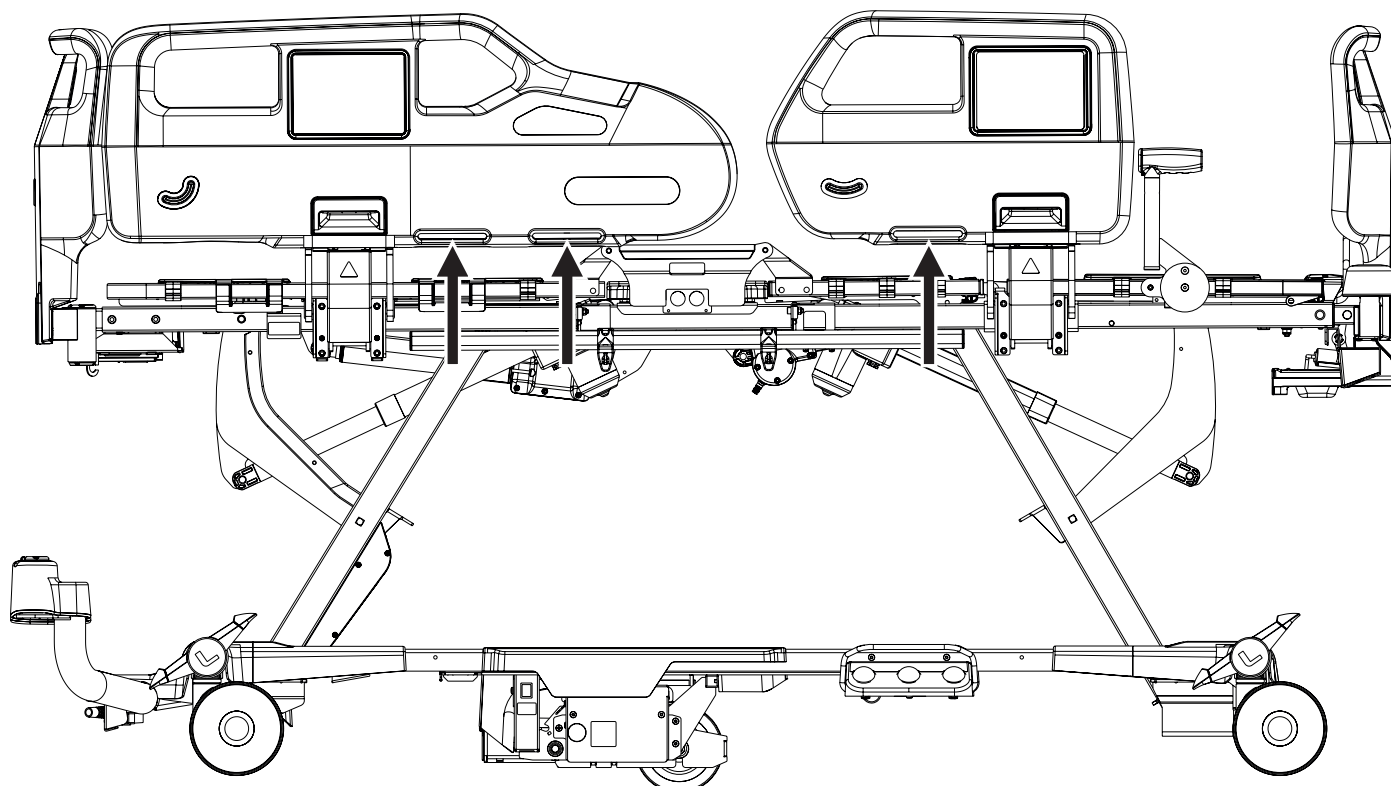


Fig. Urinary Bag Holders in Plastic Siderails

18.3 Bed Illumination and Handset Control Panel Illumination

The Essenza 400 bed can optionally be equipped with Bed Illumination (the source of light situated under the seat section) and Siderail Control Panel, Patient Control Panel and Handset Control Panel can optionally be equipped with illuminated keyboard. Bed Illumination and Handset Control Panel Illumination help the nursing staff as well as the patient to orientate.

Bed Illumination Control Button:

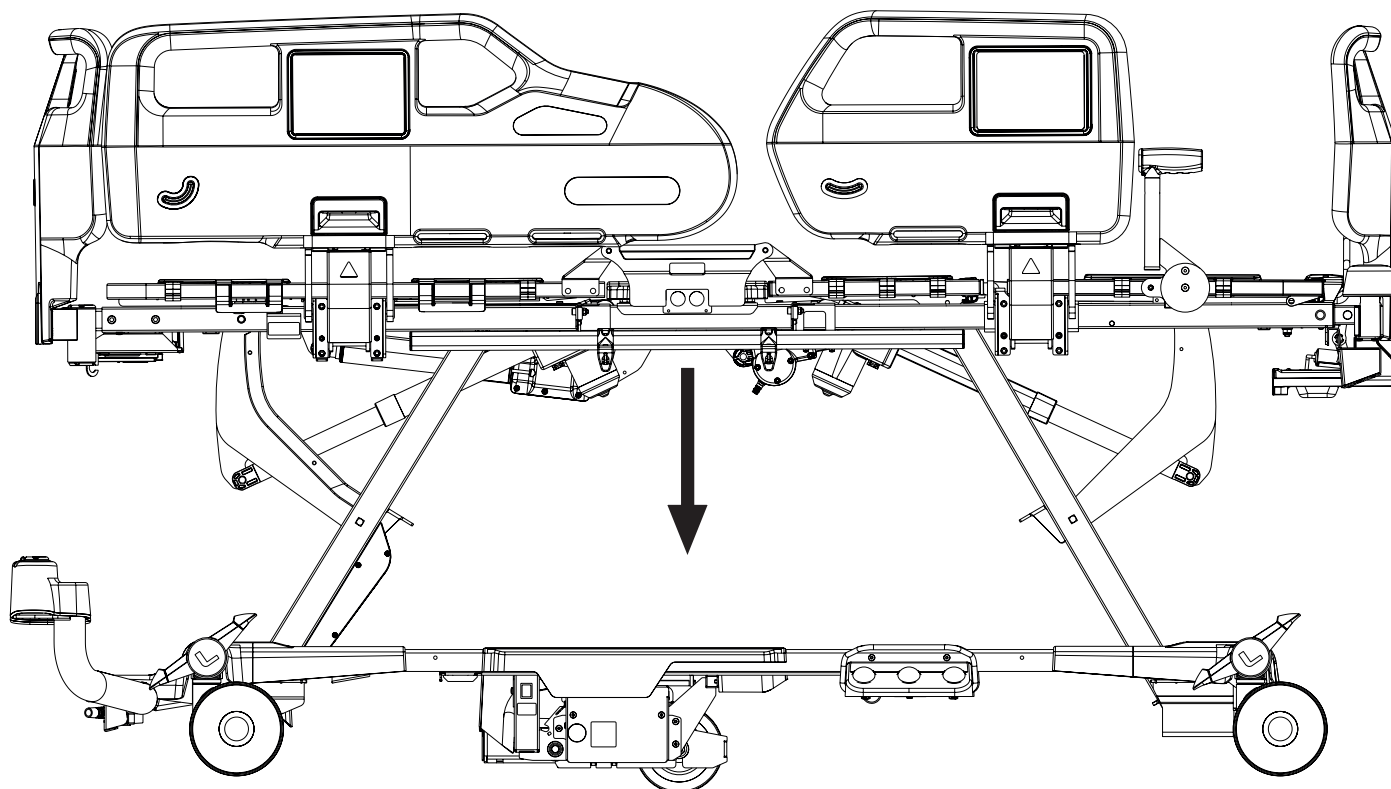


Fig. Bed Illumination source on the Essenza 400 medical bed

The Essenza 400 bed is optionally equipped with three-phase illumination: Full intensity of illumination, Lowered intensity of illumination and Illumination is turned off.

The lowered intensity of illumination is set up after the bed is connected to the mains. The illumination is turned off when the bed is powered by accumulator only.

After pressing any button:

- Handset Control Panel keyboard and Bed Illumination will light up at full intensity within 3 minutes.

After elapsing the full intensity period:

- The illumination intensity of the Handset Control Panel keyboard and Bed Illumination will be lowered within 7 minutes.

After activating the bed via any Foot Control:

- The full intensity of Bed Illumination will be activated for 10 minutes and then the illumination will be lowered if the bed will be still plugged into the mains.

Turning off all illumination:

- Press **Bed Illumination Control Button** on the Attendant Control Panel or on the Siderail Control Panel and all illumination on the bed will be turned off.

18.4 Safe Height Visual Signalling

Green light emitted under the bed seat section is intended for the safe height visual signalling.
The green light cannot be activated when the bed is not connected to the mains power.
The green light is emitted in the Extra Low Position only.

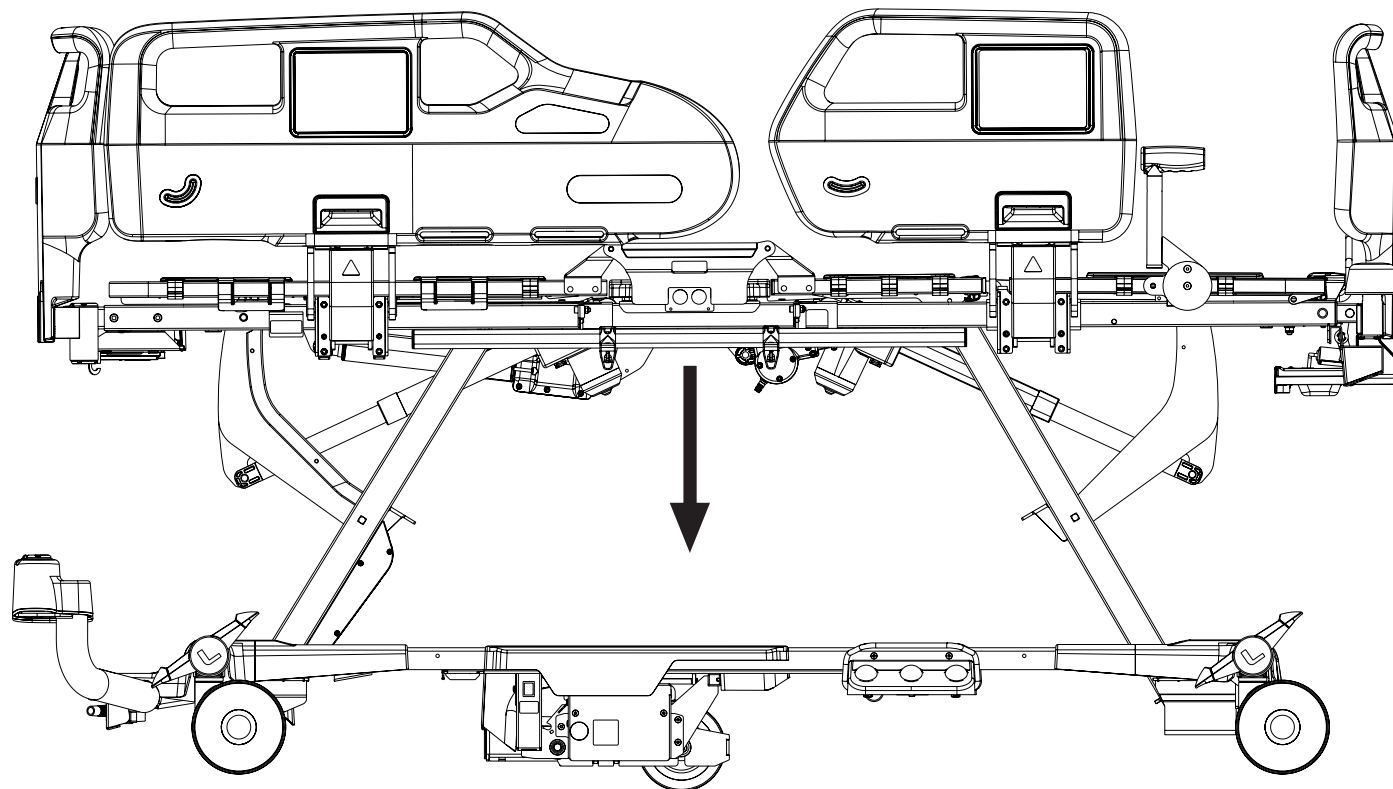


Fig. Green light source on the Essenza 400 medical bed

18.5 Fifth Castor



WARNING!

Risk of damaging the Fifth Castor during its movement across slope greater than 15%!

- Ensure the bed does not move over the slope!



The bed can be equipped with the Fifth Castor to make it easier to manoeuvre and control the bed movement. The standard locking castor will automatically be excluded from the bed configuration if the bed is equipped with the Fifth Castor as this will replace the need for this function. The control lever for the Fifth Castor is identical to the control lever for the braking system.

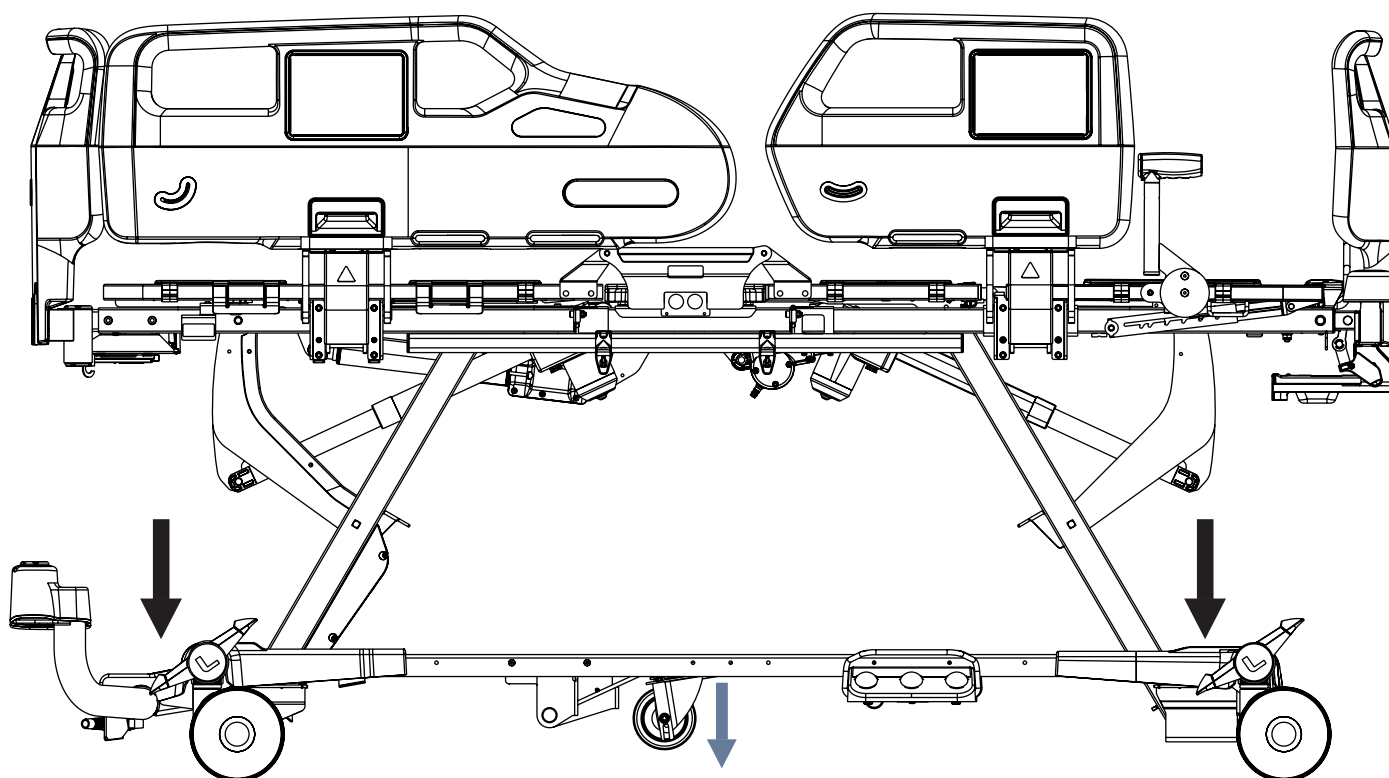


Fig. Activation of the Fifth Castor

To activate the Fifth Castor:

- Press green Drive pedal to the low position.
The Fifth Castor moves in the direction of the bed head end and in the direction of bed foot end.

To release the Fifth Castor from its limited position in the direction of the bed head end and in the direction of bed foot end :

- Leave all Brake pedals and Drive pedals unpressed in their middle position.
The Fifth Castor moves sideways and around.

18.6 Angle Indicators in Plastic Siderails

Angle Indicators are situated on both outer sides of plastic siderails. Head siderail indicators are intended for an approximate Backrest angle measurement. Foot siderail indicators are intended for an approximate measurement of Trendelenburg tilt and Reverse-Trendelenburg tilt.

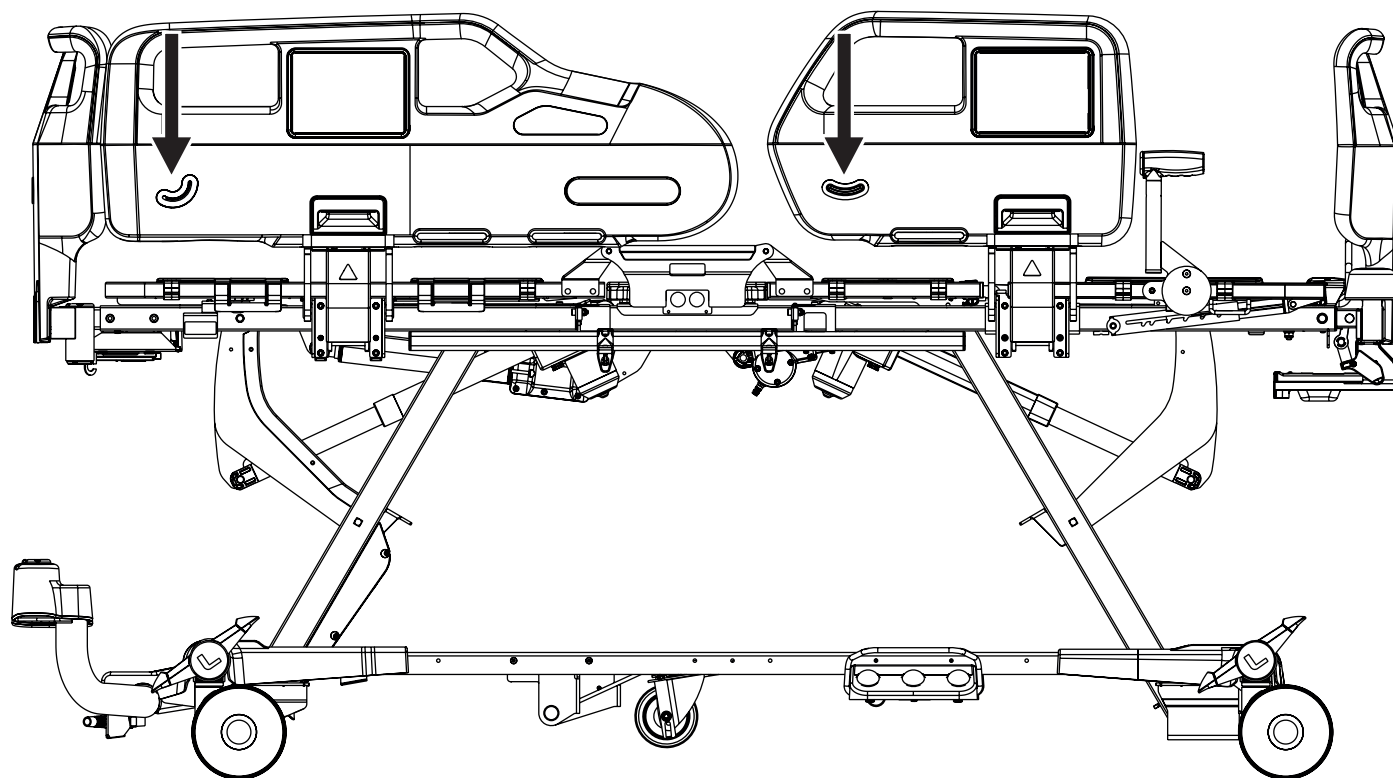


Fig. Angle Indicators in Plastic Siderails

18.7 Plastic Linen Shelf



WARNING!

Risk of injury due to incorrect placement of the Attendant Control Panel in the Linen Shelf!

- ▶ Ensure any button of the Attendant Control Panel is not pressed in the Linen Shelf!
- ▶ Only place the Attendant Control Panel into the Linen Shelf without any other things!

Linen Shelf is intended for storing the things corresponding to its dimensions (e.g. linens or sheets).

Wire construction assists in keeping linens and sheets on the Linen Shelf.

The Attendant Control Panel can be stored in the Linen Shelf.

The Linen Shelf is located at foot end under the Foot Board.

Safe Working Load of the Linen Shelf is 15 kg.

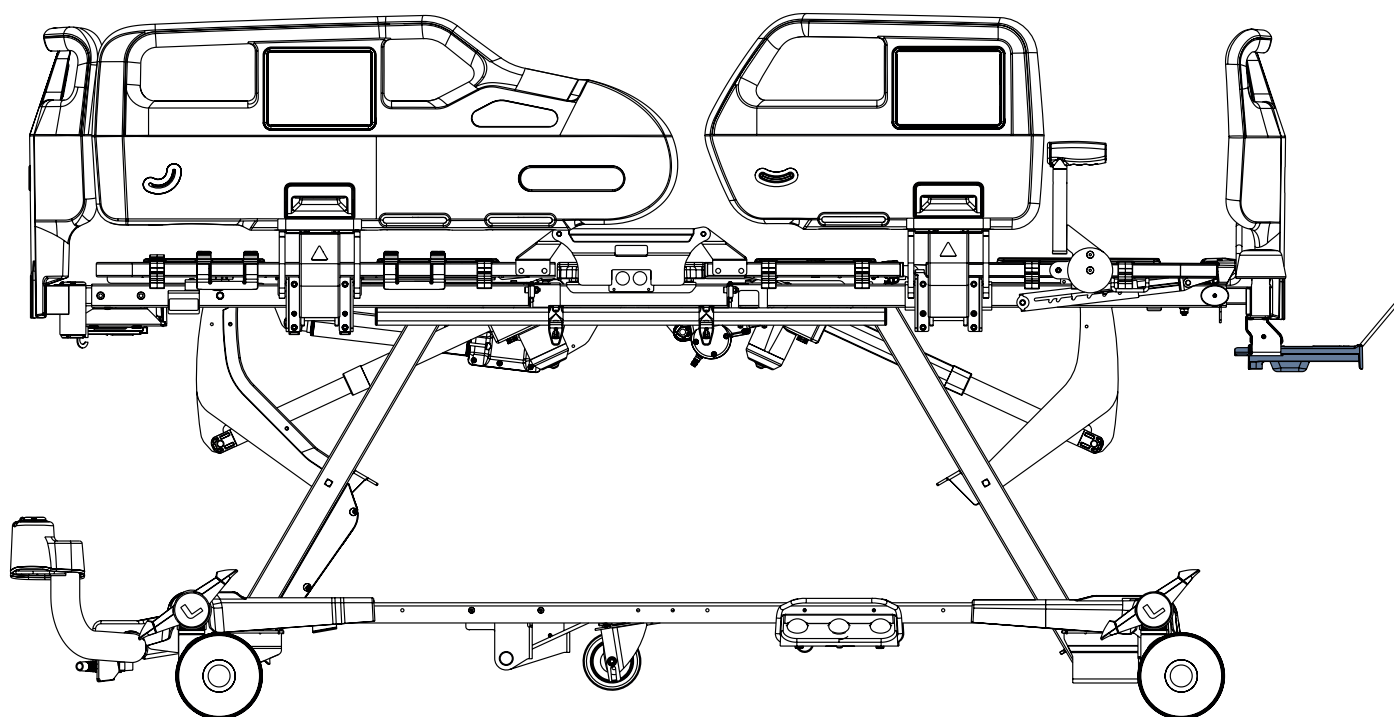


Fig. Plastic Linen Shelf at bed foot end

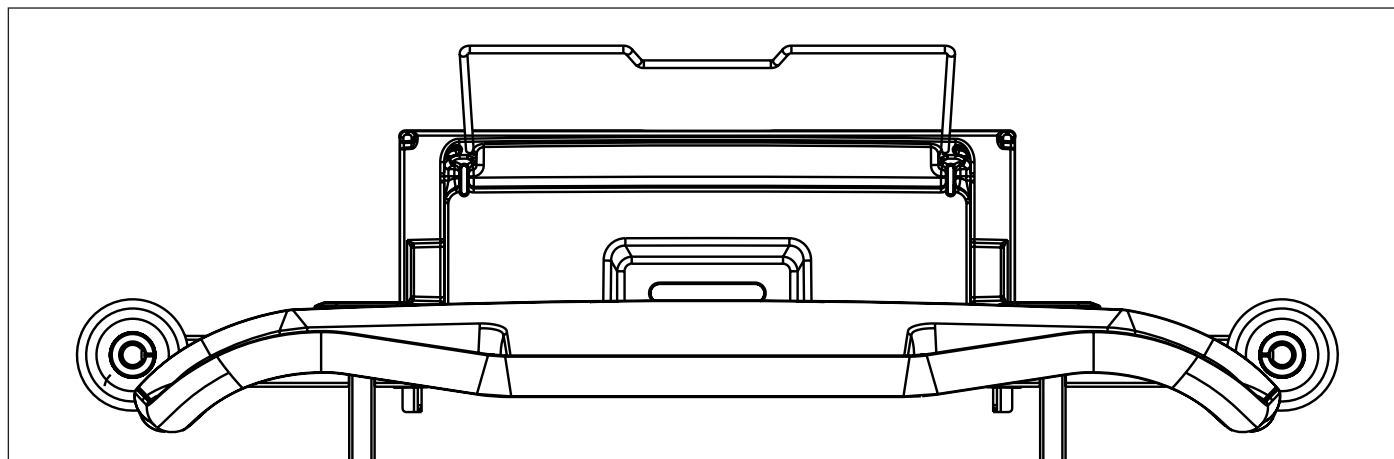


Fig. Extended Plastic Linen Shelf

18.8 Mobi-Lift Handles

Mobi-Lift® is intended as support handle when patient gets up.

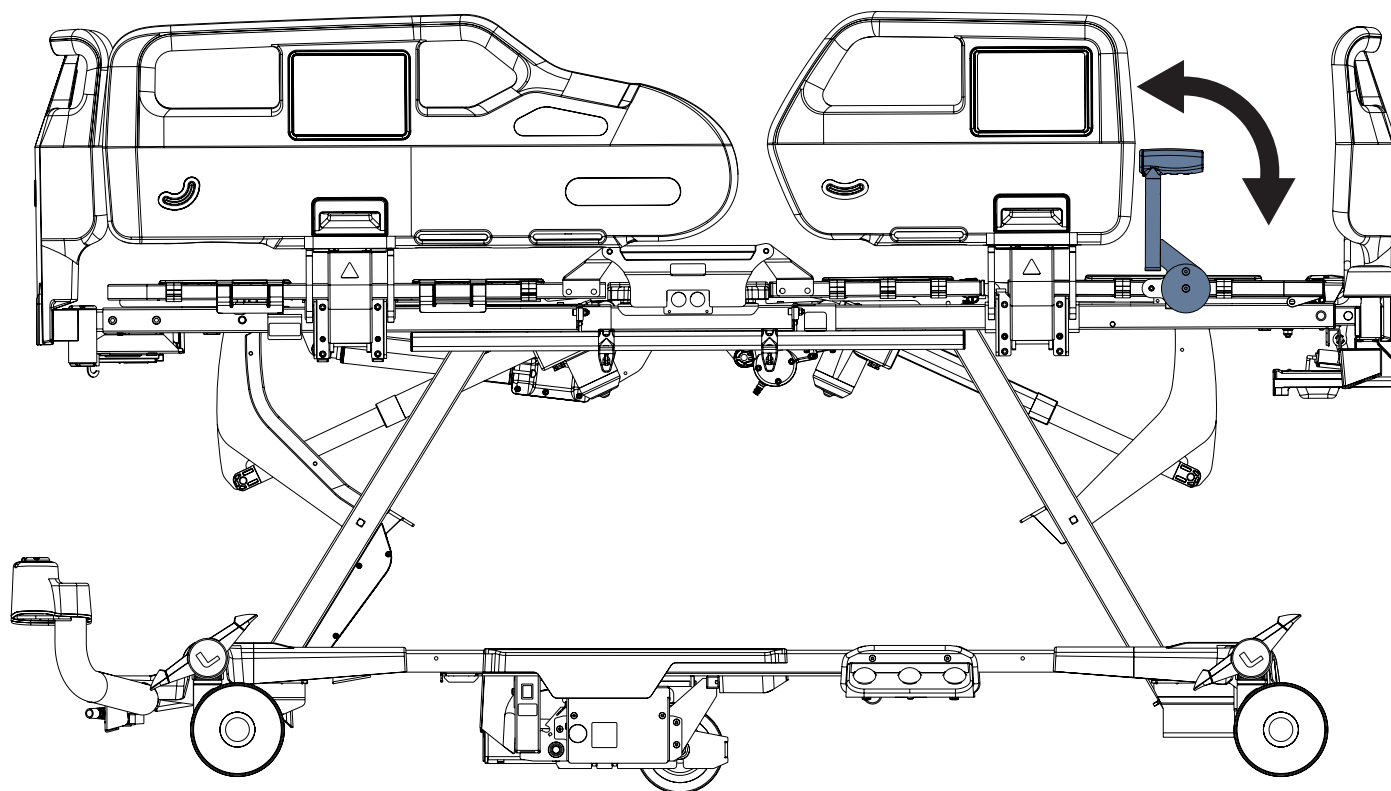


Fig. Mobi-Lift Handle on the bed with plastic siderails

To fold Mobi-Lift Handle down:

- ▶ Lift the Mobi-Lift Handle up to unlock it.
- ▶ Fold the Mobi-Lift Handle down.

To lift Mobi-Lift Handle up:

- ▶ Lift the Mobi-Lift Handle up.
- ▶ Check if the Mobi-Lift Handle is locked in place.

18.9 USB charger



WARNING!

Risk of injury due to incorrect use!

- ▶ Patient is allowed to use the USB charger only if hospital personnel had assessed that the patient's physical and psychological state is in accordance with use of it and only if the hospital personnel had trained the patient in accordance with the instructions for use!
Hospital personnel is responsible for meeting this requirement.



WARNING!

Risk of injury due to incorrect use!

- ▶ Ensure that accessory plugged in the USB port is in pristine condition!
User of the bed is responsible for meeting this requirement.



WARNING!

Risk of injury due to incorrect use!

- ▶ Only use the USB charger when the Essenza 400 bed is connected into the mains!
User of the bed is responsible for meeting this requirement.



WARNING!

Risk of injury due to squeezed cable!

- ▶ Ensure that cable of a plugged accessory is not squeezed by siderail or by parts of the mattress support platform!
User of the bed is responsible for meeting this requirement.



CAUTION!

Risk of material damage due to incorrect use!

- ▶ Ensure that plugged accessory is prevented from falling down!
User of the bed is responsible for meeting this requirement.



CAUTION!

Risk of material damage due to incorrect use!

- ▶ Do not plug any heating element into the USB port!
User of the bed is responsible for meeting this requirement.



CAUTION!

Risk of material damage due to incorrect use!

- ▶ Protect USB port from water!
- ▶ Ensure the USB port will not be harmed during cleaning!
- ▶ Do not perform steam cleaning in proximity to the USB port!

USB chargers are intended for charging mobile phones and tablets.
USB chargers are located on the inner sides of both head plastic siderails.
USB chargers can be equipped with USB-A or USB-C ports.

Configurations of the USB chargers:

- ☐ with two USB-A ports
- ☐ with two USB-C ports
- ☐ with one USB-A port and one USB-C port

NOTE: Maximum electric current for the USB chargers is 2 A.

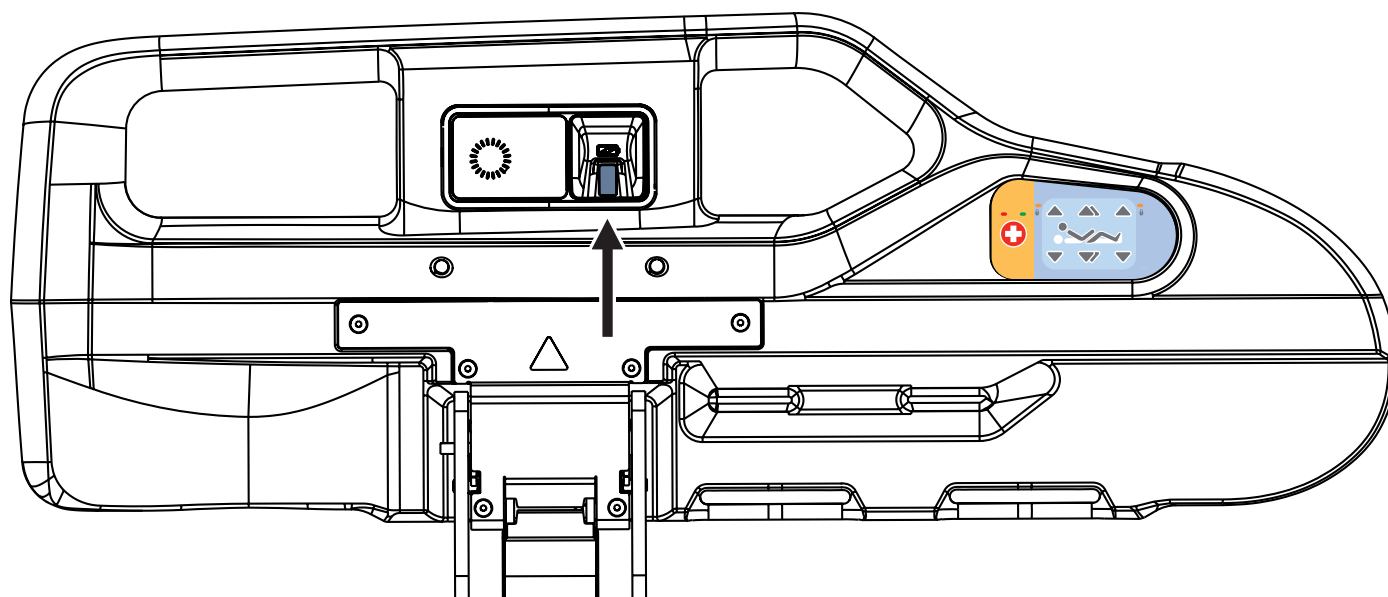


Fig. USB port on the inner side of the head plastic siderail

18.10 Brake Alert

If bed is equipped with **Brake Alert** and this bed is connected to the mains power, the **Brake Alert** sounds when the bed is **not braked**. For specification of the Brake Alert, see „1.9 Acoustic Signalling“ on the page 16.

18.11 i-Brake®

i-Brake is an automatic castor brake. The automatic castor brake prevents injuries of patients and staff due to an unbraked bed. The brakes are activated automatically 60 seconds after the bed is plugged in, and 60 seconds after they have been released if the bed is not being moved. It is also possible to activate the brakes manually when the bed is equipped with the **i-Brake**.

18.12 EasyDrive

It is possible to equip the bed with the EasyDrive wheel. The EasyDrive helps hospital staff to drive the bed during patient transport with minimal manpower. The EasyDrive wheel is located in the center of the bed under the undercarriage. EasyDrive is equipped with its own accumulator and charger and it is not dependent on the bed functions so, if discharged you can still use the bed functions. The bed is equipped with one EasyDrive Control Panel. EasyDrive wheel is oriented in straight direction of the bed.

18.12.1 Safety instruction for EasyDrive System

- ▶ Follow the instructions carefully.
- ▶ Ensure that the bed is operated exclusively by qualified staff.
- ▶ Make sure the siderails are raised up during the transport.
- ▶ Never use buttons for bed positioning during transport.
- ▶ Special precaution need to be considered when reversing. Always keep distance from the bed and never use reverse button when descending or ascending.
- ▶ Do not use EasyDrive to transport on a slope over 3 degree unless adequate personnel are available to manage safe bed transport.
- ▶ Never leave the bed with an activated EasyDrive system without supervision of the trained staff.
- ▶ Always use the regular mechanical brake system to brake and stabilize the bed.
- ▶ Pay increased attention when driving the bed using EasyDrive. Be aware of people and objects in close proximity and avoid collision with them by careful driving, especially by appropriate speed control.
- ▶ Make sure the bed is unplugged and bed brakes are released before using EasyDrive.
- ▶ Retract the EasyDrive wheel to the undercarriage by adjusting the neutral pedal position. This will prevent misuse when unbraking and braking the bed.
- ▶ Switch off the EasyDrive and ask the authorised service technician for disconnecting the EasyDrive accumulator prior to long-term storage or transport.
- ▶ Press ON/OFF button on the EasyDrive control panel in the case of EasyDrive system failure.
- ▶ Retract the EasyDrive wheel to the undercarriage every time you intend to move the bed sideways.
- ▶ Pay attention to the Accumulator Charge Status Indicator and plan your drive using the EasyDrive accordingly. Insufficient accumulator capacity can cause unexpected complications and risks during the drive.
- ▶ Always plug the bed in when you finish your drive in order to recharge the accumulator and keep your bed ready to go using the EasyDrive.
- ▶ The EasyDrive accumulator must be replaced every 2 years to maintain proper functions of the EasyDrive.

18.12.2 Intended Use of the EasyDrive System

EasyDrive system is intended to facilitate the transport of a compatible bed with patient by the medical staff using the fifth driven wheel of the EasyDrive system. EasyDrive system is not intended to stop the bed in an emergency case.

Unintended use:

- ▶ riding the bed
- ▶ other usage than described in instructions for use
- ▶ by other person than the trained staff

18.12.3 Compatible Castors

EasyDrive system is compatible with Tente Integral Soft brake simple castors with diameter 150 mm.

18.12.4 Manipulation

Essenza 400 medical bed can transport only single patient at a time and cannot be used to transport other items (except bed accessories in secured position).



WARNING!

Risk of injury due to careless driving!

- ▶ Always drive safely and carefully.
- ▶ Observe the path for any obstacles and avoid collisions.
- ▶ Ensure there are no people in your way.
- ▶ Manipulate with the bed carefully not to drive over any staff or patients.



CAUTION!

Maximal clearance underneath the bed equipped with EasyDrive is limited!

- ▶ Observe the path for any obstacles and avoid collisions.



CAUTION!

Damage to EasyDrive Main Control Panel cable due to wrong cable placement!

- ▶ Ensure that the main control panel connecting cable is placed correctly.



CAUTION!

Material damage due to incorrect use!

- ▶ Do not hang anything on the main control panel and its cable!

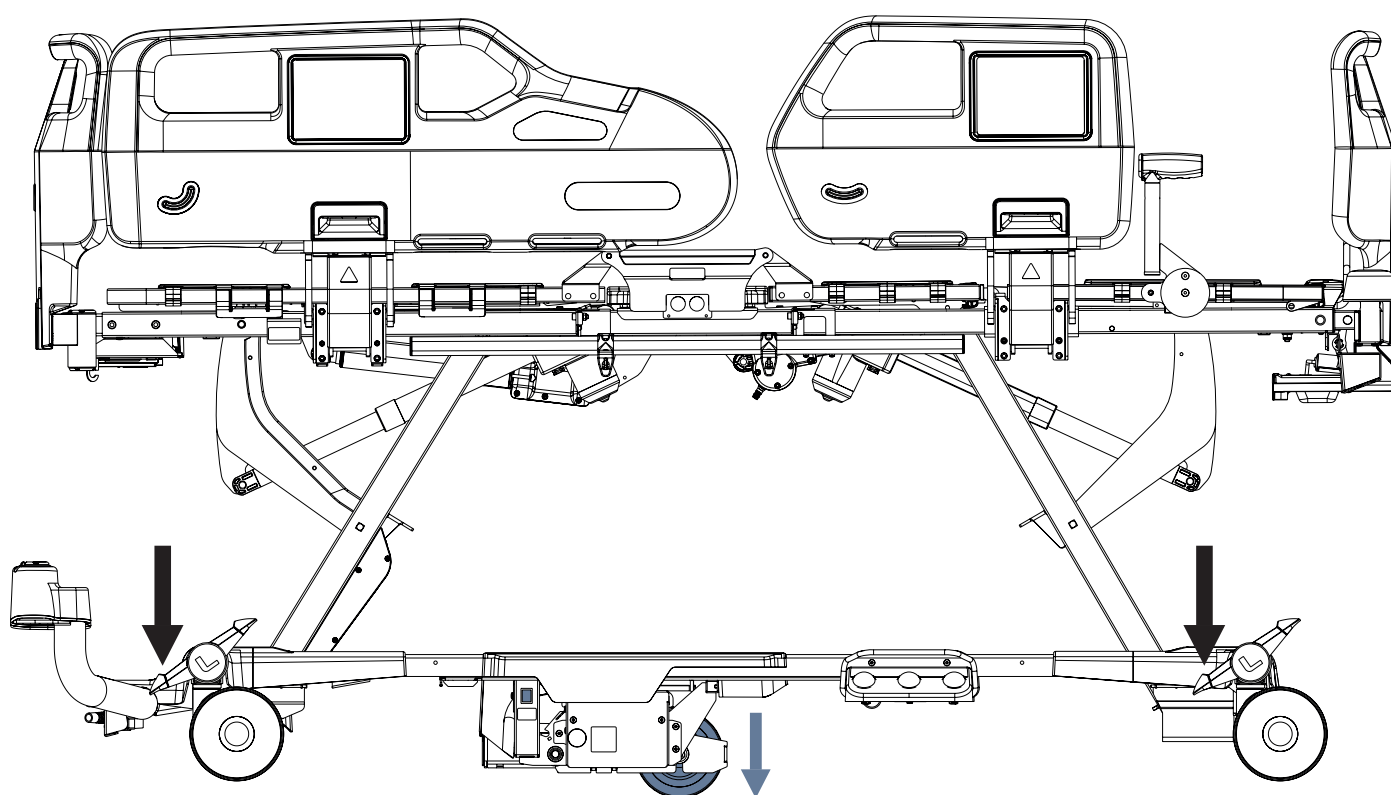


Fig. Preparation of the EasyDrive system for use

To prepare the EasyDrive system for use:

- ▶ Press the green drive pedal to the lowest position.

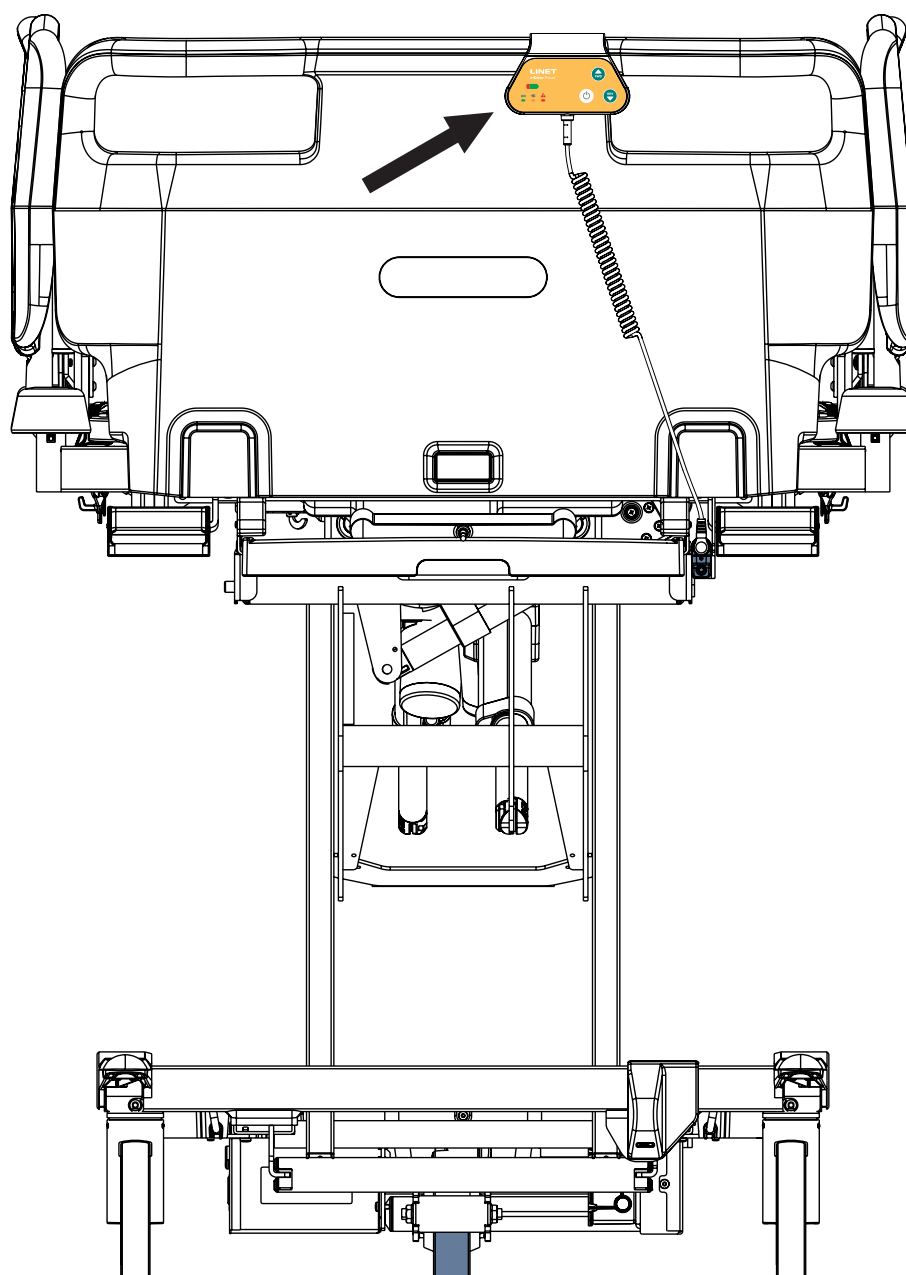


Fig. Position of the EasyDrive Control Panel

EasyDrive Control Panel



WARNING!

Risk of incorrect use of the EasyDrive system!

- Disconnect cable of the EasyDrive Control Panel from the bed and do not use the EasyDrive system if corresponding Head Board or Foot Board is removed on the side where the EasyDrive Control Panel is installed!

Intended position of the EasyDrive Control Panel is on the upper edge of the Head Board or Foot Board on the right side from the perspective of operator.

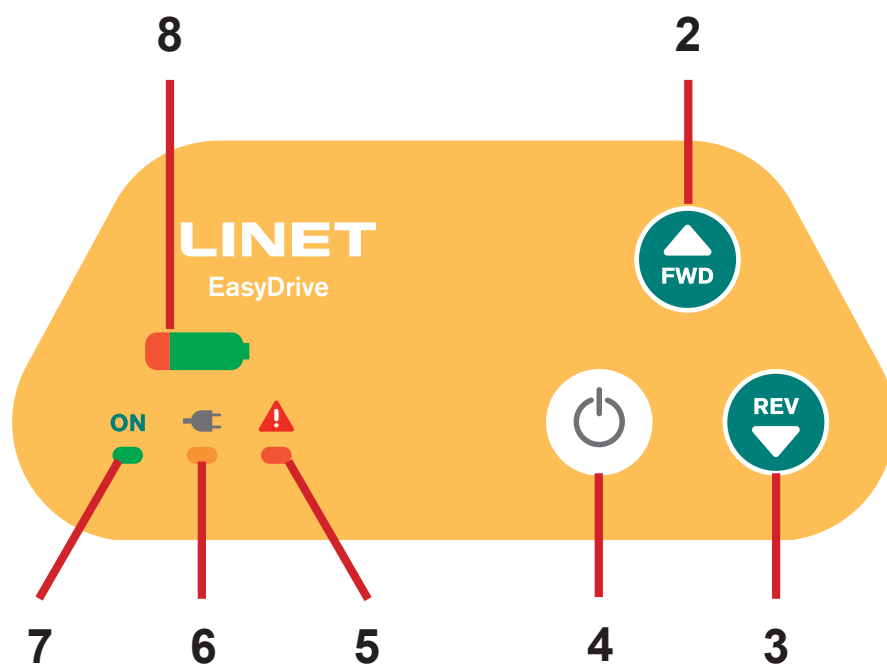


Fig. EasyDrive Control Panel

- 2. FORWARD Button
- 3. REVERSE Button
- 4. ON/OFF Button (control panel activation)
- 5. Fault LED Indicator
- 6. Mains Power LED Indicator (led connected to the mains)
- 7. ON LED Indicator (indicator is lit when the control panel is activated)
- 8. Accumulator Charge Status Indicator and Accumulator Fault Indicator

18.12.5 EasyDrive Accumulator



WARNING!

It is not possible to charge the batteries of the EasyDrive system when the EasyDrive Mains Switch is in OFF position!



WARNING!

Risk of damaging the product due to incorrect maintenance!

- Only authorised and trained service technician is allowed to replace the EasyDrive accumulator and fuses of the EasyDrive system!



CAUTION!

Risk of damaging the product due to incorrect storage!

- Turn off the circuit breaker of EasyDrive accumulator box before storing the EasyDrive system out of operation.
- Authorised and trained service technician is responsible for following this instruction.

EasyDrive Accumulator lifetime could be up to 2 years if operated under optimum conditions.

Accumulator capacity can be significantly reduced if:

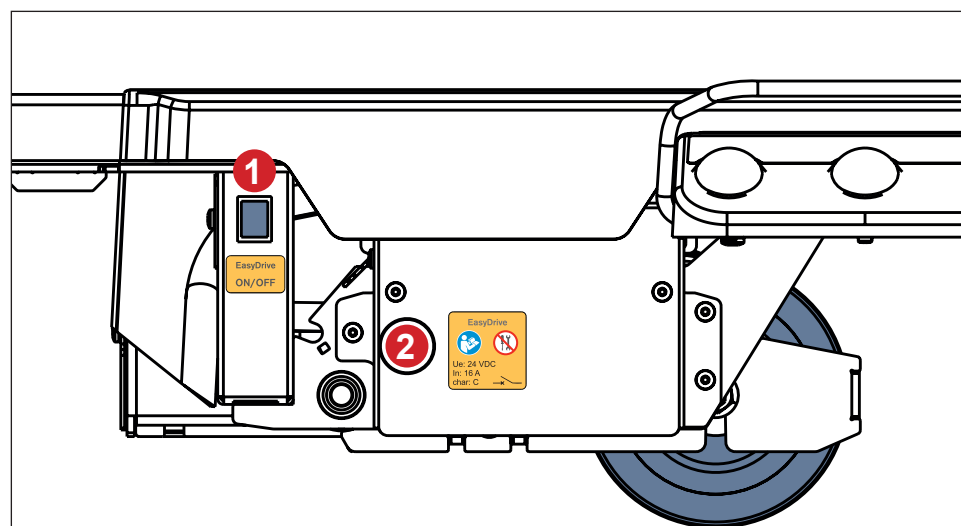
- ▶ too high ambient temperature
- ▶ many accumulator charge/discharge cycles
- ▶ recurrence of deep discharge
- ▶ bed is often powered only by the accumulator

To charge the batteries:

- ▶ Connect the mains cable of the Essenza 400 with EasyDrive to mains power.
- ▶ EasyDrive system will be charged (with the accumulator discharged, the charging may take up to 6 hours).

NOTE Charge status values are just informational.

Life of the batteries is reduced when the batteries are allowed to discharge completely.



1. EasyDrive Mains Switch
2. Circuit Breaker of EasyDrive Accumulator Box

Fig. EasyDrive control buttons in the undercarriage section

18.12.6 Visual Signalling

Status	Visual Signalling
Activated EasyDrive Control Panel	
Fully Charged Accumulator (100%)	
Charged Accumulator (75%)	
Half-charged Accumulator (50%)	
Discharged Accumulator (30%)	
Critically Discharged Accumulator (20%)	
Overheated System	
Multiple Press of Buttons during Charging	
Indication of Charging	

18.12.7 EasyDrive Technical Specifications

Mechanical Specifications

Parameter	Value
EasyDrive wheel diameter	14 cm
Maximum forward speed (flat ground, loaded bed)	4,5 km/h
Maximum reverse speed (flat ground, loaded bed)	2,5 km/h
EasyDrive Weight	23 kg
Maximum Crossing Angle	3°
Maximum Sound Pressure Level	56 dBA

Electrical Specifications

Parameter	Value
Input Voltage	29 V DC
Maximum Power Input	120 VA
Ingress Protection (EN 60529)	IPX4
Electric Protection Class	Class I
Accumulator Type	Pb Accumulator
Accumulator Voltage	24 V DC
Accumulator Capacity	7 Ah
Maximum Charging Period	6 hours
Start of the EasyDrive Control Panel Sleep Mode	after 3 minutes without activity
Circuit Breaker of EasyDrive Accumulator Box	16 A

Environment Conditions

Use Conditions	
Ambient Temperature	10 °C — 40 °C
Relative Humidity	30 % — 75 %
Atmospheric Pressure	795 hPa — 1060 hPa
Storage and Transport Conditions	
Ambient Temperature	-20 °C — 50 °C
Relative Humidity	20 % — 90 %
Atmospheric Pressure	795 hPa — 1060 hPa

18.12.8 Troubleshooting

Error/Fault	Cause	Solution
EasyDrive Control Panel does not work. EasyDrive wheel does not move.	EasyDrive system is OFF. ON LED Indicator is OFF.	Turn the EasyDrive Mains Switch in the bed undercarriage section on.
	EasyDrive circuit breaker is off.	Notify the manufacturer's service department. Trained service technician is authorized to turn the EasyDrive circuit breaker on.
	EasyDrive Control Panel cable is disconnected from the bed.	Connect the EasyDrive Control Panel cable to the corresponding connector.
	Defective EasyDrive Control Panel.	Notify the manufacturer's service department.
The bed does not move or EasyDrive wheel moves above floor but the bed does not move.	The bed is braked.	Unbrake the bed via an accessible castor control lever.
	The bed is plugged into the mains.	Unplug the bed from the mains.
EasyDrive wheel has stopped and Fault LED Indicator lights up.	Electronics is overheated.	Wait if possible or continue in driving without the function of driven wheel. The EasyDrive wheel serves as working fifth undriven castor but it cannot be activated as driven wheel unless the temperature of electronics is reduced.
	EasyDrive Accumulator is discharged.	Plug bed into the mains if possible. The EasyDrive wheel serves as working fifth undriven castor but it cannot be activated as driven wheel.
The space under the bed is not large enough because of the EasyDrive wheel on the floor.	The bed is in the driving mode.	Set the middle neutral position of an accessible castor control lever.

18.13 X-ray cassette Holder



WARNING!

Risk of x-ray image misinterpretation due to its deterioration!

- ▶ Ensure the distance between a lying patient and an inserted compatible x-ray cassette is not increased unnecessarily. A too much thick mattress or combination of mattresses could cause that undesirable state.
- ▶ Ensure there are no added x-ray contrast materials between patient and x-ray cassette. There are no x-ray contrast materials in the place of X-ray cassette Holder.
- ▶ Please note that the image quality may be affected by artifacts and these x-ray images are not intended solely for diagnostic purposes. The patient's clinical presentation also needs to be considered when interpreting the x-ray images.
- ▶ Ensure a compatible x-ray cassette is secured correctly in the X-ray cassette Holder!
- ▶ Take x-ray images when the bed is braked and no part of the bed is forced to move or the mattress is not forced to move considerably!



CAUTION!

Risk of damaging a compatible x-ray cassette!

- ▶ Do not leave any x-ray cassette in the X-Ray Cassette Holder if x-ray examination should not be performed immediately.
- ▶ Maximum dimensions of any x-ray cassette intended for this adjustable X-Ray Cassette Holder are 44 cm x 47 cm x 2,3 cm!



CAUTION!

Risk of material damage or trapping due to collision!

- ▶ Avoid any collision of the protruding X-ray cassette Holder with Head Board during Backrest adjustment!
- ▶ Avoid risk of getting your hand trapped between Head Board and the blue handle of the X-ray cassette Holder!

X-ray cassette Holder is compatible only with X-ray ready Backrest of the Essenza 400 bed.

The X-ray cassette Holder is intended for a cassette needed for the x-ray examinations of patients while they are lying on a mattress. The X-ray examination via this X-ray cassette Holder inserted correctly into the bed is intended for indicative results only. More accurate X-ray images must be taken by the other clinical means. The X-ray examination via this X-ray cassette Holder is intended to support the confirmation of invasive lines, monitoring devices and tube placement and complications that may occur following these procedures.

No touch to patient is needed for the X-ray examination via this X-ray cassette Holder.

The X-ray cassette Holder is accessible from the bed head end when the Head Board is removed.

The X-ray cassette Holder can be adjusted for the x-ray cassettes with length from 30 cm to 47 cm.

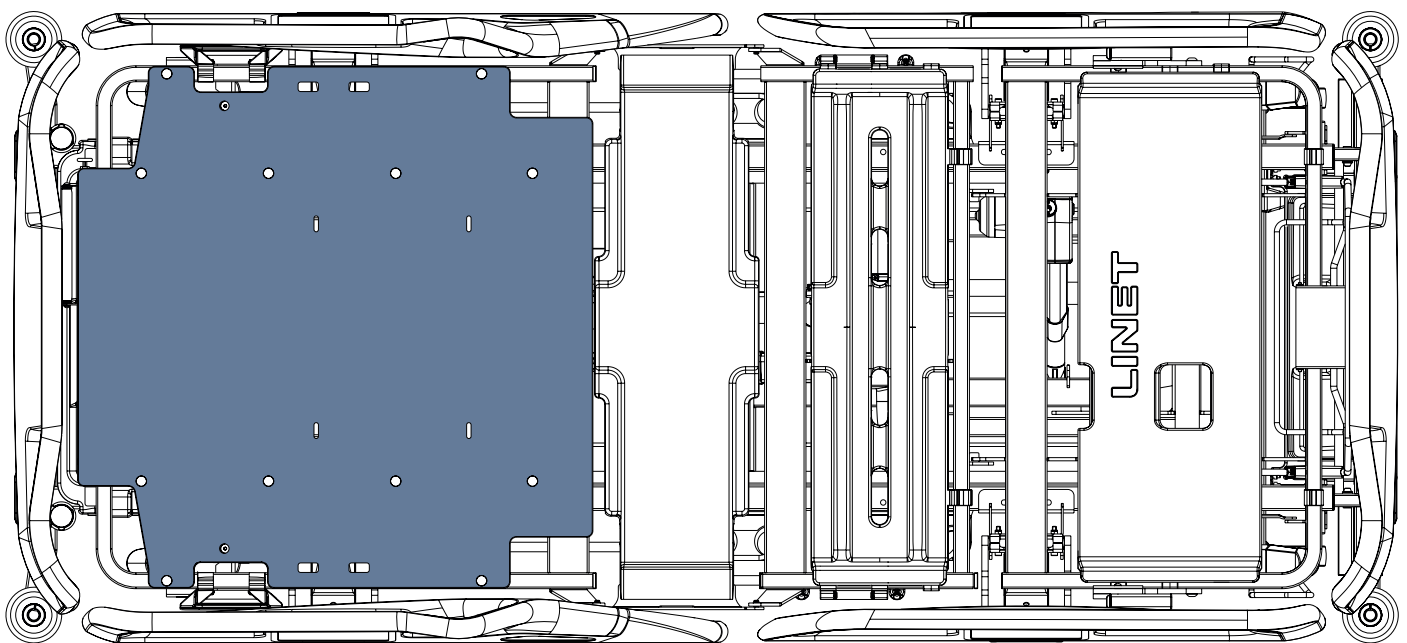


Fig. X-ray ready Backrest with HPL cover

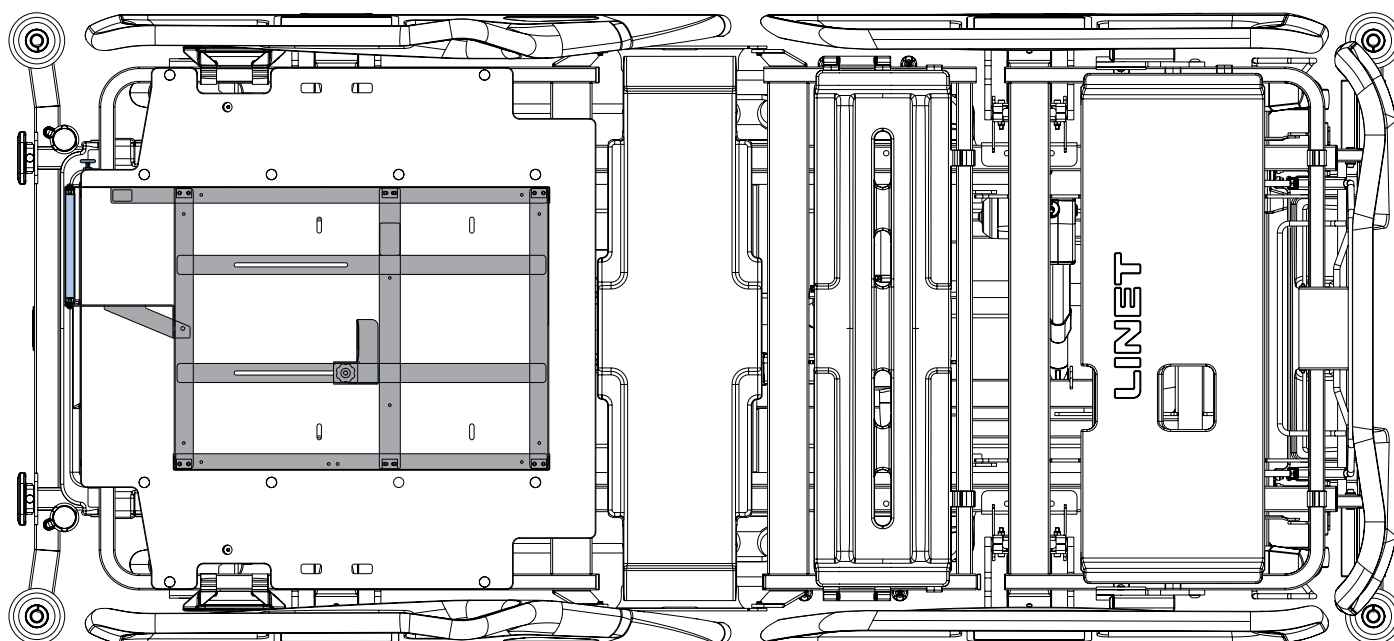
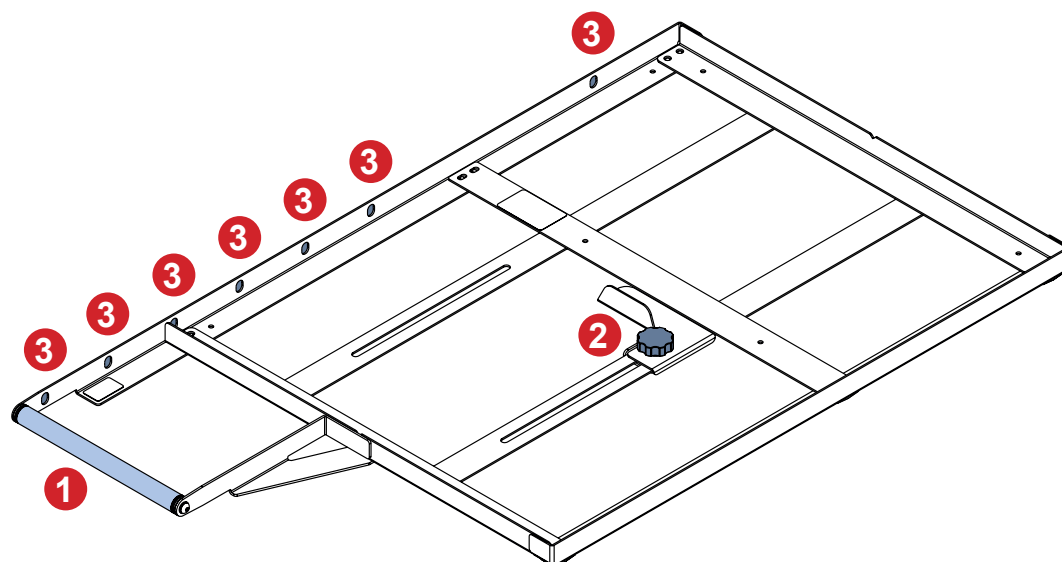


Fig. Position of the X-ray cassette Holder inserted to the Backrest

To take x-ray image of a patient by means of the X-ray cassette Holder:

1. Remove Head Board and leave it removed during whole time of taking an x-ray image.
2. Keep patient in supine position on the flat mattress support platform.
3. Ensure a compatible x-ray cassette in the X-ray cassette Holder can reach a body part to be x-rayed.
4. Follow the marks on the inner sides of Head Board and Foot Board to set a patient to the middle of the bed. If an x-ray image will be taken with lifted Backrest, place patient's hips between Backrest and Seat Section in accordance with the Ergoframe effect of the mattress support platform.
5. Pull out the X-ray cassette Holder at Backrest head end by blue handle.
6. Keep the X-ray cassette Holder fixed by safety pin to avoid falling of the holder.
7. Release the yellow fixative element with a rossette screw and place a compatible x-ray cassette into the X-ray cassette Holder.
8. Set the yellow fixative element to the size of the x-ray cassette and tight the rossette screw.
9. Insert the X-ray cassette Holder back to the Backrest. You can position the X-ray cassette Holder by the safety pin adjustment or slide it as a whole into the Backrest.
10. Lift Backrest if it is required by radiologist.
11. Perform the x-ray examination.
12. Only remove the x-ray cassette from the X-ray cassette Holder in the flat Backrest position (0°).
13. Place Head Board back into the bed after the taking of an x-ray image.



1. Blue handle of the X-ray cassette Holder
2. Rossette screw with yellow fixative element
3. Seven positions where the X-ray cassette Holder can be fixed by safety pin

Fig. Adjustable X-ray cassette Holder

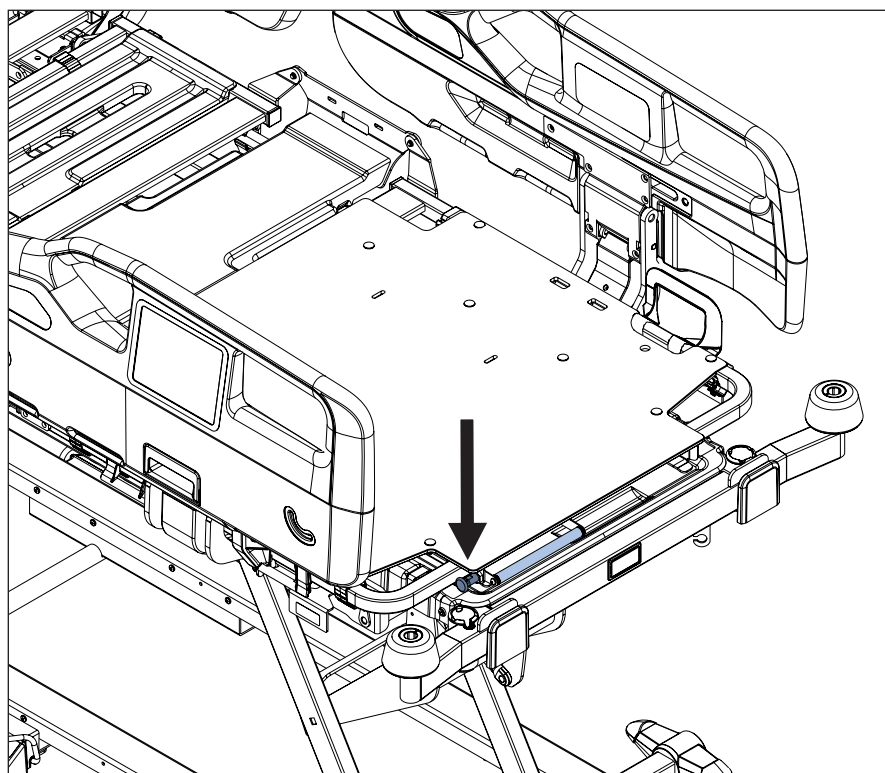


Fig. Position of the safety pin for fixing the X-ray cassette Holder

To clean the X-ray cassette Holder:

1. Remove Head Board.
2. Position mattress support platform to the flat position.
3. Take an X-ray cassette Holder part out of the Backrest by blue handle.
4. Release the safety pin to pull out the X-ray cassette Holder completely.
5. Remove the X-ray cassette Holder from the Backrest.
6. Clean the X-ray cassette Holder and Backrest parts related to it with recommended cleaning agents.
7. Insert the X-ray cassette Holder back to the Backrest under the HPL cover. Slide it completely so that only its blue handle is visible.
8. Return the safety pin back to lock the X-ray cassette Holder in place.
9. Return Head Board back into the bed.

18.14 Nurse Call Connection



WARNING!

Functions of the Nurse Call system depends on the local hospital information system!

- ▶ Ensure the Nurse Call system is compatible with local hospital information system!
- ▶ Nurse Call cable running from the local hospital information system must be connected to the port at head end of the bed!



CAUTION!

Ability to use the Nurse Call correctly increases patient's safety!

- ▶ Hospital staff should inform patient how to use the Nurse Call system!

Intended use

Nurse Call system is intended for sending signals from the bed to hospital staff.
Nurse Call system can be used by hospital staff and by patient.

Positions of the Nurse Call control elements

The buttons for activating the Nurse Call function are located on the inner and outer sides of the head siderails. Speakers and microphones are located on the inner sides of the head siderails.

Activating the Nurse Call function:

- ▶ Press Nurse Call button.

The patient can speak into the microphone located on the inner side of the head siderails.

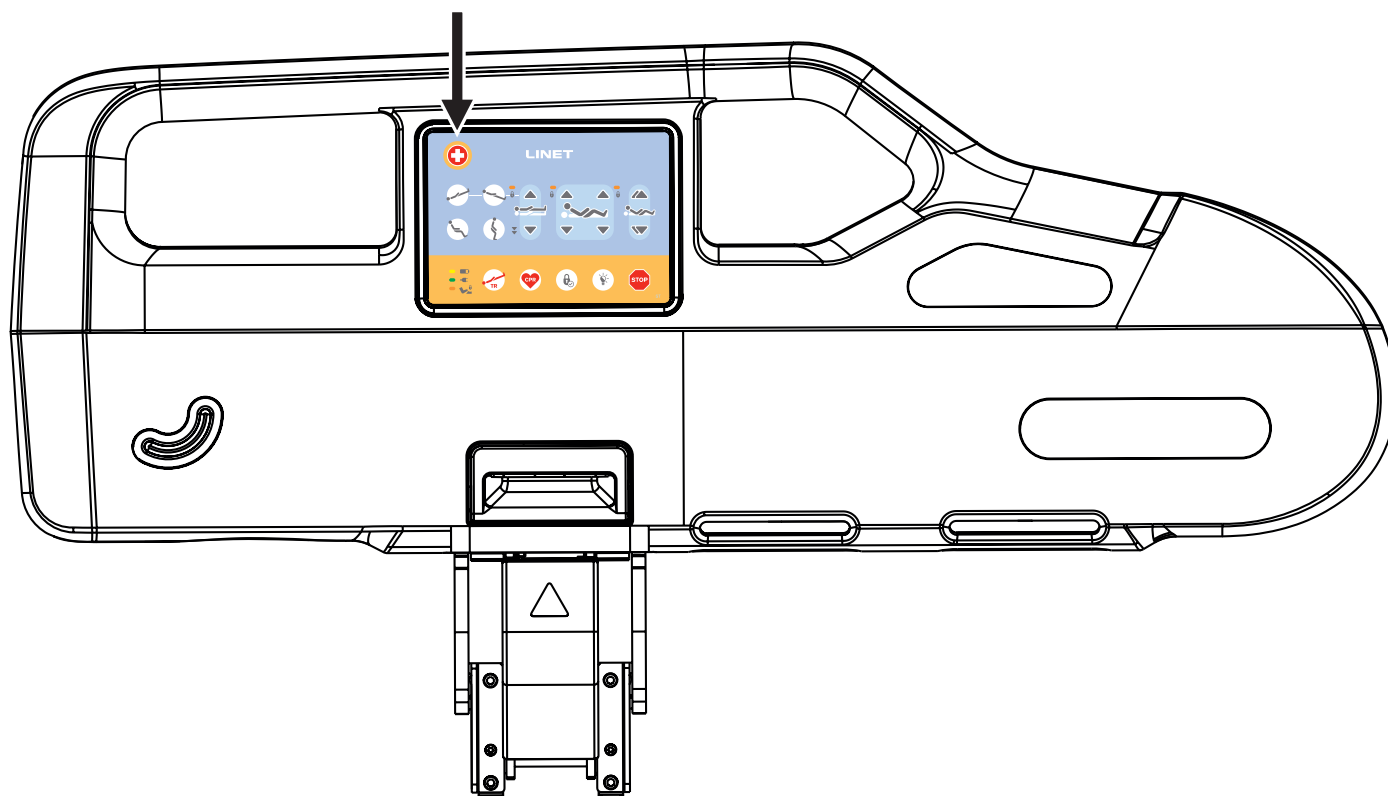


Fig. Nurse Call button on the Siderail Control Panel

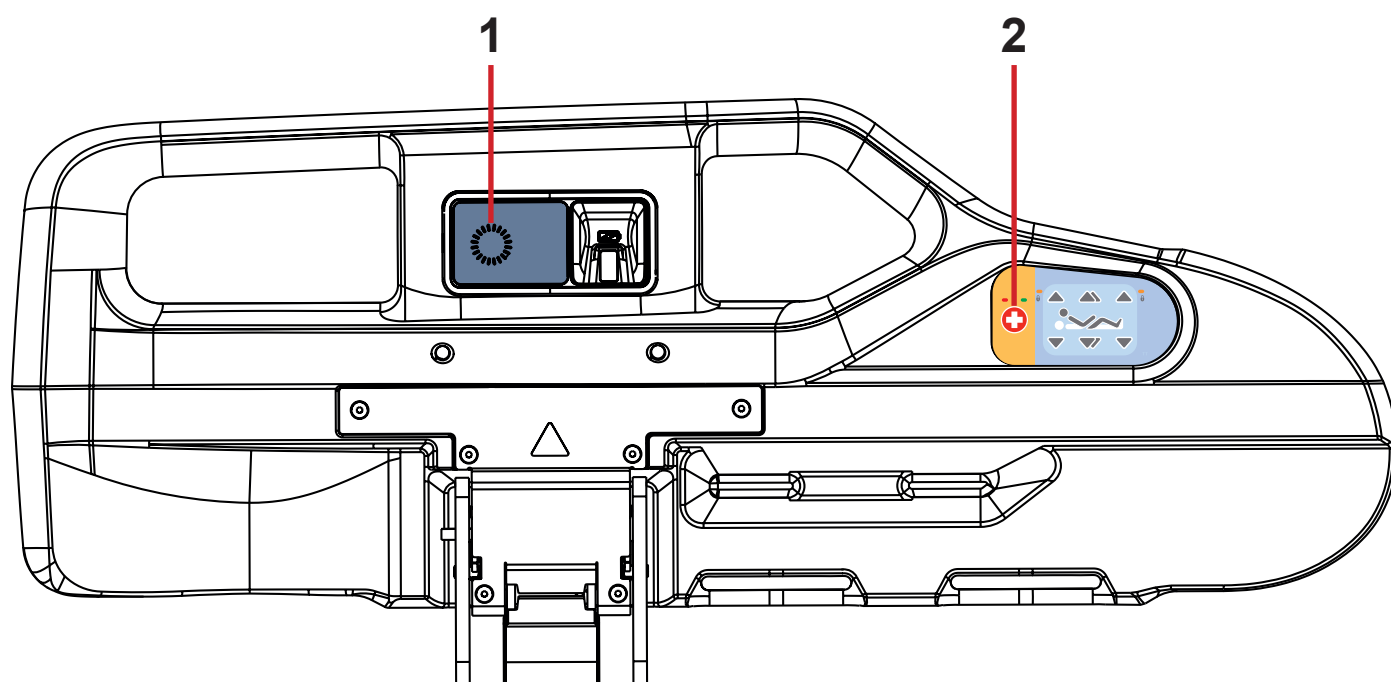


Fig. Nurse Call control elements on the inner side of the head plastic siderail

- 1. Speaker and microphone**
- 2. Nurse Call button**

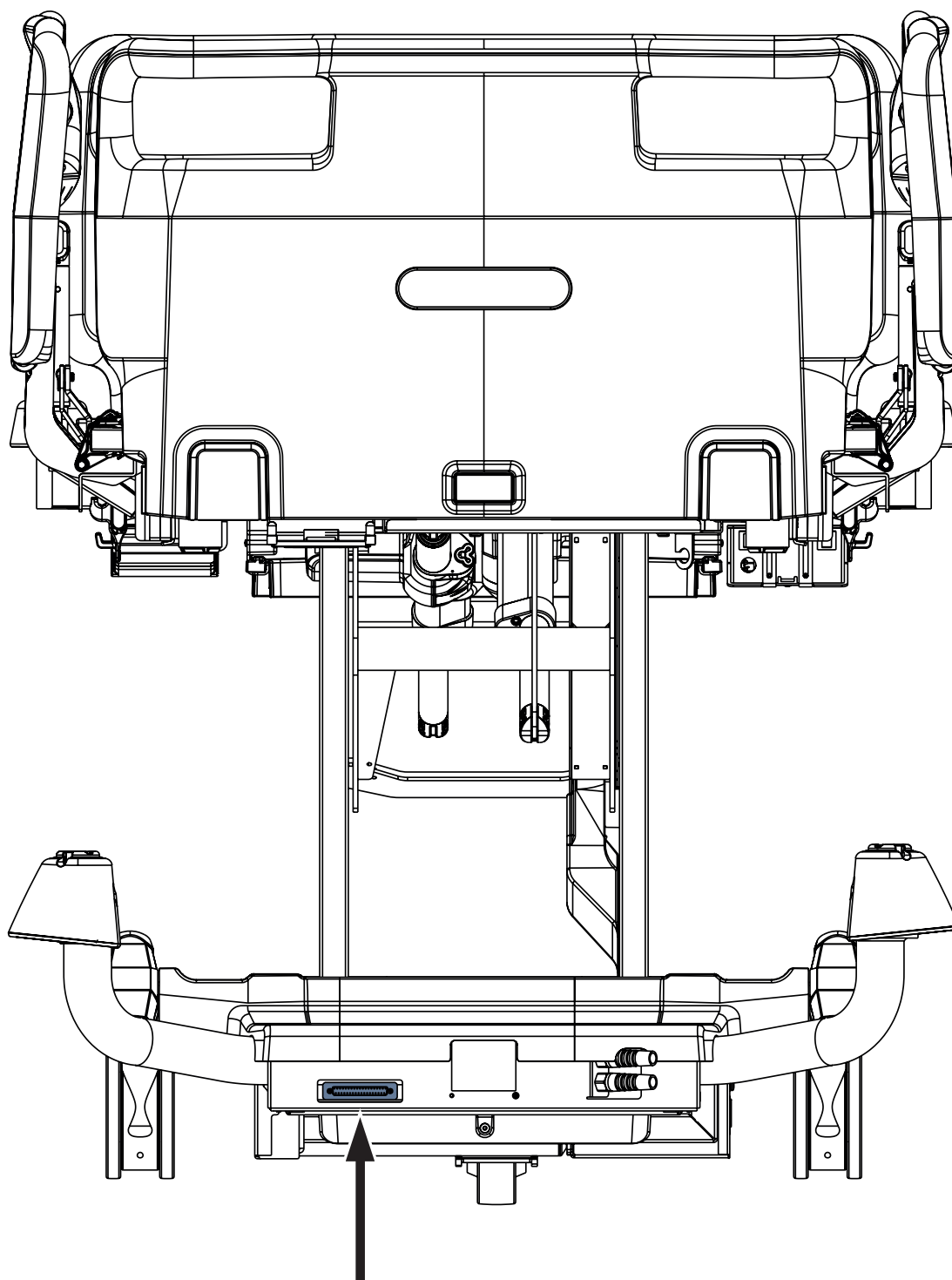


Fig. Position of the Nurse Call port at head end of the bed

18.15 Safestop

Safestop function prevents a user from injuries due to crushing by the lowered mattress support platform. When an obstacle on the undercarriage or above the undercarriage is in contact with the Accessory Rail equipped with the Safestop function, the lowering of the mattress support platform is automatically stopped. Safestop pop-up screen appears on the display of the Control Panel of Scales and Integrated Mattress.

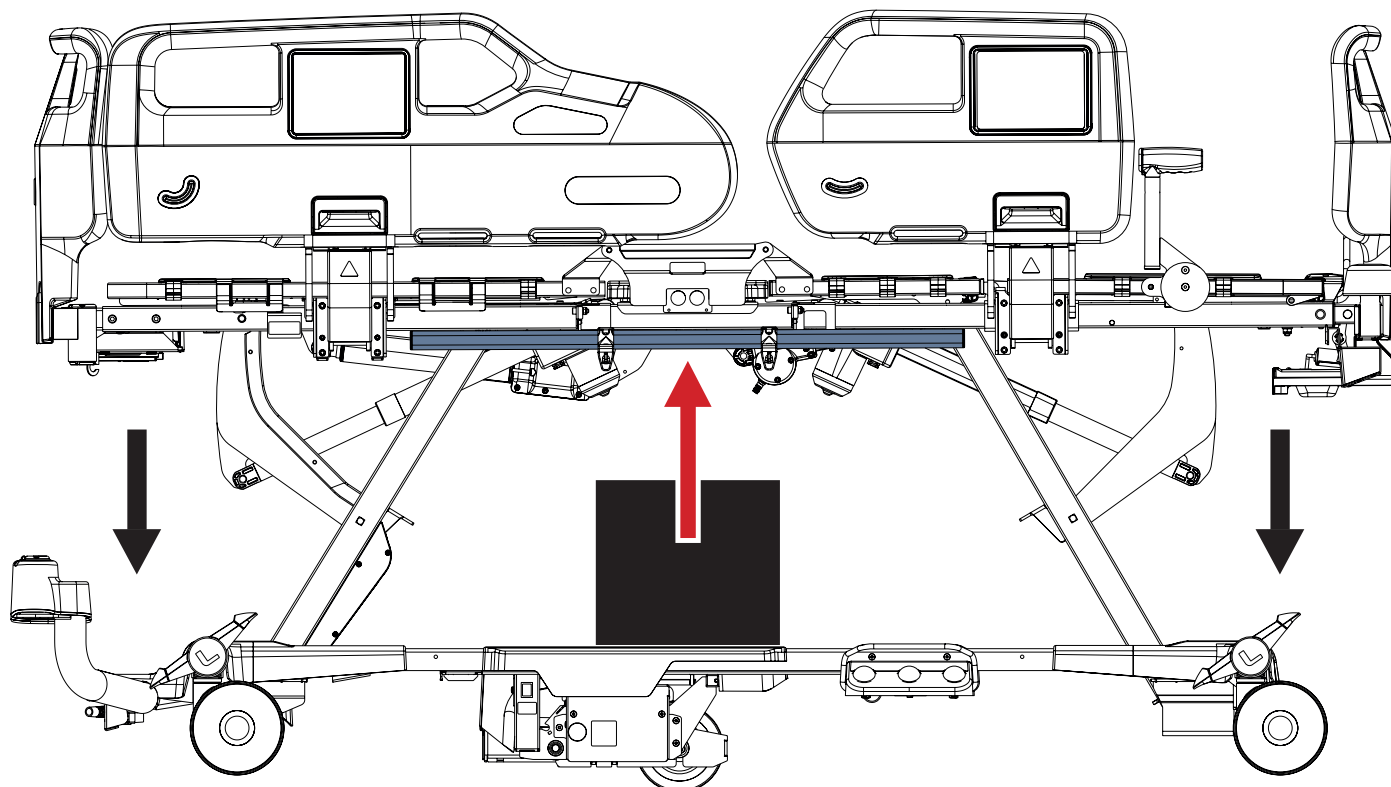


Fig. Safestop function depending on the Accessory Rail with the Safestop function



Fig. Safestop pop-up screen

19 Mattress


WARNING!
Risk of injury due to incorrect use!

- Ensure the compatible mattress is correctly fixed with straps on the mattress support platform after placing the compatible mattress foam extension on the Backrest in front of the mattress head end!


CAUTION!
Incompatibility with bed due to incorrect mattress dimensions!

- In the case of other mattresses check maximum approved mattress dimensions (Technical Specification chapter) and its specific shape.
- Clinical staff is responsible for assessing the risks resulting from the use of mattress with a mattress height exceeding the maximum mattress height!

Essenza 400 bed is designed for mattresses from LINET portfolio.

Compatible Mattress Foam Extensions are intended to be placed in front of the mattress head end on the Backrest.

Compatible Mattresses	Manufacturers	Mattress Mass
EffectaCare 10	LINET	6 kg
EffectaCare 20	LINET	6,5 kg
PrimaCare 10	LINET	10 kg
MediMatt 30	WULFF MED TEC	11,65 kg; 9,4 kg (4PWR51100LS)
ViskoMatt 10	WULFF MED TEC	9,4 kg
ViskoMatt 30	WULFF MED TEC	14,04 kg; 9,4 kg (4PW371100LS)
ViskoMatt 50	WULFF MED TEC	17,82 kg
Air2Care IN	LINET	9 kg (Air2Care 6 IN); 10 kg (Air2Care 8 IN)
Air2Care 5, 6, 8	AIRFLO (XIAMEN) MEDICAL	6 kg (4VEM000340B00); 7,5 kg (4VEM000340C00); 8,5 kg (4VEM000440C00); 8 kg (4VEM000640C00); 8,8 kg (4VEM000740C00); 9,3 kg (4VEM000340D00); 11,2 kg (4VEM000540D00)
CliniCare 100 HF	LINET	16 kg
Virtuoso (Series III)	LINET	6,5 kg (Virtuoso Overlay); 12,5 kg (Virtuoso 50); 8,5 kg (Virtuoso 100); 10 kg (Virtuoso 200); 12 kg (Virtuoso 300); 13 kg (Virtuoso Pro)
HybriMatt 200	LINET	15 kg
HybriMatt 100	LINET	12 kg
HybriMatt 100 IN	LINET	13 kg
HybriMatt 200 IN	LINET	15 kg

Dimensions of Compatible Foam Extensions	Manufacturers and Identification Numbers	Foam Extension Mass
86 cm x 14 cm x 20 cm	LINET: 4PRPRODMAT11	0,5 kg
86,5 cm x 14 cm x 20 cm	WULFF MED TEC: 4PRWRODMAT25	0,5 kg
86,5 cm x 16 cm x 20 cm	WULFF MED TEC: 4PRWRODMAT31	0,5 kg
86 cm x 20 cm x 20 cm	WULFF MED TEC: 4PRWRODMAT35	0,5 kg
86 cm x 15 cm x 20 cm	WULFF MED TEC: 4PRWRODMAT36	0,5 kg
90 cm x 14 cm x 20 cm	WULFF MED TEC: 4PRWRODMAT28	0,5 kg
90 cm x 16 cm x 20 cm	WULFF MED TEC: 4PRWRODMAT34	0,5 kg

Mattress Installation

Compatible mattresses are equipped with straps intended for fixing mattress on the Mattress support platform.

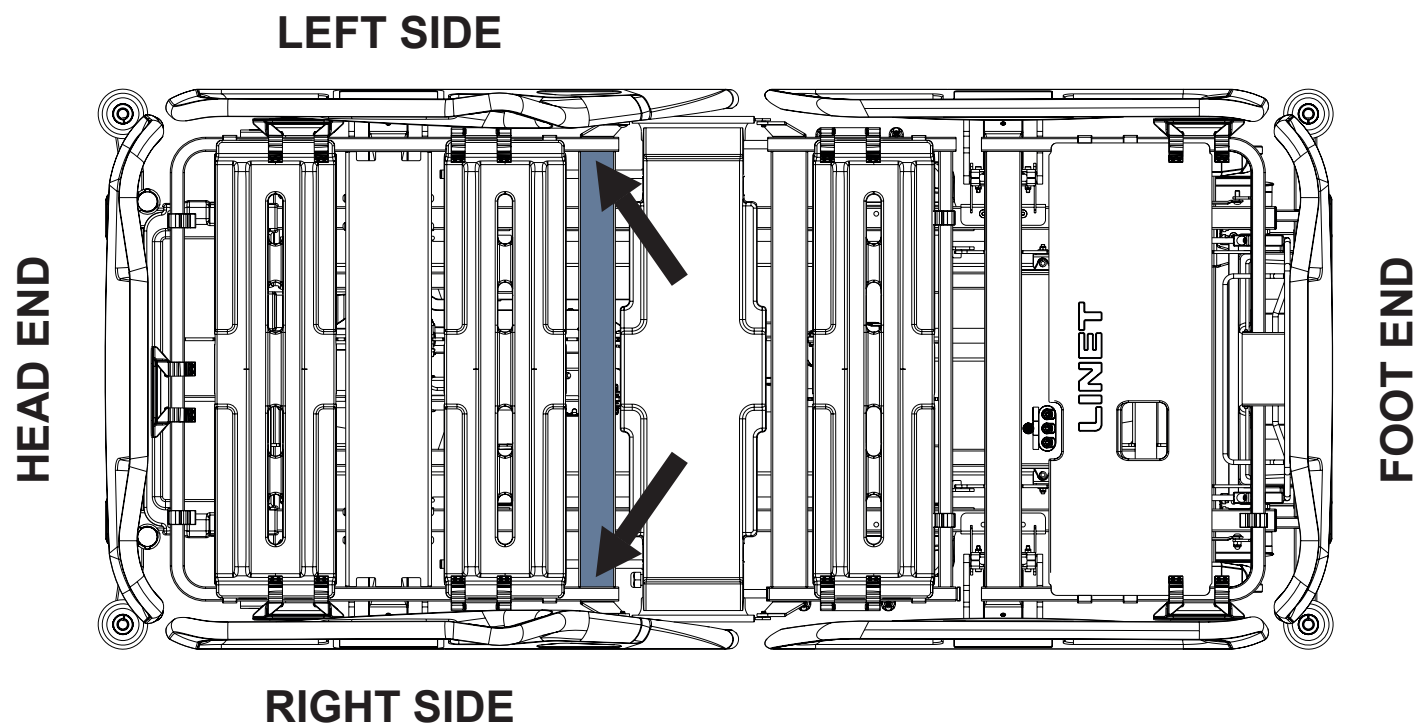


Fig. Fixation of the mattress with straps on the mattress support platform of the Essenza 400 bed



Patient on Mattress

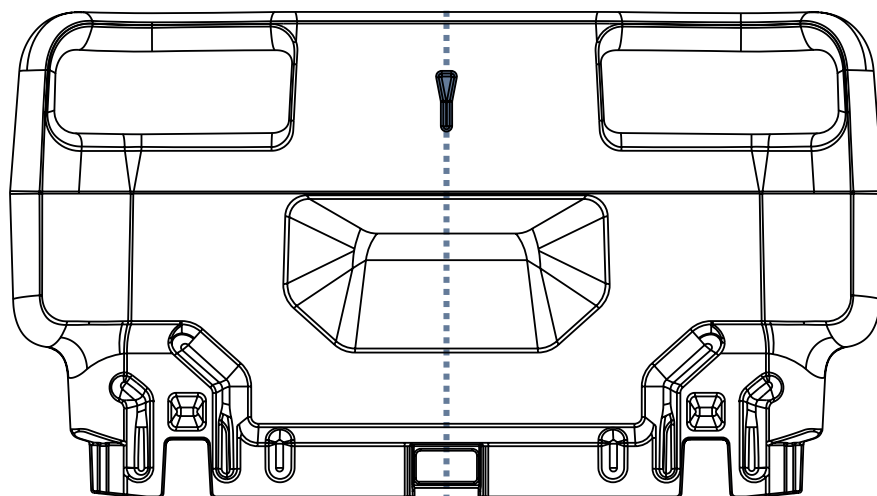


Fig. Arrow-like symbol indicating bed centre on Head Board and Foot Board

To put patient in bed with mattress:

- ▶ Head of a lying patient must point towards the bed head end.
- ▶ Put patient to the bed centre according to the arrow-like symbols on Head Board and Foot Board and according to position of the seat section on the mattress support platform.

19.1 Passive Mattress

Compatible Passive Mattresses are equipped with straps intended for fixing mattress on the Mattress support platform. Symbols on the mattress wash label serve as instructions for cleaning the mattress cover.

19.2 Active Mattress



WARNING!

Follow instructions for use of a compatible active mattress carefully!



CAUTION!

Risk of material damage due to an incorrect fixation of compatible active mattress on the mattress support platform!

- ▶ Adjust the bed to maximum Cardiac Chair Position before fixing all the straps of the inflated mattress to the mattress support platform!

Installation instructions:

- ▶ Remove any existing mattress.
- ▶ Observe mattress dimensions and its orientation before putting it on the Mattress support platform.
- ▶ Place SCU on the foot board of the bed or on the floor.
- ▶ Fix mattress on the Mattress support platform with straps.

19.3 Integrated Mattresses



WARNING!

Risk of material damage due to incompatibility!

- Ensure the Air2Care IN & HybriMatt IN compressor (integrated SCU) is compatible with local power supply each time the compressor was maintained or replaced.
Service technician is responsible for meeting this requirement.



WARNING!

Risk of injury due to incorrect use!

- Follow instructions for use of compatible integrated mattress system carefully!



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.



WARNING!

Risk of injury due to incorrect use!

- Do not try to use AUTO Pressure Setting for HybriMatt 100 IN mattress or HybriMatt 200 IN mattress. AUTO Pressure Setting is available only for the Ai2Care 6 IN and Air2Care 8 IN mattresses.
AUTO Pressure Setting Button does not work when HybriMatt 100 IN mattress or HybriMatt 200 IN mattress is connected to the Air2Care IN & HybriMatt IN compressor. If this button is pressed, an acoustic alert will occur.



CAUTION!

Risk of material damage due to an incorrect fixation of compatible integrated mattress on the mattress support platform!

- Adjust the bed to maximum Cardiac Chair Position before fixing all the straps of the inflated mattress to the mattress support platform!



CAUTION!

Material damage due to incorrect installation of SCU!

- If the SCU does not come factory-fitted, have it installed by a service engineer authorised by LINET ®.

Essenza 400 bed with integrated mattress is equipped with Control Panel of Scales and Integrated Mattress.

Control Panel of Scales and Integrated Mattress is situated on the foot plastic siderail.

Control Panel of Scales and Integrated Mattress is intended for integrated mattress control.

Essenza 400 bed is compatible with Air2Care 6 IN integrated mattress, Air2Care 8 IN integrated mattress, HybriMatt 100 IN integrated mattress and HybriMatt 200 IN integrated mattress. Air2Care 6 IN integrated mattress, Air2Care 8 IN integrated mattress, HybriMatt 100 IN integrated mattress and HybriMatt 200 IN integrated mattress are compatible with the same Air2Care IN & HybriMatt IN compressor.

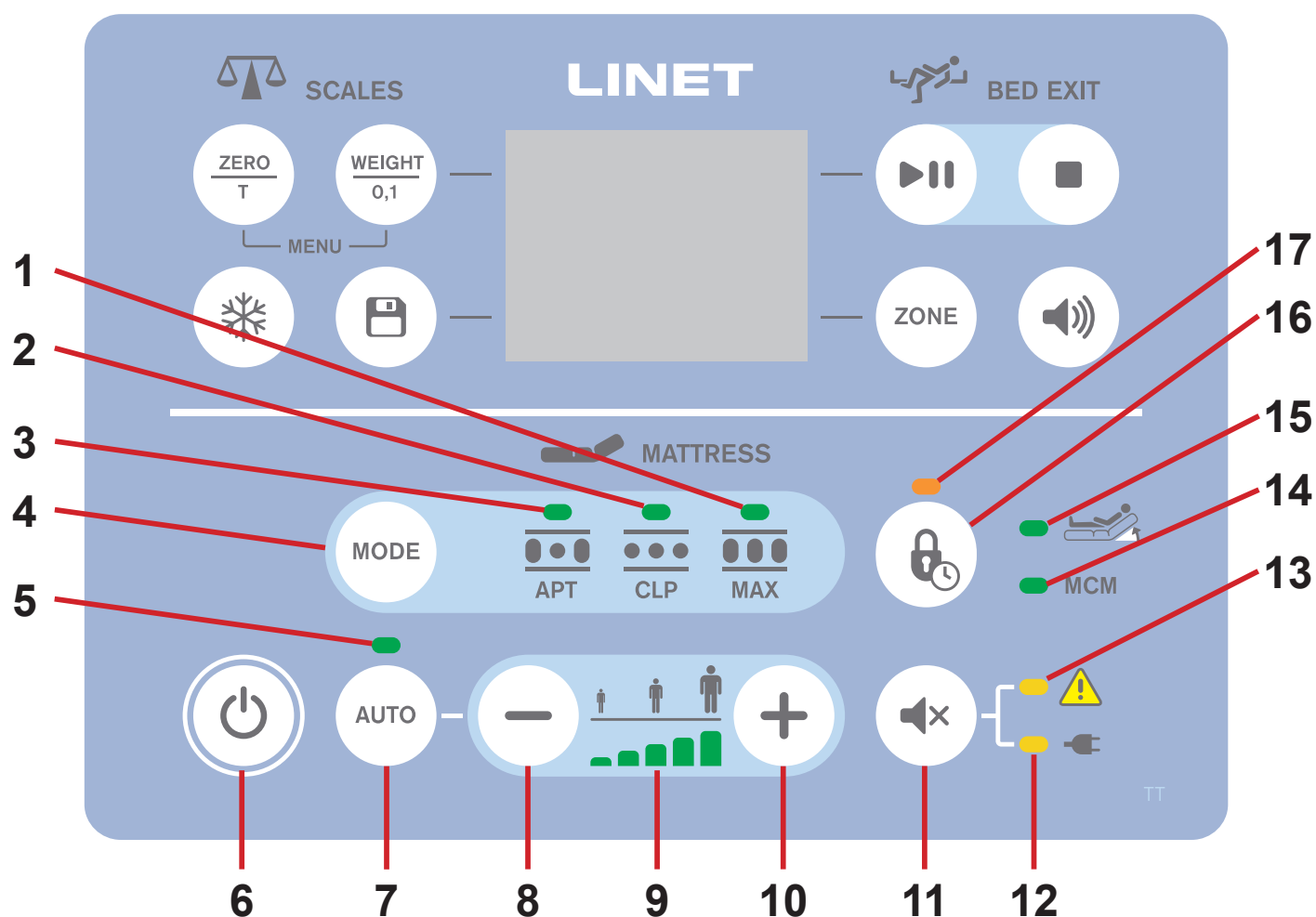


Fig. Control Panel of Scales and Integrated Mattress (Integrated Mattress section with keyboard and display)

1. Maximum Pressure Mode LED Indicator
2. Constant Low Pressure Mode LED Indicator
3. Alternating Pressure Therapy Mode LED Indicator
4. MODE Button
5. AUTO Pressure Setting LED Indicator
6. ON/OFF Button
7. AUTO Pressure Setting Button
8. Decrease Button (MINUS) for Manual Pressure Settings
9. Pressure Level Indicators
10. Increase Button (PLUS) for Manual Pressure Settings
11. Mute Button
12. Mains Power Fault LED Indicator
13. System Error LED Indicator
14. Microclimate Maintenance LED Indicator
15. Fowler Boost LED Indicator
16. Control Panel Lock Button
17. Control Panel Lock LED Indicator

19.3.1 Installation of the 3 Air Hoses to the SCU

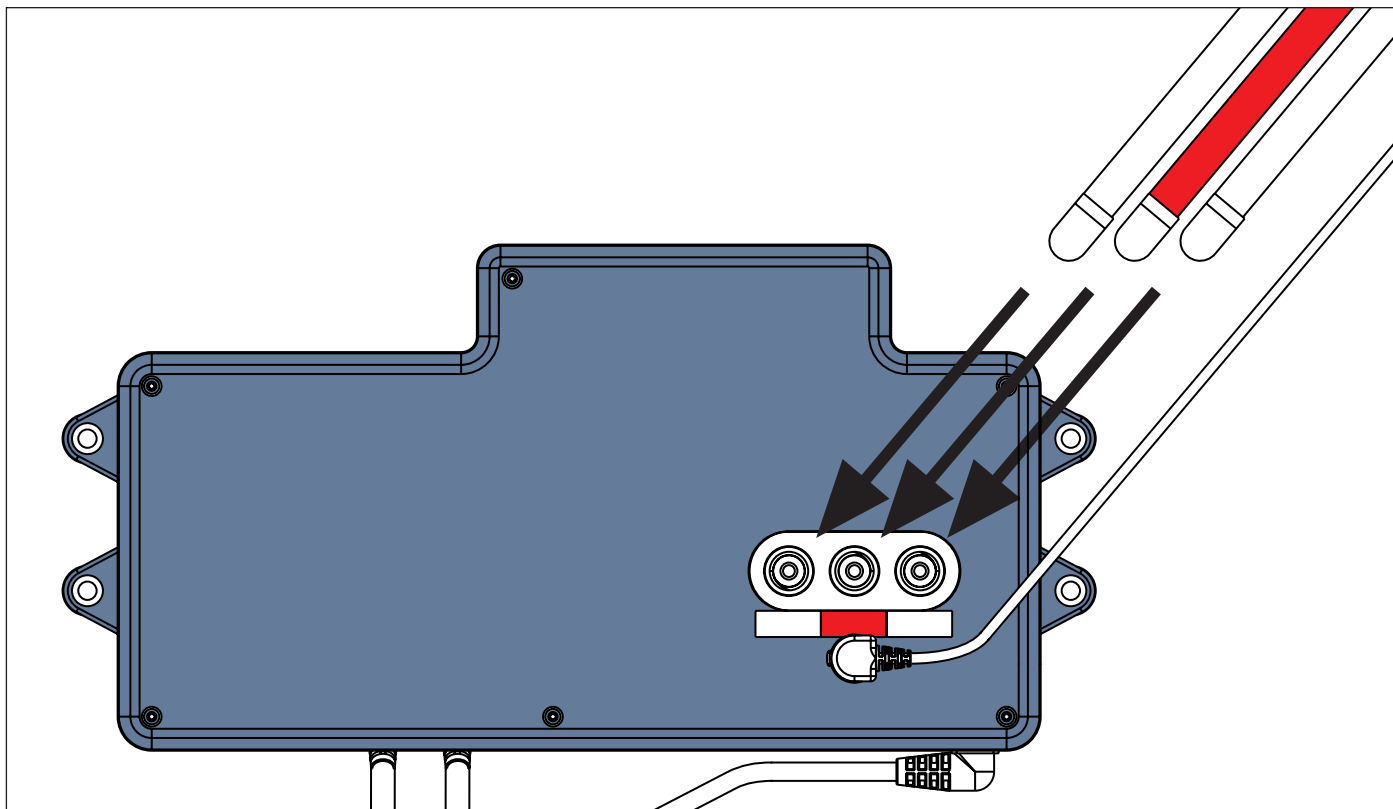


Fig. Installation of the 3 Air Hoses to the SCU

To connect a compatible mattress to the Air2Care IN & HybriMatt IN integrated 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.

19.4 Cleaning of Mattress



CAUTION!

Incorrect cleaning/disinfection can damage the mattress!

- ▶ Do not use pressure or steam cleaners.
- ▶ Follow the instructions and observe the dosages recommended by the manufacturer.
- ▶ Ensure that disinfectants are selected and applied by qualified hygiene experts only.
- ▶ The surface of the mattress should not be exposed to liquids for a long time.

19.4.1 General Guidance

For safe and gentle cleaning:

- ▶ Do not use any strong acids or alkalines, (optimum pH range 6 – 8. Do not exceed pH of 9).
- ▶ Only use detergents that are suitable for cleaning medical equipment.
- ▶ 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 etc.).
- ▶ Use only hospital-approved cleaners and observe local directives concerning infection control.
- ▶ Always rinse with water after cleaning and dry thoroughly before use.
- ▶ Observe local directives concerning infection control.

Mattress parts to be cleaned	Recommended Cleaning Agents (General Cleaning)
Top Cover, Bottom Cover, Protect Cover	Standard hospital detergents, Alcohol or Quaternary Ammonium based disinfectants, Chlorine based disinfectants containing up to 0,1% Chlorine, followed by rinsing with water and drying thoroughly before use.
	Decontamination: Blood spills/Clostridium difficile etc Chlorine based disinfectants containing up to 0,1% Chlorine. Dwell time on surface at 0,1% of 5 minutes, followed by rinsing with water and drying thoroughly before use.
Mattress Core	Do not clean!

Due to the variety of laundry equipment, chemicals and conditions in use, customers should satisfy themselves through pretesting. It is essential that cover 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.

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

NOTE If disinfecting is not required, cleaning with soap and water should be enough to remove dirt stains.

NOTE Cleaning and disinfecting products based on solvent, bleach, abrasives or very high (over 70%) alcohol concentrations can damage this product.

Type of Cleaning	Parts to be cleaned
Routine Cleaning and Disinfection	external of mattress cover
Full Cleaning and Disinfection	external of mattress cover

19.4.2 Routine Cleaning and Disinfection

Cleaning the mattress:

- ▶ Check mattress cover top for any signs of damage or for liquid ingress.
- ▶ Replace or repair and completely disinfect mattress cover top if damaged. Also check if the mattress core is not contaminated. In case of core contamination, do not use the mattress and dispose the core ecologically.
- ▶ Leave mattress cover on mattress.
- ▶ Clean with water with cleaning detergent.
- ▶ Rinse mattress with cold water.
- ▶ Let mattress air dry or wipe dry.
- ▶ Wipe mattress with disinfectant and rinse mattress with cold water.
- ▶ Let mattress dry or wipe dry.

19.4.3 Complete Cleaning and Disinfection

Cleaning Top/Bottom Cover:

Use standard hospital detergents, Alcohol based cleaners or Quaternary Ammonium based disinfectants. Suitable Chlorine based cleaners can be used at a concentration of 0,05%. Stronger concentrations of chlorine can be used if required, (up to 0,1%), with a maximum dwell time of five minutes followed by rinsing with water and drying thoroughly before use.

After application of a suitable cleaner, the surface should 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 that could reactivate during use and affect biocompatibility.

Cleaning Protect Cover:

Use standard hospital detergents, Alcohol based cleaners or Quaternary Ammonium based disinfectants. Suitable Chlorine based cleaners can be used at a concentration of 0,05%. Stronger concentrations of chlorine can be used if required, (up to 0,1%), with a maximum dwell time of five minutes followed by rinsing with water and drying thoroughly before use.

After application of a suitable cleaner, the surface should 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 under the Top/Bottom Cover that could reactivate during use and affect biocompatibility.

Cleaning the mattress:

- ▶ Check mattress cover top and base for any signs of damage.
- ▶ Replace or repair and completely disinfect mattress cover top and base if damaged. Also check if the mattress core is not contaminated. In case of core contamination, do not use the mattress and dispose the core ecologically.
- ▶ Leave mattress cover on mattress.
- ▶ Clean with water with cleaning detergent.
- ▶ 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.

Machine washing of the top mattress cover or base 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.

19.4.4 Mattress Core

The entire core of the mattress does not require any major cleaning. The core does not need disinfection. Once a month it is recommended to ventilate the mattress core (remove the mattress cover and leave the mattress core on ventilated area for 12 -24 hours). The mattress core cannot be washed by water or by disinfection.

20 Accessories



WARNING!

Risk of injury due to incompatible accessories!

- ▶ Use exclusively original accessories from the manufacturer.
- The manufacturer is not responsible for the use of unapproved accessories.



WARNING!

Risk of injury due to damaged accessories!

- ▶ Use exclusively accessories in perfect condition.



WARNING!

Risk of injury or material damage due to incorrect use!

- ▶ Compatible accessories manufactured by different manufacturers have their own instructions for use. It is necessary to read instructions for use of a compatible accessory with instructions for use of the compatible LINET product to respect especially technical parameters, warning notifications, cleaning and maintenance instructions of LINET products and their compatible accessories!



WARNING!

Risk of injury or material damage when adjusting the bed!

- ▶ Ensure that there are no installed accessories that may collide with moving parts of the bed.
- ▶ Extra care must be taken to avoid collisions of the accessories with bed parts and with the other accessories during bed positioning.
- ▶ Extra care must be taken to avoid collisions of the accessories installed on the bed and things in the vicinity of the bed.

To use the compatible Essenza 400 Accessories correctly:

- ▶ Follow the **D9U00AEZ4-01xx** Instructions for Use where „xx“ means the code of language version.

21 Cleaning and Disinfecting



WARNING!

Risk of infection due to incorrect cleaning and disinfection!

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



WARNING!

Risk of injury due to incorrect preparation!

- ▶ Ensure pedals will not be pressed accidentally during cleaning.
- ▶ Ensure the Essenza 400 is disconnected from the mains before cleaning the Essenza 400.



CAUTION!

Material damage due to incorrect cleaning/disinfection!

- ▶ Do not use washing tunnels to clean the bed.
- ▶ Do not use pressure or steam cleaners.
- ▶ Follow the instructions and observe the dosages recommended by the manufacturer.
- ▶ Ensure that disinfectants are selected and applied exclusively by qualified hygiene experts.
- ▶ Respect used materials during cleaning and disinfection! For information see the following table.
- ▶ **Check if used cleaning agents and disinfectants are compatible with materials that the product consists of! For information see the following table.**

BED COMPONENTS THAT ARE INTENDED TO BE CLEANED Do not clean what is not mentioned in this column!	MATERIALS (SURFACES OF THE MENTIONED BED COMPONENTS) Competent user is responsible for check if used cleaning agents and disinfectants are compatible with mentioned materials!
Plastic head board and Foot board	Polypropylene (PP)
Plastic Head siderails and Foot siderails	Polypropylene (PP) + Polyamide (PA) + Lacquered steel + Acrylonitrile butadiene styrene (ABS)
Mattress support platform covers on Backrest, Thighrest and Calfrest	Polypropylene (PP)
Seat section cover	Acrylonitrile butadiene styrene (ABS)
Castors	Polyurethane (PUR) + Polyamide (PA) + Polypropylene (PP)
Castor control levers	Polyamide (PA6)
Frame of the mattress support platform	Polyamide (PA) + Lacquered steel
Undercarriage	Lacquered steel
Corner bumpers	Polypropylene (PP)
Keyboards of control elements	Acrylonitrile butadiene styrene (ABS) + Polyoxymethylene (POM) + Polyethylene terephthalate (PET)
CPR levers	Polyamide (PA6)
Labels	Polyethylene terephthalate (PET)
Accessory rails	Polyoxymethylene (POM) + Lacquered steel
Actuator covers	Polyamide (PA6) + Aluminium (Al)
Plastic Linen Shelf	Polypropylene (PP)

For safe and gentle cleaning:

- ▶ Do not use any strong acids or bases (optimum pH range 6 - 8).
- ▶ Exclusively use detergents that are suitable for cleaning medical equipment.
- ▶ Do not use abrasive powders, steel wool, or other materials and cleaning agents that might damage the mattress replacement system.
- ▶ 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, etc.).
- ▶ Observe local directives regarding infection control.
- ▶ Make sure any cleaning agent used is approved by:
 - the facility in which the mattress replacement system is to be used.
 - by the environmental protection agency of the country in which the mattress replacement system is to be used.

21.1 Instructions for cleaning and disinfecting

Before every cleaning and disinfection:

- ▶ Ensure the bed is disconnected from the power supply.
- ▶ Move the bed to the location where it will be cleaned.
- ▶ Brake the bed via castor control levers.
- ▶ Use Personal Protective Equipment (gloves, facial mask, apron, etc.).
- ▶ Do not use abrasive cleaners, solvents or strong chemicals that could damage the surface of the bed and compromise its integrity.
- ▶ Put Backrest and Thighrest parts up so that the reverse sides are accessible.

21.1.1 Daily Cleaning

- ▶ Wipe bed parts on the list below with disinfectant solution.
- ▶ Wipe the disinfected surfaces with clean water afterwards.
- ▶ Focus on areas, which are most frequently touched (control elements, siderails, etc.).
- ▶ Allow the surfaces to air dry.

Target bed parts:

- All control elements for adjusting the bed
- All handles
- Head Board and Foot Board
- Siderails (in highest position)
- Freely accessible mattress surface
- Accessory rails

21.1.2 Cleaning after a patient discharge

- ▶ Wipe bed parts on the list below with disinfectant.
- ▶ For dried or stubborn dirt, first use a damp cloth with a neutral cleaning agent, then apply disinfectant.
- ▶ Wipe the disinfected surfaces with clean water afterwards.
- ▶ Allow the surfaces to air dry.

Pay special attention to:

- Control elements, handles, siderails, locks which are most frequently touched.
- Joints and grooves where biological material (sweat, blood, fluids) may accumulate.

Target bed parts:

- All handles
- Head Board and Foot Board
- Siderails (in highest position)
- Freely accessible mattress surface
- Accessory rails
- All Mattress Support Platform covers
- Plastic undercarriage covers
- Column covers
- Mattress on all sides
- Freely accessible metal parts of Mattress Support Platform
- Infusion stand sleeve fittings
- Bumpers
- Castors
- Brakes

21.1.3 Deep Cleaning and Disinfection (every 4–6 weeks or after the Infectious Use)

- ▶ Clean bed parts on the list below and all hidden areas that are not accessible during routine cleaning.
- ▶ For dried or stubborn dirt, first use a damp cloth with a neutral cleaning agent, then apply disinfectant.
- ▶ Apply a disinfectant solution.
- ▶ Wipe the disinfected surfaces with clean water afterwards.
- ▶ Allow the surfaces to air dry.

Target bed parts:

- All control elements for adjusting the bed
- All handles
- Head Board and Foot Board
- Siderails (in highest position)
- Freely accessible mattress surface
- Accessory rails
- All Mattress Support Platform covers
- Plastic undercarriage covers
- Column covers
- Mattress on all sides
- Freely accessible metal parts of Mattress Support Platform
- Infusion stand sleeve fittings
- Bumpers
- Castors
- Brakes

22 Troubleshooting


DANGER!
Risk of mortal injury due to electric shock!

- ▶ If a fault occurs, have the electric motor, power box or other electrical parts repaired by qualified personnel exclusively.
- ▶ Do not open the protective covers of the electric motor or the control unit.

Error/Fault	Cause	Solution
Adjusting with position buttons not possible	Function disabled on Attendant Control Panel.	Enable disabled function.
	Actuators have no power. Defective actuators. Defective accumulator.	Check the mains connection. Notify the manufacturer's service department.
	Mains Plug inserted incorrectly.	Insert the Mains Plug correctly.
	Faulty Power Source.	Notify the manufacturer's service department.
	Faulty Control Element.	Notify the manufacturer's service department.
Faulty Mattress support platform Height/Tilt Adjustment	Obstacle on the undercarriage cover.	Remove the obstacle.
	Function disabled on Attendant Control Panel.	Enable disabled function.
	Actuators have no power. Defective actuators. Defective accumulator.	Check the mains connection. Notify the manufacturer's service department.
	Mains Plug inserted incorrectly.	Insert the Mains Plug correctly.
	Faulty Power Source.	Notify the manufacturer's service department.
Lowering Backrest from the upright position not possible	Faulty Control Element.	Notify the manufacturer's service department.
	Obstacle under the Backrest or in the drive mechanism.	Remove the obstacle
Adjusting Siderails not possible	CPR Release Handle is defective.	Notify the manufacturer's service department.
	Obstacle in the Siderail Release Mechanism.	Remove the obstacle.
Faulty brakes	Siderail Release Mechanism is defective.	Notify the manufacturer's service department.
	Obstacle blocking brakes mechanically.	Remove the obstacle.
	The brake mechanism is defective.	Notify the manufacturer's service department.

22.1 Service Statuses on the display of the Control Panel of Scales and Integrated Mattress

Indication	Meaning
	Indication of non-critical fault (flashing white spanner)
	Indication of recommended service check (countdown to service check expired)
	Indication of fault requiring service department assistance (single fault condition of the control unit)
	Indication of specified fault condition (service department assistance is required: fault code is displayed next to the red spanner)

23 Maintenance



WARNING!

Risk of injury when working on the bed!

- ▶ Ensure that the bed is disconnected from the mains power prior to installation, putting into service, maintenance and deinstallation.
- ▶ Ensure that the castors are locked prior to installation, putting into service, maintenance and deinstallation.
- ▶ No part of the Essenza 400 ME equipment shall be serviced or maintained while in use with a patient.



WARNING!

Risk of injury due to defective bed!

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



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 bed.

LINET ® recommends attaching the maintenance plaque to the bed.

23.1 Regular maintenance

- ▶ Check regularly movable parts for wear.
- ▶ Perform regularly visual check of the product (with delivery note if necessary).
- ▶ Ask service department of the manufacturer for addition of the original spare parts if some product parts are missing.
- ▶ Ask service department of the manufacturer for replacement of any damaged product parts by the original spare parts.
- ▶ Check that the batteries are working properly. Disconnect the bed from the mains power to check signalisation of battery indicator according to the instructions for use.
- ▶ Have the batteries replaced if they are not working properly.
- ▶ Check regularly that all accessories are working properly.
- ▶ Replace damaged accessories immediately.

23.2 Spare Parts

The serial label is located on the frame of the mattress support platform. The serial label contains information for claims and ordering replacement parts.

Information about spare parts is available from:

- Manufacturer's customer service
- Sales department

23.3 Electrical Safety Check and Preventive Maintenance

23.3.1 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 bed must be performed at least once every 12 months.

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

23.3.2 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 bed 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.

24 Disposal

24.1 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 and in the LINET® accessories are not environmentally hazardous. LINET® products and LINET® accessories 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**).

24.2 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 and LINET® accessories 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.

24.2.1 Within Europe

To dispose of the electric and electronic equipment including LINET® accessories:

- ▶ 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 or its accessories in accordance with local laws and regulations!
- ▶ Hire an approved waste disposal company for disposal!

To dispose of the other equipment including LINET® accessories:

- ▶ 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.

24.2.2 Outside Europe

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

25 Warranty

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 included in the instructions for use.

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

- ▶ Do not continue to use the Essenza 400 bed.

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. Justified complaints will be fixed free of charge during the warranty period. Proof of purchase, with the date of purchase, is required for all warranty service. Our standard terms and conditions apply.

26 Standards and Regulations

26.1 Essenza 400

Applied norms are stated on Declaration of Conformity.

26.2 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)