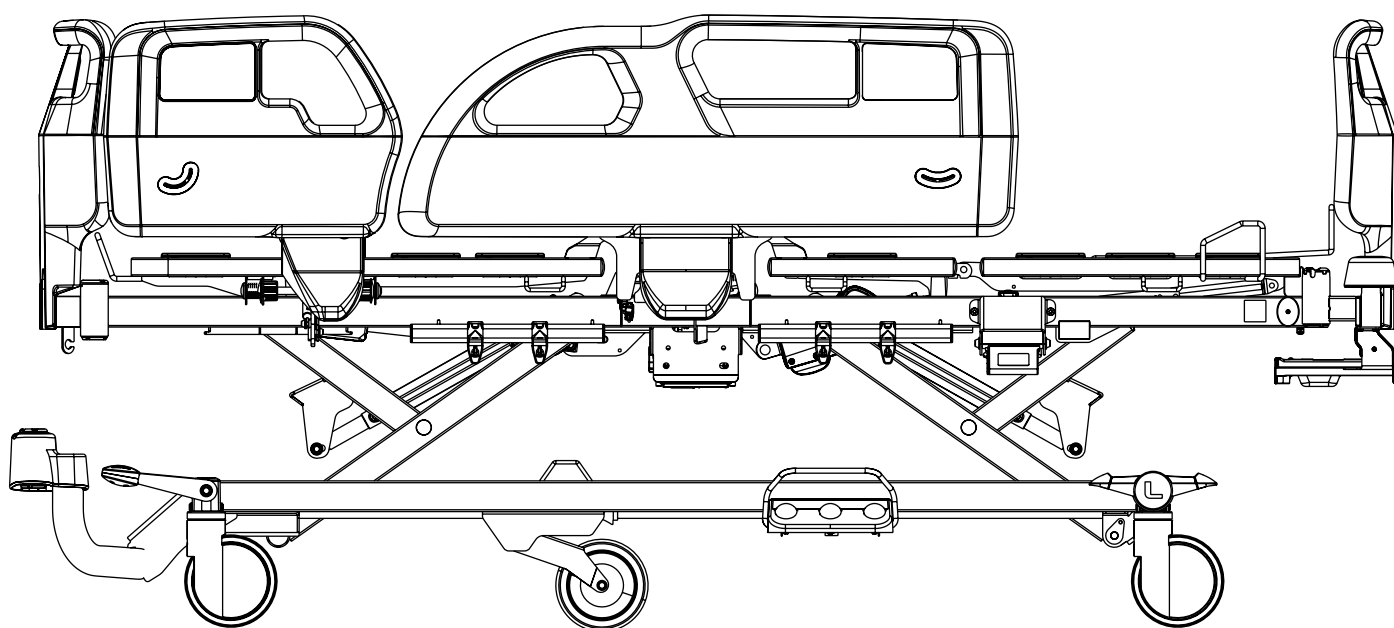




LINET

Instructions for Use and Technical Description



Essenza[®] 200

Medical Bed for Acute Care and Long-term Care



D9U001EZ2-0101

Version: 02

Publication Date: 2025-10

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Essenza® 200

Medical bed for Acute Care and Long-term 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)

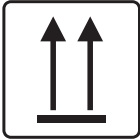
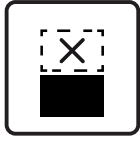
**CAUTION!**

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

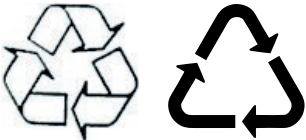
To read the QR code:

- ▶ 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/essenza100-200>**.
- ▶ Select a language icon to set the interface to your preferred language, then select the video with the instructions you need.

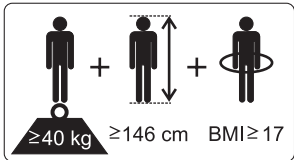
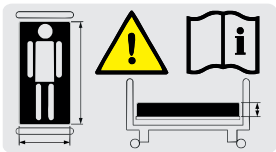
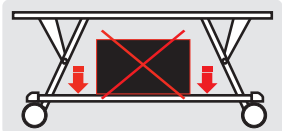
1.5 Symbols on the Package

	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 EQUALISATION
	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 200 (PRODUCT NORMATIVELY HARMONIZED FOR EUROPEAN ECONOMIC AREA)

	UK CONFORMITY ASSESSED (UKCA) MARKING (PRODUCT NORMATIVELY 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
	TYPE BF APPLIED PARTS
	WARNING, READ INSTRUCTIONS FOR USE
	EAC MARKING (EURASIAN CONFORMITY)

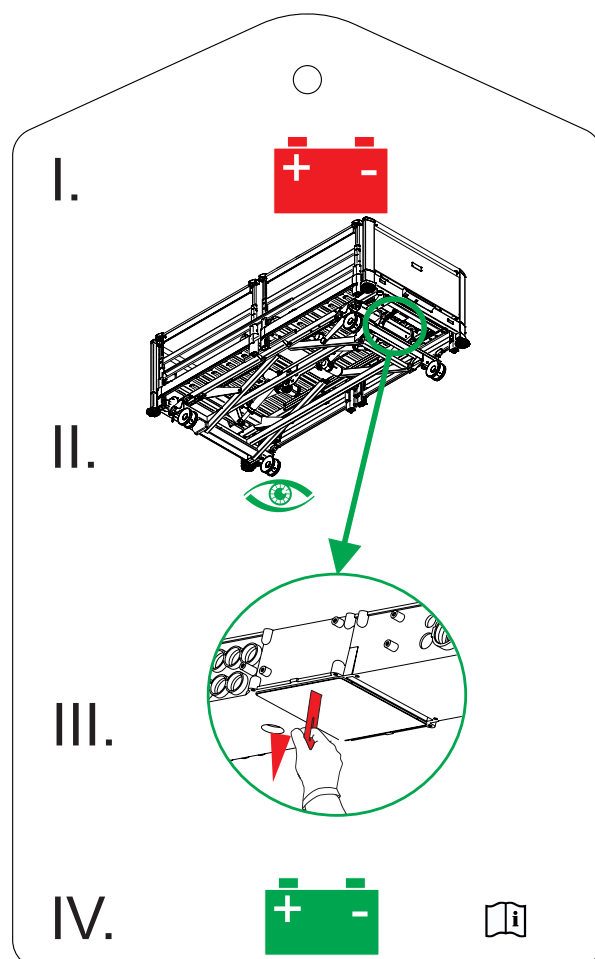
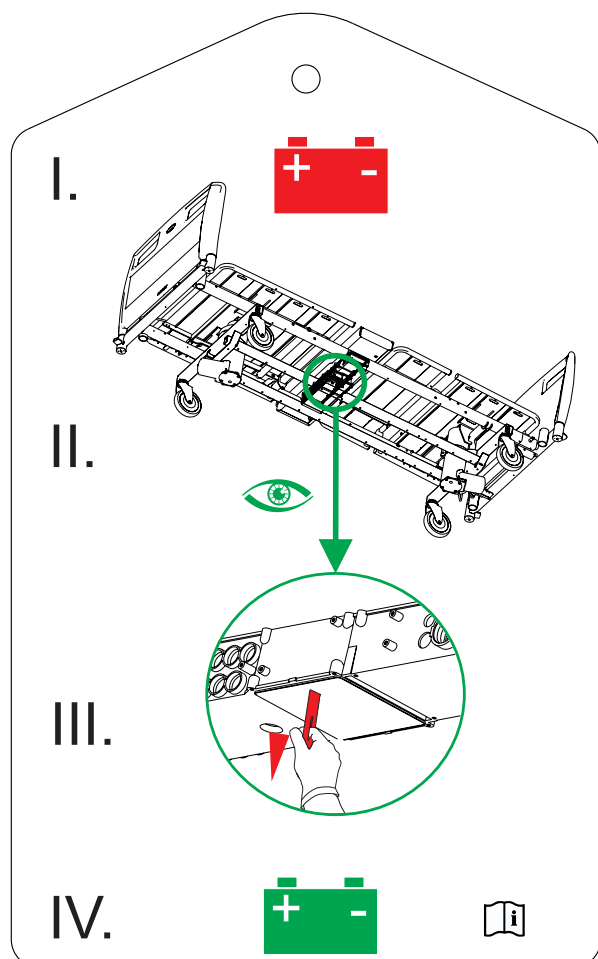


Fig. Accumulator Activation Instructions: Remove isolating foil from the control unit under the seat section

1.7 Serial Label with UDI

1.7.1 Essenza 200

Serial label of the Essenza 200 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.

1.8 Acoustic Signalling

SOUND	MEANING
CONTINUOUS SOUND	overheating
	accumulator overcurrent
	actuator overload
REPEATED BEEP: 0,6s sound / 2,6s silence	STOP error (all STOP buttons are disabled)
BEEP lasting 0,3s	confirmation
	stopping or locked function
	transition from tilt (Trendelenburg, Reverse-Trendelenburg) to horizontal position
4 TIMES REPEATED BEEP lasting 0,3s	disconnected from the mains
	positioning powered by the accumulator
BEEP lasting 0,5s	start of service mode or end of service mode
	keyboard error (positioning blocked)
BEEP lasting 3s	system error
REPEATED BEEP during 3 minutes: 1,1s sound / 1,1s silence	Brake Alert: acoustic signal indicating the bed is not braked when plugged into the mains (only for bed equipped with Brake Alert)

1.9 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

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 / TRENDELENBURG TILT LOCK LED INDICATOR / REVERSE-TRENDELENBURG 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

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

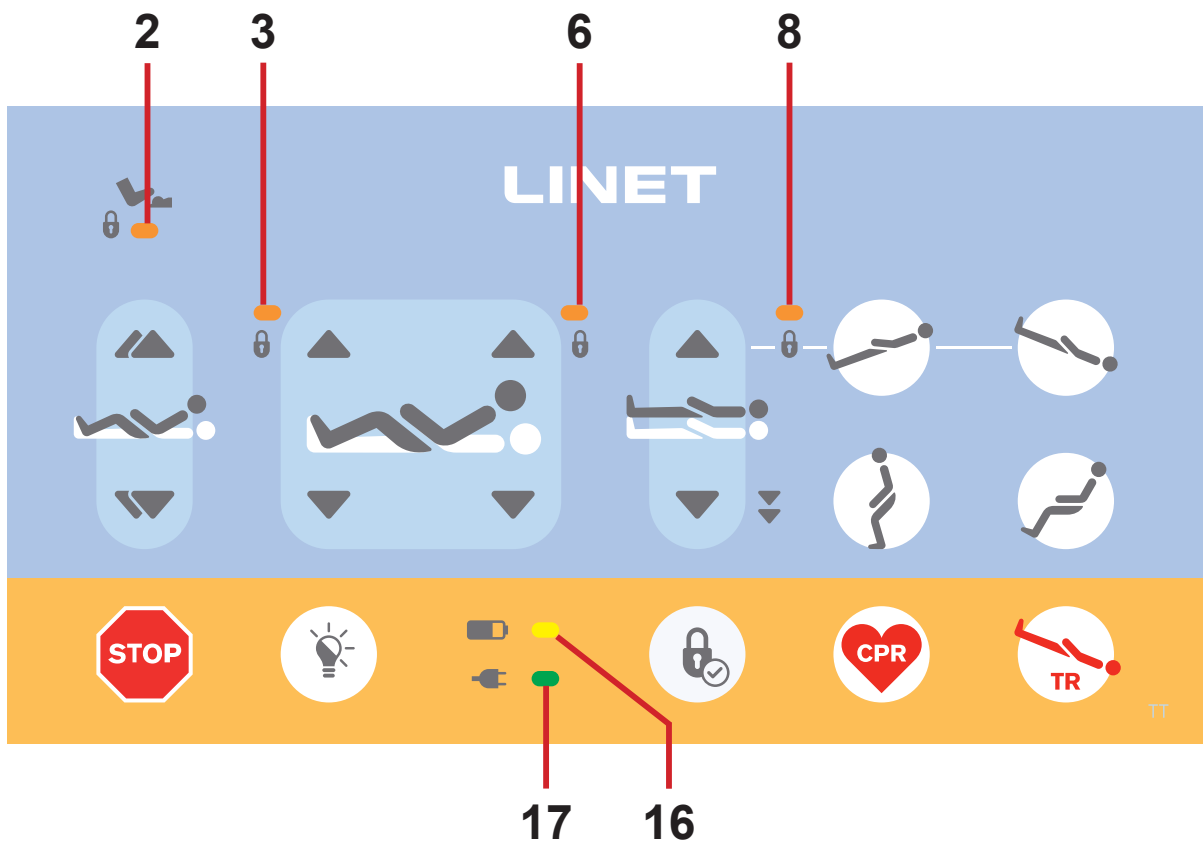


Fig. Visual Signalling of Attendant Control Panel for Essenza 200

1.10 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.
Type BF Applied Parts	The higher degree of protection against electric shock regarding the product parts in contact with patient.

1.11 Abbreviations

AC (~)	Alternating Current
ALT	Automatic Lateral Therapy
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 (compressor for mattress inflation)
SN	Serial Number
SWL	Safe Working Load
UDI	Unique Device Identification (for medical devices)
USB	Universal Serial Bus
WEEE	Waste Electrical and Electronic Equipment

2 Safety Instructions


WARNING!

Risk of injury due to incorrect use!

- ▶ **Essenza 200 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 200 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 200.



WARNING!
Inappropriate handling of the power supply cord of Essenza 200, 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 200 (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 200 bed avoid squeezing those between parts of the Essenza 200 bed!

**WARNING!**

No modification of this equipment is allowed.

Do not modify this equipment without authorization of the manufacturer.

**WARNING!**

If this Essenza 200 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 and power supplies!

**WARNING!**

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

**WARNING!**

Make sure the Safe Working Load (SWL) is not exceeded!

**WARNING!**

No part of the Essenza 200 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 200 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 or other serious injuries.
- ▶ 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 200 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 200 Medical Bed (1EZ2)

The intended use is the hospitalization of the patient in the acute and long-term 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.

3.1 Patient population

- ▶ Adult patients (weight ≥ 40 kg, height ≥ 146 cm, BMI ≥ 17)

3.2 User population

- ▶ Adult patients (weight ≥ 40 kg, height ≥ 146 cm, BMI ≥ 17) in the acute and long-term care units (Application Environment 2 and 3, as in IEC 60601-2-52), alternatively in Application Environment 1 and 5
- ▶ Caregivers (nurses, doctors, technical personnel, transport personnel, cleaning personnel)

3.3 Use environment

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 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 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

3.4 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.

3.5 Operator

- ▶ Caregiver
- ▶ Patient (based on individual patient status assessment by caregiver the patient can utilize dedicated device functions)

3.6 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.

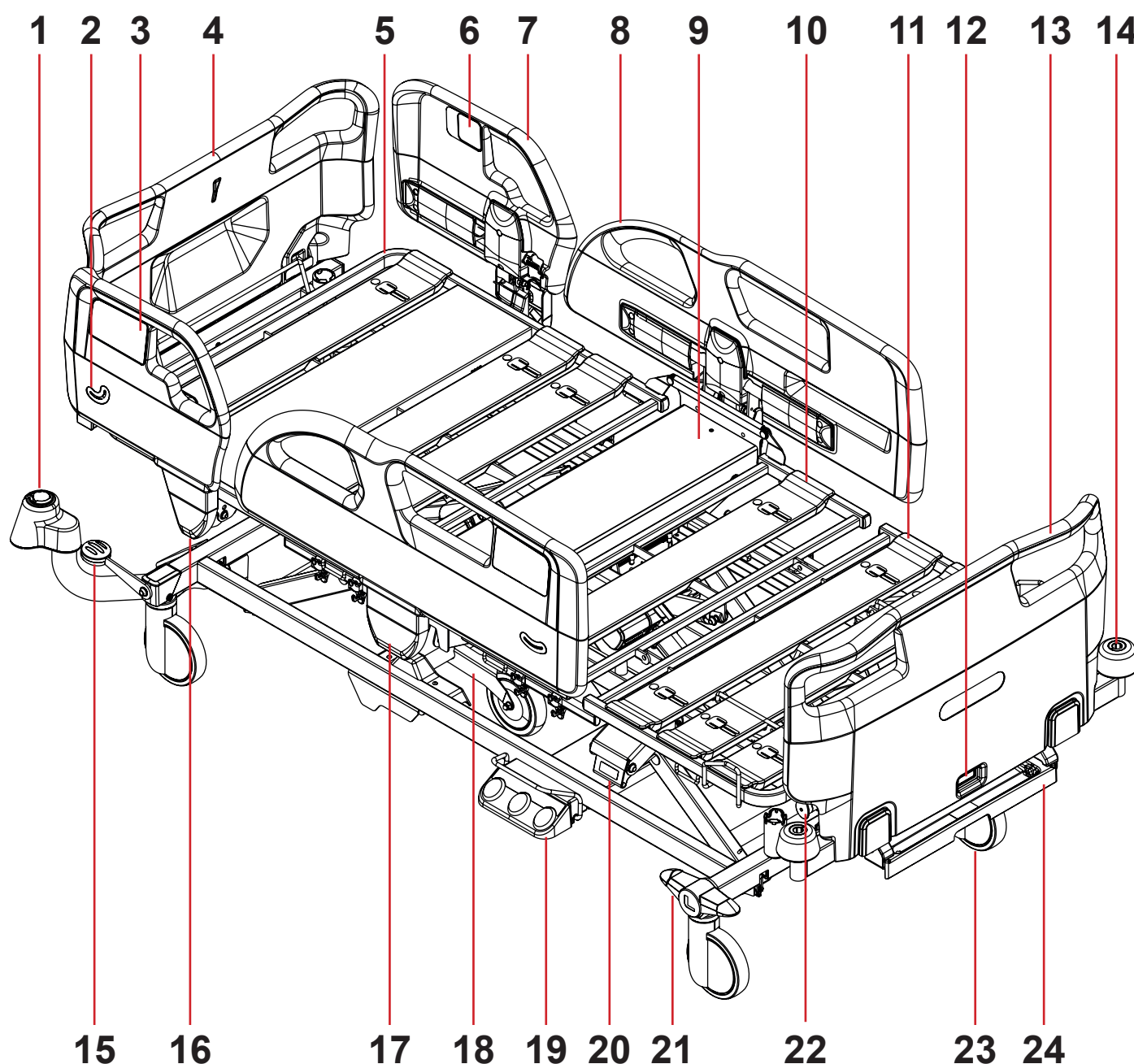
3.7 Body parts and tissues in contact with medical device

- Hands, fingers of the users during manipulation with the bed and bed controls, naked tissues (skin) in contact with linen, mattress or pillows

4 Product Description

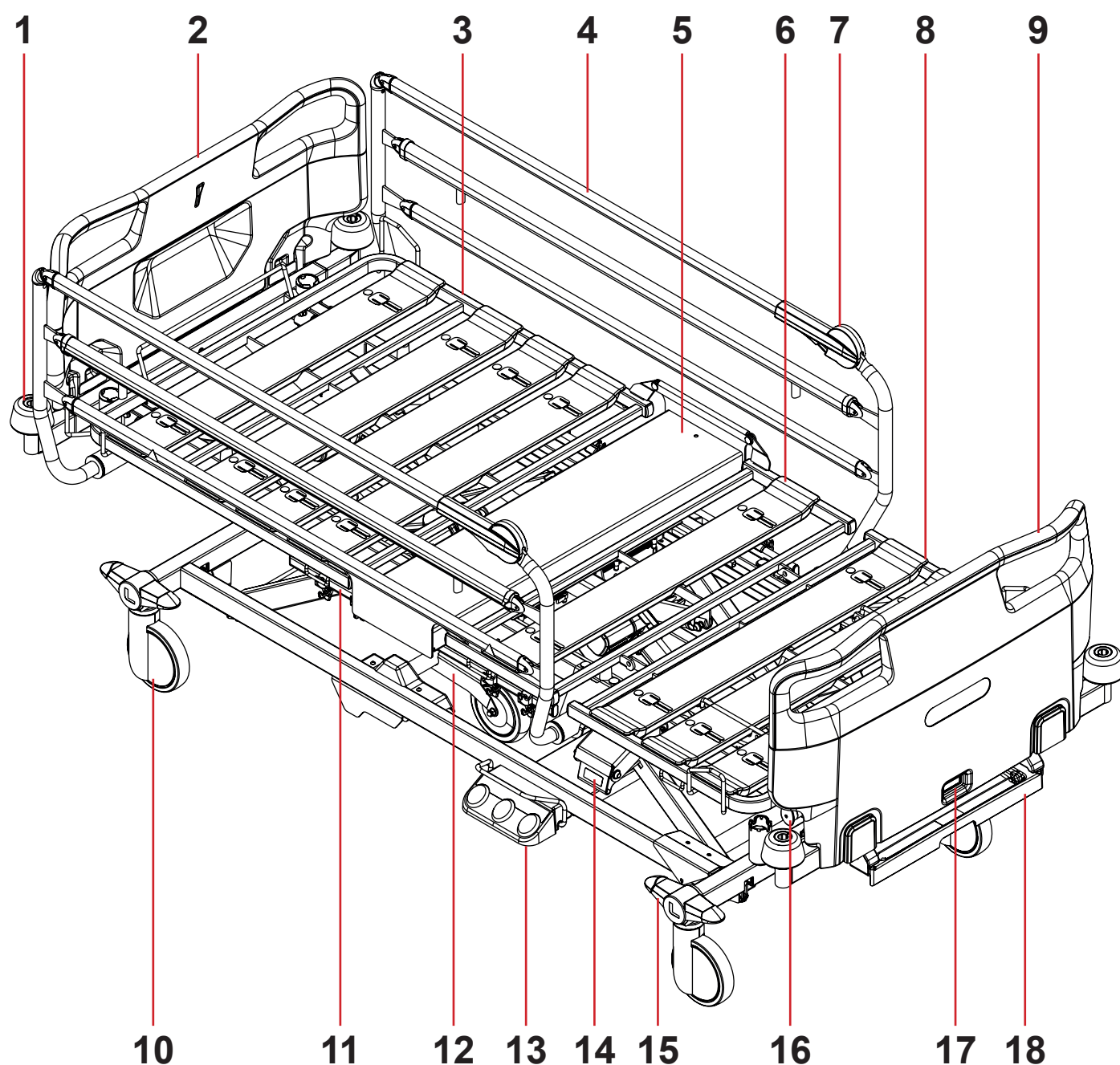
Following pictures show basic visible features of the Essenza 200 medical bed in configuration with two types of the siderails.

4.1 Essenza 200 with plastic siderails



- | | |
|---|--|
| 1. Accessory Adaptor with 2 Bushings for Lifting Pole and/or Infusion Stand | 14. Corner Bumper with accessory bushing |
| 2. Angle Indicator | 15. Simple Castor Control Lever |
| 3. Nurse Control Panel | 16. Siderail Release Mechanism of the Head Siderail |
| 4. Head Board | 17. Siderail Release Mechanism of the Foot Siderail |
| 5. Backrest | 18. Fifth Castor |
| 6. Patient Control Panel | 19. Foot Control |
| 7. Head Plastic Siderail | 20. CPR Lever for Emergency Backrest Release |
| 8. Foot Plastic Siderail | 21. Double Castor Control Lever |
| 9. Seat Section | 22. Bed Extension Safety Catch (Simple Bed Extension) |
| 10. Thighrest | 23. Castor |
| 11. Calfrest | 24. Plastic Linen Shelf (also for Attendant Control Panel) |
| 12. Foot Board Safety Lock | |
| 13. Foot Board | |

4.2 Essenza 200 with single collapsible siderails



1. Corner Bumper with accessory bushing
2. Head Board
3. Backrest
4. Single collapsible siderail
5. Seat Section
6. Thighrest
7. Siderail Release Mechanism
8. Calfrest
9. Foot Board
10. Castor
11. Accessory Rail

12. Fifth Castor
13. Foot Control
14. CPR Lever for Emergency Backrest Release
15. Double Castor Control Lever
16. Bed Extension Safety Catch (Simple Bed Extension)
17. Foot Board Safety Lock
18. Plastic Linen Shelf (also for Attendant Control Panel)

4.3 Correct positions of the Attendant Control Panel

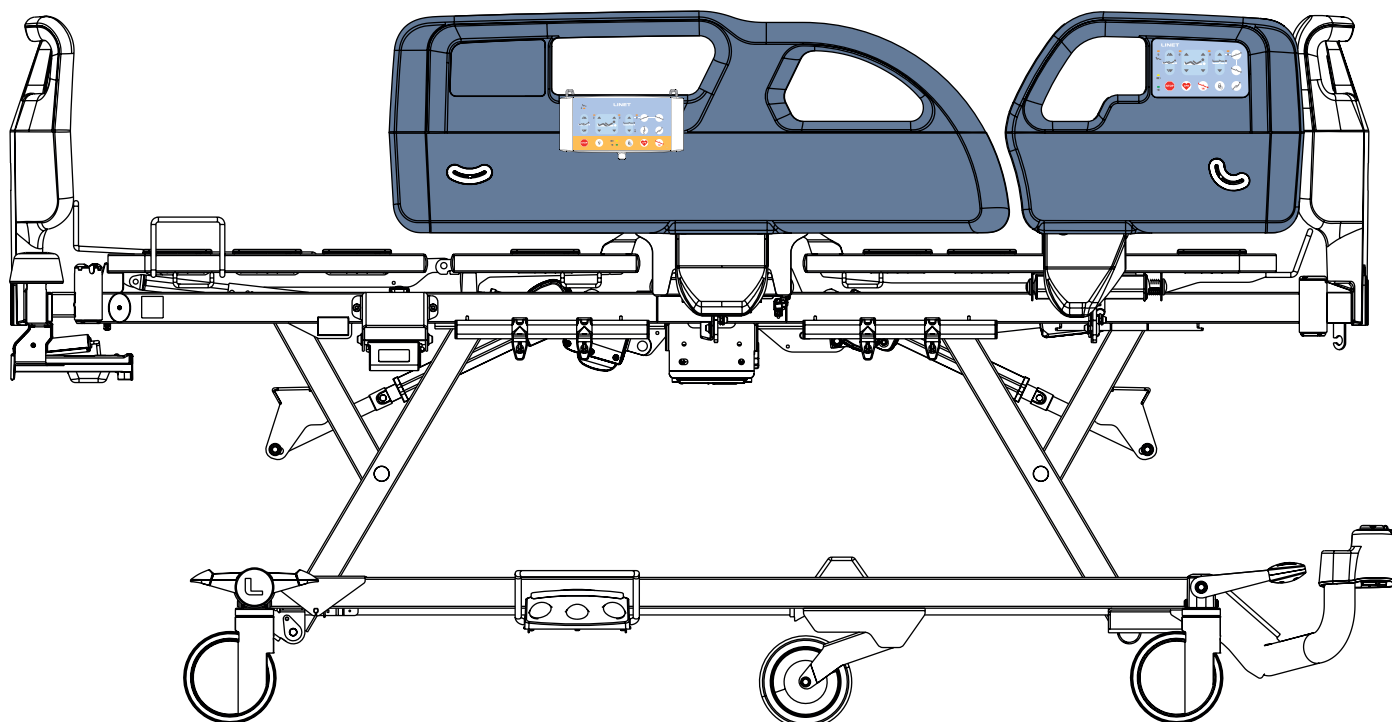


Fig. Correct position of the Attendant Control Panel on the left plastic foot siderail

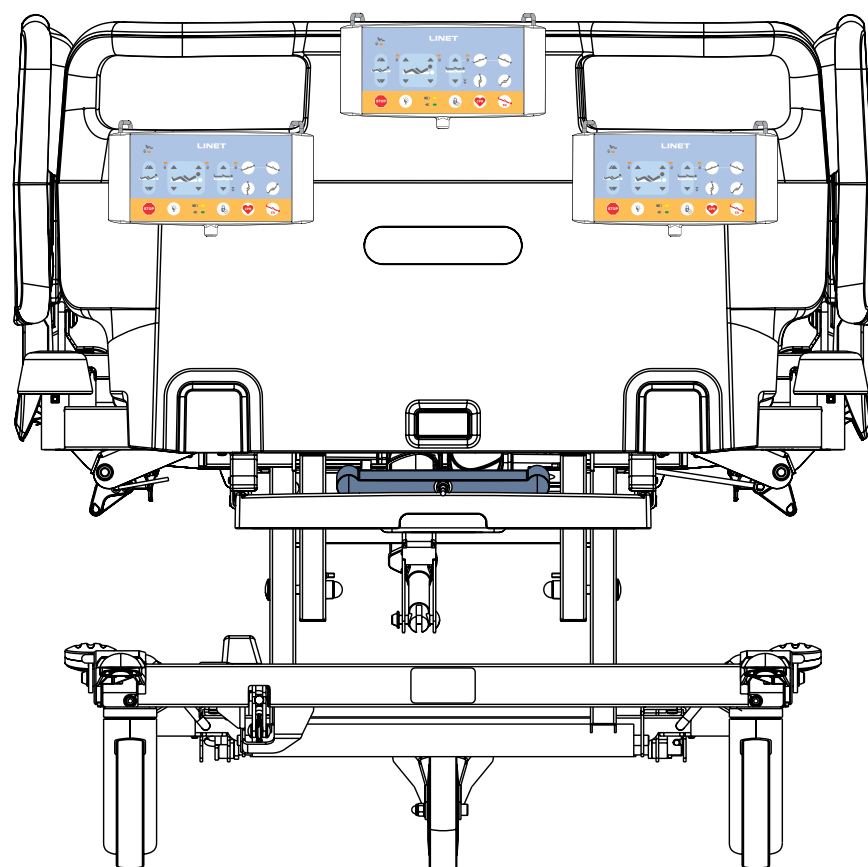


Fig. Correct positions of the Attendant Control Panel on the plastic foot board with one safety lock

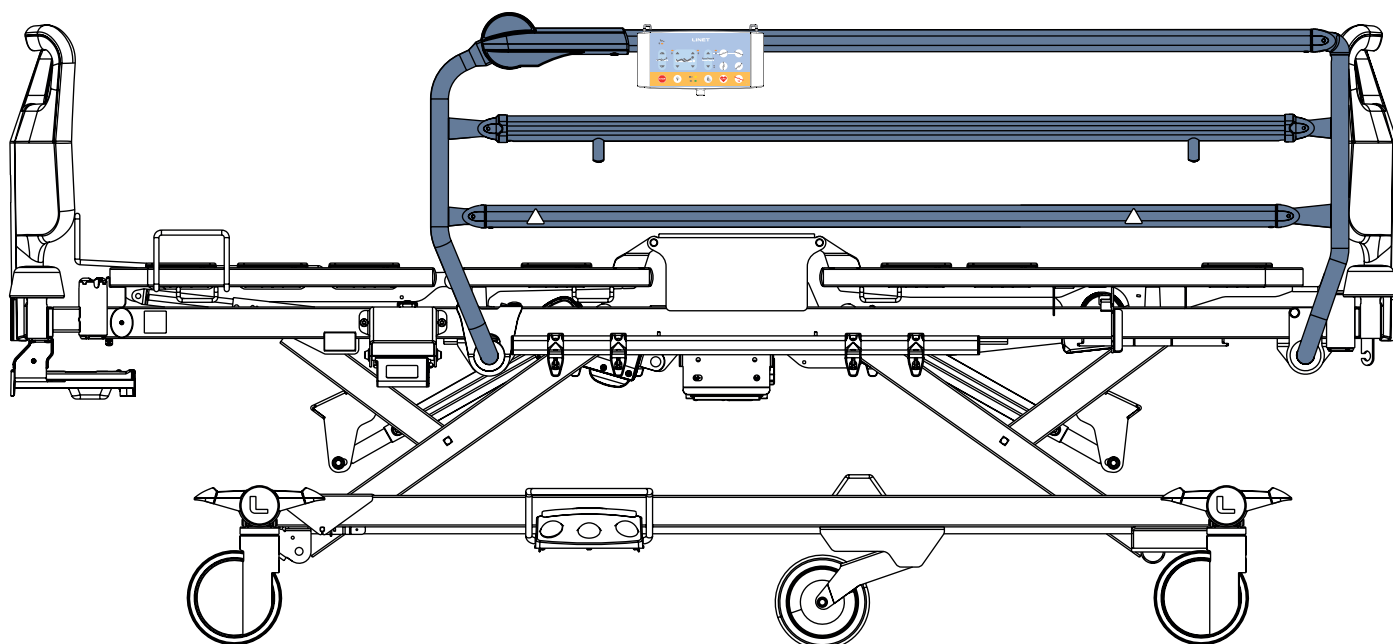


Fig. Correct position of the Attendant Control Panel on the left single collapsible siderail with upper release mechanism

4.4 Correct positions of the Handset Control Panel



WARNING!

Risk of damaging the Handset Control Panel on the inner side of the left plastic foot siderail during manipulation with the foot siderail! Risk of the unintended moves of the bed!

- ▶ Avoid the collisions of the Handset Control Panel with plastic foot siderail and with mattress support platform (highest frame)!
- ▶ Ensure any button of the Handset Control Panel is not involuntarily pressed by the plastic foot siderail, by some part of the mattress support platform or by the mattress!

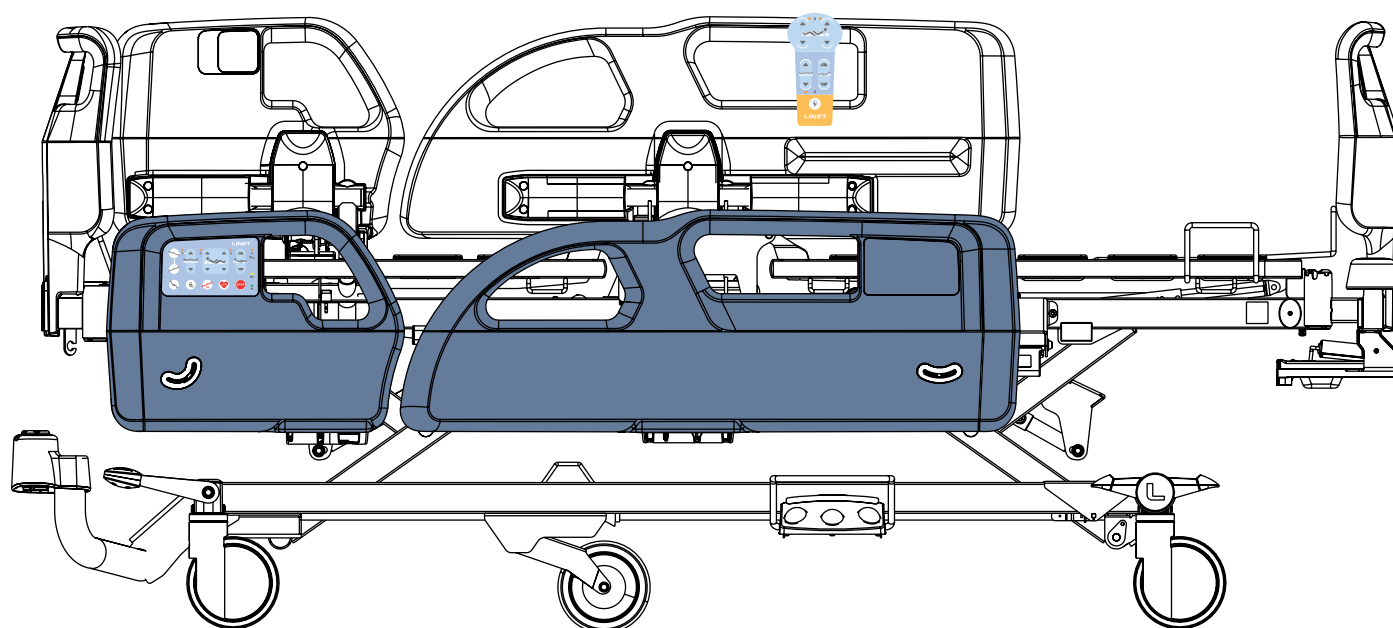


Fig. Correct position of the Handset Control Panel on the inner side of the left plastic foot siderail

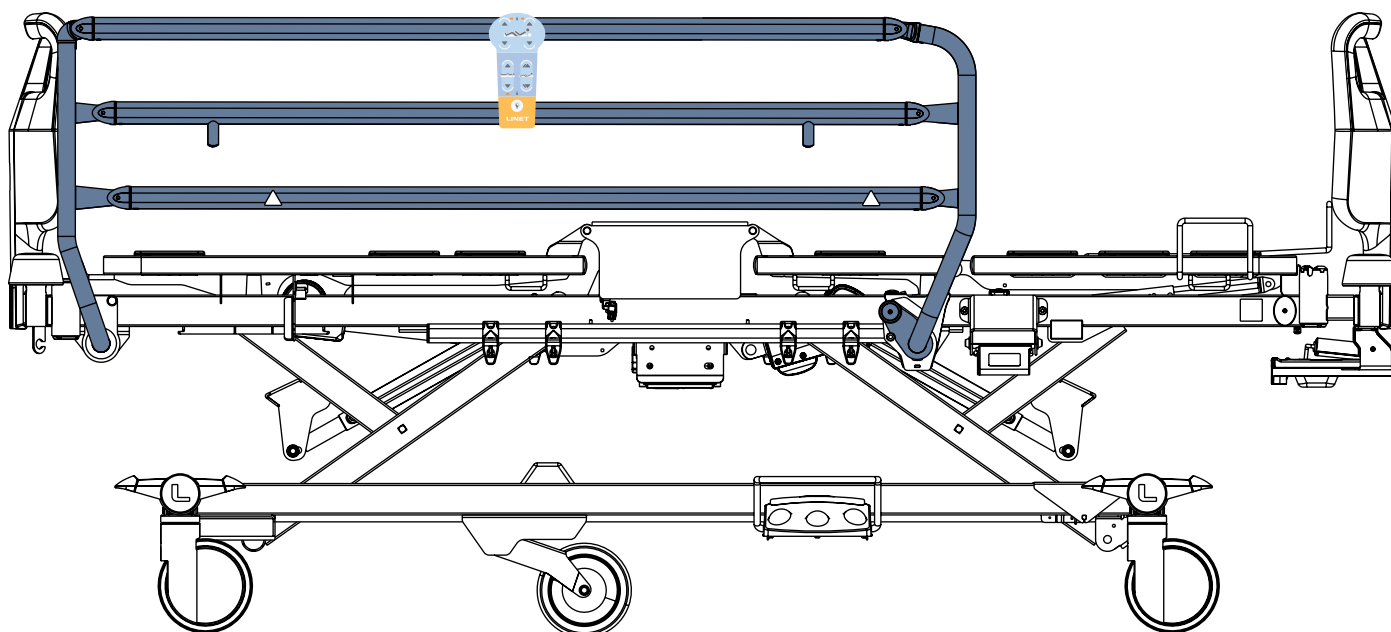


Fig. Correct position of the Handset Control Panel on the single collapsible siderails with lower release mechanism

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

These parts of the bed (and accessories) are type B Applied Parts:

- Mattress Support Platform Frame, Parts of Mattress Support Platform
- Siderails
- Head Board and Foot Board
- Mattress

5.2 Identification of Type BF Applied Parts

These parts of the bed are type BF Applied Parts:

- Attendant Control Panel
- Handset Control Panel

5.3 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!

5.3.1 Mechanical Specifications of the Essenza 200 bed

Parameter	Value
External Bed Length (without extended mattress support platform)	221 cm (226 cm for bed with Accessory Adaptor with 2 Bushings on the undercarriage)
External Bed Width	99,5 cm
Plastic Siderail Length	
■ Foot siderail	100,5 cm
■ Head siderail	48,5 cm
Single Collapsible Siderail Length	147 cm
Plastic Siderail Height above Mattress Support Platform (without mattress)	MIN: 9 cm, MAX: 40 cm
Collapsible Siderail Height above Mattress Support Platform (without mattress)	MIN: 7,5 cm, MAX: 38 cm
Maximum Bed Extension (Mattress Support Platform Extension)	15 cm
Maximum Mattress Dimensions	200 cm x 90 cm
Maximum Mattress Height	16 cm
Mattress Platform Height Adjustment with castor diameter 125 mm with castor diameter 150 mm	37 cm – 73,5 cm 39,5 cm – 76 cm
Maximum Clearance under the undercarriage with castors with diameter of 125 mm	16 cm
Maximum Clearance under the undercarriage with castors with diameter of 150 mm	18,5 cm
Maximum Backrest Angle	70°
Maximum Thighrest Angle	35°
Maximum Calfrest Angle	22°
Maximum Angle between Calfrest and Thighrest	125°
Ergoframe Distances (Backrest Distance / Thighrest Distance)	3,5 cm / 2,5 cm
Maximum Trendelenburg Tilt Angle	15°
Maximum Reverse-Trendelenburg Tilt Angle	15°
Average Bed Weight	135 kg
Maximum Lifting Pole Load	75 kg
Maximum Sound Pressure Level	51,6 dB(A)
Maximum Sound Pressure Level of the bed acoustic signalling	63,9 dB(A)

Safe Working Load (SWL)

Castors		Safe Working Load (depending on castors)
Diameter	Brake system	
125 mm	Individually operated castors	185 kg
	Centrally operated castors	250 kg
150 mm	Centrally operated castors	250 kg

Maximum Patient Weight

Maximum Patient Weight (depending on application environment and castor type)		
Castor type	Application environment 1,2	Application environment 3,5
Individually operated castors with diameter 125 mm	120 kg	150 kg
Centrally operated castors with diameter 125 mm	185 kg	215 kg
Centrally operated castors with diameter 150 mm	185 kg	215 kg

Mass of Mobile Hospital Bed

Castors	Mass of Mobile Hospital Bed (depending on castors)
Individually operated castors with diameter 125 mm	330 kg
Centrally operated castors with diameter 125 mm	402 kg
Centrally operated castors with diameter 150 mm	402 kg

Components of the Safe Working Load (SWL)

Bed with 250 kg SWL in the Application Environment 1 or 2	
Maximum Patient Weight	185 kg
Maximum Mattress Weight	17 kg
Maximum Accessory Weight	18 kg
Maximum Accessory Load	30 kg

Bed with 250 kg SWL in the Application Environment 3 or 5	
Maximum Patient Weight	215 kg
Maximum Mattress Weight	17 kg
Maximum Accessory Weight	6 kg
Maximum Accessory Load	12 kg

Bed with 185 kg SWL in the Application Environment 1 or 2	
Maximum Patient Weight	120 kg
Maximum Mattress Weight	17 kg
Maximum Accessory Weight	18 kg
Maximum Accessory Load	30 kg

Bed with 185 kg SWL in the Application Environment 3 or 5	
Maximum Patient Weight	150 kg
Maximum Mattress Weight	17 kg
Maximum Accessory Weight	6 kg
Maximum Accessory Load	12 kg

5.4 Electrical Specifications

Parameter	Value
Input Voltage, Frequency	100 — 240 V AC, 50/60 Hz
Maximum Power Input	max. 480 VA
Ingress Protection according to EN 60529	IPX4
Electric Protection Class	Class I (with type B Applied Parts and type BF 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
Control Unit Fuses	2x T4A L 250 V

5.5 Environment Conditions



WARNING!

Risk of damaging the product due to incorrect environment conditions!

► Do not use the Essenza 200 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

5.6 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 200 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 „20 Maintenance“ on the page 121) in order to maintain the basic safety with regard to electromagnetic disturbances for the expected service life.

5.6.1 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

5.6.2 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 Proximity fields from RF wireless communications equipment IEC 61000-4-3	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz See Table 1
Fast electrical transients / burst IEC 61000-4-4	±2 kV for power line repetition frequency 100 kHz
Surge IEC 61000-4-5	± 1 kV Line-to-line ± 2 kV Line-to-ground
Conducted RF IEC 61000-4-6	3 V (0,15 MHz – 80 MHz) 6 V in ISM bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m
Voltage dips, short interruptions on power supply input lines IEC 61000-4-11	0 % UT; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° 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. 4.1.

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

5.7 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.

Available Connector	Intended Use	Restrictions
1) Plug&Play for Attendant Control Panel (left bed side)	Special connection for optional wired ACP for bed control (intended for nurse).	Connect only the LINET Attendant Control Panel compatible with Essenza 200!
2) Plug&Play for Handset Control Panel (right bed side and left bed side)	Special connection for optional wired handset for bed control (intended for patient).	Connect only the LINET Handset Control Panel!
3) USB connectors (2 pieces, right bed side and left bed side at the accessory rails, see „15.7 USB charger“ on the page 105)	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) SafeSense 3 connector (right bed side at the accessory rail)	Special connection for SafeSense 3 Hub (power supply connection and data connection)	Connect only the LINET SafeSense 3 monitoring system!

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 200 is designed for use in rooms for medical purposes. Electrical installations connected to the Essenza 200 must therefore meet local norms laying down the necessary conditions for electrical installations.

To increase the safety of electrical equipment:

- ▶ Disconnect the Essenza 200 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 200 is not suitable for indoor environments containing flammable gases (except oxygen cylinders).

Essenza 200 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 200 Medical bed
- Instructions for Use

7.3 Essenza 200 Variants

Variable bed features:

- **Castors**
 - Central Castor Control System (castors with diameter 125 mm, castors with diameter 150 mm, simple castors, double castors)
 - Individually operated castors at head end
 - Fifth Castor
 - Brake Alert
- **Mattress Support Platform Extension**
 - Simple Bed Extension
- **Patient Restraint Holders**
- **Backrest Handles**
- **Accessory Rail**
 - one accessory rail in the middle of the bed on both sides (compatible with single collapsible siderails)
 - one accessory rail under the Backrest on both bed sides and one accessory rail under the thighrest on both bed sides (compatible with plastic siderails)
- **Siderails**
 - Plastic Siderails (compatible with Accessory Adaptor with 2 Bushings for Lifting Pole in the undercarriage at bed head end)
 - Single collapsible siderails with upper release mechanism (not compatible with Accessory Adaptor with 2 Bushings for Lifting Pole in the undercarriage at bed head end)
 - Single collapsible siderails with lower release mechanism (not 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 (compatible with Accessory Adaptor with 2 Bushings for Lifting Pole at bed head end, not compatible with Single collapsible siderails)
- **Corner Bumpers**
 - with accessory bushings
- **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 Plastic Siderails and with Narrow Plastic Head Board without side corner bumpers at bed head end)
- **Control Elements**
 - Attendant Control Panel
 - Nurse Control Panel
 - Handset Control Panel
 - Patient Control Panel
 - Foot Control
- **Accumulator back-up**
- **Bed Illumination**
- **Safe Height Visual Signalling (green light)**
- **USB charger**
- **Plastic Linen Shelf**
- **X-ray cassette Holder**

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!

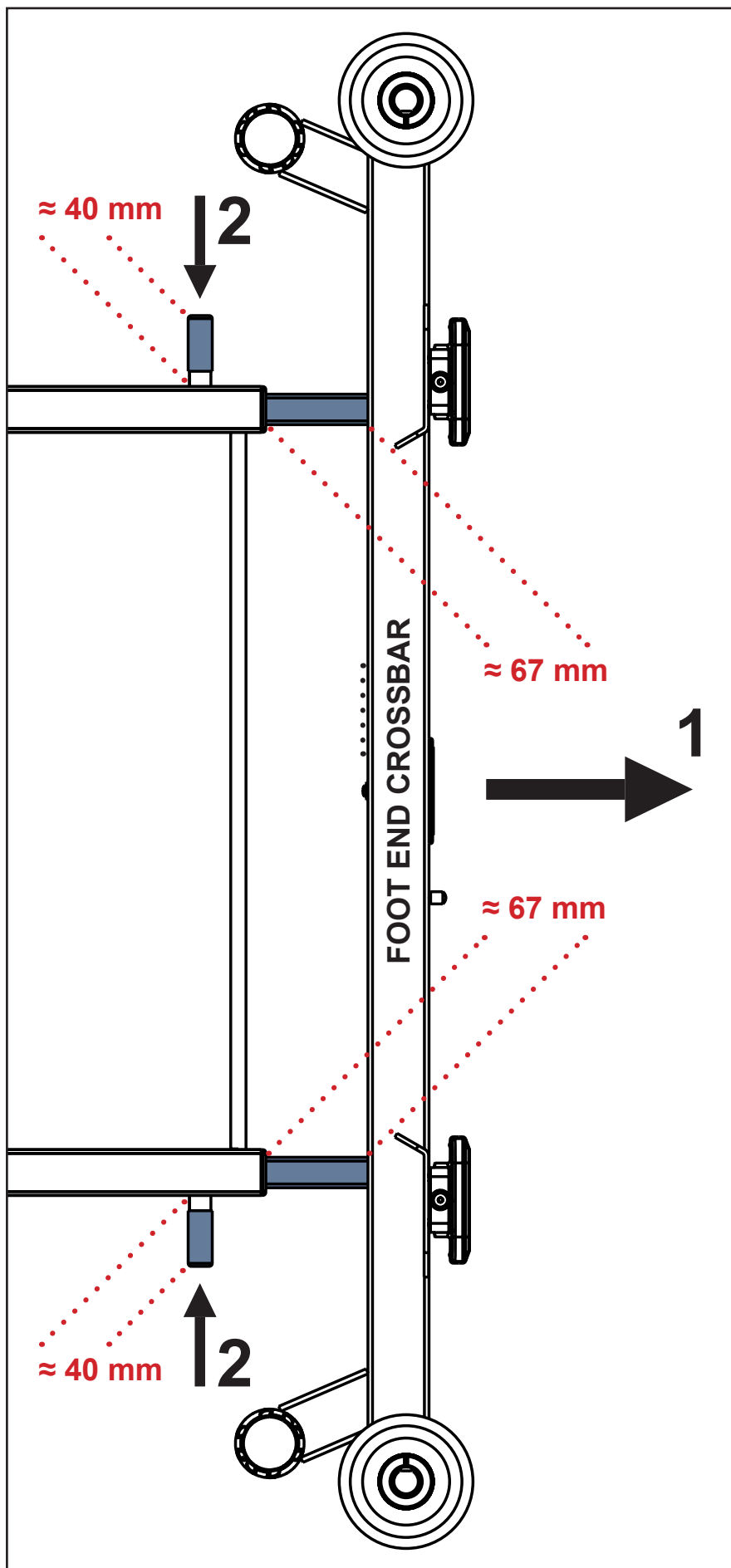
Risk of material damage due to temperature difference!

- ▶ 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 41).
 - ▶ 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 49).
 - ▶ 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 separable plug of 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.



Additional instructions for the bed without bed extension adjustment and with Accessory Adaptor with 2 Bushings for Lifting Pole and/or Infusion Stand:

- Pull the head end crossbar out of the mattress support platform (1). The inner distance between the foot end crossbar and the non-extensible end of the mattress support platform must be approximately 6,7 cm!
- Push the locking pins on both bed sides (2) to arrest the position of the standardly extended foot end crossbar. Each arrested locking pin must be approximately 4 cm long!

8.1 Accumulator Activation

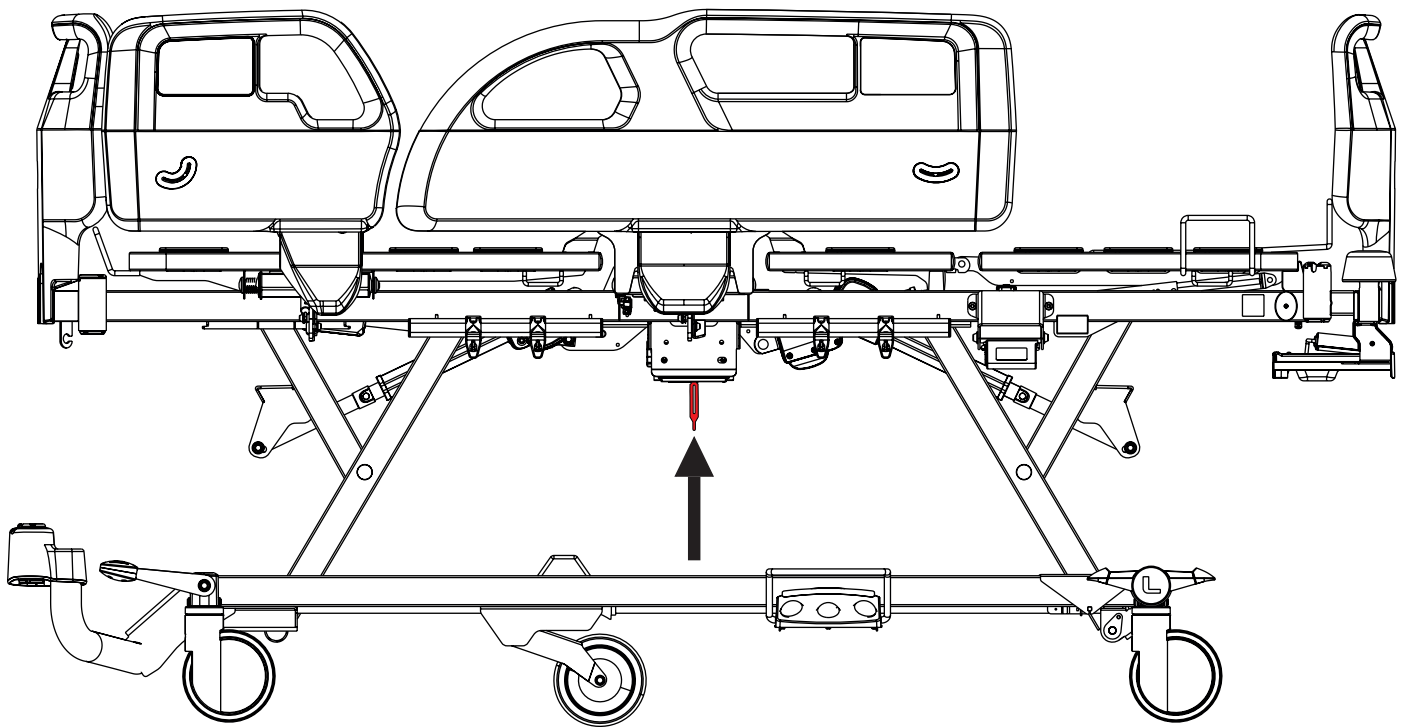


Fig. Position of Isolating Foil under the Backrest

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.

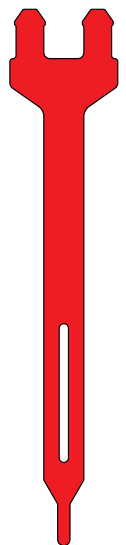


Fig. Shape of Isolating Foil

8.2 Plastic Foot Board with Safety Lock

Standard Plastic Foot Board is intended to be placed at bed foot end. Grooves on the bottom back side of the Plastic Head Board and Plastic Foot Board determine the correct placement of the Plastic Head Board and Plastic Foot Board on the bed ends.

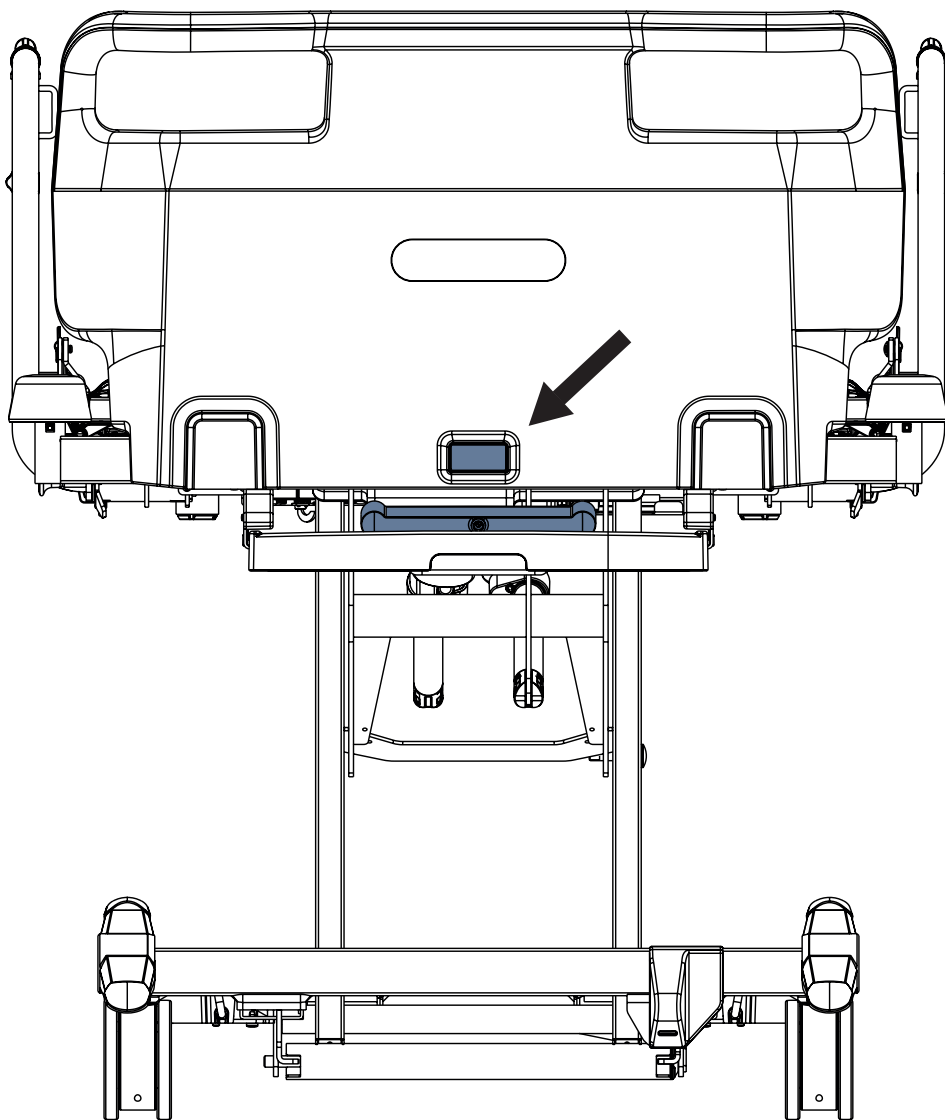


Fig. Standard Plastic Foot Board

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.
- ▶ Ensure a groove in the plastic Foot Board fits into the foot end crossbar of the bed.
- ▶ Lock Foot Board Safety Lock.
- ▶ Ensure manually the Foot Board is locked.

8.3 Plastic Head Board with Safety Lock

There are 2 types of the Plastic Head 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. Grooves on the bottom back side of the Plastic Head Board and Plastic Foot Board determine the correct placement of the Plastic Head Board and Plastic Foot Board on the bed ends.

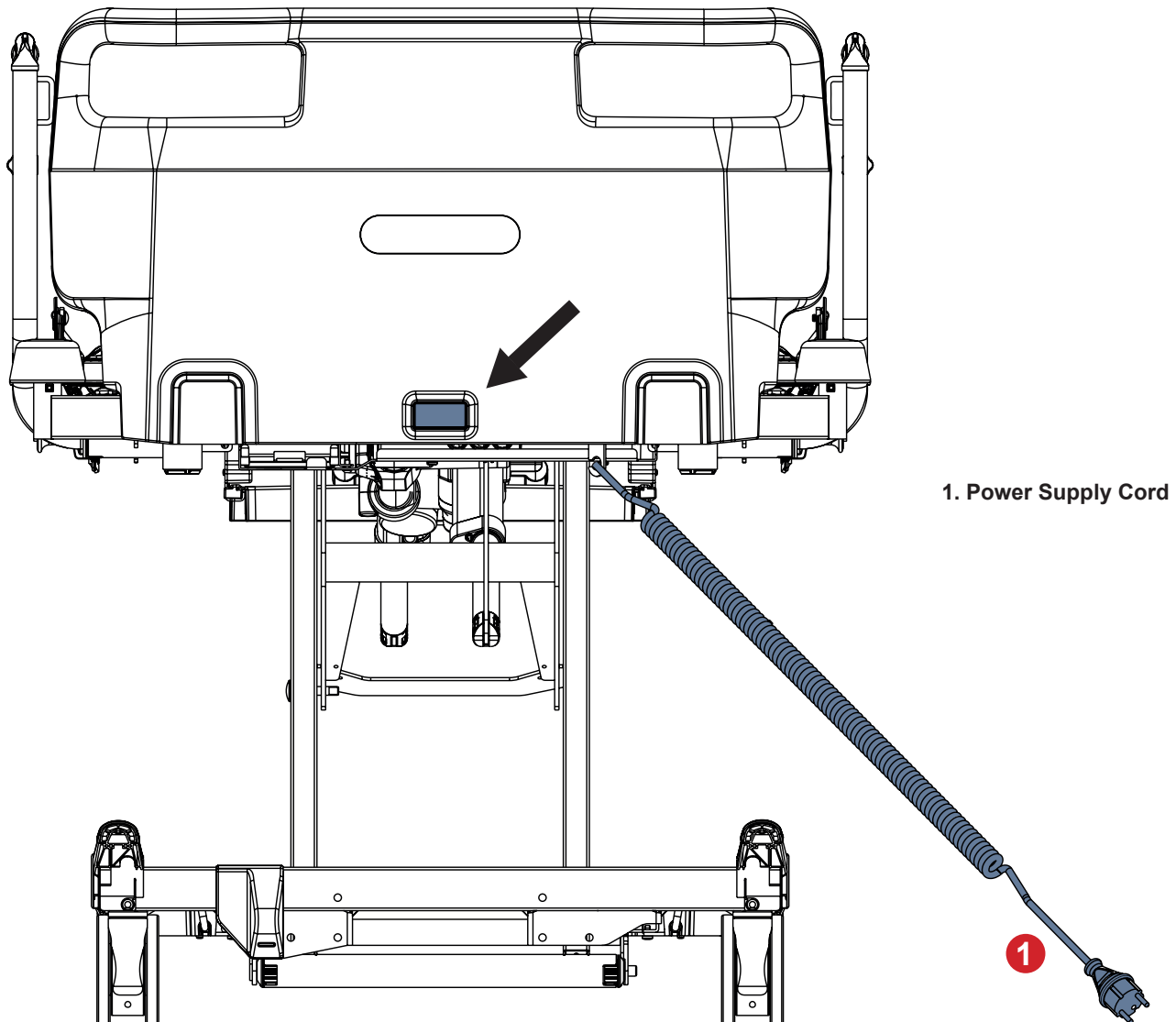


Fig. Standard Plastic Head Board

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.
- ▶ Ensure a groove in the plastic Head Board fits into the head end crossbar of the bed.
- ▶ Lock Head Board Safety Lock.
- ▶ Ensure manually the Head Board is locked.

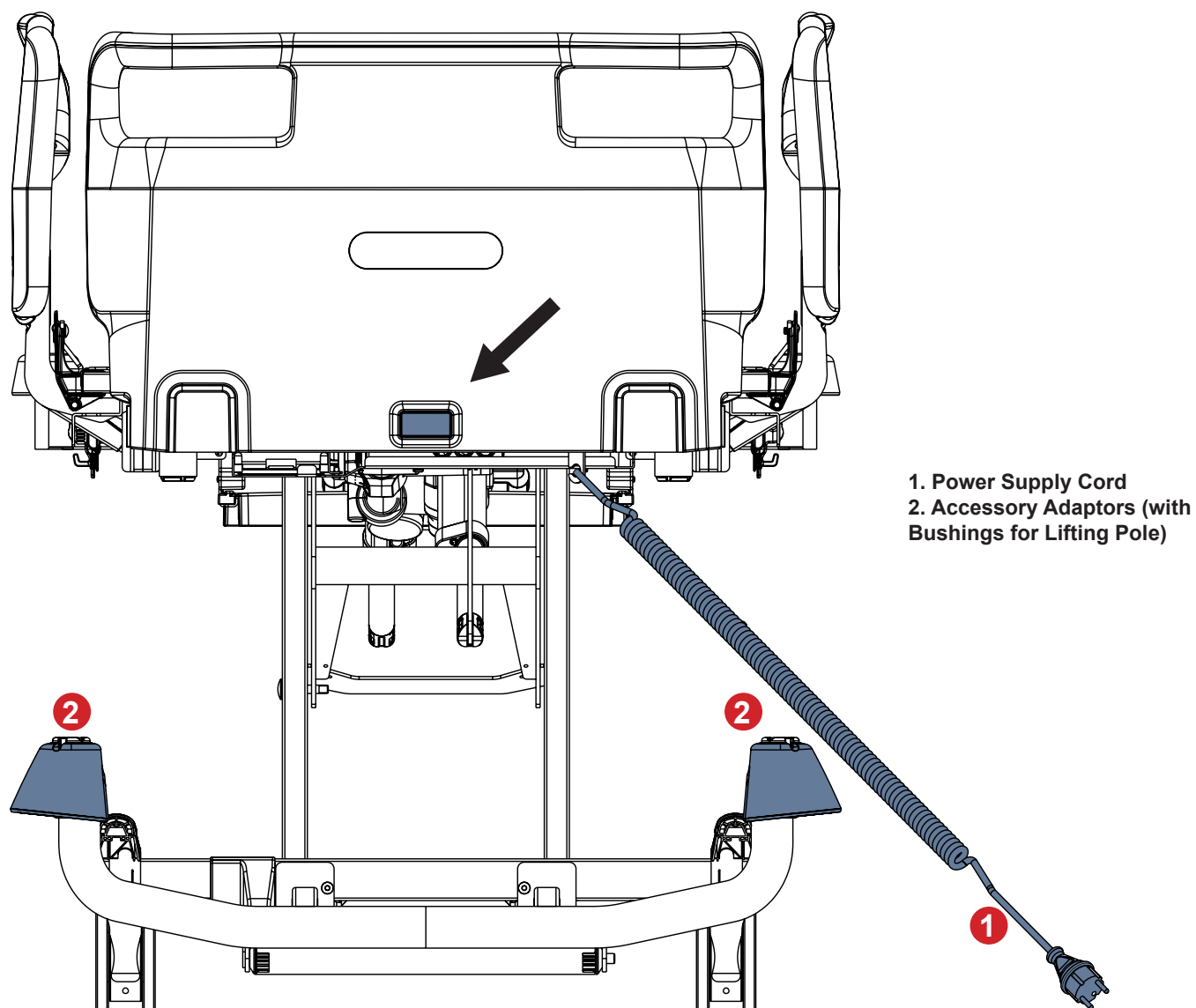


Fig. Narrow Plastic Head Board

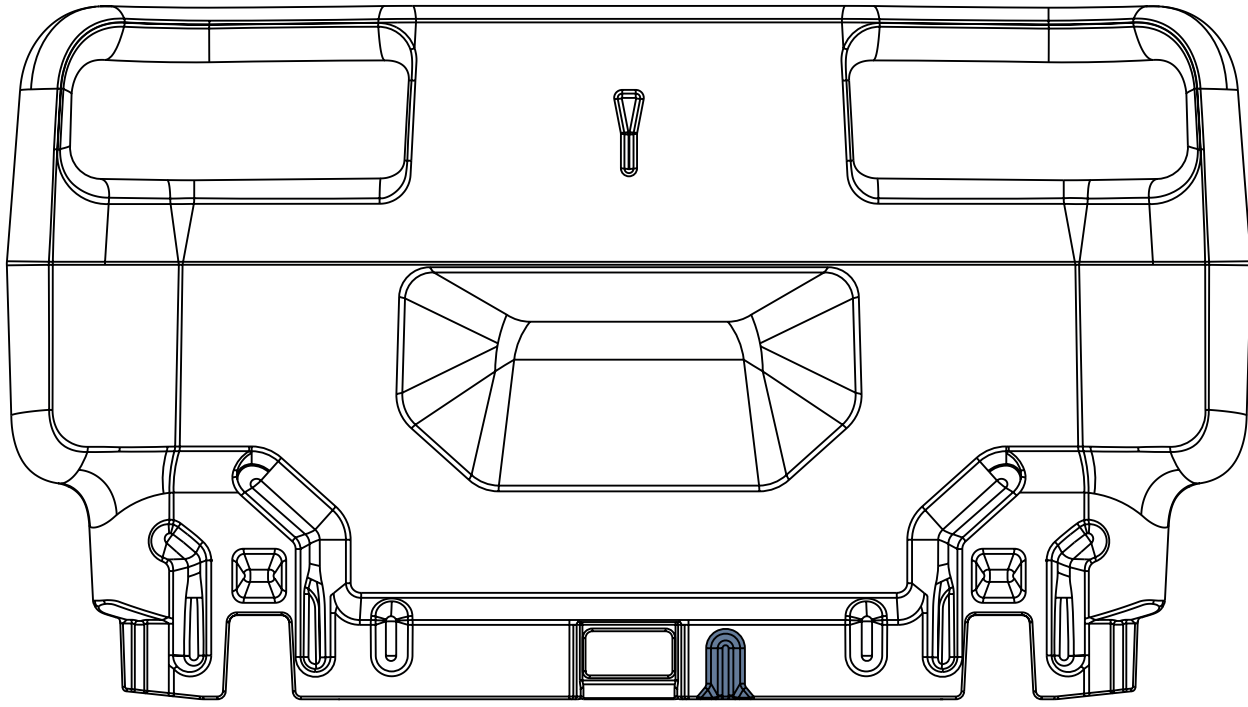


Fig. Groove in the plastic head board



8.4 Mattress Support Platform

Essenza 200 has Mattress Support Platform with four sections.

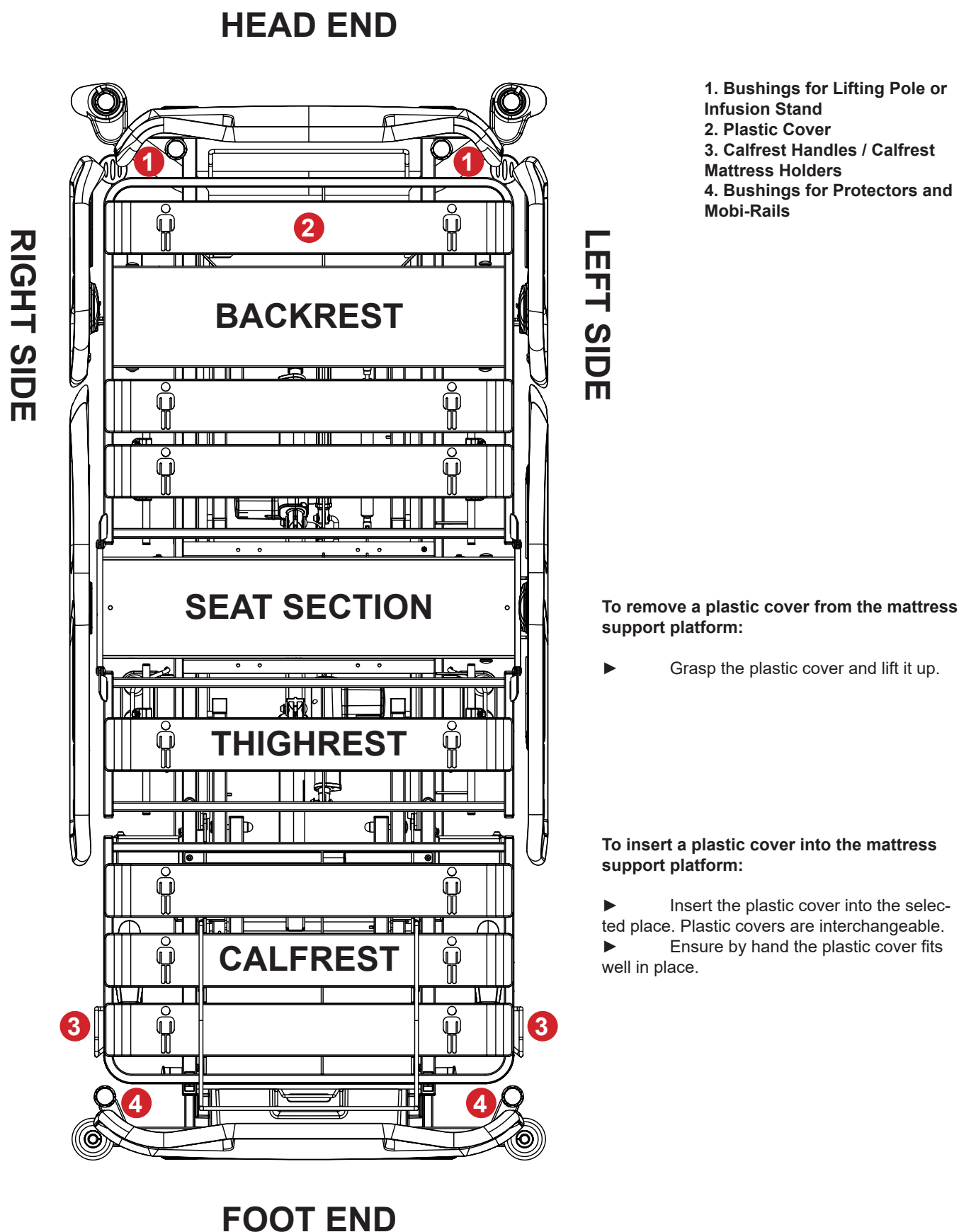
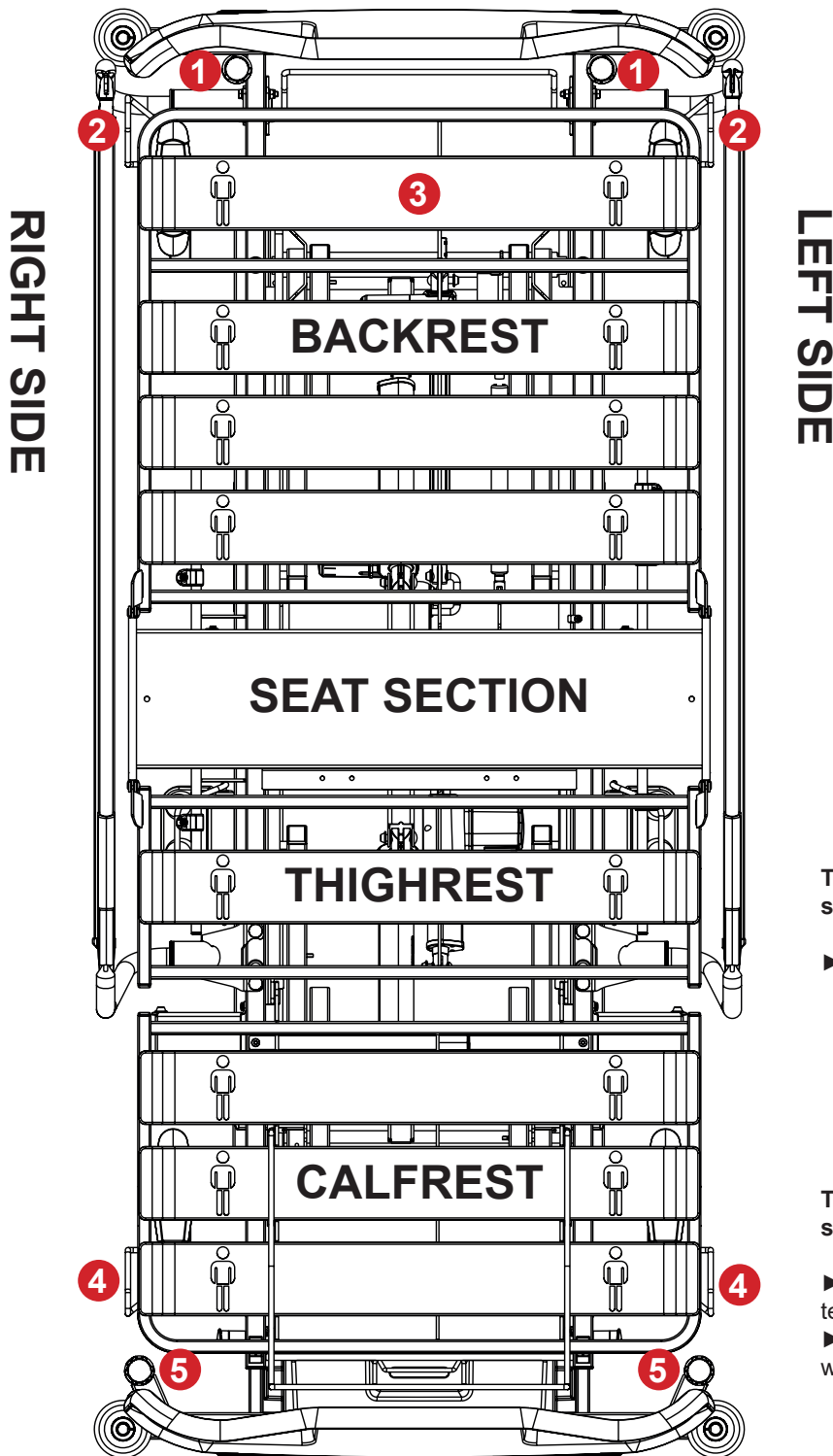


Fig. 4-part Mattress Support Platform with Plastic Siderails

HEAD END



1. Bushings for Lifting Pole or Infusion Stand
2. Backrest Handles / Backrest Mattress Holders
3. Plastic Cover
4. Calfrest Handles / Calfrest Mattress Holders
5. Bushings for Protectors and Mobi-Rails

To remove a plastic cover from the mattress support platform:

- ▶ Grasp the plastic cover and lift it up.

To insert a plastic cover into the mattress support platform:

- ▶ Insert the plastic cover into the selected place. Plastic covers are interchangeable.
- ▶ Ensure by hand the plastic cover fits well in place.

FOOT END

Fig. 4-part Mattress Support Platform with Single collapsible siderails

8.5 Potential Interconnection



DANGER!

Danger to life due to electric shock!

To protect patient against static electric shock:

- ▶ Connect potential equalisation male connector to the potential equalisation female connector.

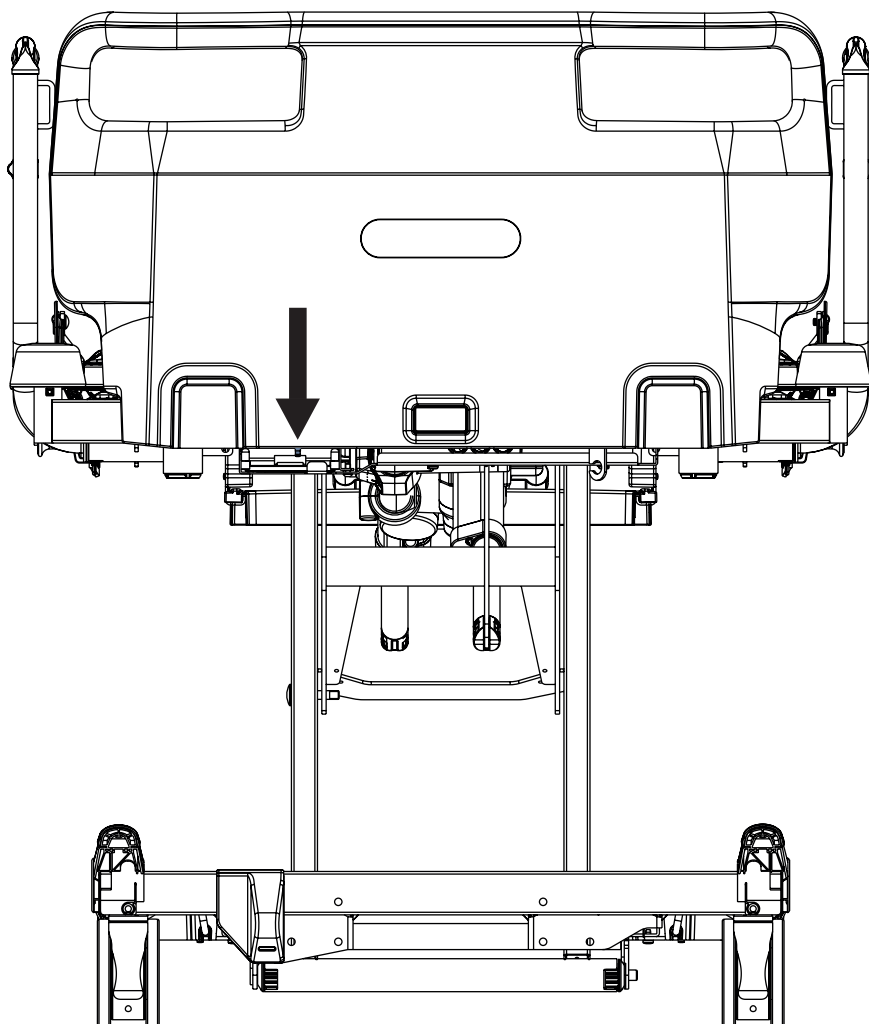


Fig. Potential equalisation male connector at head end of the bed

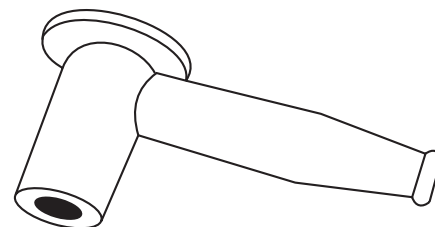


Fig. Potential equalisation female connector

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

Use equalisation 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 equalisation 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.
- ▶ Disconnect the potential equalisation connector.

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 „21 Disposal“ on the page 123).

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 „11.3 Castor Control“ on the page 64).
- ▶ 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 200 bed!



WARNING!

Siderails in down position can cause patient's fall from the Essenza 200 bed during transport of the Essenza 200 bed!

Transport Position of the Essenza 200 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 200 avoid squeezing the cable between parts of the Essenza 200!



WARNING!

An additional multiple socket-outlet or extension cord shall not be connected to the Essenza 200!



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 200 and the wall where the Power Supply Cord is connected to the mains.

Essenza 200 medical bed is ME equipment with non-detachable Power supply cord. Attachment plug is means of connecting and disconnecting Essenza 200 from the mains. Power supply cord must be attached with a hook at the bed head board during transport.

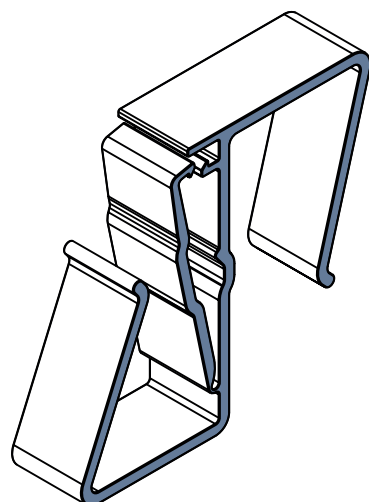


Fig. Hook for hanging Power Supply Cord

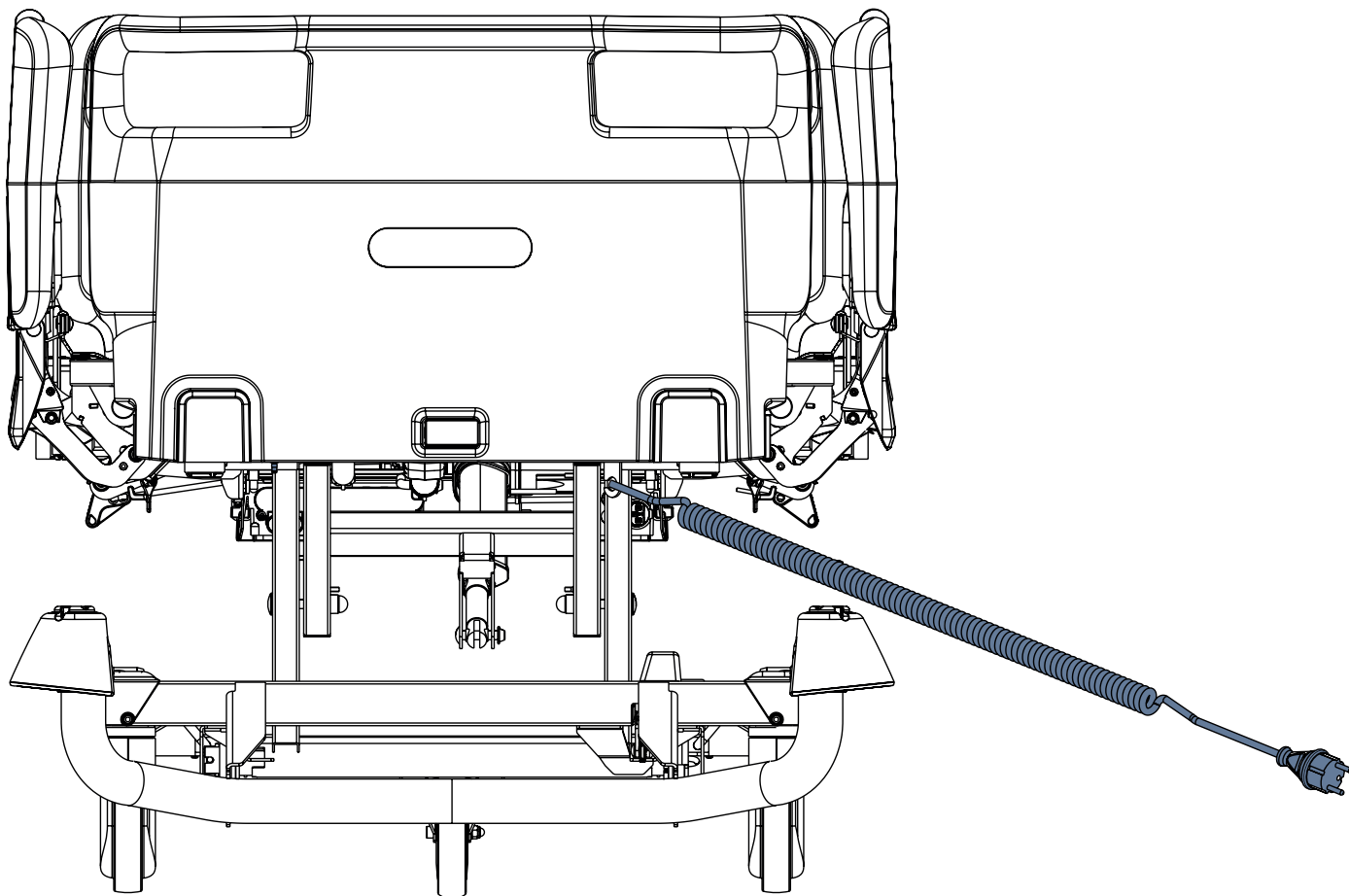


Fig. Power Supply Cord under the bed Head Board

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.

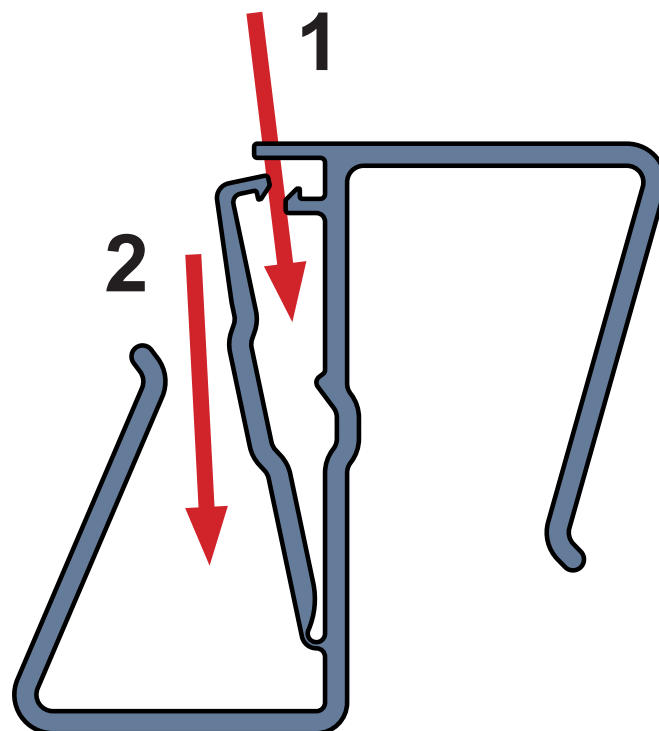


Fig. Instructions to place power supply cord into the hook

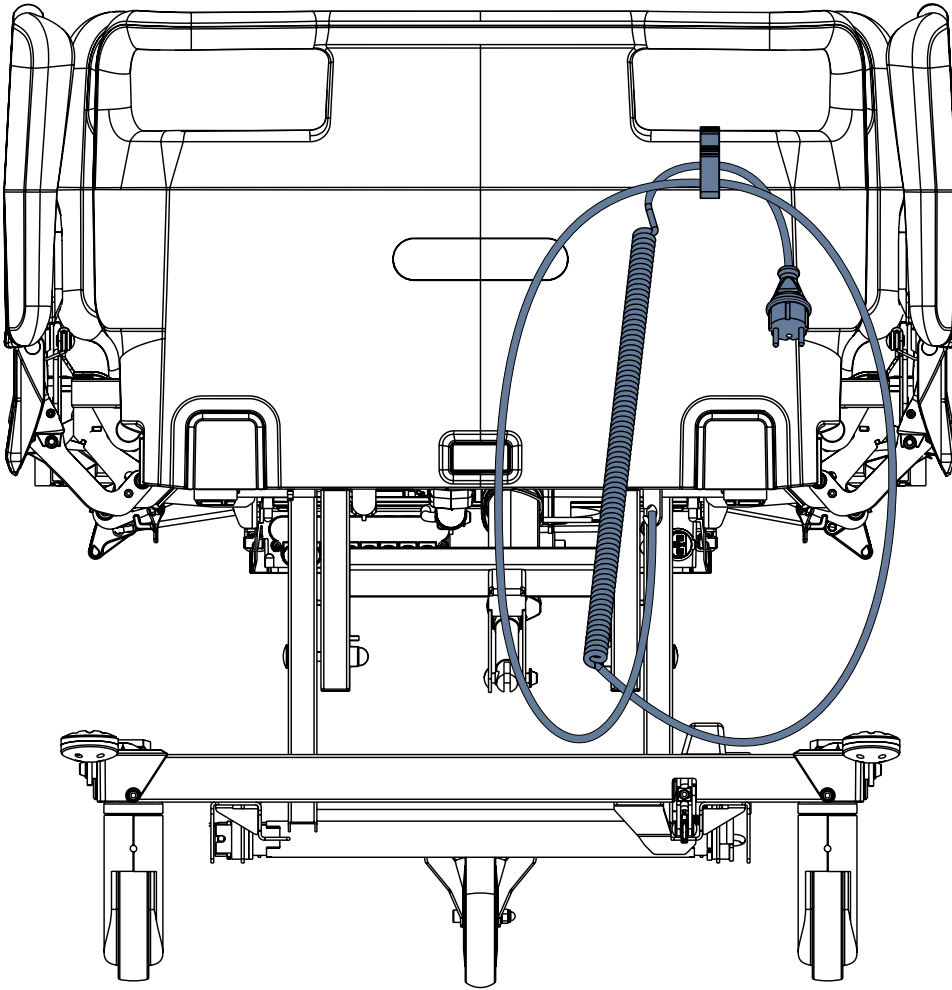


Fig. Correct placement of the power supply cord in the hook for hanging the power supply cord

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.

To ensure the accumulator functionality:

- ▶ Use only accumulator approved by the manufacturer.
- ▶ Always remove the isolating foil before use.
- ▶ 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 and the Siderail Control Panel indicate the accumulator charge status.

10.1 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 „10.2 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.

10.2 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 200 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

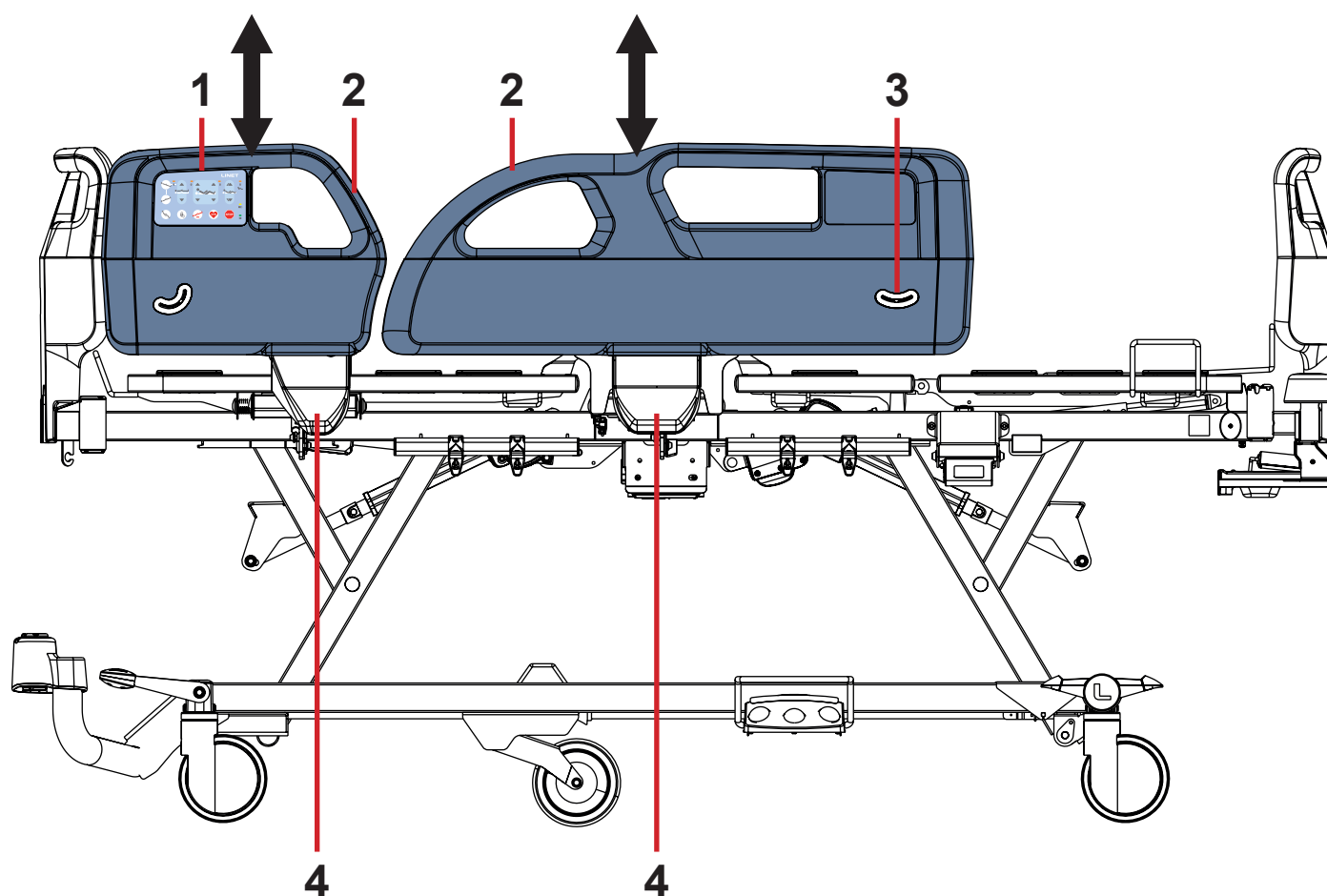


Fig. Plastic Siderail Description

- 1. Nurse Control Panel
- 2. Siderail Grip
- 3. Angle Indicator
- 4. Siderail Release Handle

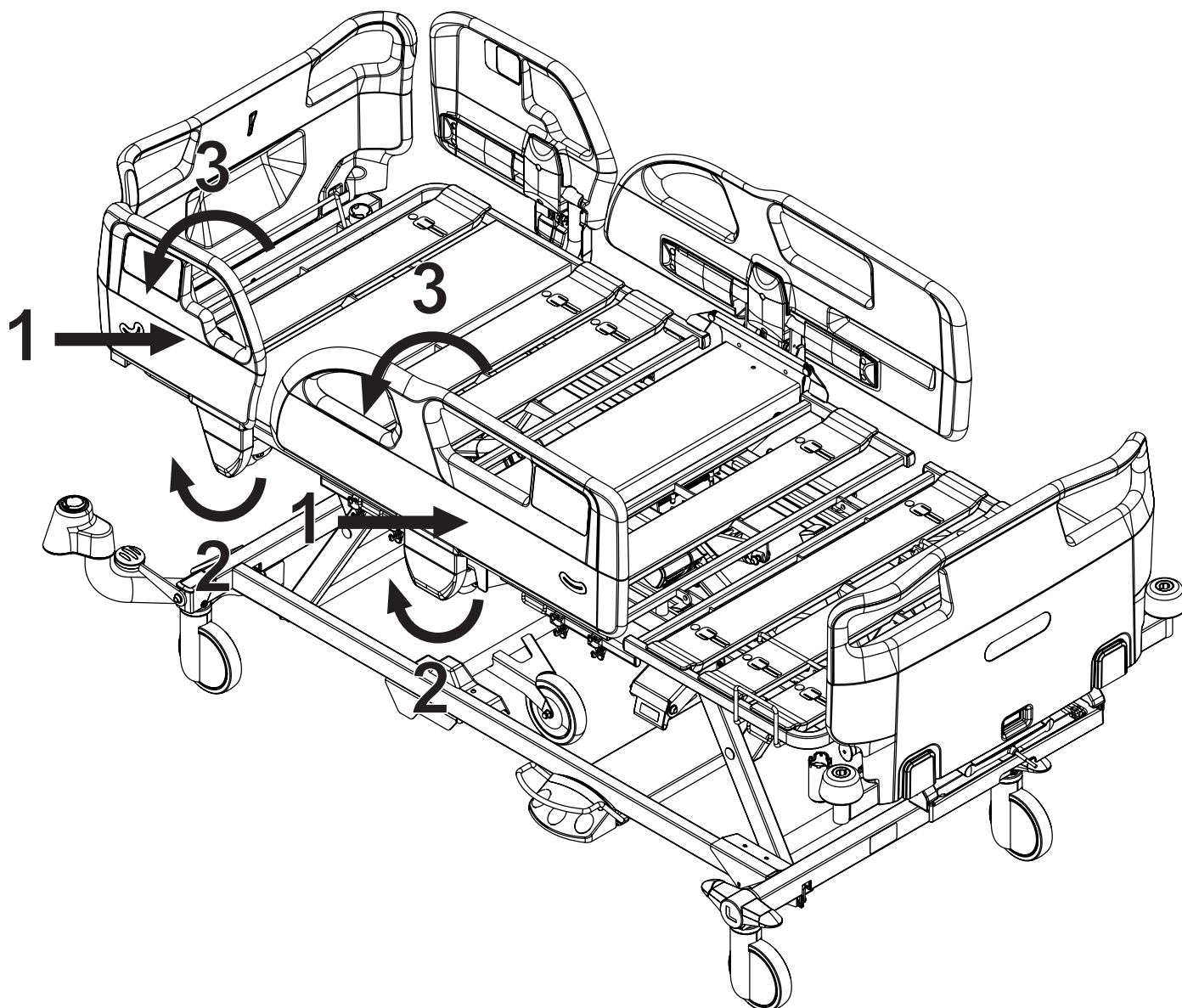


Fig. Three steps of the manipulation with plastic siderails

MANIPULATION

To raise siderail up:

- ▶ Grip the siderail by the siderail top.
- ▶ Pull siderail up until it latches. The locking of each siderail is indicated by an audible 'click' when siderail is locked in place.
- ▶ Ensure by hand that the siderail is locked properly.

To release siderail down:

- ▶ Take hold of the siderail top and push the selected siderail towards mattress support platform (1).
- ▶ Unlock siderail by pulling Siderail Release Handle to yourself (2).
- ▶ Fold siderail down (3). Do not let the siderail fall down when it is unblocked.

11.1.2 Mobi-Rails

Mobi-Rails are intended for supporting patient in bed on sides to secure their safety or as mobilization tools. Mobi-Rails can be adjusted to the four different positions with different clinical meaning. Mobi-Rails are designed for Plastic Siderails only.

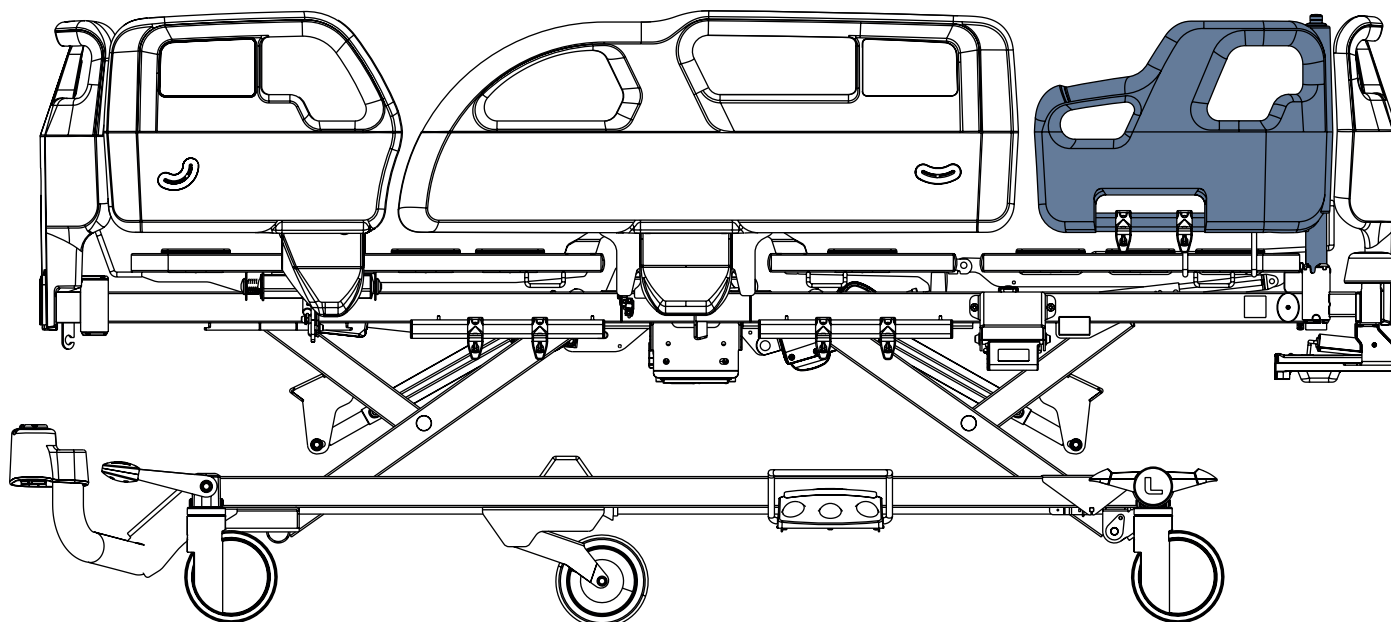


Fig. Mobi-Rail on the right bed side

To use the Mobi-Rails:

- read the Instructions for use of the Essenza 200 Accessories before use!

11.2 Single collapsible 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 due to incorrectly latched siderail!

- Ensure that siderail is secured in the upper position or folded down to the lowest position. Audible „click“ indicates the siderail locked in the upper position. Push the siderail towards head end and towards foot end 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 the bed. Prevent patient from falling off the bed when a siderail is folded down! Hospital personnel is responsible for meeting this requirement.



WARNING!

Risk of injury due to incorrect manipulation with siderails!

- Ensure that there is no body part between siderail bars during folding siderail down.

11.2.1 Description of the Single collapsible siderails with lower release mechanism

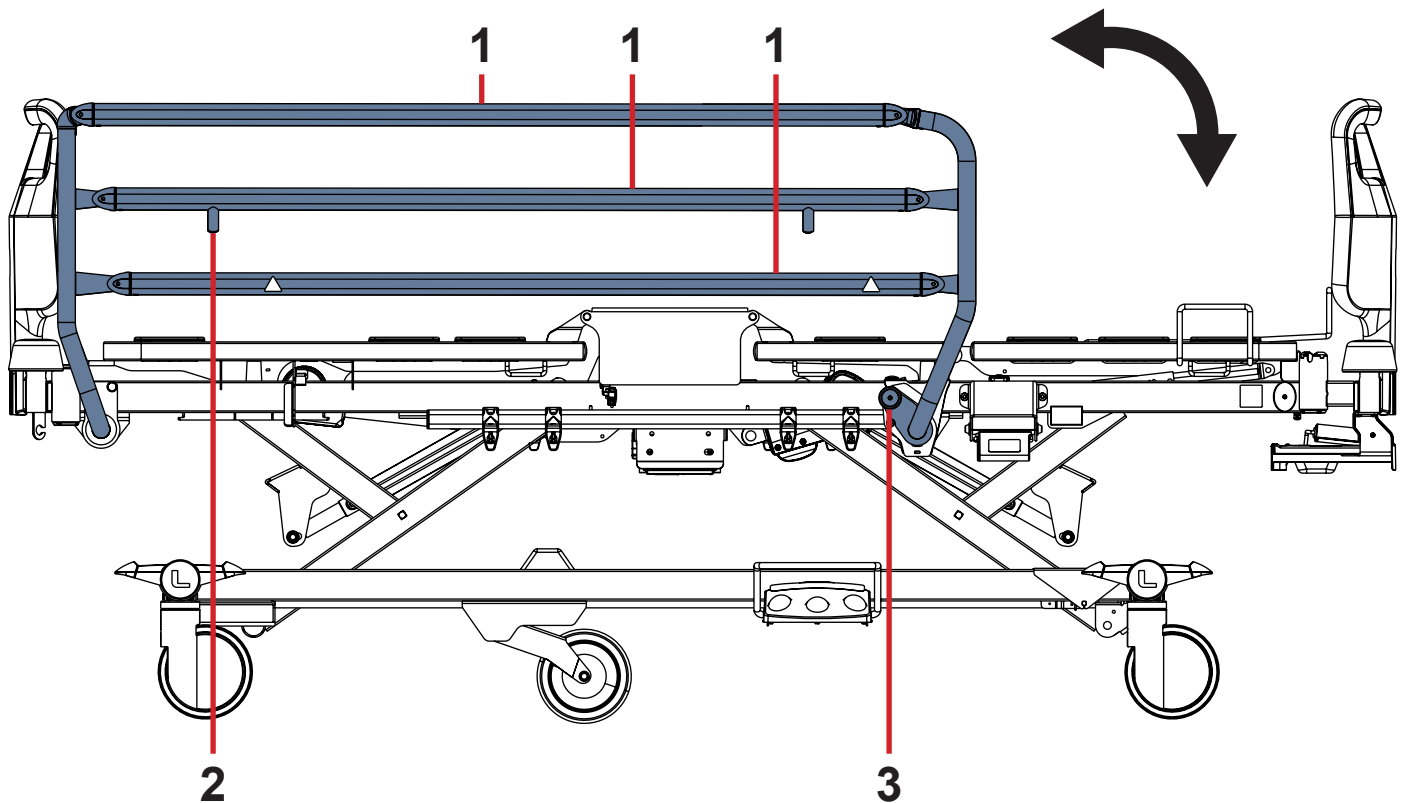


Fig. Manipulation with Single collapsible siderail with lower release mechanism

- 1. Siderail Bar
- 2. Siderail Stop
- 3. Siderail Release Mechanism

MANIPULATION

To raise siderail up:

- ▶ Grab an upper Siderail Bar (1) and push the siderail up. Siderail will click into place and lock automatically. You will hear audible „click“.
- ▶ Push the siderail towards head end and towards foot end to ensure the siderail is fixed in place.

To fold siderail down:

- ▶ Unlock siderail by pulling out the lever of Siderail Release Mechanism (3).
- ▶ Fold down siderail slowly.

Do not let the siderail fall down when it is unblocked!

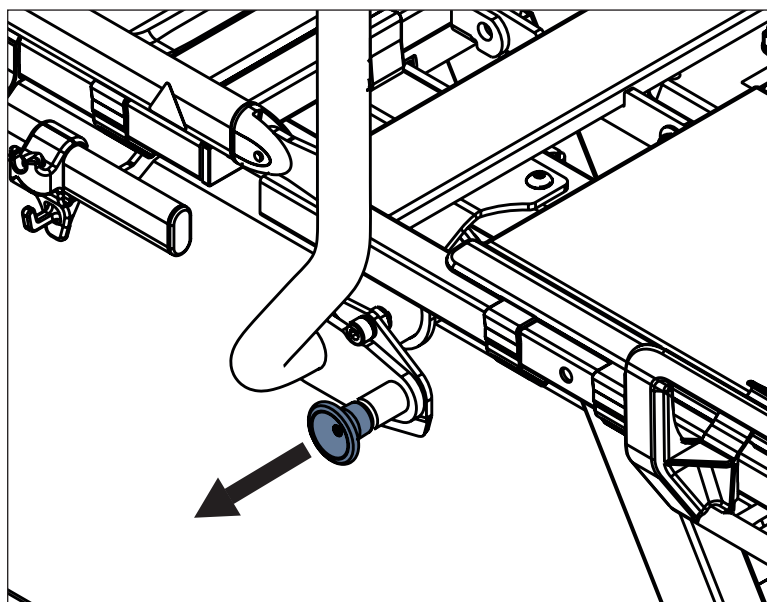


Fig. Manipulation with Siderail Release Mechanism in version with single collapsible siderails

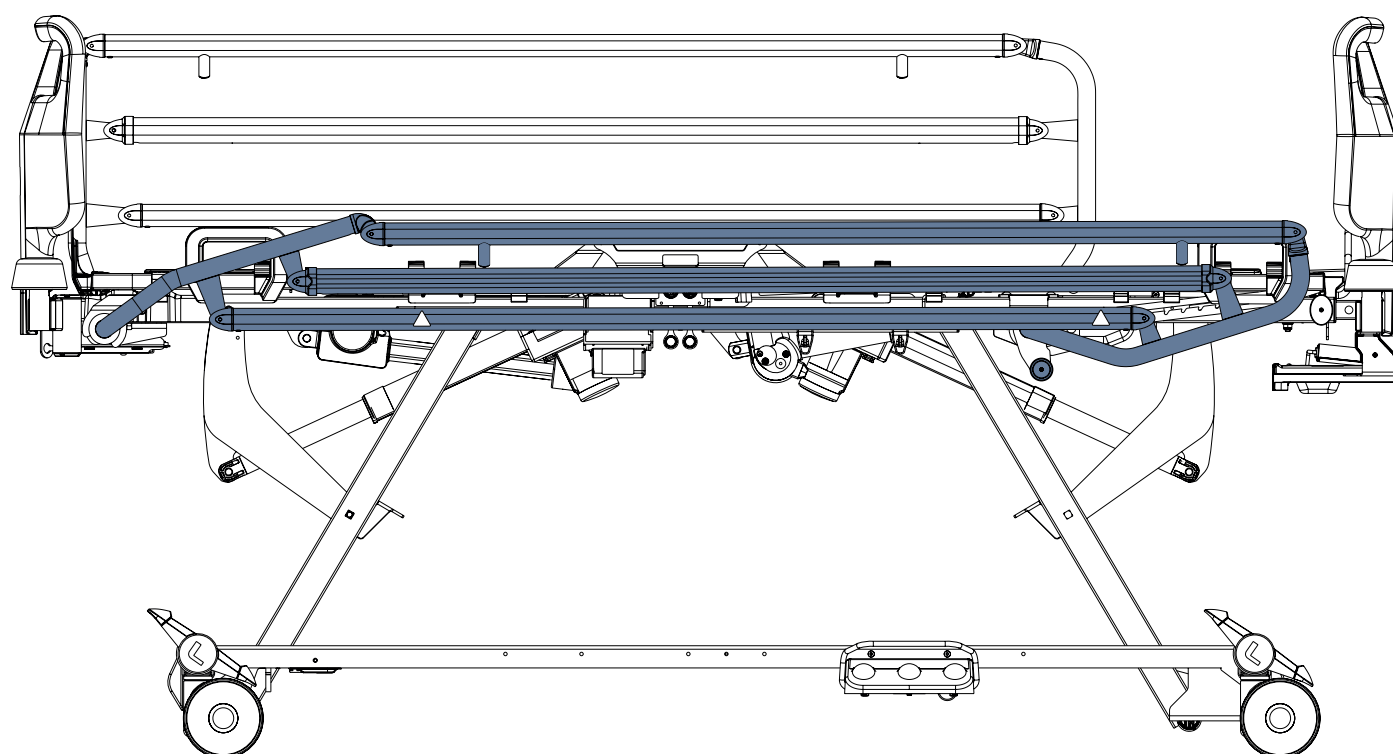


Fig. Right Single collapsible siderail in lower position

11.2.2 Description of the Single collapsible siderails with upper release mechanism

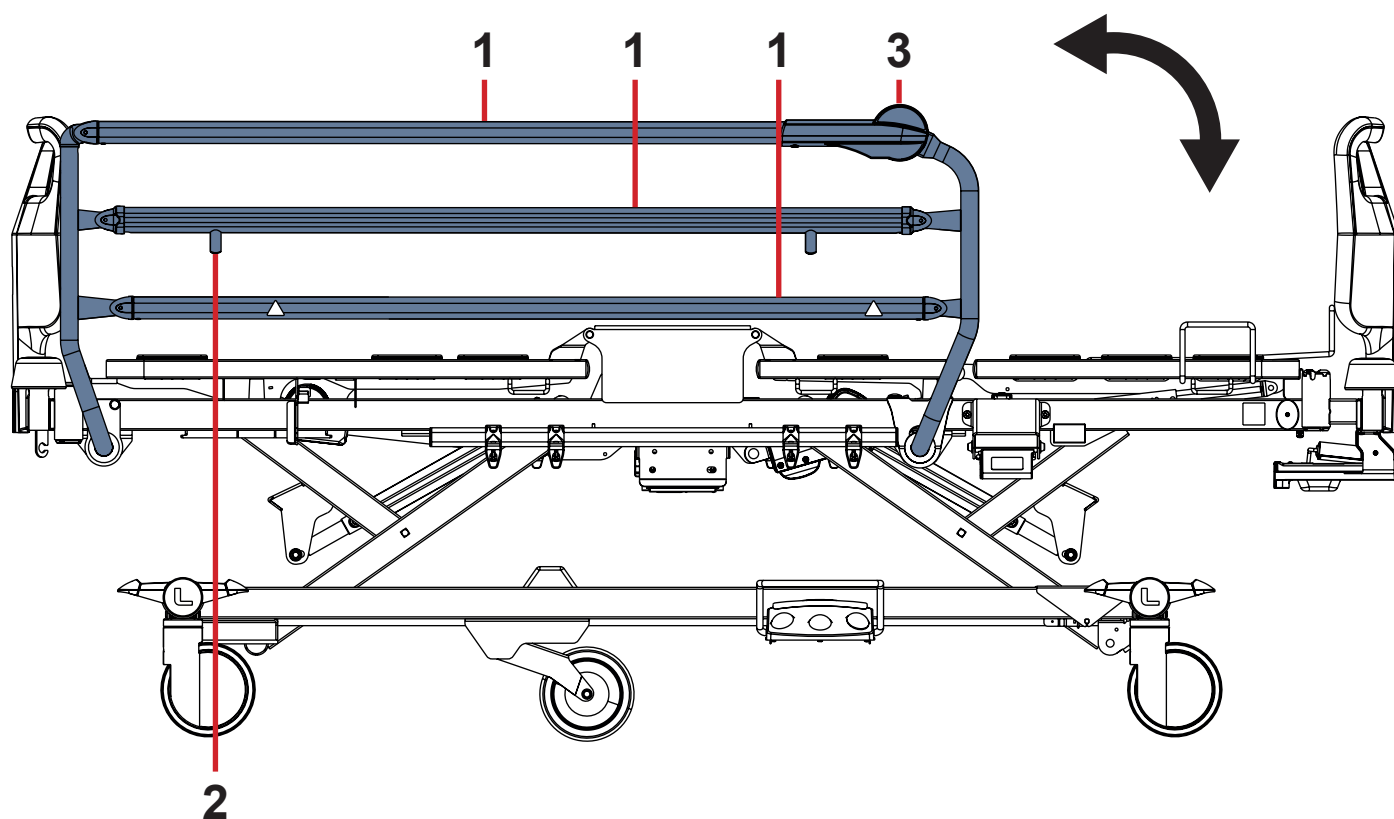


Fig. Manipulation with Single collapsible siderail with upper release mechanism

- 1. Siderail Bar
- 2. Siderail Stop
- 3. Siderail Release Mechanism

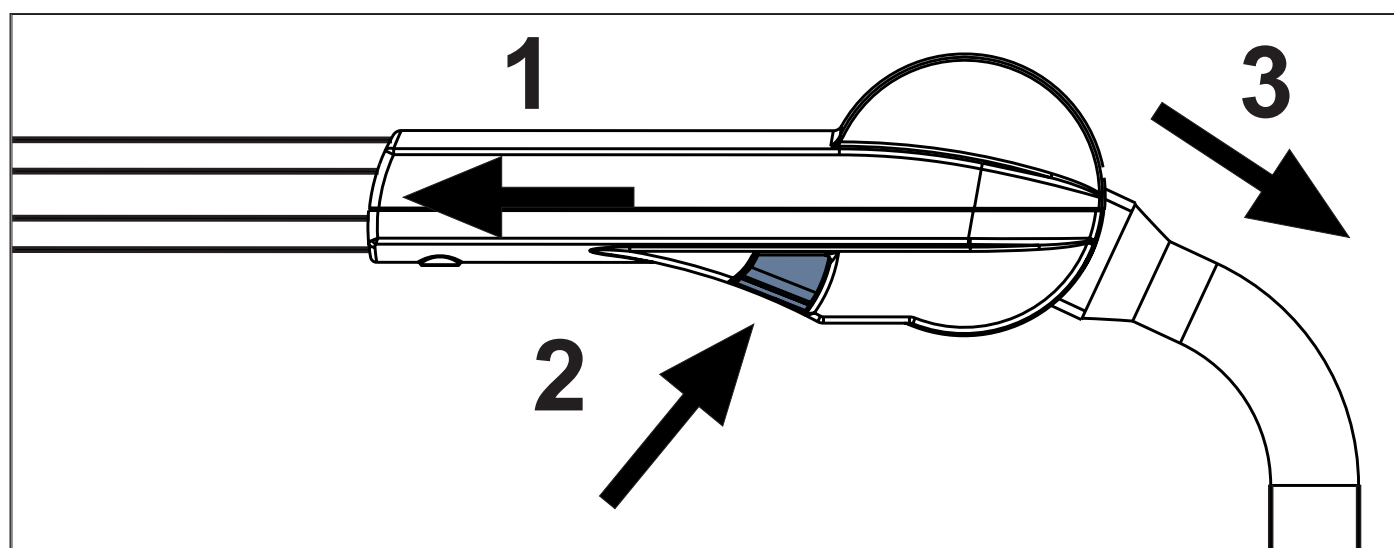


Fig. Upper Release Mechanism from inner side of the Single collapsible siderail

MANIPULATION

To raise siderail up:

- ▶ Grab an upper Siderail Bar (1) and push the siderail up.
Siderail will click into place and lock automatically. You will hear audible „click“.
- ▶ Push the siderail towards head end and towards foot end to ensure the siderail is fixed in place.

To fold siderail down:

- ▶ Take release mechanism and push siderail towards head end (1).
- ▶ Press button placed on the inner side of the siderail (2) to unlock the siderail.
- ▶ Fold siderail down as required (3).

Do not let the siderail fall down when it is unblocked!

11.3 Castor Control



WARNING!

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 should not move.
- ▶ Ensure the castors are braked before bed positioning.
- ▶ Have the bed transported exclusively by nursing personnel.
- ▶ 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 four double castor control levers are located in the four corners of the undercarriage unless the Essenza 200 bed is equipped with the plastic siderails. The two simple castor control levers are located at bed head end and two double castor control levers are located at bed foot end if Essenza 200 bed is equipped with the plastic siderails.

Castor Configurations of the Essenza 200 bed:

- 125 mm Tente Integral simple castors
- 150 mm Tente Integral simple castors
- 150 mm Tente Integral Soft Brake simple castors
- 150 mm Tente Integral single castors + Fifth castor

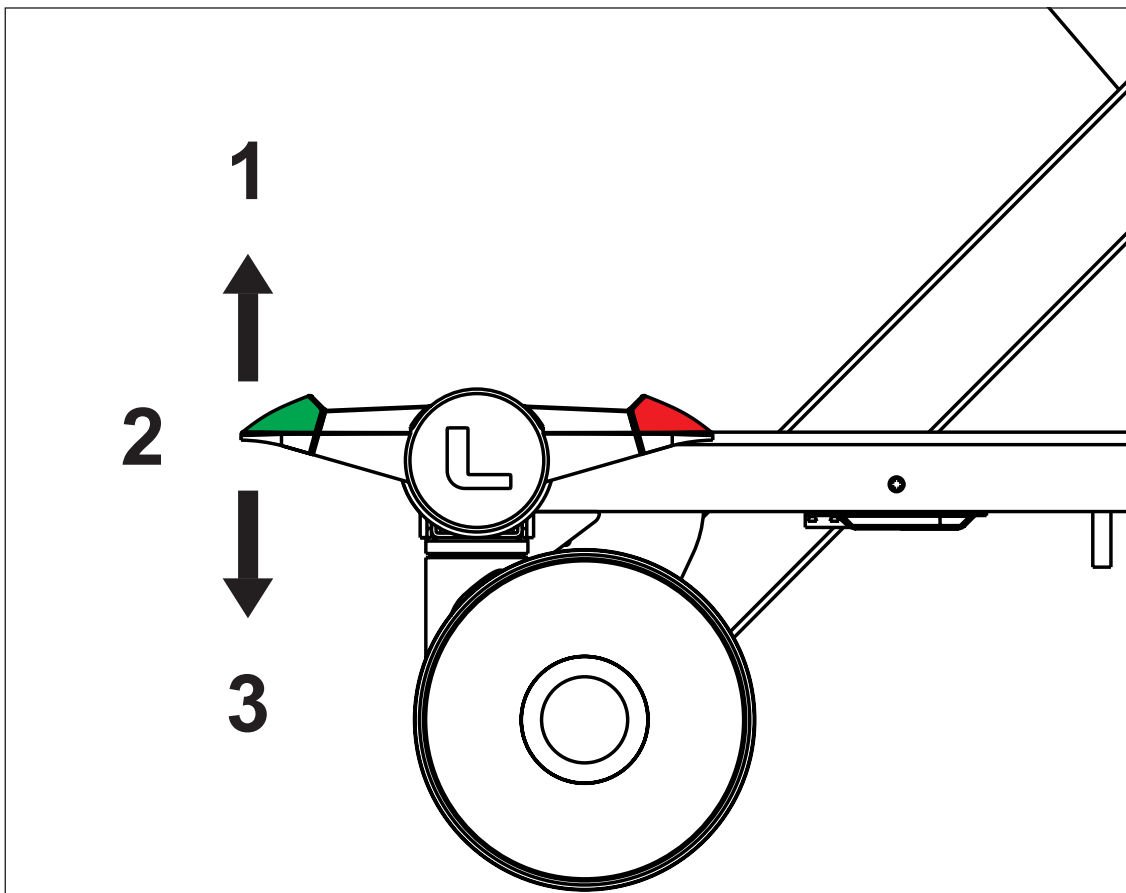


Fig. Three Positions of Double Castor Control Lever

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.

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

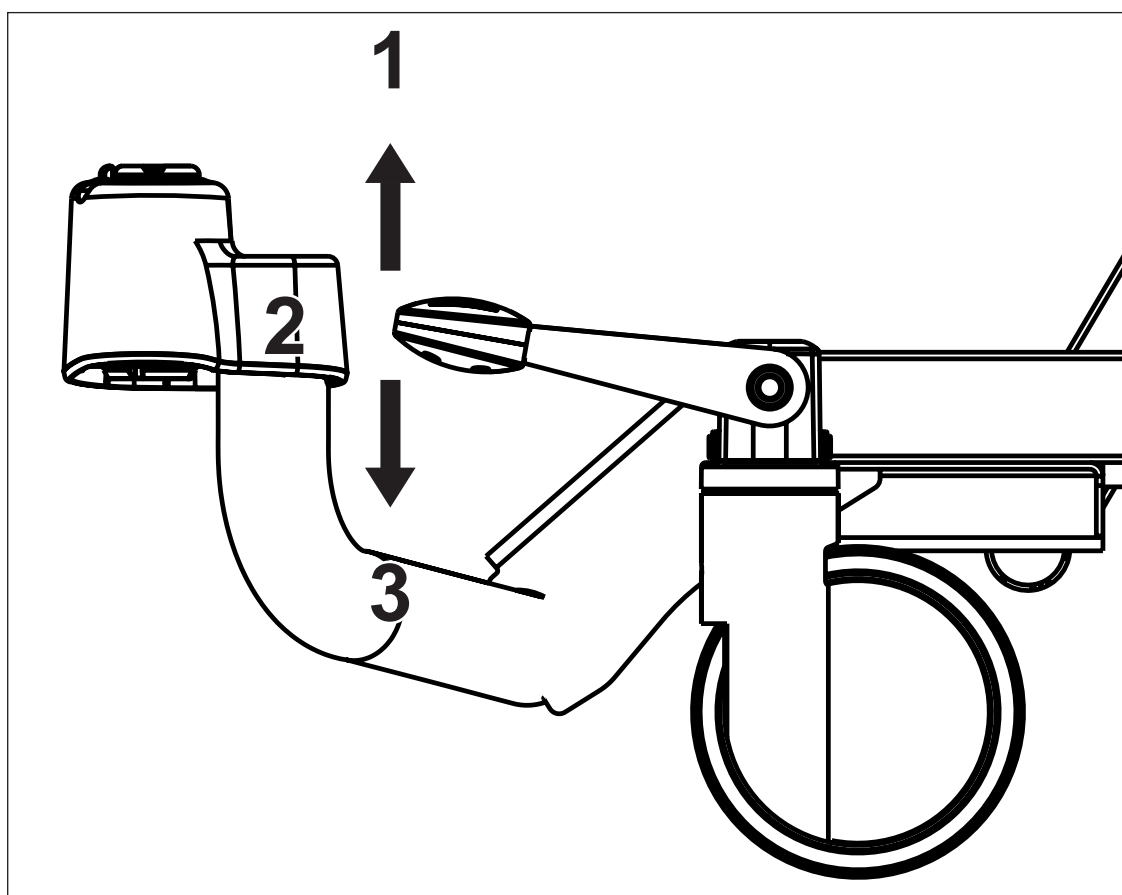


Fig. Three Positions of Simple Castor Control Lever

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 200 medical bed is operated by different control elements.

Control elements depending on the Essenza 200 configuration:

- Nurse Control Panel
- Attendant Control Panel
- Handset Control Panel
- Patient Control Panel
- Foot Control

Control Elements for Essenza 200

	Nurse Control Panel	Attendant Control Panel	Handset Control Panel	Patient Control Panel	Foot Control
Backrest	✓	✓	✓	✓	
Thighrest	✓	✓	✓	✓	
Autocontour	✓	✓	✓		
Bed Height	✓	✓	✓		✓
Examination Position					✓
Emergency Trendelenburg Position	✓	✓			
Trendelenburg Tilt	✓	✓			
Reverse-Trendelenburg Tilt	✓	✓			
Emergency CPR Position	✓	✓			
Cardiac Chair Position	✓	✓			
Mobilization Position		✓			

12.1 Nurse Control Panel

Ensure that exclusively trained nursing staff operates the Nurse Control Panel.

The use of the Nurse Control Panel is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 72).

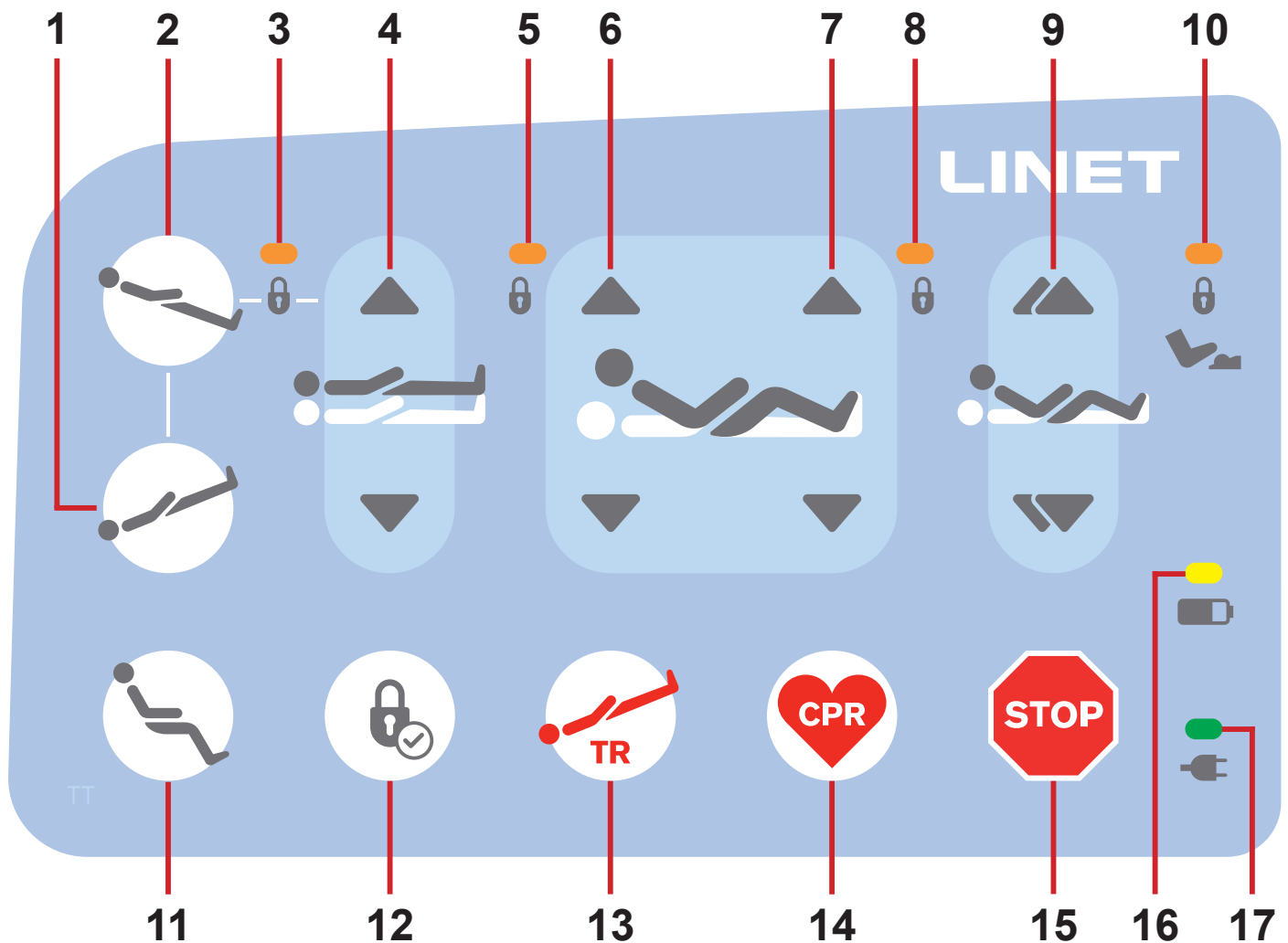


Fig. Nurse Control Panel

1. Trendelenburg Tilt Button
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)
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. Foot Control Lock LED Indicator (ON - locked)
11. Cardiac Chair Position Button
12. Lock Button
13. Emergency Trendelenburg Position Button
14. Emergency CPR Position Button
15. Central STOP Button
16. Accumulator Charge Status LED Indicator
17. Mains Power LED Indicator

12.2 Attendant Control Panel

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

The use of the Attendant Control Panel is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 72).

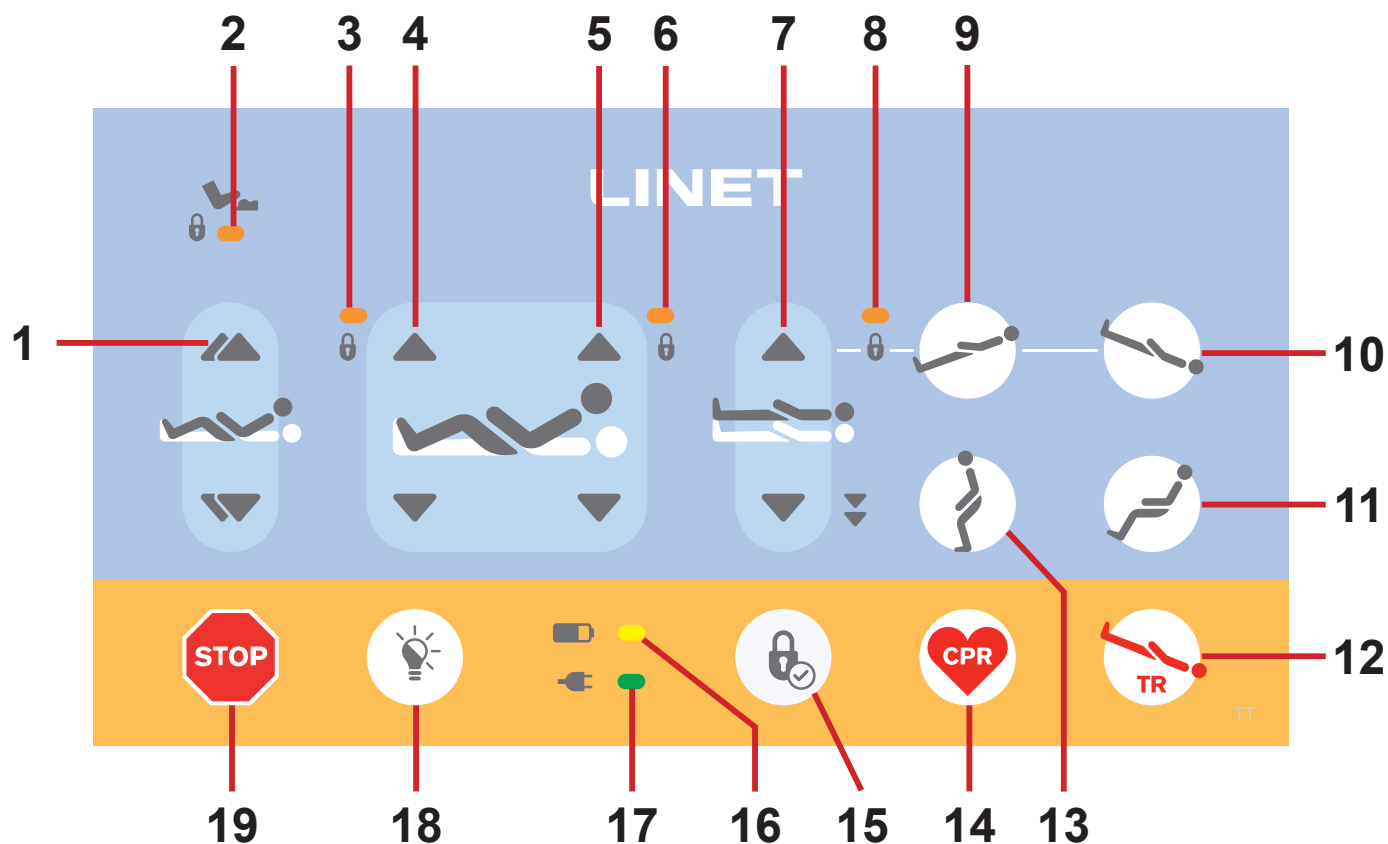


Fig. Attendant Control Panel

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)
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

12.3 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 72).

Keyboard of the Handset Control Panel can optionally be illuminated.

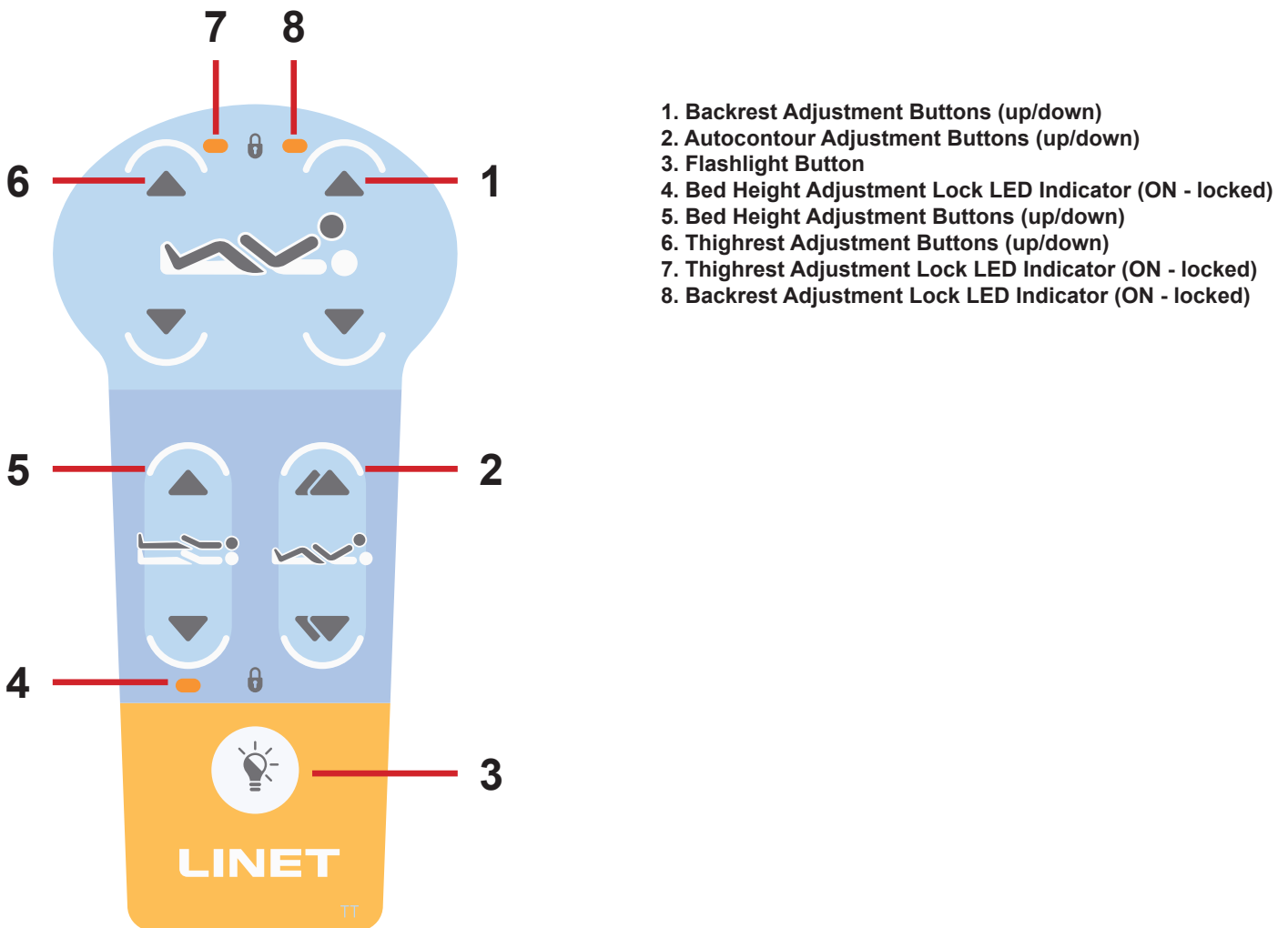


Fig. Handset Control Panel

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:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel

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 72).

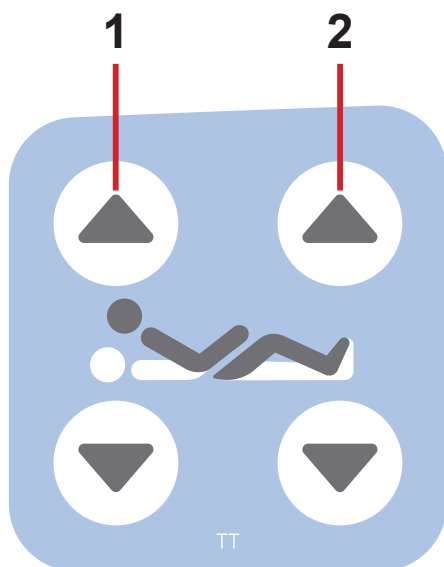


Fig. Patient Control Panel

1. Backrest Adjustment Buttons (up/down)
2. Thighrest Adjustment Buttons (up/down)

To disable bed positioning functions for patient, use:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel

12.5 Foot Control

Foot Control allows setting the bed height with one's foot.

Ensure that exclusively trained nursing staff operates the Foot Control.

The use of Foot Control is described in the chapter Bed Positioning (see „13 Bed Positioning“ on the page 72).

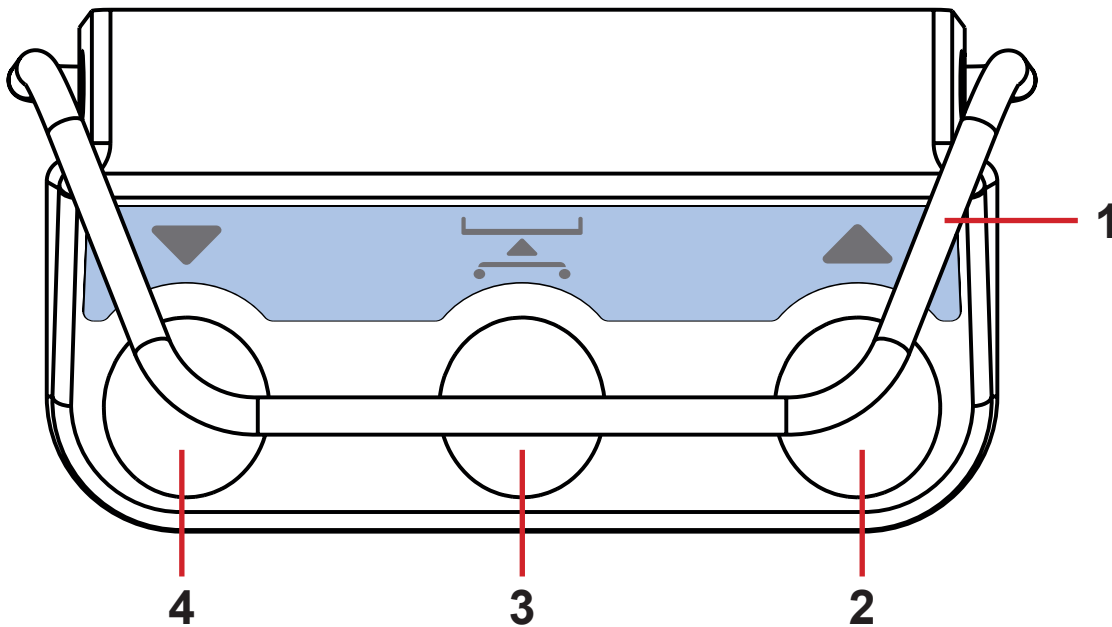


Fig. Foot Control

1. Protection frame against unwanted activation
2. Lifting Pedal (Mattress support platform up)
3. Examination Position Pedal
4. Lowering Pedal (Mattress support platform down)

Press a selected pedal twice in 2 seconds:

- ▶ Foot Control is activated for 30 seconds after this procedure.

To use a selected pedal:

- ▶ Activate the Foot Control.
- ▶ Press a selected pedal until required position is reached.

13 Bed Positioning



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.



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 Calfrest adjustment!

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

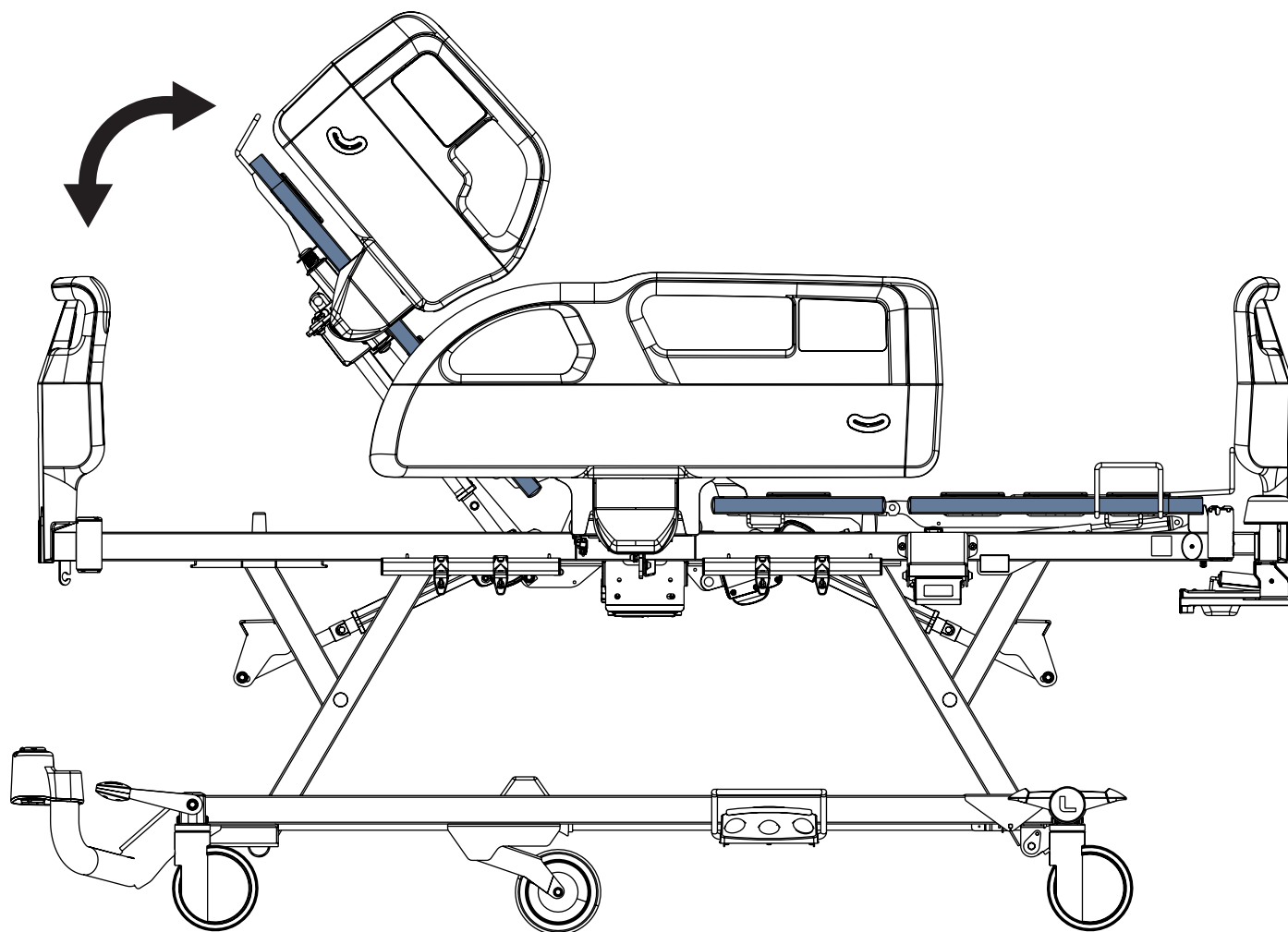


CAUTION!

Risk of collision of the bed with lower limbs or with floor during Reverse-Trendelenburg positioning with extended mattress support platform and extended plastic linen shelf!

- ▶ Avoid collision of the bed with lower limbs or with floor!

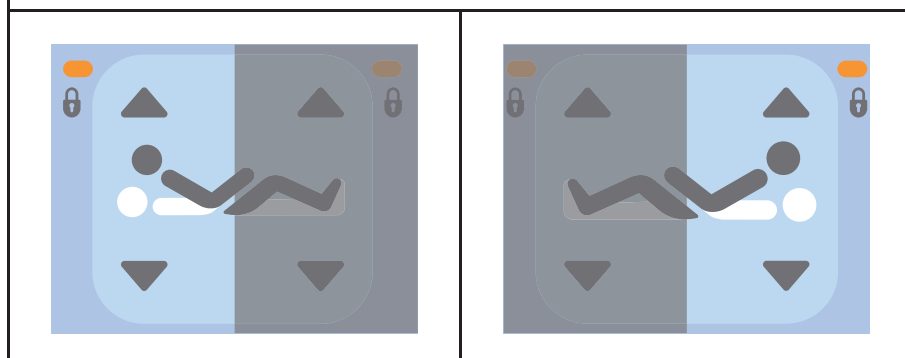
13.1 Backrest Adjustment



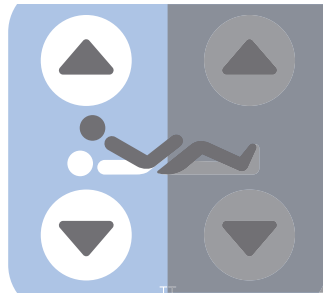
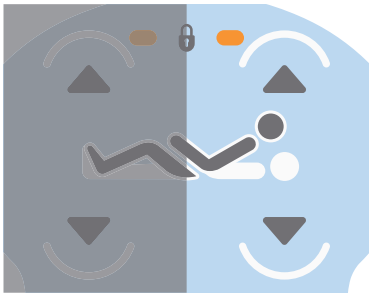
To adjust Backrest, use:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel
- ▶ Handset Control Panel
- ▶ Patient Control Panel

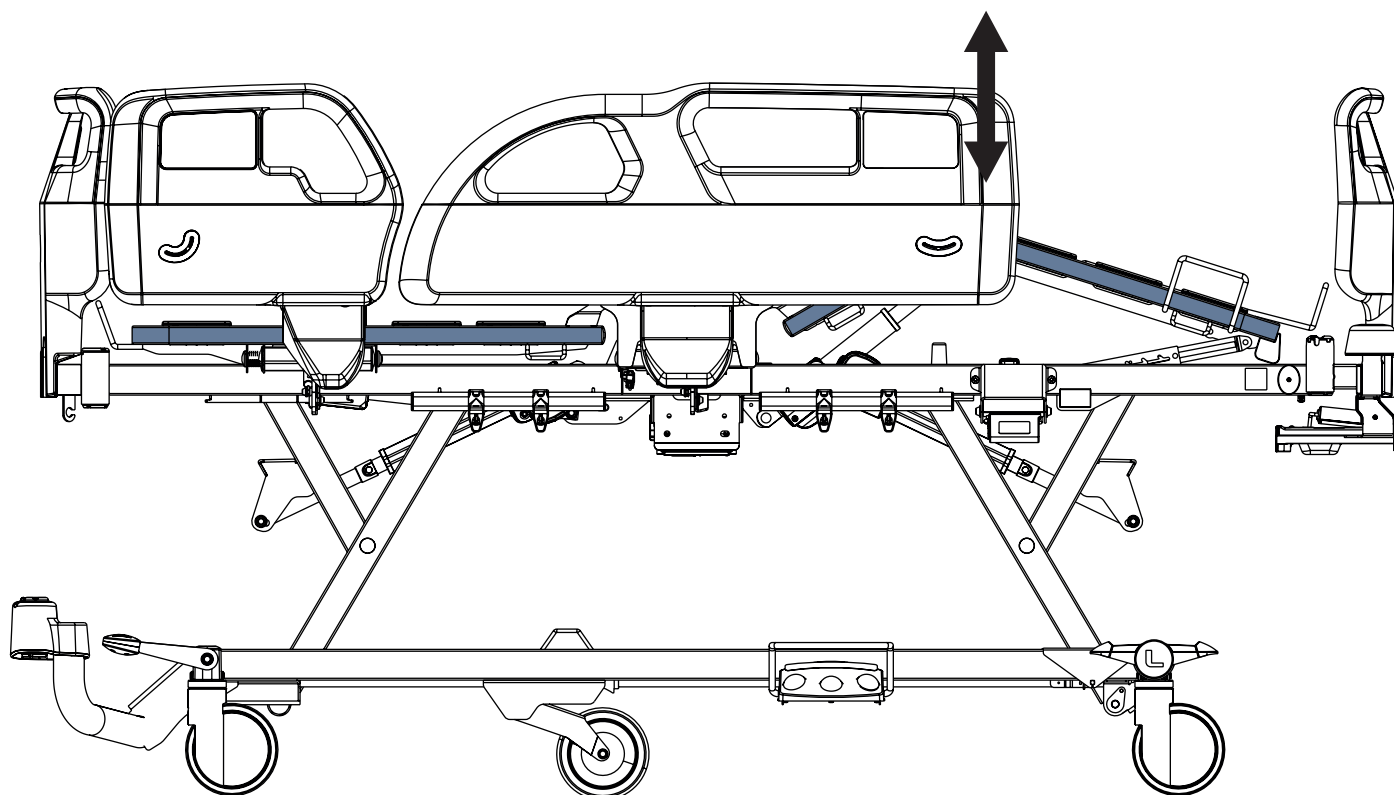
Buttons intended for Backrest adjustment:



Buttons intended for Backrest adjustment:



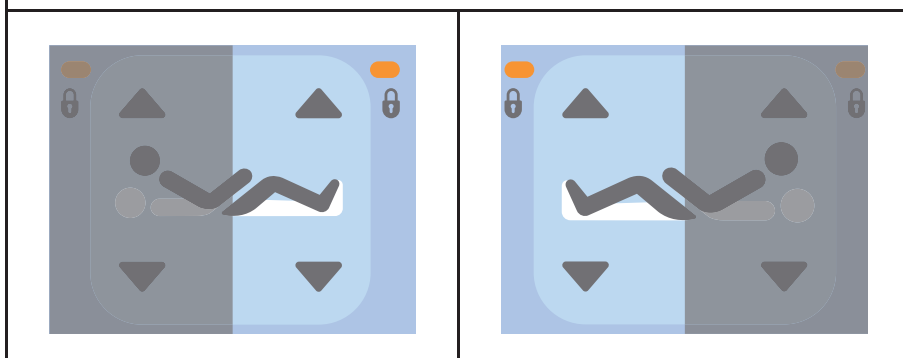
13.2 Thighrest Adjustment



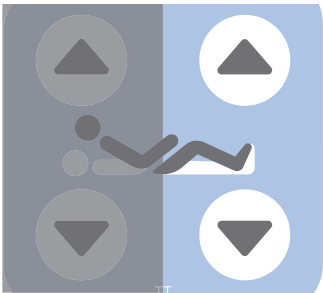
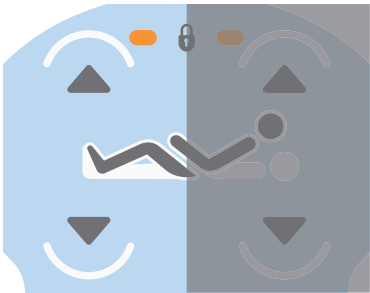
To adjust Thighrest, use:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel
- ▶ Handset Control Panel
- ▶ Patient Control Panel

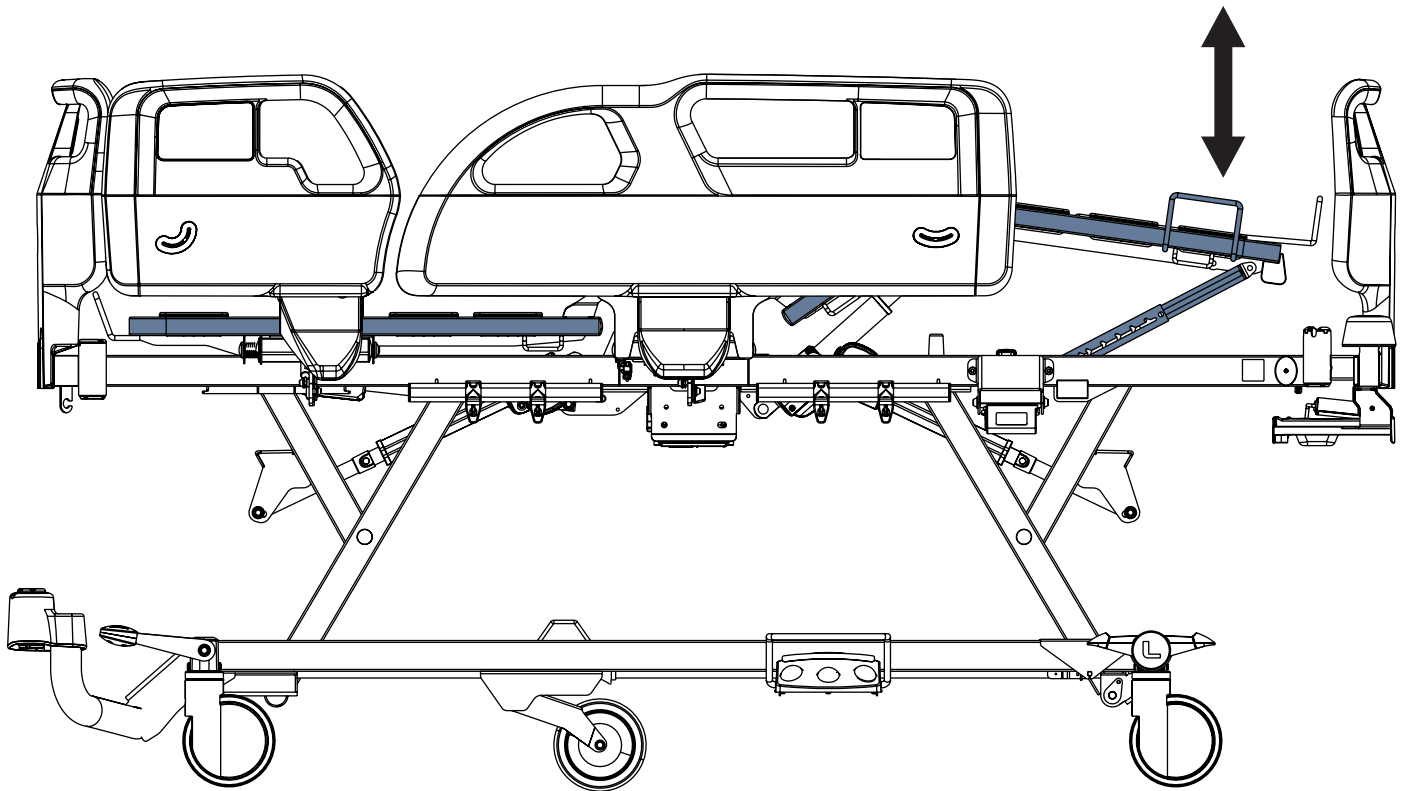
Buttons intended for Thighrest adjustment:



Buttons intended for Thighrest adjustment:



13.3 Calfrest Adjustment



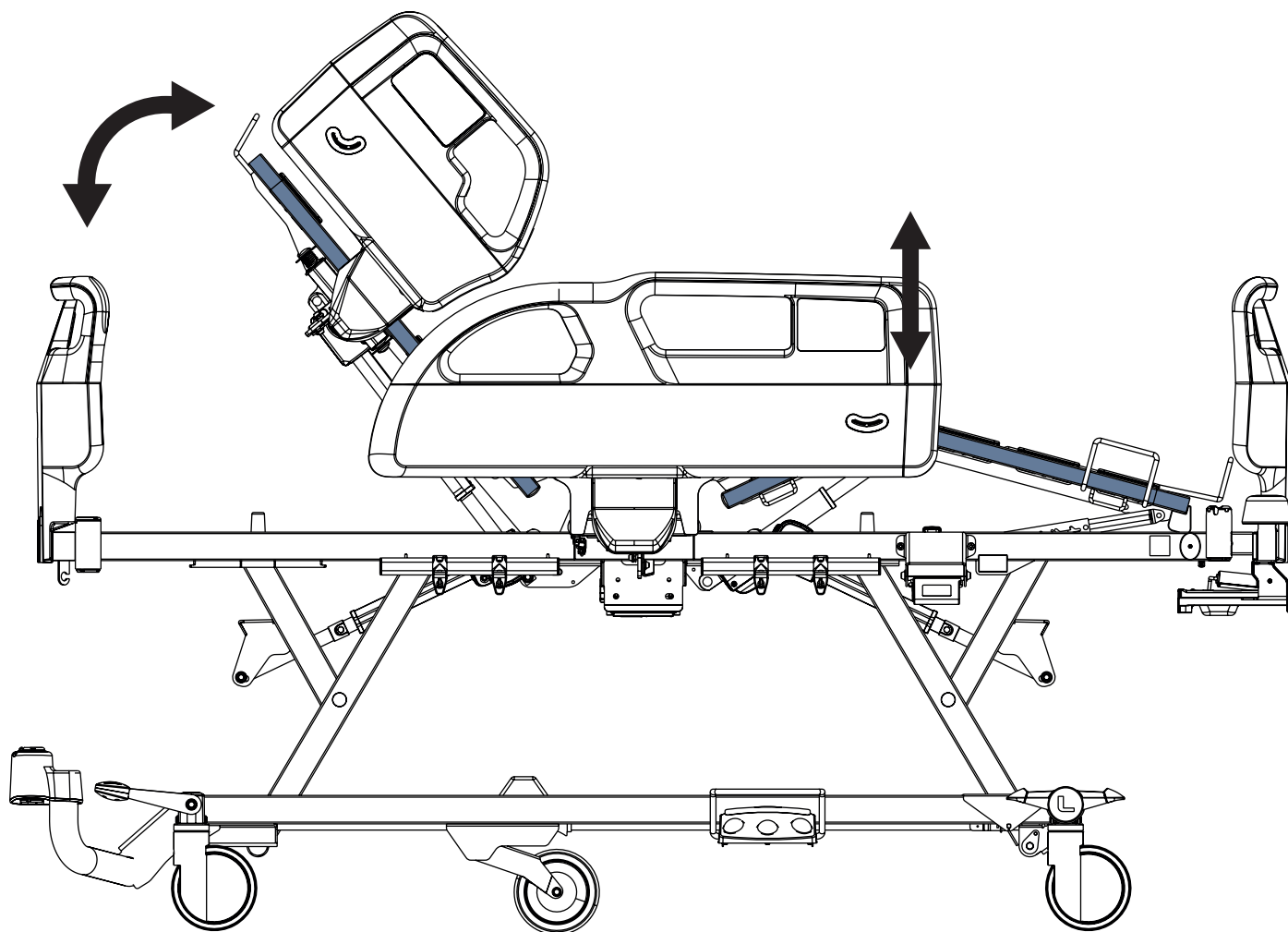
To lift Calfrest:

- ▶ 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



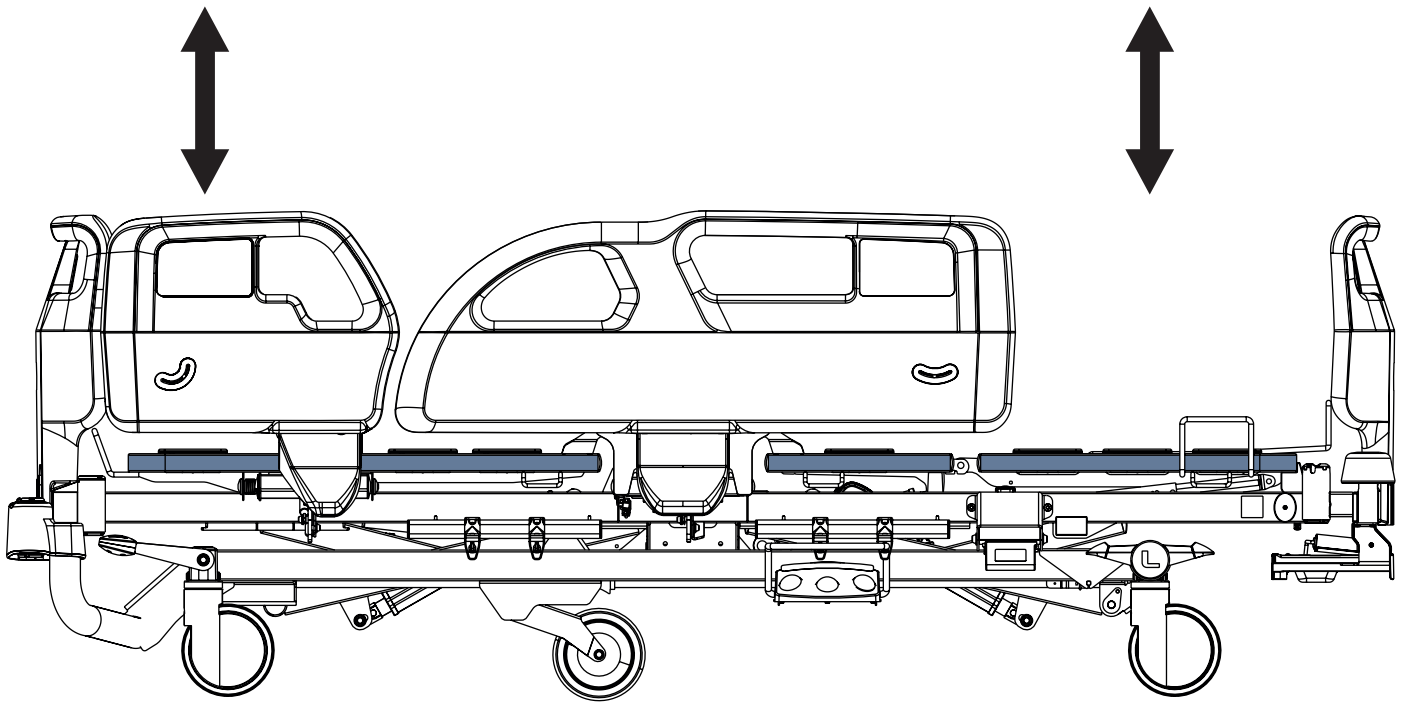
To adjust Autocontour, use:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel
- ▶ Handset Control Panel

Buttons intended for Autocontour adjustment:



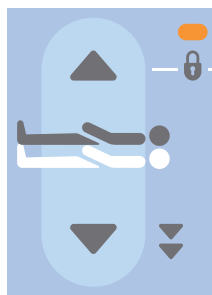
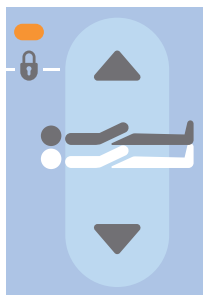
13.5 Bed Height Adjustment

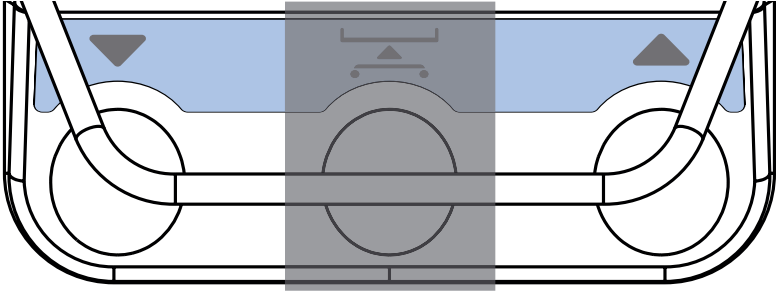


To adjust Bed Height, use:

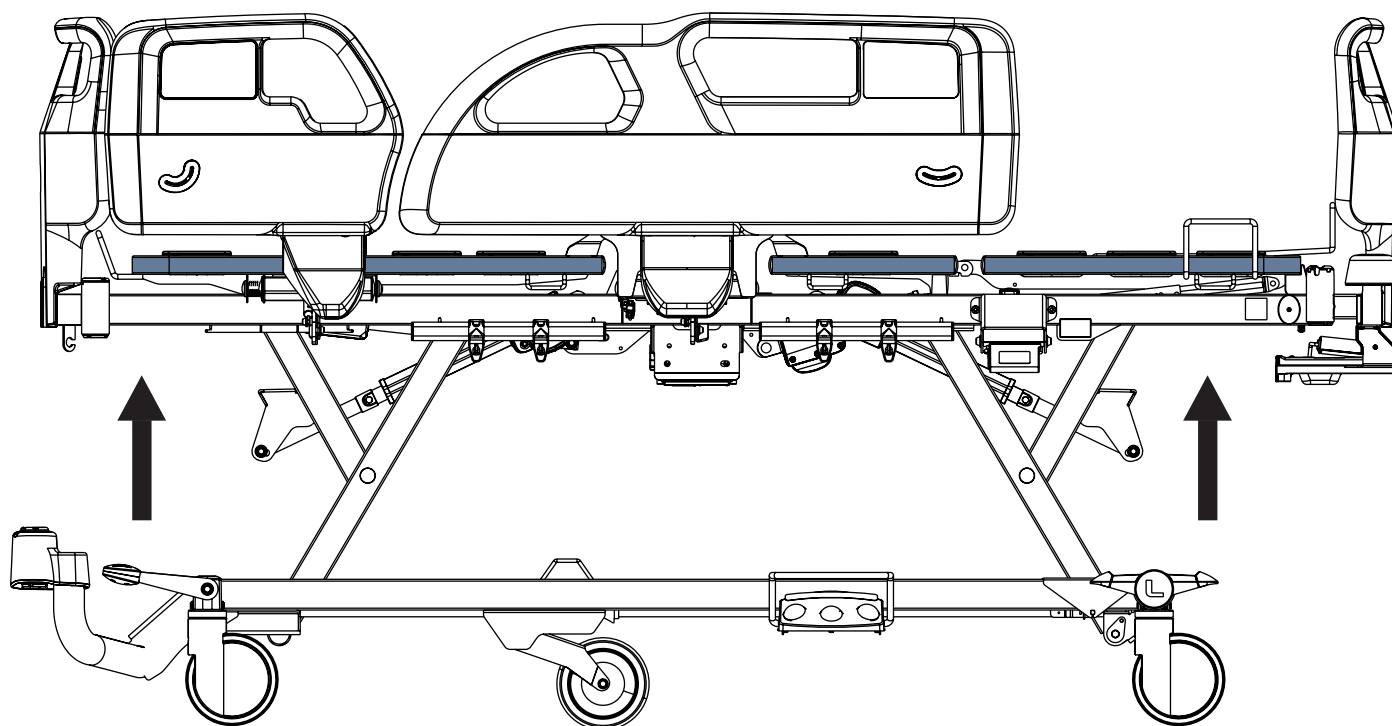
- ▶ Nurse Control Panel
- ▶ Attendant Control Panel
- ▶ Handset Control Panel
- ▶ Foot Control

Buttons intended for Bed Height adjustment:



Buttons intended for Bed Height adjustment:	
	

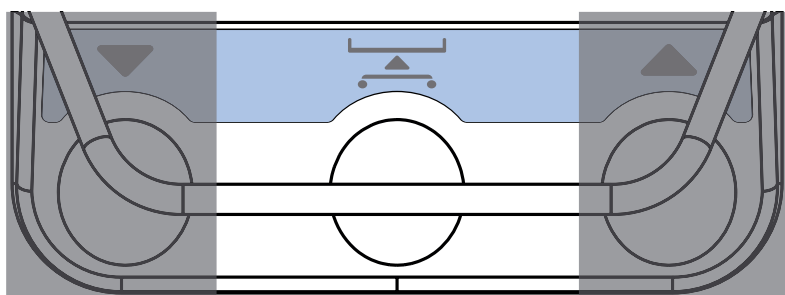
13.6 Examination Position



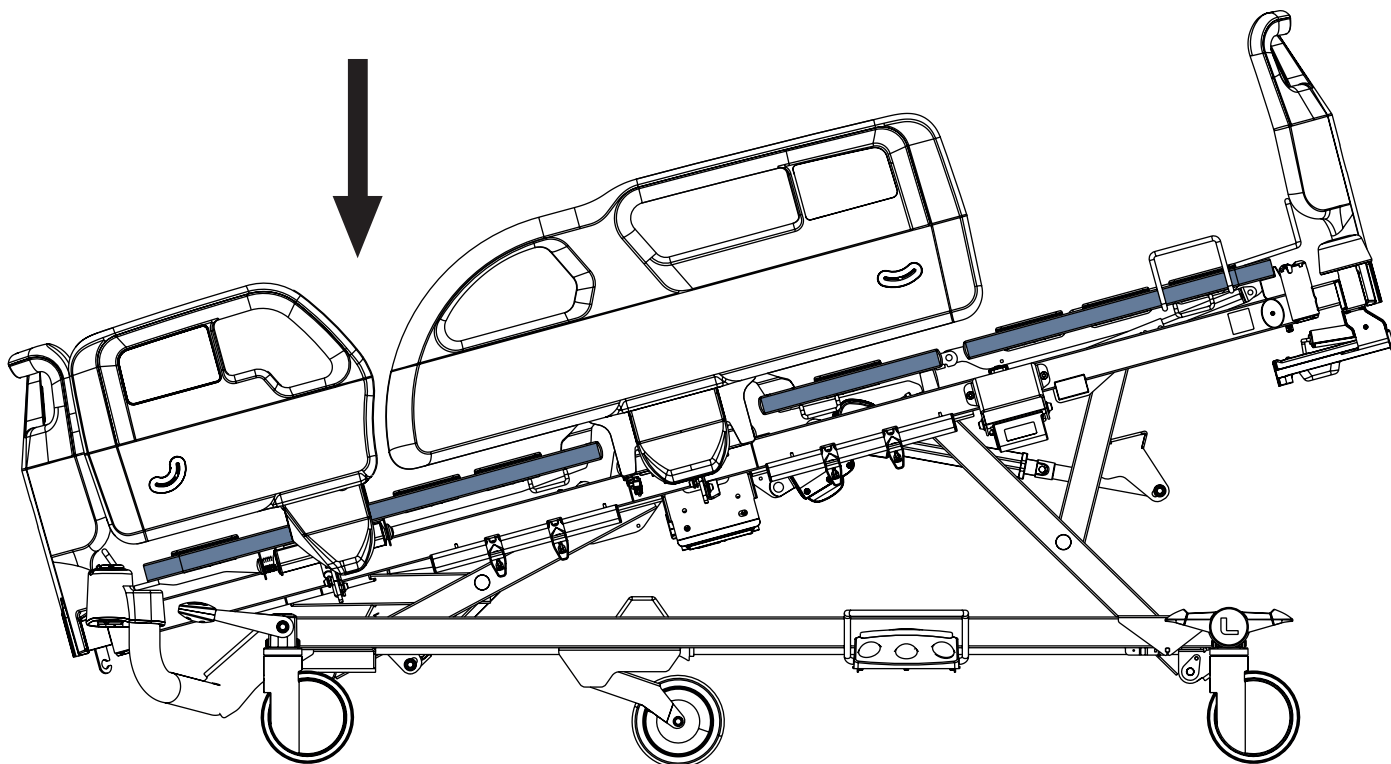
To adjust Examination Position, use:

- Foot Control

Button intended for Examination Position adjustment:



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.

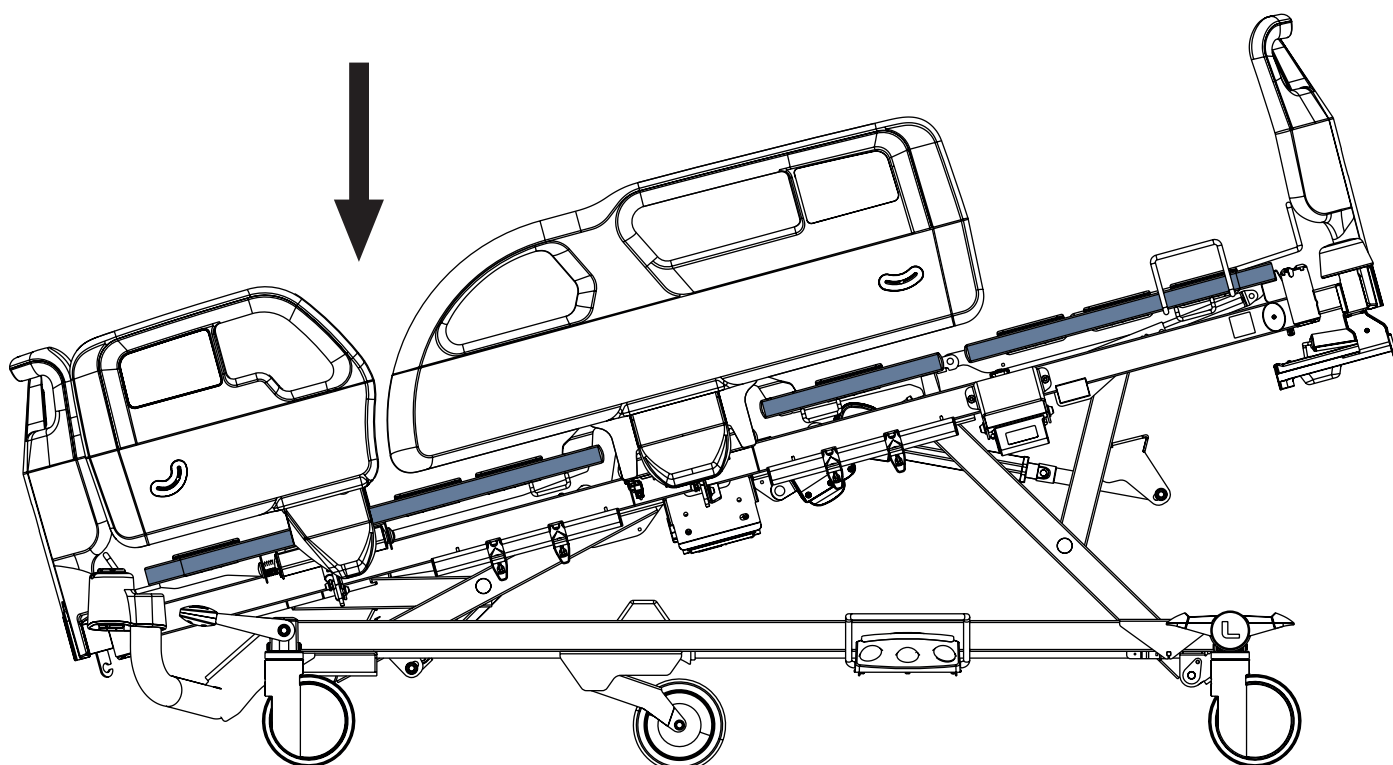
To adjust Emergency Trendelenburg Position, use:

- Nurse Control Panel
- Attendant Control Panel

Buttons intended for Emergency Trendelenburg Position adjustment:



13.8 Trendelenburg Tilt



WARNING!

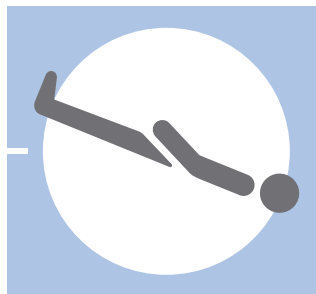
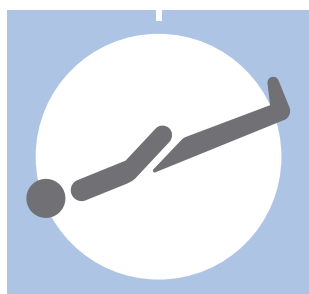
Risk of injury due to improper use of Trendelenburg Position!

► Hospital staff is responsible for assessing if the physical and psychological state of the patient is in accordance with use of the Trendelenburg Position.

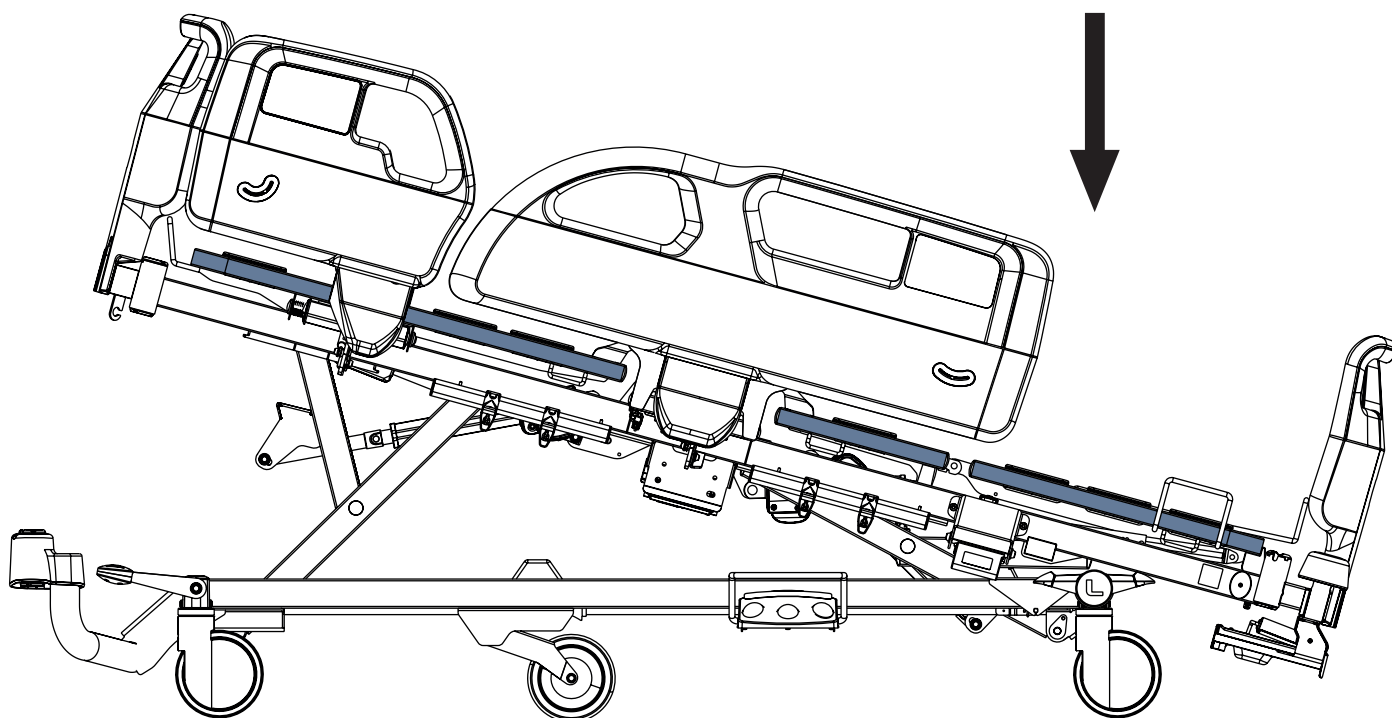
To adjust Trendelenburg Tilt, use:

- Nurse Control Panel
- Attendant Control Panel

Buttons intended for Trendelenburg Tilt adjustment:



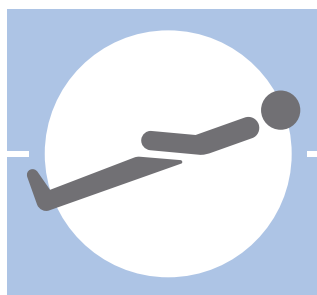
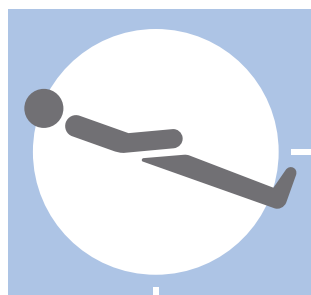
13.9 Reverse-Trendelenburg Tilt



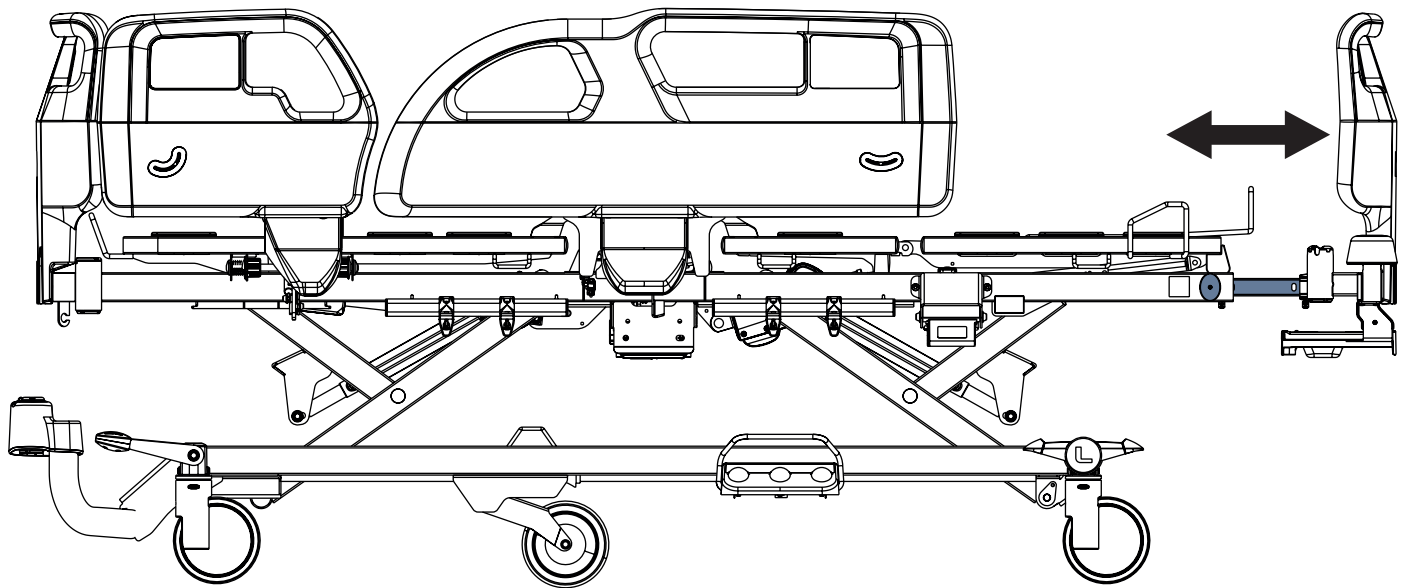
To adjust Reverse-Trendelenburg Tilt, use:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel

Buttons intended for Reverse-Trendelenburg Tilt adjustment:



13.10 Bed Extension Adjustment



Simple Bed Extension

There are 2 positions of the 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.

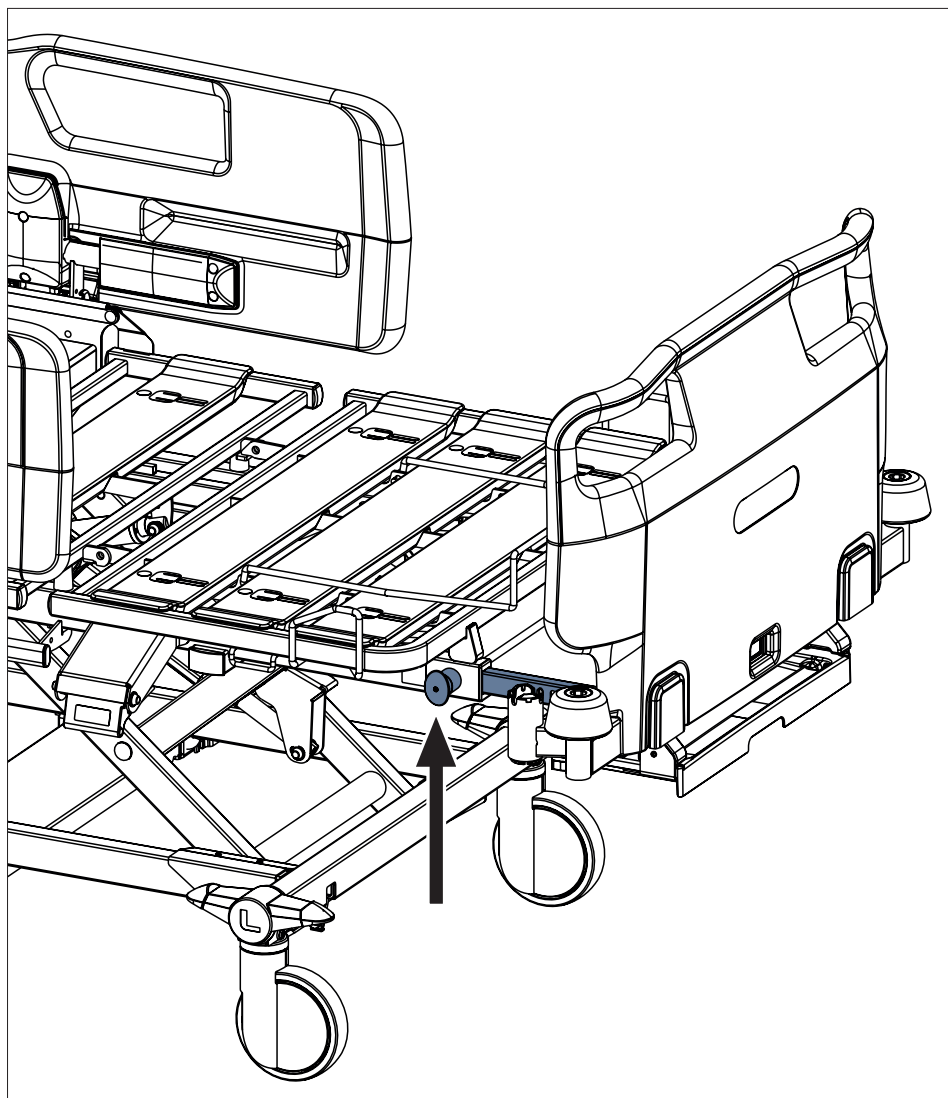
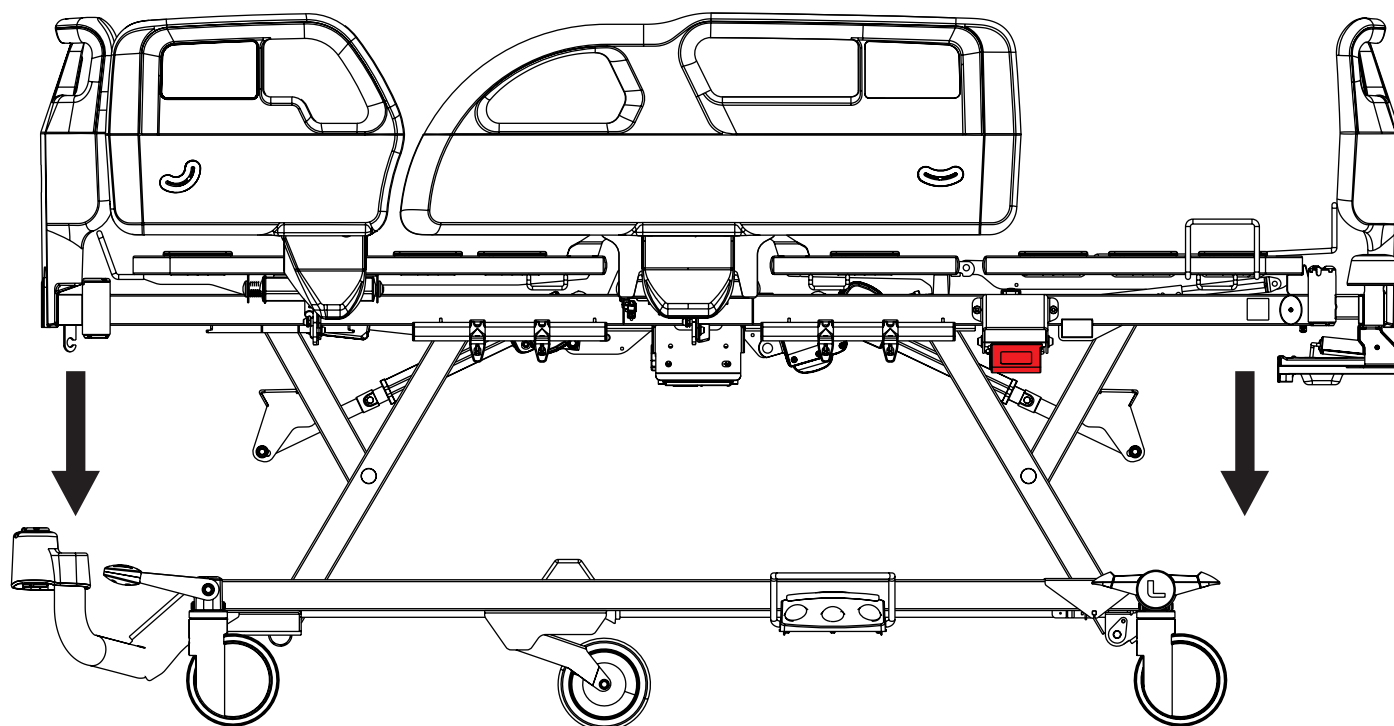


Fig. Position of Bed Extension Safety Catch

13.11 Emergency CPR Position



Essential performance of the Essenza 200 medical bed consists in manual Backrest release by CPR lever.

To adjust Emergency CPR Position, use:

- Nurse Control Panel
- Attendant Control Panel

Buttons intended for Emergency CPR Position adjustment:



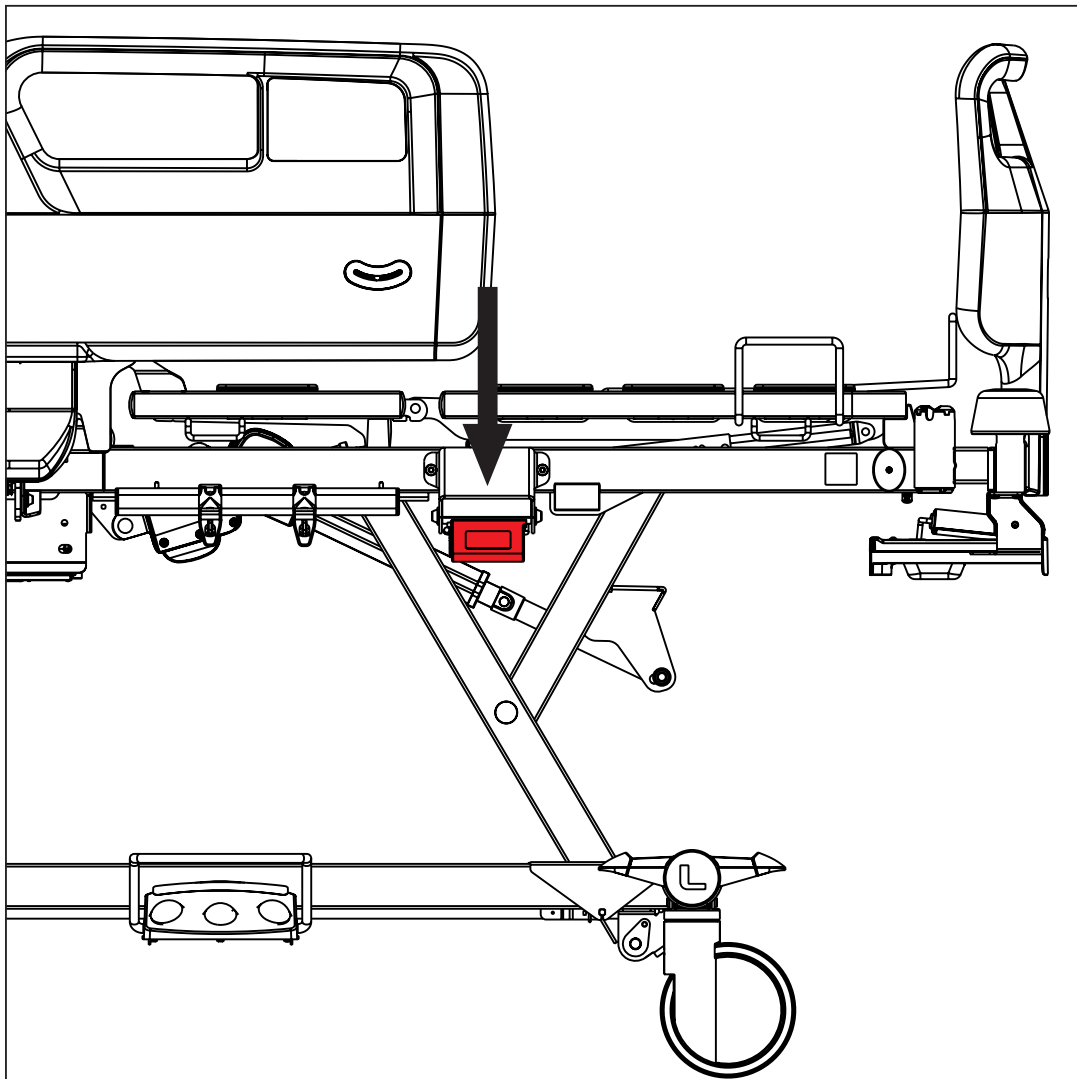


Fig. CPR lever under the Calfrest of the bed with Plastic siderails



WARNING!

Risk of injury due to incorrect use!

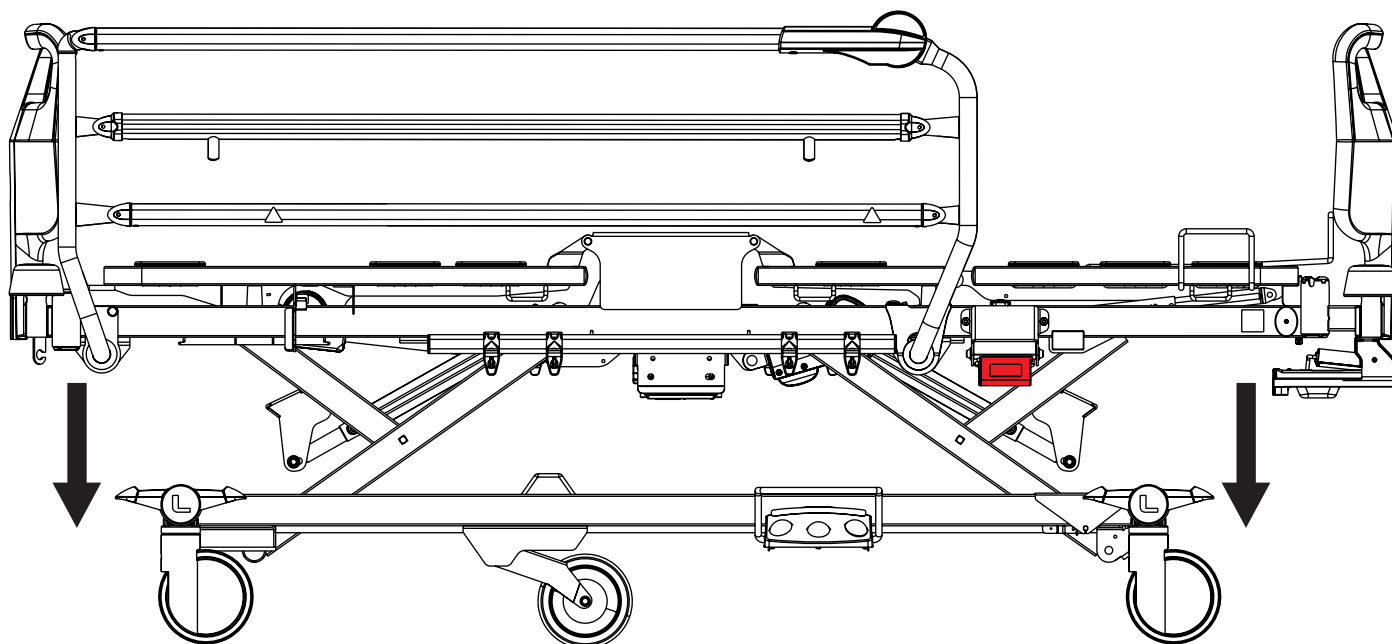
- ▶ Ensure the CPR lever is accessible when necessary!



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.



Essential performance of the Essenza 200 medical bed consists in manual Backrest release by CPR lever.

To adjust Emergency CPR Position, use:

- Attendant Control Panel

**Buttons intended for Emergency CPR
Position adjustment:**



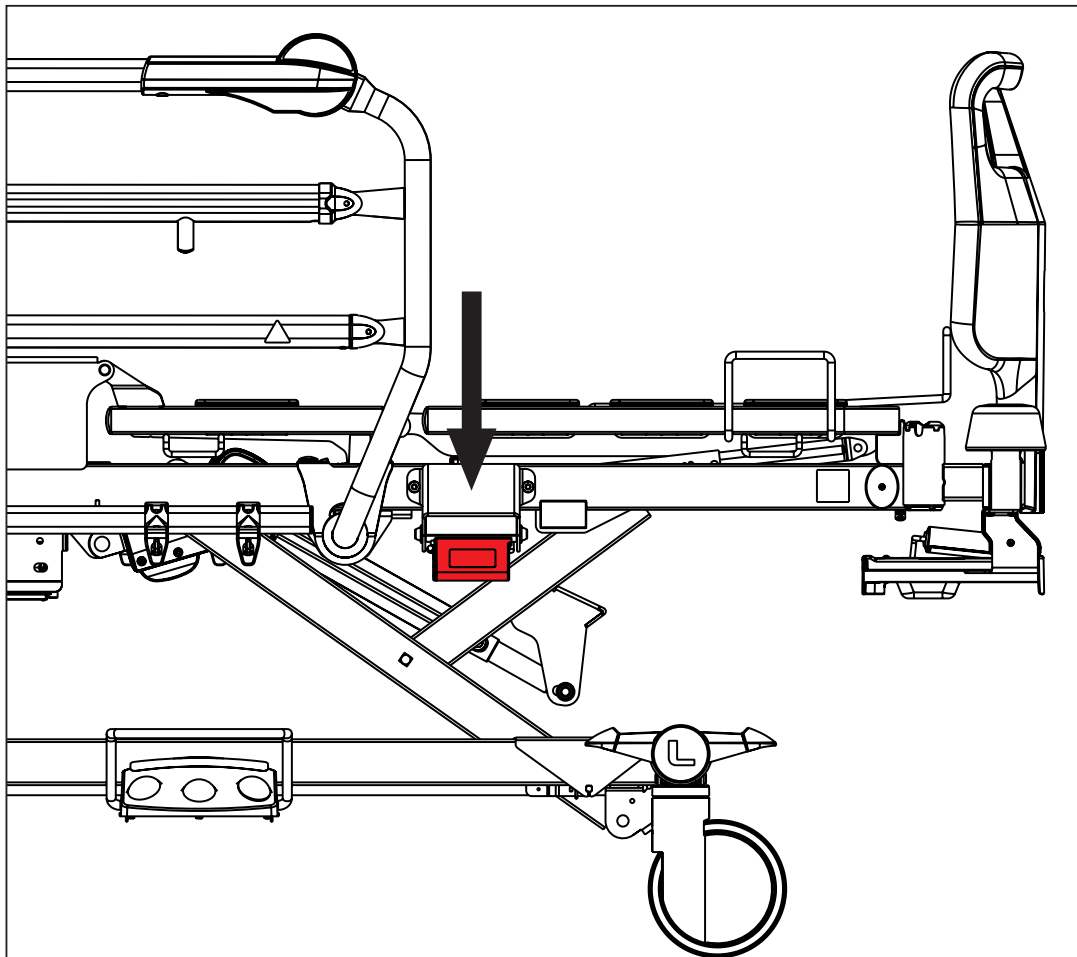


Fig. CPR lever under the Seat Section of the bed with Single collapsible siderails



WARNING!

Risk of injury due to incorrect use!

- ▶ Ensure the CPR lever is accessible when necessary!



WARNING!

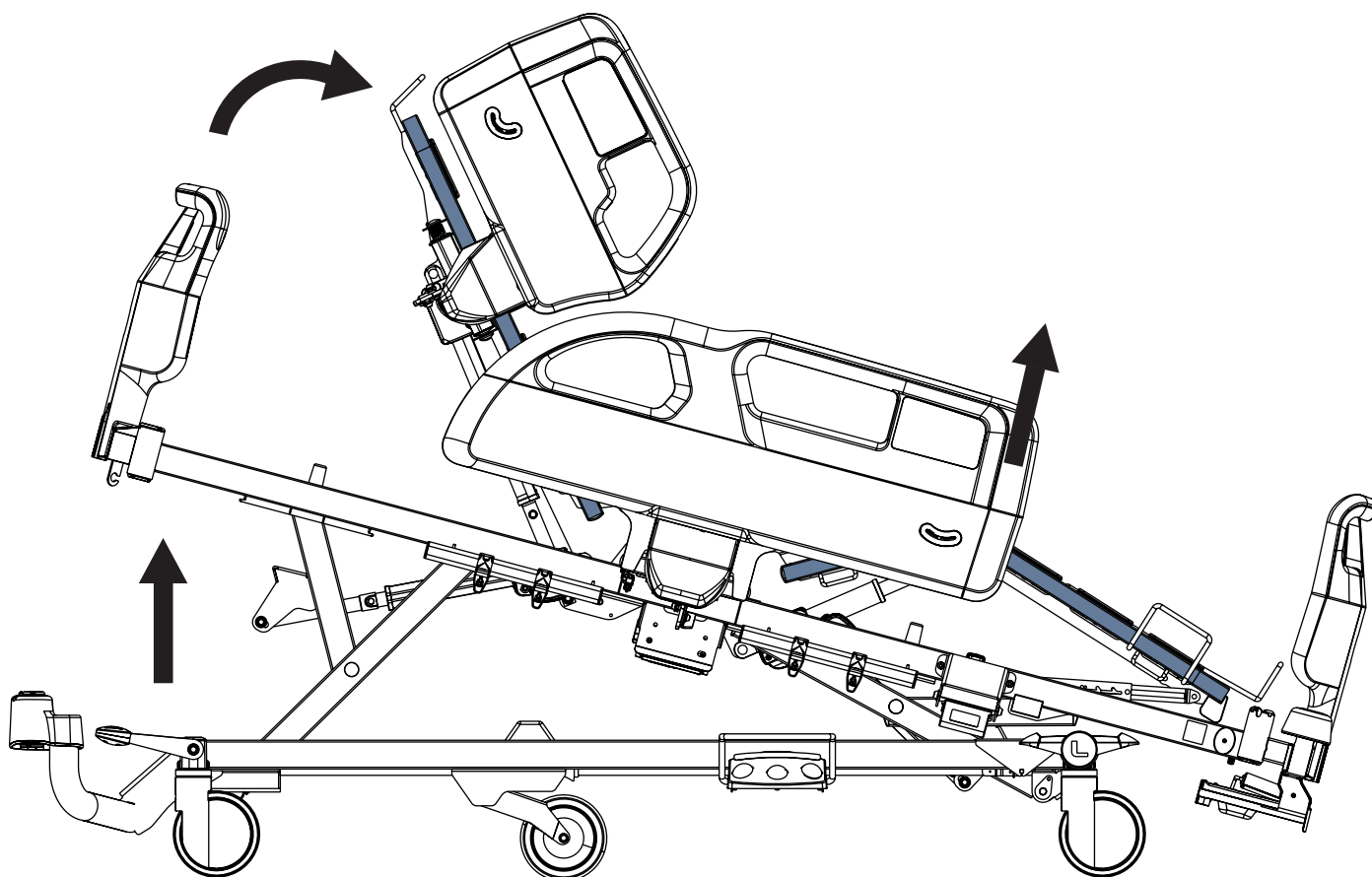
Risk of injury due to lowering the backrest too quickly!

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

To adjust Emergency CPR Position manually:

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

13.12 Cardiac Chair Position



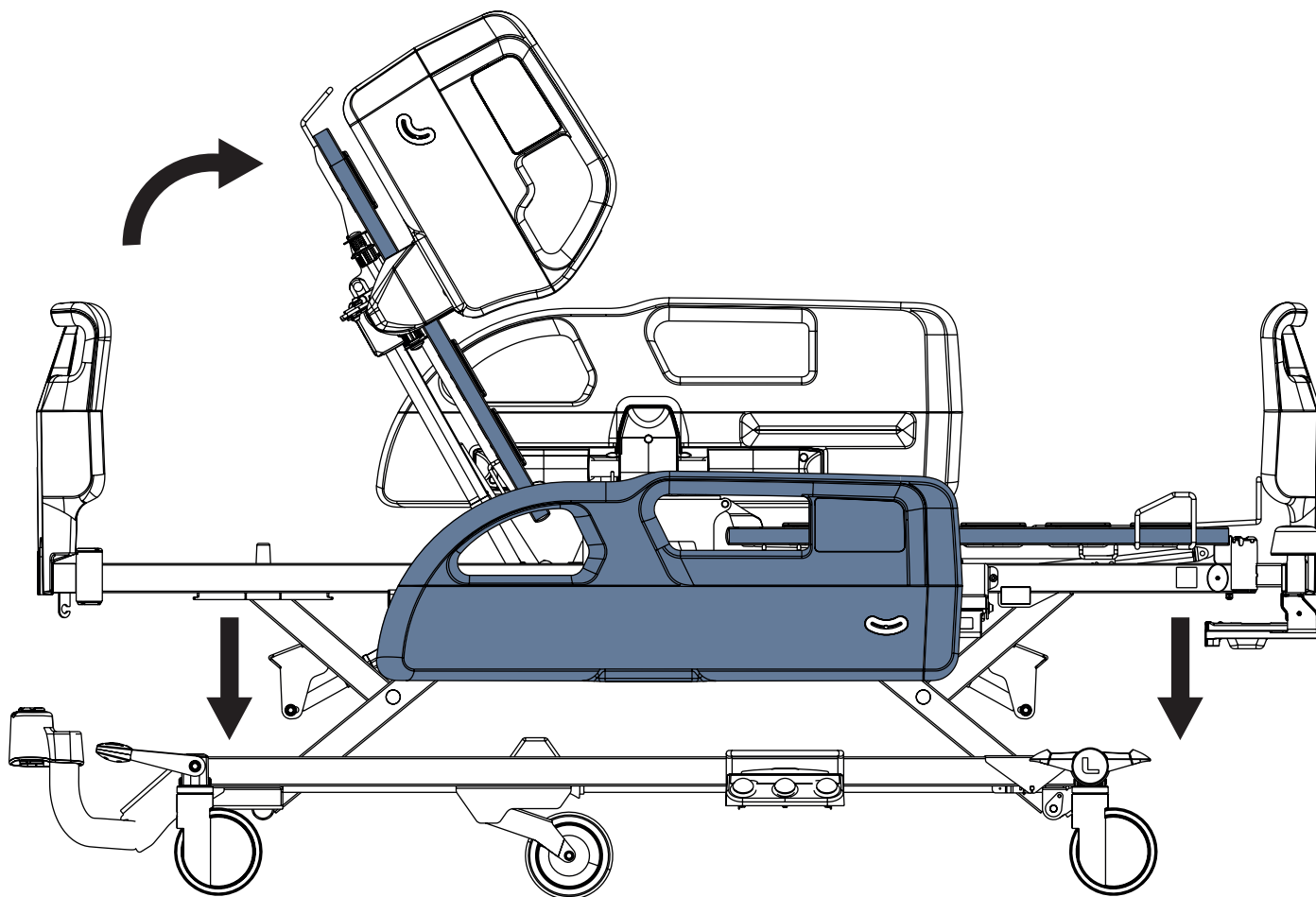
To adjust Cardiac Chair Position, use:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel

Buttons intended for Cardiac Chair Position adjustment:



13.13 Mobilisation Position



To adjust Mobilisation Position, use:

- Attendant Control Panel

Buttons intended for Mobilisation
Position adjustment:



13.14 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:

- ▶ Nurse Control Panel
- ▶ Attendant Control Panel

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

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

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

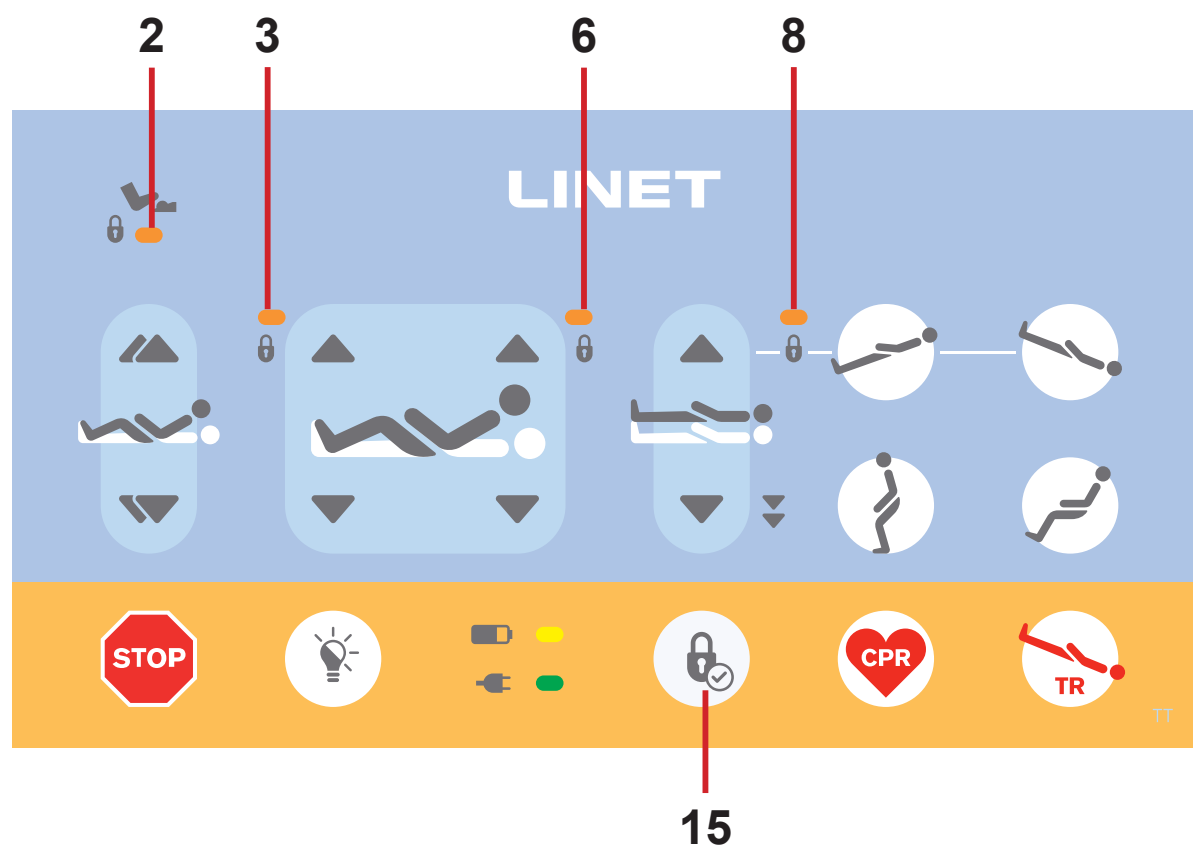
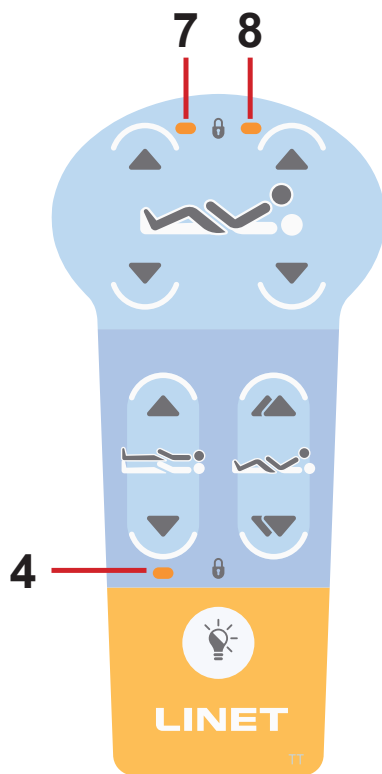


Fig. Visual Signalling of Attendant Control Panel for Essenza 200

- 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



- 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 **9** 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.

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 **9** 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 **9** 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 **9** on the Siderail Control Panel are flashing.
- ▶ Press any **Foot Control Pedal** except for **Emergency CPR Position Pedal** during flashing of the LEDs.
- Lock LED Indicator **2** on the Attendant Control Panel is illuminated.
- Lock LED Indicator **9** on the Siderail Control Panel is illuminated.
- Functions of the Foot Control Pedals are disabled except for Emergency CPR Position Adjustment that can be used when the other functions are disabled.

Lock Button for Locking and Unlocking:



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 **9** 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 **9** 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 **9** 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 **9** on the Siderail Control Panel are flashing.
- ▶ Press any **Foot Control Pedal** except for **Emergency CPR Position Pedal** during flashing of the LEDs.
- Lock LED Indicator **2** on the Attendant Control Panel is not illuminated.
- Lock LED Indicator **9** on the Siderail Control Panel is not illuminated.
- Functions of the Foot Control Pedals are enabled again.

15 Equipment

Product equipment depends on product configuration.

15.1 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.

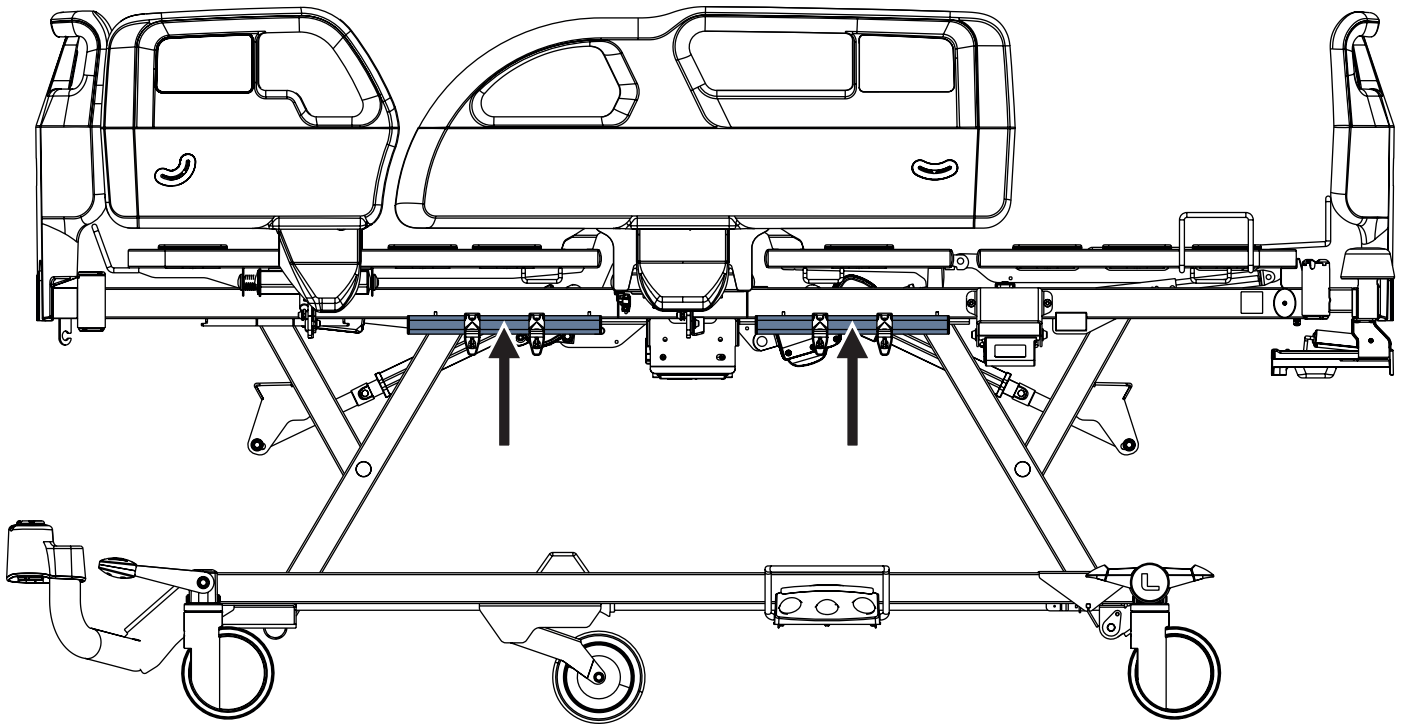


Fig. Accessory Rails with plastic hooks on the bed with Plastic Siderails

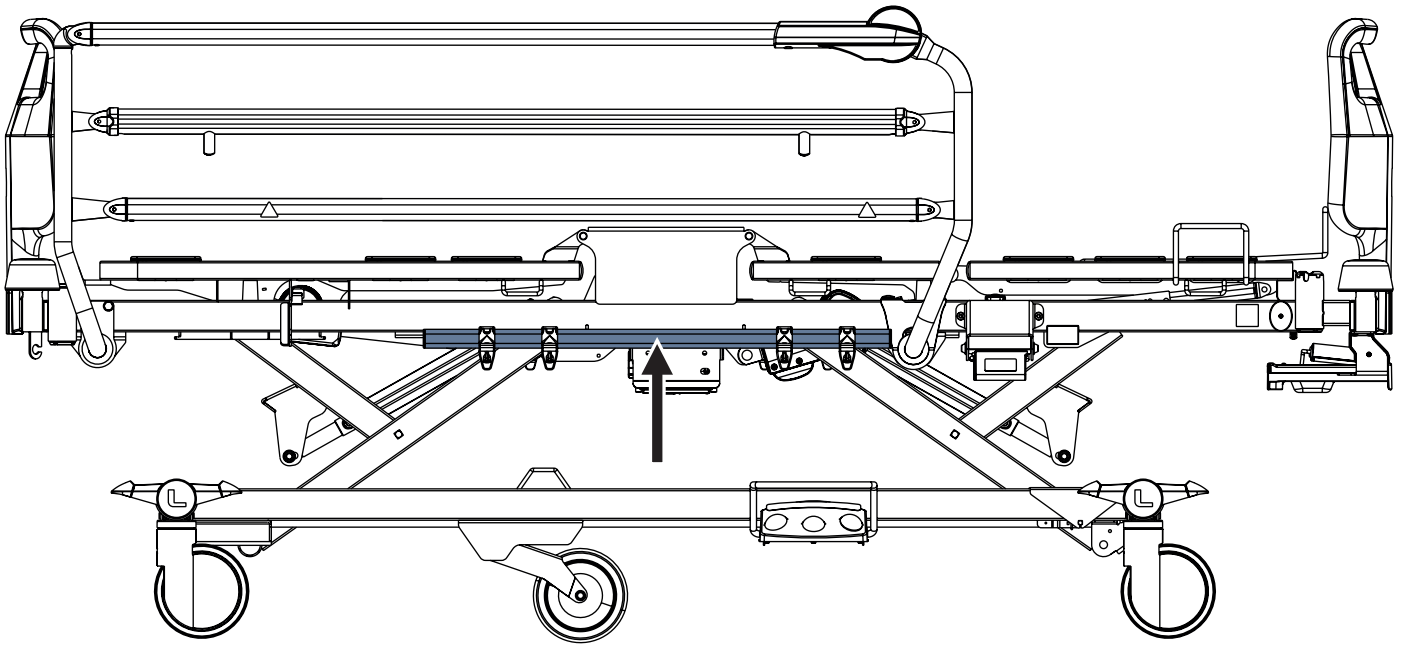


Fig. Accessory Rail with plastic hooks on the bed with Single collapsible siderails

15.2 Bed Illumination and Handset Control Panel Illumination

The Essenza 200 bed can optionally be equipped with Bed Illumination (the source of light situated under the seat section) 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:

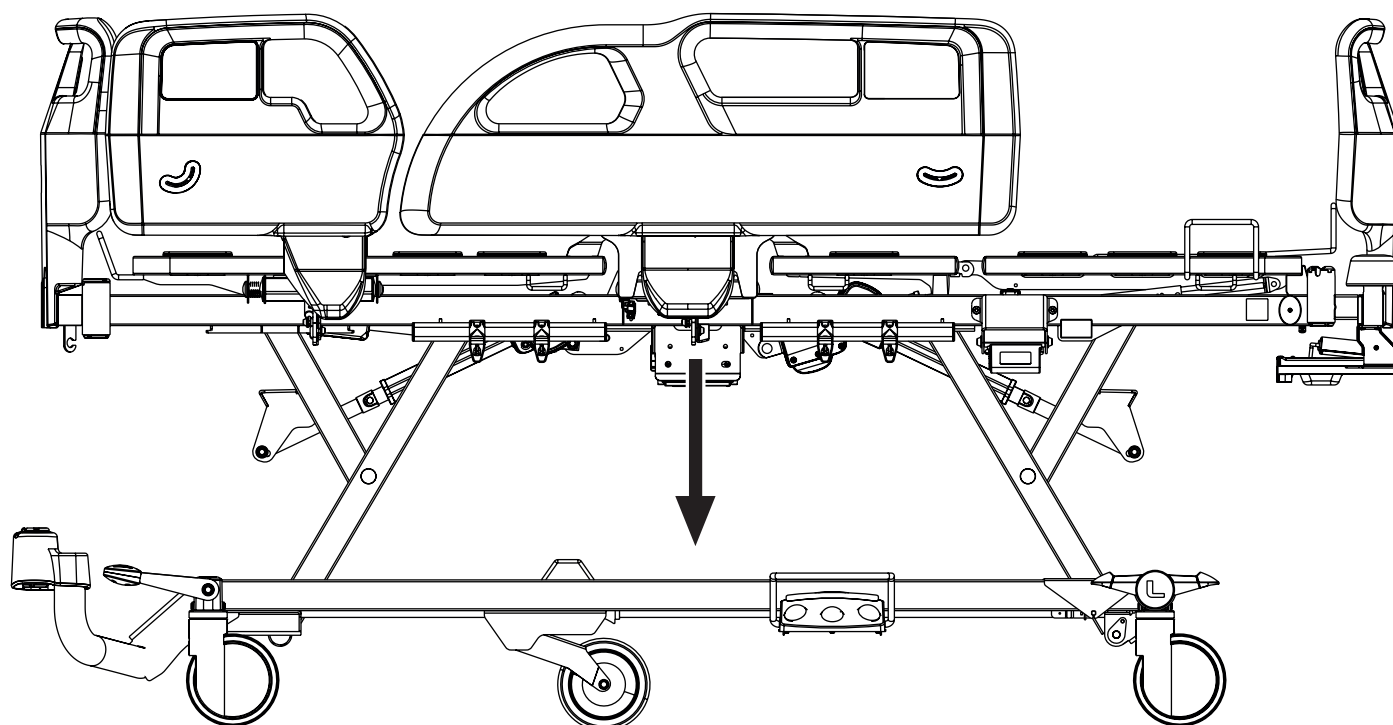


Fig. Bed Illumination source on the Essenza 200 medical bed

The Essenza 200 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.

15.3 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 lowest bed position only.

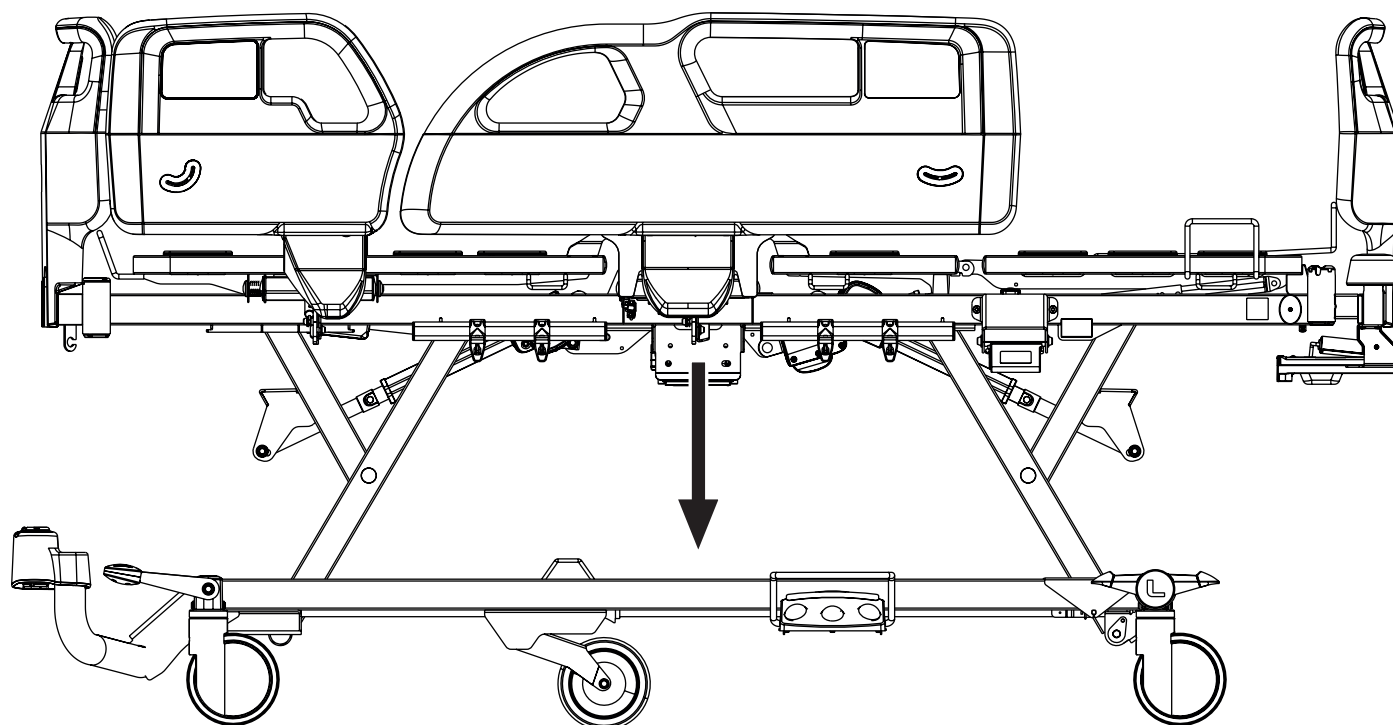


Fig. Green light source on the Essenza 200 medical bed

15.4 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.

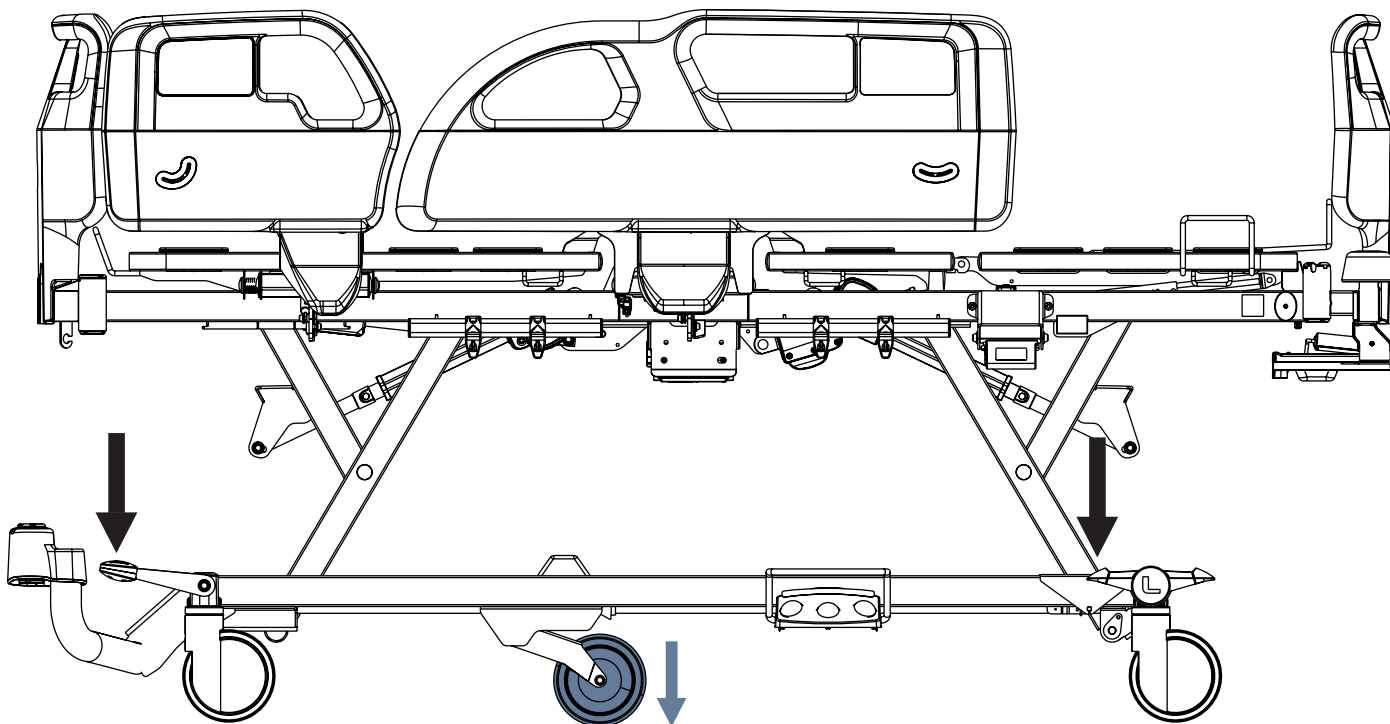


Fig. Activation of the Fifth Castor

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.

15.5 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.

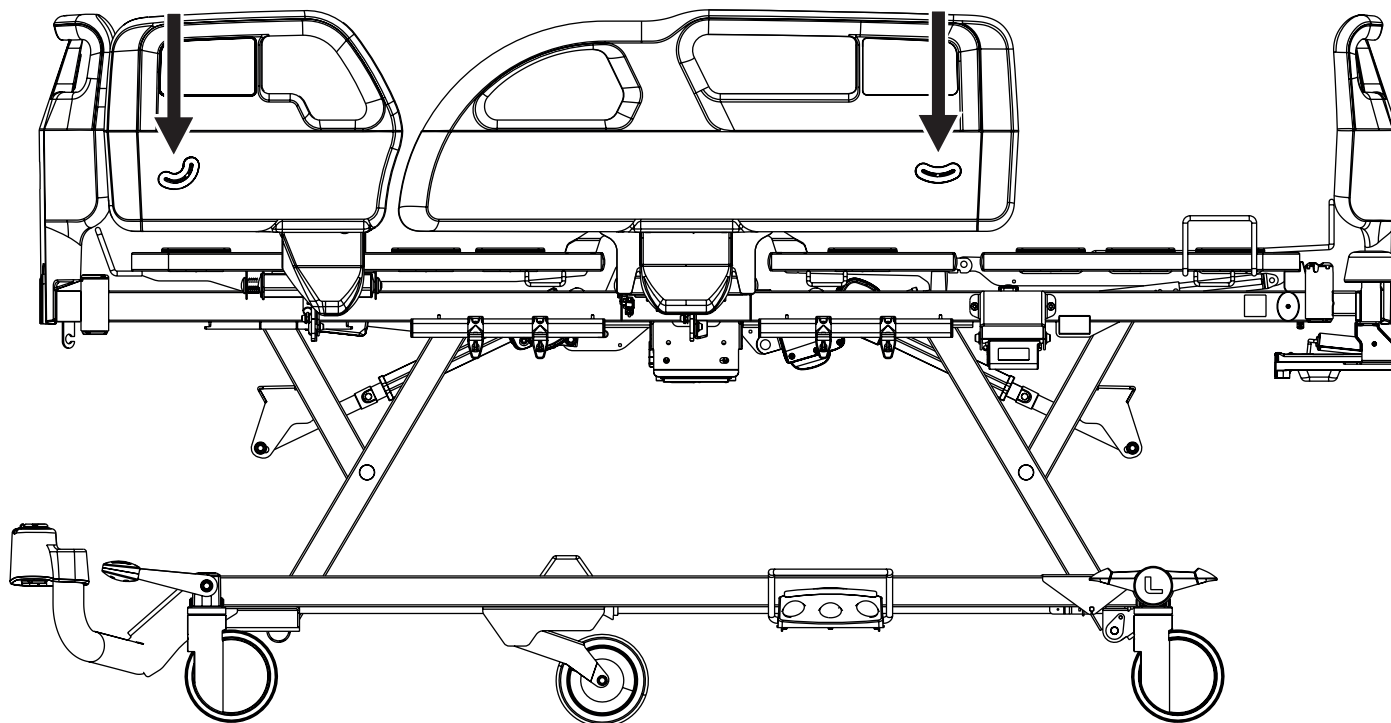


Fig. Angle Indicators in Plastic Siderails

15.6 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.

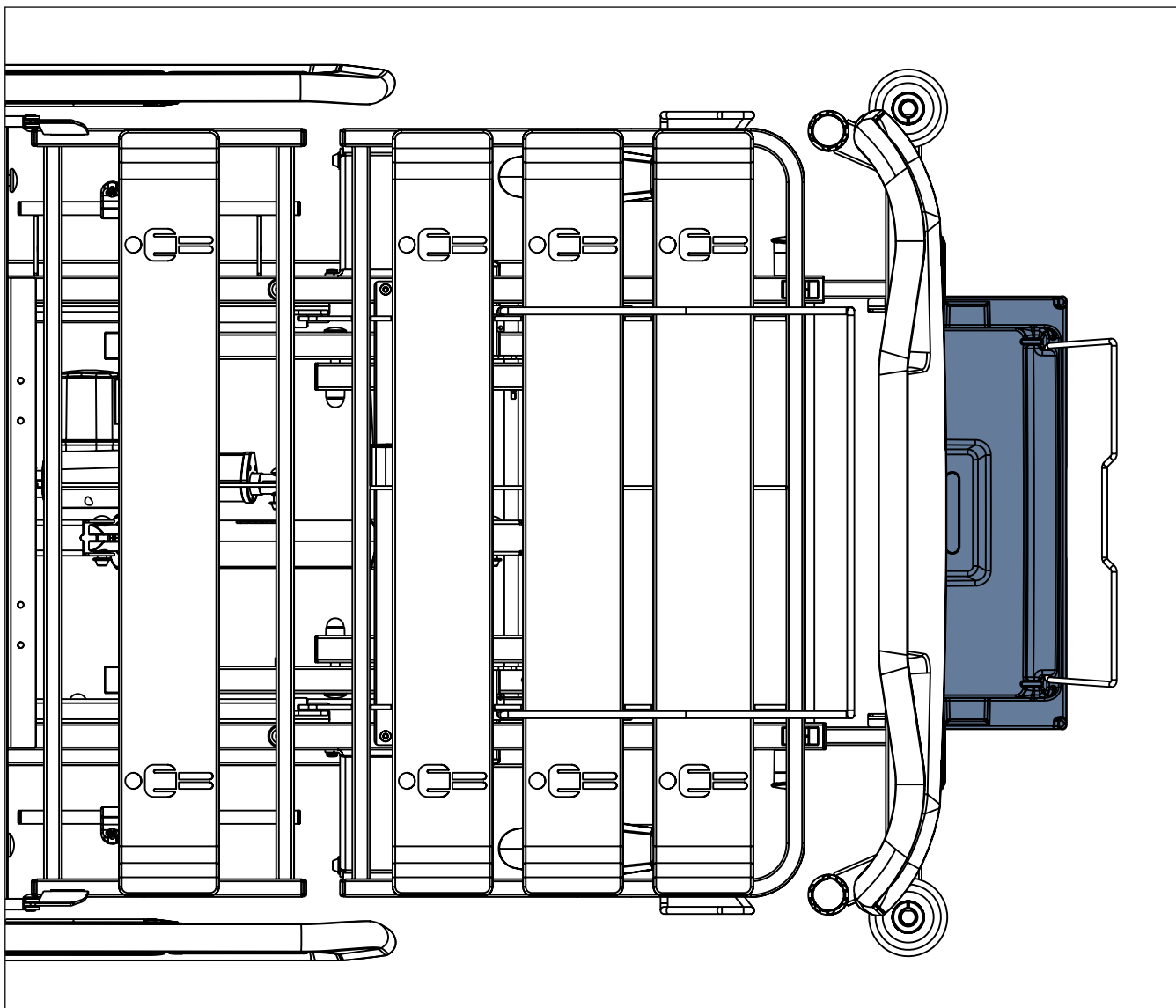


Fig. Plastic Linen Shelf at bed foot end

15.7 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 USB connector 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 200 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 USB connector!
- User of the bed is responsible for meeting this requirement.



CAUTION!

Risk of material damage due to incorrect use!

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

USB chargers are intended for charging mobile phones and tablets.
Two USB chargers are located under the Backrest on both bed sides.

NOTE: Maximum electric current for this device is 2 A.

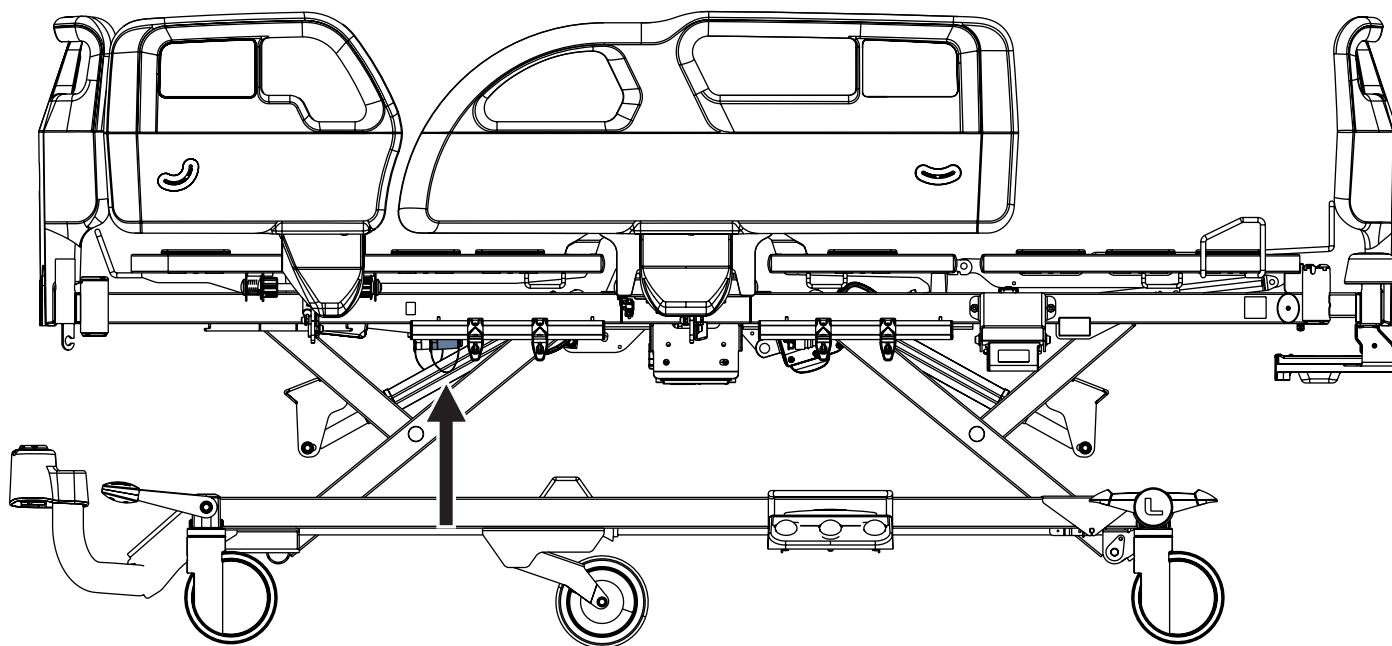


Fig. USB charger under the Backrest of the bed with plastic siderails

15.8 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 „1.8 Acoustic Signalling“ on the page 14.

15.9 SafeSense® 1, 2 and 3 ready bed



WARNING!

Before use of the SafeSense® 3 Monitoring System with Essenza 200 medical bed read the instructions for use for SafeSense® 3 Monitoring System!

Specific configuration of the Essenza 200 medical bed is compatible with SafeSense® 3 Monitoring system. SafeSense® 3 ready bed includes the accessory rail with Power Supply/Data cable in safety position.

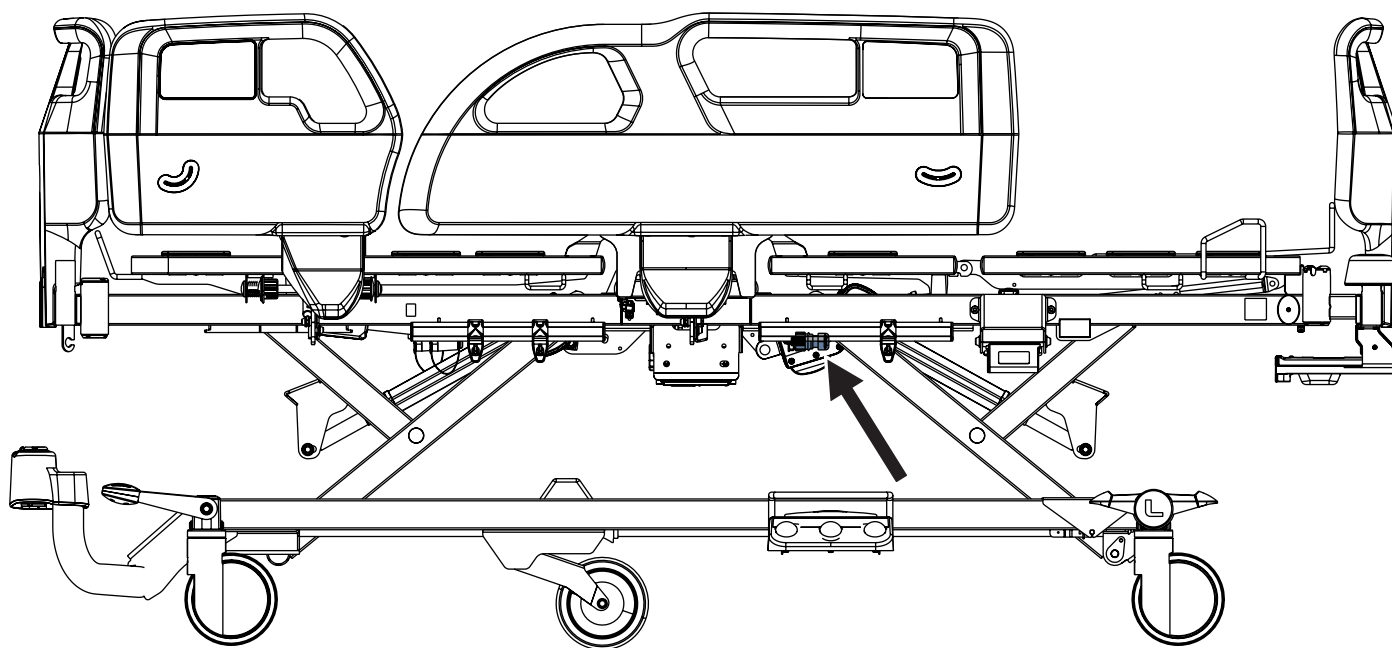


Fig. SafeSense 3 ready Essenza 200 bed

15.10 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 handle of the X-ray cassette Holder!

X-ray cassette Holder is compatible only with X-ray ready Backrest of the Essenza 200 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 accesible 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.

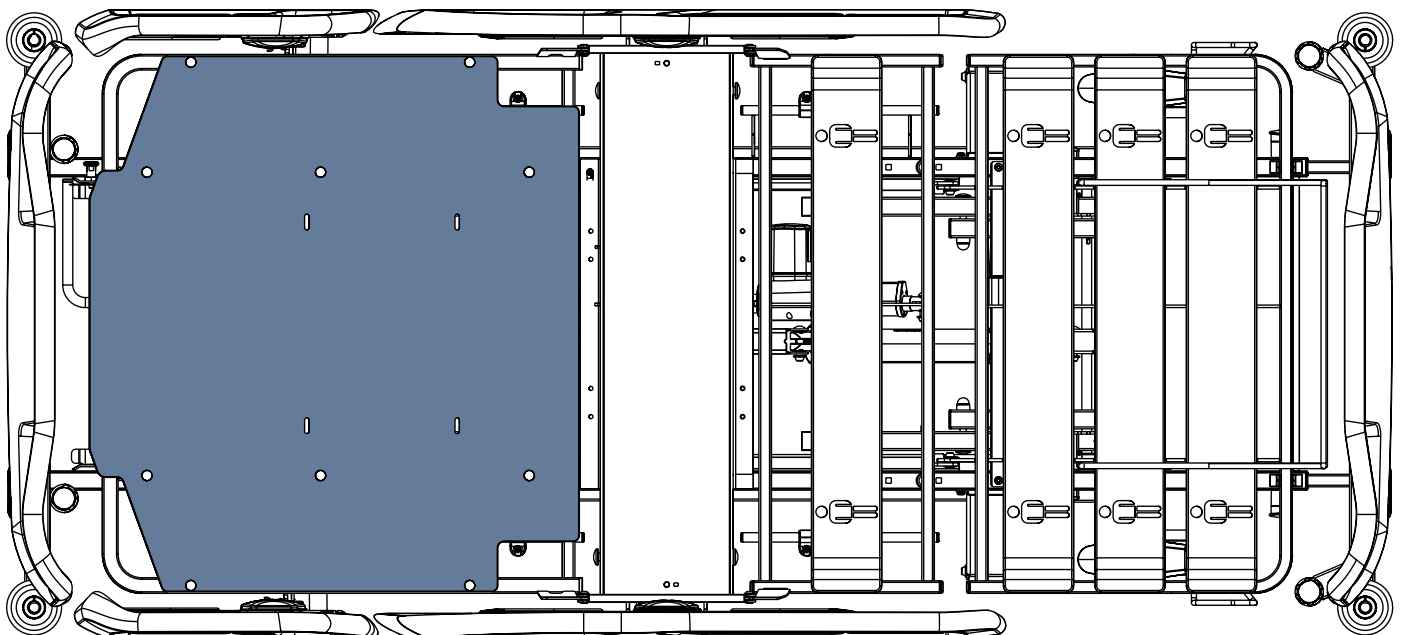


Fig. X-ray ready Backrest with HPL cover

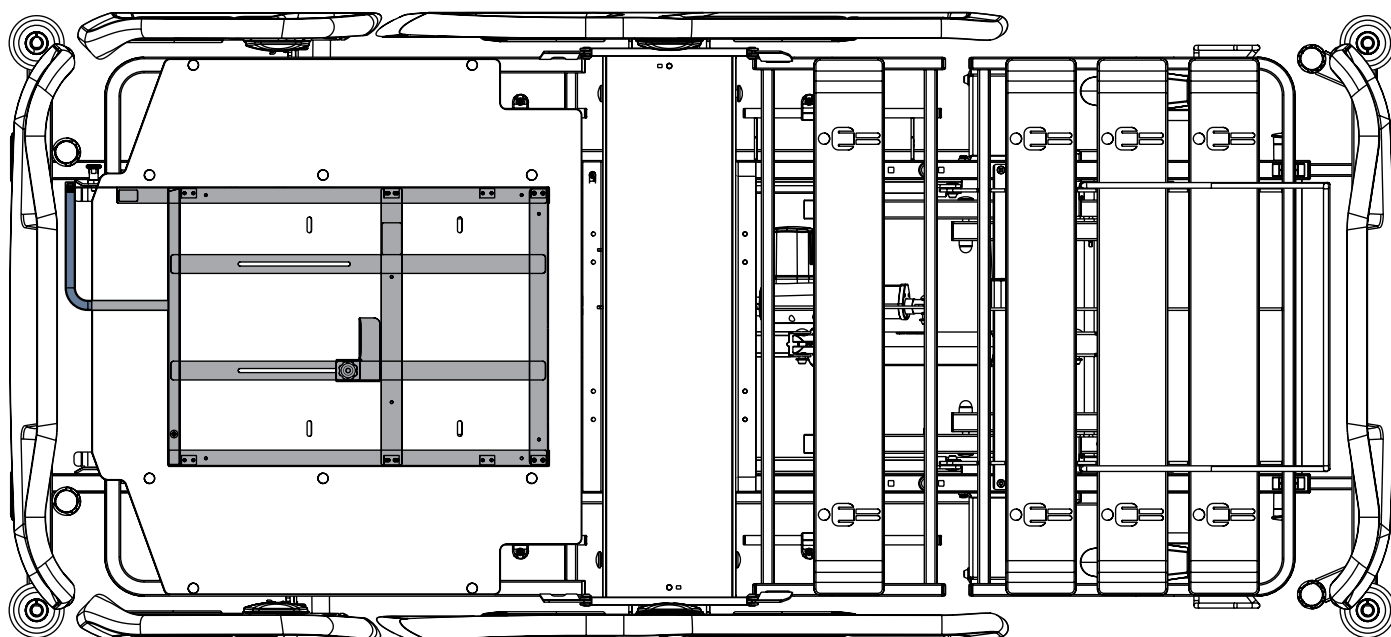
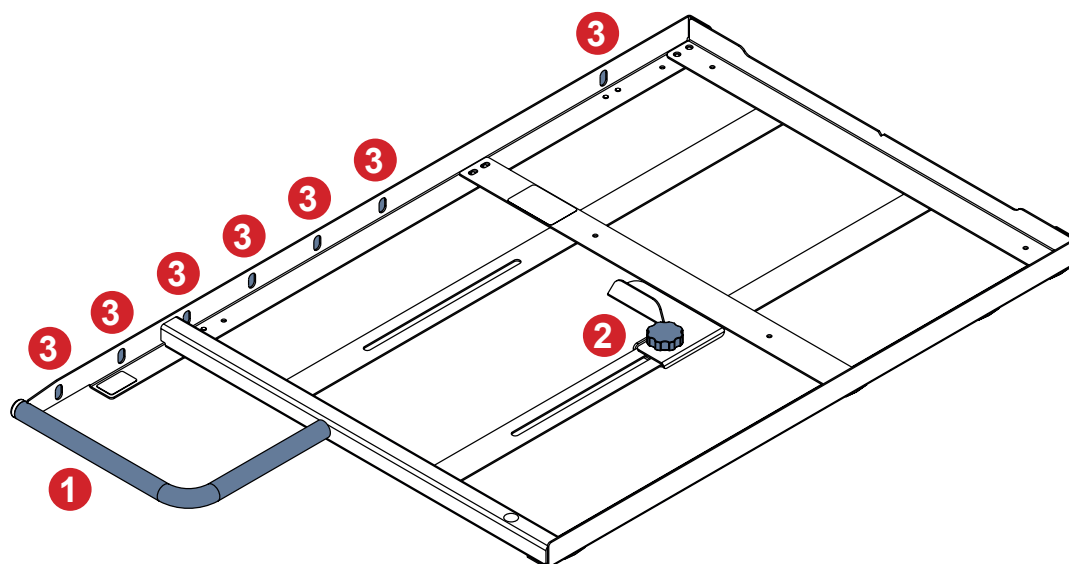


Fig. Position of the X-ray cassette Holder inserted to the Backrest

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 fixative element with a rossette screw and place a compatible x-ray cassette into the X-ray cassette Holder.**
- 8. Set the 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. Rosette screw with fixative element
- 3. Seven positions where the X-ray cassette Holder can be fixed by safety pin

Fig. Adjustable X-ray cassette Holder

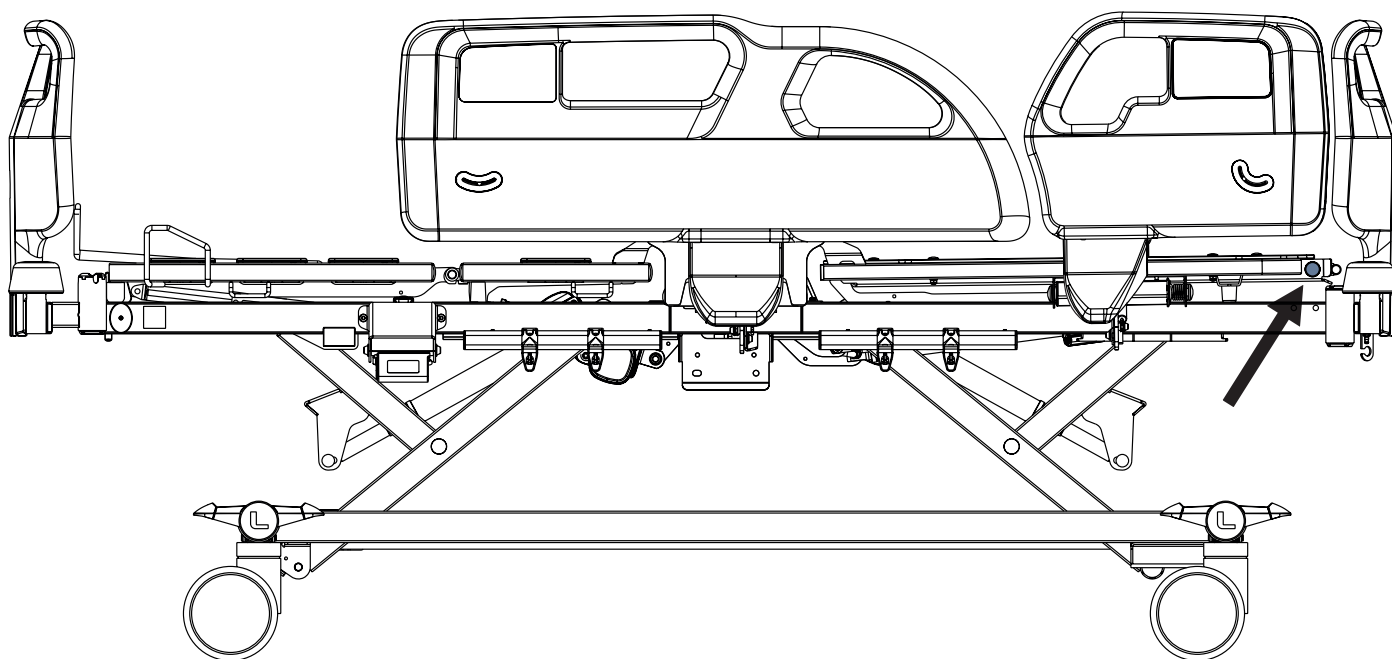


Fig. Position of the safety pin for fixing the X-ray cassette Holder

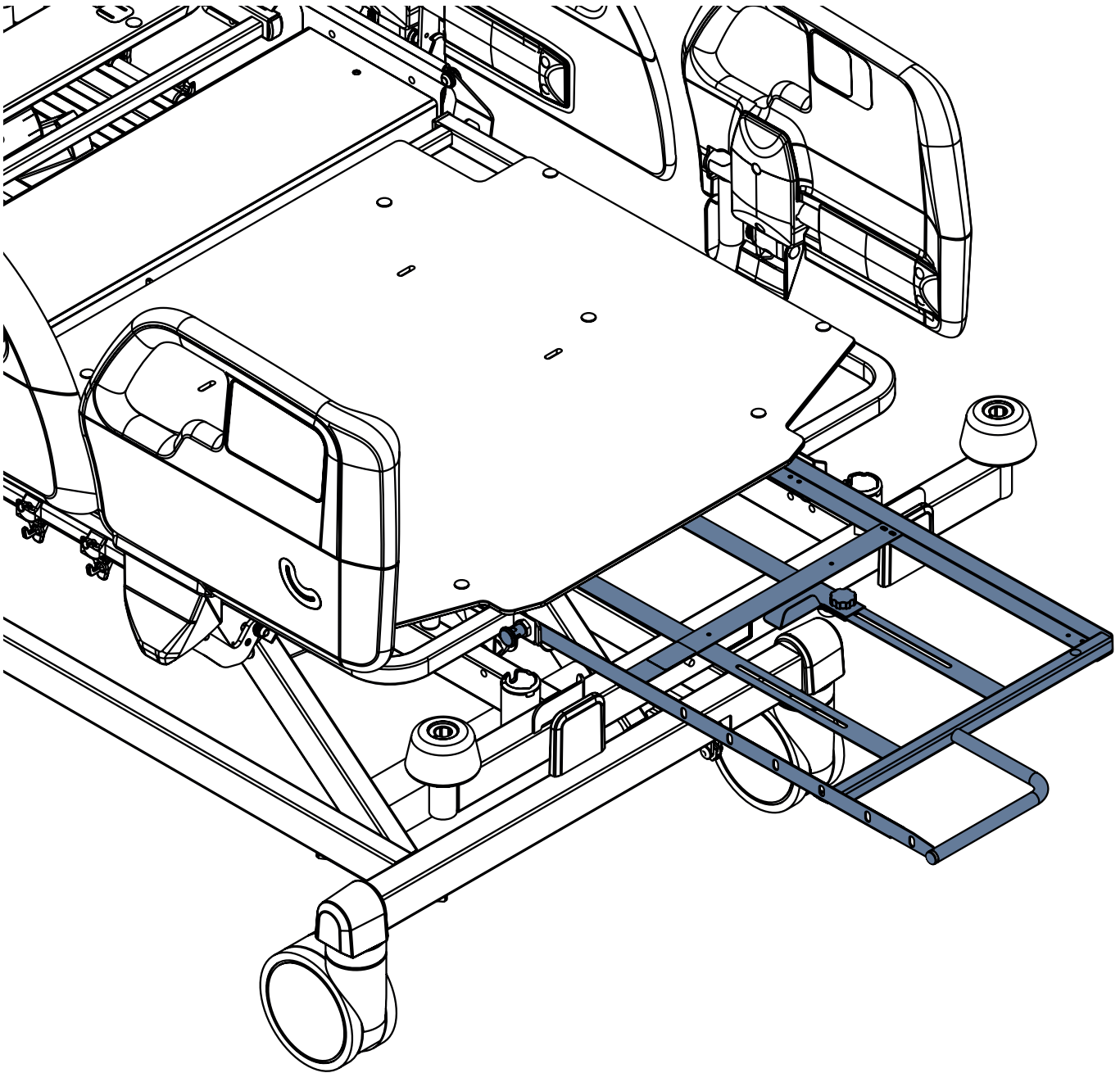


Fig. Pulled out X-ray cassette Holder in the most remote position

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.

16 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!
- ▶ Air2Care 5 mattress should be used in combination with a compatible passive mattress under the Air2Care 5 mattress!



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 200 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	Dimensions (cm)	Manufacturer	Mattress Mass
EffectaCare 10	200 x 86 x 14	LINET	6 kg
EffectaCare 20	200 x 86 x 14	LINET	6,5 kg
PrimaCare 10	200 x 86 x 14	LINET	10 kg
MediMatt 30	200 x 86,5 x 14	WULFF MED TEC	11,65 kg
ViskoMatt 10	200 x 86,5 x 14	WULFF MED TEC	9,4 kg
ViskoMatt 10B	200 x 86,5 x 16	WULFF MED TEC	11 kg
ViskoMatt 30	200 x 86,5 x 14	WULFF MED TEC	14,04 kg
ViskoMatt 50	200 x 86,5 x 16	WULFF MED TEC	17,82 kg
Air2Care 5	200 x 86 x 12,5	AIRFLO (XIAMEN) MEDICAL	6 kg
Air2Care 6	200 x 86 x 15	AIRFLO (XIAMEN) MEDICAL	7,5 kg
	200 x 90 x 15	AIRFLO (XIAMEN) MEDICAL	8,5 kg
	210 x 86 x 15	AIRFLO (XIAMEN) MEDICAL	8 kg
	210 x 90 x 15	AIRFLO (XIAMEN) MEDICAL	8,8 kg
HybriMatt 100	200 x 86 x 15	LINET	12 kg
HybriMatt 200	200 x 86 x 16	LINET	15 kg

Dimensions of Compatible Foam Extensions	Manufacturers and Identification Numbers	Foam Extension Mass
90 cm x 14 cm x 10 cm	WULFF MED TEC	0,5 kg
90 cm x 14 cm x 15 cm	WULFF MED TEC	0,5 kg
90 cm x 14 cm x 20 cm	WULFF MED TEC	0,5 kg
86,5 cm x 16 cm x 10 cm	WULFF MED TEC	0,5 kg
86,5 cm x 16 cm x 15 cm	WULFF MED TEC	0,5 kg
86,5 cm x 16 cm x 20 cm	WULFF MED TEC	0,5 kg
90 cm x 16 cm x 10 cm	WULFF MED TEC	0,5 kg
90 cm x 16 cm x 15 cm	WULFF MED TEC	0,5 kg
90 cm x 16 cm x 20 cm	WULFF MED TEC	0,5 kg
90 cm x 14 cm x 10 cm	LINET	0,5 kg
90 cm x 14 cm x 15 cm	LINET	0,5 kg
90 cm x 14 cm x 20 cm	LINET	0,5 kg

Mattress Installation

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

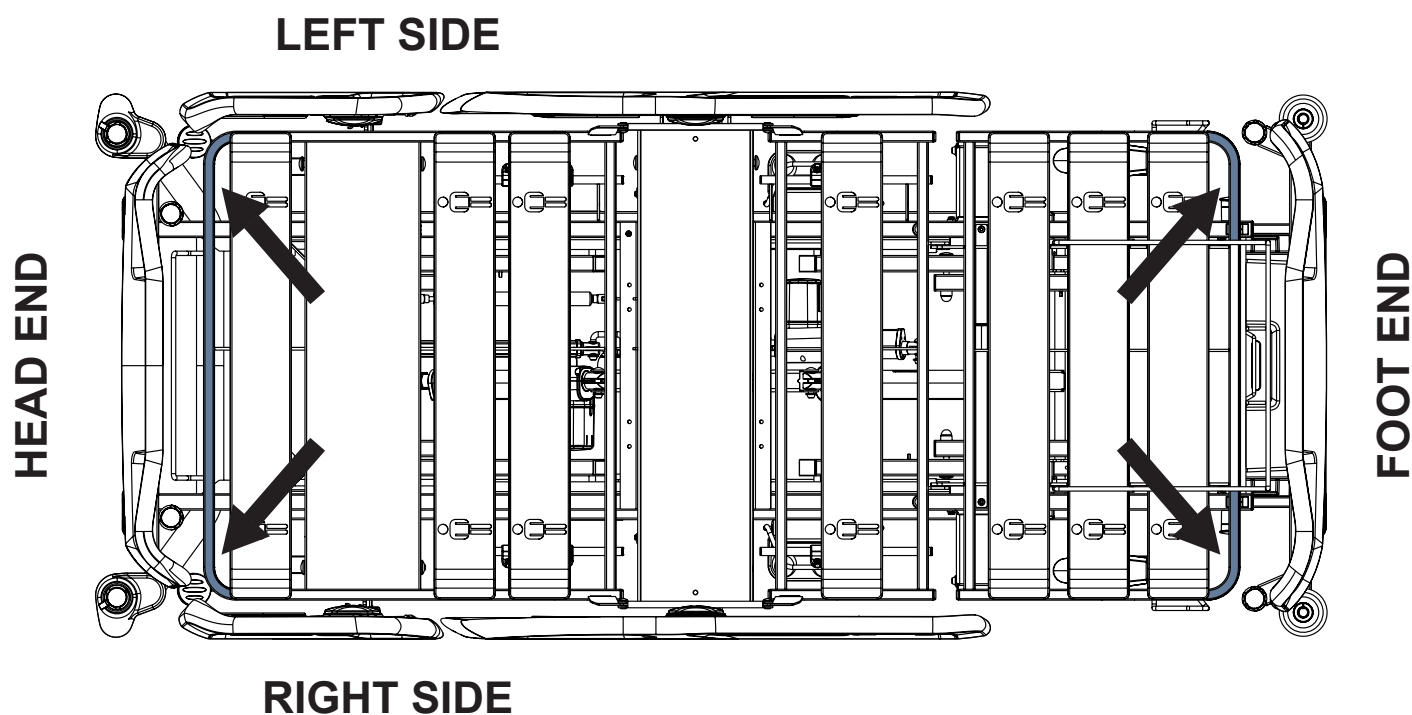


Fig. Fixation of the mattress with straps on the mattress support platform of the Essenza 200 bed



Patient on Mattress

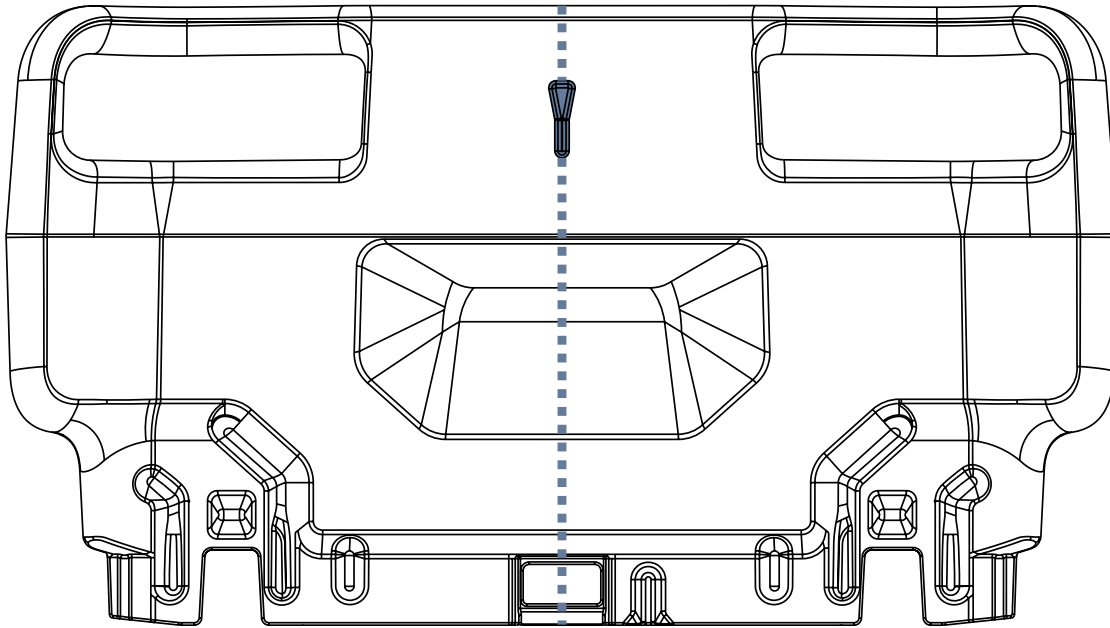


Fig. Arrow-like symbol indicating bed centre on Head Board and Foot Board

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.

16.1 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.

16.2 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.

16.3 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.

16.3.1 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

16.3.2 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.

16.3.3 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/base mattress covers:

- ▶ Remove cover.
- ▶ If machine washing mattress top/base covers, the temperature should be raised during the wash cycle, to 71°C/160° F, for 3 - 10 minutes, using hospital approved detergents and rinsing agents. The temperature could be raised to 95°C in the case of Air2Care IN mattresses.
- ▶ Dry cover in tumble dryer at low temperature.

NOTE Maximum wash temperature could be 75°C but such a temperature reduces lifetime period of the covers.

16.3.4 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.

17 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 200 Accessories correctly:

- ▶ Follow the **D9U00AEZ2-01xx** Instructions for Use where „xx“ means the code of language version.

18 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 200 is disconnected from the mains before cleaning the Essenza 200.



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	MATERIALS (SURFACES OF THE MENTIONED BED COMPONENTS)	
Do not clean what is not mentioned in this column!	Competent user is responsible for check if used cleaning agents and disinfectants are compatible with mentioned materials!	
Head board and Foot board	Polypropylene (PP)	
Plastic Head siderails and Foot siderails / Single single collapsible siderails	plastic siderails: Polypropylene (PP) + Polyamide (PA) + Lacquered steel + Acrylonitrile butadiene styrene (ABS)	single collapsible siderails: Lacquered steel + Polyamide (PA) + Polyoxymethylene (POM) + Acrylonitrile butadiene styrene (ABS) + Polyvinyl chloride (PVC)
Mattress support platform covers on Backrest, Thighrest and Calfrest	Polypropylene (PP) + Polyoxymethylene (POM) + Polyethylene (PE)	
Seat section cover	Lacquered steel	
Castors	Polyurethane (PUR) + Polyamide (PA) + Polypropylene (PP)	
Castor control levers	Polyamide (PA6) + Lacquered steel	
Frame of the mattress support platform	Polyamide (PA) + Lacquered steel	
Undercarriage	Lacquered steel + Acrylonitrile butadiene styrene (ABS)	
Corner bumpers	Polypropylene (PP)	
Keyboards of the control panels	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.

18.1 Cleaning the Essenza 200 bed

Prepare for cleaning as follows:

- ▶ Put the Mattress Support Platform in the highest position.
- ▶ Adjust the Backrest and Thighrest so that the reverse sides are accessible.
- ▶ Move the bed to the location where it will be cleaned.
- ▶ Lock the brakes on the bed.

18.1.1 Cleaning before Changing Patients

Clean the following 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
- Mattress on all sides
- Freely accessible metal parts of Mattress Support Platform
- Infusion stand sleeve fitting
- Bumpers
- Castors
- Brakes

18.1.2 Daily Cleaning

Clean the following 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

18.1.3 Complete Cleaning and Disinfection

Clean the following 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
- Mattress on all sides
- Freely accessible metal parts of Mattress Support Platform
- Infusion stand sleeve fitting
- Bumpers
- Castors
- Brakes

19 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.
	Faulty Control Element.	Notify the manufacturer's service department.
Lowering Backrest from the upright position not possible	Obstacle under the Backrest or in the drive mechanism.	Remove the obstacle
	CPR Release Handle is defective.	Notify the manufacturer's service department.
Adjusting Siderails not possible	Obstacle in the Siderail Release Mechanism.	Remove the obstacle.
	Siderail Release Mechanism is defective.	Notify the manufacturer's service department.
Faulty brakes	Obstacle blocking brakes mechanically.	Remove the obstacle.
	The brake mechanism is defective.	Notify the manufacturer's service department.

20 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 200 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.

20.1 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.

20.2 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

20.3 Electrical Safety Check and Preventive Maintenance

20.3.1 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.

20.3.2 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.

21 Disposal

21.1 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.linet.cz).

21.2 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.

21.2.1 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.

21.2.2 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!

22 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 200 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.

23 Standards and Regulations

23.1 Essenza 200

Applied norms are stated on Declaration of Conformity.

23.2 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)