

LINET

Instructions for Use and Technical Description



ELEGANZA 1

Hospital bed for standard care



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Eleganza 1

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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 key 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



SIGNAL WORDS!

Type and source of danger!

- ▶ Measures to avoid the danger.

1.2 Instructions

Structure of instructions:


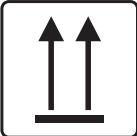



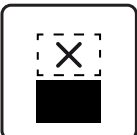
- ▶ Perform this step.
- Results, if necessary.

1.3 Lists










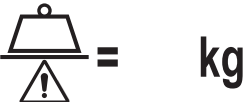

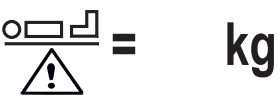
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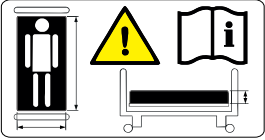
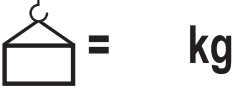

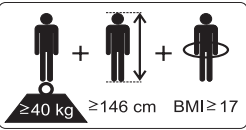





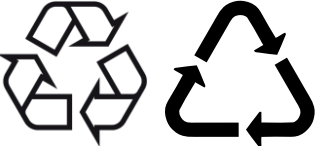

- List level 1
 - List level 2
 - List level 3







1.4 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

1.5 Symbols and Labels on the Bed

	<p>READ INSTRUCTIONS FOR USE</p>
	<p>WARNING</p>
	<p>THERMAL PROTECTION OF TRANSFORMER</p>
	<p>ONLY SUITABLE FOR INDOOR USE</p>
	<p>PROTECTION AGAINST ACCIDENTS DUE TO ELECTRICAL CURRENT – TYPE B APPLIED PARTS</p>
	<p>SAFETY ISOLATING TRANSFORMER, GENERAL</p>
	<p>CE MARK OF CONFORMITY WITH EU REGULATION</p>
	<p>SAFETY MARK – BED CERTIFIED IN TÜV SÜD</p>
	<p>JACK FOR ATTACHMENT OF CONDUCTOR FOR POTENTIAL EQUALISATION</p>
	<p>SAFE WORKING LOAD</p>
	<p>WARNING AGAINST CRUSHING OR TRAPPING</p>
	<p>MAXIMUM WEIGHT OF PATIENT</p>

	<p>USE MATTRESS RECOMMENDED BY MANUFACTURER</p>
	<p>WEIGHT OF BED</p>
	<p>DO NOT PUT ANY OBJECTS HERE</p>
	<p>DESIGNATION OF HOSPITAL BED FOR ADULTS</p>
	<p>ALTERNATING CURRENT</p>
	<p>DIRECT CURRENT</p>
	<p>EAC MARKING</p>
	<p>WEEE SYMBOL (RECYCLE AS ELECTRONIC WASTE, DO NOT PUT INTO THE HOUSEHOLD WASTE)</p>
	<p>MEDICAL DEVICE (compatible with Medical Device Regulation)</p>
	<p>RECYCLING SYMBOL</p>
	<p>DO NOT POLLUTE THE ENVIRONMENT</p>

	<p>HEAD BOARD UNLOCKED OR FOOT BOARD UNLOCKED</p>
	<p>HEAD BOARD LOCKED OR FOOT BOARD LOCKED</p>
	<p>MASS OF MOBILE HOSPITAL BED (MASS OF EMPTY BED + SAFE WORKING LOAD)</p>
	<p>UK CONFORMITY ASSESSED (UKCA) MARKING (PRODUCT NORMATIVELY HARMONIZED FOR GREAT BRITAIN ECONOMIC AREA)</p>
	<p>AUTHORIZED REPRESENTATIVE IN GREAT BRITAIN</p>
	<p>AUTHORIZED REPRESENTATIVE IN SWITZERLAND</p>

1.6 Acoustic signalisation (Eleganza 1 with PB43 control unit)


SOUND	MEANING
CONTINUOUS SOUND	overheating
	accumulator overcurrent
	actuator overload
REPEATED BEEP: 0,6s sound / 2,6s silence	STOP error (all STOP buttons are disabled)
REPEATED BEEP: 0,1s sound / 3s silence	switching of the transformer winding error (Brazil)
BEEP lasting 0,3s	confirmation
	stopping or locked function
	optionally: transition from tilt (Trendelenburg, Antitrendelenburg) to horizontal position
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 Signal (only version with Brake Signal)

1.7 Acoustic signalisation (Eleganza 1 with PB11 control unit)



There are no acoustic signals in the case of Eleganza 1 bed with PB11 control unit.

1.8 Visual signalisation


1.8.1 Mains Power LED (Attendant Control Panel)

MAINS POWER LED 	MEANING
lit	connected to the mains
flashing: 0,6s lit / 0,6s not lit	keyboard error (flashing inverted to Lock LED) error (first fault)
flashing: 0,1s lit / 0,1s not lit	service mode
not lit	disconnected from the mains power transformer switching error

1.8.2 Accumulator Indicator (Attendant Control Panel, MiniACP)

ACCUMULATOR INDICATOR  	MEANING
lit	accumulator disconnected or faulty
flashing: 1,6s lit / 0,2s not lit	accumulator deeply discharged
flashing: 0,1s lit / 0,1s not lit	accumulator discharged
flashing: 0,2s lit / 1,6s not lit	accumulator is charging
not lit	accumulator charged

1.8.3 Lock LED (Attendant Control Panel, MiniACP)

 LOCK LED	VISUAL SIGNALISATION		flashing: 0,6s lit / 0,6s not lit		
	lit	not lit	lit	not lit	not lit
Thighrest Lock LED	locked	unlocked	lock error	keyboard error	motion blocked
Backrest Lock LED	locked	unlocked	lock error	keyboard error	motion blocked
Bed Height, Trendelenburg and Antitrendelenburg Tilt Lock LED	locked	unlocked	lock error	keyboard error	motion blocked
Foot Control Lock LED	locked	unlocked	lock error	keyboard error	motion blocked

1.9 Definitions

Basic Bed Configuration	the pricelist model configuration, not including a mattress
Bed Weight	The value depends on the product configuration, accessories or customer adjustments.
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 elimination of pressure on the patient's abdomen and pelvic area and frictional forces on the patient's back and legs.
Maximum Patient Weight	Maximum Patient Weight depends on the application environment according to IEC 60601-2-52. For application environment 1 (intensive/critical care) and 2 (acute care) reduce Safe working Load by 65 kg. For application environment 3 (long-term care) and 5 (ambulatory care) reduce Safe working Load by 35 kg.
Safe Working Load	the highest allowable load on the bed (patient, mattress, accessories and the load supported by those accessories)
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	<ul style="list-style-type: none"> ■ The height of the patient surface with regard to the floor is 400 mm ■ The mattress support platform, including the individual parts, has to be in a horizontal (level - 0°) position. ■ The siderails are always locked in the upper position. ■ The basic position of the integrated extension.
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).
Mass of mobile hospital bed	Sum of empty bed mass and Safe Working Load.

1.10 Abbreviations

AC (~)	Alternating Current
ACP	Attendant Control Panel
CE	European Conformity
CPR	Cardiopulmonary Resuscitation
dBA	Sound Intensity Unit
DC (---)	Direct Current
CUC	Configuration number
EMC	Electromagnetic Compatibility
FET	Field-effect transistor
HF	High Frequency
HPL	High Pressure Laminate
HW	Hardware
ICU	Intensive Care Unit
INT.	Duty Cycle
IP	Ingress Protection
IV	Intravenous
LED	Light Emitting Diodes
ME	Medical Electrical (Equipment)
ON	Activation
OFF	Deactivation
ppm	parts per million, millionth (1000 ppm = 0,1%)
REF	Reference Number (product type depending on configuration)
SCU	System Control Unit (active mattress)
SN	Serial Number
SW	Software
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!

Eleganza 1 bed should be left in its lowest position when the patient is unattended in order to reduce risk of injury due to falls!



WARNING!

Siderails of Eleganza 1 should be located in the „up“ position to reduce the risk of the patient accidentally slipping or rolling off the mattress!



WARNING!

Incompatible siderails and mattresses can cause an entrapment hazard!



WARNING!

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



WARNING!

When routing cables from other equipment in the Eleganza 1 bed avoid squeezing those between parts of the Eleganza 1 bed!



WARNING!

Eleganza 1 bed should not be used with bed hoists and bed lifts!



WARNING!

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



WARNING!

During specific investigations or treatments the significant risks of reciprocal interference posed by medical electrical equipment may occur.



WARNING!

No modification of this equipment is allowed.



WARNING!

Do not modify this equipment without authorization of the manufacturer.



WARNING!

If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.



WARNING!

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



WARNING!
Incompatible mattresses can create hazards.



WARNING!
The bed is intended for adults.
 ► Follow the chapter Intended use.



WARNING!
Length adjustment of the bed must be proportional to the height of patient!



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



WARNING!
Risk of injury or death due using of incorrect equipment!
 ► Always conduct the risk assessments required for the selection of suitable equipment.



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!
Only authorised and trained person using the tool is allowed to change fuses and power supplies!



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



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!

- ▶ Follow the instructions for use carefully.
- ▶ Any non-observance of these instructions for use may lead to injuries or damage of property.
- ▶ Exclusively use the bed if it is in perfect working order.
- ▶ If necessary, check the bed functions daily or at each shift change.
- ▶ Use the bed exclusively in its original condition.
- ▶ Use the bed exclusively with the correct mains supply.
- ▶ 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.
- ▶ 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.
- ▶ Do not apply excess weight or loads to the bed according to SWL (Safe Working Load).
- ▶ During peak loads or unavoidable excess loads (CPR), place the mattress platform in the lowest position.
- ▶ Ensure that only one adult patient uses the bed at any time.
- ▶ Take care to avoid squeezing when operating moving parts.
- ▶ When using lifting poles or infusion stands, ensure that nothing will be damaged when you move or adjust the bed.
- ▶ Ensure that the castors are braked when the bed is occupied or not being moved.
- ▶ Ensure that the castors are braked when the bed is not being moved, regardless of whether it is occupied or empty.
- ▶ Keep the mattress platform in the lowest position at any time when the healthcare personnel are not treating the patient in order to prevent the patient from falling or injuries.
- ▶ Ensure that siderails are operated exclusively by healthcare personnel.
- ▶ Ensure no injuries or damages will occur when folding the siderails.
- ▶ Never use the bed in areas where there is a hazard of explosion.
- ▶ Enable or disable functions on the handset using the Attendant Control Panel as appropriate for the patient's physical and mental state. Verify that the function is actually disabled.
- ▶ Never handle the mains plug with wet hands.
- ▶ Remove the mains cable exclusively by pulling on the plug.
- ▶ Position the mains cable so that there are no loops or bends in the cable; protect the cable from mechanical wear and tear.
- ▶ Improper handling of mains cable can cause an electric shock hazard, other serious injuries or damage the bed.
- ▶ Ensure that the stipulated duty cycle (on-time) is not exceeded (see INT. on product label).
- ▶ Ensure that the moving parts of the bed are not blocked.
- ▶ 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 to approx. 20 cm below maximum height when transporting the bed in order to facilitate overcoming possible obstacles.
- ▶ Do not exceed maximum load of 150 kg for mattress platform extension.
- ▶ Ensure that the bed and its components are exclusively modified with the manufacturer's approval.
- ▶ Ensure there is no danger of crushing or otherwise injuring the patient's limbs (e.g. between siderails and mattress platform, between movable parts etc.) before positioning the bed or collapsing the siderails.
- ▶ Close linen shelf before using the Reverse Trendelenburg position.
- ▶ Do not put any objects (e.g. accessories, infusions, cables) between or on siderails and movable parts.
- ▶ Always set mattress platform to its lowest position and single parts of mattress platform to horizontal position in case the patient is left on the bed without supervision of personnel and if his health and mental status may indicate increase risk of falling out of the bed or entrapment.
- ▶ Personnel must consider overall adjustment of the bed and locking all of the positioning functions in accordance to health and mental status of patient, especially if the patient is left without supervision (even for short period of time) of the personnel.
- ▶ Manual positioning of parts of the bed which are designed for electronic positioning (e.g. backrest) is forbidden. Otherwise there is a risk of damaging and dysfunction of the backrest actuator or unprompted fall of the backrest.

2.1 Additional safety instructions for Extra Safe Bed

- ▶ Use of removable accessories (lifting pole, infusion stand, Protector, accessories on the accessory rail etc.) is not recommended. Using this type of accessories must be considered by responsible personnel after evaluation of patient's health and mental condition.
- ▶ Hospital personnel must consider leaving handset at the bed and leaving bed in the mains while the patient is without supervision. It is recommended for mentally unstable patients to remove handset and to lock mains cable to the box under head board.
- ▶ Use of bed extension is not recommended for mentally unstable patients.
- ▶ Periodically check if the bed placed on the psychiatric department is not damaged. In case of any damage of the bed, replace the damaged parts.
- ▶ Always check grounding of the bed in case the bed is equipped with grounding chain.
- ▶ Fixation of the bed to the floor must be done only by qualified personnel.
- ▶ Always fix the bed to the ground using 8 screws.

3 Intended use

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. These positions are further specified and described in the clinical evaluation of this device, together with their potential clinical outcomes and benefits.
- ▶ 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 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)
- ▶ Caregivers (nurses, doctors, technical personnel, transport personnel, cleaning personnel)

3.2 Contraindications

- ▶ The medical device is not intended for the pediatric patients use.
- ▶ 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.

3.3 Operator

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

4 Incorrect Use

Eleganza 1 is not suitable for:

- Patients
 - Not fulfilling conditions stated in chapter "Intended use"
- Use
 - Home care
 - Other than described in the instructions for use

LINET®'s efforts in research, design and manufacture ensure LINET® products are of the highest quality and fit for their intended purpose. However, LINET® can take no responsibility for any damage to the products or any harm to patients, staff or other individuals resulting from:

- Not following the instructions in the instructions for use, including warning notices.
- Using the product for a purpose other than the intended purpose stated in the relevant documentation provided by LINET® (see Intended use).

5 Product Description

5.1 Eleganza 1 (1GTP) with Single Collapsible Siderails

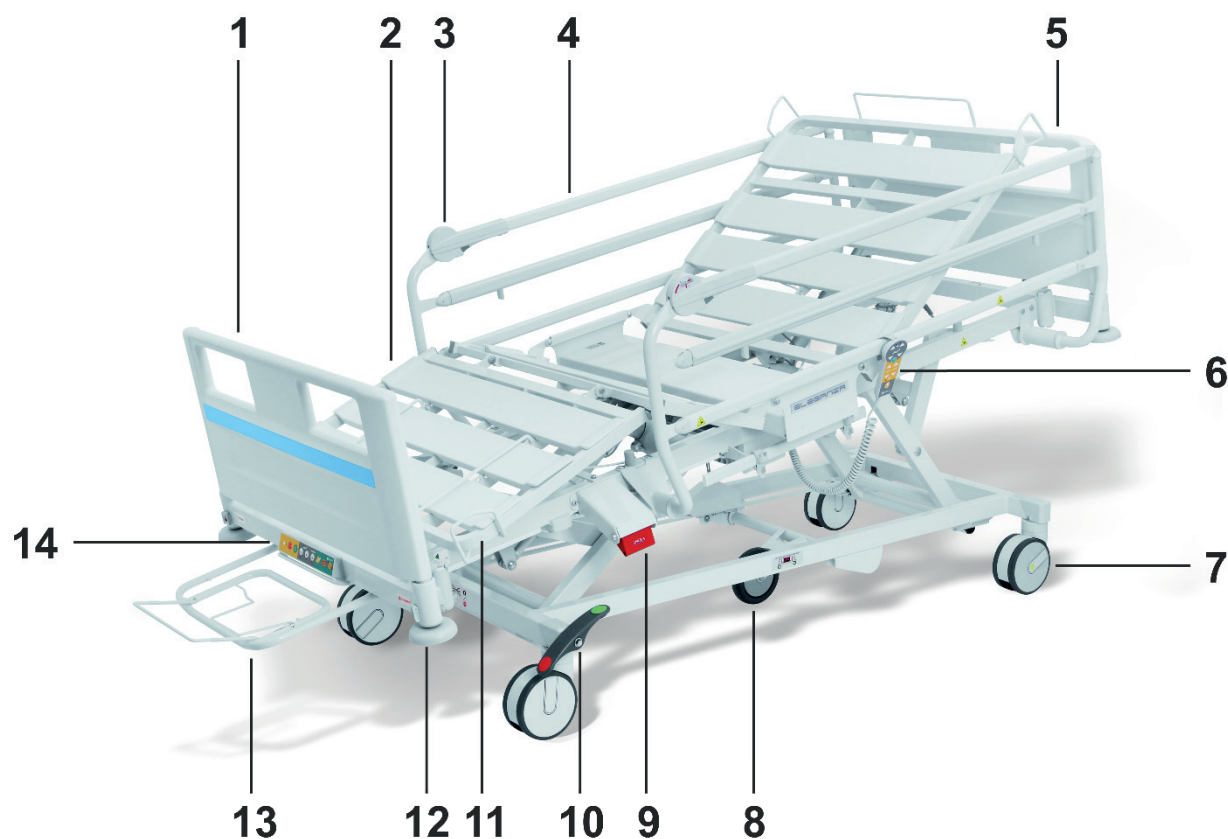


Fig. Overview Eleganza 1 – Single collapsible siderails

1. Foot Board
2. Removable plastic parts
3. Siderail release mechanism
4. Single collapsible siderails
5. Head Board
6. Handset
7. Castor
8. Fifth Castor
9. CPR lever (Backrest release)
10. Central castor control lever
11. Calfrest Handle
12. Corner Bumper
13. Linen shelf
14. MiniACP (Supervisor board)

NOTE For safe, easy handling, LINET® recommends having two technicians assemble the bed.

5.2 Eleganza 1 (1GTP) with Split Plastic Siderails (SR22)

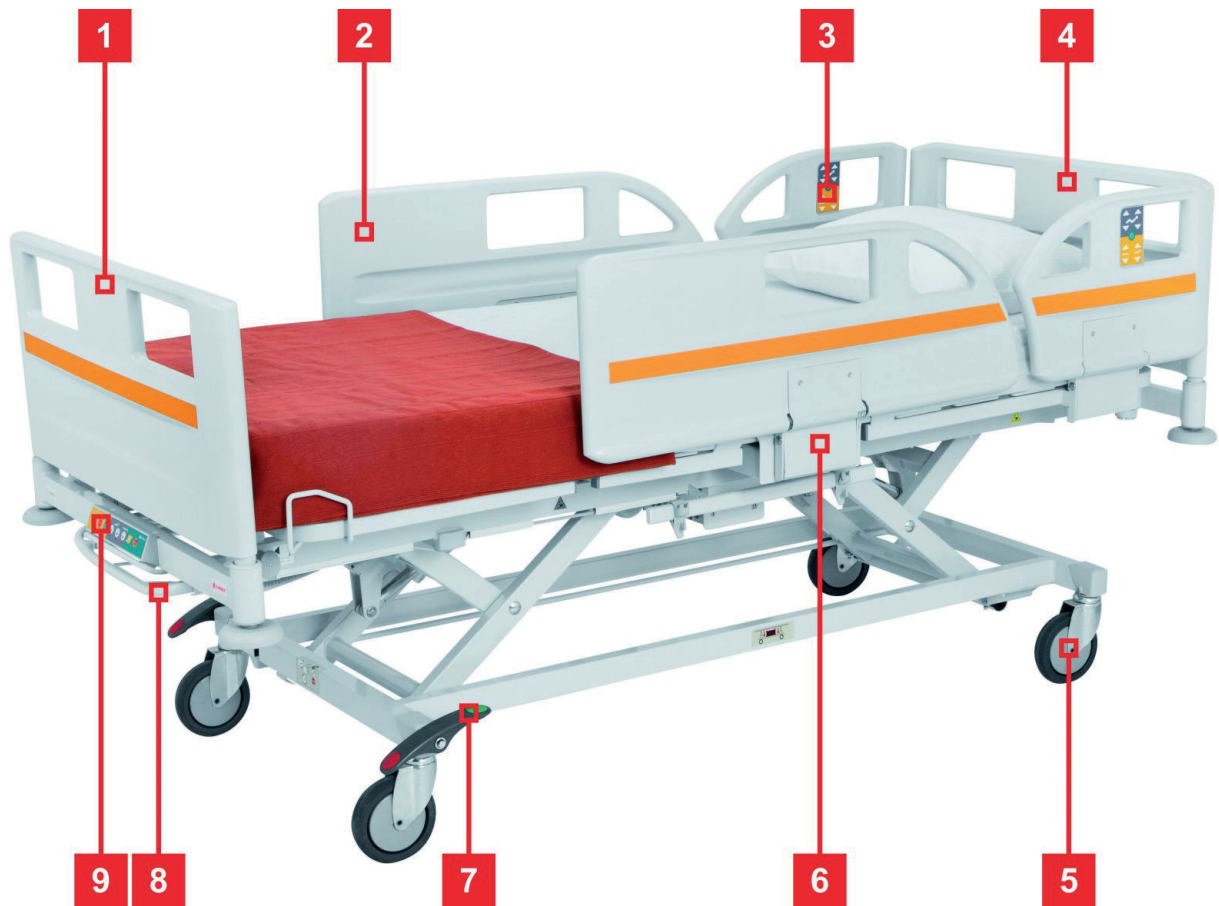


Fig. Overview Eleganza 1 – Split plastic siderails

1. Foot Board
2. Split collapsible siderails
3. Control element, integrated in siderail
4. Head Board
5. Castors
6. Siderail release mechanism (based on tipping down)
7. Central castor system lever
8. Linen shelf
9. Supervisor board

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

5.3 Eleganza 1 (1GTP) with Split Plastic Siderails (SR46)

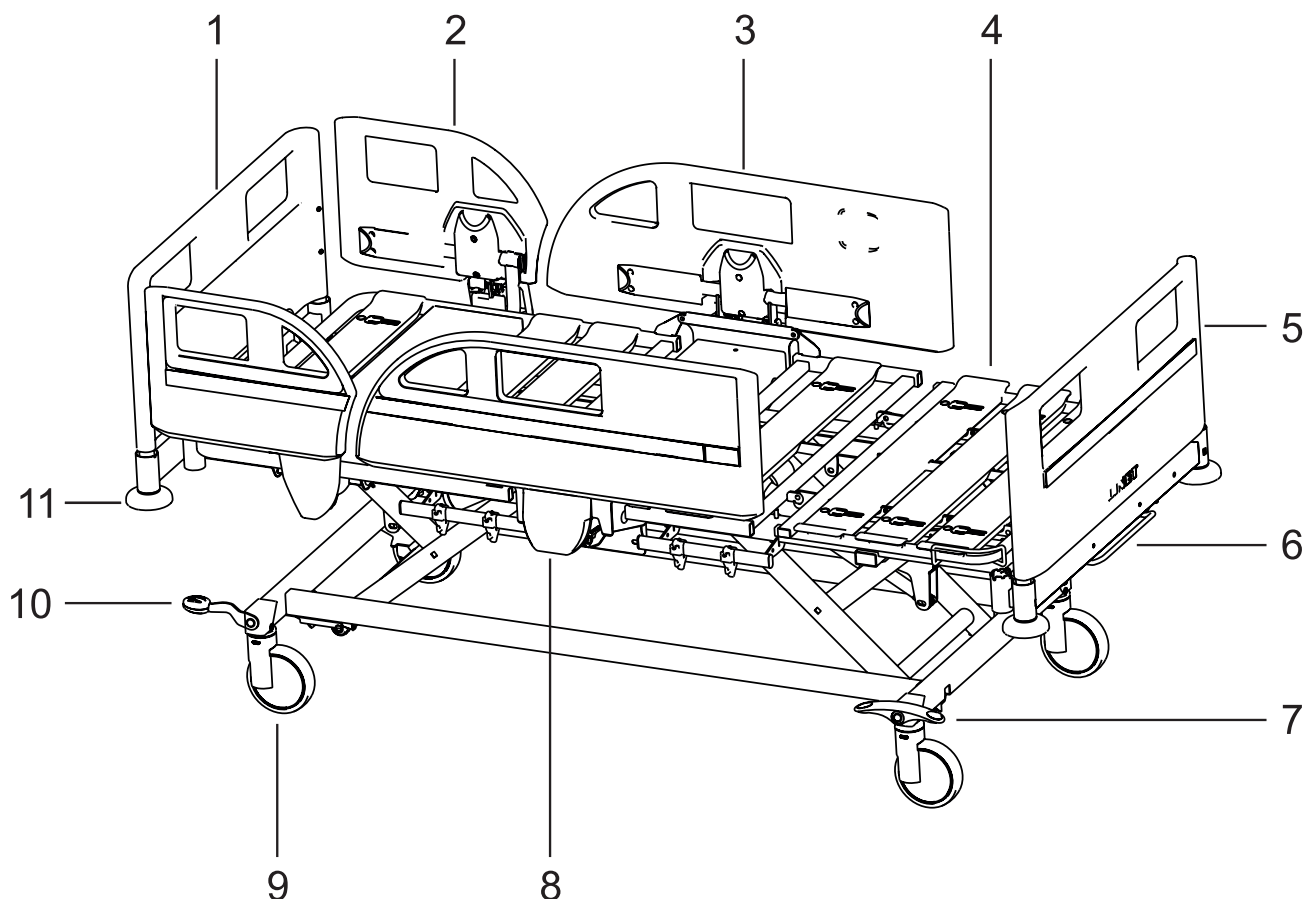


Fig. Overview Eleganza 1 – Split Plastic Siderails

- 1. Head Board
- 2. Head Plastic Siderail
- 3. Foot Siderail
- 4. Mattress Platform (Removable Plastic Parts)
- 5. Foot Board
- 6. Linen Shelf
- 7. Brake Lever (optional)
- 8. Siderail Release Mechanism (based on lifting towards the user)
- 9. Castor
- 10. Brake Lever (optional)
- 11. Corner Bumper

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

5.4 Eleganza 1 (1GTP) – Single collapsible siderails controlled from top

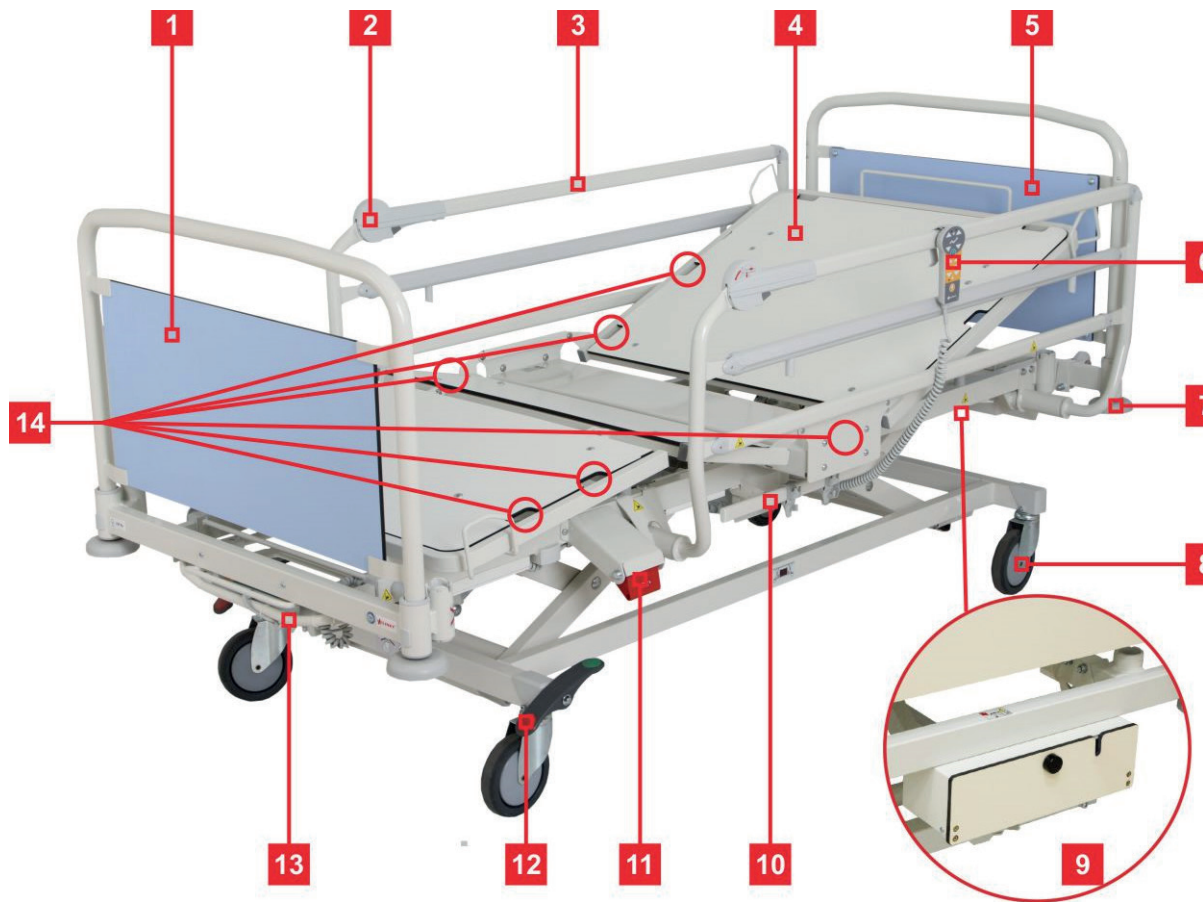


Fig. Eleganza 1 (1GTP) – Single collapsible siderails controlled from top

1. Foot board
2. Siderail release mechanism
3. Single collapsible siderails controlled from the top
4. Mattress platform consisting of fixed HPL parts
5. Head board
6. Handset
7. Protective bumper
8. Castor 150 mm
9. Lockable box for mains cable
10. Accessory rail
11. CPR lever
12. Central castor system lever
13. Linen shelf with non-removable Attendant Control Panel
14. Segufix holders

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

5.5 Eleganza 1 (1GTP) – Single collapsible siderails controlled from bottom

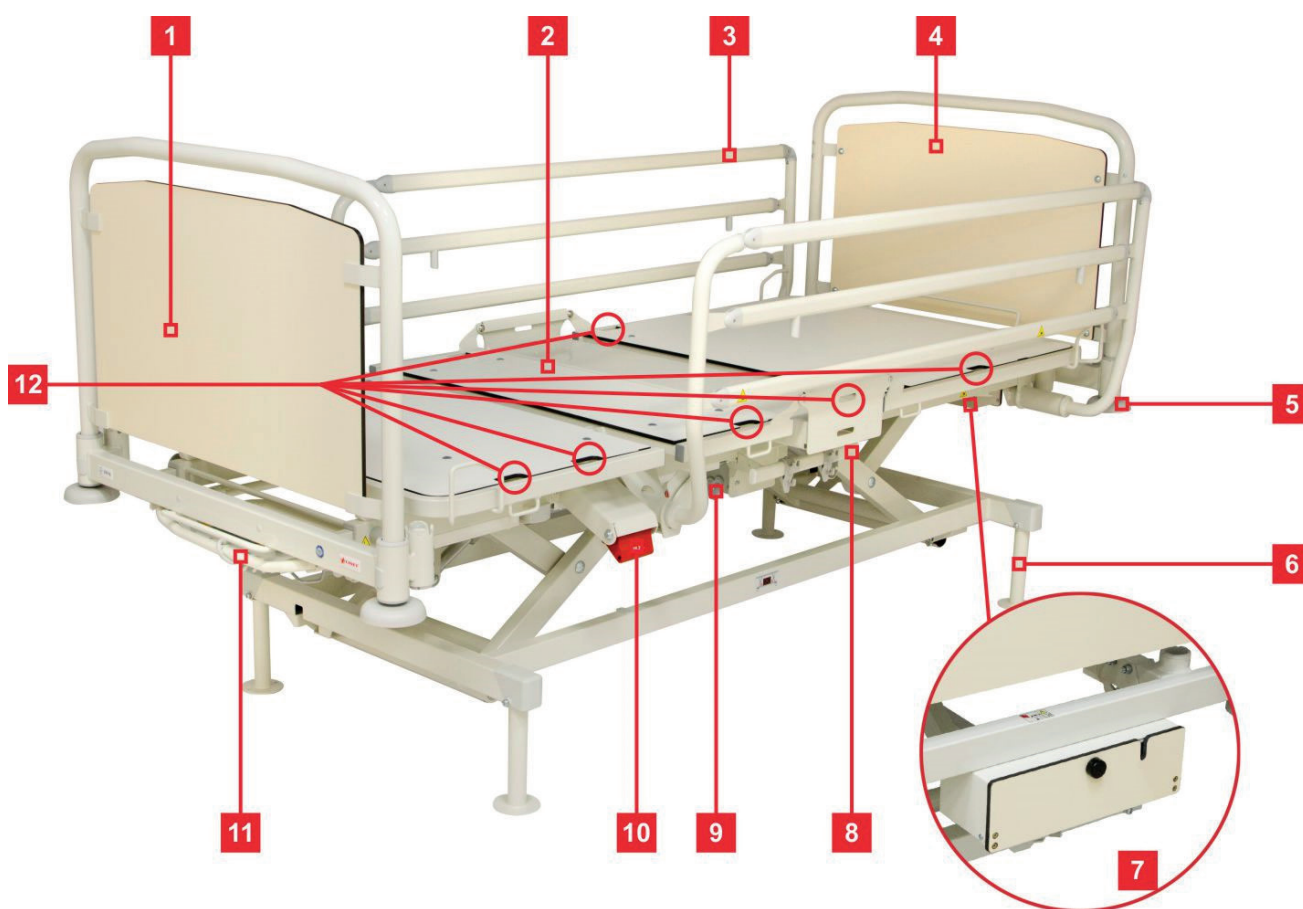


Fig. Eleganza 1 (1GTP) – Single collapsible siderails controlled from bottom

1. Foot board
2. Mattress platform consisting of fixed HPL parts
3. Single collapsible siderails controlled from the bottom
4. Head board
5. Protective bumper
6. Bed foot with the possibility of fixation to the floor
7. Lockable box for mains cable
8. Accessory rail
9. Siderail release mechanism
10. CPR lever
11. Linen shelf with non-removable Attendant Control Panel
12. Segufix holders

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

6 Technical Specification

6.1 Type B Applied Parts

All the accessories the patient can reach are Type B Applied Parts.

List of type B applied parts:

- Handset, Additional Attendant Control Panel, Control Element integrated in Siderail
- Siderails
- Head board and foot board
- Mattress Platform

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

6.2 Mechanical Specification (standard version)

Parameter	Value
Dimensions (without Bed Extension)	218 cm x 99,5 cm (depending on configuration)
Siderail length Split siderail	
■ Foot siderail	96,5 cm
■ Head siderail	49,5 cm
Collapsible siderails	146,5 cm
Siderail height Split siderail	
■ Foot siderail	35 cm
■ Head siderail	35 cm
Collapsible siderails	54,5 cm
Maximum Mattress Dimensions	200 cm x 90 cm
Maximum Mattress Height	16 cm (depending on configuration)
Siderail Height above Mattress Platform (without mattress)	MIN: 7,5 cm, MAX: 38 cm (depending on configuration)
Bed Extension	0 cm / 15 cm
Mattress Platform Height Adjustment castor diameter 125 mm castor diameter 150 mm	37 cm – 73,5 cm 39,5 cm – 76 cm
Maximum Backrest Angle	70°
Maximum Thighrest Angle	35°
Maximum Calfrest Angle	21°
Ergoframe®	10 cm / 6 cm
Trendelenburg Angle	15°
Reverse Trendelenburg Angle	15°
Bed Weight	135 kg (depending on configuration)
Maximum Lifting Pole Load	75 kg

6.3 Mechanical Specification (shortened version)

Parameter	Value
Dimensions (without Bed Extension)	218 cm (205 cm) x 99,5 cm (depending on configuration)
Siderail lenght Split siderail ■ Foot siderail ■ Head siderail Collapsible siderails	96,5 cm 49,5 cm 146,5 cm
Siderail height Split siderail ■ Foot siderail ■ Head siderail Collapsible siderails	35 cm 35 cm 54,5 cm
Maximum Mattress Dimensions	200 cm (190 cm) x 90 cm
Maximum Mattress Height	16 cm*
Siderail Height above Mattress Platform (without mattress)	MIN: 7,5 cm, MAX: 38 cm (depending on configuration)
Bed Shortening	0 cm / -13 cm
Mattress Platform Height Adjustment castor diameter 125 mm castor diameter 150 mm	37 cm – 73,5 cm 39,5 cm – 76 cm
Maximum Backrest Angle	70°
Maximum Thighrest Angle	27°
Maximum Calfrest Angle	21°
Ergoframe®	10 cm / 6 cm
Trendelenburg Angle	15°
Reverse Trendelenburg Angle	15°
Bed Weight	135 kg (depending on configuration)
Maximum Lifting Pole Load	75 kg

6.4 Safe Working Load (SWL)

	Castors		Accumulator	
	Diameter	Brake system	without	with
Safe Working Load (depending on castors and accumulator)	125 mm	Individually operated castors	185 kg	185 kg
		Centrally operated castors	200 kg	250 kg
	150 mm	Centrally operated castors	200 kg	250 kg

6.5 Maximum Patient Weight

	Application environment 1,2		Application environment 3,5	
	Accumulator		Accumulator	
	without	with	without	with
Maximum Patient Weight (depending on accumulator and application environment)	120 kg	120 kg	150 kg	150 kg
	135 kg	185 kg	165 kg	215 kg
	135 kg	185 kg	165 kg	215 kg

6.6 Mass of Mobile Hospital Bed

	Castors		Accumulator	
	Diameter	Brake system	without	with
Mass of Mobile Hospital Bed (depending on castors and accumulator)	125 mm	Individually operated castors	337 kg	
		Centrally operated castors	352 kg	402 kg
	150 mm	Centrally operated castors	352 kg	402 kg

6.7 Environment Conditions

Environmental Conditions - Operation	Value
Temperature	10 °C — 40 °C
Humidity	30 % — 75 %
Atmospheric Pressure	795 hPa — 1060 hPa
Environmental Conditions - Storage and Transport	Value
Temperature	-20 °C — 50 °C
Humidity	20% — 90% (non-condensing)
Atmospheric Pressure	795 hPa — 1060 hPa

6.8 Electrical Specifications



DANGER!

Danger to life due to electric shock!

► Ensure that maintenance and service of electrical parts are performed only by qualified personnel if the bed is connected.

Parameter	Value
Input Voltage	
Version 1	230 V ~, 50/60 Hz
Version 2	100 V ~, 50/60 Hz
Version 3	110 V ~, 50/60 Hz
Version 4	120 V ~, 50/60 Hz
Version 5	127 V ~, 50/60 Hz
Version 6	110 - 127 V ~, 60 Hz / 220 V ~, 50/60 Hz
Maximum Power Input	370 VA
Ingress Protection	IPX4
Safety Class	Class I (with type B applied parts)
Electrical Motor Duty Cycle	2 min ON / 18 min OFF
Accumulator	2 sealed lead batteries 12 V 15 A Fuse Capacity 1.2 Ah
Fuse	
Version 1	
Version 2 – Version 5	2x T1.6A L 250 V
Version 6	2x T3.15A L 250 V 2x T1.6A L 250 V / 2x T3.15A L 250 V
Sound Pressure Level	60 dB(A)

NOTE Upon request, LINET® can deliver hospital beds with electrical specifications that comply with regional standards (custom voltage, different mains plugs).

Electrical system of Eleganza 1 is characterized by overcurrent protection against overload of each actuator.

6.9 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.



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:

1. Mains cable, maximum length 6 m
2. ACP Attendant Control Panel, maximum length 3m
3. Handset, maximum length 3m



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 bed Eleganza 1, 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.) and consider chapter 18 Maintenance in order to maintain the basic safety with regard to electromagnetic disturbances for the expected service life.

6.9.1 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

6.9.2 Manufacturer instructions - electromagnetic susceptibility

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

Table 1 - IMMUNITY to RF wireless communications equipment

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

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

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

NOTE Beds equipped with communication module meet standard for IEEE 802.11 b/g/n (2400,0 MHz – 2483,5 MHz, modulation DSSS (IEEE 802.11 b), OFDM (IEEE 802.11 g/n) 20MHz bandwidth, EIRP = 0,34 W).

7 Use and Storage Condition

The bed may not be used and stored in indoor environments:

- Where there is a risk of explosion.
- Containing inflammable anaesthetics.

The bed is designed for use in rooms for medical purposes. Electrical installations must therefore meet local standards laying down the necessary conditions for electrical installations.

- ▶ Disconnect the bed from the mains in exceptional cases (i.e. earthquake, lightning).

8 Scope of Delivery and Bed Variants

8.1 Scope of Delivery

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.

8.2 Bed Variants

8.2.1 Eleganza 1 Model 1GTP Hospital Bed

s = standard

o = optional

- Mattress Platform
 - mattress platform consisting of removable plastic parts (s)
 - mattress platform with bed shortening (-13 cm) (o)
- Head Board and Foot Board
 - Plastic panels with coloured decors (s)
 - Powder Coated HE/FE – with coloured HPL panels (o)
- Siderails
 - Without siderails (s)
 - Single collapsible siderails, powder coated (o)
 - Split plastic siderails (o)
- Castors
 - 125 mm Tente Motion, with individual braking system (s)
 - 125 mm Tente Motion, with central braking system (o)
 - 150 mm Tente Motion, with central braking system (o)
 - 150 mm Tente Motion + fifth castor (o)
- Control Elements
 - supervisor board
 - Attendant Control Panel
 - handset
 - with illuminated keyboard
 - without illuminated keyboard
 - satellite control panel
 - control element integrated in siderail (only for split plastic siderails)
 - foot controls
- Other
 - linen shelf
 - vertical safety bumpers
 - 1 pair of backrest angle indicators (only for split siderails)
 - 1 pair of urine bag holders
 - 1 pair of accessory rails
 - CPR emergency backrest release
 - brake alarm
 - Segufix holder
- Powder Coating Colours
 - powder-coated metal parts, RAL 9002 (white)
 - powder-coated metal parts, RAL 9006 (light grey)

8.2.2 Eleganza 1 Model 1GTP Extra Safe Bed

s = standard

o = optional

- Mattress Platform
 - mattress platform consisting of fixed HPL parts (s)
- Head Board and Foot Board
 - Non-removable powder-coated HE/FE with fixed HPL panels (s)

- Siderails
 - Without siderails (s)
 - Single collapsible siderails, powder coated controlled from top (o)
 - Single collapsible siderails, powder coated controlled from bottom (o)
- Castors
 - 125 mm Tente Motion, with individual braking system (s)
 - 150 mm Tente Motion, with central braking sytem (o)
 - 150 mm Tente Motion (o)
 - Without castors, with the possibility of fixation to the floor (o)
 - NOTE:** Fixation material is not part of the delivery.
- Control Elements
 - Non-removable ACP Nurse control panel (Attendant Control Panel) fixed to the linen shelf (s)
 - Plug & Play connector for removable handset (o)
 - Handset with illuminated keyboard (s)
 - Handset without illuminated keyboard (o)
- Other
 - Lockable box for mains cable under the head board (s)
 - Mattress platform extension (o)
 - Linen shelf (o)
 - One pair of universal accessory holders with fixed hooks (o)
 - Segufix holders (o)
 - 4 head and foot end bushings for accessories (s)
- Powder Coating Colors
 - RAL 9002 (grey) (s)
 - Powder-coated metal parts, RAL 9006 (light grey) + RAL 7043 (dark grey) (o)

9 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!

Material damage due to incorrect putting into service!

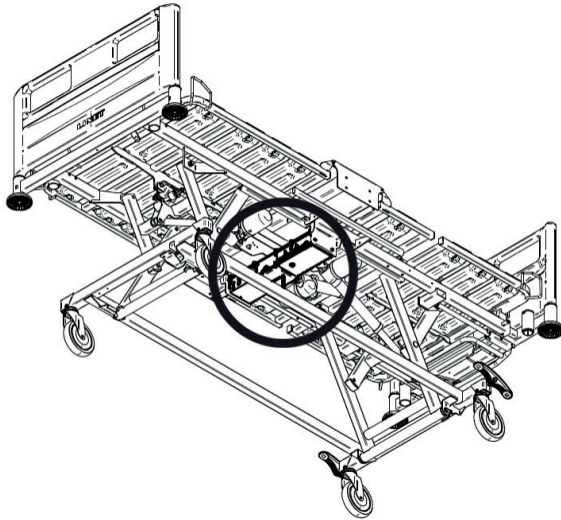
- ▶ Ensure that putting into service is performed exclusively by manufacturer's customer service or trained hospital personnel.

Set up the bed as follows:

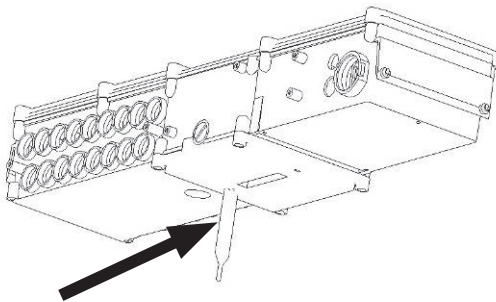
- ▶ Unpack the bed.
- ▶ Check the delivery (see Scope of Delivery).
- ▶ Remove isolating foil from bed control unit (see Accumulator Activation).
- ▶ Install equipment and accessories.
- ▶ In case of delivery with dismounted head board and foot board, mount the head board and foot board (see Head Board and Foot Board).
- ▶ Set-up the bed only on a suitable floor surface (see Transport).
- ▶ Ensure the mains cable does not collide or get stretched when adjusting the bed. Check the plug is inserted correctly.
- ▶ Do not leave any extension cords or power strips loose on the floor.
- ▶ Ensure all the required mechanical and electrical prevention mechanisms are available on site.
- ▶ There is no mains switch on the bed, i.e. the mains cable is the only means to isolate the bed from the mains.
- ▶ Ensure the mains cable is always accessible.
- ▶ The plug on the mains cable should only be changed and maintained by qualified and trained service technicians authorised by the manufacturer.

9.1 Accumulator Activation

9.1.1 Placement of Control Section



9.1.2 Removing the Isolating Foil



9.1.3 Isolating Foil

Check if isolating foil is complete and undamaged as shown:



If isolating foil is damaged, contact the manufacturer's service department immediately.

NOTE: It is recommended to wear gloves when removing the isolating foil.

9.2 Head Board and Foot Board



WARNING!

Risk of injury when inserting the head board and foot board!

- ▶ To insert head board and foot board into corner posts, hold them by the corner handles on top with both hands.
- ▶ Install head board and foot board before the first use.



WARNING!

Risk of injury due to incorrectly installed head board and foot board!

- ▶ Ensure head board and foot board are correctly inserted, especially when moving the bed.
- ▶ Ensure head board and foot board locks are locked, especially when moving the bed.



WARNING!

Risk of injury when removing the head board and foot board!

- ▶ Before removing head board and foot board, ensure the head board and foot board do not collide with any accessories or cable.
- ▶ If a patient is lying in a bed with the head and/or foot board removed, supervise the bed at all times.



WARNING!

Material damage due to excess load!

- ▶ Ensure nobody sits on the head board and foot board.

NOTE: The head board and foot board may be delivered in several decor colour variants.

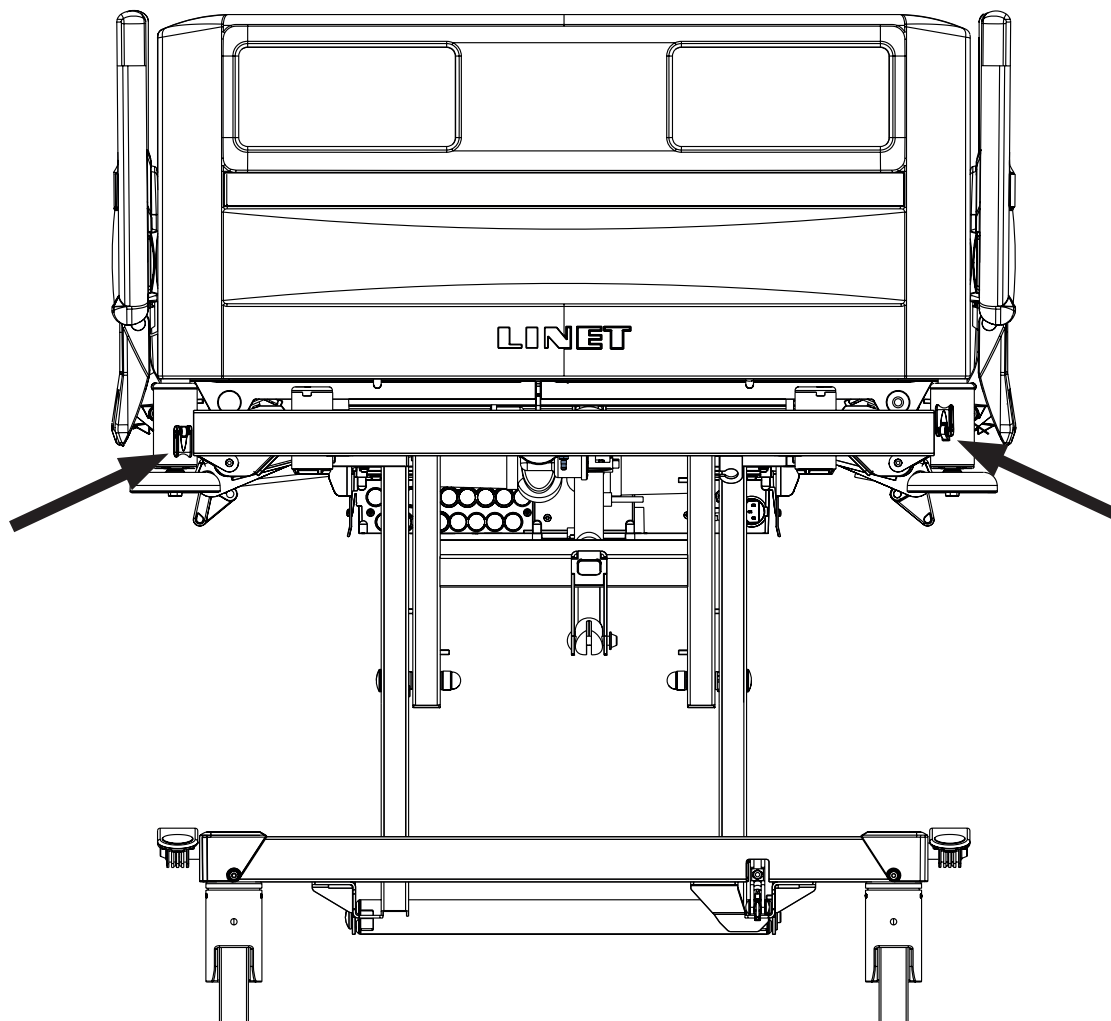
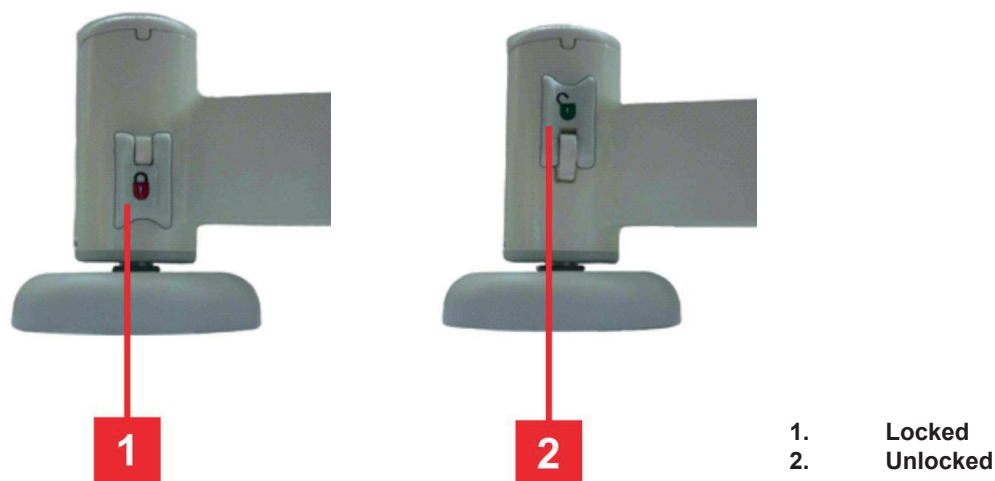


Fig. Positions of head board locks



Install head board and foot board as follows:

- ▶ Unlock safety levers on corner posts.
- ▶ Slide head board and foot board into slots on corners posts with coloured panels outside.
- ▶ Lock safety levers on corner posts.

Remove head board and foot board as follows:

- ▶ Unlock safety levers on corner posts.
- ▶ Pull head board and foot board upward.

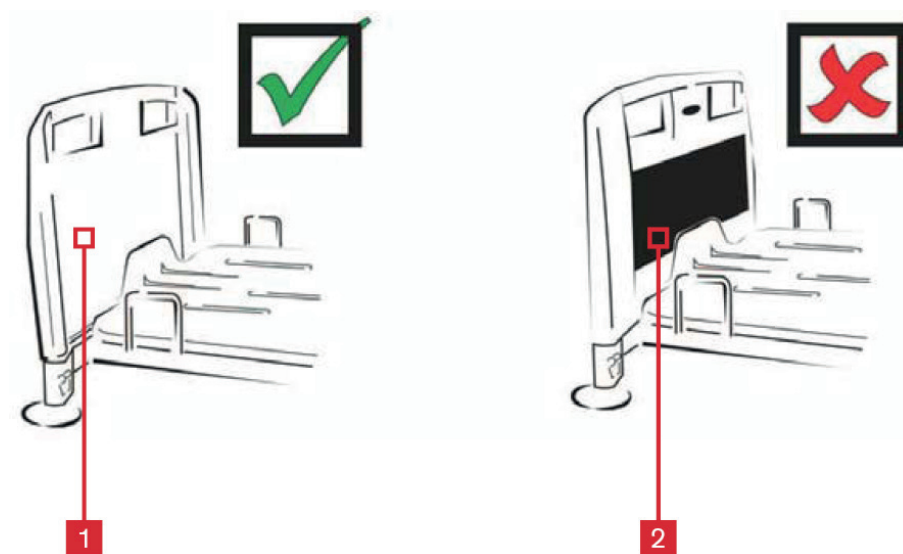


Fig. Installing the head board or foot board

9.3 Mattress support platform

Eleganza 1 bed has 4-part Mattress support platform consisting of Backrest, Seat section, Thighrest and Calcrest. The Mattress support platform has 7 removable plastic sections of Mattress support platform (1, 2, 3, 4, 5, 6 and 7).

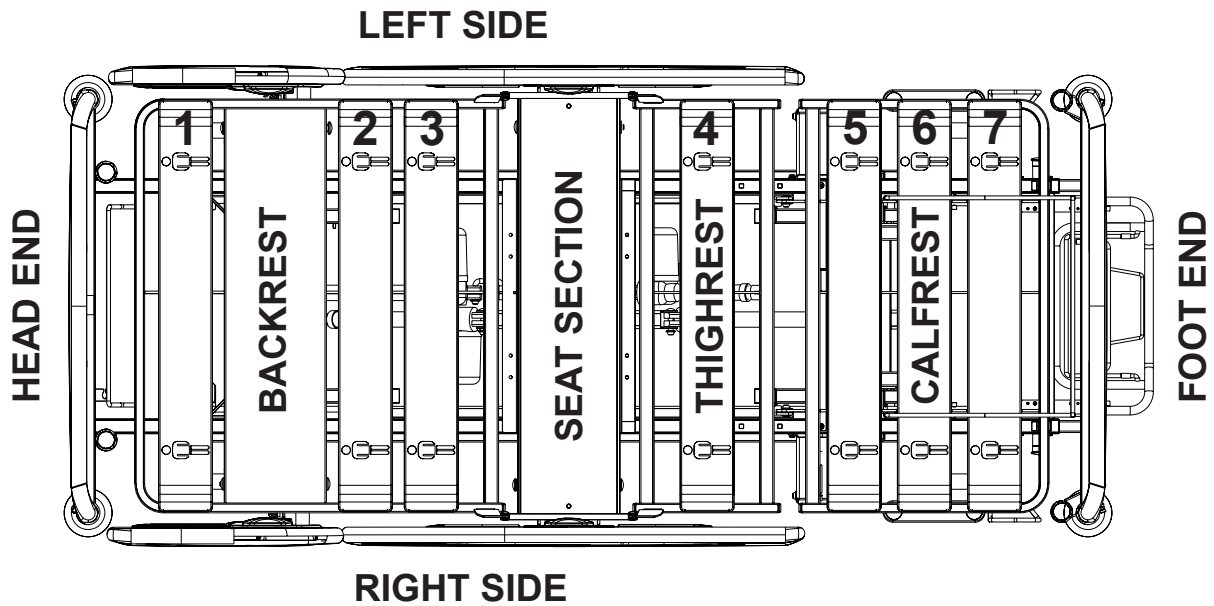


Fig. 4-part Mattress support platform

To remove/insert plastic sections of the mattress support platform:

- ▶ Pull out mattress support platform plastic sections.
- ▶ Place mattress support platform plastic sections in directions indicated by the orientation of the picture of person on the plastic sections.
- ▶ The correct fitting of the plastic section is signaled by hearable "click".
- ▶ Ensure that mattress support platform plastic sections are fitted correctly by trying pull the plastic sections up with little manpower.

9.3.1 Shortened Bed



WARNING!

Use the bed shortening carefully when a patient is on the bed to avoid risk of crushing, trapping or squeezing!

Eleganza 1 medical bed can be delivered in the version with bed shortening. Purpose of this shortened version is to facilitate bed transport. It is recommended to use mattress (with length of 190 cm) with foam extension (with length of 10 cm).

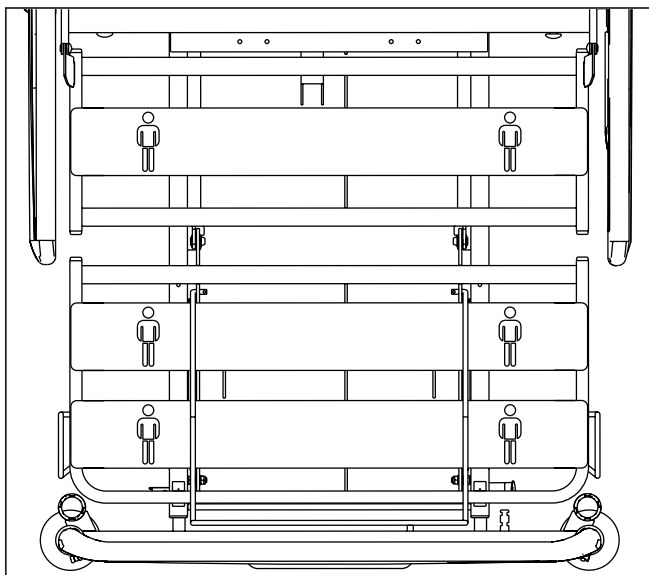


Fig. Shortened bed with length of 205 cm

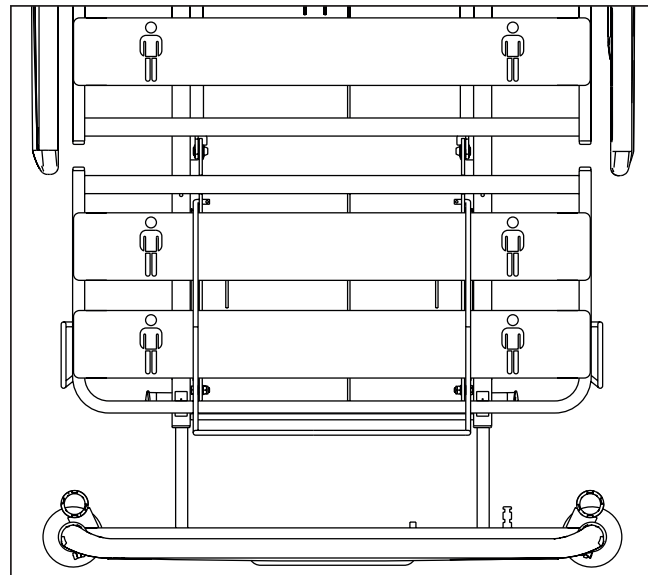


Fig. Mattress platform of the Shortened version of Eleganza 1 (basic position)

9.4 Potential Equalisation

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.

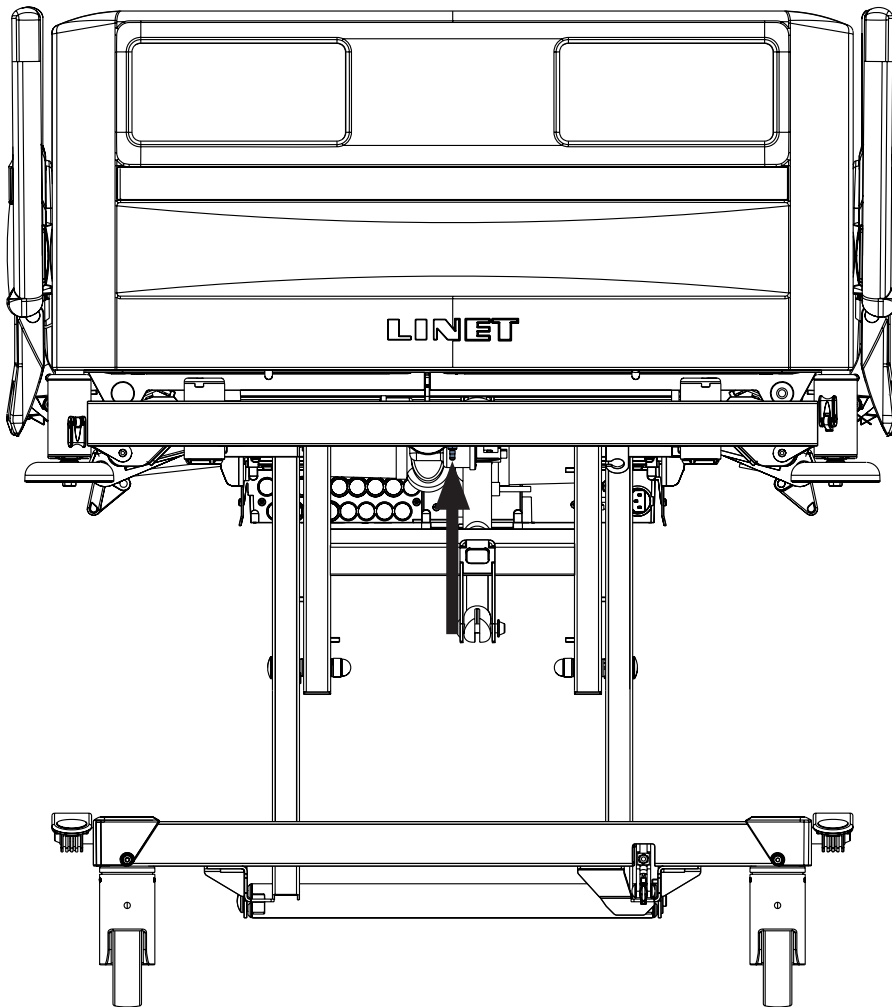


Fig. Potential equalisation connector – male

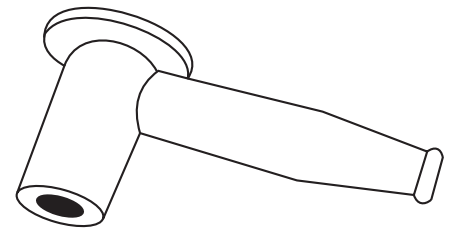


Fig. Potential equalisation connector - female

Use equalisation connector if:

- The patient is connected to any intravascular or intracardiac device.

Before connecting the patient to an intravascular/intra-cardiac 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 the connectors match.
- ▶ Make sure there is no possibility of accidental disconnection.

Before moving the bed:

- ▶ Disconnect the patient from the intravascular or intracardiac device.
- ▶ Disconnect the potential equalisation connector.

9.5 Before Use



CAUTION!

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 to allow the temperature to equalise.

Prepare the bed for service as follows:

- ▶ Dispose of all packaging (see Disposal).
- ▶ Connect the bed to the mains.
- ▶ Charge the accumulator.
- ▶ Raise the mattress platform to the highest position.
- ▶ Remove the isolating foil from control section.
- ▶ Lower and tilt the mattress platform to the lowest position.
- ▶ Check the castors and main brake work correctly.
- ▶ Check the bed extension works correctly.
- ▶ Check it is possible to remove the head and foot boards.
- ▶ Check all of the functions on the control elements (Attendant Control Panel etc.).
- ▶ Check the siderails function properly.

9.6 Transport



CAUTION!

Damage to the bed due to incorrect use!

- ▶ Use 125 mm castors exclusively on flat, even surfaces without any gaps.

For safe transport, observe the following:

- ▶ Ensure no cables are run over when moving a bed.
- ▶ Ensure the mains cable is attached with a hook (at the head end of the bed).
- ▶ Ensure the castors are unlocked before moving the bed during the loading/unloading process (see Castor Control).
- ▶ Ensure the siderails are lifted and locked during transport of the bed.
- ▶ Move the bed only on suitable floor surfaces.

Suitable surfaces:

- Tile
- Hard linoleum
- Hard flooring

Unsuitable surfaces:

- Soft, unsealed or defective flooring
- Soft wooden flooring
- Soft and porous stone floors
- Carpeted floors with underlay
- Soft linoleum
 - For longer distances, ensure the castor steering function (main control) is activated.
 - Ensure the brakes are released while moving the bed.

9.7 Firmware

The bed includes firmware that can be updated only by an authorised service technician.

This firmware is protected against unauthorised access by mechanical housing (tool is needed to access), by seal (components with processor are sealed), by exclusive compatibility with an authorised software tool and by check of compatibility of the new firmware with the bed.

10 Power Cable



CAUTION!

Disconnecting bed from the mains does not stop motions of the bed!

- ▶ Stop the bed before disconnection bed from the mains.

Attachment plug is means of connecting and disconnecting bed from the mains.

Power supply cable (mains power cable) must be attached with a hook at the head end of the bed during transport.

Where the integrity of the external protective conductor in the installation or its arrangement is in doubt

- ▶ operate the bed from internal accumulator only.

10.1 Lockable box for mains cable (Extra Safe Version)

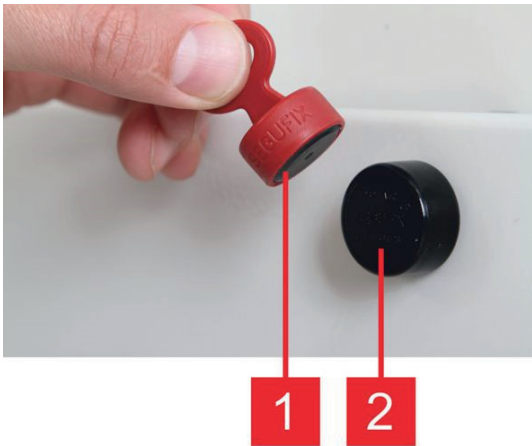


WARNING!

Risk of damaging the box or mains cable due to incorrect use!

- ▶ Never leave the doors on the box opened. There is a risk of damaging by usage or by a mentally unstable patient.
- ▶ Always place the mains cable to the cut-out in the doors of the box. Otherwise there is a risk of damaging the mains cable.
- ▶ Always lock whole mains cable to the box in case the patient is left without supervision.
- ▶ Always check if the box is locked properly.
- ▶ Magnetic key is determined only for hospital personnel.
- ▶ Never leave magnetic key at the bed without supervision.

The box is placed on the bar under head board. Box is designed for locking mains cable on the psychiatric departments while the patient is left without supervision. It eliminates risk of damaging the patient by cable.



Unlock the box as follow:

- ▶ Enclose the magnetic key to the lock and gently push.
- ▶ Grab magnetic key and lock.
- ▶ Remove the lock by pulling.

1. Magnetic key
2. Lock



Fig. Unlocking the box



Fig. Unlocked box

11 Accumulator



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).



CAUTION!

Risk of damage or destruction of accumulator!

- ▶ If the accumulator is faulty, degassing may occur. In rare cases this might cause deformations of the accumulator case, control panel housing or cable.
- ▶ If this occurs stop using the bed immediately (see Removing the Bed from Service).
- ▶ Inform the manufacturer's service department immediately.

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

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

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

The accumulator serves as a backup during power failures, during transport of the patient or for emergency bed positioning.

- ▶ Use only accumulator approved by the manufacturer.
- ▶ Check the functionality of the accumulator at least once a month in accordance with the instructions for use and have the accumulator changed if necessary.

The accumulator supplied with the bed is delivered uncharged.

- ▶ The manufacturer provides a 6-month warranty for the full function of the accumulator.
- ▶ Check the accumulator functionality at least once a month in accordance with the user and service manuals 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.
 - Accumulator replacement non-qualified service organisation.

To charge the accumulator:

- ▶ Connect the bed to the mains and check the yellow LED on the Attendant Control Panel according to the table below.
- ▶ Charging and accumulator capacity is indicated by the yellow LED placed on the ACP control panel.

NOTE: Some bed adjustment options are not available without a accumulator, for example, height adjustment under a load of above 200 kg.

The LED on ACP indicates the accumulator charge status:

Yellow LED	Accumulator charge status
Not lit	Accumulator capacity is sufficient (charging completed)
Short flashing (short, intermittent illumination) (circa 1.8 sec.)	Accumulator is charging - continue charging until the LED is extinguished. In emergency cases, the accumulator can be used as a backup power source for a short period. If LED is still flashing after 12 hours of charging or stops flashing, but you cannot position with bed, accumulator is defective or broken. Contact manufacturer.
Long flashing (long illumination) (circa 0.2 sec.)	Low accumulator voltage - accumulator cannot be used as a backup power supply even for a short period; accumulator is completely discharged or defective (if this type of signalisation persists, it is necessary to replace the accumulator - service action)
Long, intermittent illumination for several hours (circa 10 hours), when bed is connected to the mains.	Accumulator absence or failure condition (accumulator is connected incorrectly, line between the power supply and accumulator is broken or accumulator fuses are faulty); contact service department of the manufacturer in case of such signalisation.

To maintain maximum functionality of the accumulator:

- ▶ Unplug the bed from the mains as least as possible.

In case the accumulator cover or control section is deformed by heat

- ▶ Unplug the bed from the mains.
- ▶ Do not use the bed (see. Removing the Bed from Service).
- ▶ Contact service of the manufacturer.

11.1 Status 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

Status “faulty accumulator” is indicated:

- ▶ By the accumulator status indicator being constantly lit.
- ▶ A fault accumulator status can be cancelled by pressing the STOP button.
- ▶ Accumulator status data is saved to the Linis system and written to the “Blackbox”.

11.2 Status Discharged Accumulator

The accumulator is regarded as discharged if the following condition is met:

- ▶ Defined decrease of voltage depending on discharging current

Status “discharged accumulator” is:

- ▶ Status is indicated by the accumulator status indicator flashing quickly.
- ▶ The electric CPR position is the only possible position.
- ▶ This status will be cancelled automatically when the bed switches to sleep mode.

11.3 Removing the Bed from Service

How to remove the bed from service:

- ▶ Disconnect the bed from the mains.
- ▶ Disconnect the ground wire.
- ▶ Deactivate the accumulator (see Deactivating the Accumulator).
- ▶ Remove accessories.

To prevent damage during storage:

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

11.4 Deactivating the Accumulator

To avoid damaging the bed and the environment during storage:

- ▶ Deactivate the accumulator on the Attendant Control Panel.

To deactivate the accumulator on the Attendant Control Panel:

- ▶ Disconnect the bed from the mains.
- ▶ Disconnect the ground wire.
- ▶ Activate the keypad by pressing the GO button on the Attendant Control Panel.
- ▶ Press the Thighrest Up + Thighrest Down + Trendelenburg Position buttons at the same time and hold them for three seconds.
- ▶ The accumulator is deactivated.

NOTE: Try some functions to ensure the accumulator is deactivated.

To activate the accumulator again:

- ▶ Connect Power Cable to the mains.

12 Manipulation



WARNING!

Risk of injury when adjusting the bed!

- ▶ Ensure there are no body parts between the mattress platform elements and the mattress platform frame when adjusting the bed.
- ▶ Ensure there are no body parts below the mattress platform frame before adjusting the bed.
- ▶ Secure or remove any items on the bed.

The bed is operated by different control elements.

Control elements:

- ▶ Supervisor board
- ▶ Attendant Control Panel
- ▶ Handset without illuminated keyboard
- ▶ Handset with illuminated keyboard
- ▶ Handset with adapter for easy connection (Plug and Play)
- ▶ Controls integrated in siderails

Disabling individual functions on the Attendant Control Panel affects all of the control elements.

If the bed does not react to individual position settings:

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

12.1 MiniACP (Supervisor board)

The supervisor board is an optional control element. The supervisor board is located at the foot end of the bed.

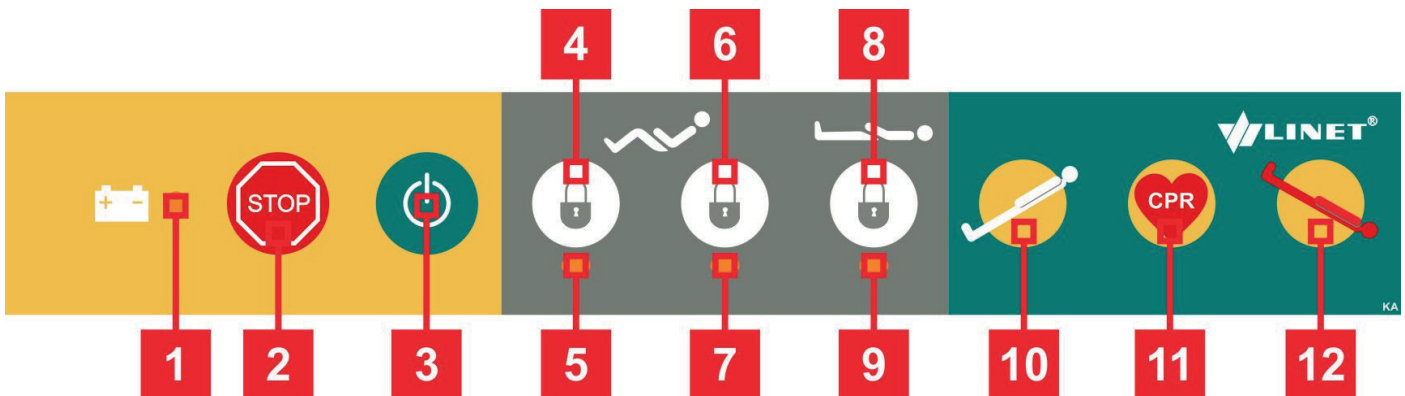


Fig. MiniACP (Supervisor board)

1. Accumulator Charge Status LED
2. Central STOP Button
3. Activating GO Button
4. Thighrest Lock Button
5. Thighrest Lock LED
6. Backrest Lock Button
7. Backrest Lock LED
8. Height Lock Button
9. Height Lock LED
10. Anti-Trendelenburg Tilt Button
11. CPR Button
12. Trendelenburg Position Button (optional)

To set positions:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold corresponding button until required position is reached.

12.2 ACP – Attendant Control Panel

ACP Attendant Control Panel is main control panel of the bed. Nurse controller can be placed in the shelf. We recommend placing ACP panel on the head board or foot board or hold it in the hands while controlling the bed.

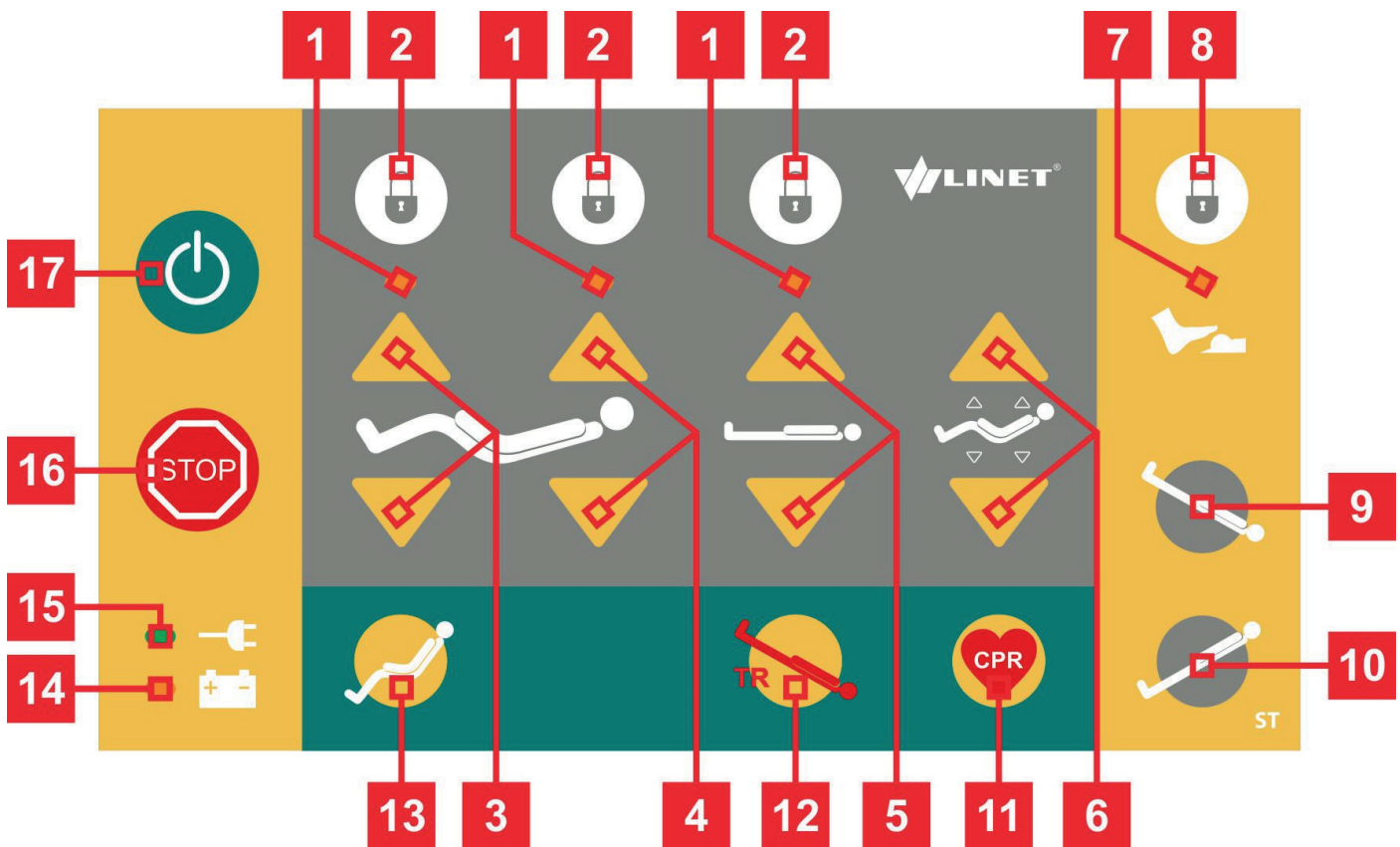


Fig. ACP - Attendant Control Panel

1. Lock LEDs
2. Lock Buttons
3. Thighrest Positioning Buttons
4. Backrest Positioning Buttons
5. Height Adjustment Buttons
6. Autocontour Buttons (simultaneous setting of back- and thighrest)
7. Foot Control Lock LED
8. Foot Control Lock Button
9. Trendelenburg Tilt Button (mattress platform tilt only)
10. Anti-Trendelenburg Tilt Button (mattress platform tilt only)
11. CPR (Resuscitation) Position Button
12. Trendelenburg Position Button (optional)
13. Cardiac Chair Position Button
14. Accumulator Charge Status LED (only for beds with backup accumulator)
15. Mains Power LED
16. Central STOP Button
17. Activating GO Button

To set positions:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold corresponding button until required position is reached.

12.2.1 Central STOP Button

The central STOP button 16 immediately interrupts all bed movements. Pressing central STOP button 16 for at least 0.3 seconds immediately stops all electronic bed movements.

NOTE: The bed can be stopped by pressing two different buttons even on two different controllers. If the press of the buttons is longer than 0,5 second the bed will stop all the movements immediately.

12.2.2 Activating GO Button

The GO button 17 activates the keypads on all control elements except the foot control. A GO button is included on a number of different control elements. The function of the GO button is identical on all control elements.

After pressing GO button 17, the keypad will remain active for 3 minutes. It is possible to control every function on the bed except the locked functions.

Pressing a function button will keep the keypad active for another 3 minutes.

It is necessary to activate the keypad again if the 3 minute period without pressing any function is passed.

12.2.3 Function Buttons

Function buttons 3, 4, 5, 6, 9 and 10 allow the setting of different positions, for example the height and tilt of the mattress platform, adjust individual mattress platform elements, etc.

To set a position:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold the respective button until required position is reached.

12.2.4 Lock Buttons

Lock button 2 allows disabling individual functions on the Attendant Control Panel.

To disable functions:

- ▶ Activate the keypad by pressing the GO button 17.
- ▶ Press respective lock button 2.

The respective LED flashes 1 to indicate the lock.

NOTE: The individual functions are locked in the central control panel, the satellite control, the handset, and the siderail control. The foot controllers are locked separately.

12.2.5 Mains Power LED

Status	Meaning
lit LED	connected to the mains
unlit LED	disconnected from the mains
flashing LED	system error

12.2.6 Position Buttons



WARNING!

Risk of injury due to moving parts!

- ▶ Ensure that no body parts are trapped between moving parts of bed and mattress platform.
- ▶ Ensure that no persons or body parts are close to bed or accessories (e.g. infusion stand, lifting pole) when mattress platform is moving



CAUTION!

Damage to property due to moving parts!

- ▶ Ensure that no objects (e.g. cables) are trapped between moving parts of bed and mattress platform.
- ▶ Ensure that no objects are close to bed or accessories (e.g. infusion stand, lifting pole) when mattress platform is moving.

The therapeutic and safety-related positions are pre-programmed. When a position is set, several parts of the bed and mattress platform will move simultaneously.

Programmed positions:

- ▶ Cardiac chair position 13
- ▶ Trendelenburg position 12
- ▶ CPR (resuscitation) position 11

To set the programmed positions:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold corresponding function button until the desired position is reached.

Cardiac chair position (button 13)

The cardiac chair position is suitable for patients with cardiac arrhythmia and breathing difficulties.

Settings after pressing and holding the Cardiac chair button (13):

- ▶ Calcrest tilts into lowest position, thighrest moves into the upright position (34°).
- ▶ 6 second after positioning calcrest and thighrest the backrest will move into an upright position (62°).

Trendelenburg position (12)

The Trendelenburg position serves as an anti-shock position. All parts of the mattress platform are flattened. Mattress platform tilts head down.

CPR (Resuscitation) Position

The CPR position is for resuscitating the patient in an emergency.

Settings after pressing and holding the CPR button (11):

- ▶ Mattress platform moves into a horizontal position.

NOTE: For quick mechanical positioning, see CPR Backrest Release.

12.3 Handset

The handset is included as a standard feature. The handset is available with and without button illumination. The button illumination of the illuminated handset is active when the bed is connected to the mains. The functions of both handsets are identical. Where the handset is to be stored on the bed depends on the patient’s condition.

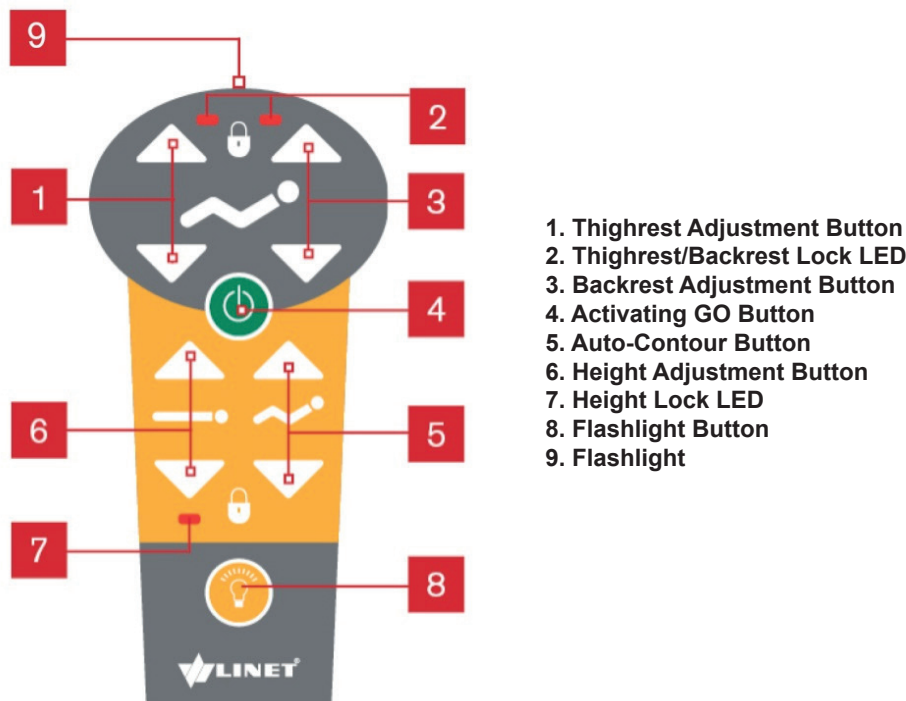


Fig. Handset

To switch on the flashlight:

- ▶ Press and hold flashlight button 8 and flashlight 9 on the top of the handset will light up.

Set the positions as follows:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold the function button until the desired position is reached.

NOTE: Depending on the patient's condition, the nursing staff decides whether the patient is allowed to adjust the bed’s position.

If required, prevent the patient from adjusting the bed as follows:

- ▶ Disable functions.
- ▶ Unplug handset (if the bed is equipped with Plug and Play).

NOTE: The handset can be plugged into another LINET® hospital bed with the Plug and Play slot.

12.4 Satellite Control Panel

The satellite control panel is an optional control element. The satellite control panel is attached to the backrest with a flexible arm.

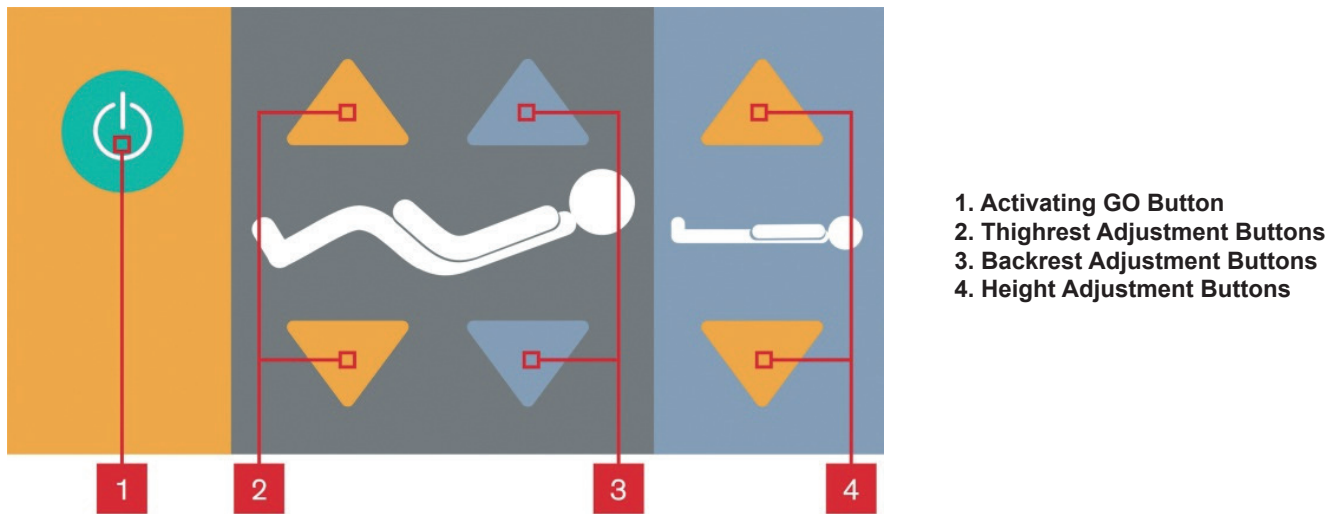


Fig. Satellite control panel

To set positions:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold corresponding button until required position is reached.

NOTE: Depending on the patient's condition, the nursing staff decides whether the patient is allowed to adjust the bed's position.

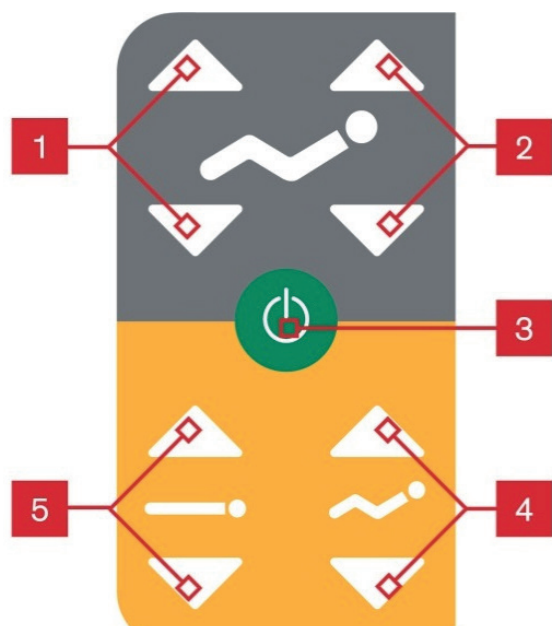
If required, prevent the patient from adjusting the bed as follows:

- ▶ Move the satellite panel out of the patient's reach.
- or-
- ▶ Disable functions.

NOTE: The satellite control panel can be fixed on the right or left side of the bed.

12.5 Control Element Integrated in Siderail

It is possible to equip the Eleganza 1 bed with integrated illuminated controllers in the siderails. The optional control element is attached to the siderail. The controllers are positioned on both sides of the bed.



1. Thighrest Adjustment Buttons
2. Backrest Adjustment Buttons
3. Activating GO Button
4. Auto-Contour Buttons
5. Height Adjustment Buttons

Fig. Control Element Integrated in the Siderail

To set positions:

- ▶ Activate the keypad by pressing the GO button.
- ▶ Press and hold corresponding button until required position is reached.

NOTE: Depending on the patient's condition, the nursing staff decides whether the patient is allowed to adjust the bed's position.

If required, prevent the patient from adjusting the bed as follows:

- ▶ Disable functions in siderails by locking the functions with ACP Attendant Control Panel (ACP – Attendant Control Panel).

12.6 Foot Control

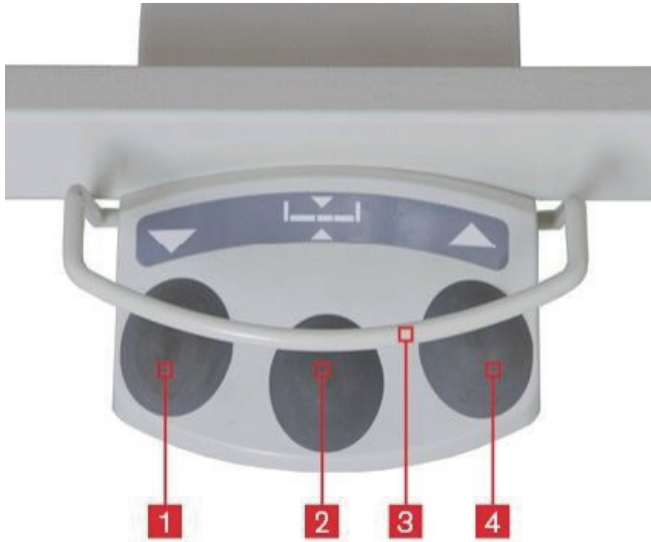


WARNING!

Risk of injury due to unlocked foot control!

- ▶ Ensure that the foot control is locked if it is not in use.
- ▶ Ensure no body parts are trapped between moving parts of bed and mattress platform.
- ▶ Ensure that no objects are close to bed or accessories (e.g. infusion stand, lifting pole) when mattress platform is moving.

It is possible to equip the bed with a foot control. The foot controllers enable the adjustment of the bed height or pre-programmed examination positions.



1. Foot Control Lower Mattress Platform
2. Foot Control Examination Position
3. Protection Frame against Unwanted Activation
4. Foot Control Raise Mattress Platform

Fig. Foot control

Set the position as follows:

- ▶ Press foot switch for activation (mini GO function).
- ▶ Press and hold foot switch until desired position is reached.

12.7 CPR backrest release



WARNING!

Risk of injury due to lowering the backrest too quickly!

- ▶ Ensure single collapsible siderails are in their lowest position.
- or
- ▶ Ensure split plastic siderails are in their highest position.
- ▶ Ensure there are no body parts between siderails and backrest.
- ▶ Press the backrest down only by the mattress guard handle or the siderail.

The CPR is located on the mattress platform frame under the thighrest part. CPR allows quick mechanical lowering of the backrest for emergency resuscitation (CPR) procedures.

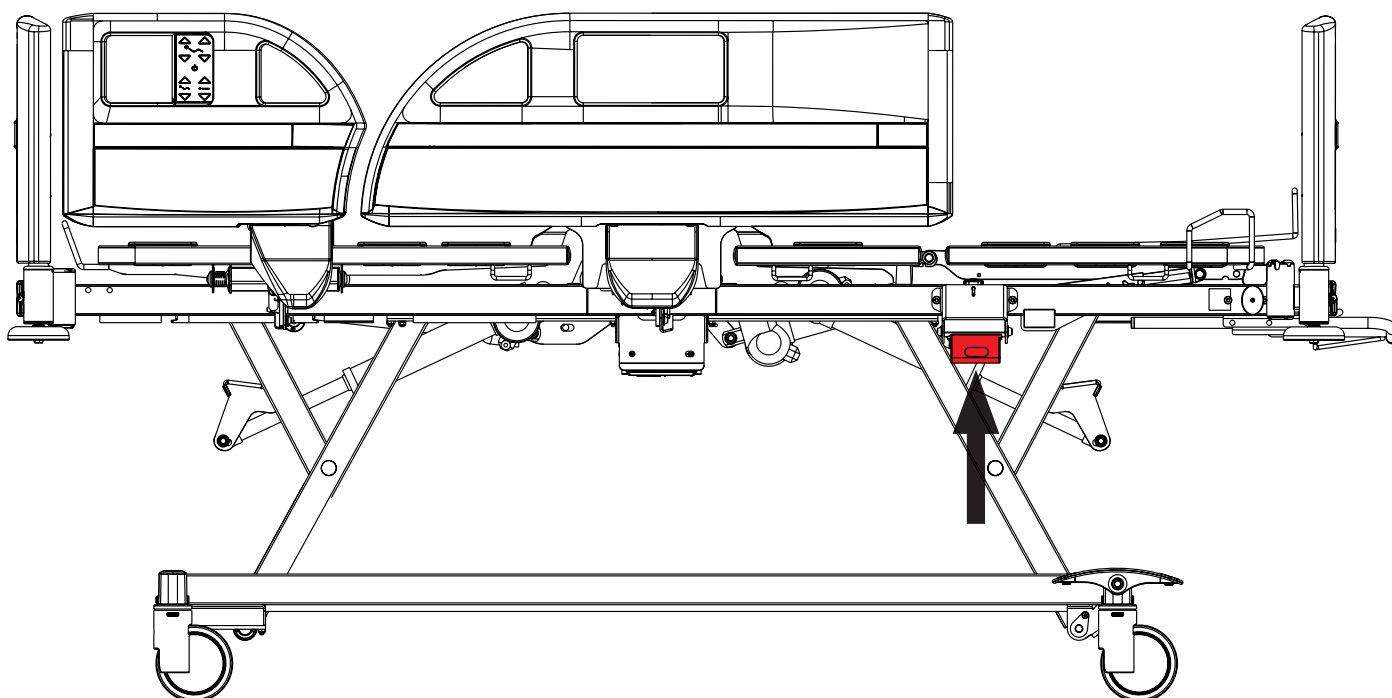


Fig. Position of CPR lever

Set the CPR position as follows:

- Press and hold lever upwards.
- Press the backrest down using:
 - Mattress guard handle.
 - Upper part of the siderails
(in case the split siderails are in upper position)

12.8 Siderails



WARNING!

Risk of injury due to crushing!

- ▶ Ensure that there are no objects or body parts between siderail and mattress platform when folding the siderail up or down.
- ▶ Ensure that no body part or object are under the siderail when folding the siderail down.
- ▶ It is necessary to take extra care and attention when locking the siderails in the top position. Hospital staff must ensure the siderail is locked in its highest position by pushing the siderail to head and foot end of the bed. The risk of spontaneous folding of the siderail may occur when the siderail is not properly locked and it can injure the patient, staff or the third parties.

Model variants:

- Without siderails
- With single collapsible siderails – 3/4 siderail
- With single collapsible siderails – controlled from the bottom
- With split plastic siderails
- With full length siderails

12.8.1 Collapsible siderail (3/4 siderail)



WARNING!

The hospital personnel is responsible for locking the siderails in the highest position when the patient is on the bed or when the bed is transported.



WARNING!

Ensure that there are no objects or body parts between the bars of siderail when folding the siderail up or down.

Collapsible siderails are situated on both sides of the bed. Both collapsible siderails are integral parts of the bed in contact with patient and cannot be removed.

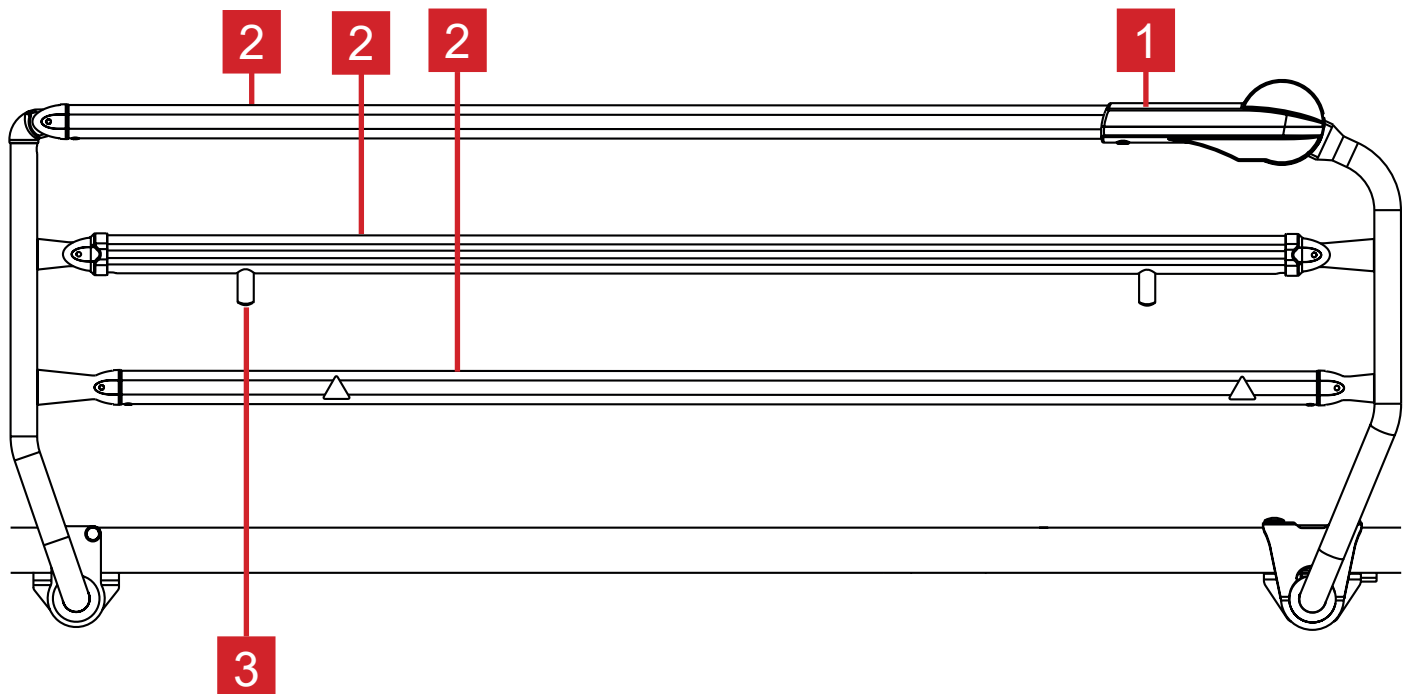


Fig. Collapsible Siderail (3/4 Siderail)

1. Release Mechanism
2. Siderail Bars
3. Siderail Stop

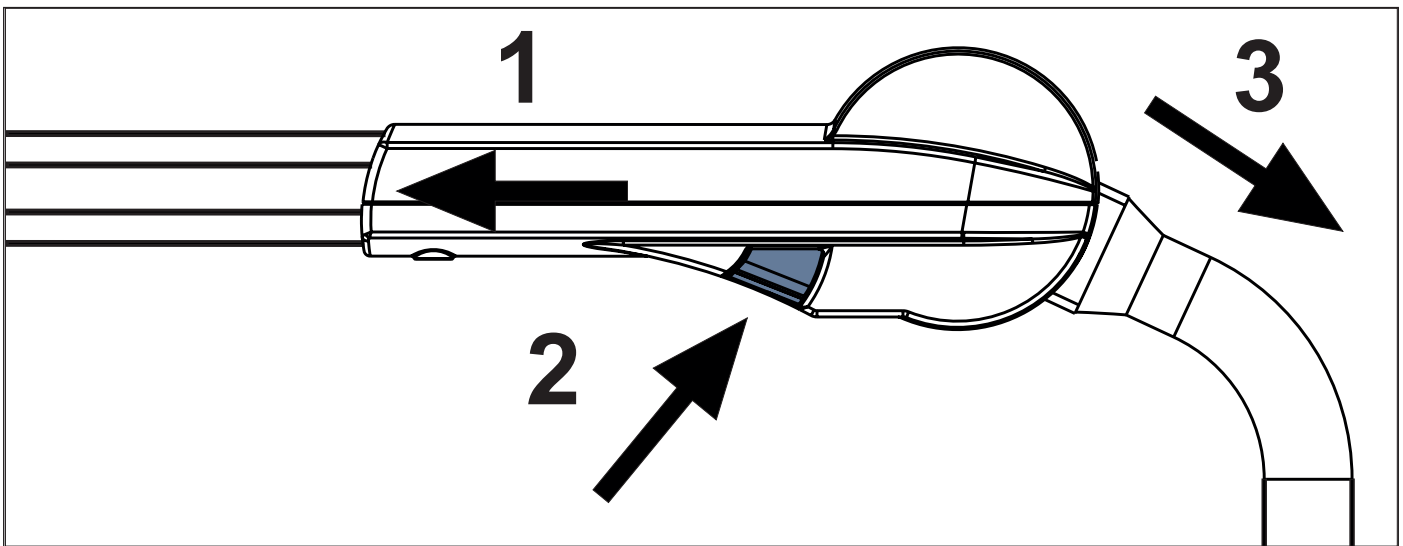


Fig. Release Mechanism (inner side of collapsible siderail)

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!

To fold siderail up:

- ▶ Take an upper edge of the siderail and push the siderail up. Siderail will click into place and lock automatically.
- ▶ Check if the siderail is fixed in place.

12.8.2 Single collapsible siderails – controlled from the bottom

The single collapsible siderails are components of the bed. The siderails cannot be dismantled. The hospital personnel is responsible that siderails are locked in the highest position when the patient is on the bed.

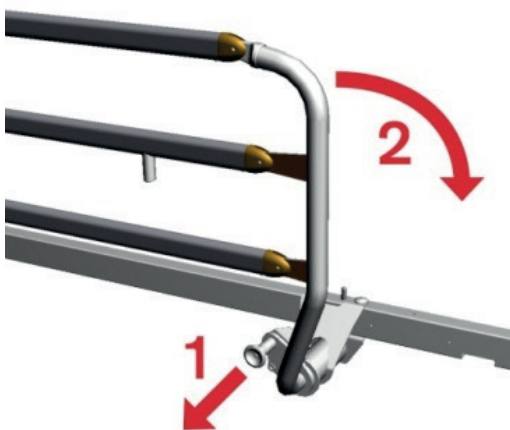


Fig. Releasing mechanism of the single collapsible siderails with bottom control

To fold siderails down:

- ▶ Pull out the lever 1.
- ▶ Fold siderail down as required 2. Do not let the siderail fall down when it is unblocked.
- ▶ To fold siderail up push the siderail up. Siderail will click into place and lock automatically (you will hear audible 'click').

12.8.3 Split Plastic Siderails (SR22)



WARNING!

Risk of injury due to patient falling out of bed!

- ▶ Ensure that folded-up siderails are securely anchored.
- ▶ Press against siderails from inside in order to check stability.
- ▶ Hospital personnel are responsible for ensuring siderails are folded-up when the bed is occupied.

The split plastic siderails are components of the bed, the siderails cannot be removed.

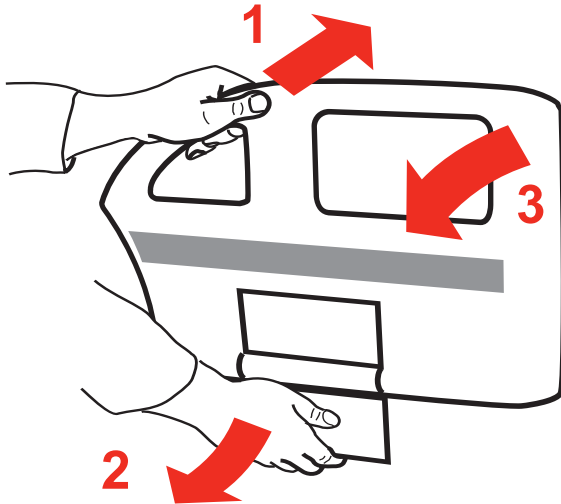


Fig. Releasing mechanism of the split plastic siderails

To fold siderails down:

- ▶ Take hold of the siderail's top bar and push towards mattress platform 1.
- ▶ Pull out locking mechanism 2 to unlock.
- ▶ Fold siderail up or down 3 as required. Do not let the siderail fall down when it is unblocked.
- ▶ The siderail will automatically lock in its place when folded up (you will hear audible 'click').

NOTE: In certain cases (e.g. when there is no weight on the siderails), it is possible to unlock the split plastic siderail only by pulling out the locking mechanism 2. This does not mean that the mechanism is faulty. The manufacturer recommends always using the procedure described above.

To fold siderails up:

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

12.8.4 Split Plastic Siderails (SR46)



WARNING!

Risk of injury due to patient falling out of bed!

- ▶ Ensure that folded-up siderails are securely anchored.
- ▶ Press against siderails from inside in order to check stability.
- ▶ Hospital personnel are responsible for ensuring siderails are folded-up when the bed is occupied.

The split plastic siderails are components of the bed, the siderails cannot be removed.

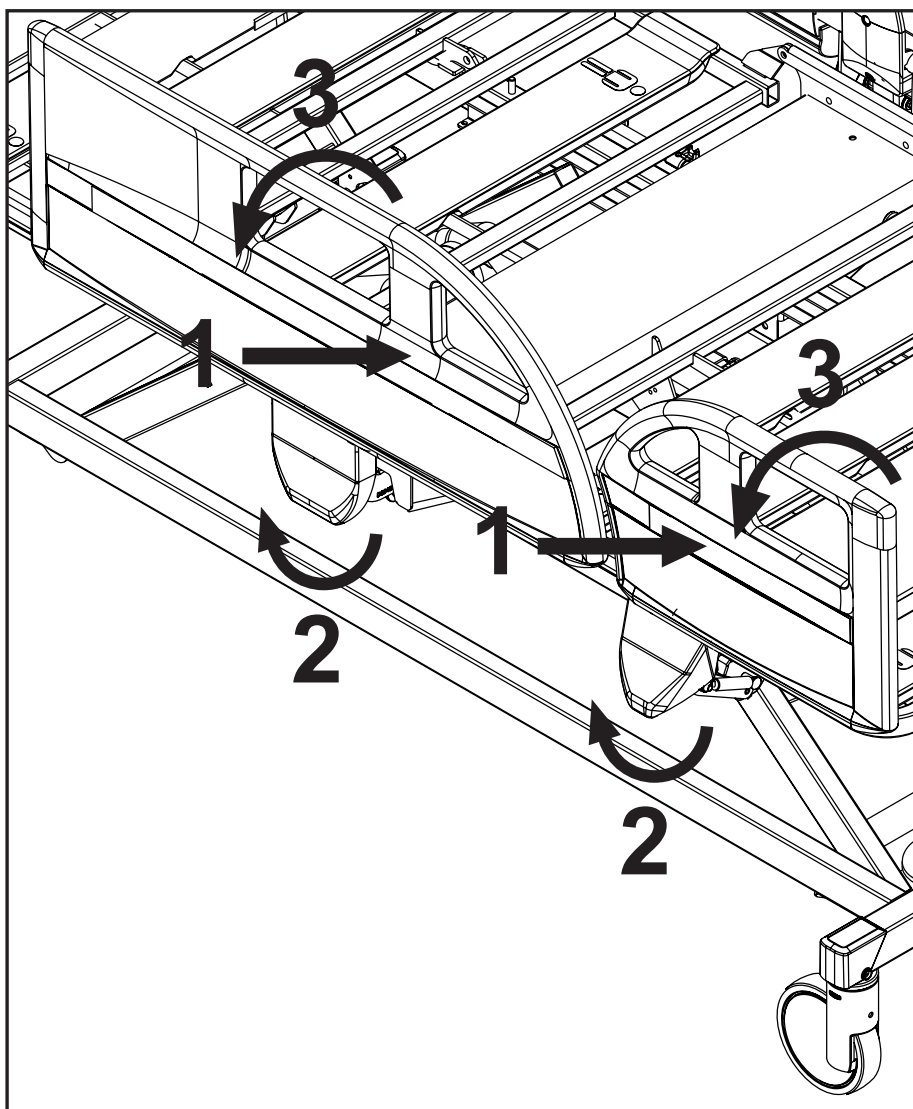


Fig. Releasing mechanism of the split plastic siderails

To fold siderails down:

- ▶ Take hold of the siderail handle and push siderail towards mattress platform 1.
- ▶ Pull out locking mechanism 2 to unlock.
- ▶ Fold siderail down 3. Do not let the siderail fall down when it is unblocked.

To fold siderails up:

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

12.9 Castor Control and Bed Transport



CAUTION!

Material damage due to incorrect transport or involuntary movement!

- ▶ Prior to assembly, disassembly and maintenance, ensure the castors are locked.
- ▶ Ensure the castors are locked while the bed is occupied and/or not being transported.
- ▶ Prior to transport, ensure that bed is disconnected from mains.
- ▶ Put mains cable on hook provided for transport.
- ▶ Have the bed transported only by nursing or trained personnel.



CAUTION!

Objects on undercarriage can damage the bed!

- ▶ Do not place any objects on the undercarriage or in the space under the mattress platform.

To move the bed:

- ▶ Adjust the bed height to at least 20cm below maximum height.
- ▶ Push the bed using handles on head or foot board.

12.9.1 Central braking control

Double-sided Castor Control Levers (optional):

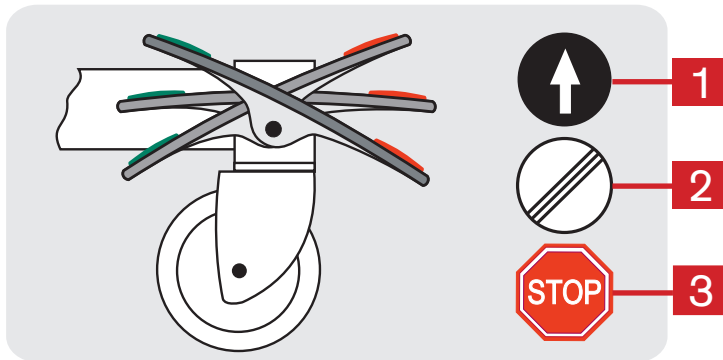


Fig. Double-sided Castor Control Lever

The central braking system facilitates movement of the bed by a single person. The bed has a main lock control lever for the four castors. The brakes are at the foot end of the undercarriage.

Castor control with central braking system:

1. Forward Movement: The front left castor is locked. The bed moves straight ahead. If the bed is equipped with a fifth castor, this castor determines the direction of movement.
2. Unrestricted Movement: All of the castors are unlocked.
3. Braked: All of the castors are locked.

Simple Castor Control Levers (optional):

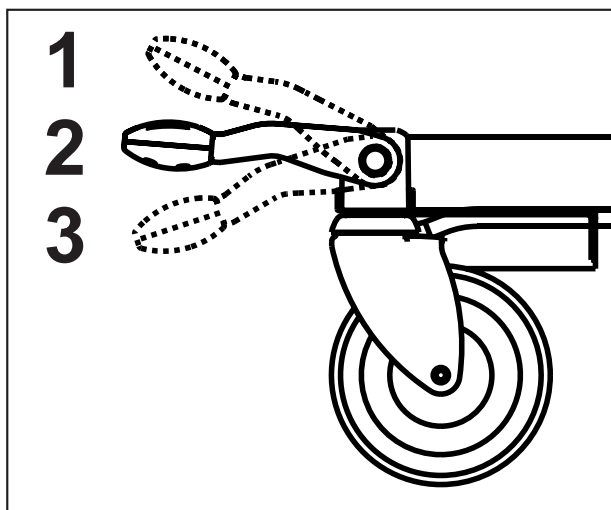
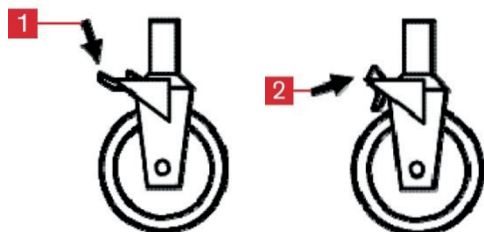


Fig. Simple Castor Control Lever

Castor control with central braking system:

1. Braked: All of the castors are locked.
2. Unrestricted Movement: All of the castors are unlocked.
3. Forward Movement: The front left castor is locked. The bed moves straight ahead. If the bed is equipped with a fifth castor, this castor determines the direction of movement.

12.9.2 Individual braking control



Castor control with individual braking system:

- ▶ Brake all castors of the bed by pressing the lever 1 by your foot – castor is locked.
- ▶ Unbrake all castors of the bed by lifting up the lever 2 by your foot – castors are unlocked.

13 Equipment

13.1 Accessory Rails



Fig. Accessory Rail

Load capacity:

- ▶ Maximum load of 5 kg without leverage.
- ▶ Maximum load of hook pair 10 kg.

Accessories for hanging on the accessory rail:

- ▶ Cannula holder
- ▶ Urine bag holder
- ▶ Urine bottle basket
- ▶ DIN steel bar

13.2 Green light (optional)

Green light indicates the lowest position of the mattress support platform. After pressing GO button the green light has full intensity in the lowest position of the mattress support platform for 3 minutes.

After elapsing the GO period (3 minutes) the green light has lowered intensity in the lowest position of the mattress support platform.

NOTE: The green light is not lit when the bed is not connected to the mains power. When the bed is powered just by the accumulator the green light has full intensity for 3 minutes after pressing of the GO button and it is not lit in the other cases.

14 Mattress

The manufacturer recommends the use of the following mattress systems on the Eleganza 1 bed:

- ▶ EFFECTACARE 10 (4PPA51100AS)
- ▶ EFFECTACARE 20 (4PPB51100AS)
- ▶ PRIMACARE 10 (4PPD51100AS)
- ▶ PRIMACARE 20 (4PPE51100AS)

15 Accessories



WARNING!

Risk of injury due to incompatible accessories!

- ▶ Only the manufacturer's original accessories can be used.



WARNING!

Risk of injury due to damaged accessories!

- ▶ Use exclusively accessories in perfect condition.

NOTE: The manufacturer assumes no responsibility for the use of accessories not approved by the manufacturer.

NOTE: All accessories conform to IEC 60601-2-52.

The following accessories are suitable for the Eleganza 1:

- Lifting pole
 - powder-coated
 - chrome-plated
- Triangular holder, grey plastic
 - for lifting pole
 - for lifting pole, adjustable by retractor
- IV holder
 - for lifting pole, 3 hooks, powder-coated
 - for lifting pole, 3 hooks, stainless steel
 - for lifting pole, 4 hooks, chrome-plated
- Telescopic IV pole
 - 4 plastic hooks, chrome-plated
 - 4 plastic hooks, chrome-plated, S-shaped top part, with lock against unwanted rotation
 - 4 metal hooks, chrome-plated, lock against unwanted rotation
 - 4 metal hooks, stainless steel, S-shaped top part, lock against unwanted rotation
- Infusion bottle basket
 - for IV pole, stainless steel
- IV pump holder
 - cross-shaped, chrome-plated
- DIN bar for accessories
 - chrome-plated
- Urinary bag holder
 - self-adjusting level, powder-coated
- Cannula holder
 - 5 metal hooks, powder-coated
- Writing shelf
 - white, for plastic or metal head board and foot board
- Name holder
 - plastic, for plastic head board and foot board
- Chart holder
 - plastic, for plastic head board and foot board
- Protector®
- Stand up handle
- Extender®
 - Extender® for siderails controlled from top (SR55)
 - Extender® for siderails controlled from bottom (SR57)
- Extension H

15.1 Lifting Pole

It is possible to equip the bed with lifting pole. The lifting pole must be placed only to the bushing on the head end.



Fig. Bushing for lifting pole and infusion stand

Lifting pole variants:

- Lifting pole for beds with fixed bed end

To ensure safe use of the lifting pole:

- ▶ Never exceed the maximum load of 75 kg of lifting pole.
- ▶ Never use the lifting pole for rehabilitation exercises.
- ▶ To prevent the bed from tipping over, ensure the lifting pole does not project out from the bed.
- ▶ Replace plastic handle every 4 years.

Lifting pole positions:

- Over the backrest (working position).
- Parallel to the head board (when not in use).

To install the lifting pole:

- ▶ Insert lifting pole into corresponding bushings at the head end of the bed (corners).
- ▶ Ensure the safety pin locks are in place.

A plastic grab handle with an adjustable strap is attached to the lifting pole.

NOTE: The date of manufacture is marked on the grab handle.

NOTE: LINET® recommends replacing the plastic grab handle every four years.

15.2 Infusion Stands



WARNING!

Risk of injury due to use of unsuitable accessories!

- ▶ Use infusion stands exclusively for accessories listed in the instructions for use.
- ▶ Only mount an infusion pump to the lower (wider) telescopic section of an infusion stand above the head board / foot board.
- ▶ Never mount an infusion pump to the upper (thinner) telescopic section of an infusion stand.
- ▶ Ensure the infusion pump will not collide with any movable parts of the bed (especially Backrest part) or with the patient. This must be verified during installation.
- ▶ Do not use the infusion stand as driving/pushing device during the bed transport.

It is possible to insert infusion stands into the bushings at the head and foot ends of the bed.

- ▶ Use exclusively infusion stands with 4 hooks for hanging IV bags or baskets for intravenous solutions.
- ▶ Ensure that the weight-bearing capacity of the 4 hooks is not exceeded.
Capacity per hook: 5 kg
- ▶ Ensure that the infusion stand's weight-bearing capacity is not exceeded.

15.3 Name holder

Name holder is used for placing patient's name on it. Name holder must be placed under the head board or foot board handles so it will not collide with movable parts of the bed. This must be verified after installation of name holder.

15.4 Urinary bottle holder



WARNING!

Risk of collision when folding down the siderails!

- ▶ Ensure the neck of the bottle is facing to foot or head end of the bed so it will not collide when folding down the siderails.



Fig. Urine bottle holder – correct fitment

15.5 Urinary bag holder (optional)

Urinary bag holders are situated on both sides of thighrest section of the mattress support platform.

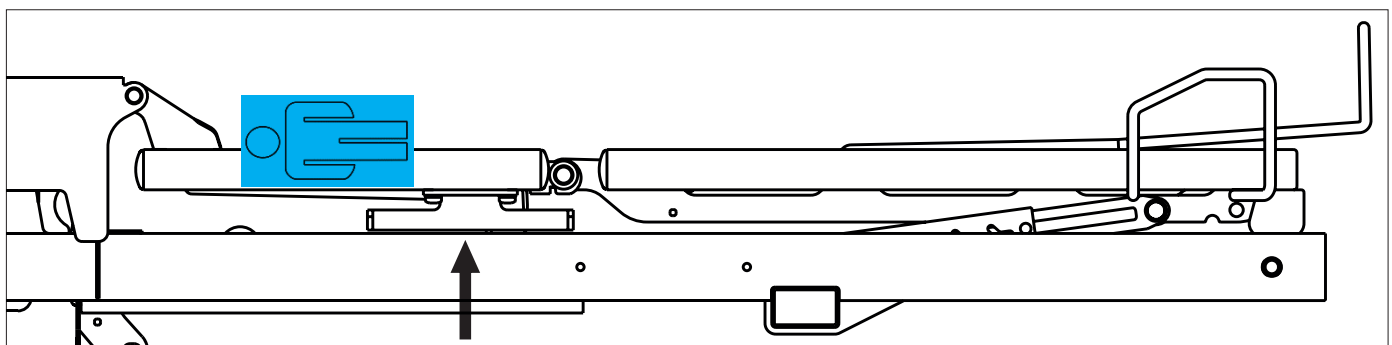


Fig. Position of Urinary bag holder

15.6 Eleganza Protector®



WARNING!

Risk of injury due to patient falling out of bed!

- ▶ Ensure that Eleganza Protector® is securely anchored to the bushing.
- ▶ To check stability, push the protector up without touching the release button.
- ▶ Always check that the siderail is properly locked.



WARNING!

Risk of damage to the bed or patient injury!

- ▶ Do not mount head board or foot board to accessory bushing (3).
- ▶ Do not mount lifting pole to accessory bushing (3).
- ▶ Do not use protector with bed extension.

Eleganza Protector® is not a component of the bed. Eleganza Protector® is optionally available

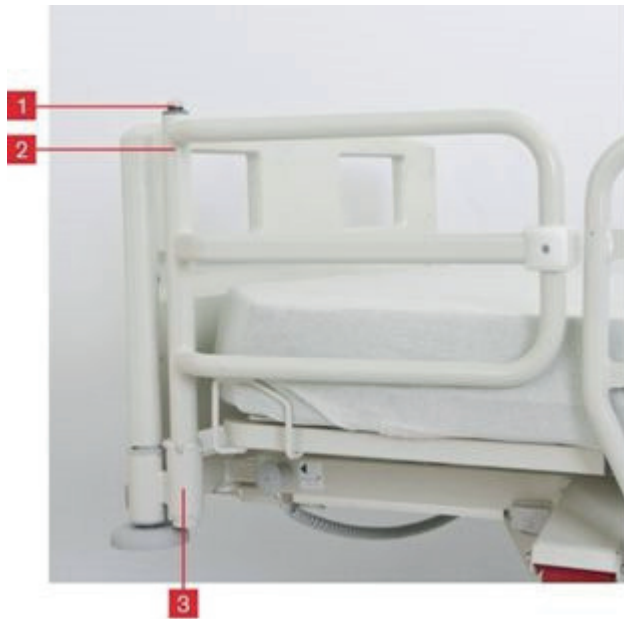


Fig. Closed Eleganza Protector®



Fig. Opened Eleganza Protector®

Mount Eleganza Protector® to closed position as follows:

- ▶ Put the tube of protector (2) into bushing near foot end of the bed (3) so the protector is facing the siderail.
- ▶ Safety pin must be locked in place.

Mount Eleganza Protector® to open position as follows:

- ▶ Put the tube of protector (2) into bushing near foot end of the bed (3), so the protector is facing out from bed.
- ▶ Safety pin must be locked in place.

Dismount Eleganza Protector® as follows:

- ▶ Press and hold the releasing button (1).
- ▶ Push the protector up.

NOTE: Protector® cannot be used if the bed is equipped with plastic E3 head board and foot board.

15.7 Siderail extension – „Extender®“ for siderails controlled from top (SR55)



WARNING!

Risk of injury or collision due to incorrect use!

- ▶ The Extender® can be used with single collapsible siderails only. The manufacturer will not be held responsible for any consequences if the Extender® is used with other types of siderails.
- ▶ Movement of the bed must be considered if the Extender® is installed.
- ▶ Use of the Extender® in a manner other than stated in the instructions for use is on the responsibility of personnel.
The manufacturer shall not be held liable for incorrect use!

It is recommended to use Extender® (model number SR55) if a mattress higher than the recommended height was placed on the bed. The Extender® is used to raise the height of the siderails and helps to secure patients safety. The Extender® is designed for single collapsible siderails only.

It is recommended to use Extender® with the following mattresses:

- Passive mattress: higher than 16 cm, with maximum height 26,5 cm
- Active mattress: with maximum height 26,5 cm
 - Virtuoso

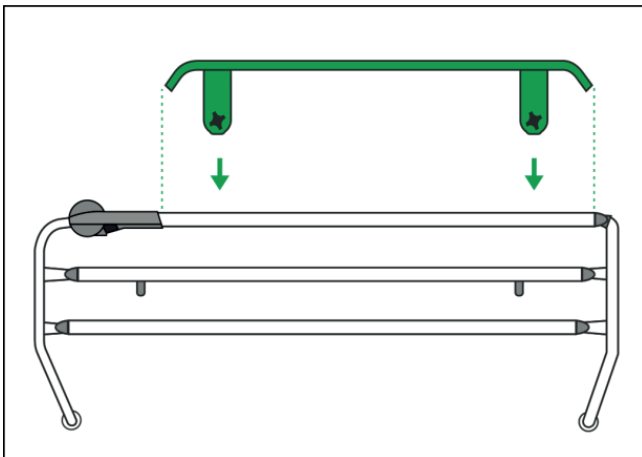


Fig. Installation of Extender®

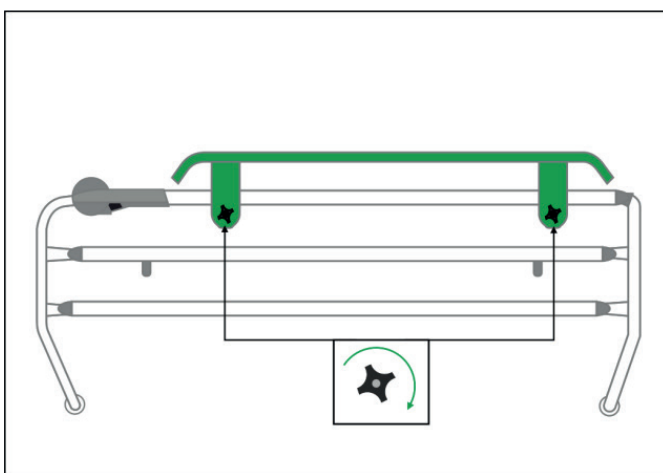
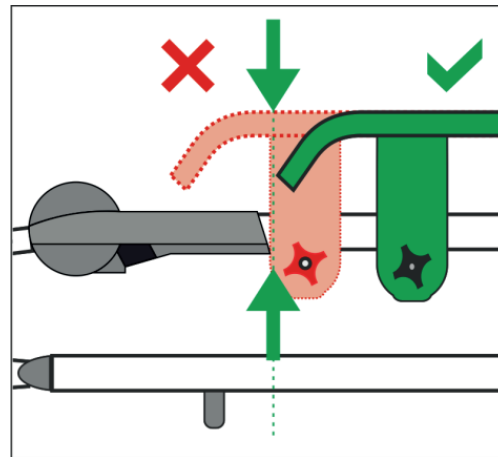
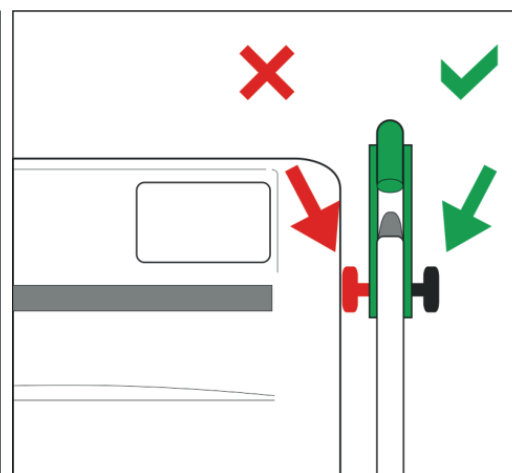


Fig. Securing Extender®



Install the Extender® as follows:

- ▶ Place the Extender® (without securing screws) on the upper edge of the siderail. Siderails must be in upper position. Square hole is pointed into the mattress platform.
- ▶ Insert screws from the inside of the bed thru the securing holes in Extender®.
- ▶ Secure the screws with the plastic rosette nuts and tighten. The rosette nuts are pointed outside from the bed.
- ▶ Check if the Extender® is secured correctly by pushing it sideways.

15.8 Siderail extension – „Extender®“ for siderails controlled from bottom (SR57)



WARNING!

Risk of injury or collision due to incorrect use!

- ▶ The Extender® can be used with single collapsible siderails only. The manufacturer will not be held responsible for any consequences if the Extender® is used with other types of siderails.
- ▶ Movement of the bed must be considered if the Extender® is installed.
- ▶ Use of the Extender® in a manner other than stated in the instructions for use is on the responsibility of personnel.
The manufacturer shall not be held liable for incorrect use!

It is recommended to use Extender® (model number SR57) if a mattress higher than the recommended height was placed on the bed. The Extender® is used to raise the height of the siderails and helps to secure patients safety. The Extender® is designed for single collapsible siderails only.

It is recommended to use Extender® with the following mattresses:

- Passive mattress: higher than 16 cm, with maximum height 26,5 cm
- Active mattress: with maximum height 26,5 cm
 - Virtuoso

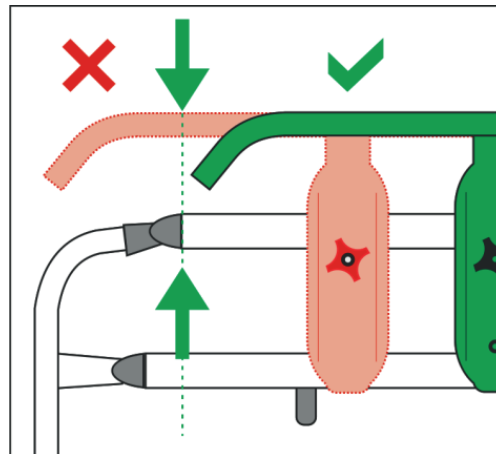
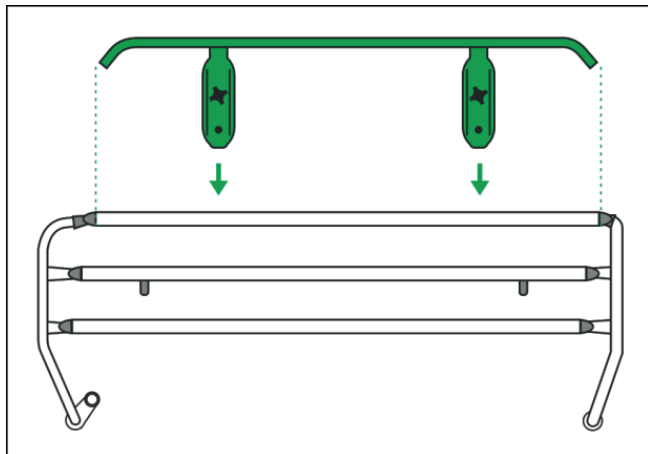


Fig. Installation of Extender®

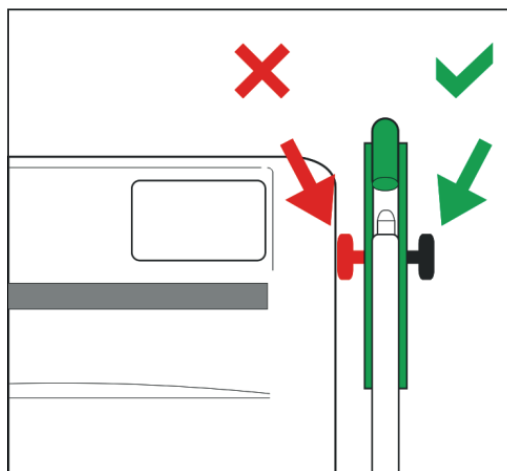
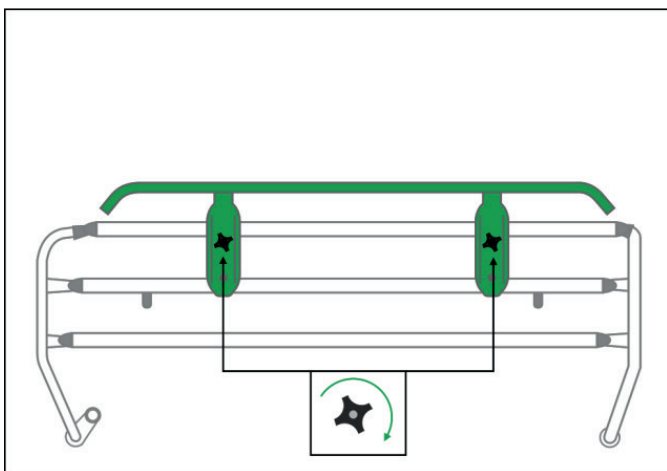


Fig. Securing Extender®

Install the Extender® as follows:

- ▶ Place the Extender® (without securing screws) on the upper edge of the siderail. Siderails must be in upper position. Square hole is pointed into the mattress platform.
- ▶ Insert screws from the inside of the bed thru the securing holes in Extender®.
- ▶ Secure the screws with the plastic rosette nuts and tighten. The rosette nuts are pointed outside from the bed.
- ▶ Check if the Extender® is secured correctly by pushing it sideways.

16 Cleaning/Disinfection



WARNING!

Risk of injury when working on the bed!

- ▶ Prior to assembly, disassembly, cleaning and maintenance, ensure that all adjustment functions are locked.
- ▶ Ensure the bed is disconnected from the mains during cleaning process.
- ▶ Pay extra attention when cleaning any movable or controlling mechanisms of the bed to prevent involuntary activation, entrapping or crushing.
- ▶ Cleaning should be entrusted to the person who has been trained to control the bed.



CAUTION!

Risk of damaging the bed due to use of incorrect detergent!

- ▶ Always consult choosing of the detergent and its dilution with manufacturer of the detergents according to the material table below.



WARNING!

Risk of damaging the bed due to use of incorrect cleaning detergents or cleaning processes!

- ▶ The bed is not designed for machine washing.
- ▶ The bed is not designed for cleaning by spraying, showering nor for pressure or steam cleaners.
- ▶ The selection of cleaning detergents/disinfections and their correct concentration is responsibility of responsible person in charge of cleaning/disinfection in accordance with the informations provided in the instructions for use.
- ▶ Never use germicidal or other radiants for disinfection of the bed, if those radiants act directly on the bed.
- ▶ Follow these instructions and follow the prescribed dosage by the manufacturer of cleaning detergents.
- ▶ Not following recommended processes may result in damaging or deterioration of the bed condition.
- ▶ **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	Plastic version: Polypropylene (PP) + Lacquered steel	Tube version with HPL board: High Pressure Laminate (HPL) + Lacquered steel
Head siderails and foot siderails	plastic siderails with releasing mechanism based on tipping down: Polypropylene (PP) + Polyamide (PA) + Lacquered steel + Acrylonitrile butadiene styrene (ABS)	single collapsible siderails (3/4 siderails): Polypropylene (PP) + Acrylonitrile butadiene styrene (ABS) + Lacquered aluminium (Al) plastic siderails with releasing mechanism based on lifting towards the user: Polypropylene (PP) + Lacquered steel + Acrylonitrile butadiene styrene (ABS)
Mattress support platform covers (Backrest)	standard: Polypropylene (PP)	psychiatric version: High Pressure Laminate (HPL)
Mattress support platform covers (Thighrest, Calfrest)	standard: Polypropylene (PP)	psychiatric version: High Pressure Laminate (HPL)
Seat section	Lacquered steel	
Castors	Polyurethane (PUR) + Polypropylene (PP)	
Castor control levers	castor control lever with two pedals: Polyamide (PA6) + Thermoplastic elastomer (TPE)	castor control lever with one pedal - Polyamide (PA6) + Lacquered steel
Frame of the mattress support platform	Polyamide (PA6) + Lacquered steel	
Undercarriage	Acrylonitrile butadiene styrene (ABS) + Lacquered steel	
Corner covers	Acrylonitrile butadiene styrene (ABS)	
Corner bumpers	Polypropylene (PP)	
Keyboards (Attendant Control Panel, Handset, control elements integrated in the siderails)	Polyethylene terephthalate (PET)	
CPR levers	Polyamide (PA6)	
Labels	Polyethylene terephthalate (PET)	
Accessory rail	Polyoxymethylene (POM) + Lacquered steel	
Actuators	Polyamide (PA6) + Aluminium (Al)	

16.1 Safety Instructions for Cleaning and Disinfection of the Bed

Preparation for cleaning:

- ▶ Drive the bed on a place where the cleaning process will be performed and then brake the bed.
- ▶ Position the mattress platform to its highest positions and also position the backrest and thighrest parts so the back side of those parts are accessible for cleaning.
- ▶ Lock all adjustment functions of the bed to prevent involuntary adjustment of the bed or injuries during cleaning.
- ▶ Disconnect the bed from the mains.
- ▶ Check if all connectors are properly fixed (controllers, actuators and control unit).

Recommendations for cleaning:

- ▶ Only use detergents designed for cleaning the medical technologies.
- ▶ Dilute the detergents in accordance with instructions from manufacturer of detergents.
- ▶ Never use any strong acids or bases. Optimal pH range is 6-8.
- ▶ Never use abrasive powders, steel wool or other materials and detergents that may damage the surface of the bed.
- ▶ Never use detergents with solvents that may affect the structure and consistency of the plastic parts (benzene, toluene, acetone etc.).

Cleaning process:

- ▶ Clean by wiping the bed with damp, well-wrung textile material.
- ▶ The detergent can be applied by spraying on bed or on the textile material.
- ▶ Perform cleaning and disinfection of the bed in the appropriate range. The range of cleaning and disinfection should be distinguished according to the degree of contamination of the bed and the cleaning mode (daily, before changing patient or complete).
- ▶ Electronic parts that may be contaminated clean carefully and only their outer side. Never open those connectors due to cleaning or disinfection. Those components should not be exposed to prolonged or continuous exposure to moisture.
- ▶ Let the bed dry completely after cleaning or disinfection process.
- ▶ After drying the bed place the mattress back on the mattress platform.
- ▶ After drying the bed check functions of the bed.

16.2 General Instructions for Cleaning and Disinfection

16.2.1 Daily Cleaning

It is recommended to clean all parts of the bed which are touched by patient or personnel (e.g. siderails, head board and foot board, handset, lifting pole etc.) and all handles, all control elements and accessory rails.

16.2.2 Cleaning before Changing Patients

It is recommended to completely clean and disinfects all parts of the bed which are touched by patient or personnel (see Daily Cleaning), mattress platform, columns, undercarriage covers and mattress.

16.2.3 Complete Cleaning / Cleaning before First Use

It is recommended to clean the bed completely before the first use and then at least once in 4-8 weeks.

16.2.4 Cleaning of Spilled Fluids

Spilled fluids should be cleaned as soon as possible. Always disconnect the bed from mains before cleaning the spilled fluids. Some fluids used in health care may cause permanent stains.

16.2.5 Damaged Foam Mattress

Mattress should be periodically checked for cracks, holes or cracks that may affect the integrity, water resistance or resistance to infections of the cover. Contact the service department of the manufacturer according to scope of damage to cover.

16.3 Modes of Cleaning and Disinfection

Part of bed – Eleganza 1	Daily C&D	Changing patient C&D	Complete C&D
Siderails (stickers):			
• Split plastic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
• Single collapsible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Siderails mechanism	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Head board and foot board (stickers)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Controllers (cables)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mattress platform covers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Undercarriage cover	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Corner bumpers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mains cable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Undercarriage frame	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Castors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Actuators	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

17 Troubleshooting



DANGER!

Danger to life due to electric shock!

- ▶ If a fault occurs ensure the electric motor, power box and other electrical parts checked by qualified personnel only.
- ▶ Do not open protective covers of the electric motor or power box.

Error/Fault	Cause	Solution
Adjusting with position buttons not possible	Handset is locked.	Unlock the handset.
	Drive motors have no power Defective drive motors Defective accumulator	Check the mains connection. Notify the service department of manufacturer.
	Plug inserted incorrectly	Insert the mains plug correctly.
	Faulty power box	Notify the service department of manufacturer.
	Faulty control element	Notify the service department of manufacturer.
Faulty mattress platform height/tilt adjustment	There is an object on the undercarriage cover	Remove the object.
	Function disabled on Attendant Control Panel	Enable disabled function.
	Drive motors have no power Defective drive motors Defective accumulator	Check the mains connection. Notify the service department of manufacturer.
	Plug inserted incorrectly	Insert the mains plug correctly.
	Faulty power box	Notify the service department of manufacturer.
	Faulty control element	Notify the service department of manufacturer.
Lowering backrest from the upright position not possible	Object under the backrest or in the drive mechanism	Remove the obstacle
	CPR handle is defective	Notify the service department of manufacturer.
Adjusting siderails not possible	The siderail lock is dirty	Clean the locking mechanism.
	Locking handle is defective	Notify the service department of manufacturer.
Faulty brakes	The brakes are blocked by dirt	Clean the brake system.
	The brake mechanism is defective	Notify the service department of manufacturer.
The head and foot boards cannot be inserted	The head or foot board is in the wrong position	Check locking mechanism. Position head or foot board correctly.
	Defective mechanism	Notify the service department of manufacturer.

18 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.



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.

18.1 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 accumulator is working properly. Disconnect the bed from the mains power to check signalisation of accumulator indicator according to the instructions for use.
- ▶ Have the accumulator replaced if it is not working properly.
- ▶ Check regularly that all accessories are working properly.
- ▶ Replace damaged accessories immediately.

18.2 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

18.3 Safety Technical Checks



WARNING!

Risk of injury due to incorrect safety technical checks!

- ▶ Ensure that safety technical checks are performed exclusively by manufacturer's customer service or by authorised service personnel certified by the manufacturer.
- ▶ Ensure that the safety technical checks are recorded in the service and maintenance log.

Safety technical check of the medical bed must be performed at least once every 12 months.

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

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.

19 Disposal

19.1 Environment Protection

The company LINET® is aware of the importance of environmental protection for future generations. Within this company the environmental management system is applied in accordance with the internationally agreed standard ISO 14001. The compliance with this standard is annually tested by the external audit executed by an authorised company. Based on the Directive No. 2002/96/EC (Directive **WEEE** - Waste, Electric and Electronic Equipments) the company LINET, s. r. o. is registered in the List of Electric and Electronic Equipment Producers (**Seznam výrobců elektrozařízení**) on the Ministry of the Environment of the Czech Republic (Ministerstvo životního prostředí).

Materials used in this product are not environmentally hazardous. LINET® products meet valid requirements of national and European legislation in the areas of **RoHS** and **REACH**, so they do not contain any prohibited substances in excess quantities. None of the wooden parts is made of tropical wood (such as mahogany, rosewood, ebony, teak etc.) or made of timber from the Amazon region or from similar rainforests. Product noise (sound pressure level) meets requirements of the regulations for the protection of public health against undesirable effects of noise and vibration in protected interior spaces of buildings (according to standard IEC 60601-2-52). Used packaging materials are in accordance with requirements of the Packaging Act (**Zákon o obalech**). For disposal of packaging materials after installation of products contact your sales representative or manufacturer's customer service about the possibility of a free take-back of packaging through an authorized company (more details on www.linnet.cz).

19.2 Disposal

The main objective of the obligations arising from the European Directive No. 2012/19/EU on Waste, Electric and Electronic Equipments (nationally regulated in Act No. 185/2001 Coll. as amended. On Waste and in Decree of the Ministry of the Environment No. 352/2005 Coll. as amended), 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 accumulator or accumulator are designed so that the used batteries or accumulators can be safely removed by LINET® qualified service technicians. There is an information about its type on the built-in accumulator or accumulator.

19.2.1 Within Europe

To dispose of the electric and electronic equipment:

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

To dispose of the other equipment:

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

LINET® participates in a collective system with take-back company REMA System (see www.remasystem.cz/sberna-mista/). By bringing electric and electronic equipment to a take-back point, you participate in recycling and you save primary raw material resources while protecting your environment from effects of unprofessional disposal.

19.2.2 Outside Europe

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

20 Warranty

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

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

- ▶ Do not continue to use the bed.

This product is covered by a 24-month warranty from the date of purchase. 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.

21 Standards and Regulations

Applied norms are stated on Declaration of Conformity.

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)