LINET

Instructions for Use and Technical Description

Multicare

Positionable bed for intensive care with scales and without scales

CE 0123

CE

UK CA

D9U001MC0-0101

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4 Product Description

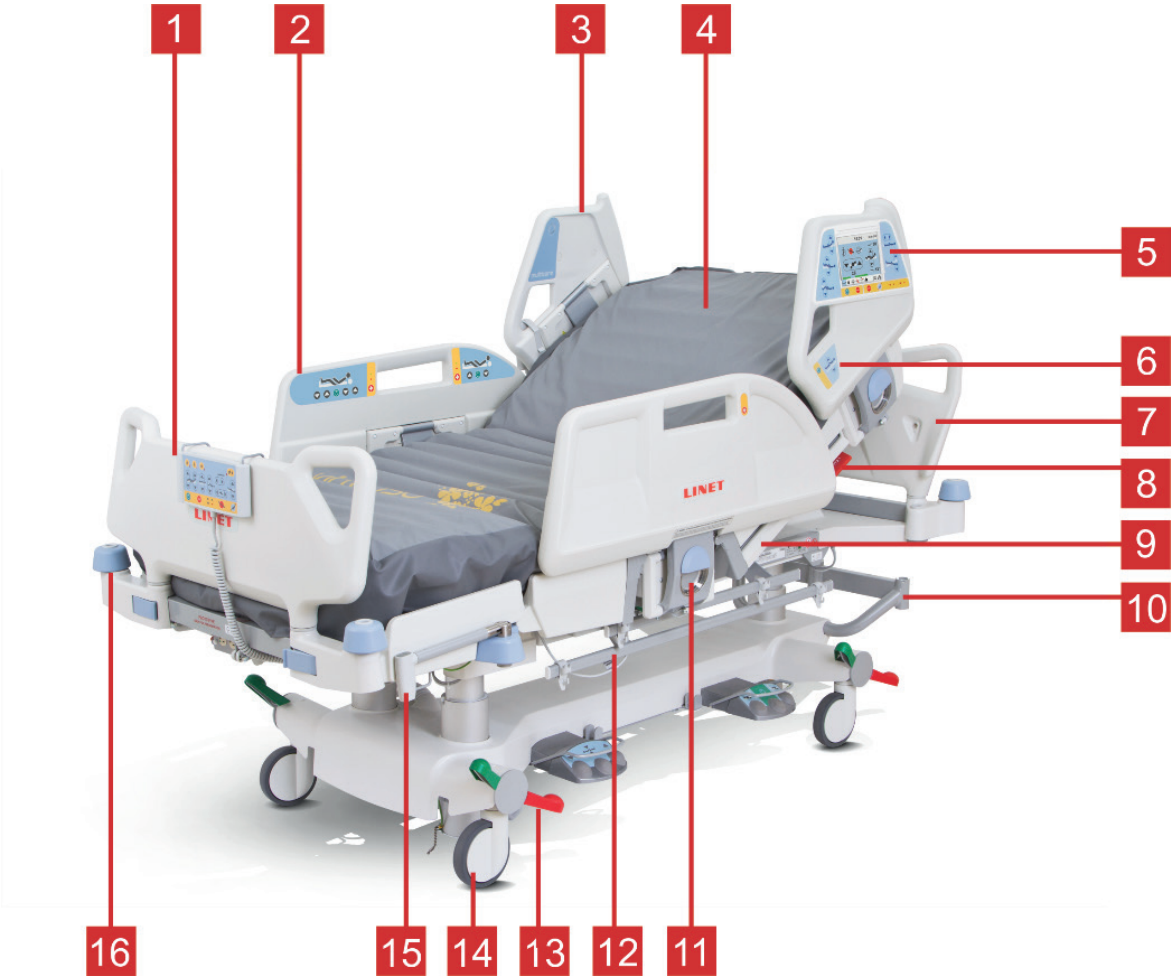


Fig. Overview of Multicare

1. **Removable Foot Board with Safety Lock**
2. **Foot Siderail with Integrated Control Panels for Patient**
3. **Split Siderail – Head Siderail**
4. **Four-part Mattress Platform with Ergoframe® System (under the mattress)**
5. **Multiboard with LCD Touchscreen**
6. **Quick-Action Panel**
7. **Removable Head Board**
8. **CPR Control Lever – Backrest Release**
9. **X-Ray Cassette Holder**
10. **Accessory Holder**
11. **Siderail Release Lever**
12. **Bi-lateral Accessory Rail**
13. **Castor Control Lever**
14. **Castor Diameter 150 mm (5.9 in.) with Main Control Lever**
15. **Mobilift® Handles**
16. **Bumpers**

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

5 Technical Specification

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

WARNING!
If Multicare bed is used with OptiCare integrated mattress replacement system or with Symbioso integrated mattress replacement system, respect values of mechanical and electrical specifications which can harm none of them!

5.1 Identification of Applied Parts (Type B)

All part of the bed (and accessories) the patient can reach are type B Applied Parts.

- Mattress support platform frame, Covers and all Movable Parts
- Head Board and Foot Board
- Siderails
- Mobi-Lift Handles
- Handset

5.2 Scales (only version with scales)

Accuracy of displayed weight values:
- 0,5 kg (1,1 lbs)
- Scales Class III

5.3 Mechanical Specifications (Multicare)

Parameter	Value
Dimensions (With Folded-up Siderail)	**215 cm x 105 cm**
Bed Extension	**0 cm - 22 cm**
Recommended Mattress Dimensions	**208 cm x 86 cm**
Maximum Mattress Height	**23 cm**
Bed Height	**44 cm - 82 cm**
Siderail length **Head section** **Central section**	 **54 cm** **100 cm**
Castor (Diameter)	**15 cm**
Maximum Backrest Angle	**70°**
Maximum Thighrest Angle	**30°**
Maximum Calfrest Angle	**38°**
Maximum Lateral Tilt Angle	**30°**
Trendelenburg	**13°**
Anti-Trendelenburg Position	**16°**
Siderail Height (above Mattress Platform)	**45 cm**
Bed Weight (Basic Equipment)	**224 kg**
Safe Working Load	**250 kg**
Maximum Lifting Pole Load	**75 kg**
Maximum Patient Weight **Application environment 1, 2** **Application environment 3, 5**	 **185 kg** **215 kg**

5.4 Environment Conditions

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

5.5 Electrical Specifications (Multicare)

Parameter	Value
Input Voltage Version 1 Version 2 Version 3	 230 V AC, 50/60 Hz 120 V AC, 50/60 Hz 110-127 V AC, 50/60 Hz or 230 V AC, 50/60 Hz
Maximum Power Input	max. 370 VA
Ingress Protection	IPX4
Protection Class Applied parts	Class I Type B
Electrical Motor Duty Cycle	max. 2 min ON / 18 min OFF
Accumulator Fuse Version 1 Version 2	Pb ACCU 2 x 12 V / 1,2 Ah / Fuse 15A 2x T1.6A L 250 V for 230 V version 2x T3.15A L 250 V for 100-127 V version

ERGOFRAME

Ergoframe® is the kinematic system of Backrest and Thighrest Adjustment resulting in extension of the Mattress support platform in the seat section.

Ergoframe® enlarges the space for pelvic area during Auto-contour. Because of increasement of the space the force applied results in decrease of the pressure that can cause pressure injuries in the pelvic area.

Ergoframe maintains a stable ergonomic position of the body and spine of the patient, thus limiting unwanted movement of the patient by moving down or up in beds. Unified movement eliminates the patient‘s shift over the mattress and thus maintains a uniform position of the patient‘s body that is not bound to the position of the bed parts.

11 Manipulation

WARNING!
Risk of injury when adjusting the bed!
- ► Ensure that there are no body parts between the mattress support platform elements and the mattress support platform frame when adjusting the bed.
- ► Ensure that there are no body parts below the mattress support platform frame before adjusting the bed.

11.1 Siderails

WARNING!
Risk of injury, damaging or involuntary movement of the bed due to incorrect placement of accessories or handset!
- ► Never place any accessories or handset on the siderails in the area where the integrated siderail controller is located.

The split siderails are components of the bed. A pneumatic spring supports the operation of the split siderails. The nursing personnel are responsible for the siderails being folded up while the patient is in bed. The correct placement of handset is shown at following picture.

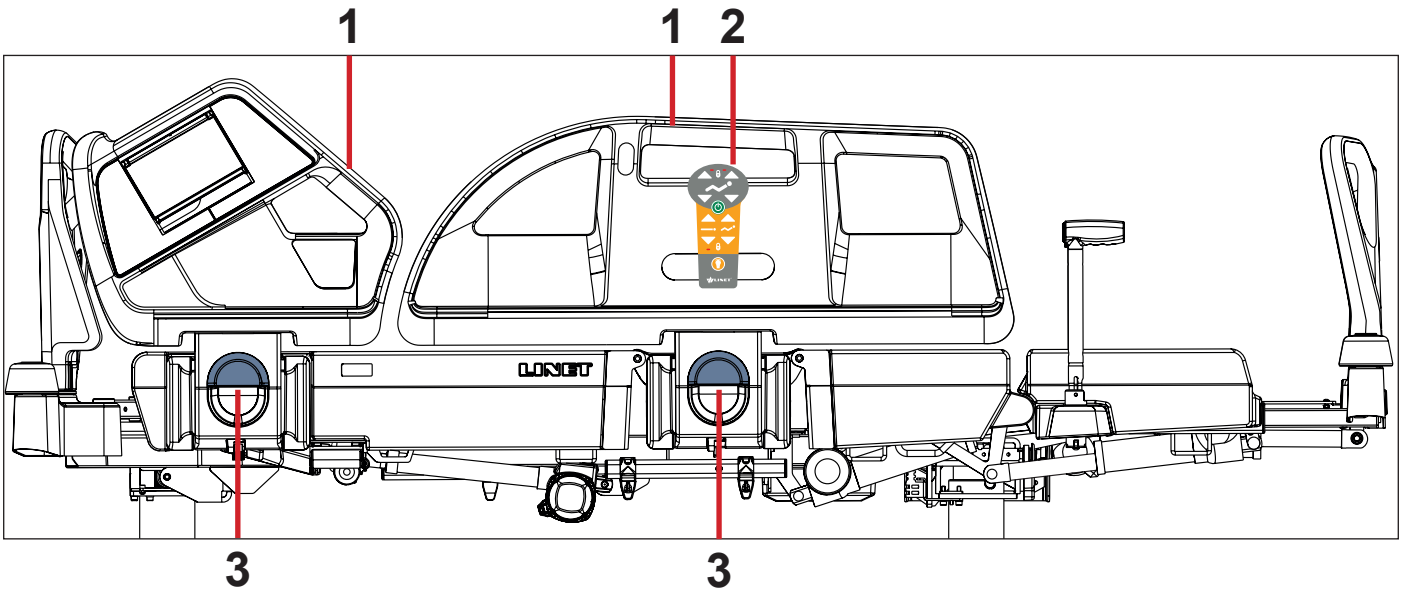


Fig. Siderails

1. Siderail Handle
2. Correct Placement of Handset
3. Siderail Release Handle

MANIPULATION

To raise siderails up:
- ► Grab siderail by Siderail Handle (**1**).
- ► Pull siderail up until it latches. You will hear audible „click“.

To release siderails down:
- ► Grab siderail by Siderail Handle (**1**).
- ► Press upper edge of siderail inwards.
- ► Unlock siderail by pulling Siderail Release Handle (**3**) to yourself.
- ► Fold down siderail slowly.

11.2 Castor Control and Bed Transport

CAUTION!
Material damage due to incorrect transport and involuntary movement!

- ► Prior to transport, ensure that the bed is disconnected from the mains.
- ► Prior to transport, ensure that the auxiliary outlet plug (if available) is disconnected from the mains.
- ► Ensure that the castors are locked prior to assembly, disassembly and maintenance.
- ► Ensure that the castors are locked when the bed is occupied.
- ► Hang the mains cable on the appropriate hook on the bed during transport.
- ► Have the bed transported exclusively by nursing personnel and by at least 2 persons.

11.2.1 Central Castor Control

The bed is equipped with central castor´s control and brake system.
The control levers are located in the four corners of the undercarriage.

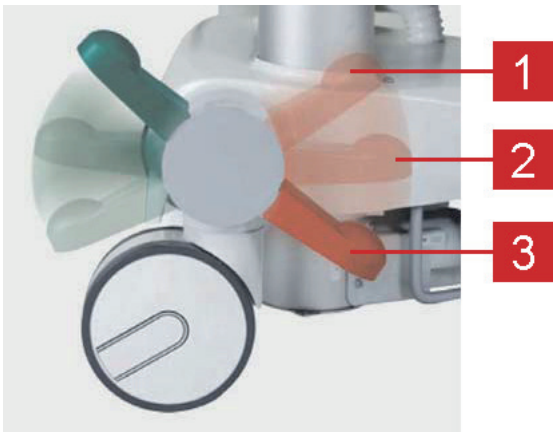


Fig. Positions of Castor Control Lever

Castor control lever positions:

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 braked.

11.2.2 Bed transport

Transporting the bed:

- ► Adjust bed height to at least 20 cm (9 in.) below maximum height.
- ► Push bed by handles on head board or foot board.

11.4 Control Elements

The bed is operated by different control elements.

Control elements depending on the model:
- Multiboard with LCD touchscreen in both head siderails
- Quick-Action panel in both head siderails
- Additional supervisor
- Handset
- Handset with adapter for easy connection (Plug and Play)
- Handset with illuminated buttons
- Foot control for lateral tilt
- Foot control for height adjustment
- Patient control elements integrated in both foot siderails

Disabling individual functions on the Multiboard will affect all control elements.

If the bed does not react to individual position settings:
► Check whether the function is disabled on the Attendant Control Panel.

11.4.1 Multiboard with LCD Touchscreen in Both Head Siderails

The Multiboard is the main control element. It is integrated in the outside of both head siderails.
► Ensure that exclusively nursing staff trained for critical care operate the Multiboard.

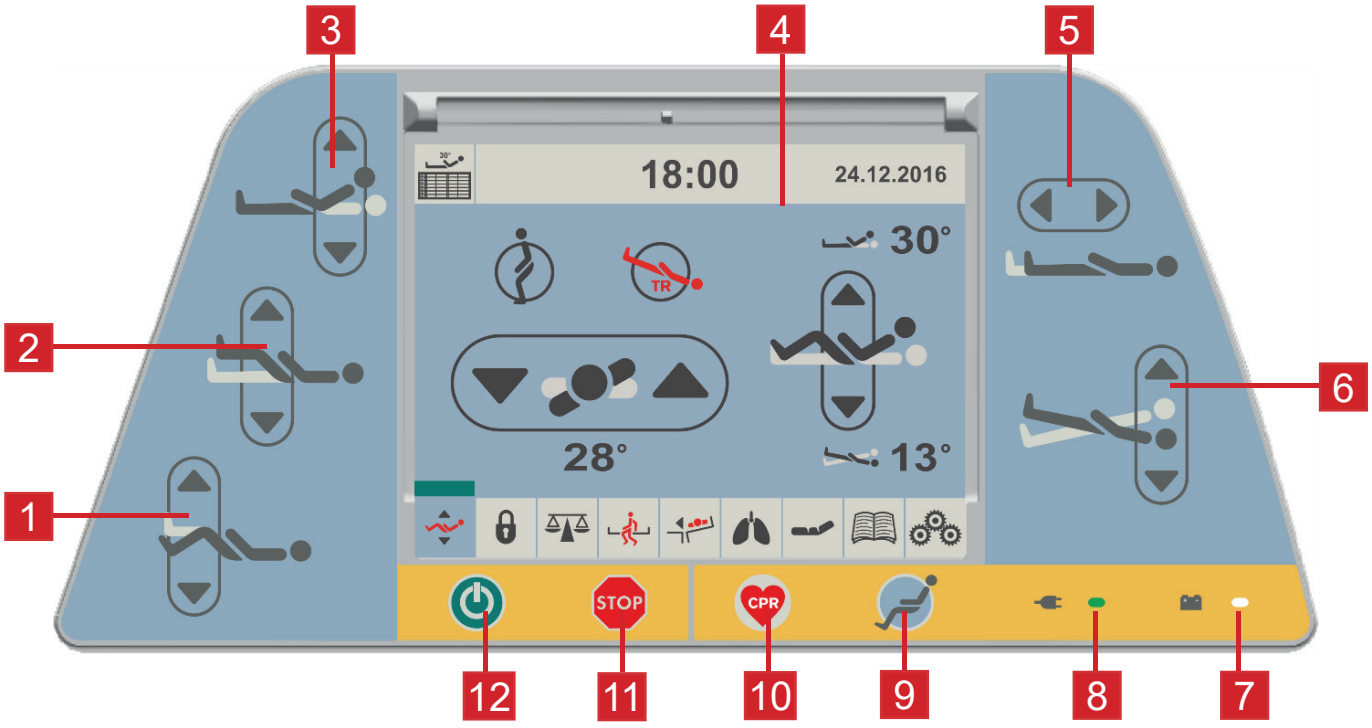


Fig. Multiboard

1. **Calfrest Position Buttons**
2. **Thighrest Adjustment Button**
3. **Backrest Adjustment Button**
4. **LCD Touchscreen**
5. **Buttons Mattress Platform Extension**
6. **Buttons Longitudinal Tilt Adjustment**
7. **Accumulator Charge Status LED**
8. **Mains Power LED**
9. **Button Cardiac Chair Position**
10. **Button CPR (Resuscitation) Position**
11. **Central STOP Button**
12. **GO Button**

11.4.2 Attendant Control Panel

The Attendant Control Panel is an optional control element. The Attendant Control Panel can be hung from the foot board if required. It is possible to hold the additional supervisor in the hand while operating.

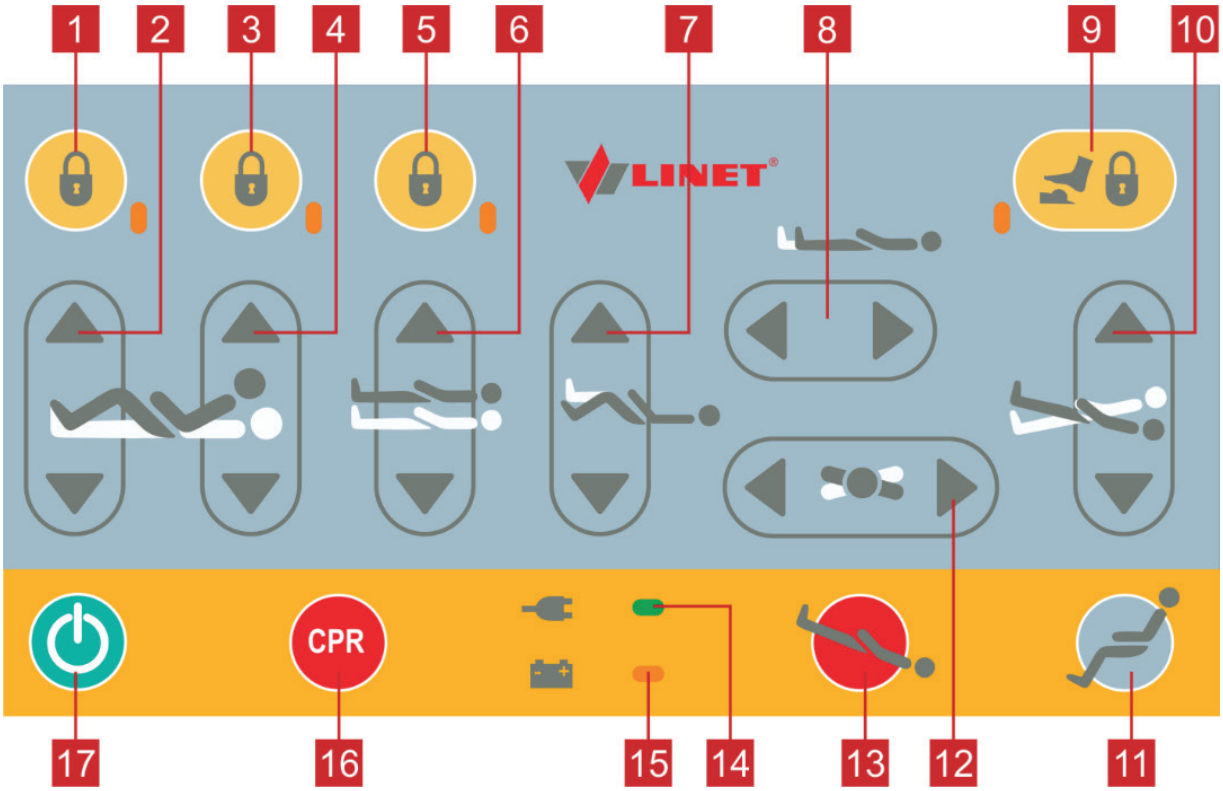


Fig. Attendant Control Panel

1. **Button and LED Thighrest, Calfrest and Extension Lock**
2. **Button Thighrest Adjustment**
3. **Button and LED Backrest Lock**
4. **Button Backrest Adjustment**
5. **Button and LED Height/Tilt Lock**
6. **Buttons Height Adjustment**
7. **Buttons Calfrest Position**
8. **Buttons Mattress Platform Extension**
9. **Button and LED Foot Control Lock**
10. **Buttons Longitudinal Tilt**
11. **Button Cardiac Chair Position**
12. **Buttons ALT**
13. **Button Trendelenburg Position**
14. **LED Mains Power**
15. **LED Accumulator Charge Status**
16. **Button CPR (Resuscitation) Position**
17. **GO Button**

To set position:

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

Mains power LED

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

13 Scales Control

13.1 Scales Screen (WS17)

Fig. Scales Screen

1. History Subscreen Icon
2. Stabilized Scales Status Icon
3. Display – Current Weight
4. Save Weight Value Icon
5. Indicated Value Switch Icon
6. ZERO/T Icon (zero or tare scales)
7. HOLD Icon
8. WEIGHT/CLEAR icon

13.1.1 Preparation

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

CAUTION!
Incorrect use of scales due to incomplete preparation!
► Before each patient admission tare the scales.

13.1.2 Taring

Taring can be done in range of 5kg to 249,5 kg. Taring is used to set “0” on the display before placing the patient on the bed. Taring must be done with an unloaded bed with mattress, bed sheets, pillows and necessary accessories, without patient. It is recommended to position mattress platform about 20 cm above the lowest horizontal position.

To tare weight:
► Ensure that nothing and nobody touches the bed except you.
► Press and hold icon 6 (Zero/T) until weight value starts to flash.
► Release icon 6.
► Press icon 6 to confirm taring. “0” is shown on the display.
Place the patient on the bed.

To cancel taring:
► Press icon 8 while taring.

16.8 X-Ray Lung Examination

The backrest of the bed consists of HPL and is x-ray translucent. The bed is equipped with an x-ray cassette hol- der with 2 U-profiles under the backrest. This design allows taking x-ray images of the patient's lungs without moving the patient manually.

Fig. X-Ray Lung Examination

16.8.1 Necessary Steps before the Examination

NOTE This procedure is suitable for patients who cannot be moved due to critical conditions (e. g. internal bleeding).

- ► Make sure that patient is in centre of bed.
- ► Make sure that backrest is in lowest position and siderails are folded up.
- ► Pull out x-ray cassette holder.
- ► Insert x-ray cassette (format 43×35 cm (16.93 in. x 13.78 in.)).
- ► Push back x-ray cassette holder with x-ray cassette so that the cassette centre indicator is exactly under the edge of the mattress platform.
- ► Correct position of x-ray cassette holder using the tooth mechanism so that the upper edge of the x-ray cassette is exactly under the patient's shoulder line.
- ► Adjust parameters of the x-ray device.

16.9 Examination with C-arm

Backrest and seat of the bed are x-ray translucent. The bed is equipped with a column construction. This design allows C-arm--assisted operations (mainly cardiological operations such as temporary external cardiostimulation) without moving the patient. The x-ray tube of the C-arm is located between the undercarriage and the mattress platform.

Necessary Steps before the Operation

- ► Make sure that backrest is in highest position and siderails are folded up.
- ► Position upper part of C-arm (sensor and indicator) above the patient's chest.

18.2 Infusion Stands

WARNING!
Risk of injury due to use of incorrect accessories or because of incorrect use!
Infusion Stands must only be used for their intended use. Always read 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 (thiner) 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 over tighten the infusion pump clamps during fitment. Over tightening may damage the infusion stand.
- ► Infusion pump can be only used if the infusion stand is fitted in the accessory holder socket in the head end on the undercarriage of the bed.
- ► Do not use the infusion stand as driving/pushing device during the bed transport.

Infusion stands can be fitted to the head and foot board by either fitting into the IV/Infusion sockets mounted on the bed or using alternative accesory holder socket in the head end on the undercarriage of the bed.

- ► Use exclusively infusion stands with 4 hooks for hanging IV bags or baskets for intravenous solutions.
- ► Ensure the infusion stand individual hook 2kg maximum Safe Working Load is not exceeded.
- ► Ensure the infusion stand 20kg maximum Safe Working Load is not exceeded.
- ► The total maximum loading of the IV/Infusion poles must not exceed 20 Kg (44.1lbs).

Fig. Infusion Stand

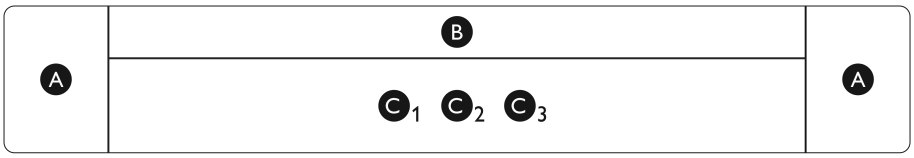
Fig. Infusion Pump – Correct Fitment

TECHNICAL SPECIFICATIONS:
VISKOMATT 50

COVER

Material	
Quality	230 g/m²
	Water vapor transmission at ASTM 96-66 550 g/m2 in 24 hour by 38 °C Liquid-tight according to ISO 1420 > 200 cm
Processing of the cover	welded cover
Fire Resistance	BS 7175 crib 5
Color	dark grey

CORE



Material	Foam	Height	Specification
A	Polyetherfoam	16 cm	41 kg/m³ – 3,9 kPa
B	Visco-elastic foam	7 cm	85 kg/m³ – 3,0 kPa
C1	High resilience foam	9 cm	33 kg/m³ – 3,6 kPa
C2	High resilience foam	9 cm	80 kg/m³ – 3,8 kPa
C3	High resilience foam	9 cm	33 kg/m³ – 3,6 kPa
Fire Resistance	BS 6807 crib 5		

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Qualitätsmanagementsystem zertifiziert nach DIN EN ISO 9001 und 13485
Umweltmanagementsystem zertifiziert nach DIN EN ISO 14001

CONSTRUCTION OF THE FOAM CORE

→ Lying surface with an antimicrobial equipped viskoelastic polyurethane foam 7 cm, 85 kg/m³
→ Support layer from polyether-cold foam 9 cm Head and foot area 33 kg/m³, middle area 80 kg/m³
→ Edge zone reinforcement Polyetherfoam 41 kg/m³
→ Contur cut: foam connection without adhesive seams
→ With core protection sock

COVER

→ PERLASTIC® Silber protective cover Totalweight 230 g/m² | dark grey
→ High infection prophylaxis
→ Two handles for an optimized handling
→ Hidden extra strong zipper
→ Bi-elastic and dimensionally stable, long durability and stability
→ Extra strong PU-coated, permanent bacteria- and virus tight Liquid-tight according to ISO 1420 > 200 cm
→ Breathable Water vapor transmission at ASTM 96-66 550 g/m² in 24 hour by 38 °C
→ Antimicrobial equipped
→ Latex free: resistant to disinfectants as well as blood, urine, ointments, oils and fats

TREATMENT

→ Varied treatments possible:

wipe-disinfection | do not iron | to 75 °C | waterproof | bacteria and virus proof | fire protection

ARTICLE

Dimensions	**200 x 86,5 x 16 cm****
Maximum patient weight* (in a lying position)	190 kg
Material	**with edge zone reinforcement**
Viskoelastic Polyurethane foam	**7 cm** (85 kg/m³)
Polyether-cold foam	**9 cm** (33 kg/m³ and 80 kg/m³)
Polyetherfoam	**+** (41 kg/m³)
Item number	**4PW52110OAS**

* The information on the maximum body weight is intended as a guide. The actual contact pressure also depends on the anatomy's body, as well as the adjustment of the bed and the bed base.

** Please consider the following tolerances: Length +- 10mm
Width +- 5mm
Height +- 3mm

LABELLING

We label according to MDR with article description, manufacturer name and contact data, date of manufacture, serial number and recommendation for reprocessing. Global trade item number, date of manufacture and serial number are applied as a data matrix and in plain text.

Base data

Timeliness 17.02.2022

Data	Details	Text
Number	85/3,0 70/4,0 33/3,6 41/3,9	ViskoMatt 50
Match	4PW521100AS	200 x 86,5 x 16 cm
Barcode	PAG15	
Weight	approx. 17,82	with 10 cm reinforced edge zones on both sides
Unit of measure	Stk	Core 7 cm viscoelastic antimicrobial foam volume weight 85 / compression hardness 3,0 kPa 9 cm Polyether cold foam 50 cm head and foot area volume weight 33 / compression hardness 3,6 kPa 100 cm middle area volume weight 80 / compression hardness 4,0 kPa EZR Polyether foam volume weight 41 / compression hardness 3,9 kPa covered with PERLASTIC® Silber cover darkgrey with welded seams, concealed L-zipper and two handles Made in Germany

11.4.4 Patient Control Panels

The patient control panels integrated in the foot siderails allow the patient to adjust the positions of the Backrest, Thighrest and Autocontour.

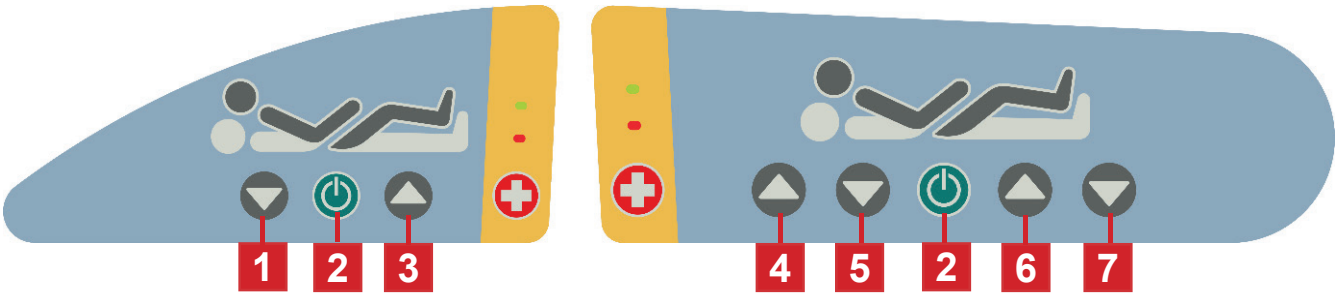

Fig. Patient Control Panels in the foot siderails

1. Autocontour Adjustment Button – (simultaneous movement of the Backrest and Thighrest) – DOWN
2. GO Button (activation of the control panel)
3. Autocontour Adjustment Button (simultaneous movement of the Backrest and Thighrest) – UP
4. Backrest Adjustment Button – UP
5. Backrest Adjustment Button – DOWN
6. Thighrest Adjustment Button – UP
7. Thighrest Adjustment Button – DOWN

NOTE Keyboards are optionally illuminated. The illumination is activated for 7s if any button was pressed and the illumination is activated for 3 minutes if GO Button was pressed.

NOTE Functions on the Patient Control Panel in the foot siderails are disabled when the foot siderail is in lower position.

11.4.5 Bed Height Foot Control

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

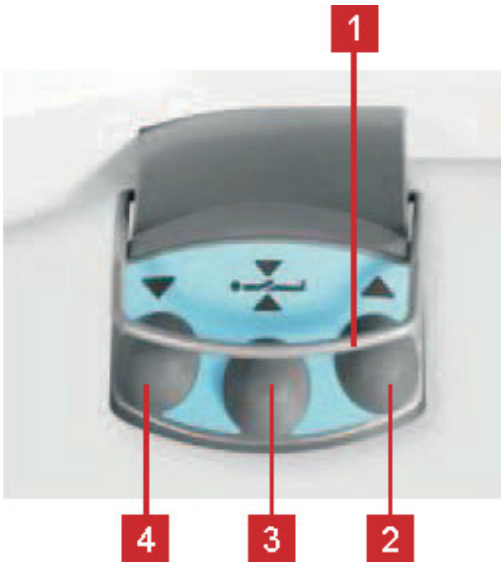

Fig. Foot Control Bed Height

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

Set the position as follows:

► Press foot switch 2, 3 or 4 to activate foot control.
► Press and hold foot switch until desired position is reached.

NOTE: It is possible to activate foot control by pressing GO button on the control elements of the bed then it is not needed to activate the foot control by buttons 2, 3 or 4.