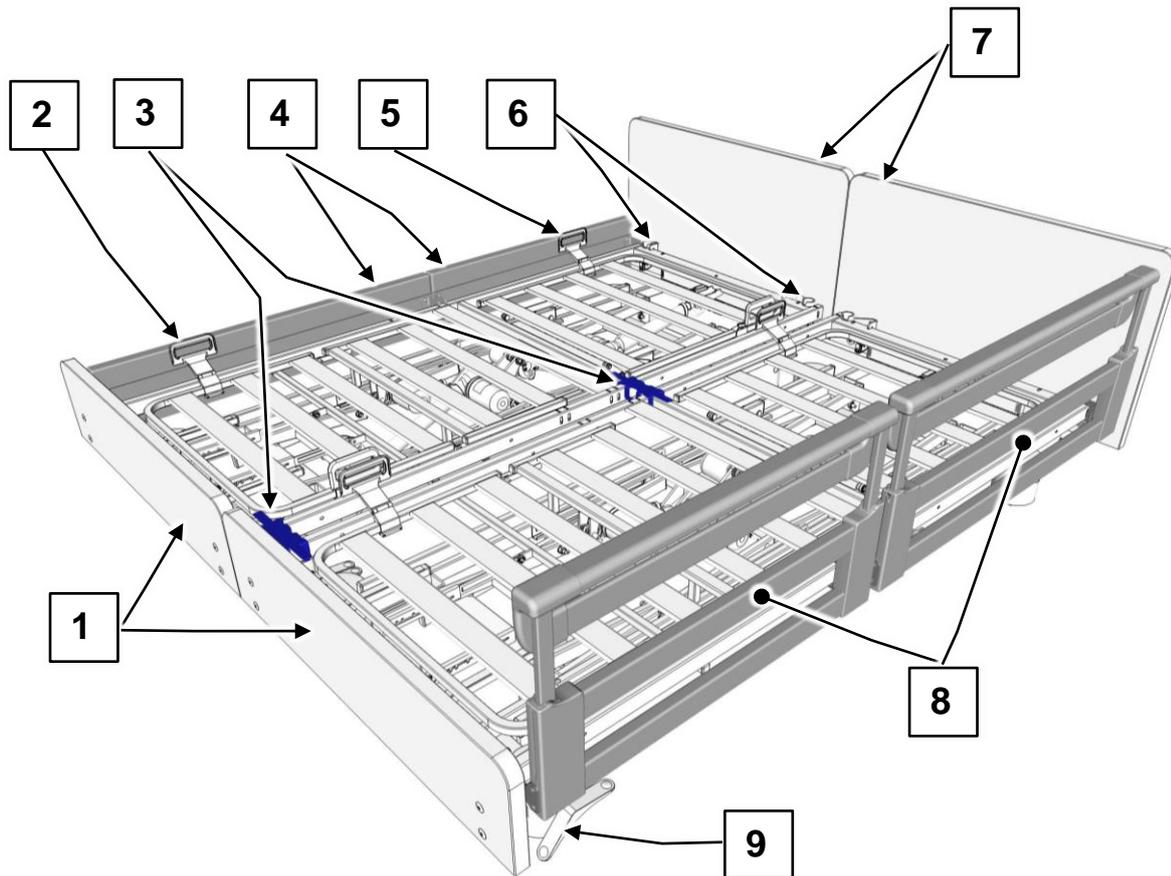


# Instruction Manual

## Regia Care Bed Partner bed variant



## Regia – Partner bed variant



1	Footboard
2	Lower leg rest handle (both sides) / mattress retainer bar
3	Connecting element 1x at the foot end, 1x in the centre (optional)
4	Side panels 2x (optional equipment)
5	Backrest handle (both sides) / mattress retainer bar
6	Adapter sleeve for patient lifting pole (head end, 2x)
7	Headboard
8	Split safety side (TSG) "Easy Switch" (telescopic, optional equipment)
9	Pedal for operating castor brakes, foot end (on both sides) central locking



In this instruction manual, numbers which appear in square brackets [ ] and **bold type** refer to the care bed's operating devices as shown in this illustration.

## Contents

<b>1</b>	<b>FOREWORD</b>	<b>5</b>
<b>2</b>	<b>GENERAL INFORMATION</b>	<b>6</b>
2.1	Definition of the groups of persons involved	7
2.2	Safety instructions	8
2.2.1	Explanation of the safety symbols used	8
2.2.2	Safety information for the operator	9
2.2.3	Safety information for the user, resident	10
2.3	Product description	12
2.3.1	Intended use	12
2.3.2	Use for the intended purpose	12
2.3.3	Contraindications	13
2.3.4	Side effects	13
2.3.5	Special features	14
2.3.6	Structural design	14
2.3.7	Materials used	15
<b>3</b>	<b>ASSEMBLY AND PUTTING INTO SERVICE</b>	<b>16</b>
3.1	Location requirements	17
3.2	Assembling the bed	18
3.2.1	Assembling the chassis	18
3.2.2	Headboard/footboard assembly	23
3.2.3	Dismantling headboard and footboard	27
3.2.4	Attaching/removing the side panels (optional equipment)	29
3.3	Safety sides	36
3.3.1	No safety side	36
3.3.2	Split safety side (optional equipment)	37
3.4	Adaptable bed extension (option)	48
3.4.1	Attaching the bed extension	49
3.5	Comfort mattress base - 90 cm width (optional equipment)	51
3.6	Electrical connection	52
3.6.1	Connecting the sync cable	54
3.6.2	Fixing the beds in place	55
3.6.3	Synchronising the partner bed	56
3.7	Putting into service	57
3.8	Dismantling the bed	58
<b>4</b>	<b>OPERATION</b>	<b>59</b>
4.1	Tips on using the bed safely in a domestic setting	59
4.2	Moving and braking the bed	60
4.2.1	Castors	61
4.3	Electrical adjustment options	62
4.3.1	Special safety information on the electrical drive system	62
4.3.2	Handset	64
4.4	Operation of safety sides	68
4.4.1	Special safety information for safety sides	68
4.4.2	Split safety side (TSG) (optional equipment)	70
4.5	Mechanical adjustment options	73
4.5.1	Manual CPR release of the backrest	73

4.5.2	Lower leg rest .....	75
4.6	Attachments and optional features .....	76
4.6.1	Cable holder .....	76
4.6.2	Adapter sleeves for patient lifting pole .....	77
4.6.3	Grab handle (triangular handle) .....	78
4.7	Use as a single bed .....	79
<b>5</b>	<b>CLEANING AND DISINFECTION .....</b>	<b>80</b>
5.1	General information on cleaning and disinfection .....	80
5.2	Cleaning and disinfection plan .....	81
5.3	Instruction of users and staff .....	82
5.4	Cleaning of firmly upholstered components .....	83
5.4.1	Cleaning the fabric upholstery .....	83
5.4.2	Cleaning faux leather upholstery .....	83
5.5	Cleaning and disinfection agents .....	85
5.6	Handling cleaning and disinfection agents .....	86
<b>6</b>	<b>MAINTENANCE .....</b>	<b>87</b>
6.1	Legal principles .....	87
6.2	By the user .....	88
6.3	By the operator .....	89
6.4	Replacement parts .....	93
6.5	Manufacturer's address/ service address .....	93
6.6	Replacement of electrical components .....	94
6.6.1	Special safety information on replacing electrical components .....	94
6.6.2	Plug assignment on the control unit .....	95
6.6.3	Complete overview - Electrical connections of both beds .....	96
6.6.4	Replace the handset .....	97
6.6.5	Replace the control unit .....	97
6.6.6	Replace the motors .....	97
6.6.7	Initialise the control unit .....	98
6.6.8	Decommissioning .....	99
<b>7</b>	<b>TROUBLESHOOTING .....</b>	<b>100</b>
<b>8</b>	<b>ACCESSORIES .....</b>	<b>102</b>
<b>9</b>	<b>TECHNICAL DATA .....</b>	<b>103</b>
9.1	Dimensions and weights (single bed) .....	103
9.2	Technical data .....	104
9.2.1	Electrical data .....	104
9.2.2	Type plate – electrical data .....	106
9.2.3	PID bar code .....	106
9.2.4	Ambient conditions .....	107
9.2.5	Other labelling on the product .....	108
9.3	Information on electromagnetic compatibility (EMC) .....	109
9.4	Classification .....	112
<b>10</b>	<b>DISPOSAL INSTRUCTIONS .....</b>	<b>113</b>
<b>11</b>	<b>DECLARATION OF CONFORMITY .....</b>	<b>114</b>

## 1 Foreword

Dear Customer,

Burmeier has built this bed to give you the best possible help with the challenges posed by nursing and caregiving. We passionately pursue the goal of developing products that are durable and of a high-quality. Our products should make residents feel as safe and comfortable as possible during their stay in bed and also lighten the workload of care staff and caring relatives. For this reason, the electrical safety and all functions are tested prior to delivery. Each bed leaves our factory in perfect condition.

Correct operation and care are necessary to keep the bed in excellent condition during long-term use. Please therefore read and observe these instructions carefully. They will help you to put the bed into service for the first time and to use it on a daily basis. This instruction manual contains all the information you will need to make it as easy and safe as possible to control and handle this bed, both for you as the operator and for your users. This instruction manual is a practical reference book and should be kept close to hand at all times.

The medical retail trade that delivered this bed is also there to assist you with any questions you may have concerning servicing and repairs during the product's lifetime of use.

This bed is designed to give the person in need of care and all users a safe and practical piece of equipment that provides decisive support with the ever-increasing requirements of care-giving.

Thank you for the confidence you have place in us and our products.

Burmeier GmbH & Co. KG

You are a medical product retailer and would like to get in touch with Burmeier? Feel free to phone us: You can contact our service centre in Germany by phone at +49 (0) 5232 9841 - 0. Customers outside Germany can contact our distribution companies in their respective country if they have any questions. For more information visit:

[www.burmeier.com](http://www.burmeier.com)

## 2 General information



The Regia care bed in the partner bed variant, hereafter referred to as the “bed” or the “partner bed”, is manufactured in various models. This instruction manual has been issued for several bed models. It is possible that certain functions or special features are described which your bed does not have.

### Instructions for the operator:

- This care bed fulfils all the requirements of the Medical Device Regulation (EU) 2017/745 (MDR). It is classified as a Class I active medical device in accordance with § 13 of the German Medical Devices Act (Medizinproduktegesetz: MPG).
- Please observe your obligations as the operator in accordance with the Medical Devices Operator Ordinance (Medizinprodukte-Betreiberverordnung, German abbreviation: MPBetreibV), to ensure that this medical product is always operated safely and with no risk of danger to patients, users, or third parties.
- Any item of technical equipment, electrical or otherwise, can prove hazardous if used improperly.
- Read through this instruction manual from start to finish to prevent any injury or damage resulting from incorrect operation.
- You are obliged to instruct users (see Chapter 4) in the proper use of this care bed in accordance with the Medical Devices Operator Ordinance (MPBetreibV) § 5!
- Ensure that users know where this instruction manual is kept, in accordance with the Medical Devices Operator Ordinance (MPBetreibV) § 9!

### Instructions for the user:

- Before using a bed, the user must check that the bed is fully functional and in perfect working order, and must observe the instructions in the manual, in accordance with the Medical Devices Operator Ordinance (MPBetreibV) § 2. This also applies for accessories.
- Read through this instruction manual from start to finish to prevent any injury or damage resulting from incorrect operation.
- This instruction manual contains safety information which must be followed! All users working on and with the partner bed must be familiar with the contents of this instruction manual and follow the safety advice provided.

### Before using the bed for the first time:

- Remove all transport securing devices and packaging film.
- Assemble the bed from the knocked down assembly units in accordance with the assembly instructions.
- Clean and disinfect the bed before using it for the first time.

## **2.1 DEFINITION OF THE GROUPS OF PERSONS INVOLVED**

---

In this instruction manual, the following groups of persons are defined as:

### **Operator**

Operators (e.g.: medical equipment retailers, specialist dealers, health insurance) are all natural or legal persons who use the partner bed or on whose behalf it is used. It is a requirement that the operator duly instructs care staff in its use.

### **Care staff**

Care staff are persons who, based on their training, experience or briefing, are qualified to operate the partner bed on their own authority or to carry out work with the care bed, or have been instructed how to handle the care bed. Furthermore, they are able to recognise and avoid potential hazards and assess the clinical condition of the resident.

### **Residents**

In this instruction manual, the term resident is defined as a person who is infirm or in need of care and occupies this care bed.

It is a requirement that the operator or care staff instructs each new resident in the bed functions that are important for him/her.

## 2.2 SAFETY INSTRUCTIONS

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At the time of leaving the factory, this bed represents state-of-the-art technology and has been tested by an independent testing institute. The most important objective of the safety information is to prevent personal injuries. Property damage will also be prevented.

Only use this bed if you are absolutely certain that it is in perfect working order!

### 2.2.1 Explanation of the safety symbols used

In this instruction manual, the following safety symbols are used:

#### Risk of injury to persons

---



Mortal Danger !

This symbol indicates hazards due to electrical voltages. There is danger to life.



Danger

This symbol indicates general hazards. There is danger to life and health.

#### Risk of damage to property

---



Warning

This symbol indicates possible damage to property. It is possible that damage may occur to the drive, materials or the environment.

#### Other advice

---



This symbol indicates a generally useful tip. If you follow it, you will find it easier to operate the bed. This tip is provided to give you a better understanding.

**The safety symbols used are not a substitute for the written safety information. It is important therefore to read the safety information and follow the instructions exactly!**

**All persons who work on or with this bed must be familiar with the contents of this instruction manual and follow all the safety advice that is relevant for them.**

## 2.2.2 Safety information for the operator

- Please observe your obligations in accordance with the Medical Devices Operator Ordinance (Medizinprodukte-Betreiberverordnung: MPBetreibV), to ensure that this medical product is always operated safely and with no risk of danger to residents, users or third parties!
- Using this instruction manual, which must be provided with the bed, make sure that every user is instructed in the safe operation of the bed before using it for the first time.
- If the bed is used in a domestic setting, leave your contact details with the resident in case they have any questions regarding its use or servicing. (Use the address field on the back cover of this manual).
- Draw every user's attention to the possible hazards that can arise if the bed is improperly used. This applies in particular to the use of electrical drives and safety sides.
- If the bed is in long-term use, test the functions and check for any visible damage (see Chapter 6.3) after a reasonable period of time (recommendation: once a year)
- Only persons who have been properly instructed in its use must be allowed to operate this bed.
- Check to ensure that the safety instructions are adhered to!
- Make sure that substitute staff are also sufficiently well instructed in the safe operation of this bed.
- If any additional devices (such as compressors for positioning systems) are attached, ensure that these are securely fastened and are working properly. Pay particular attention to:
  - Safe routing of all loose connector cables, tubing, etc.
  - Ensure that no multiple socket outlets are located under the bed (fire hazard due to ingressing liquids).
  - Chapter 2.3.2 of this instruction manual

### 2.2.3 Safety information for the user, resident

- Ensure that the operator/your medical supply store instructs you in the safe operation of this bed.
- Ask a healthcare professional for advice if you are uncertain about a possible application of safety sides or about the necessity of activating the locking functions of the electrical adjustments.
- Check each time before using the bed to ensure that it is in perfect working order (see checklist, page 53) Ensure that no obstacles such as bedside cabinets, supply rails or chairs could impede adjustments to the bed.
- If any additional devices (such as compressors for positioning systems) are attached, ensure that these are securely fastened and are working properly. Pay particular attention to:
  - Safe routing of all loose connector cables, tubing, etc.
  - Do not use multiple socket outlets placed loosely on the floor. These could cause electrical hazards due to damaged mains cables or the ingress of liquids. If anything is unclear, please contact the manufacturer of the device.
- If any damage or malfunction is suspected, take the bed out of service:
  - Unplug the bed from the mains supply immediately.
  - Indicate clearly that the bed is "OUT OF ORDER".
  - Report this immediately to the operator responsible/your responsible medical supply store (see the address on the back cover of this manual).



- Route the mains power plug cable, and also all other cables, in such a way that they cannot be pulled, driven over or damaged by moving parts when the bed is operated.
- Never leave unsupervised toddlers or babies alone with the bed!
  - There is a strangulation hazard due to the possibility of entanglement in exposed connection cables (such as the power cable and handset cable).
  - There is a risk of suffocation from swallowing small parts which may have become detached from the bed.
- Lock the electrical adjustment functions of the bed if their unsupervised use could put staff or other persons at risk.
- Hook the mains cable holder onto the headboard before moving the bed to prevent the mains cable from being driven over, crushed or torn off. Such damage could lead to electrical hazards and malfunctions (see Chapter 4.6.1).
- Do not place multiple socket bars under the bed. This could cause electrical hazards due to damaged mains cables or the ingress of fluids.



- Adjust the mattress base to its lowest position before leaving the resident unattended. In this way, you considerably reduce the risk of injury to the resident due to a fall when getting in or out of bed.
- Always ensure that the castor brakes are applied when the bed is not being moved.
- When not in use, stow the handset in such a way that it cannot inadvertently fall off (hang it up by the hook). Make sure that the cable cannot be damaged by moving parts of the bed.
- Adjustments must only be performed by, or in the presence of, a trained person.
- Before carrying out any adjustments, make sure that there are no people, limbs, pets or objects in the way, in order to avoid entrapment hazards and/or damage to property. This applies particularly when mattress base sections are adjusted to a lower height.
- To safeguard against unintentional motorised adjustments, lock the relevant functions of the handset if:
  - the resident is unable to operate the bed safely or to free himself/herself from potentially dangerous situations.
  - the resident could be at risk due to unintentional motorised adjustments.
  - The safety sides are raised (danger that the person's limbs could be trapped when adjusting the backrest and thigh rest).
  - children are left unsupervised in the room with the bed.
- At regular intervals, carry out a visual inspection of the power plug and cable to check for mechanical damage (scuffing, exposed wires, kinks, pressure points, etc.). Perform such a check:
  - Whenever the cable has been subjected to any mechanical load, e.g. has been driven over by the bed itself or by an equipment trolley.
  - Whenever the cable has been bent, stretched or violently pulled, e.g. due to the bed rolling away while it is still plugged into the mains socket.
  - Whenever the bed has been moved or relocated and before plugging it back into the power socket.
  - Regularly, but at least once a week, by the user when the bed is in constant use.
- Check the strain relief of the power plug cable regularly to ensure that it is securely fixed.

**Observe the safety information found in this instruction manual!**

## 2.3 PRODUCT DESCRIPTION

### 2.3.1 Intended use

- This bed is used as an aid in the diagnosis, treatment, alleviation and monitoring of illnesses or for compensating for injuries or disabilities. For detailed instructions for use, see → Chapter 9.4.
- The bed itself is not life sustaining or life supporting.
- This bed is not indicated for any particular medical use.

### 2.3.2 Use for the intended purpose

- This bed was developed as a comfortable solution for the positioning and nursing of infirm persons in need of care in homes for the elderly, as well as in nursing homes and comparable medical facilities.
- The use of this bed in hospitals is only permitted in rooms designed for medical treatment of the application group 0 (in accordance with VDE 0100 part 710, previously VDE 0107). This bed was not designed for any other usage!
- This bed may be intended for care under the supervision of a doctor and be used for diagnosis, treatment or observation of the resident. It is therefore equipped with an option of locking the handset.
- This bed has no special connectors for potential equalisation. Please pay attention to this before connecting additional mains-operated (medical) electrical equipment. If necessary, further advice on additional protective measures can be found:
  - in the instruction manuals of these additional mains-operated electrical devices (e.g. compressed air positioning systems, infusion pumps, enteral feeding devices ...)
  - in the EN 60601-1-1 standard (Safety of Medical Electrical Equipment)
  - in the VDE 0100 standard Part 710 (High Voltage Installations in Hospitals).
- Please refer to the safety information provided in Chapter 4.3.2.2 and 4.4.1, particularly where residents are in poor clinical condition.
- This bed is suitable only for accommodating residents (=persons who are at least 146 cm tall, weigh at least 40 kg and have a body mass index "BMI" greater than 17 (see also Chapter 2.3.3).
- Safe working load (explanation of symbol on bed)

 <b>225 kg</b>	This bed (each bed half) may be operated without restrictions with a permanent maximum safe working load of 225 kg (resident and accessories).
 <b>185 - 215 kg</b>	The permitted weight of the resident (per bed half) depends on the total weight of accessories attached at any time (e.g. respirators, ventilators, infusions)

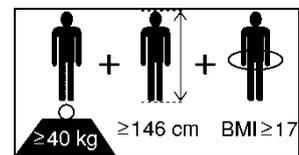
Example:

Weight of accessories (incl. mattress)	Maximum permitted weight of resident	
10 kg	215 kg	
40 kg	185 kg	

- This bed may be operated only by persons who have received instruction in its safe operation.
- This bed is suitable for repeated use. When re-using the bed, pay attention to the necessary requirements:
  - Cleaning and disinfection (see Chapter 5)
  - Maintenance/Repeat inspections (see Chapter 6)

### 2.3.3 Contraindications

- This bed is not suitable for residents who fall below the following minimum body size/weight:
  - Height: 146 cm,
  - Weight: 40 kg
  - Body mass index<sup>1</sup> “BMI”: 17



Sticker on the bed chassis

- Particularly when safety sides are used, there is an increased risk of entrapment between the open spaces of the safety sides for residents with a body size/weight that is less than this, since their limbs are smaller.

**This bed may only be used under the operating conditions described in this instruction manual. Its use for any other type of application is deemed to be contrary to the intended purpose.**

### 2.3.4 Side effects

Unless suitable measures are taken, residents who spend prolonged periods in bed may develop decubitus.

<sup>1</sup> Calculation of BMI =  $\frac{\text{Weight of patient [kg]}}{\text{Height of patient [m]}^2}$ ; example: a)  $\frac{41 \text{ kg}}{1,5\text{m} \times 1,5\text{m}} = 18,2 \rightarrow \text{OK!}$ ; b)  $\frac{35 \text{ kg}}{1,5\text{m} \times 1,5\text{m}} = 15,6 \rightarrow \text{Not OK}$

### 2.3.5 Special features

- Electrical height adjustment range: approx. 26 - 80 cm
- Electrical thigh rest adjustment from 0° to approx. 40°
- Electrical backrest adjustment from 0° to approx. 70°
- Electrical adjustment to a reverse-Trendelenburg position of approximately 16°
- Moves on four centrally-locking castors
- Mattress base in four sections: WxL approx. 180 x 200 cm (optionally: approx. 180 x 220 cm)
- Removable head and foot section: The headboard and footboard can be quickly removed without tools to provide easier access to the resident.
- Mechanical CPR backrest release

#### Optional equipment:

- Split safety side on both sides (4x)
- Split side panels on both sides (4x)
- Removable comfort mattress base comprises 2x50 individual spring elements. These elements are designed to mould themselves closely to the shape of the body and help to ventilate the mattress. Their flexibility also ensures that the pressure is optimally distributed. The comfort mattress base also significantly contributes to preventing pressure ulcers.
- Bed extension, adaptable, extends the bed by approximately 20 cm.

### 2.3.6 Structural design

The partner bed is delivered unassembled so that it can be transported to any room. The partner bed consists of 2x chassis, 2x headboard [7], 2x footboard [1], 2x mattress base frame and the side panels [4] and/or the safety sides [8]. The bed is equipped with four castors which are fitted with a locking brake (see on page 2).

#### 2.3.6.1 Mattress base

The mattress base frame is divided into a backrest, a fixed middle section, a thigh rest and a lower leg rest. All rests are adjustable. The horizontal mattress base height of both mattress bases can only be adjusted synchronously. The backrest or thigh rest on each bed can be adjusted individually.

A handset controls all electrical adjustments.

The entire mattress base and all parts of the bed that can be reached by a resident who is lying in the bed count as application parts.

### 2.3.6.2 Safety sides (optional equipment)

The partner bed can be equipped with safety sides on the outsides to protect the resident from accidentally falling out of bed. The safety sides can be raised, one after the other, from the lowered position to provide protection for the resident, and then lowered again when no longer required.

### 2.3.6.3 Electrical adjustment system

The bed's electrical drive system (housing unit) is first fault protected, flame-resistant (UL94-V-0) and consists on each bed of:

- The central bus control unit, containing plug-in connections for all drive motors and the handsets that work with protective low voltage
- Electric motors for the backrest and thigh rest
- The electric motors for adjusting the height of the mattress base
- A handset with a strong hook
- A mains plug
- A sync cable

### 2.3.7 Materials used

The bed is made predominantly of steel sections coated with a polyester powder finish or a zinc or chromium metal finish. The head and footboards and safety sides are made of wood or wood products whose surfaces have been finished. Alternatively, fabrics or faux leather can be used.

All surfaces that can be touched during normal use have been tested for bio-compatibility and are harmless to humans when in contact with the skin.

## 3 Assembly and putting into service

### Note:

- This chapter is intended for competent persons of the operator/specialist medical supply trade and for customers who have purchased the partner bed privately.
- Helpful assembly videos for setting up the partner bed can be found on [www.burmeier.com/de/information/downloads](http://www.burmeier.com/de/information/downloads) or directly on YouTube (enter search words such as: Regia, partner bed, Burmeier, assembly instructions).
- The partner bed comprises two separate beds, which are joined together on the mattress base frame with two connecting elements **[3]** after final assembly is completed. For safe operation, at least the foot-end connecting element must be inserted.
- The bed is delivered unassembled. and must be assembled at the place of use.
- On the following pages the assembly of the first half of the partner bed is described. The assembly of the second half is carried out synchronously with the assembly of the first half of the bed.

8 packaging units are delivered per partner bed:

- 2 boxes, each with a chassis with attached lifting motors. Backrest motor, thigh rest motor, control unit, handset, mains plug are pre-assembled.
- 2 boxes each with 1x mattress base
- 2 boxes with 1x headboard and 1x footboard
- 1 box with 2x side panels and/or 2x safety sides
- 1 box with instruction manual, sync cable, 2x jumper plugs, 2x connecting element and cover clips

### 3.1 LOCATION REQUIREMENTS

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- There must be sufficient room available to accommodate the bed's entire range of adjustments. Furniture, window sills, etc. must not impede adjustments.
- Before using the bed on parquet flooring, check whether the castors could leave marks on the parquet varnish. Use on tiles, carpet, laminate or linoleum floors is completely safe.
- To prevent dents to floor coverings, the substrate should comply with the recommendations of FEB (Fachverband der Hersteller elastischer Bodenbeläge e.V., = Association of Manufacturers of Resilient Floor Coverings) (Technical Information No. 3 - Maintaining the value of resilient floor coverings) (<http://www.feb-ev.com>).
- Two properly installed mains sockets must be available as close as possible to the bed.
- Position the bed so as to allow easy access to the mains plug at all times so that the bed can be disconnected from the mains, if necessary.
- If any other additional equipment is attached to the bed, (e.g. compressors for positioning systems, etc.), ensure that this is securely fastened and is functioning properly. Pay special attention here to the safe routing of all loose connector cables, tubing, etc. If you have any queries or concerns, consult the manufacturer of the additional equipment or Burmeier.
- Ensure that children are not left unsupervised in a room with the bed. This avoids possible hazards resulting from children playing and unintentionally activating the electrical/mechanical adjustment functions.



**Minimise, as far as possible, the risk of fire due to external influences. Instruct users about these points:**

- Use only flame-retardant mattresses and bedding if possible.
- Avoid smoking in bed, since the mattress and bedding used may not be resistant to smokers' accessories.
- Only use additional equipment (e.g. electric blankets) and other electrical devices (e.g. lamps or radios) that are in perfect working order!
  - Ensure that this equipment is used only for the purpose intended.
  - Ensure that this equipment is not inadvertently placed on or under the bedding (danger of overheating)!
- Avoid using extension cables or multiple socket bars under the bed (risk of fire due to penetrating fluids).

## 3.2 ASSEMBLING THE BED

**Please note:** Individual features in the following illustrations may differ from the features of your bed.

The bed must be assembled by two people.

### Tools required:

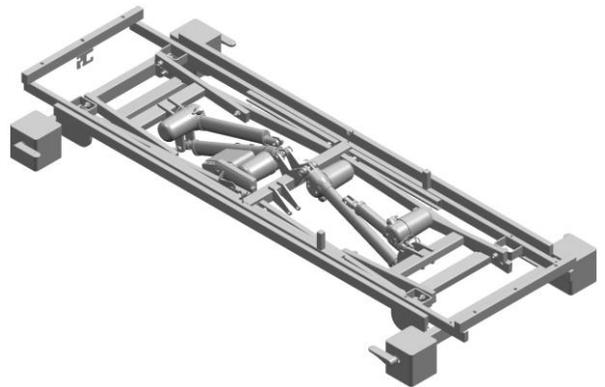
- Allen key, 8 mm

### 3.2.1 Assembling the chassis



Similar to illustration!

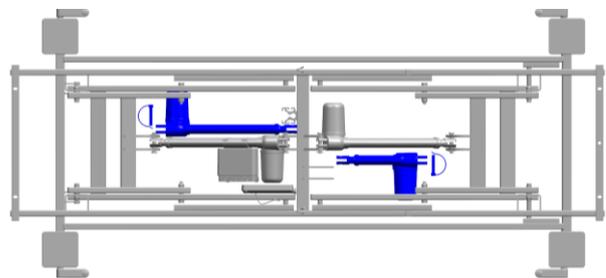
- Remove the chassis from the cardboard box and set it down.
- Remove all packaging foil from the cables.



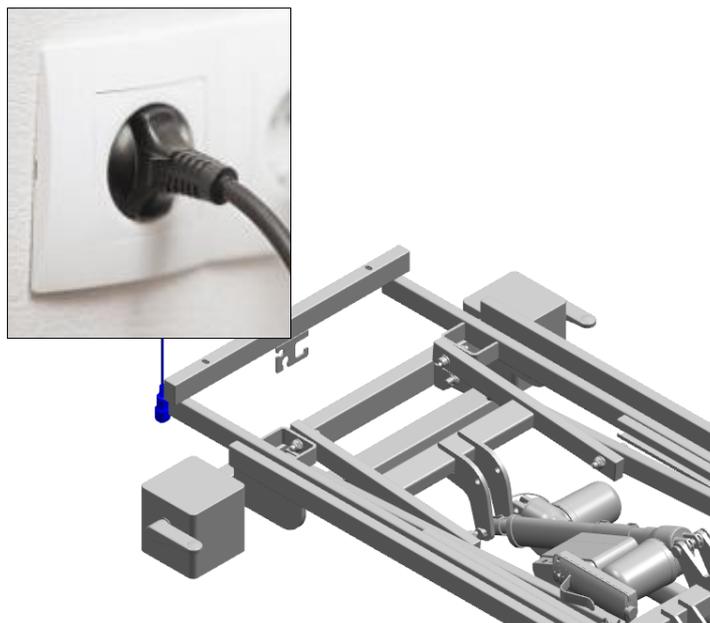
- Remove the thigh rest motor and the backrest motor from their transport position as follows:
  - Remove the locking pin on the housing.
  - Cut through the cable tie on the drive tube.

**Note:** Pay attention to the cable routing

  - Put the engines down on the ground.

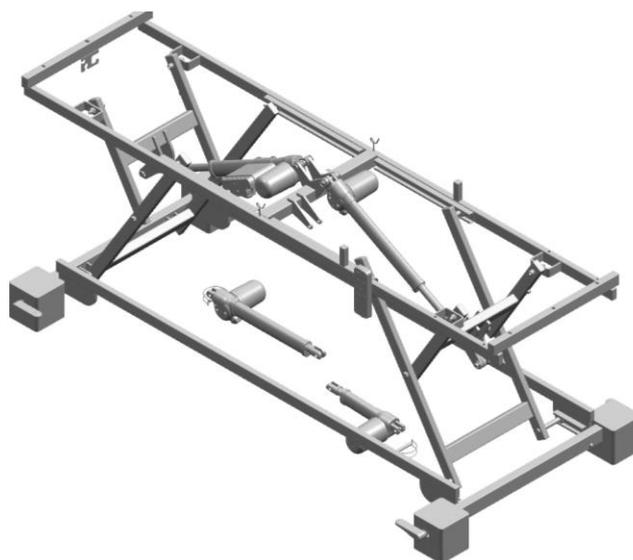


- Connect the power plug.



- Connect the two bed control units with the sync cable, see Chapter 3.6.1.

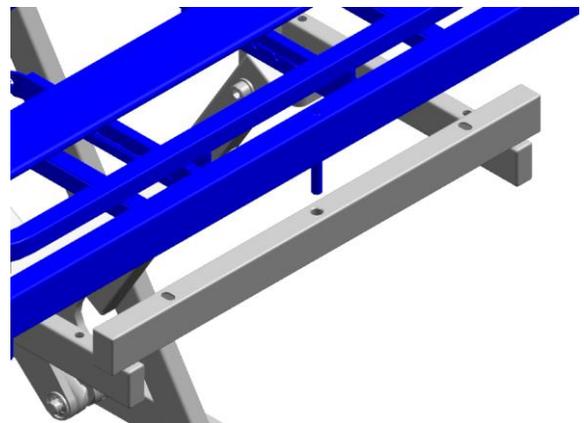
- Move the chassis to the highest position.



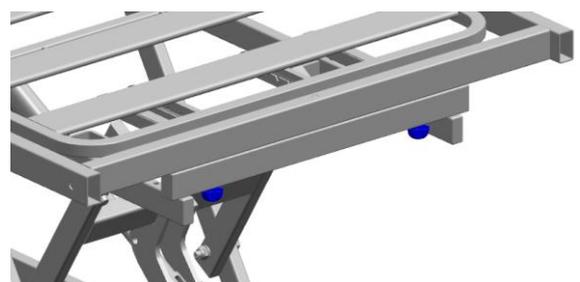
- Put the mattress base in place.  
**Note:** Pay attention to the signs indicating the head and foot end.



- Insert the location pins into the holes on both sides.



- Connect the mattress base and the chassis with the handwheel bolts (2 x 2 bolts).

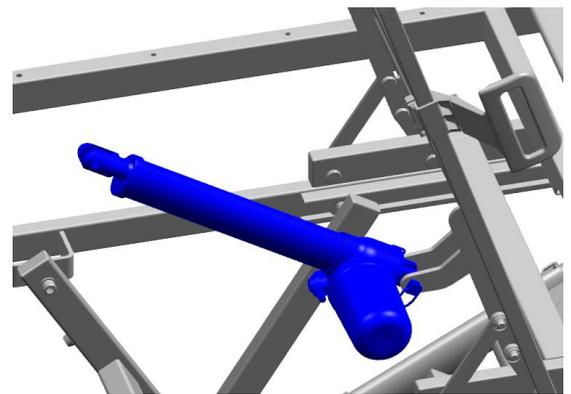


- Raise the backrest by hand.
- Insert the backrest motor into the take-up and secure it in place with the locking pin on the housing side.

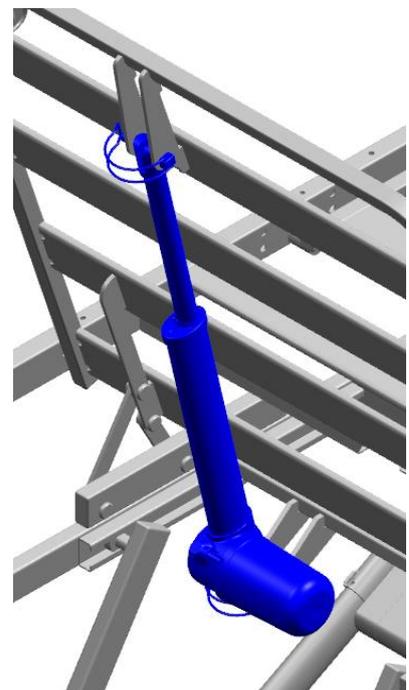
**Note:** Observe the following installation position. The housing assembly must be located over the lift motor.



- Guide the lifting bar for the backrest motor into the take-up.

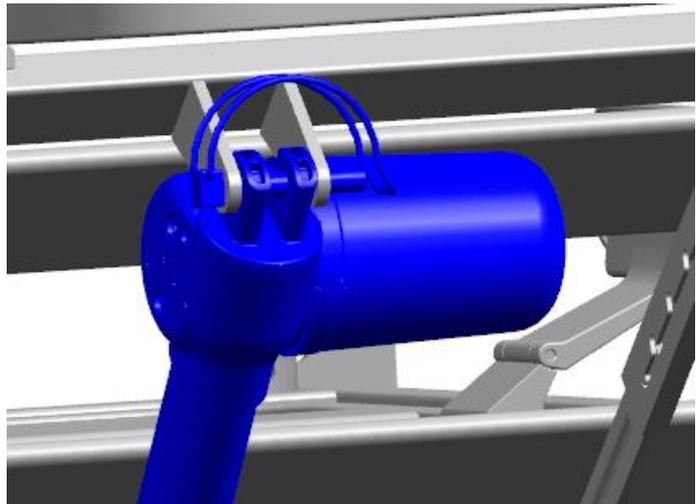


- Secure the lifting bar with the locking pin.

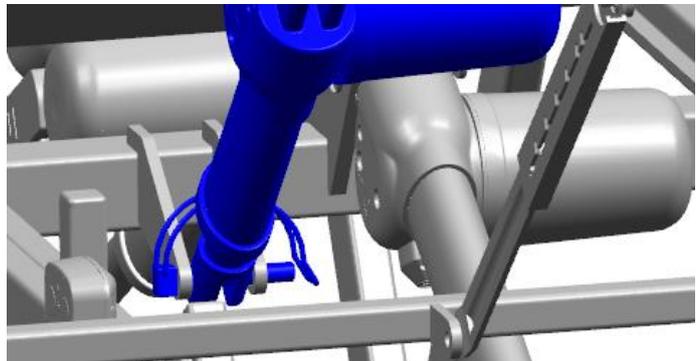


- Raise the thigh rest.
- Place the thigh rest motor in the take-up.
- Secure the thigh rest motor in place on the housing side using the locking pin.

**Note:** Observe the following installation position. The housing assembly must be located over the lifting motor.



- Guide the lifting bar for the thigh rest motor into the take-up.
- Secure the lifting bar with the locking pin.



### 3.2.2 Headboard/footboard assembly

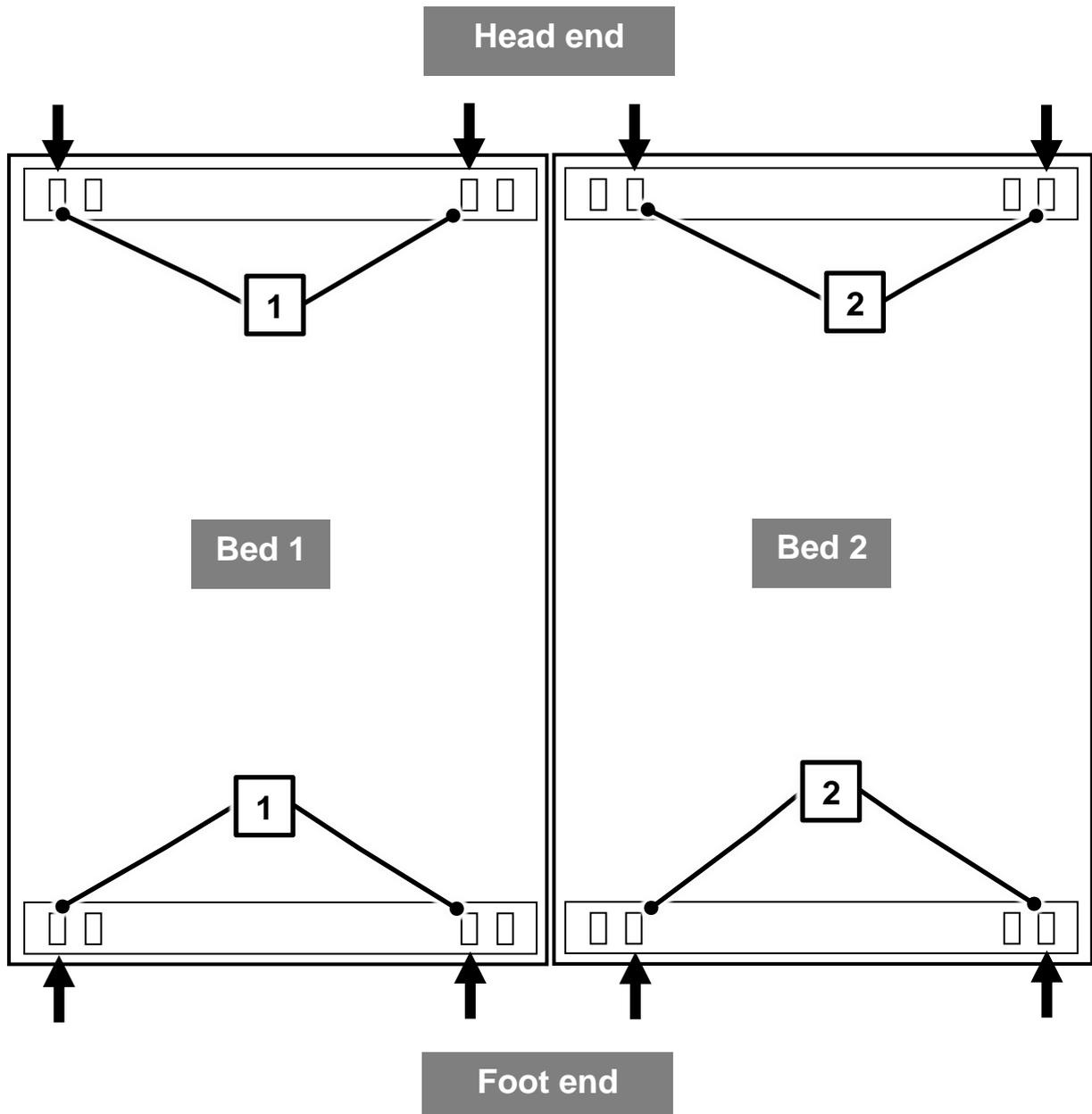
Use the locking levers (2x) attached to the cross tubing to fit/remove the headboard/footboard [7] and [1].



**Risk of injury due to incorrect installation of the headboard/footboard**

Incorrect installation of the headboard or footboard (due to multiple slots in the cross tubing of the mattress frame [1] / [2]) can lead to strangulation or crushing of limbs due to the space created between the headboard and footboard and between the headboard/footboard and safety sides.

- The headboard and footboard must be fitted asymmetrically.
- Only fit the headboard and footboard according to the following instructions; **the arrows mark the fitting points.**



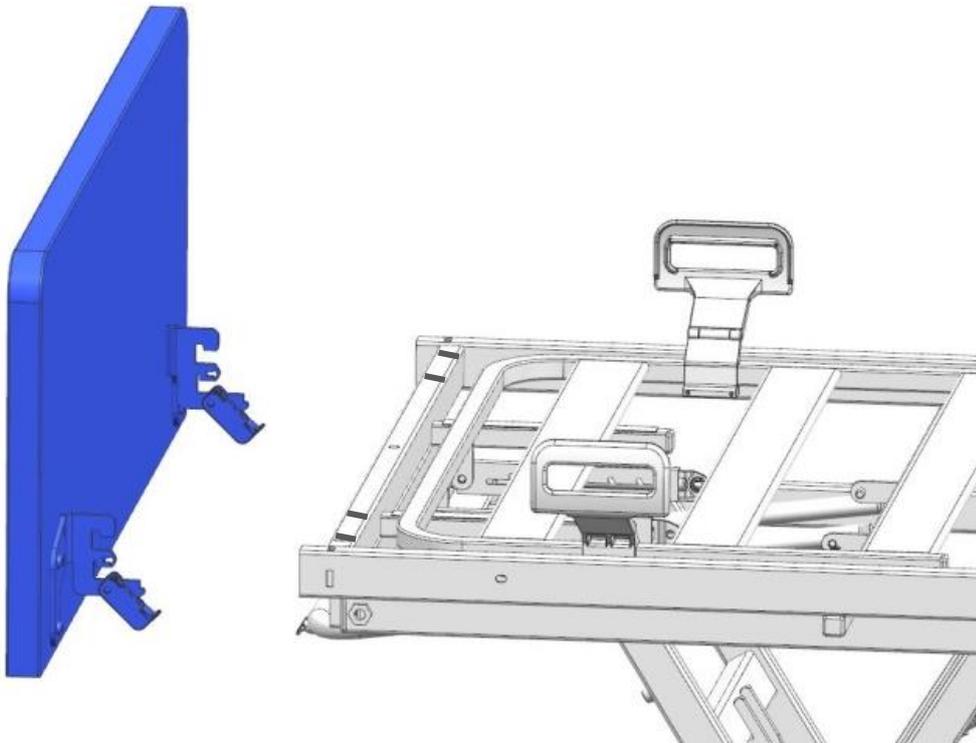
### 3.2.2.1 Installation on bed 1



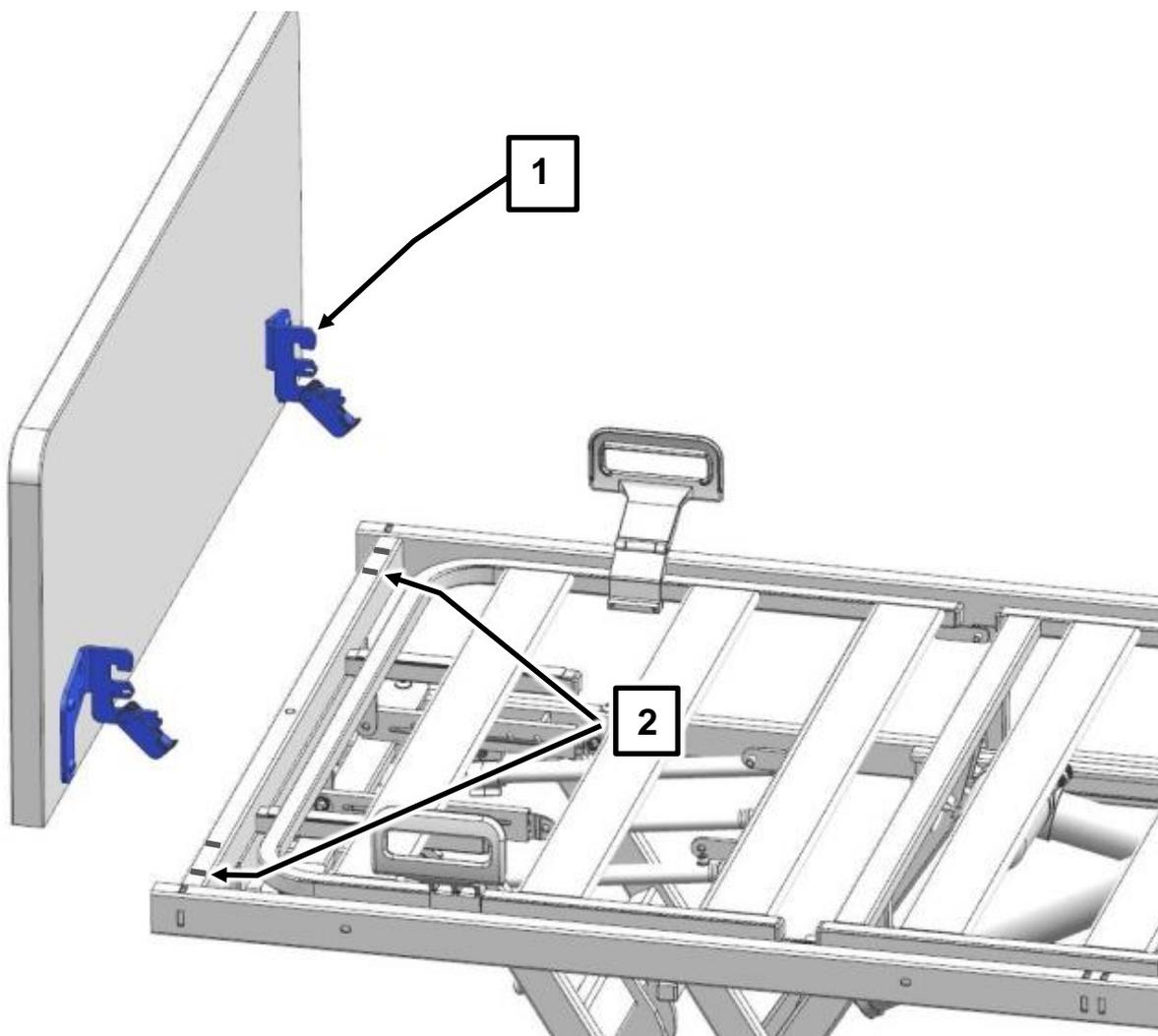
**Risk of injury due to incorrect installation or storage of split safety sides, headboards, footboards or side panels with the “Easy Switch” system!**

Failure to observe these instructions can result in insecure fastening and/or material damage and can thus put the resident at risk of falling or becoming trapped.

- Please follow the assembly steps described below exactly.
- After assembly, carry out the mandatory checks to make sure that the fixings are secure.
- To ensure that the plastic locking levers of the “Easy Switch” system function properly, do not allow them to fall or suffer severe knocks during disassembly or storage.
- Never use “Easy Switch” systems that are damaged.

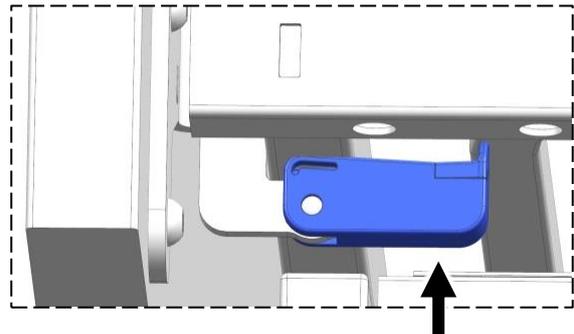
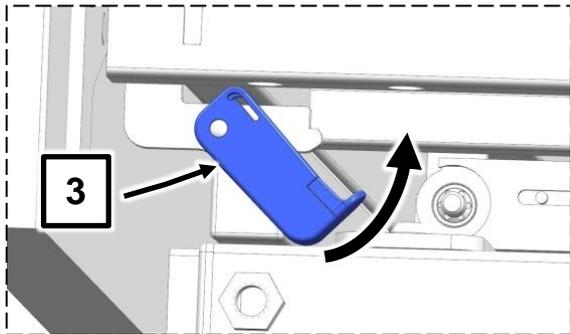


- 1 Standing behind the headboard/footboard, firmly grip the uppermost corners of the headboard/footboard with both hands.

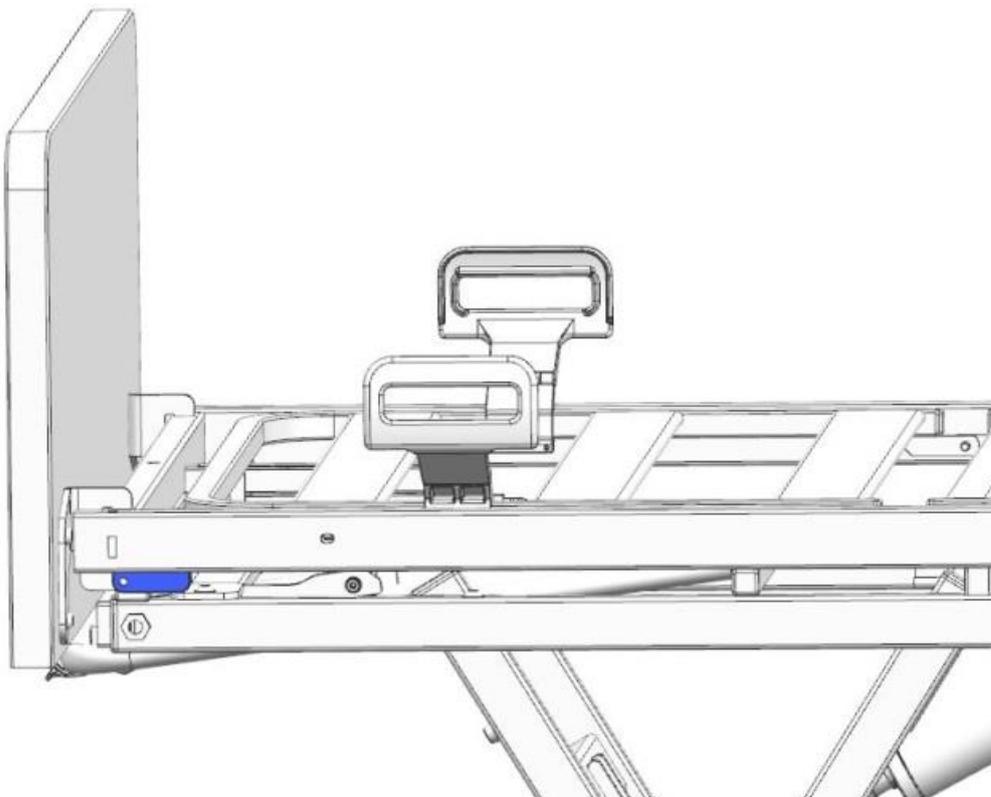


2. Insert the locking hooks 1 of the adapters into the slots of the cross tube 2 as far as they will go and make sure the headboard/footboard is fitted securely.

**Attention:** Assemble the headboard and footboard in the same way as for **bed 1** as shown in the schematic illustration on page 23.



- 3 Swivel the locking levers **3** (left and right side) upwards and press until they audibly click into place.

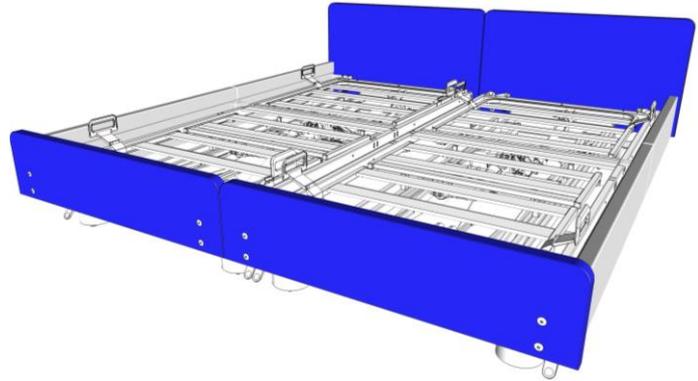


- 4 Check that the headboard or footboard is firmly in place by jiggling the top edge of the head and footboards to and fro.

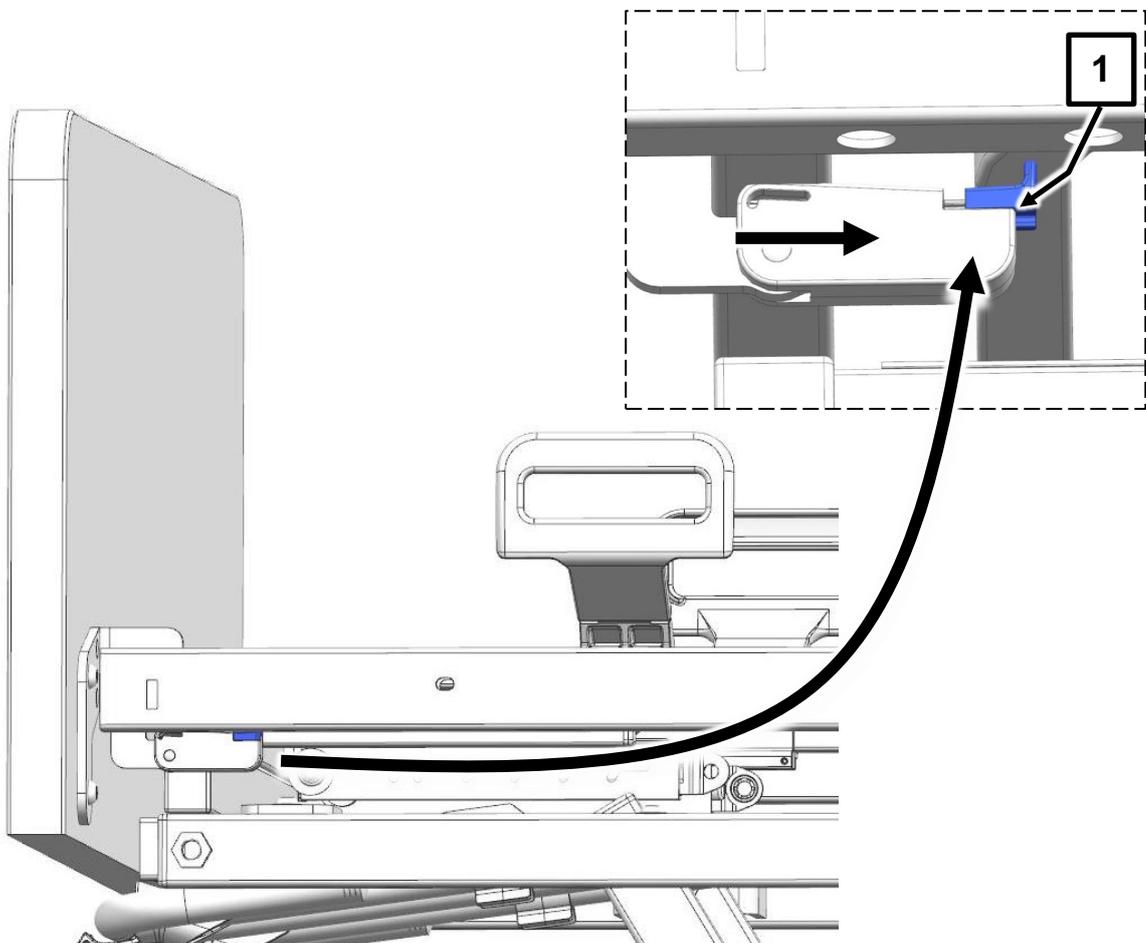
### 3.2.2.2 Installation on bed 2

Proceed now as described in Chapter Installation on bed 1 on page 24.

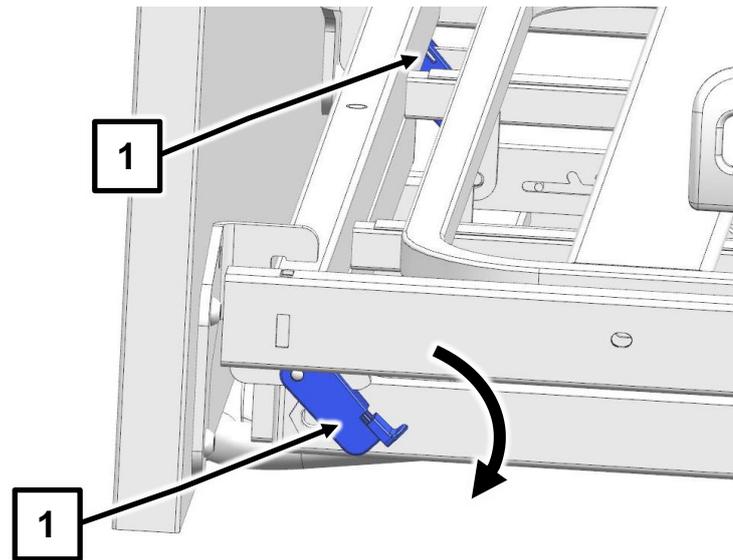
**Attention:** Assemble the headboard and footboard in the same way as for **bed 2** as shown in the schematic illustration on page 23.



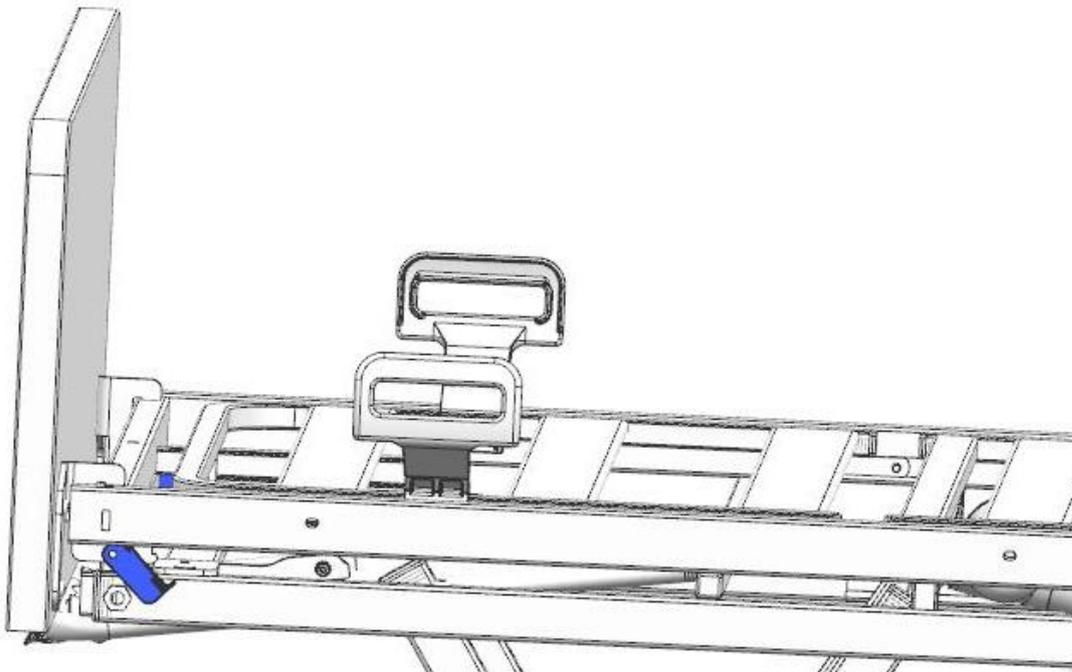
### 3.2.3 Dismantling headboard and footboard



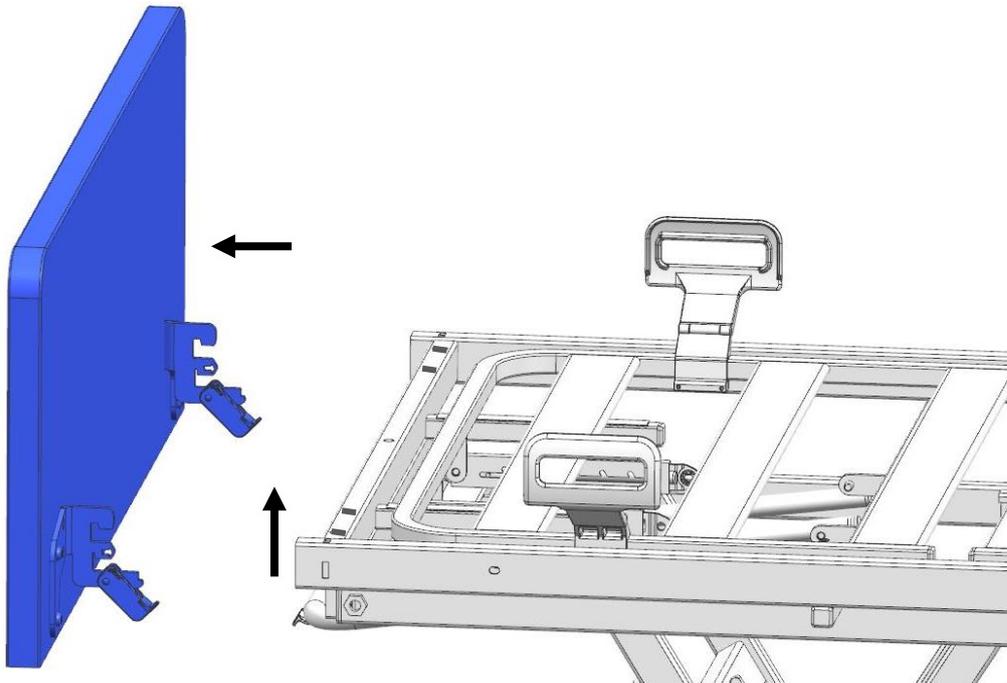
- 1 Use a finger to pull the orange safety lock **1** towards the centre of the bed and keep holding it in this position.



- 2 Swivel the locking levers 1 (left and right side) downwards.



- 3 Standing behind the headboard/footboard, firmly grip the uppermost corners of the headboard/footboard with both hands.



- 4 Lift the headboard/footboard as evenly as you can straight up and out of the slots in the cross tubing.

### 3.2.4 Attaching/removing the side panels (optional equipment)

The bed can optionally be fitted with side panels [4]. A total of four side panels are needed: 2x long (110 cm) and 2x short (90 cm). 1x short and 1x long side panel are mounted on each side of the bed. When fitting a bed extension at a later date, the short side panels must be replaced with longer ones.



Danger

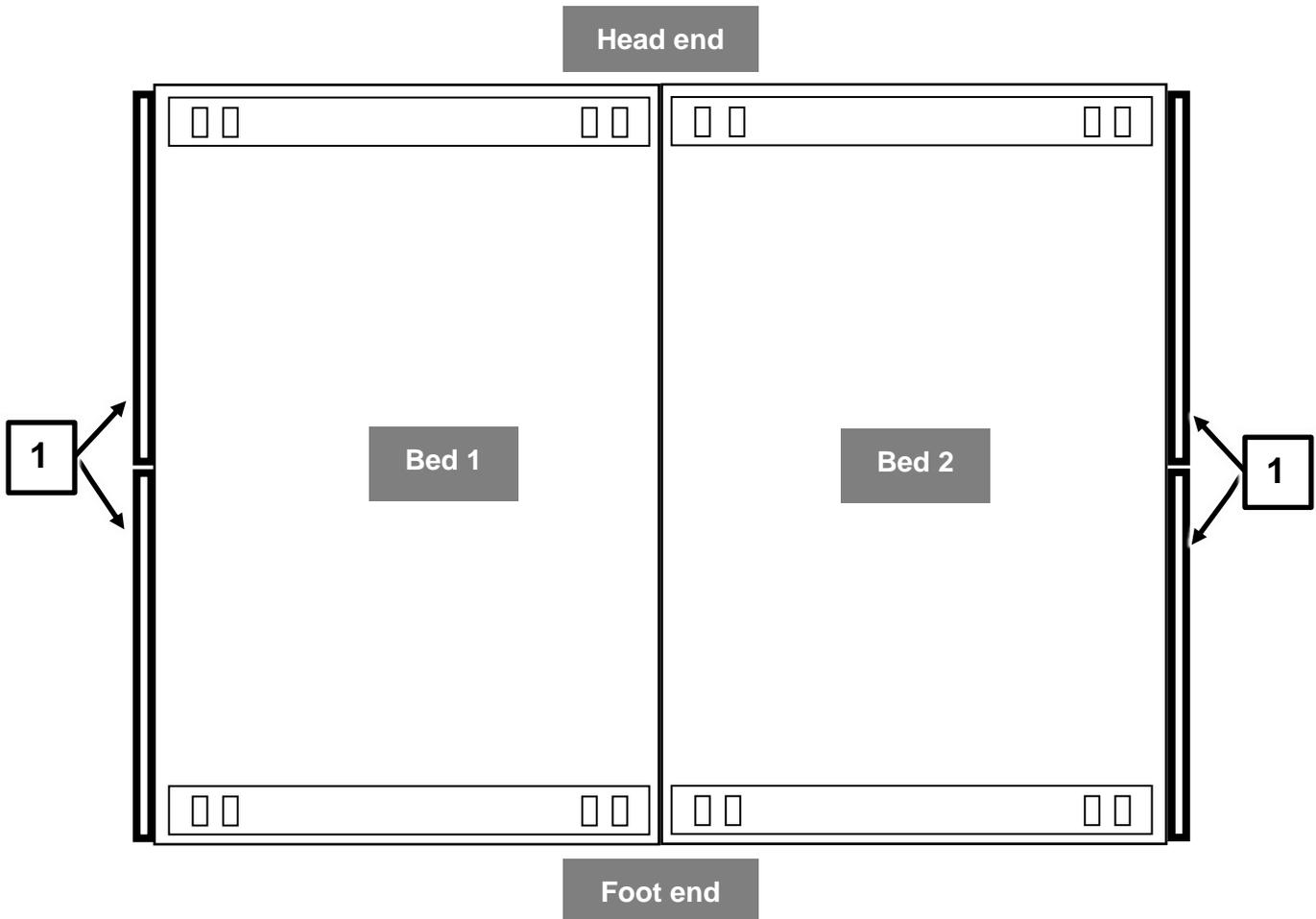
#### **Risk of injury due to incorrect installation or storage of split safety sides, headboards, footboards or side panels with the “Easy Switch” system!**

Failure to observe these instructions can result in insecure fastening and/or material damage and can thus put the resident at risk of falling or becoming trapped.

- Please follow the assembly steps described below exactly.
- After assembly, carry out the mandatory checks to make sure that the fixings are secure.
- To ensure that the plastic locking levers of the “Easy Switch” system function properly, do not allow them to fall or suffer severe knocks during disassembly or storage.
- Never use “Easy Switch” systems that are damaged.

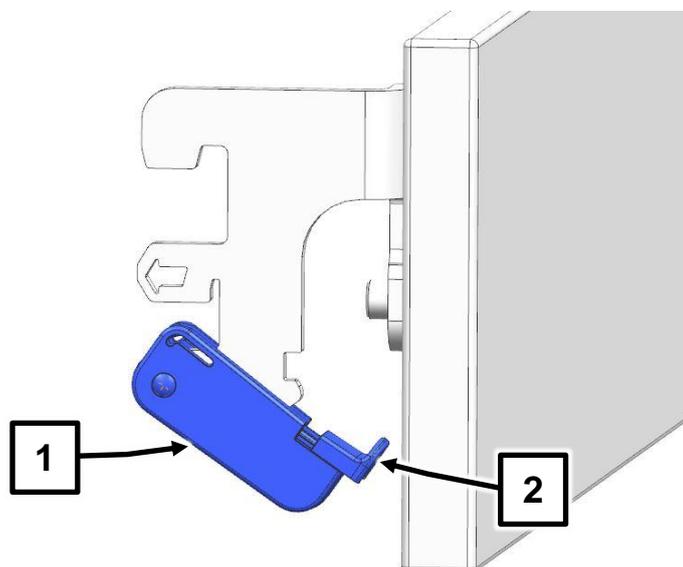
### 3.2.4.1 Installation to bed 2

**Attention:** The side panels must only be fitted on the outside of the bed **1**. Fitting them on the inside is not permitted.

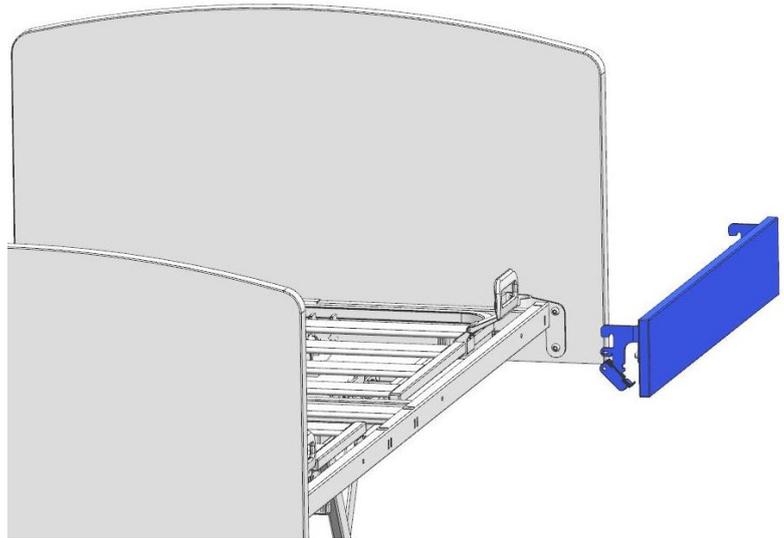


Fit the side panels by simply clamping them onto the long tube.

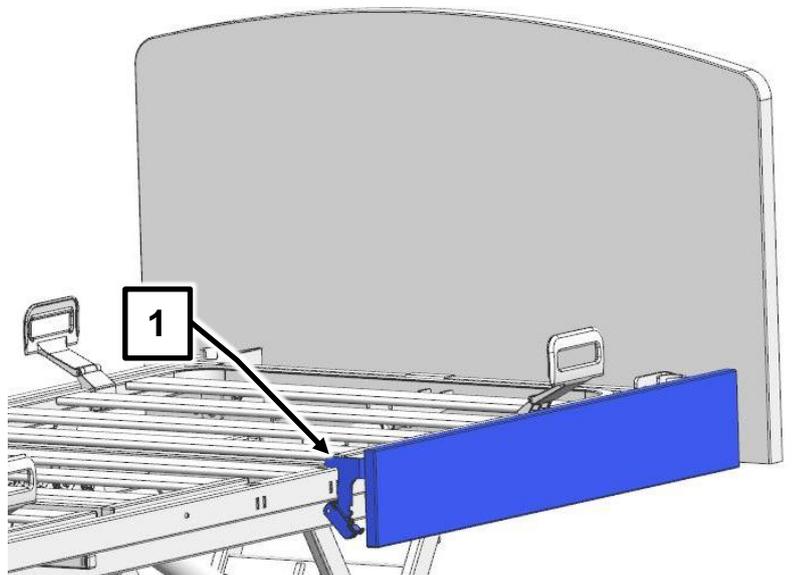
1. First swivel the locking levers (left and right) for the side panel **1** downwards. To do so, pull the orange safety lock **2** outwards with your finger and hold it in this position while swivelling the locking lever downwards.



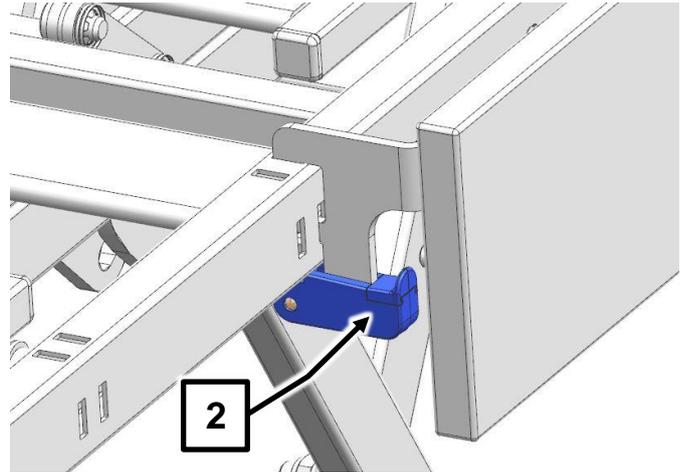
2. Attach the side panel for the head end to the long tube (head end) as shown.



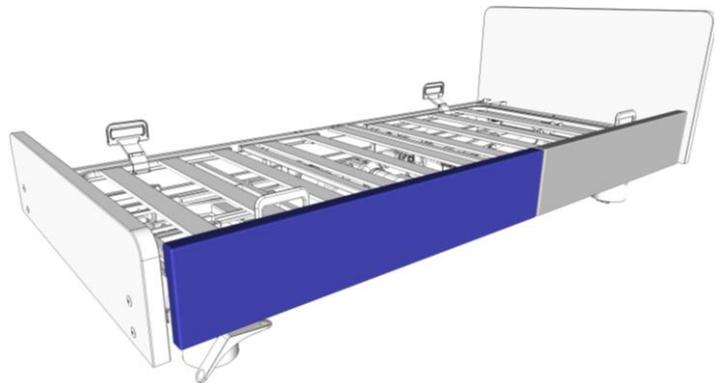
3. Insert the locking hooks for the adapters **1** into the slots in the long tube as far as they will go. Make sure that the panel is fitted securely in place (by visual inspection and by shaking it slightly).



- Swivel the locking levers **2** (left and right side) upwards and press until they audibly click into place.



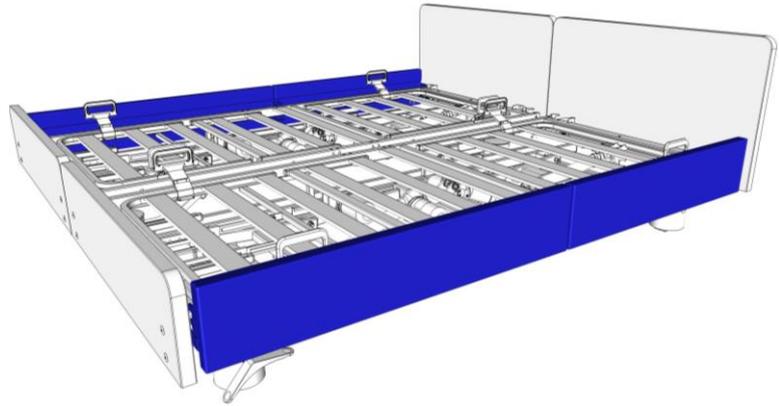
- Check that the side panel is firmly in place by jiggling the top edge of the panel to and fro.
- Repeat steps 1 to 5 with the second side panel.



### 3.2.4.2 Installation to bed 1

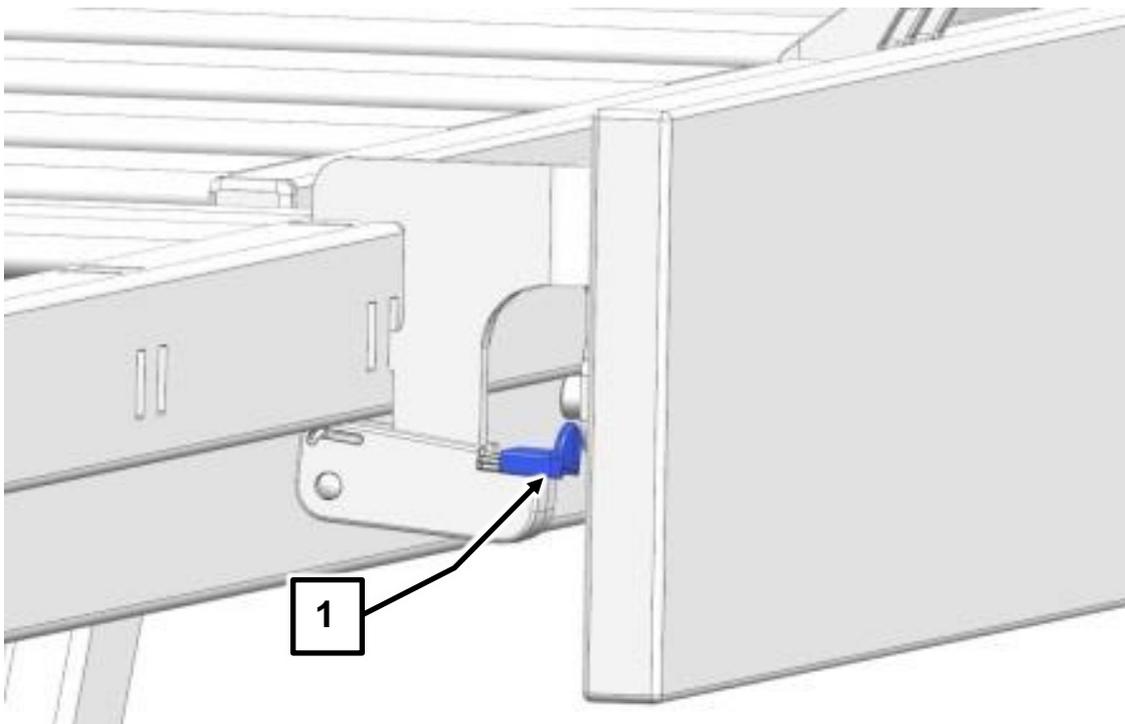
Proceed as described in Chapter 3.2.4.1 on page 30.

**Attention:** Assemble the side panels in the same way as for **bed 1** as shown in the schematic illustration on page 30.

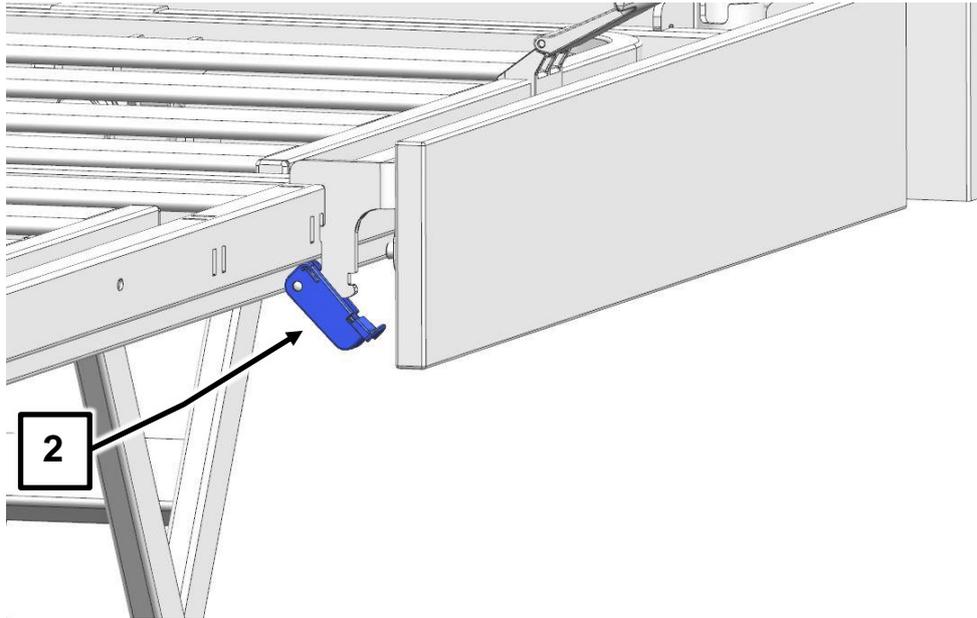


### 3.2.4.3 Removal

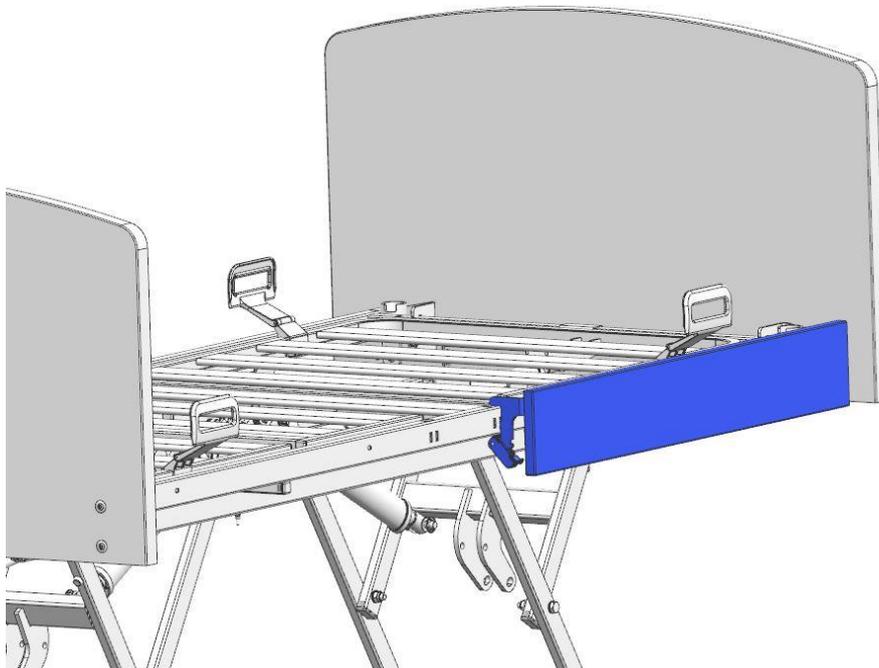
Loosen the locking levers to release the side panels.



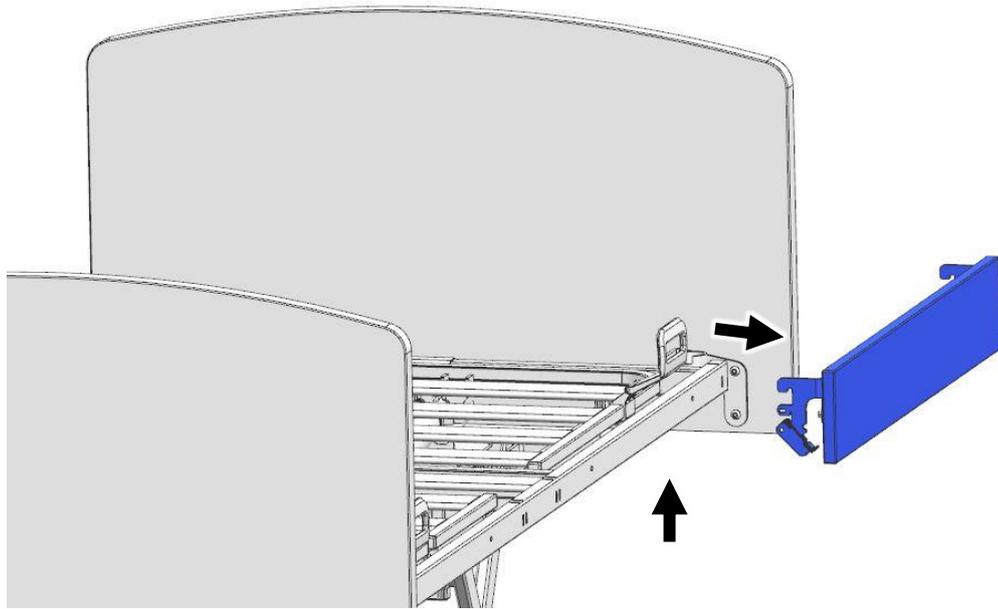
1. Use a finger to pull the orange safety lock of the locking lever 1 outwards and keep holding it in this position.



2. Swivel the locking levers 2 (left and right side) downwards



3. Grasp the lower edge of the side panel with both hands.

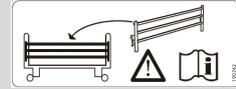


4. Pull the side panel, as smoothly as possible, straight up and then outwards out of the slots in the tube.

### 3.3 SAFETY SIDES



- Use only the safety sides described in this manual. Safety sides are either factory integrated into the bed or available as accessories.



#### The bed is delivered optionally with or without safety sides.

At the customer's request, the bed can be equipped with safety sides to protect the resident from falling out of bed. The safety sides can be raised from the lowered position beside the mattress base to protect the resident.

- Should it later be necessary to use safety sides, the bed can be fitted with a split safety side (TSG) [8] at a later date.

There are two types of safety sides, depending on the type of mattress base:

Type of safety side	Type of mattress base	Height of safety side	Max. mattress height
"Easy Switch" split safety side [8]	Metal	approx. 41 cm	approx. 19 cm
	Comfort	approx. 37 cm	approx. 15 cm

Please refer to Chapter 3.3.2 and Chapter 4.4.2 for more information on fitting and using split safety sides.

#### 3.3.1 No safety side

The bed is delivered optionally with or without safety sides.

### 3.3.2 Split safety side (optional equipment)

The partner bed can also be fitted with optional “Easy Switch” split safety sides.

The split safety side (TSG) (Easy Switch) [8] consists of four sections. Two parts are simply clamped from the outside onto the long sides of the bed to attach them. The safety sides are available in two sizes: 2x long (110 cm) and 2x short (90 cm). One long and one short safety side is fitted to each side of the bed.

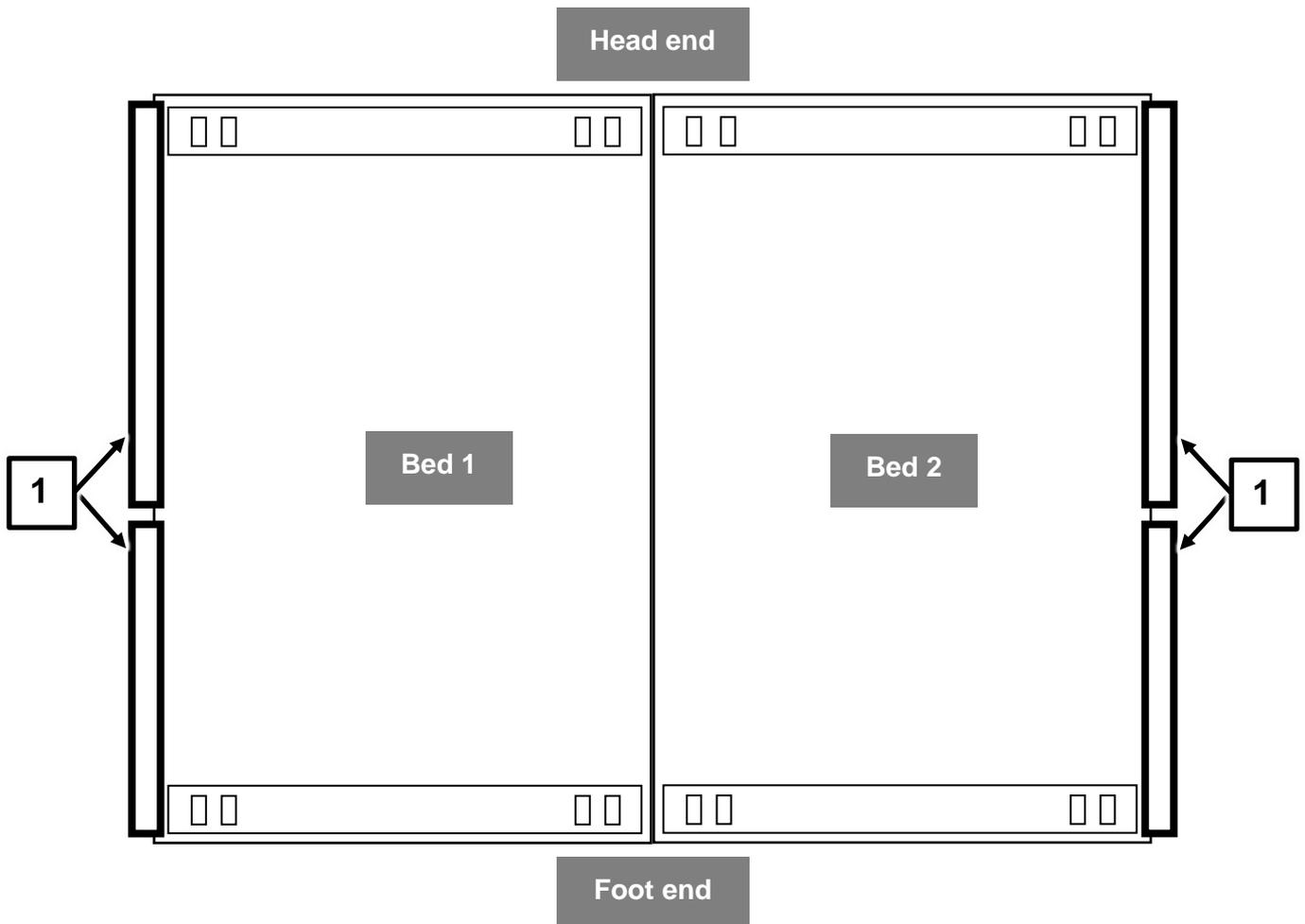
Start with the long safety side on the left-hand side at the head end.



#### Risk of injury

Risk of injury from crushing limbs when adjusting the back and thigh rest of one of the beds if the safety sides on the other bed are fitted on the inside.

- The safety sides must only be fitted on the outside of the bed [1]. Fitting them on the inside is not permitted





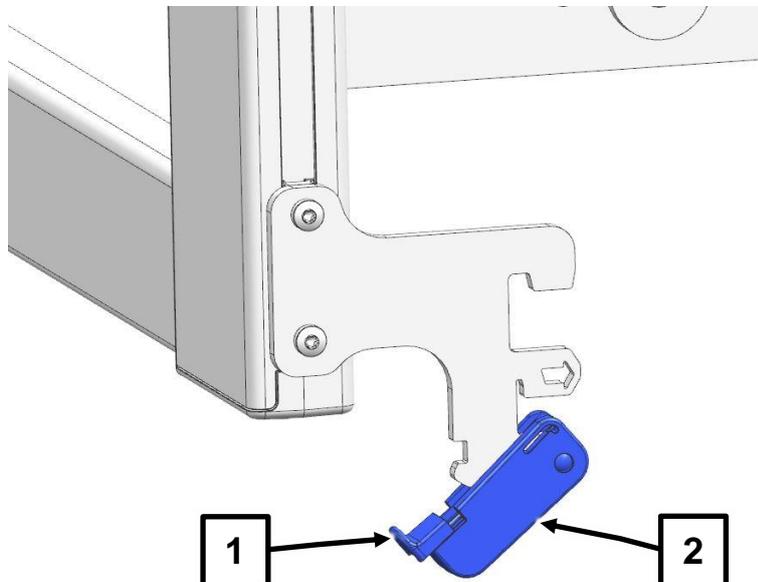
**Risk of injury due to incorrect installation or storage of split safety sides, headboards, footboards or side panels with the “Easy Switch” system!**

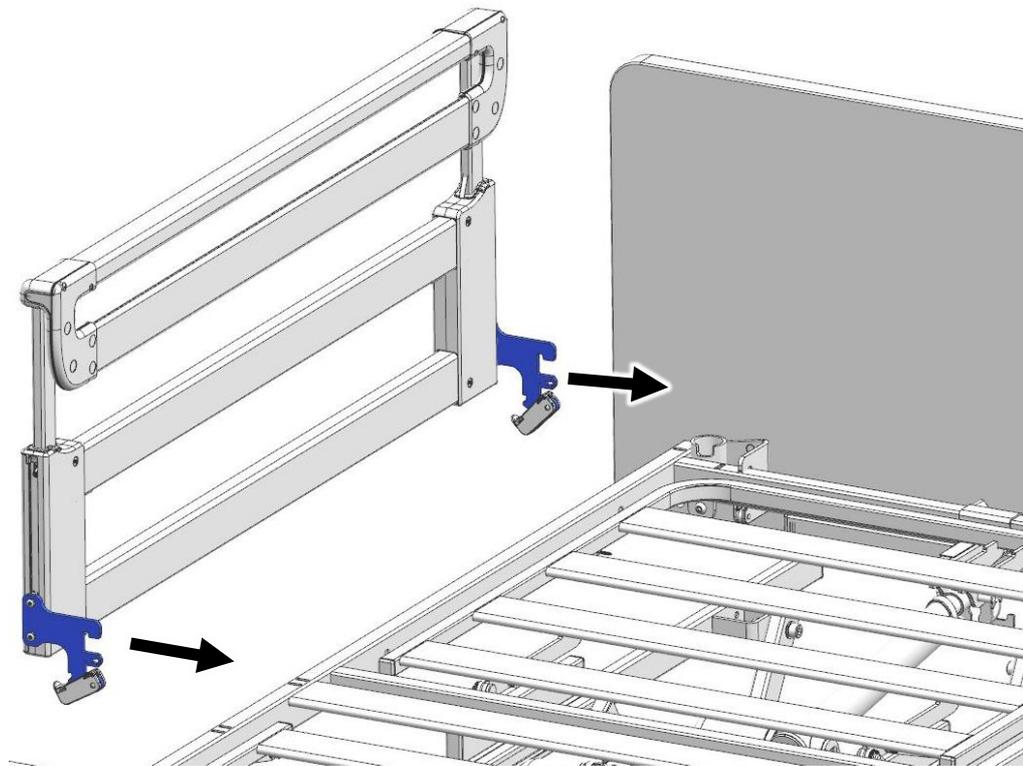
Failure to observe these instructions can result in insecure fastening and/or material damage and can thus put the resident at risk of falling or becoming trapped.

- Please follow the assembly steps described below exactly.
- After assembly, carry out the mandatory checks to make sure that the fixings are secure.
- To ensure that the plastic locking levers of the “Easy Switch” system function properly, do not allow them to fall or suffer severe knocks during disassembly or storage.
- Never use “Easy Switch” systems that are damaged.

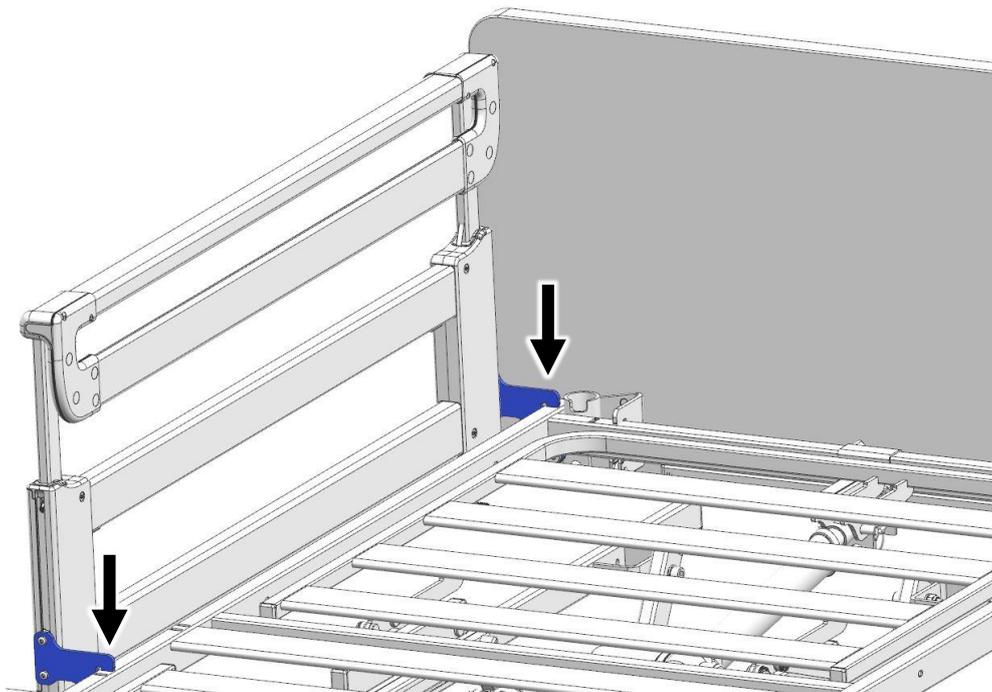
### 3.3.2.1 Installation on bed 1

1. First tilt the locking levers for the safety side **2** (on the left and right-hand side) until they are slanting downwards.  
To do so, pull the orange safety lock **1** outwards with your finger and hold it in this position while tilting the locking lever downwards.

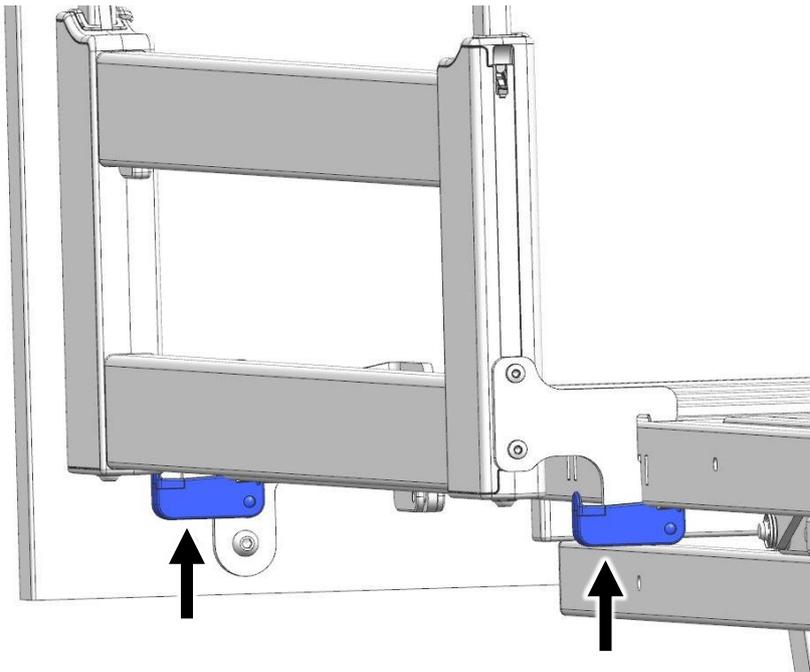




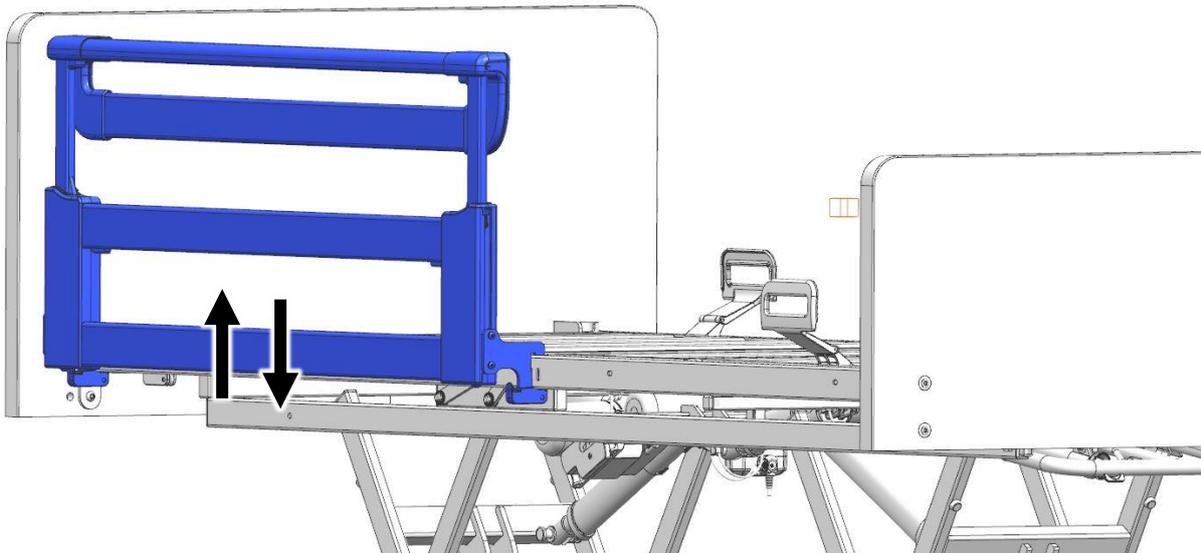
2. Attach the safety side to the long bed frame tube at the head end, as shown.



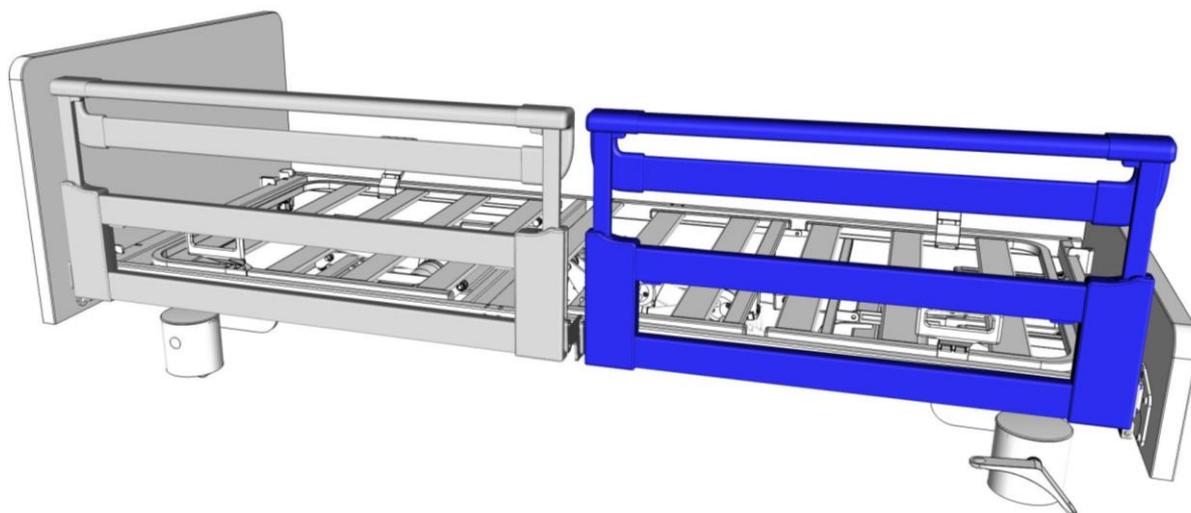
3. Insert the locking hooks of the adapters into the slots in the long tube as far as they will go, and ensure that the safety side is inserted properly.



4. Tilt the locking levers (left and right-hand side) upwards and press them until they audibly click into place.



5. Check that the safety side is firmly attached by holding it at the lower edge with both hands and trying to move it up and down.

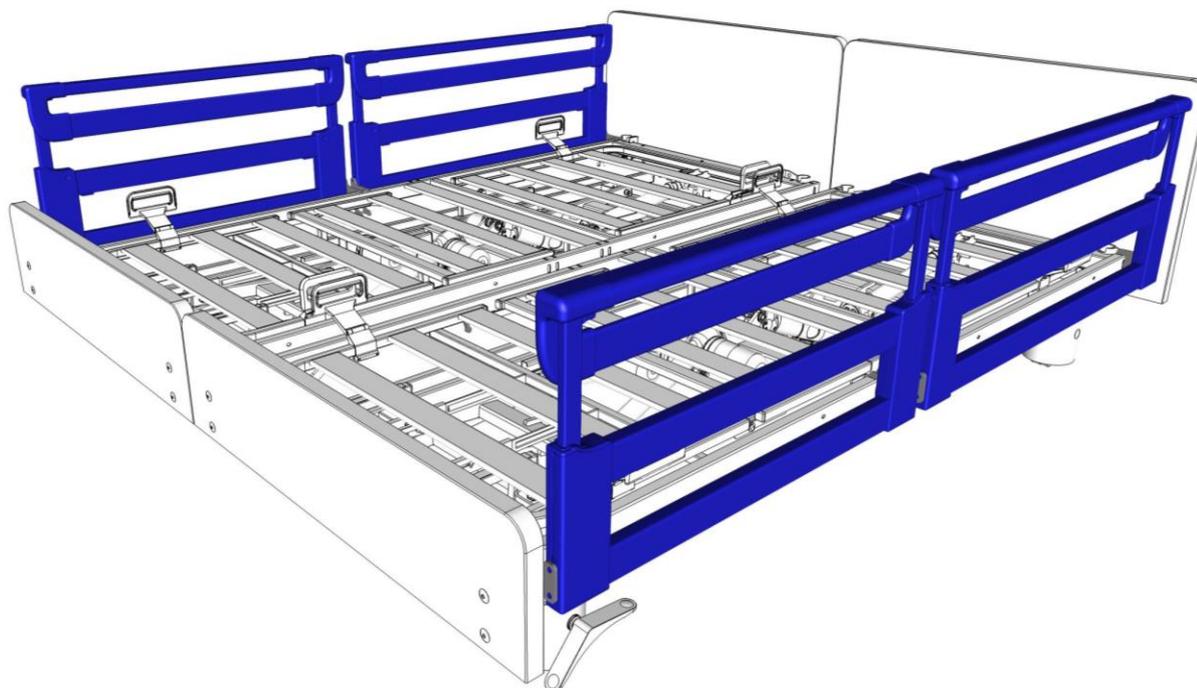


6. Repeat steps 1 to 5 to attach the second safety side.

### 3.3.2.2 Installation to bed 2

Proceed as described in Chapter 3.3.2.1 on page 38.

**Attention:** Assemble the safety side in the same way as for **bed 2** as shown in the schematic illustration on page 37.



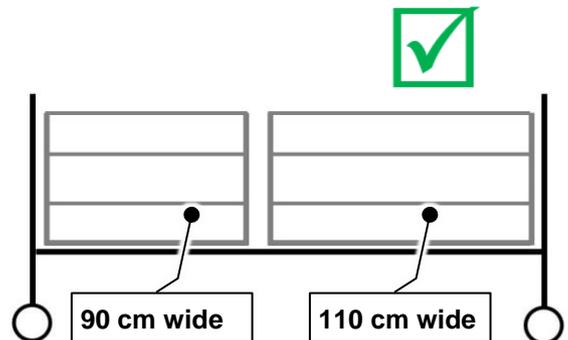
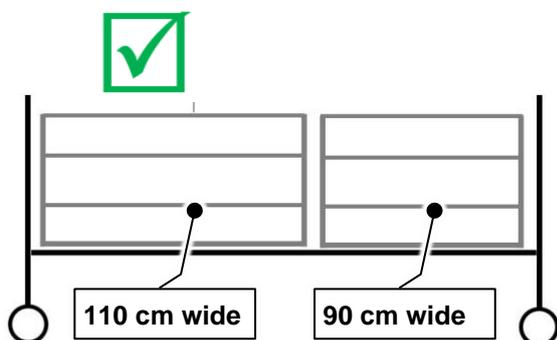
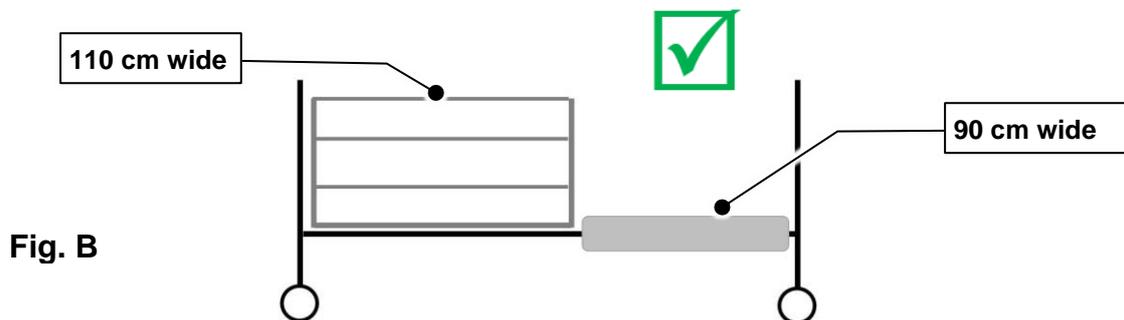
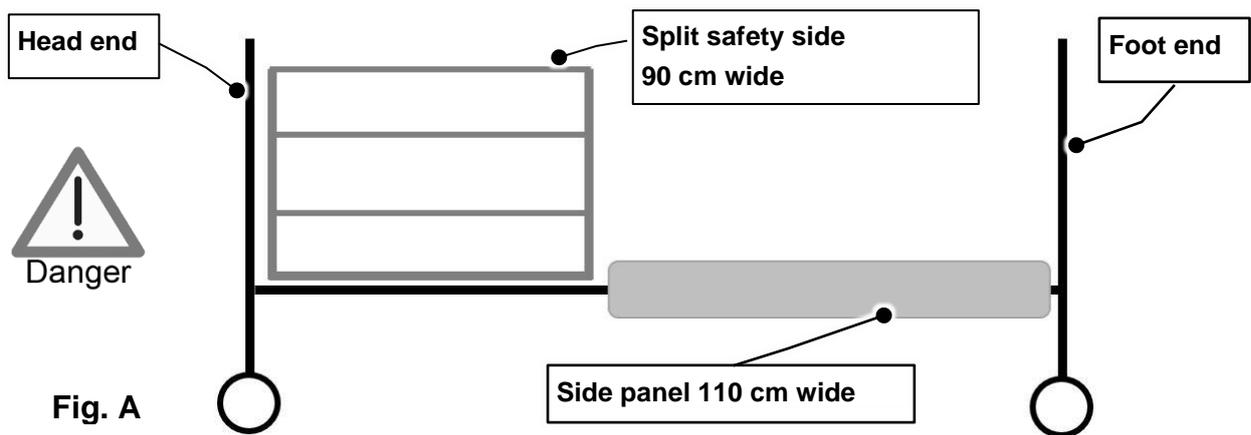
### 3.3.2.3 Combination of split safety side and side panels



#### Risk of injury due to combined installation of split safety side (90 cm wide) and side panel (110 cm wide)

Failure to heed this may result in fall injuries for residents.

- Fig. A: 90 cm short safety side at the head end and 110 cm side panel at the foot end: This combination is only permitted as a mobilisation aid to facilitate the entry and exit of residents who do not require increased protection in the form of safety sides to prevent them from accidentally falling out of bed.
- Figs. B, C, D: More extensive standard-compliant protection against accidentally falling out of bed can only be achieved with the variants shown.



### 3.3.2.4 Sticker – split safety sides (optional equipment)

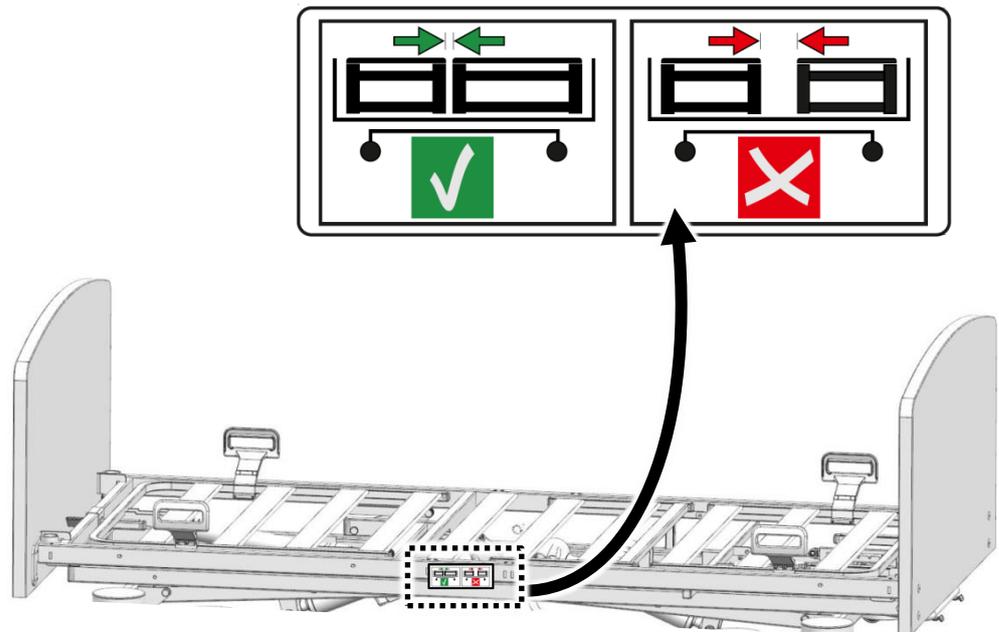


**Risk of injury through incorrect installation of split safety sides!**  
Non-observance can lead to entrapment of body parts.

Please note: There is a sticker in the middle of the long side of the mattress base frame (see illustration). This sticker warns you not to attach two 90 cm long split safety sides to one side of the bed. Doing so creates a gap between the two safety sides, which leads to a risk of entrapment of limbs.

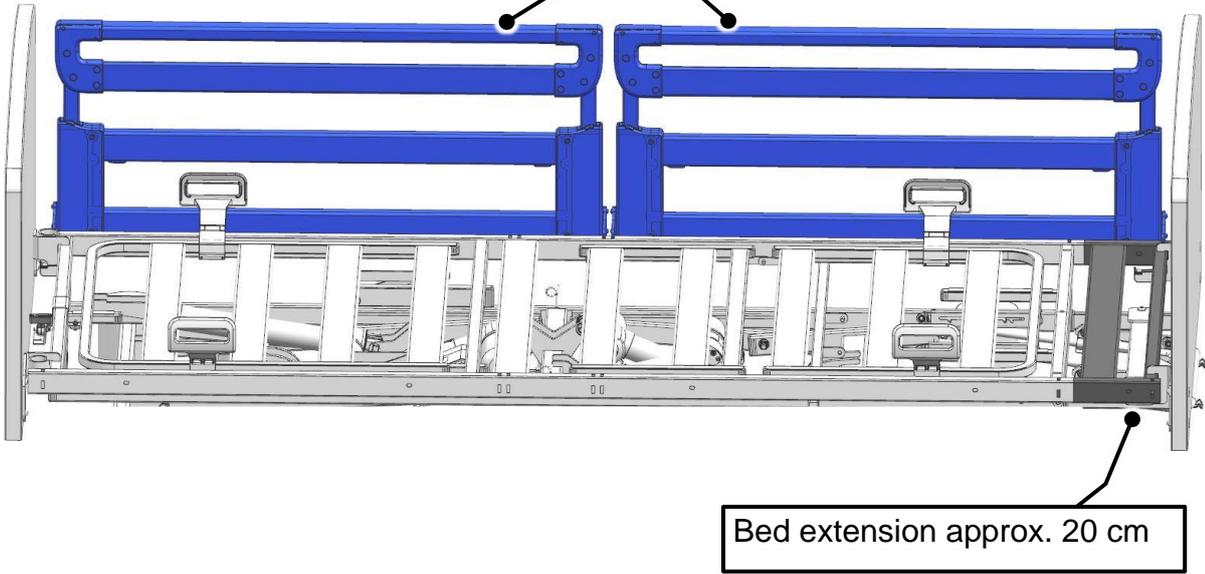
- Only attach the permitted sizes of split safety sides per bed side (more on this on the next page)
- Observe the following table when installing split safety sides.

	<b>Assembly on beds without a bed extension</b>	<b>Assembly on beds with a bed extension (approx. 20 cm)</b>
<b>Per bed side</b>	1x size 110 cm (head end/foot end) 1x size 90 cm (head end/foot end)	2x size 110 cm



**With a bed extension**

The following is permitted: 2x size 110 cm split safety sides

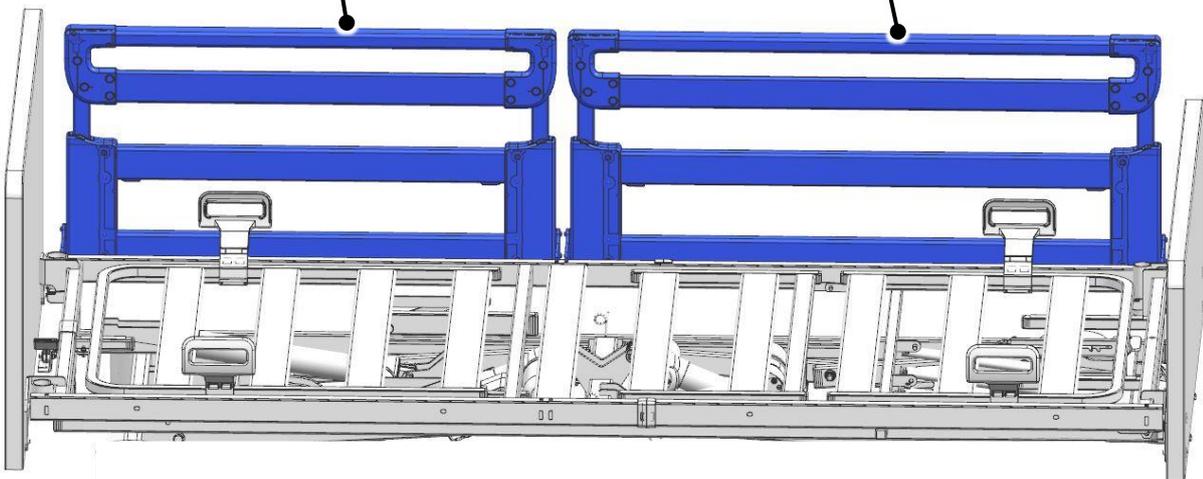


**Without bed extension**

The following is permitted:

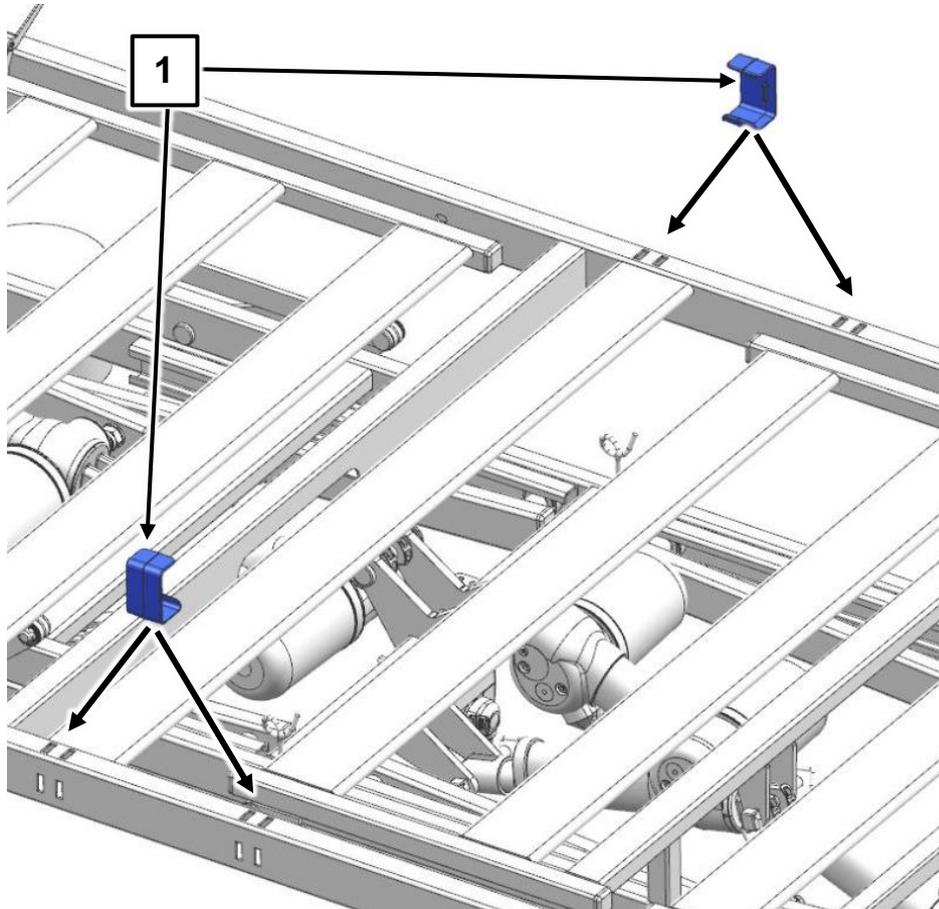
1x size 90 cm split safety side

1x size 110 cm split safety side



### 3.3.2.5 Cover clip – split safety side

Please note: Slots are provided in the frame of the mattress base to accommodate split safety sides or side panels. Two slots are left open when the large safety side/side panel is mounted at the head end and the small one at the foot end and vice versa. For hygienic reasons, these must be closed with a cover clip **1**. The cover clips are placed over one of the slots before the bed leaves the factory.

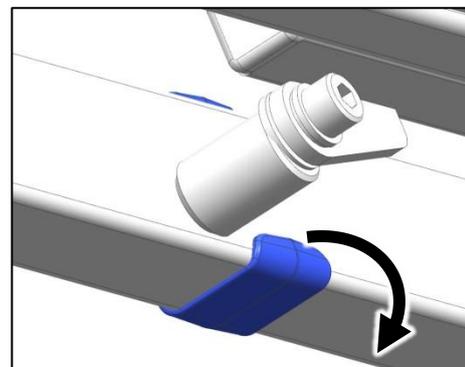


#### Removing the cover clip

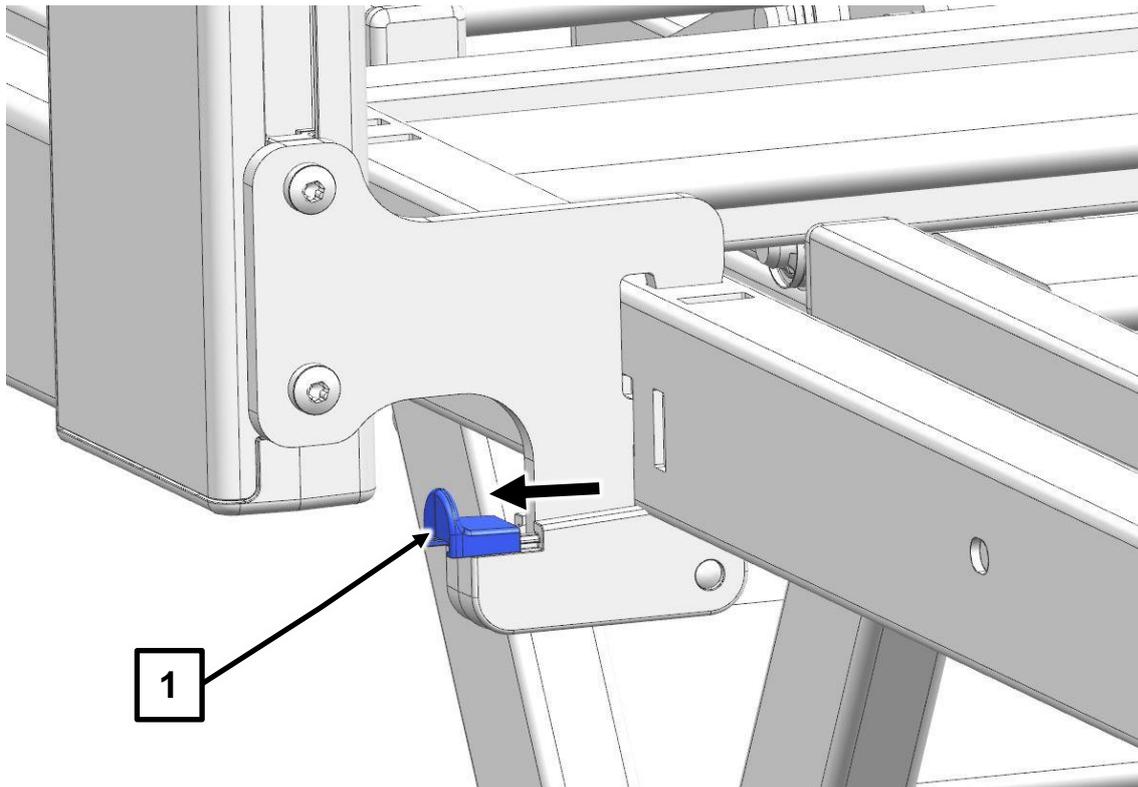
To remove or replace the cover clip, grasp it from below, push it down and remove it from the slot.

#### Fitting the cover clip

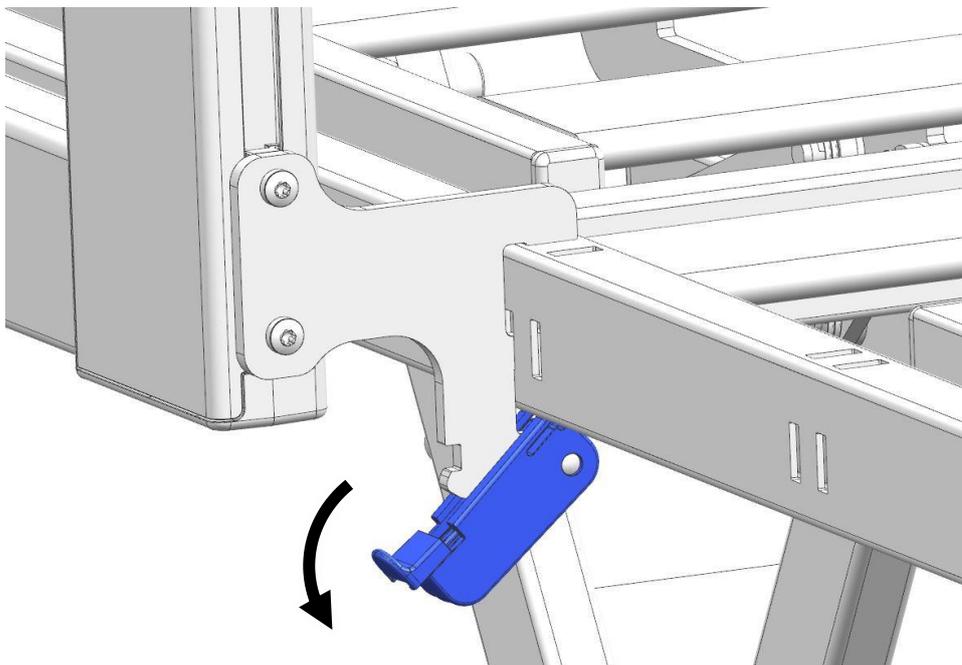
Proceed in reverse order to the removal process.



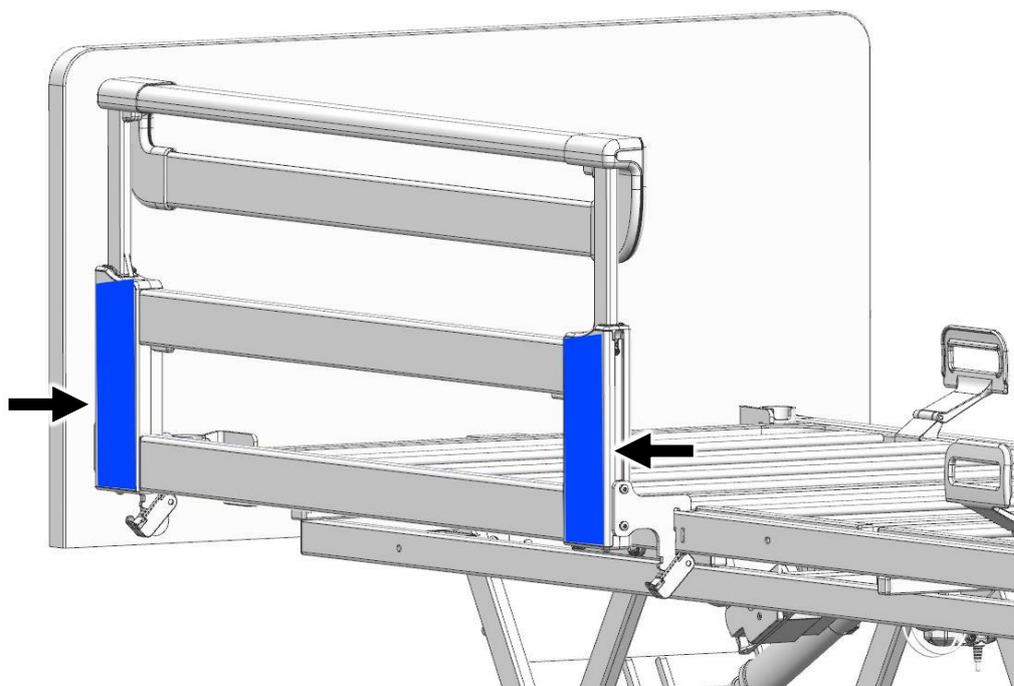
### 3.3.2.6 Removal



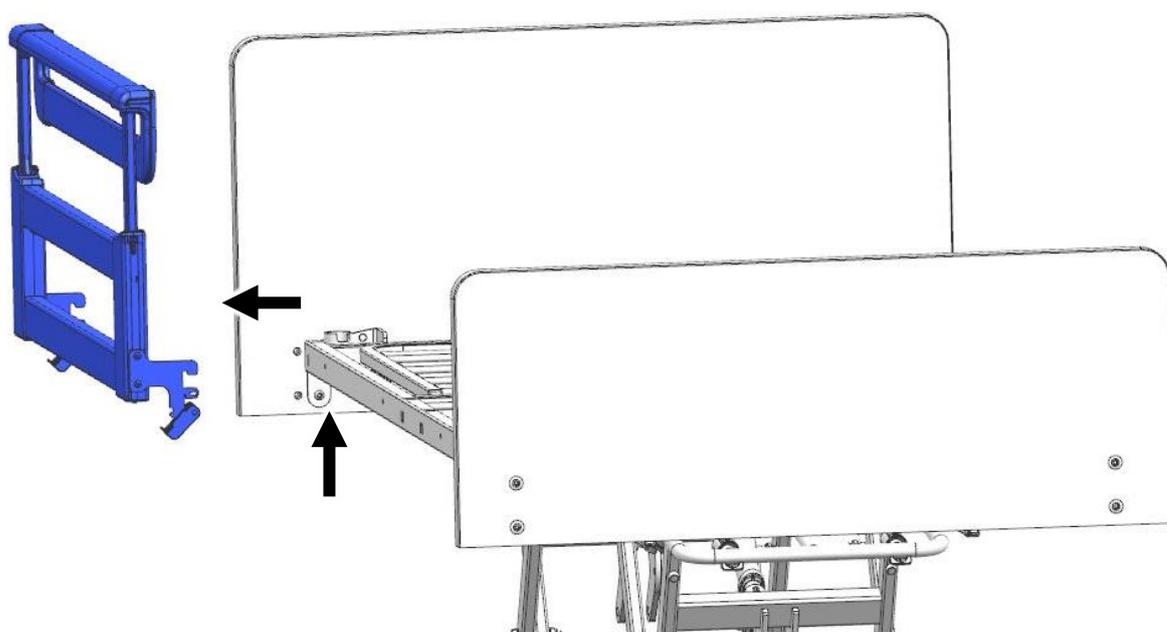
1. Use a finger to pull the orange safety lock **1** of the locking lever outwards and keep holding it in this position



2. Tilt the locking levers (on the left and right-hand side) downwards



3. Hold the safety side by grasping the housing sections at either side with both hands, as shown.



4. Pull the safety side straight up and then out of the slots in the long bed frame tube, as smoothly as possible.

### 3.4 ADAPTABLE BED EXTENSION (OPTION)

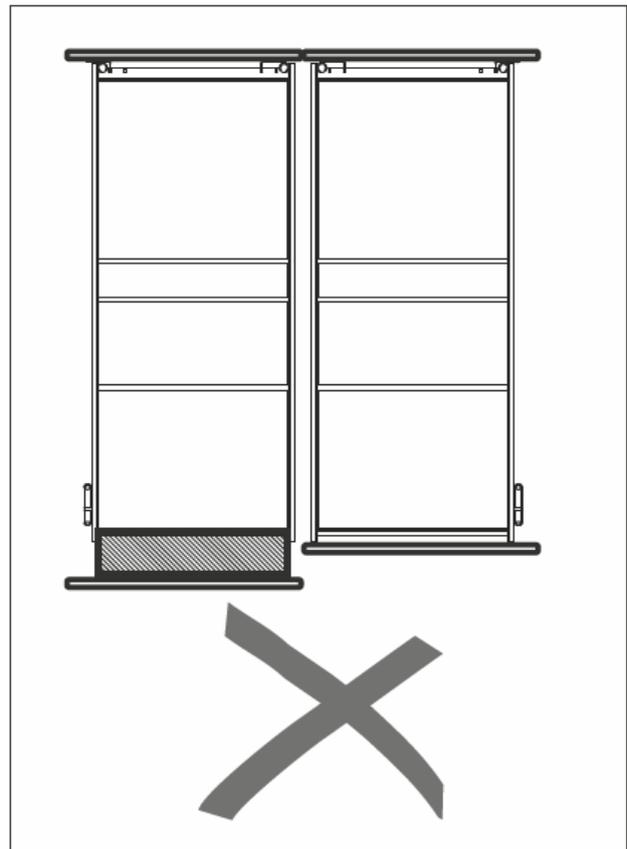
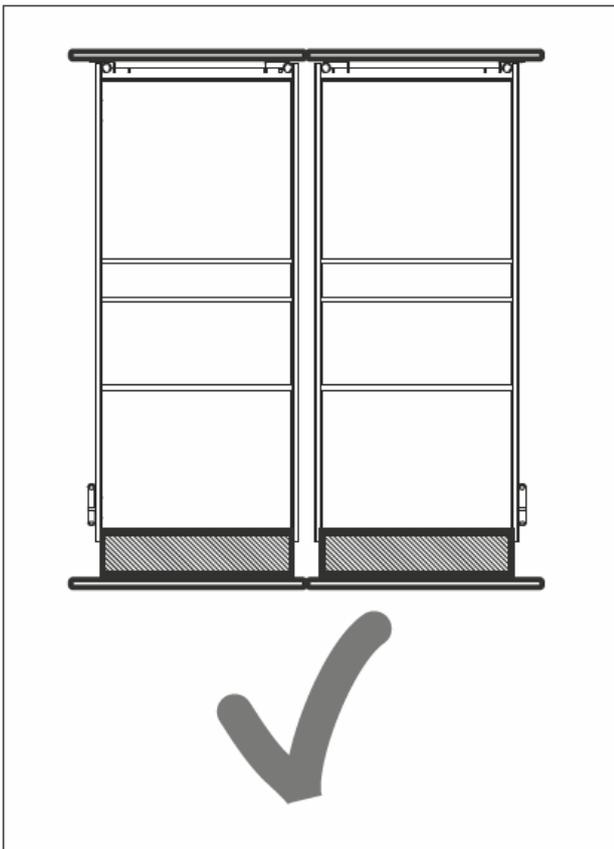
The bed can be fitted with an extension at the foot end that extends the length of the mattress base by 20 cm. The free space created is filled with an insert and a mattress piece.



#### Risk of injury due to one-sided extension of mattress bases

Non-observance can lead to injuries by trapping parts of the residents' bodies.

- For safety reasons and to prevent injuries to residents, the partner bed (both mattress bases) must only be extended or shortened synchronously with the other bed.



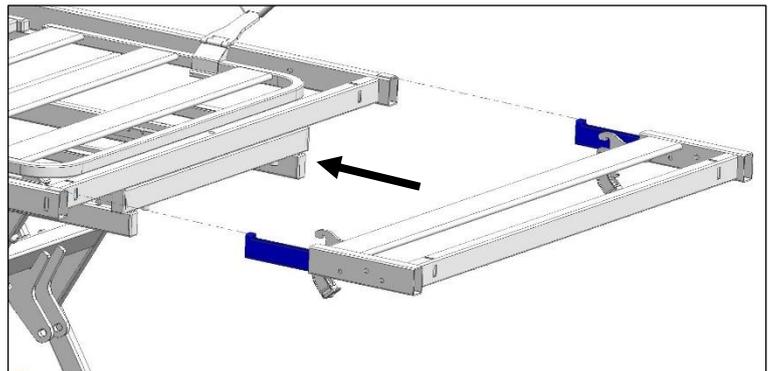
### 3.4.1 Attaching the bed extension

Before extending the bed, observe the following points:

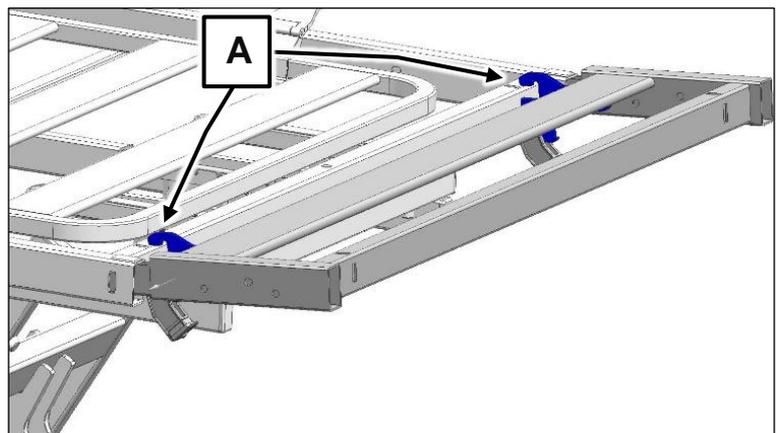
- The bed must not be occupied!
- The bed must be immobilised with the brake.
- The side panel at the foot end must be removed and replaced with a longer one (see Chapter 3.2.4).
- The split safety sides (TSG) at the foot end, if fitted, must be dismantled and replaced with longer ones (see Chapter 3.3.2).

Proceed as follows:

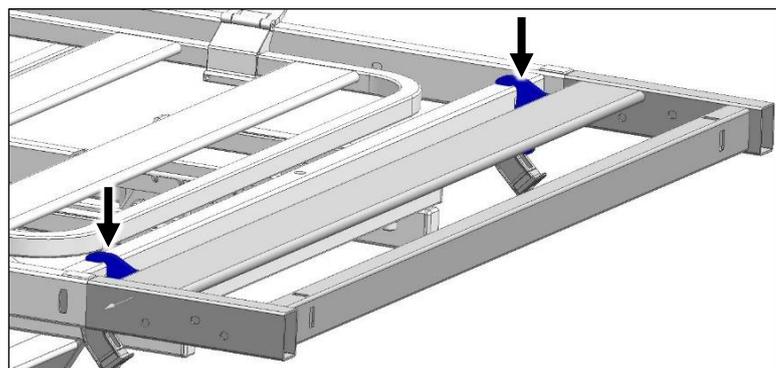
1. Remove the footboard (see Chapter 3.2.2)
2. Insert the bed extension into the long tube of the mattress base **as far as it will go**.



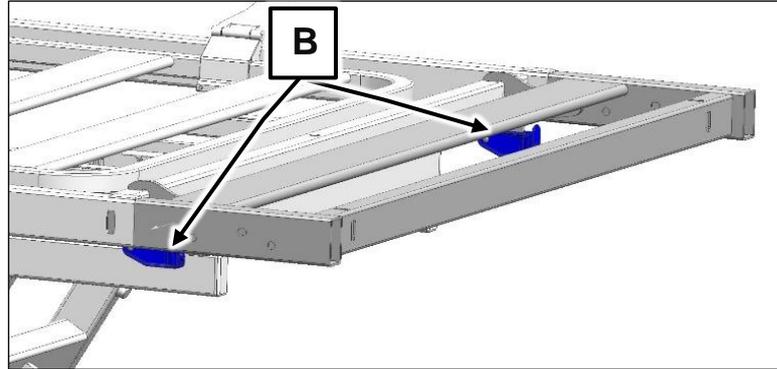
3. Slightly raise the bed extension and push it forwards until the locking hooks on the bed extension slide over the cross tube on the mattress base frame and are positioned over the slots provided **A**.



4. Press the bed extension down until the hooks snap into place



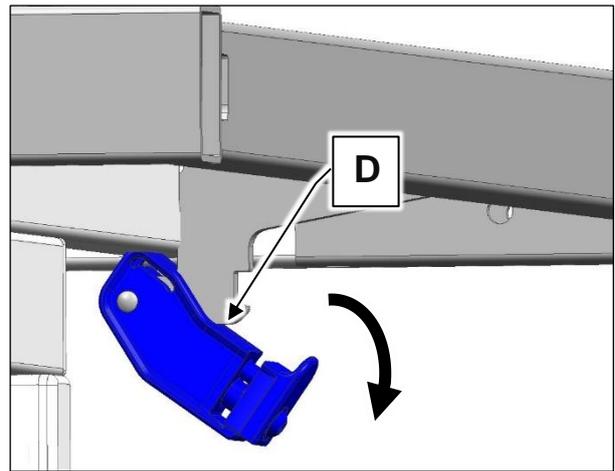
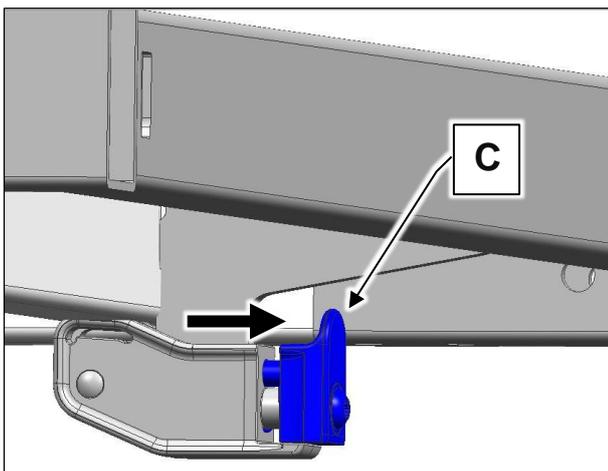
5. Swivel the locking levers upwards (on the left and right-hand side) and press them on until they audibly click into place **B**



6. Assemble the footboard (see Chapter 3.2.2)
7. Assemble the longer side panel or the longer safety side (see Chapter 3.2.4 or Chapter 3.3.2).
8. Place the insert and the mattress piece (both accessories) in the resulting space that has been created.

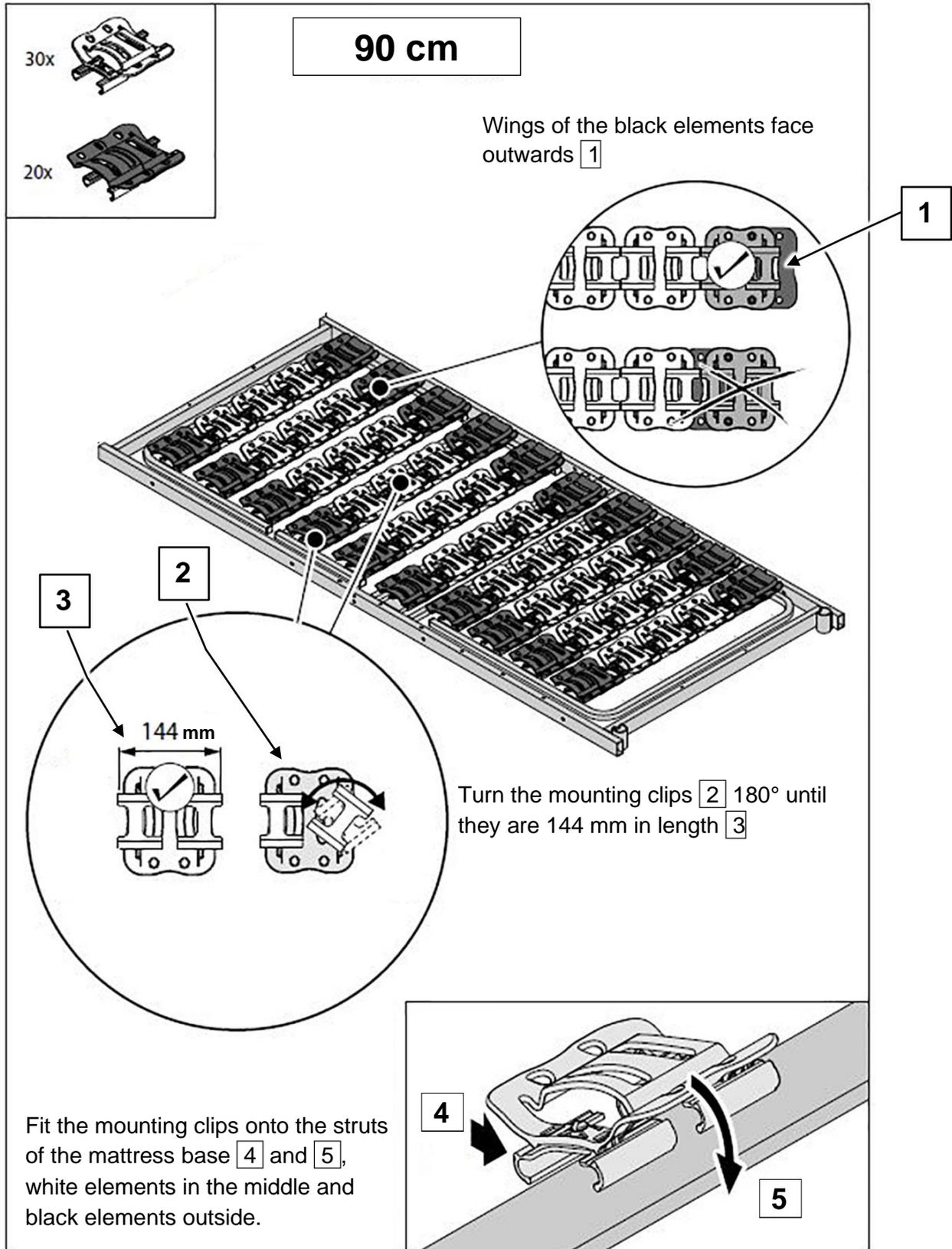
### Removing the bed extension

Proceed in reverse order to the installation process with the only difference: Pull the orange safety lock **C** outwards with your finger and hold it in this position while tilting the locking levers downwards **D**.



### 3.5 COMFORT MATTRESS BASE - 90 CM WIDTH (OPTIONAL EQUIPMENT)

The partner bed can be fitted optionally with a comfort mattress base.  
The following assembly instructions refer to the 90 cm wide mattress base:



## 3.6 ELECTRICAL CONNECTION

---



When connecting components, always ensure that the plugs are inserted fully into the control unit. This is the only way to ensure proper sealing and faultless operation.

Ensure that the plug cover is always on the control unit.

Stow the power cables, motor cable and handset cable under the mattress base frame in such a way that there are no loops and they will not be damaged by moving parts of the bed. Use the cable routing provided on the chassis for this purpose.

Special care must be taken when laying the connecting cable between the two control unit mains plugs and the sync cable. This cable must not be damaged by moving bed parts or trapped under the castors when moving the bed!



Ensure that cables are not damaged, loops do not form and cables are not trapped in moving parts.

Special attention is required when routing the mains cable. Ensure that it is not damaged and that it does not form any loops! The electricity cable must not be run over by the castors when the bed is moved!

---

### Special note about power plugs

The power plugs are simply plugged into an electrical socket.

The outlet cable must hang downwards.



The wall socket you wish to use for the power plug must NOT be located under the bed.

Otherwise, the moving mattress base frame may rip the power plug out of the electrical socket during horizontal adjustments.



Irreparable damage to the power plug could be caused and a short-circuit in the electrical socket could occur.

Position the bed so as to allow easy access to the mains power plug at all times so that the bed can be disconnected from the mains, if necessary.

All plugs are connected to the control unit. To prevent the plugs from being inadvertently disconnected, they are secured with a locking device.

**Checklist: Inspection by the user**

Check		Ok	Not ok	Description of defect
<b>Visual inspection of the electrical components</b>				
Handset	Damage, foil			
Handset cable	Damage, routing of cable			
Power plug	Damage, routing of cable			
Connecting cable (sync cable)	Damage, routing of cable			
<b>Visual inspection of the mechanical components</b>				
Patient lifting pole, adapter sleeves	Damage			
Chassis	Damage, deformation			
Mattress base	Damage			
Wooden surround	Damage, splinters			
Safety side	Damage, splinters			
<b>Functional check of the electrical components</b>				
Handset, locking functions	Functional test			
<b>Functional check of the mechanical components</b>				
Castors	Braking, moving			
Emergency release of the backrest	Test according to manual			
Safety side	Locking in place, release			
Lower leg rest	Engages properly			
Accessories (e.g. patient lifting pole, grab handle)	Fastening, damage			
<b>Inspector's signature:</b>	<b>Inspection result:</b>			<b>Date:</b>



If damage or a malfunction is suspected, the bed must be withdrawn from service immediately and disconnected from the mains supply until the defective parts have been repaired or replaced!  
**Report this immediately to the operator!**

### 3.6.1 Connecting the sync cable

The sync cable is laid between the two beds and connected to their controls. Proceed as follows:

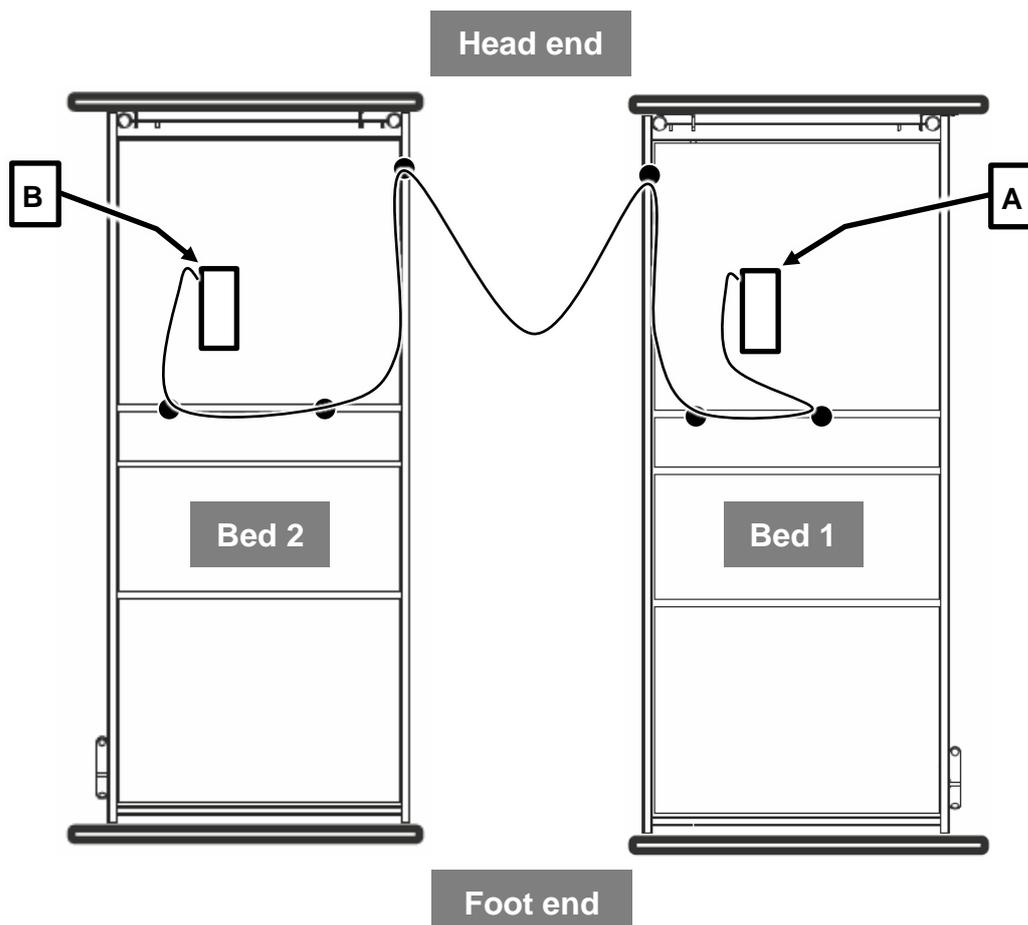
1. Position the beds next to each other (taking care to match the head ends and foot ends)
2. Open plug cover strips of both controls
3. Plug the sync cable into the control unit of the first bed **A** (see also Chapter 6.6.2 and 6.6.3)
4. Lay the sync cable through the guides (pigtails) to the head end of the first bed
5. Plug the sync cable into the control unit of the second bed **B** (see also Chapter 6.6.2 and 6.6.3)
6. Lay sync cables through the guides (pigtails) to the head end of the second bed

**i** The circles in the picture mark the places where the cable guides (pigtails) are located. These are located under the mattress frame

7. Close the plug cover strips on both control units again.

**i** The remaining length of the sync cable coil must be located between the two halves of the bed and is allowed to sag, as this enables the two halves of the bed to be pulled slightly apart if necessary.

8. Insert the mains plugs for the two beds.
9. Bring the beds together and fix them with the 2x connecting elements **[3]** (see Chapter 3.6.2)

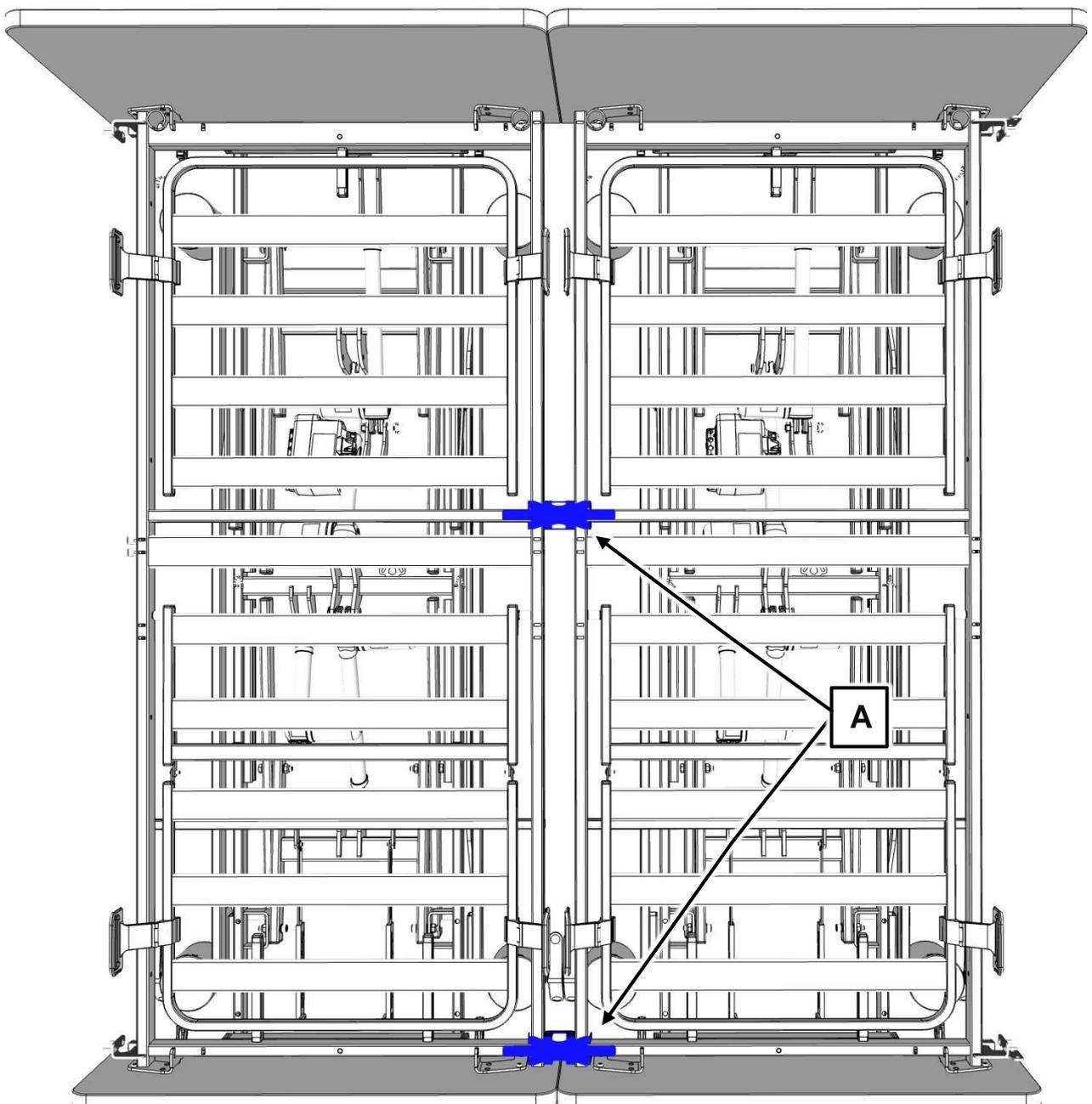


### 3.6.2 Fixing the beds in place

**i** Insert connecting elements.

To prevent the two halves of the bed from sliding apart, for example when carrying out adjustment functions, the connecting elements must always be inserted.

1. Bring the beds close together as shown in the illustration and fix them in place with the connecting elements **A** (in the centre and at the foot end). The foot-end connecting elements **MUST** be inserted, the centre connecting element can optionally be used to secure the position of the two mattress base halves in relation to each other.



### 3.6.3 Synchronising the partner bed

First of all, insert the connecting elements (see Chapter 3.6.2).



To ensure that the two halves of the bed are not pushed apart, for example when the bed is adjusted, the connecting elements must always be inserted. The foot-end connecting elements **MUST** be inserted, the centre connecting elements can be used optionally.

1. Press both mattress base height buttons at the same time (see figure)
  - A beep tone sounds
2. Continue to keep both buttons pressed
  - Both halves of the bed automatically move to the highest setting
3. Continue to keep the keys pressed
  - Both halves of the bed automatically move downwards
  - The beep tone stops

**Synchronisation is now completed.**

**i** The height adjustment of both bed halves can now be carried out synchronously with both handsets.

Backrest and thigh rest adjustments are carried out individually for each bed using the respective handset.



## 3.7 PUTTING INTO SERVICE

---

No electrical measurements are necessary prior to putting this bed into service for the first time, since the bed was tested by the manufacturer for electrical safety and functionality and left our factory in perfect condition.

### **Before putting the bed into service for the first time:**

- Remove all transport securing devices and packaging film.
- Clean and disinfect the bed.
- Allow the bed to adjust to room temperature for about 20 minutes if it was stored beforehand at the lowest or highest permissible temperature (see Chapter 9.2.4 on storage temperature).
- After the bed has been assembled, carry out a check in accordance with the checklist in Chapter 3.6.

### **Before putting the bed into service each time, the user must check that:**

- The bed has been cleaned and disinfected.
- The castors are braked.
- The power supply is compatible with the bed (AC 100 - 240 V, 50/60 Hz, -15% - +10%).
- Easy access to the mains plug is ensured at all times so that the bed can be disconnected from the mains, if necessary.
- The power plug is connected and the power cord is routed in such a way that it cannot be damaged through bed adjustments/being driven over. Hang any cable which is not being used on the cable holder (see Chapter 4.6.1).
- This bed is not used in explosive environments caused, for example, by cleaning agents or anaesthetics.
- This bed is not used in combination with high frequency surgical equipment.
- The power plug, drive cables and handset cable cannot be damaged by the moving parts of the bed.
- No obstacles such as bedside cabinets, supply rails or chairs will inhibit adjustments.
- All adjustment functions are in proper working order and have been checked (see Chapter 4.3)

The bed must not be put into operation unless these checks have been carried out!

## 3.8 DISMANTLING THE BED

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- Move the backrest, thigh rest and lower leg rest to a horizontal position.
- Move the mattress base to the highest position.
- Unplug the mains plug from the electrical socket.
- Remove the mattresses.
- Remove the two connecting elements from the mattress frame.
- Move the beds apart.
- Remove the safety sides.  
**Caution:** Do not let them drop!
- Dismantle the side panel.
- Dismantle the headboard and footboard.
- Remove the fixing bolts for the backrest motor and place the backrest motor on the floor.
- Remove the fixing bolts for the thigh rest motor and place the thigh rest motor on the floor.
- Undo the connection screws on the mattress base at the head and foot end.
- Take the mattress base off.
- Insert the power plug into the electrical socket.
- Move the chassis to the lowest position.
- Remove the sync cable.
- Unplug the mains plug from the electrical socket.
- Insert the backrest motor and thigh rest motor in their transport position and secure these with bolts.
- All loosened screws should be retightened for transport, and the plug cover should be put back in position (to prevent it from getting lost).

## 4 Operation

### 4.1 TIPS ON USING THE BED SAFELY IN A DOMESTIC SETTING

Please use the following table to help identify and avoid any unfavourable conditions of use.

Unfavourable conditions of use	Avoid by	Details in Chapter
<b>Electrical equipment:</b>		
Damage to handsets/connecting cables	Hang the handset on the hook Do not pull the cables right across the bed/do not run over them with the castors	2.2.3
Electrical adjustment functions are not blocked; limbs could be trapped as a result of unintentional activation	Block the functions on the handset if they could otherwise place the patient or children in danger; do not leave children unsupervised in the room with the bed	4.3.2.2
Possibility of overheating due to fluff and dust on electrical drive components	If necessary, use a dry cloth to remove dust from the drive components under the mattress base	
Pets can eat through electrical cables: this could cause malfunctions and electric shocks	Do not allow rodents to run around freely in the same room as the bed	
<b>Safety sides:</b>		
Possibility of trapping/strangulation when using safety sides	When the resident/patient is particularly small, emaciated or confused: use the safety sides only with additional protection measures or not at all	4.4.1
<b>Interfering devices/objects close to the bed</b>		
Fire hazard due to heat generated by a reading lamp, heater etc.	Use only LED reading lamps that do not heat up Use devices only if they are in good working order and are used in accordance with their operating instructions; keep them at a safe distance from the bed	2.2.3
Collision hazard/damage to property resulting from bed adjustments	Ensure a safe distance from other objects/sloping ceilings/windowsills	3.1
Crushed connecting cables or hoses from compressed air positioning systems; inhalers etc.	Route and fix cables and hoses in such a way that they cannot be trapped during bed adjustments	2.2.2

## 4.2 MOVING AND BRAKING THE BED

The bed is equipped with four lockable castors. The bed can be moved within the room (if the mattress base is in its lowest position) even with a resident in it, but only if the two halves of the bed have separate mattress bases.



- The bed is not suitable for being moved often and over long distances outside the room, in corridors, across thresholds or on very uneven floors.

### **Each time before moving the bed, ensure that:**

- the cable of the mains power plug and the sync cable cannot be stretched, driven over or damaged in any other way when the bed is moved.
- Disconnect the sync cable on one side if the bed halves need to be separated further.
- the cable of the mains power plug is always stowed in the designated cable holder at the head end of the bed and does not trail on the floor.
- all cables, tubes or leads belonging to any accessory devices that are attached to the bed are safely secured and cannot be damaged.

Otherwise the power cable plug could sustain damage as a result of being torn off, crushed or driven over. Such damage could lead to electrical hazards and malfunctions.

- Ensure that the brakes of the bed are always adequately applied when a resident is left unattended.

Depending on the bed location (e.g. against a wall or in a niche), it may be sufficient to brake only two of the castors. If the bed is standing on a sloping floor (e.g. on a ramp), then the brakes must be applied on all four castors.

A safe and secure bed position must always be guaranteed!

- The following actions may be unsafe:
  - Using accessories, removable parts or materials that are not described in this manual
  - Connecting this bed to other devices that are not described in this manual.
  - Making modifications to the bed

### 4.2.1 Castors

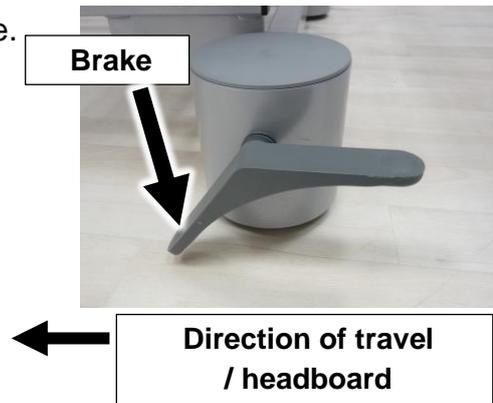
-  The partner bed occupied with a patient or resident should only be moved inside the room. Always avoid moving the bed over long distances along corridors and across thresholds.
-  Similar to illustration!

Each half of the bed stands on four steerable castors, which can be braked centrally (at the foot end) with a brake lever.

**Note:** The bed must be raised to activate the brake. The mattress base must not be in the lowest position, however.

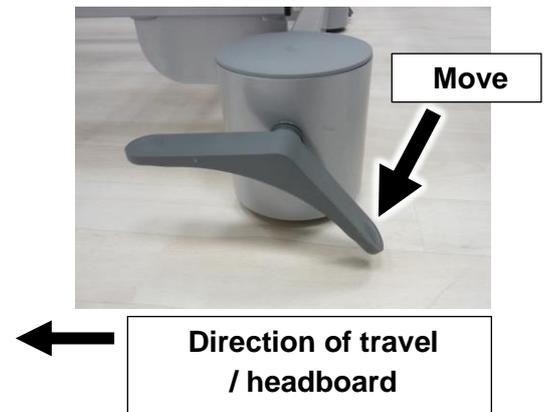
**Brake:**

Press the pedal down with your foot.



**Move:**

Press the pedal down with your foot.



- To avoid toe injuries, wear closed shoes when operating the bed.
- Make sure that the castor brakes are applied.
- Only move the bed around if the mattress base is adjusted to its lowest position.
- Before moving the bed, always ensure that the mains power plug is placed safely on the bed to prevent it from falling off.
- Before moving the bed around, always ensure that all the castor brakes have been released. This prevents excessive wear of the castor treads and scuffing marks on the floor.

## 4.3 ELECTRICAL ADJUSTMENT OPTIONS

### 4.3.1 Special safety information on the electrical drive system



- This hospital bed may not be used in combination with high-frequency surgical equipment or in explosive environments!
- If this bed is used as a partner bed, the two halves of the bed must not be adjusted separately but always synchronously. When used as a partner bed, both halves of the bed must always be joined together with at least the foot-end connecting element **[3]**. Failure to heed this rule can result in limbs being crushed when adjusting the bed.
- When making any adjustments to the position of the bed, always ensure that there are no limbs belonging to residents, users, other persons, and especially playing children, that could be trapped underneath the rests or the bed frame.
- If a backrest adjustment is carried out while the bed is in a reverse-Trendelenburg position, there is a risk that the resident will slip out of bed at the foot end. To avoid this danger, the thigh rest must always be raised together with the backrest.
- In the case of electrical beds, always lock the electrical adjustment of backrest and thigh rest on the handset to protect the resident against unintentional power-operated adjustment when the safety sides are raised (this avoids the risk of limbs being crushed or trapped when adjusting the backrest or thigh rest).
- The bed is delivered with a locking key for the handset supplied in an envelope together with this instruction manual. The locking key is not intended to be used by the resident. The locking key should remain with the user for safe-keeping.
- When using accessories on electrically adjustable beds, the following applies: Make sure that the arrangement of accessories does not produce any crushing or shearing zones for the resident when the back and leg rests are adjusted. If this cannot be guaranteed, the user must safely prevent the resident from adjusting the back and thigh rests.
- Ensure that the mains cable and the handset cable cannot be trapped or damaged in any other way.



- Before moving the bed, always make sure that you have unplugged it from the mains socket. The mains power plug must not fall off or touch the floor. Failure to observe this may result in permanent damage to the power plug.
- Each time before the bed is moved to another location, ensure that the cable of the power plug cannot be stretched, driven over or damaged in any other way. When the bed is being moved, the mains cable must be stowed in the designated mains cable holder (see Chapter 4.6.1).
- To avoid damage, ensure that there are no obstacles such as furniture or sloping ceilings that could collide with the bed when adjustments are made. This will help to prevent damage.
- Patient lifts or other equipment can be wheeled under the bed. If the mattress base is at the lowest height, take care not to damage the drive components of the bed – if in doubt raise the mattress base by about 10 cm before using the patient lift.
- Ensure that the mains cable and handset cable cannot be driven over or otherwise crushed when the bed is moved.

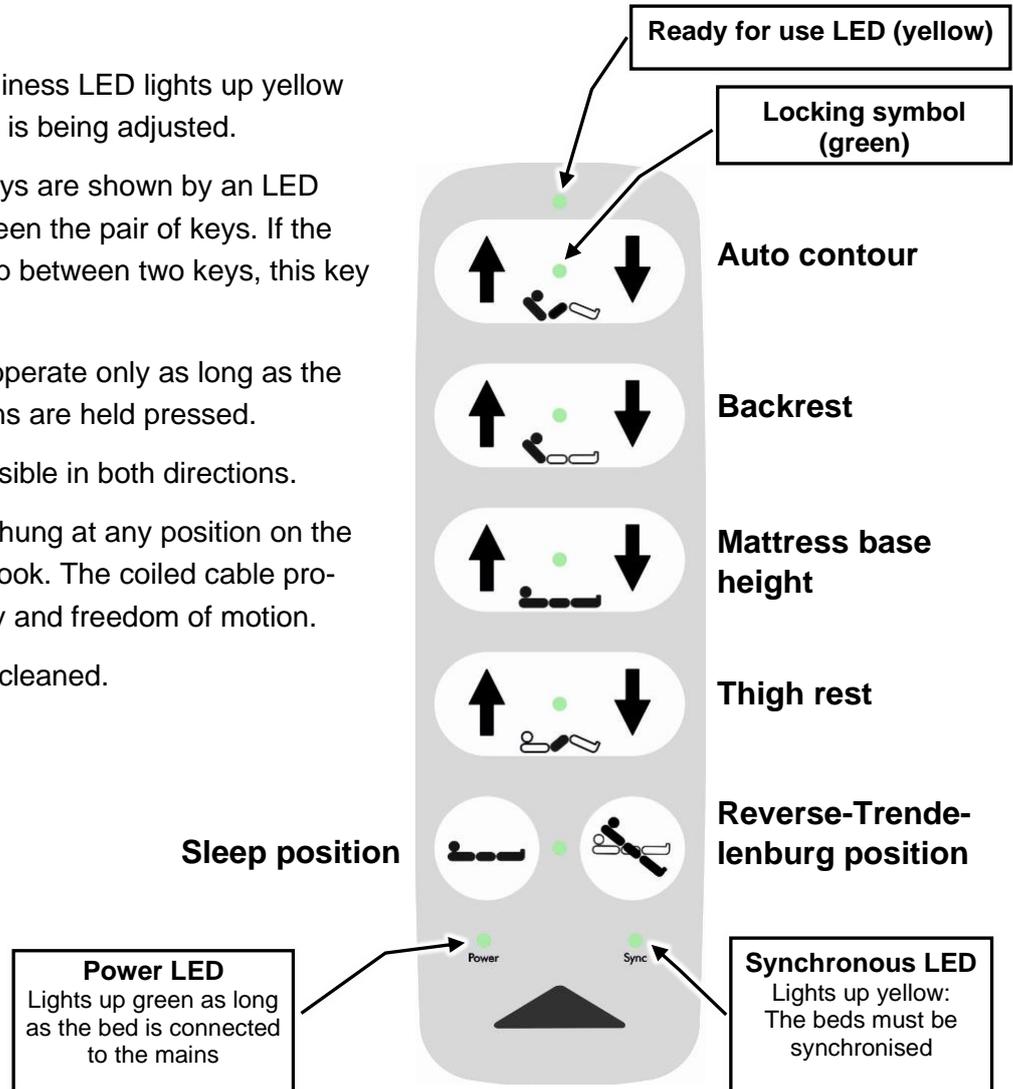


- In the case of malfunctions or excessive load, an electronic overload switch deactivates the drives in order to protect the control and motor. Once the malfunction has been remedied, adjustments are once again possible via the handset.
- Motorised adjustments are only possible if the bed is properly connected to the mains supply.
- Continuous operation must not exceed two minutes! After this time, a rest period of at least 18 minutes must be observed. (Alternatively: one-minute continuous operation followed by a nine-minute rest period, etc.).
- For safety reasons, if the maximum continuous operation time is purposely disregarded, a thermal safety device will permanently cut off the power supply to prevent the drive unit system from overheating due to someone continuously “playing” with the controls.
- The adjustment range for all functions is electrically/mechanically limited to the permitted ranges.
- As with every electrical device, even if all the specified limiting values are observed during operation, disruptions from and to other closely situated electrical devices cannot be ruled out (e.g. “crackling” in a radio). In such cases, increase the distance between the devices. Switch off devices temporarily if they are suffering from interference.

### 4.3.2 Handset

The electrical bed functions can be activated by the resident or the user by using the handset. For safety reasons, the handset is equipped with a locking function. Depending on the clinical condition of the resident, the user can lock handset adjustments when deemed necessary by the supervising doctor (see Chapter 4.3.2.2)

- The operational readiness LED lights up yellow as long as a function is being adjusted.
- Approved pairs of keys are shown by an LED which lights up between the pair of keys. If the LED does not light up between two keys, this key pair is locked.
- The electric motors operate only as long as the corresponding buttons are held pressed.
- Adjustments are possible in both directions.
- The handset can be hung at any position on the bed with an elastic hook. The coiled cable provides ample flexibility and freedom of motion.
- The handset can be cleaned.



- The following basic rule applies to the buttons: **↑ = Raise and ↓ = Lower**



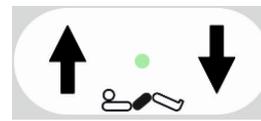
Only one button can be pressed at a time, otherwise all adjustments stop (emergency off safety function).

### 4.3.2.1 Adjustment functions of the handset

 The adjustment functions on the handset of the partner bed are divided into two categories as follows:

**Category 1:** When this button is pressed, the function concerned is only adjusted on the half of the bed that is assigned to the handset.

**Category 2:** When this button is pressed, the function concerned is adjusted synchronously on both bed halves. The function can be adjusted from any handset.

Button	Explanation of function	Category
	<p><b>Auto contour</b></p> <p><b>Raise:</b> The backrest and thigh rest are raised at the same time.</p> <p><b>Lower:</b> The backrest and thigh rest are lowered at the same time.</p>	1
	<p><b>Backrest</b></p> <p>The backrest can be raised to approx. 70°.</p> <ul style="list-style-type: none"> <li>- Please also refer to Chapter → 4.5.1 “CPR release of the backrest”.</li> </ul>	1
	<p><b>Height adjustment</b></p> <p>The mattress base height of both halves of the bed can be adjusted synchronously to approx. 80 cm.</p> <ul style="list-style-type: none"> <li>- An intermediate stop is made at a height of about 40 cm whenever the mattress base is raised or lowered. By pressing the button again, the mattress base continues to move upwards or downwards.</li> <li>- If the mattress base is tilted, it moves automatically into a horizontal position when it reaches the highest or lowest setting.</li> </ul>	2
	<p><b>Thigh rest</b></p> <p>The thigh rest can be raised to approximately 40°.</p>	1

Button	Explanation of function	Category
	<p><b>Sleep position</b></p> <p>If the button is kept pressed, the mattress base is adjusted to the lowest position in the following order:</p> <ul style="list-style-type: none"> <li>- Horizontal position (to intermediate stop position)</li> <li>- The backrest and thigh rest are lowered</li> <li>- By pressing the button again, the mattress base moves downward to the lowest position.</li> </ul>	<p><b>2</b></p>
	<p><b>Reverse-Trendelenburg position</b></p> <p>If the button is kept pressed, the mattress base is adjusted to the reverse-Trendelenburg position.</p>	<p><b>2</b></p>

### 4.3.2.2 Handset Locking Functions

 Danger	<p><b>Only users are authorised to use the locking function!</b></p> <p>If the clinical condition of the resident is so critical that any adjustment using the handset places him/her at risk, then the user must lock this adjustment function immediately. The bed remains in the position it was in at the time it was switched off.</p>
---	---

The locking key supplied offers the following choice between 4 levels to be made on the rear of the handset:

Symbol	Function/Explanation
	All adjustment options are locked
	All functions are activated
	Programming mode: <ul style="list-style-type: none"> <li>• Turn the locking key on the rear of the handset to programming mode.</li> <li>• Select the buttons to be locked on the front of the handset.</li> <li>• Set the locking key to resident mode.</li> </ul> The setting is saved.
	Resident mode: Only functions which have not been locked while programming in programming mode can be used.

 Do not forcibly turn the locking key beyond the stop of the locking surface! This could damage the lock and the handset.

## 4.4 OPERATION OF SAFETY SIDES

### 4.4.1 Special safety information for safety sides

Safety sides protect the patient or resident from accidentally falling out of bed. They are not intended as a device to prevent the patient from intentionally leaving the bed.

If not used properly, there is a considerable danger of strangulation for the resident! Be sure to observe the following safety information:



- Only use technically perfect, undamaged safety sides which engage securely!
- Use only the safety sides described in this manual. Safety sides are either factory integrated into the bed or available as accessories. 
- Before using the safety sides, assess and take into consideration the clinical condition and particular physical build of the resident:
  - For example, if the resident is extremely confused or very restless, avoid using safety sides as much as possible and make use of alternative safety measures such as restraint sheets, etc.
  - For especially small, slim residents, additional protective measures for reducing the space between the bars on the safety sides may be necessary. In these cases, use safety side foam leather padding (accessory), posey belts, etc. This is the only way to effectively guarantee resident safety and reduce the risk of the resident becoming trapped or slipping through.
- Only use suitable mattresses that comply with the German DIN 13014 standard and are not too soft, with a density of at least 38 kg/m<sup>3</sup> and a height of between 10 cm and 20 cm (see also Chapter 8).
- If thicker special mattresses, such as anti-decubitus mattresses, are used (for prevention or therapy), an effective safety side height of at least 22 mm above the non-occupied mattress must be guaranteed.
 

If this dimension is not adhered to, you must take additional/alternative measures on your own responsibility and according to your assessment of the risks in view of the clinical condition of the resident, such as:

  - Providing additional safety systems for the patient
  - Arranging for the patient to be monitored regularly
  - Issuing internal instructions for users

- When the safety sides are raised, the electrical adjustment of the backrest and thigh rest must always be locked:
  - Attach the handset out of reach of the resident (e.g. at the foot end of the bed).

**Or:**

  - Lock the handset adjustment options.

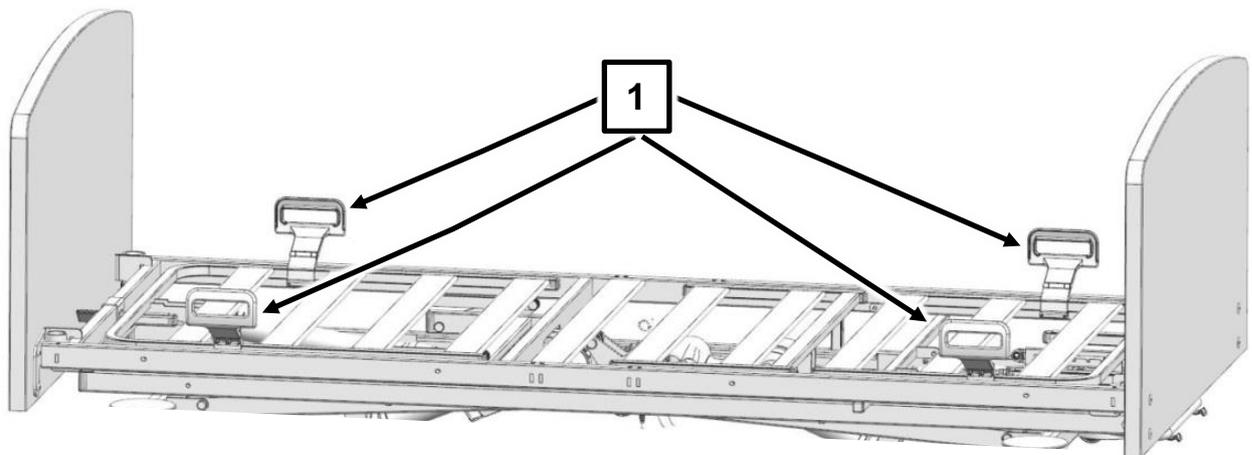
Otherwise there is a danger of limbs being crushed or trapped by the safety sides if the resident inadvertently activates the handset. The effectiveness of the safety sides can also be reduced if any mattress base sections are raised to a high level. Place the handset out of reach (e.g. at the foot end of the bed) or lock the handset adjustment options.



**Risk of injury if the mattress retainers are not used and a side panel is only fitted on one side**

In this case, a mattress can be displaced too far away from a raised safety side and towards the side panel on the other side of the bed. The patient could then fall into the space created by the displacement of the mattress and could become trapped and/or suffocate.

- Only use mattresses with suitable dimensions, as described in the chapter entitled “Accessories”
- Always use the mattress retainers **1** that are fitted to the bed, since the side panel itself does not fix the mattress in place.
- Under all circumstances, use at least the connecting element at the foot end to position the mattress bases in relation to each other.



#### 4.4.2 Split safety side (TSG) (optional equipment)

The “Easy Switch” [8] split safety side can be easily raised or lowered and can be adjusted to various positions.

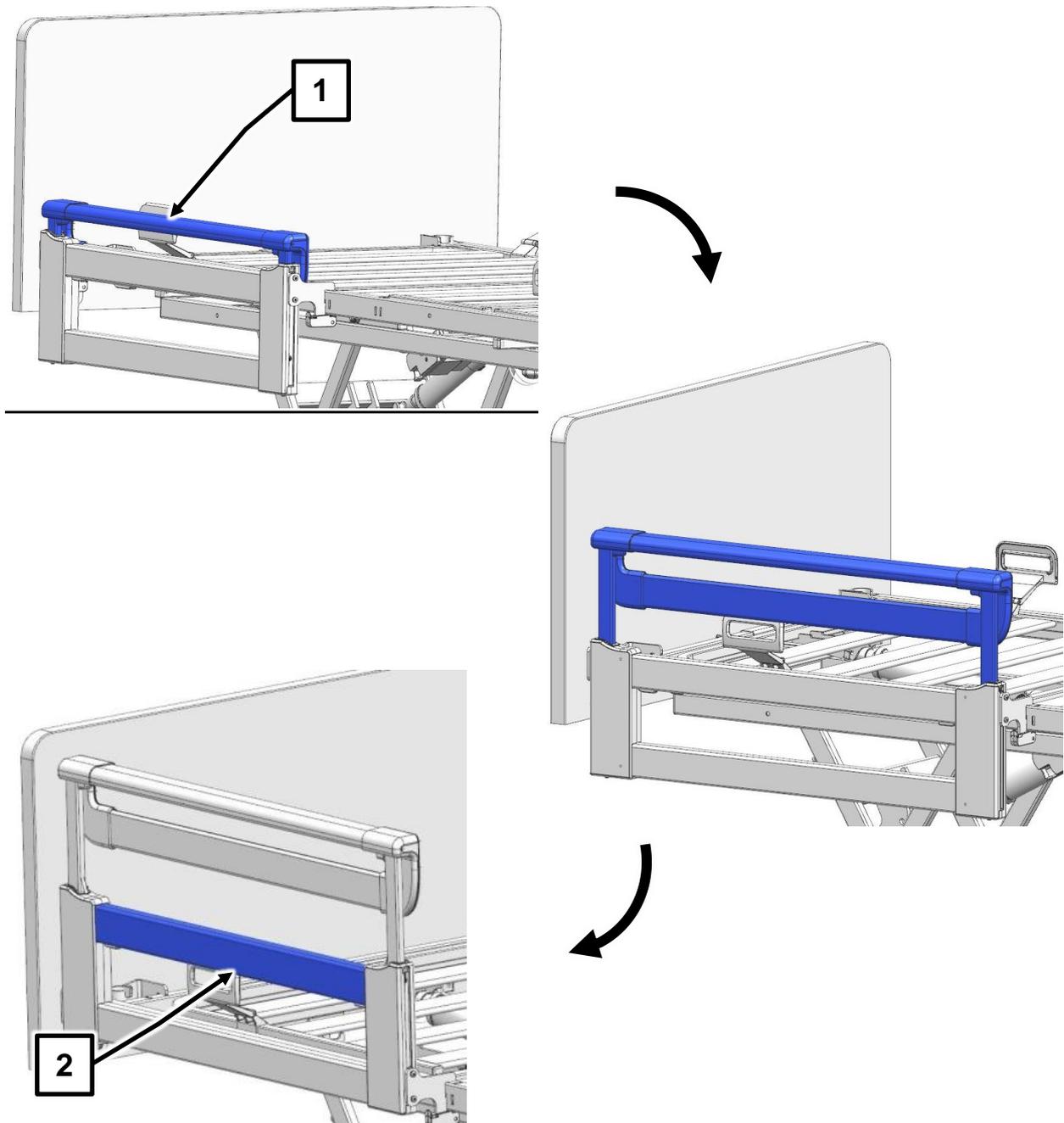
##### Requirements for operation:

The split telescopic safety side (TSG) has been fitted to the bed at the fixing points provided for this purpose in accordance with the assembly instructions.

##### 4.4.2.1 Raise

Grasp the top bar [1] with both hands and pull the safety side up as far as it will go.

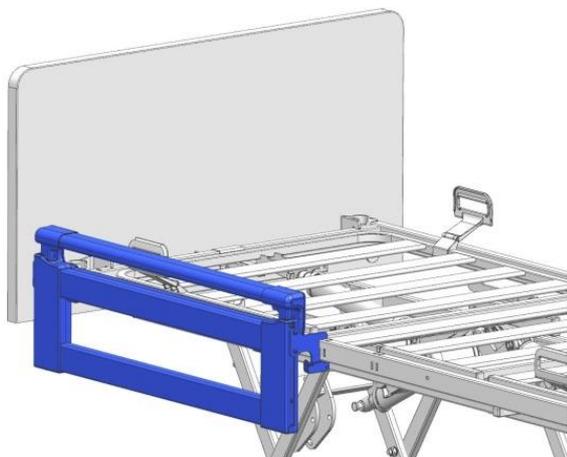
Repeat this procedure with the middle bar [2].



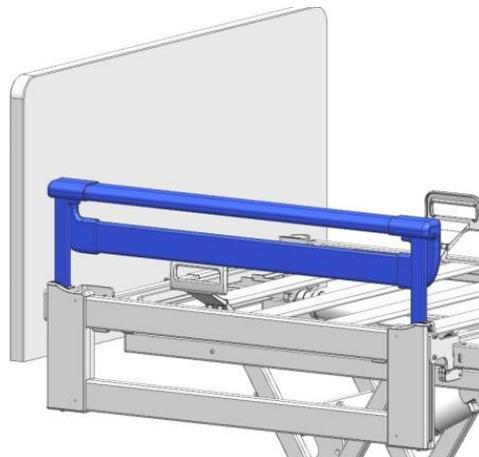
## Various position options

The split safety sides can be positioned as follows:

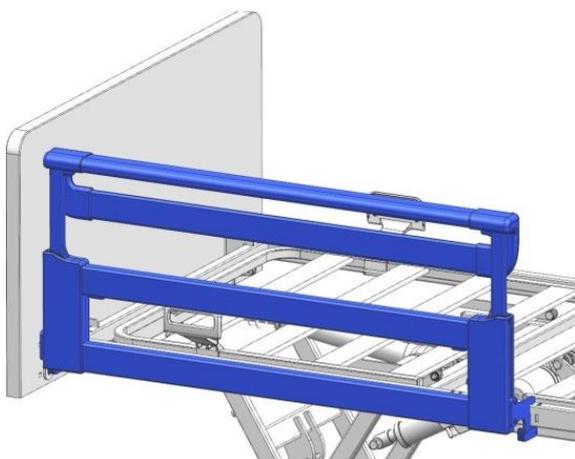
**Fully-lowered safety side**



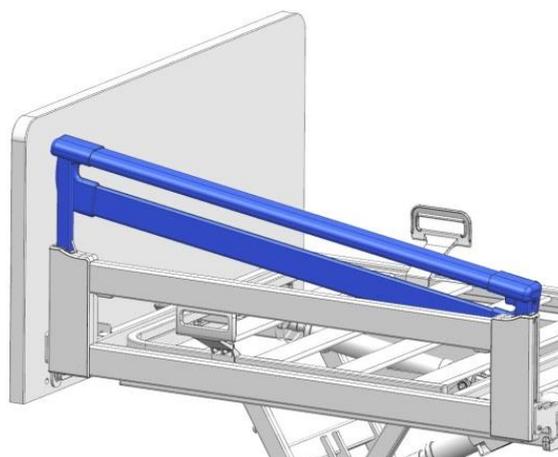
**Top bar raised**



**Fully-raised safety side**



**Angled position of the top bar**



#### 4.4.2.2 Lower

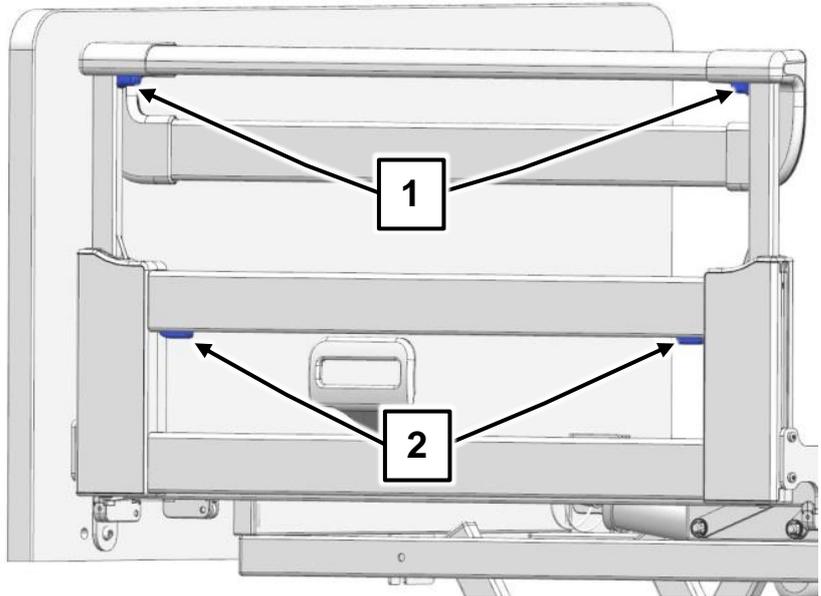
The split safety side [8] can be lowered in two stages (telescopic)



Caution - danger of crushing! Be careful with fingers when adjusting and lowering the safety side. These can be crushed between the bed frame and the safety side!

**Proceed as follows:**

- First relieve the load on the safety side by lifting it slightly.
- Then press both release buttons for the upper bar [1] and lower the safety side.
- Repeat this procedure for the middle bar (release buttons [2]).



## 4.5 MECHANICAL ADJUSTMENT OPTIONS



- To prevent damage, ensure that no obstacles such as furniture or sloping ceilings are in the way. This will help to prevent damage.
- When making any adjustments to the position of the bed, always ensure that there are no limbs belonging to residents, users, other persons, and especially playing children, that could be trapped underneath the rests or the bed frame.

### 4.5.1 Manual CPR release of the backrest

In the event of power supply outages or electrical drive system failures, a raised backrest ① can be lowered by hand.

**i** Please note: manual emergency release of the backrest must be carried out by **two people!**



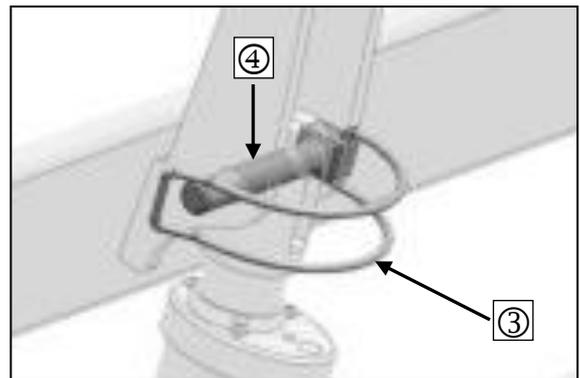
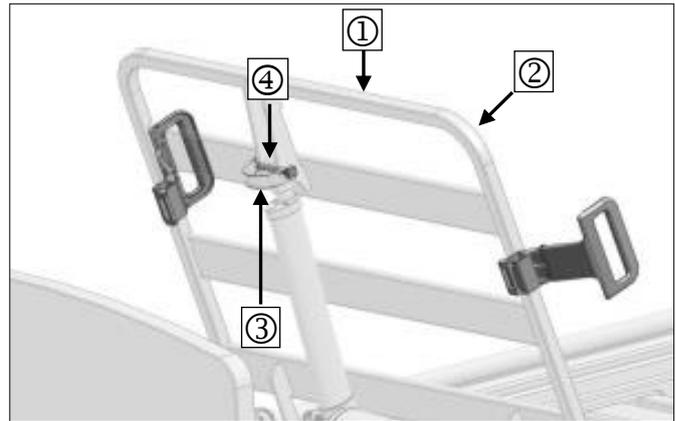
**Disregard for this safety information and instructions for use may cause the backrest to fall uncontrollably, which could lead to serious injuries for both the user and the resident!**

- The CPR release may only be carried out in the case of extreme emergencies and by users who have a complete command of the procedure described below.
- We strongly advise you to practise CPR release of the backrest several times under normal conditions. In the event of an emergency you will then be able to react quickly and correctly.

Before the backrest ① can be lowered, any load exerted on it must be removed.

**To do so, the first person raises the backrest ① slightly by grasping the backrest frame ② and holding it securely in this position.**

- The second person now removes the bolt ④. Fold back the curved clip and draw the bolt and clip ③ out of the lifting rod of the backrest motor.
- The motor is now disconnected from the backrest
- Put the motor down on the bed frame.
- After the second person has left the danger zone, the first person (with the help of the second person) lowers the backrest carefully.



Danger

**Hold the backrest firmly when lowering it, as it could otherwise fall uncontrollably!**

- Now the motor on the lifting bar is no longer connected to the motor connector mount.
- The lifting bar remains in the CPR release position.

### **Restoring the bed to its original state following CPR release of the backrest**

- Raise the backrest by hand.
- Swing the lifting rod up again, use the bolt to secure it in place in the motor connector mount and fold the curved clip back over.

## 4.5.2 Lower leg rest

There are two lockable fittings (Rastomat) located on the lower leg rest which can be used to adjust the incline of the lower leg rest. It is possible to adjust the bed to an orthopaedic (stepped bed) position or to set the lower leg rest to a downward incline.

### 4.5.2.1 Raising by hand

In order to raise the lower leg rest the thigh rest must also be raised.

- Grasp the two rounded corners of the mattress base frame – not the mattress retainer bars [2]/[5] – and raise the lower leg rest evenly until the desired position is reached.
- The lower leg rest must automatically lock into place on both sides.

### 4.5.2.2 Lowering by hand

- Grasp the rounded corners of the mattress base frame and smoothly and evenly raise the lower leg rest slightly.
- Then lower the lower leg rest slowly.



Always grip the lower leg rest by the rounded corners of the frame. Otherwise, there is a danger that your fingers will get crushed.

**There is a risk of injury occurring if the lower leg rest falls unchecked.**

### 4.5.2.3 Lowering using the handset

If the thigh rest is lowered using the handset, the lower leg rest is automatically lowered as well.

### 4.5.2.4 Raising using the handset

If the raised thigh rest is lowered using the handset, the lower leg rest locks into place in several intermediate positions. When the thigh rest is raised, the lower leg rest remains in position.

## 4.6 ATTACHMENTS AND OPTIONAL FEATURES

### 4.6.1 Cable holder

A steel cable holder 1 is welded to the bed frame under the headboard.

- Before moving the bed, always hang the mains power plug and cable in the cable holder.



The power plug cable must not touch the floor. It could otherwise sustain damage as a result of being torn off, driven over or crushed



#### **Danger of death due to electric shock!**

- If a damaged cable continues to be used, this can lead to electric shock, fire and other hazards as well as malfunctions.
- A damaged cable must be replaced immediately.

## 4.6.2 Adapter sleeves for patient lifting pole

The two corners of the mattress base frame at the head end of the bed are each fitted with a round adapter sleeve **A** with a recess **C** at the top. These are adapter sleeves for holding the patient lifting pole **[4]**. The lifting pole should be fitted on the side of the bed that the patient or resident uses to get in and out of bed. It will help the patient or resident to get in and out of bed.



### The maximum loading capacity at the front end of the patient lifting pole is 75 kg.

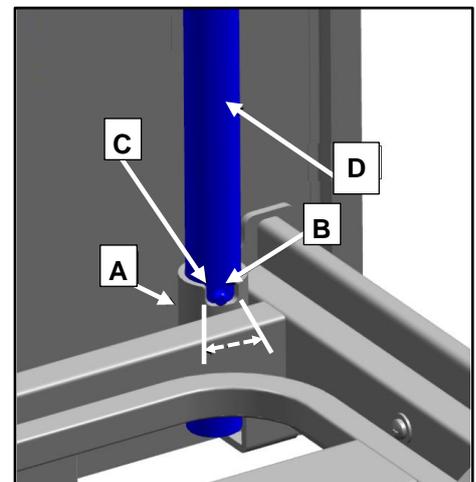
- The loading capacity is rated to allow a heavy patient lying in the bed to sit up by themselves using their own strength.
- Do not use the patient lifting pole as a lifting mechanism for the patient.
- Do not allow a heavy patient to “hang” with his/her entire weight on the patient lifting pole (e.g. when getting out of bed).

### Attach

- Insert the patient lifting pole into the adapter sleeve. The metal pin **B** on the pole must be located in the adapter sleeve recess. This will limit the slewing range (arrow) of the patient lifting pole.

### Remove

- Pull the patient lifting pole **D** straight up and out of the adapter sleeve.



### Slewing range of patient lifting pole

- The slewing range of the patient lifting pole is limited to the area over the bed **A**.
- Do not swing the patient lifting pole out beyond the boundaries of the bed **B**.
- There is a danger that the bed will tip up when weight is applied to the pole.
- The metal pin of the patient lifting pole must therefore always sit in the adapter sleeve recess!

### 4.6.3 Grab handle (triangular handle)

A triangular grab handle can be attached to the lifting pole. The resident can use this grab handle to sit up and readjust his/her position.



Check the triangular grab handle and strap regularly for damage (see Chapter 6.3). Replace damaged grab handles or straps immediately.

#### Service life

A date is printed on the grab handle. In normal use, the grab handle has a service life of at least five years.

After this period, a visual inspection must be carried out regularly to determine whether the handle may continue to be used.

#### Adjusting the grab handle

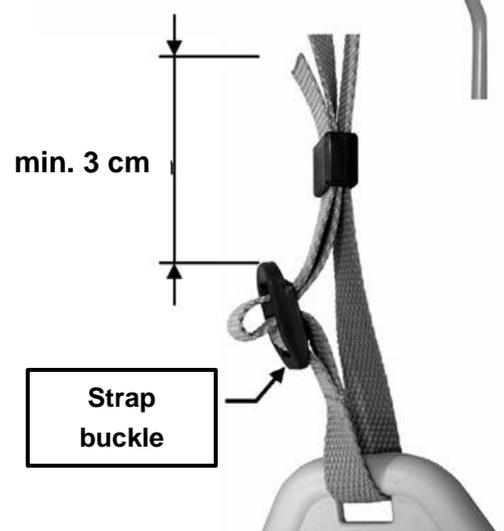
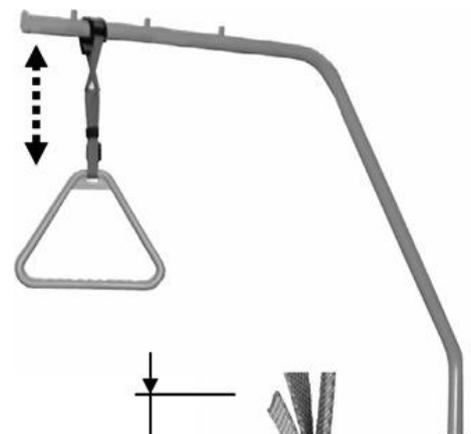
Due to its adjustable strap, the grab handle height can be adjusted to between about 55 cm and 70 cm (measured from the upper edge of the mattress).

- Slide the fixed loop of the grab handle over the first bolt on the lifting pole.
- Check that the grab handle is securely attached by tugging hard on it.
- **Note:** The maximum loading capacity at the front end of the patient lifting pole is 75 kg.

The height of the triangular grab handle can be adjusted using the strap.

Make sure that the strap is correctly threaded through the buckle.

Make sure that the end of the strap projects at least 3 cm from the buckle.



## 4.7 USE AS A SINGLE BED

If you wish, the partner bed can be used as two single beds. In this case, the beds are separated from each other and operated independently.



### Note before using the beds as single beds:

The minimum distance between the long sides of each bed must be at least 1 metre when used as a single bed.

In this way, you avoid potential trapping hazards due to gaps that are too narrow for electric bed adjustments, and you also have good access to both beds.



If the beds are separated, the missing side elements, if available, (safety sides/side panels) must be added. These can be ordered as accessories from Burmeier (see manufacturer's address → in the Chapter 6.5 on , page 93.

For fitting side elements → see Chapter 3.2.4 and/or 3.3.2.

Proceed as follows to separate the beds:

1. Disconnect the mains power plug on both beds from the socket.
2. Release the brakes on both beds.
3. Remove the mattresses.
4. Remove the two connecting elements from the mattress frame (see Chapter 3.6.2). **Note:** Retain the screws for re-using again.
5. Move the beds approximately 1 metre apart.
6. Remove the sync cable and move the beds even further apart. **Note:** Retain the screws for re-using again.
7. Insert the jumper plug into the control unit.  
**Note:** The jumper plug is plugged into the same connection socket of the control unit into which the sync cable was plugged (1x jumper plug per control unit).
8. Fit the new side elements (safety sides/side panels) to the side of the bed without any.
9. Insert the mains plug into the socket and put the mattress back onto the bed.
10. Perform a new initialisation of the control (see Chapter 6.6.7).

Both beds can now be adjusted or used completely independently of each other. Synchronous adjustments are no longer possible.

## 5 Cleaning and disinfection



This bed is not suitable for machine washing or for cleaning in a decontamination unit. The bed is only suitable for manual cleaning and disinfection. To extend the bed's service life and preserve its operability, always follow the instructions given in this chapter.

### 5.1 GENERAL INFORMATION ON CLEANING AND DISINFECTION

Cleaning is the most important measure and requirement for ensuring successful chemical disinfection.

In general, it is sufficient for hygienic purposes to clean frequently used, visibly soiled parts of the bed (handsets, safety side bars, handles, headboard/footboard) whenever necessary if the bed is used by the same resident or patient.

Please also refer to the additional recommendations for cleaning in Chapter 5.5.

Disinfection of the chassis by suitably trained persons is only necessary when this is visibly contaminated with infectious or potentially infectious materials (blood, stool, pus) or when prescribed by a doctor in the presence of an infectious disease.

**Before a new resident or patient occupies the bed, and before or after any maintenance or repair work, it must first be cleaned and disinfected by wiping!**



Warning

#### Before cleaning or disinfecting:

- Unplug the mains plug and store the power plug so that it does not come into excessive contact with water or other cleaning solutions.
- Ensure that none of the electrical components show any signs of external damage. Failure to comply with this may result in the ingress of water or detergents into the electronic equipment and cause malfunctions or damage.
- Before using the power plug again, ensure that there is no residual moisture on the electrical contacts.
- The electrical components must not be cleaned with a water jet, a high pressure cleaner or other similar devices! Clean only with a moist cloth!
- If you suspect that water or any other form of moisture has penetrated into the electrical components, unplug the power plug immediately and do not plug it back into the socket. Label the bed clearly as "Out of Order" and take the bed out of service. Report this immediately to the operator responsible.

**Failure to follow these safety instructions could result in considerable damage to the equipment and lead to subsequent malfunctions!**

## 5.2 CLEANING AND DISINFECTION PLAN

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- Remove the bed linen and send it to the laundry service.
  - Clean all surfaces, including the slatted frame and mattress base made of synthetic or metal sections, with a mild and environmentally friendly cleaning agent. This also applies for the handset.
  - If the bed has been visibly contaminated, with infectious or potentially infectious materials, the bed should be subsequently disinfected by wiping with one of the disinfectants approved by the DGHM (Deutsche Gesellschaft für Hygiene und Mikrobiologie, German Society for Hygiene and Microbiology) and/or the VAH (Verbund der Angewandte Hygiene, Association for Applied Hygiene) which is suitable for the corresponding surfaces. The same applies for all beds with residents who have notifiable diseases according to §6 of the Infektionsschutzgesetz (IfSG, Protection against Infection Act), bacterial infections, or infections with multiple-resistant pathogens (e.g. MRSA, VRE), as well as all beds in intensive care stations and infectious disease clinics. For all disinfections, the concentrations given in the DGHM/VAH list must be observed.
  - Disinfection of the castors is only necessary if they have been visibly contaminated with infectious or potentially infectious materials.
-  Continuous disinfection is only necessary in hospitals when a resident has a multiple-resistant pathogen (e.g. MRSA).

## 5.3 INSTRUCTION OF USERS AND STAFF

---

In order to ensure that cleaning and disinfection are conducted properly, we recommend that users and technical staff are appropriately instructed.

They should be instructed to observe the following points:

- A clean bed must be transported in such a way that it will not become dirty or contaminated during transport.
- Staff should be informed of the special measures required for cleaning and disinfection and should carry out the procedure in a reliable manner (the operator should specify the operational procedures and the individual procedural steps). Care must be taken that only disinfection agents approved by the DGHM or VAH (German Society for Hygiene and Microbiology) are used, and that these are used only in the approved concentrations.  
The disinfection agent must be suitable for use with the surfaces to be disinfected.
- For this activity, staff should be provided with (disposable) aprons and gloves which are impermeable to fluids.
- For cleaning, only fresh, clean cloths may be used which are subsequently laundered.
- When cleaning/disinfecting work has been completed, the staff must disinfect their hands before carrying out other tasks.  
Staff should be equipped with a suitable pump dispenser containing a disinfectant for hands.
- Cleaning the bed immediately at its usual location has the advantage that no “dirty” beds or bed components come into contact with clean beds. The transfer of potentially infectious germs that may be on the used bed frame is prevented in this way. A transfer of germs in terms of a nosocomial infection can be safely avoided by consistently and thoroughly following these recommendations.
- When the bed is not immediately reused, it should be stored (covered) in such a way that it is protected from dust, inadvertent soiling and contamination.

## 5.4 CLEANING OF FIRMLY UPHOLSTERED COMPONENTS

---

The headboard, footboard and side panels of the partner bed can be supplied in the upholstered version, with fabric or faux leather upholstery, according to customers' wishes. Any soiling of these components must be removed immediately.

### 5.4.1 Cleaning the fabric upholstery

Soiling caused by intensive use or food residues must be removed using simple means. Water, detergent and a (soft) brush are sufficient to brush even stubborn stains from the upholstery.

1. Wipe the affected area with a cotton cloth to remove surface fluid or food particles.
2. Use warm water to moisten stains that have already dried and then clean the area with a brush.
3. If any residues are still visible, dab the stain with a solution of water and a few drops of a mild detergent (mixing ratio approximately 10:1). Use a soft brush or the edge of a spoon to work on the area after a short contact time. Then dab the treated area with a clean cloth and dry.
4. Always work on stains from the edge to the centre so as not to increase the size of the stain.
5. Repeat step 3, if necessary.
6. Rinse the treated area with lukewarm water and dry. Completely remove any detergent residues.
7. First let the fabric dry and then brush in the direction of the nap.

### 5.4.2 Cleaning faux leather upholstery

Regular cleaning increases the service life. Use a mild soapy water solution and a soft, lint-free cloth or hand brush.

Please remove heavy soiling immediately. The use of plastic cleaning agents is not recommended.

The following cleaning methods are recommended for removing stains from faux leather. Many stubborn stains can be removed if the cleaning methods are used in this order.

#### Cleaning method 1

Use a mild soapy water solution and a soft, lint-free cloth or hand brush. Rinse the area with clean water and dry with a soft cloth.

### Cleaning method 2

Apply a generous amount of solvent-based cleaning agent to the stain with a soft cloth or sponge. Rinse the area with clean water and dry with a soft cloth.

### Cleaning method 3

Apply a strong, solvent-based cleaning agent diluted with water (70% water, 30% acetone) with a soft cloth or sponge. The stain should be removed with less than six rubs. If not, the dirt has already settled into the material and can no longer be removed. Rinse the area with clean water and dry with a soft cloth.

The recommended cleaning agents used in cleaning methods 1, 2, and 3 are increasingly aggressive. It is therefore advisable to start with the least aggressive method.

Type of soiling	Method 1	Method 2	Method 3
Spray paint	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ballpoint pen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Felt-tip pen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lipstick	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mustard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nicotine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Grease	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Crayon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Eyeshadow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Carotene	<input checked="" type="checkbox"/>		
Coffee	<input checked="" type="checkbox"/>		
Tea	<input checked="" type="checkbox"/>		
Blood	<input checked="" type="checkbox"/>		
Urine	<input checked="" type="checkbox"/>		
Fruit juice	<input checked="" type="checkbox"/>		
Olive oil	<input checked="" type="checkbox"/>		
Chocolate	<input checked="" type="checkbox"/>		
Ketchup	<input checked="" type="checkbox"/>		

## 5.5 CLEANING AND DISINFECTION AGENTS

Pay attention to the following recommendations to ensure that the bed functions and usability are preserved as long as possible:



- Do not use scouring agents, stainless steel cleaning agents, abrasive cleaning agents or scouring pads. These substances can damage the surfaces.
- Cleaning and decontaminating agents must have a pH value of 5 to 8 at the specified concentrations.
- The chloride content of the solutions prepared for use must not exceed 100 mg/l.
- We recommend (damp) wipe cleaning. When selecting cleaning agents, ensure that the agents chosen are mild (gentle to skin and surfaces) and environmentally friendly. A standard household cleaner can generally be used.
- Ensure that after cleaning/ disinfection no liquid residues remain on the metallic parts of the bed (avoid drops on the edges). Otherwise corrosion cannot be excluded in these areas in the long term.
- Despite the excellent mechanical resistance, any scratches, knocks etc. which permeate right through the coating should be resealed using a suitable repair substance to prevent moisture from penetrating. For further information, consult Burmeier or a specialist of your choice.



- As a rule, aldehyde-based disinfectants have the advantage that they have a wide range of impact, a relatively low protein effect and are environmentally friendly. The main disadvantage of these disinfectants is their potential to cause allergies and irritation.
  - Glucoprotamine-based formulations do not have this disadvantage and are equally effective, although most are slightly more expensive.
  - Disinfectants based on compounds which could potentially release chlorine may be corrosive for metals, synthetics, rubbers and other materials over longer contact periods or when concentrations are too high. Furthermore, these media have a higher so-called protein effect, are mucous membrane irritants and demonstrate poor environmental compatibility.
- 
- For disinfection by wiping, most cleaning and disinfection agents usually used in hospitals or care facilities can be used, such as cold and hot water, detergents, alkaline solutions and alcohols.
  - These agents must not contain any substances that could change the surface structure or the adhesive properties of the plastic materials.

- The choice of cleaning agents and disinfectants available on the market may change from time to time. Burmeier therefore routinely tests the most commonly used materials for compatibility. The most up-to-date list of tested cleaning agents and disinfectants can be obtained on request.

Our German customer support:

**Burmeier GmbH & Co. KG**

(A Stieglmeyer-Group company)

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Internet: [www.Burmeier.com](http://www.Burmeier.com)

- Customers outside Germany can contact our distribution companies in their particular country if they have any questions. Contact details can be found on our website.

## **5.6 HANDLING CLEANING AND DISINFECTION AGENTS**

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- Pay attention to the exact dosage! We recommend the use of automated dosing devices.
- Always prepare solutions with cold water in order to avoid the formation of vapours that are mucous membrane irritants.
- Wear gloves, in order to avoid direct skin contact.
- Do not keep ready prepared surface disinfection solutions in open containers with floating cleaning cloths. Be sure to close all containers!
- Use sealable bottles with pump dispensers for moistening the cleaning cloths.
- Ventilate the room after the disinfection has been completed.
- Disinfect by wiping; do not disinfect by spraying! When spraying, a large portion of the disinfection medium is released as a spray mist and could be inhaled.
- Furthermore, the wiping effect itself plays a significant role.
- Do not use alcohols for the disinfection of large surfaces.

## 6 Maintenance

### 6.1 LEGAL PRINCIPLES

Operators of medical beds in Europe are obliged, in accordance with the new Medical Device Regulation (EU) 2017/745 (MDR) and existing relevant national laws/regulations, e.g. in Germany currently the

- German Medical Devices Operator Ordinance § 4 (Maintenance)
- DGUV 3 (Testing of Mobile Electrical Equipment in Commercial Use) of the German Employers' Liability Insurance Association

to preserve the safe operating condition of medical devices throughout their entire service life. This also includes regularly carrying out expert maintenance and safety checks.

In other countries outside Germany or the EU, the relevant national regulations must be complied with.

#### Information for operators



This bed has been designed and built to work safely over a long period of time. When operated and used properly, the expected service life of this bed is up to 10 years. The bed's service life depends on its frequency of use and the conditions under which it is used.

All "serious incidents" <sup>1</sup>relating to the device must be reported to the manufacturer and the competent authority of the member state in which the user and/or patient is established (in Germany: [www.BfArM.de](http://www.BfArM.de))



Frequently transporting, assembling and dismantling the bed, improper operation and long-term use may cause damage, defects and wear to the bed over time. These deficiencies can cause hazards if they are not recognised and corrected immediately.

For this reason, there are legal principles for conducting regular inspections in order to guarantee the safe condition of this medical product.

According to § 4 of the Medical Devices Operator Ordinance (Medizinprodukte-Betreiberverordnung) it is the responsibility of the operator to maintain this product. For this reason, the regular inspections and functional checks described hereafter must be performed by both the operator as well as the users.

- This bed must not be modified without authorisation by the manufacturer.
- Instruct users about the following inspections that are required to be performed! (see Chapter 6.2).

<sup>1</sup> Incident that directly or indirectly had, could have had or might have had one of the following consequences:  
a) the death of a patient, user or other person,  
b) the temporary or permanent serious deterioration in the state of health of a patient, user or other person,  
c) a serious risk to public health,  
(source: MDR (Medical Device Regulation), Art. 2(65))

## 6.2 BY THE USER



- If damage or a malfunction is suspected, the bed must be withdrawn from service immediately and disconnected from the mains supply until the defective parts have been repaired or replaced!
- Contact the operator responsible if the defective parts need to be replaced or repaired.

Besides the regular comprehensive inspections by qualified technical staff, the normal user (care staff, caregiving relatives etc.) must also carry out a minimum of visual inspections and functional checks at short, regular intervals and before use by a new person.

**Recommendation:** Inspect all electrical and mechanical components once a month. In addition to the above, check the mains power plug and its cable and the handset cable every time they have been subjected to mechanical stress and each time after the bed has been moved to a new location.

### Checklist: Inspection by the user

What?	Check	How?	Ok	Not ok	Description of Defect
<b>Visual inspection of the electrical components</b>					
Handset, handset cable	Damage, routing of cable				
Power plug	Damage, routing of cable				
Connecting cable (sync cable)	Damage, routing of cable				
<b>Visual inspection of the mechanical components</b>					
Patient lifting pole, adapter sleeves	Damage, deformation				
Chassis	Damage, deformation				
Wooden surround	Damage, splinters				
Mattress base frame	Damage, deformation				
Safety side bars	Damage, splinters				
Locking levers of TSG, headboard, footboard, side panels	Clamping function				
<b>Functional check of the electrical components</b>					
Handset	Function test, locking function				
<b>Functional check of the mechanical components</b>					
Castors	Braking, moving				
Screws and bolts	Fixed securely				
Safety side	Safe locking, unlocking				
Lower leg rest	Engages properly				
Connecting elements	Fixed securely				
Motor bolt	Fixed securely				
Accessories (e.g. patient lifting pole, grab handle)	Fastening, damage				
<b>Inspector's signature:</b>		<b>Inspection result:</b>		<b>Date:</b>	

## 6.3 BY THE OPERATOR

**The operator of this care bed is obliged according to MPBetreibV (Medical Devices Operator Ordinance) Section 4 to conduct regular inspections after each renewed assembly, after each maintenance and during regular operation to ensure the safe condition of the care bed.**

These inspections must be repeated as part of the regular maintenance work performed depending on the bed's conditions of use as specified in § 4 of the German Medical Devices Operator Ordinance (MPBetreibV) and on the inspections in accordance with DGUV 3 required under the German Employers Liability Insurance Association regulations for mobile electrical equipment in industrial use.

All servicing and maintenance measures must be carried out when the bed is unoccupied.

- Observe the following order of inspection according to DIN EN 62353:
  - I. Visual inspection
  - II. Electrical measurement
  - III. Functional check
- In accordance with § 4 MPBetreibV, the performance test and the evaluation and documentation of the test results must only be performed by an expert with the relevant knowledge and experience required to perform the same properly.
- The Electrical Measurement Procedure according to DIN EN 62353 may also be conducted by electrically instructed persons [in the sense of DGUV regulation 3] with additional medical and device-specific know-how if appropriate measuring instruments are present.
- The test results must only be evaluated and documented by a qualified electrician with additional medical and device-specific expertise.

### Test procedure:

- Leakage current test: direct or differential current in accordance with DIN EN 62353
- Perform a leakage current test in accordance with the instructions provided by the test device manufacturer.

Limit value: leakage current  $I_L$  must be less than 0.1 mA.

### Inspection cycle:

We recommend an annual inspection and functional check. In the case of verifiable compliance with 2% error rate (see also DGUV regulation 3: § 5, table 1B), the inspection cycle of the electrical test and inspection and function test can be extended to a maximum of 2 years.

Please use the inspection report templates included below for your inspections.



If damage or a malfunction is suspected, the bed must be withdrawn from service immediately and disconnected from the mains supply until the defective parts have been repaired or replaced!

## Inspection Report following an Inspection of Electromedical Equipment according to DIN EN 62353 (VDE 0751-1): 2015-10 - Page 1 of 2

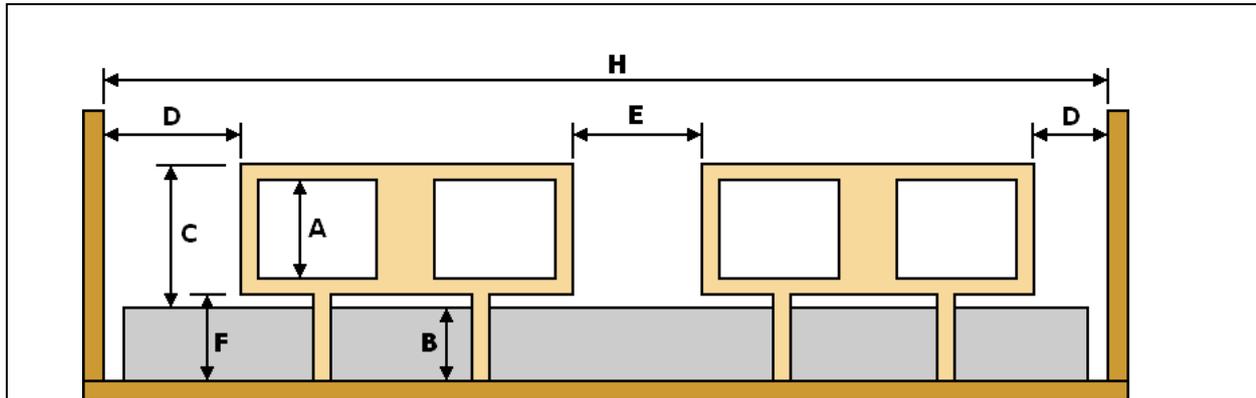
<b>Customer / Med. facility / Practice:</b>						
<b>Address:</b>						
Carried out: <input type="checkbox"/> Repeat inspection <input type="checkbox"/> Inspection prior to initial operation (reference value)						
<input type="checkbox"/> _____ <input type="checkbox"/> Inspection following repair/servicing						
Equipment type: <input type="checkbox"/> Hospital bed <input checked="" type="checkbox"/> Care bed			Protection class: <input type="checkbox"/> I <input checked="" type="checkbox"/> II			
Bed type: <i>Regia - Partner bed</i>			Inventory number:			
Location:						
External power pack unit number:			Serial number:			
Manufacturer: <i>Burmeier GmbH &amp; Co. KG</i>			User-specific parts: <i>none</i>			
Testing equipment used (type/inventory no.):			1.			
Medical Devices Act classification: <i>Class I</i>			2.			
I. Visual inspection				Ok	Not ok	Description of defect
What?	How?					
<b>Visual inspection of the electrical components</b>						
Stickers and type plates	Present, legible					
Control unit housing	Securely fixed, damage					
Motor lifting tubes and housing	Securely fixed, damage					
Handset	Damage, foil					
Motor cable, handset cable, mains cable, connecting cable	Damage, routing of cable					
Plug and plug cover on control unit	Present, securely fixed					
<b>Visual inspection of the mechanical components</b>						
Stickers and type plates	Present, legible					
Patient lifting pole, adapter sleeves; grab handles	Damage, deformation					
Chassis	Damage, deformation					
Bowden cable, CPR release, backrest	Routing, kinks					
Castors	Damage					
Mattress base	Damage, deformation					
Wooden surround	Damage, splinters					
Welded seams	Split welded seams					
Safety sides: Bars	Damage, splinters, dimensions acc. to Sheet 3					
Locking levers of safety sides, side panels, headboard/footboard	Secure position of locking levers					
Connecting elements (screws, bolts, nuts, safety caps)	Secure fixing, missing parts					
Connecting elements (connecting the two halves of the mattress base)	Secure fixing, missing parts					
Wearing parts, such as joints	Damage					
<b>II. Electrical measurement</b>						
<b>Device leakage current, direct/differential</b>						
1. Plug the mains power plug/switch-mode power supply unit plug into the test socket of the measuring instrument. 2. Connect the probe of the measuring instrument to the bed; measuring point: Bare metal screw under backrest in frame of mattress base. 3. Operate the motors using the handset for the duration of the measurement 4. Start the measurement procedure on the measuring instrument						
	Limit value	Value of first measurement	Current value			
Result: Bed prot. class II (type B)	0.1 mA	mA	mA			

**Inspection Report following an Inspection of Electromedical Equipment according to DIN EN 62353 (VDE 0751-1): 2015-10 - Page 2 of 2**

III. Functional test		Ok	Not ok	Description of defect
What?	How?			
<b>Functional check of the electrical components</b>				
End of travel cut-out of the motors	Automatic cut-out			
Handset, control units, external power supply unit	Test according to instruction manual: Locking functions; button function; no "rattling" when shaken			
Motors	No abnormal noise development (rattling, uneven running etc.)			
Installation of cable harness and fixing of plugs and strain relief	Secure attachment, firm fixing acc. to operating instructions			
<b>Functional check of the mechanical components</b>				
Joints and pivots;	Smooth operation			
Castors	Braking, secure engaging of brakes			
Safety sides	Secure engagement, unlocking acc. to operating instructions			
Lower leg rest	Engages properly			
Accessories (e.g. patient lifting pole, grab handle)	Secure attachment, without damage, suitability for bed			
<b>Inspection result:</b>				
<b>Inspection passed; test approval sticker applied:</b>				
<input type="checkbox"/> Safety-related or functional defects were not detected <input type="checkbox"/> No direct risk; the defects detected can be rectified quickly				
<b>Inspection was not passed; <u>no</u> test approval sticker applied:</b>				
<input type="checkbox"/> Appliance must be taken out of circulation until the defects have been rectified! <input type="checkbox"/> Device does not meet requirements – modification / replace components / decommissioning is recommended!				
<b>Next inspection date:</b>				
<b>Documents that form part of this inspection report:</b>				
<input type="checkbox"/> Enclosure page 3/3: Dimensional check of safety sides in compliance with statutory regulations <input type="checkbox"/> Enclosure: _____				
<b>Inspected on:</b>	<b>Inspected by:</b>	<b>Signature:</b>		
<b>Evaluated on:</b>	<b>Operator/Expert:</b>	<b>Signature:</b>		

## Inspection Report following an Inspection of Electromedical Equipment according to DIN EN 62353 (VDE 0751-1): 2015-10 – Page 3 of 3

Dimensional check of safety sides in compliance with statutory regulations:



Dimensions of a split safety side

When measuring the distances, the dimensions resulting from likely mechanical loads are decisive!

Item	Description of dimensions	Required	Actual	O k	Not ok
<b>A</b>	The greatest dimension in at least one direction between components of the safety side/handle in all normally used positions.	$A \leq 120 \text{ mm}$			
<b>B</b>	Thickness of the normally used uncompressed mattress as indicated by the manufacturer	$B \geq 120 \text{ mm}^{**}$			
<b>C</b>	Height of the upper edge of the safety sides above the uncompressed mattress and the bed base in a level position	$C \geq 220 \text{ mm}$			
<b>D</b>	Distance between the headboard/footboard/accessories and the safety sides/handle with the bed base in a level position. Also applies in the case of an extended foot section/bed extension	$D \leq 60 \text{ mm}$ or $D \geq 318 \text{ mm}^*$			
<b>E</b>	Distance between split safety sides with the mattress base in a level position:	$\leq 60 \text{ mm}$ or $\geq 318 \text{ mm}$			
<b>F</b>	The greatest dimension in at least one direction of each opening under the safety sides	$F \leq 120 \text{ mm}$			
<b>G</b>	Length of the safety side	$G \geq 50\% H$	$G > 50\%H^{**}$	X	

\*Data from Burmeier modified in view of expected new bed directive IEC 60601-2-52.

$D \geq 318 \text{ mm}$  is only admissible at foot end of bed!

\*\* Data from Burmeier added for the existing split safety side configuration with at least the safety sides at the head end raised (if completely raised at head and foot ends, this corresponds to a one-piece safety side; see \*\*)

Source: Bavarian State Ministry for Health, Nutrition and Consumer Protection, Dept. 5, Schellingstr. 155, 80797 München (Munich); www.stmgev.bayern.de; email: presse@stmgev.bayern.de

## 6.4 REPLACEMENT PARTS



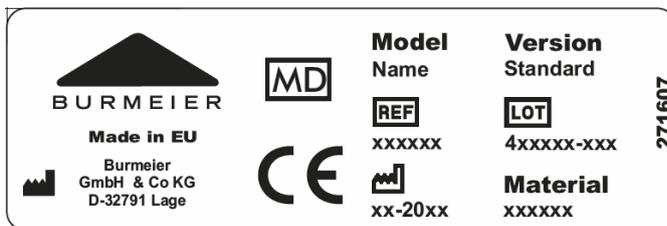
In order to maintain operational reliability and the right to make claims under warranty,

- only original Burmeier replacement parts may be used!
- no technical modifications must be made to the bed

The expected service life of the bed and the accessories supplied with it can be up to 10 years depending on the frequency and intensity of use. The service life can be optimised by professional servicing and by using only original replacement parts.

The relevant replacement parts are available from Burmeier upon specifying the item number, order number and serial number.

The necessary details are found on the type plate on the cross tubing of the mattress base frame.



<b>Model</b>	Name of product	<b>Version</b>	Version name
<b>REF</b>	Item number	<b>LOT</b>	Order number
	Date of manufacture (week/year)	<b>Materials</b>	Material variant
<b>MD</b>	Medical device labels		

 Also attached to the bed is a type plate with electrical data (see Chapter 9.2.2).

## 6.5 MANUFACTURER'S ADDRESS/ SERVICE ADDRESS

To order replacement parts, or for other queries, please contact:

**Burmeier GmbH & Co. KG**

(A Stiegelmeier-Group company)

Pivitsheider Straße 270

32791 Lage/Lippe

Tel.: + 49 (0) 52 32 / 98 41- 0

Fax: + 49 (0) 52 32 / 98 41- 41

Email: [info@burmeier.com](mailto:info@burmeier.com) / Internet: [www.Burmeier.com](http://www.Burmeier.com)

## 6.6 REPLACEMENT OF ELECTRICAL COMPONENTS

### 6.6.1 Special safety information on replacing electrical components



Mortal Danger !

#### Danger of death due to electric shock!

- Before commencing any work, unplug the power cable from the electrical socket!
- Any work and/or repairs to the electrical equipment may only be carried out by the Stiegemeyer service engineers, the drive manufacturer or qualified and authorised electricians in compliance with all the relevant VDE and safety regulations!



Danger

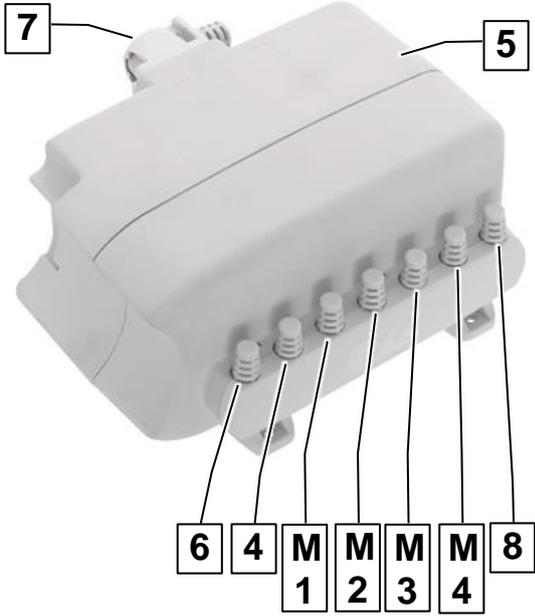
- The bed must be in the home position (with the mattress base horizontal) in order to remove the control unit and the electric drives. Otherwise, there is a danger of crushing due to mattress base sections falling.
- On no account should the user attempt to rectify malfunctions in the electrical system!



- All drive components are maintenance-free and must not be opened. In the event of a malfunction, the corresponding components should always be replaced in full!
- When replacing individual components, always make sure that all plugs are equipped with undamaged O-rings. The plugs have to be aligned with their grooves in accordance with the sockets of the control unit and have to be plugged in all the way. Finally, the plug cover has to be properly fastened again. This is the only way to ensure a proper seal and faultless operation.

### 6.6.2 Plug assignment on the control unit

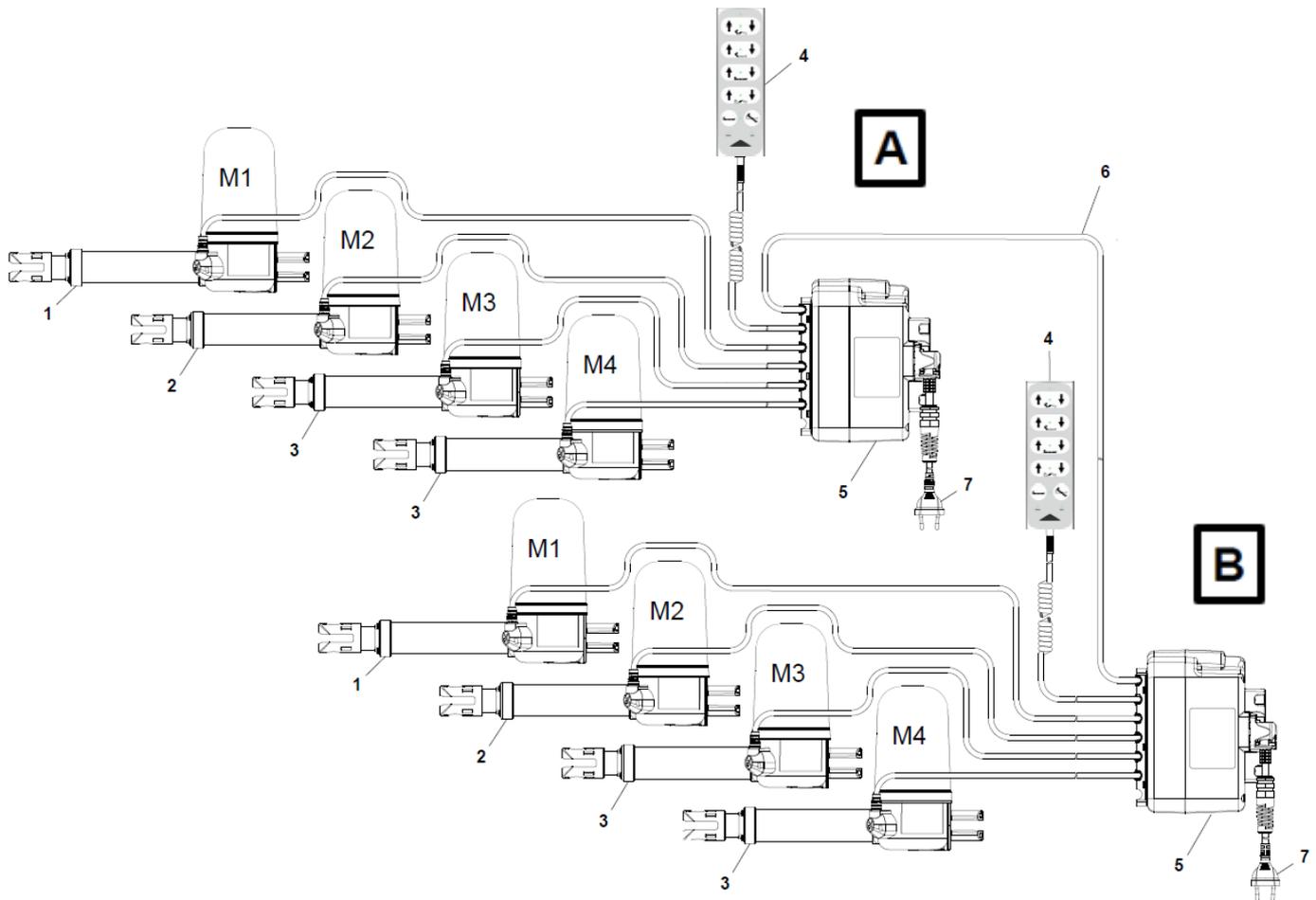
All plugs are connected to the control unit. To prevent the plugs from being inadvertently disconnected, they are secured with a plug cover. Before replacing a plug, lift this cover off carefully using a screwdriver.

	M1	Thigh rest motor [M1]
	M2	Backrest motor [M2]
	M3	Lifting motor 1 [M3]
	M4	Lifting motor 2 [M4]
	5	Control unit
	6	Sync cable/jumper plug*
	7	Mains cable
	8	Not allocated
<p>*: If the partner bed is used as two single beds, a <b>jumper plug</b> must be inserted in the connection socket for the synchronous cable <b>6</b> (on both control units).</p>		



A complete overview of the connections of all electrical components can be found on the next page.

### 6.6.3 Complete overview - Electrical connections of both beds



No./symbol	Description	Quantity in A	Quantity in B	Quantity
<b>A</b>	Bed 1			
<b>B</b>	Bed 2			
<b>1 (M1)</b>	Thigh rest motor	1	1	
<b>2 (M2)</b>	Backrest motor	1	1	
<b>3 (M3) / (M4)</b>	Lifting motors	2	2	
<b>4</b>	Handset	1	1	
<b>5</b>	Control unit	1	1	
<b>6</b>	Sync cable/(jumper plug)			1 / (2)
<b>7</b>	Mains cable	1	1	

#### 6.6.4 Replace the handset

- Carefully lift the plug cover off the plugs on the control unit using a flat-blade screwdriver.
- Unplug the handset plug (HB) from the control unit.
- Plug in the new handset. Make sure that the O-ring on the plug is not damaged. It seals the plug within the control unit.
- When routing the handset cable, ensure that it cannot be damaged by any moving parts of the bed.
- Put the plug cover back in place. This prevents all the plugs from being pulled out of the control unit.

#### 6.6.5 Replace the control unit

- Unplug the mains cable from the socket.
- Carefully lift the plug cover off the plugs on the control unit using a flat-blade screwdriver.
- Mark the plug positions to avoid switching them when they are re-assembled (see Chapter 6.6.2 and 6.6.3).
- Unplug all plugs / connecting cables from the control unit.
- Remove the old control unit from its bracket (four screws) and fit the new control unit in the same way.
- Re-insert all plug connections in the corresponding sockets. Make sure that the O-rings on the plugs are present and undamaged. These seal the plugs within the control unit.
- When routing the handset cable, ensure that it cannot be damaged by any moving parts of the bed.
- Put the plug cover back in place. This prevents all the plugs from being pulled out of the control unit.
- Perform a new initialisation of the control (see Chapter 6.6.7).
- To complete the process, check that all the electrical bed adjustments function properly, in accordance with Chapter 4.3.2!

#### 6.6.6 Replace the motors

- Unplug the mains plug from the electrical socket.
- Remove the faulty motor
  - On lifting motors: Remove safety washers and shoulder bolts.
  - In thigh rest and backrest motors: Remove drop nose clevis pin.
- Unplug the plug-in cable connection on the motor
- Fit the new motor in exactly the same way

- To prevent the motor bolts from working loose and causing potentially hazardous sudden changes in the position of the bed, always ensure that you fit new safety caps (“Starlock”; available from Stiegemeyer’s service department) and do not refit the old safety caps that you removed.
- Applies only for height adjustment motors: Perform a new initialisation of the control (see Chapter 6.6.7).
- After this, check the power adjustment functions (see Chapter 6.3).

### 6.6.7 Initialise the control unit

#### When is this necessary?

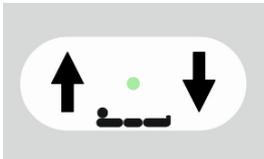
- Before putting the bed into service for the first time
- After replacing the control unit or one or both of the lifting motors
- After changing from single beds to a double bed
- If height adjustment of the mattress base is not possible or only possible to a limited extent



When initialising the control unit, it is important that none of the functions are locked on the handset!

To unlock functions, see Chapter 4.3.2.1, on page 65.

#### How should this be done?

Buttons	Action
	<ul style="list-style-type: none"> <li>• Press both mattress base height adjustment buttons and keep them pressed. <ul style="list-style-type: none"> <li>➢ The bed moves into the highest position</li> <li>➢ Then into the lowest position</li> <li>➢ A beep tone will sound.</li> </ul> </li> </ul> <p>Initialisation is completed.</p>

### 6.6.8 Decommissioning

If the bed is not used for an extended period, please follow the instructions below for taking the bed out of service safely and ensuring ideal conditions for its re-use:

- Clean and disinfect the bed (see Chapter 5) and cover it as a protection against new contamination
- Adjust the mattress base to a horizontal home position at its lowest level
- Lock the electrical adjustment functions to prevent them from being activated accidentally or by unauthorised persons
- Engage the brakes on the bed

Pay attention to the ambient conditions required for storage (see Chapter 9.2.4).

## 7 Troubleshooting

The following table provides a guide for rectifying common malfunctions. Should a malfunction occur that is not included in the table, inform your operator.

Problem	Possible causes	Solution
Handset/drive system not working (Bed connected to power supply)	<ul style="list-style-type: none"> <li>• Power plug not inserted properly</li> <li>• No power supply to mains socket</li> <li>• Plug not inserted properly</li> <li>• Drives are locked</li> <li>• Handset, power plug cable or control unit cable faulty</li> <li>• Sync cable not connected/faulty</li> <li>• When used as single bed: Jumper plug(s) not inserted in control unit(s)/Jumper plugs faulty</li> </ul>	<ul style="list-style-type: none"> <li>• Insert mains power plug; the green LED must light up on the control unit</li> <li>• Check the mains socket and fuse box</li> <li>• Check plug connections</li> <li>• Unlock the functions</li> <li>• Inform the operator for repair</li> <li>• Connect up or replace sync cable</li> <li>• Insert or replace jumper plug</li> </ul>
Handset not functioning, adjustments are enabled	<ul style="list-style-type: none"> <li>• Handset faulty</li> <li>• The control unit has detected a fault and for safety reasons has locked the adjusting functions</li> </ul>	<ul style="list-style-type: none"> <li>• Replace handset.</li> <li>• Perform initialisation; see Chapter 6.6.7. If problem recurs: Have drive system checked. Inform your operator about necessary repairs</li> </ul>
Operation is not possible despite functioning power supply	<ul style="list-style-type: none"> <li>• Control unit has shut down due to overheating</li> <li>• Control unit defective</li> </ul>	<ul style="list-style-type: none"> <li>• Observe max. duty cycle: intermittent duty 2 min ON/18 min OFF; replace the control unit.</li> <li>• Replace the control unit. Inform your operator about necessary repairs</li> </ul>
Drive runs for a brief time only, then stops	<ul style="list-style-type: none"> <li>• Drive overloaded</li> <li>• Structural obstructions in the way of bed adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Remove the overload in the bed, retest</li> <li>• Remove obstructions; move bed away from obstructions (e.g. window sills, sloping roofs)</li> </ul>

Problem	Possible causes	Solution
Control unit partly not functioning;	<ul style="list-style-type: none"> <li>• One or more motors are not properly connected/electrical plug connections are disconnected</li> <li>• There is a serious problem with the control unit. For safety reasons, all functions are locked.</li> </ul>	<ul style="list-style-type: none"> <li>• Check electrical connection of all motors/plug connections;</li> <li>• Perform initialisation; see Chapter 6.6.7. If problem recurs: Have drive system checked. Inform your operator about necessary repairs</li> </ul>
Height adjustments and tilting not possible or only in one direction; signal tone sounds during adjustment	<ul style="list-style-type: none"> <li>• Control unit has “forgotten” the drive positions</li> </ul>	<ul style="list-style-type: none"> <li>• Perform initialisation; see Chapter 6.6.7.</li> </ul>

## 8 Accessories

A wide range of accessories is available for this bed, and we are continually extending this range.



### Risk of injury

- Efficient and safe operation combined with maximum protection of patients can only be guaranteed if original Burmeier accessories are used which are designed for the relevant model of bed.
- In addition to the information given in this instruction manual, please also refer in this respect to the separate special instruction manuals supplied with certain accessories
- Make sure that the arrangement of accessories does not produce any crush or shearing zones for the resident when the backrest and leg rest are adjusted. If this cannot be guaranteed, the user must safely prevent the resident from adjusting the backrest and leg rest:  
Place the handset out of reach (e.g. at the foot end of the bed) or lock the handset adjustment options.



### Preventing damage to property

In order to minimise any potential damage to property, please read and refer to the following general information on selecting and attaching accessories:

- Attach accessories only while these are required and only at the positions intended for them in such a way as to avoid damaging the surfaces of the bed and accessories.
- Avoid, for example, chafing or the unprotected attachment of metal clamps to coated or varnished surfaces
- Please note when moving the bed that attached accessories may extend beyond the height, width or length of the bed and so may collide more easily with door frames, corners of walls and other obstructions
- In the case of very long accessories such as patient lifting poles, infusion poles, extensions, mobilisation aids, etc., avoid applying high lateral forces, such as are possible with this bed design, such as by manoeuvring the bed using the infusion pole. This will prevent any overloading of the fixing points.

Up-to-date lists of accessories can be obtained from Burmeier and their sales partners. Please quote the bed model. Here are some examples of accessories:

Patient lifting pole with grab handle	LED reading lamps, various	Protective covers for safety sides
Infusion stand/holder	Wall spacers	

## 9 Technical data

### 9.1 DIMENSIONS AND WEIGHTS (SINGLE BED)



The following information refers to one half of the bed.

Mattress base (LxW)	200 x 90 cm (standard) (optional equipment: 220 x 90 cm) with bed extension
Empty weight	135 kg
Safe working load	225 kg
Total weight of the bed	360 kg, maximum
Max. mattress dimensions * (LxWxH)	LxW: same dimensions as mattress base Max. height: see Chapter 3.3
External dimensions (LxW)	209.4 x 100.3 cm (for 200 cm mattress base length)

\* More information about mattress:

Length x width	200 x 90 cm;
Height	10 - 19 cm (for standard mattress base) 10 - 15 cm (for comfort mattress base)
Foam rubber density	min. 38 kg/m <sup>3</sup>
Compression hardness (in edge zone)	min. 4.5 kPa
Applicable standards:	DIN 13014 DIN 597 Part 1 and 2

#### Dismantled bed

Head and footboard (wooden surround)	14 kg each
Chassis, including motors	65.5 kg
Mattress base without motors	38 kg
Telescopic safety side (TSG)	6 kg/each
Patient lifting pole	5 kg
Side panel	4.2 kg

## 9.2 TECHNICAL DATA

### 9.2.1 Electrical data

This qualifies the bed as a protection class II device, and the bed therefore has no earth connection.

#### Control unit

Type	Dewert MCL2 DCC
Operating voltage	29 V DC
Output current	max. DC 9.5 A
Input voltage	100-240 V ~ ; 50/60 Hz
Duty cycle	Intermittent duty 2 min ON / 18 min OFF
Protection category	IP X6
Classification	not for use in explosive atmospheres

#### Handset

(Use only in conjunction with control MCL2 DCC)

Type	DEWERT IPROXX II
Protection category	IP X6
Input voltage	DC 24 V

#### Electric motor for mattress base height

Type	DEWERT Megamat 2
Force/lift	6,000 N / 250 mm
Input voltage	DC 24 V
Protection category	Intermittent duty: 2 min ON / 18 min OFF
Duty cycle	IP X4

**Electric backrest motor**

Type	DEWERT Megamat 2
Force/lift	4,000 N / 200 mm
Input voltage	DC 24 V
Protection category	Intermittent duty: 2 min ON / 18 min OFF
Duty cycle	IP X4

**Electric motor for thigh rest**

Type	DEWERT Megamat 2
Force/lift	4,000 N / 70 mm
Input voltage	DC 24 V
Protection category	Intermittent duty: 2 min ON / 18 min OFF
Duty cycle	IP X4

**Noise level**

Noise level during adjustments	max. 48 dB(A)
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### 9.2.2 Type plate – electrical data

The following type plate with bed-specific electrical data and other symbols is attached to the bed.

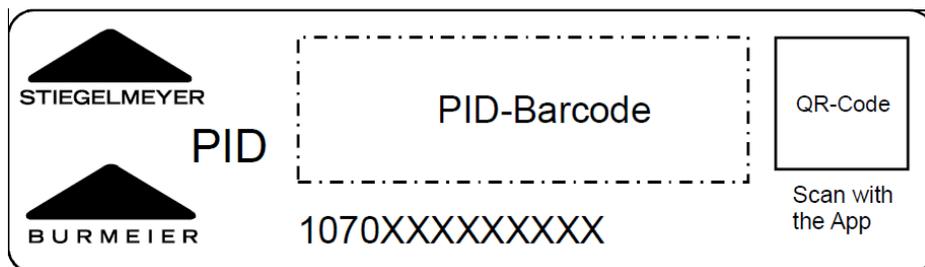


Example

Symbol	Meaning
	Device with type BF applied part in accordance with IEC 60601-1 (special protection against electric shock)
	Protection Class II device, double insulation
	Only for use in enclosed spaces – do not use outdoors
	Dispose of electrical components in accordance with the WEEE Directive. Do not dispose of as household waste!
<b>IP X4</b>	Protection of electrical equipment from water splashing from any direction

### 9.2.3 PID bar code

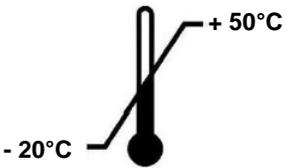
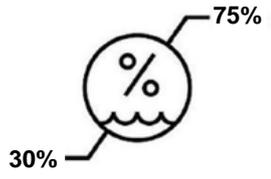
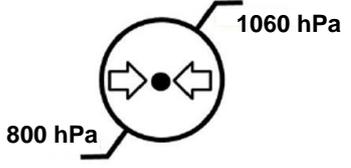
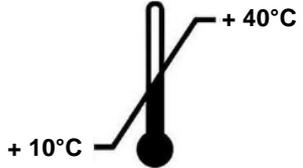
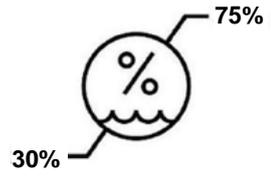
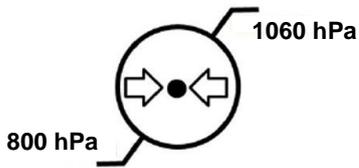
The additional PID bar code on the bed includes a number that clearly identifies each particular bed.



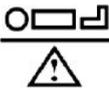
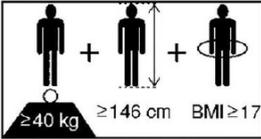
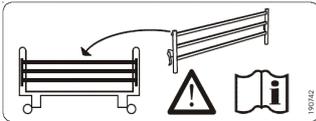
Example

### 9.2.4 Ambient conditions

The ambient conditions stated below must be maintained:

<b>For storage/transport:</b>		
Storage temperature	min. -20°C, max.+50°C	
Relative air humidity, (non-condensing)	min. 30% max. 75%	
Air pressure (at altitude ≤ 3000 m)	min. 800 hPa max. 1060 hPa	
<b>In operation:</b>		
Ambient temperature	min. +10°C, max. +40°C	
Relative air humidity, (non-condensing)	min. 30% max. 75%	
Air pressure (at altitude ≤ 3000 m)	min. 800 hPa max. 1060 hPa	

### 9.2.5 Other labelling on the product

Symbol	Meaning
	Caution! Follow the operating instructions
	Conformity mark according to Medical Devices REGULATION (EU) 2017/745 (MDR)
	Safe working load
	Permissible weight of patient
	Minimum resident measurements/weight: Height: 146 cm, weight: 40 kg; body mass index "BMI": 17
	Only use mattresses that are approved by the manufacturer.
	Lock the handset if the resident could be at risk due to inadvertent motorised adjustments
	Only use external safety sides that are approved by the manufacturer.

### 9.3 INFORMATION ON ELECTROMAGNETIC COMPATIBILITY (EMC)

To ensure electromagnetically interference-free operation, only use cables and accessories that are approved by the manufacturer (see also the chapter “Replacement Parts; Accessories” in the instruction manual for the bed) as replacement parts.

For the intended use as described in the main instruction manual, no significant performance limitations during the service life of this bed are known/expected as a result of possible electromagnetic interference from neighbouring devices.

 Warning	<ul style="list-style-type: none"> <li>– The use of accessories, transducers and cables other than those supplied by the manufacturer of this bed may result in increased electromagnetic emissions or reduced electromagnetic immunity of the bed and may lead to incorrect operation.</li> <li>– The use of this device next to other devices should be avoided, as this could result in incorrect operation. If such use is nevertheless necessary, this device and the other devices should be monitored to ensure that they are working properly.</li> <li>– Portable RF communication devices (radio, mobile phones, etc.), including their accessories (such as antenna cables and external antennas) should not be used at a distance of less than 30 cm from the electrical parts and cables of this bed. Failure to observe this may result in a reduction in the performance of the device.</li> </ul>
 Warning	<ul style="list-style-type: none"> <li>– The bed is intended for use in the electromagnetic environment described below. The operator or user of the bed should ensure that it is used in such an environment.</li> </ul>

This device is compliant with the following EMC standards regarding interference emissions and immunity:

Ambient limit values of the interference emissions		
Phenomenon	Professional healthcare facilities	Home healthcare environment
Conducted and radiated interference emissions	CISPR 11	CISPR 11, Group 1; Class B
Harmonic distortions	See IEC 61000-3-2	see IEC 61000-3-2, Class A
Voltage fluctuations and flicker	See IEC 61000-3-3	See IEC 61000-3-3

Sheathing			
Phenomenon	EMC basic standard or test method	Immunity test level	
		Professional healthcare facilities	Home healthcare environment
Electrostatic discharge (ESD)	IEC 61000-4-2	+/- 8 kV contact	
		+/- 2 kV, +/- 4 kV, +/- 8 kV, +/- 15 kV; +/- 25 kV air	
High-frequency electromagnetic fields	IEC 61000-4-3	3 V/m; 80 MHz up to 2.7 GHz; 80% AM at 1 kHz	10 V/m; (80 MHz up to 2.7 GHz; 80% AM at 1 kHz)
High-frequency electromagnetic fields in the immediate vicinity of wireless communication devices	IEC 61000-4-3	See separate table zz (at the end of this chapter)	
Magnetic fields with rated power frequencies	IEC 61000-4-8	30 A/m; 50 Hz or 60 Hz	

AC port for supply input			
Phenomenon	EMC basic standard	Immunity test level	
		Professional healthcare facilities	Home healthcare environment
Electrical fast transients / bursts	IEC 61000-4-4	+/- 2 kV; 100 kHz repetition frequency	
Electrical surges: conductor to earth	IEC 61000-4-5	+/- 0,5 kV; +/- 1kV; +/- 2 kV;	
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V; 0.15 MHz to 80 MHz; 6V in ISM frequency bands between 0.15 MHz and 80MHz 80% AM at 1 kHz	3 V; 0.15 MHz to 80 MHz; 6V in ISM and amateur radio frequency bands between 0.15 MHz and 80MHz 80% AM at 1 kHz
Voltage dips	IEC 61000-4-11	0% U <sub>T</sub> ; ½ cycle; at 0, 45, 90, 135, 180, 225, 270 and 315 degrees	
		0% U <sub>T</sub> ; 1 cycle; and 70% U <sub>T</sub> ; 25/30 cycles; single-phase at 0 degrees	
Voltage interruptions	IEC 61000-4-11	0% U <sub>T</sub> ; 250/300 cycles	

<b>DC port for supply input</b>			
<b>Phenomenon</b>	<b>EMC basic standard</b>	<b>Immunity test level</b>	
		<b>Professional healthcare facilities</b>	<b>Home healthcare environment</b>
Electrical fast transients / bursts	IEC 61000-4-4	+/- 2 kV; 100 kHz repetition frequency	
Electrical surges: conductor to conductor	IEC 61000-4-5	+/- 0.5 kV; +/- 1kV;	
Electrical surges: conductor to earth	IEC 61000-4-5	+/- 0.5 kV; +/- 1kV; +/- 2 kV;	
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V; 0.15 MHz to 80 MHz; 6V in ISM frequency bands between 0.15 MHz and 80MHz 80% AM at 1 kHz	3 V; 0.15 MHz to 80 MHz; 6V in ISM and amateur radio frequency bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz

<b>Patients' connection ports</b>			
<b>Phenomenon</b>	<b>EMC basic standard</b>	<b>Immunity test level</b>	
		<b>Professional healthcare facilities</b>	<b>Home healthcare environment</b>
Electrostatic discharge (ESD)	IEC 61000-4-2	+/- 8 kV; contact +/- 2 kV, +/- 4 kV, +/- 8 kV, +/- 15 kV; +/- 25kV air	
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V; 0.15 MHz to 80 MHz; 6V in ISM frequency bands between 0.15 MHz and 80MHz 80% AM at 1 kHz	3 V; 0.15 MHz to 80 MHz; 6V in ISM and amateur radio frequency bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz

<b>Ports for signal input/signal output parts</b>			
<b>Phenomenon</b>	<b>EMC basic standard</b>	<b>Immunity test level</b>	
		<b>Professional healthcare facilities</b>	<b>Home healthcare environment</b>
Electrostatic discharge (ESD)	IEC 61000-4-2	+/- 8 kV; contact +/- 2 kV, +/- 4 kV, +/- 8 kV, +/- 15 kV; +/- 25kV air	
Electrical fast transients / bursts	IEC 61000-4-4	+/- 1 kV; 100 kHz repetition frequency	
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V; 0.15 MHz to 80 MHz; 6V in ISM frequency bands between 0.15 MHz and 80MHz 80% AM at 1 kHz	3 V; 0.15 MHz to 80 MHz; 6V in ISM and amateur radio frequency bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz

Table zz: Test specifications for the immunity of sheathings to high-frequency wireless communication equipment						
Test frequency MHz	Frequency band	Radio service	Modulation	Max. power W	Distance m	Immunity test level v/m
385	380 to 390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27
450	430 to 470	GMRS 460 FRS 460	FM +/- 5% deviation, 1kHz sine wave	2	0.3	28
710	704 to 787	LTE band 13, 17	Pulse modulation 217 Hz	0.2	0.3	28
745						
780						
810	800 to 960	GSM 800/900 TETRA 800 iDEN820, CDMA 850, LTE band 5	Pulse modulation 18 Hz	2	0.3	28
870						
930						
1720	1700 to 1990	GSM 1800 CDMA 1900, GSM 1900, DECT, LTE band 1; 3; 4; 25; UMTS	Pulse modulation 217 Hz	2	0.3	28
1845						
1970						
2450	2400 to 2570	Bluetooth, WLAN 802.11 b/g/n, RFID 2450, LTE band 7	Pulse modulation 217 Hz	2	0.3	28
5240	5100 to 5800	WLAN 802.11 a/n	Pulse modulation 217Hz	0.2	0.3	9

## 9.4 CLASSIFICATION

- This bed fulfils all the requirements of the Medical Device Regulation (EU) 2017/745 (MDR)
- This bed is classified as a Class I active medical device (in accordance with the Medical Devices Act § 13).
- For use in the following application groups according to DIN EN 60601-2-52:

3:	Long-term care in a medical facility in which medical supervision is required and monitoring is provided if required. A medical electrical device used in medical procedures can be provided to help maintain or improve the condition of the resident. (e.g. retirement and nursing homes, rehabilitation facilities and geriatric institutions)
4:	Care in the home. A medical electrical device is used to alleviate or compensate for injuries, disabilities or illnesses.

- Active medical device; equipment with type BF applied part.
- Basic UDI-DI: 40470372666800KS
- UMDNS code: Beds, electric 10-347

## 10 Disposal instructions

- The operator must ensure that all components of the bed that are to be disposed of are not infectious or contaminated.
- If the bed is to be scrapped, the synthetic and metal parts are to be separated and disposed of properly.
- If you have any queries, you can contact your local municipal waste company or our service department. The address is given in Chapter 6.5.

### Disposal of electrical parts



- This bed – insofar as it is electrically adjustable – is classified as commercially used electrical equipment (B2B) in accordance with the WEEE Directive 2012/19/EC (implemented in Germany in the law governing electrical equipment).
- The electrical components used are free from prohibited hazardous substances in compliance with the RoHS-II Directive 2011/65/EU.
- Replaced electrical components (actuators, control units, handsets, etc.) must be treated as electric scrap (in accordance with the WEEE Directive) and disposed of properly accordingly.
- The operator of this bed is legally obliged to send the electrical components directly to the manufacturer and not to dispose of them at municipal waste collection points. BURMEIER and its service and sales partners will take these components back.
- The return of these components is covered by our General Terms and Conditions.

### Disposal of rechargeable batteries



- Batteries which are no longer usable and have been removed must be disposed of properly in accordance with the battery regulations as set out in directive 2006/66/EC and do not belong in household waste.
- If you have any queries, you can contact your local municipal waste company or our service centre see Chapter 6.5.

In other countries outside Germany or the EU, the relevant national regulations must be complied with.

## 11 Declaration of conformity

We, Burmeier GmbH & Co. KG, in our sole responsibility as the manufacturer, hereby declare that this product complies with the provisions of REGULATION (EU) 2017/745 OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of 5 April 2017 (MDR).

The full latest version of the declaration of conformity is available on request from our customer centre (for contact details please refer to the Chapter 6.5) or go to the dealer area on our website.



Notes:

Your responsible medical supply store:

Published by:

**Burmeier GmbH & Co. KG**

(A Stieglmeyer-Group company)

Pivitsheider Straße 270; • D - 32791 Lage/Lippe

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