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# Instruction manual

Assembly and operation

## VitalFlex Elite LTC Bed



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**Please read and observe these operating instructions before each use!**  
**If you change ownership, please include this instruction manual!**



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## Foreword

Dear customer,

The Vital Mobility team would like to thank you for the trust you have placed in our VitalFlex Elite LTC Bed.

With the decision to purchase a care bed from Vital Mobility you receive a care product with high functionality at the highest safety level.

With the purchased care bed, we can guarantee you optimal lying comfort.  
All beds are carefully checked by our staff before delivery.

The healthcare bed delivered to you has left our building in perfect condition.  
When you receive the healthcare bed, the responsibility for its proper and intended operation also passes to you at the same time.

These instructions for use inform you as the operator and your users in their daily work about the functioning and safe handling of the healthcare bed.

Please always keep the instructions for use at hand near the nursing bed.  
We are convinced that our product will make a positive contribution to your care.

Best regards  
Your Vital Mobility Team

## 1 General information

Before the first use:

Read the instructions for use conscientiously and completely!



Please pay particular attention to the various safety instructions. The care bed should be cleaned and disinfected before first use and before each re-use.

Vital Mobility healthcare beds have been tested according to international standards, which include the safety requirements for medical devices.

However, these safety requirements can only be met if the user is convinced of the proper condition before using the healthcare bed (including accessories).

### 1.1 Explanation of the symbols used

In these operating instructions, important information is indicated by the following symbols:



Read information with this symbol carefully and observe it urgently. This information is relevant to safety.



This symbol warns of dangerous voltage. There is a danger to life!



This symbol warns of general dangers. There is danger to life and health.



Mark of conformity according to Medical Devices Directive (93/42/EEC)

**IPX4**

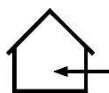
Protection of electrical equipment against splashing water



Symbol for device of protection class II, double protective insulation



Symbol for type B application part according to DIN EN 60601-1



The nursing bed may only be used indoors.



The product must be collected separately. Disposal with normal household waste is not permitted.



Symbol for DC



Symbol for AC



Symbol for safe working load



Symbol for maximum patient weight



Symbol for reading instruction manual

## 1.2 Explanation of the designated groups of persons

### Operator

The operator of a medical device is any natural or legal person who is responsible for the operation of the health facility in which the medical device is operated or used by its employees. Contrary to sentence 1, the operator of a medical device which is owned by a member of the medical profession or the medical industry and which is brought into a health facility by this member for use is the relevant member of the medical profession or the medical industry. A person is also considered to be an operator if he keeps medical devices ready for use outside of health facilities in his company or facility or in public space.

### ***Requirements to be met by the operator***

- The VitalFlex Elite LTC healthcare bed is a medical device and may only be operated and used in accordance with its intended purpose as the generally recognized rules of technology.
- Only instructed persons to use this medical device who have the necessary training or knowledge and experience and who have been instructed in the medical device to be used.
- Instruct the user in the proper handling of this medical device and document the instruction in an appropriate form.
- A combination with other medical devices (including accessories) or with other objects may only be operated and used if they are suitable for use in this combination, considering the intended purpose and the safety of patients, users, employees or third parties.



## User

The user is anyone who uses a medical device on a patient.

### ***User requirements***

- Use the VitalFlex Elite healthcare bed only as intended and in accordance with these instructions for use.
- Only use this product if you have been properly instructed in its use and have the necessary training or knowledge and experience.  
(e.g. nursing staff).
- Before using the VitalFlex Elite, make sure that it is in good working order and condition.
- Observe the Instruction Manual and other safety-related information enclosed.

## Patient / Resident

In these instructions for use, a patient is defined as a person who needs nursing care due to his or her illness, disability or age and is lying in a healthcare bed.

## Qualified personnel

The operator's employees who are authorized to deliver, assemble, dismantle and transport the healthcare bed on the basis of their training or instruction are referred to as qualified personnel. In addition, these persons are instructed in the instructions for cleaning and disinfecting the healthcare bed.

## 2 Intended purpose

### **2.1 Intended use (application environment)**

The VitalFlex Elite nursing bed is designed for the storage of adults with a body height from 150cm and a body weight from 40kg to max. 200kg. It is suitable for use in retirement homes, nursing homes and in home care - and may only be operated under the operating conditions described in these operating instructions.

VitalFlex Elite beds are intended to alleviate or compensate for disability or incapacity and to facilitate working conditions for the caregiver. Any other use is considered improper and is excluded from possible responsibility.

**Attention:** The VitalFlex Elite nursing bed is **not** designed for use in **hospitals** and is **not** suitable for applications with **medical electrical equipment**.

It is not EX-protected and must not be operated in hazardous areas.

The nursing bed is only suitable for transporting patients within the patient's room and with the lying surface adjusted to the lowest horizontal position.

The VitalFlex Elite can under certain circumstances be operated for medical purposes with other electrical medical devices such as anti-decubitus systems, oxygen concentrators, nutrition systems, etc. In this case, all **bed functions** must be **deactivated** for safety reasons for the duration of use via the **integrated locking device** on the hand control.

If cables from other devices are routed in the care bed, precautions must be taken to prevent these cables from being crushed between parts of the care bed.



## 2.2 Unauthorized use

All uses deviating from the intended use, which can then also lead to hazards.

These include, for example:

- The load on the healthcare bed exceeds the permissible safe working load (see par. 13.1 and nameplate on the bed frame)
- Operation of the care bed by the patient or resident who has not received any instruction.
- Use of the care bed for children.
- Try to move the nursing bed in the braked position.
- Use of the nursing bed on a non-horizontal surface (max. inclination 5°)

## 3 General provisions for the user

The nursing bed may only be used for its intended purpose.

When erecting, operating, and using the bed, it must comply with the generally recognized rules of technology as well as the occupational health and safety and accident prevention regulations.


If the nursing bed is in a faulty condition in which the patient / occupant, nursing staff or third parties could be endangered, operation must not be started.


### 3.1 User qualification


The healthcare bed may only be operated by persons who have the appropriate training or experience for proper handling.


## 4 Safety instructions


### 4.1 General safety instructions

 Possible potential dangers which may occur despite proper operation must be pointed out separately during the instruction. Before initial operation, the user/care personnel must read the operating instructions carefully and in detail.

 No objects or body parts of persons may be in the movement area of the bed while the adjustment functions are being actuated. Risk of being crushed!

 Ensure that the nursing bed cannot be operated by children playing and that there are no pets under the bed when the bed is adjusted.









 If the psychological or mental condition of the patient requires it, the hand control must be locked via the lock switch on the back of the hand control (nurse key). The locking function is described in detail in par. 7.3. For this patient group it may also be necessary to place the hand control outside the patient's access area to avoid the danger of strangulation by cables.

 Bed adjustments may only be carried out by instructed persons or in the presence of an instructed person.

If a possibly necessary side guard (side rail) is used, pay particular attention to the following instructions:

 Only use side rails approved by Vital Mobility as optional accessories.

 Only instructed personnel may operate the side rails.

-  Side rails may only be fully raised and locked or fully lowered.
-  When lowering the side rails, take care not to drop them.
-  No parts of the patient's body may protrude over the lying surface or touch the side rails while the adjustment function is being actuated.
-  The side rails only offer protection against rolling out when the backrest and knee adjustment are in the horizontal position.
-  Under no circumstances should side rails be used improperly (e.g. for climbing over or supporting).
-  The distance between the top edge of the side rail and the top of the mattress in non-compressed condition must be at least 22 cm. If the distance is less than the specified minimum, use a side rail elevation.
-  The distance between two side rail segments or between the lower edge of the side rail element and the upper edge of the bed frame must be less than 12 cm.
-  When in use, the side rails must not remain in a diagonal position.



**Before moving the bed, disconnect the mains plug from the socket and ensure that the mains plug does not touch the floor during movement.**

**The mains plug should always be accessible so that in an emergency the device can be disconnected from the mains supply by pulling it out of the socket.**



**The mains cable must be exposed and must not be jammed, as it is carried along when the healthcare bed is adjusted in height. Otherwise, the mains cable may be torn out of its strain relief and damaged. In addition, the mains plug can be torn out of the socket and expose electrical cores.**

**Cables from other devices used in the VitalFlex Elite must not be pinched, squeezed, or pulled by the functions of the care bed. Take appropriate precautions.**



**If the mains supply cable or the mains plug is damaged, the complete supply cable with plug must be replaced. The work may only be carried out by the manufacturer or authorized specialists.**



**Do not use multiple sockets to connect the mains plug, as liquids could penetrate (fire hazard and electrical shock).**

**Before cleaning and disinfecting the care bed, the mains plug must be disconnected from the mains and securely hung up. The plugs for the handset and the motors which are plugged into the control unit on the lying surface drive must be plugged in. This is necessary so that water cannot penetrate the control unit.**



**The maximum duty cycle and safe working load must not be exceeded, otherwise safe operation is no longer guaranteed (see technical data).**

**The VitalFlex Elite nursing bed must not be used in potentially explosive areas.**

**The nursing bed may only be dismantled if there is no patient or occupant in it.**

## **4.2 Safety instructions for the operator**



Use these operating instructions to instruct each user on safe operation before initial use.

Inform the user of any hazards that may exist if the device is not handled properly.

Only instructed persons may operate the nursing bed. This also applies to persons who only operate the healthcare bed as representatives.

For long-term use of the systems, function checks and visible damage must be carried out and documented at least once a year (see chapter 10.2).

## **4.3 Safety instructions for the user**

Let the operator instruct you in the safe operation of the nursing bed.

Observe the general safety instructions as described in para. 4.1.

Bed adjustments may only be carried out by instructed persons or in the presence of an instructed person.

Move the lying surface to the lowest position if you leave the nursing bed unattended with the patient. This reduces the risk of injury to the patient when getting in and out.

If malfunction or damage is suspected, immediately unplug the power cord from the outlet. Mark the care bed as a "defect" and take it out of operation. After that, please inform the responsible operator immediately.

## 4.4 Cleaning and disinfection



Before cleaning and disinfection, the mains plug must be disconnected from the mains and securely hung up. The plug for the handset and the motors, which are plugged into the control at the lying surface drive, must be plugged in. This is necessary so that no water can penetrate the control unit.

Do not immerse the electrical components in water, but only wipe them off with a damp cloth.



The electrical components must not be sprayed with a high-pressure cleaner or water jet. Only wipe disinfection is permitted.

To avoid skin irritation, always wear liquid-impermeable gloves during cleaning and disinfection work.



**Attention: When spray disinfecting with alcohol-containing agents, there is a risk of explosion and fire when used over large areas.**

## 4.5 Maintenance and repair



Maintenance measures (inspection and maintenance) and maintenance (repair) may only be carried out by persons who have at least read the safety regulations and followed these operating instructions.



To detect possible defects in time and to ensure safe use, a technical check (visual and functional check) must be carried out by qualified personnel at least once a year according to the maintenance schedule (see chapter 10.2) after a longer period of inactivity and before each reuse.



If the tests reveal errors, damage or defects, the VitalFlex Elite may no longer be operated. Maintenance of the VitalFlex Elite must be carried out by qualified personnel.



Only original spare parts and accessories of the manufacturer may be used, otherwise all warranty and product responsibility are excluded.



The 9V block battery is the energy storage device for electrical emergency lowering in the event of a power failure. The energy storage is sufficient for max. one emergency lowering and must then be replaced. If the expiry date of the batteries has exceeded, they must also be replaced immediately. As batteries are self-discharging, it is recommended to replace them every two years if they are not used. Make sure that this is an alkaline manganese battery of type 6LR61 and that only this type may be used. Empty batteries must be disposed of in an environmentally friendly manner.

## 4.6 Accessories / Options



An erector is supplied as an accessory whose safe working load of 80 kg must not be exceeded. The trapeze bar is not used to lift persons but makes it easier to change from a lying position to a sitting position or to change the position. The trapeze bar must not be swiveled outside the bed and must only be used within its permissible adjustment range, which is defined by the tube holder on the bed. Otherwise, the bed may tip over completely and lead to serious injuries.

Please only use mattresses that are compatible with the side rails supplied. The distance between the mattress surface in the non-compressed state and the upper edge of the upper side rail must be at least 22 cm. If the distance is less than this, a side guard must be used. As a rule, a mattress thickness of 12 cm to 16.5 cm is suitable when using the undivided wooden side rails. When using the split side rails, a maximum mattress thickness of 17.5 cm may be used.



Make sure that the dimensions of the mattress correspond to the dimensions of the lying surface of your healthcare bed.

## 4.7 Electromagnetic compatibility

The electric drives meet the requirements of EN 60601-1-2:2007 regarding their interference emission and immunity (see chapter 13.7). However, electrical devices may interfere with each other. In this case, switch off the nursing bed briefly or remove the source of interference.

## 4.8 Storage

If the nursing bed will be stored for a longer period, the 9V block batteries should be removed as a precaution in order to avoid damage to the bed due to possible leakage of liquid.

## 4.9 Useful life and disposal

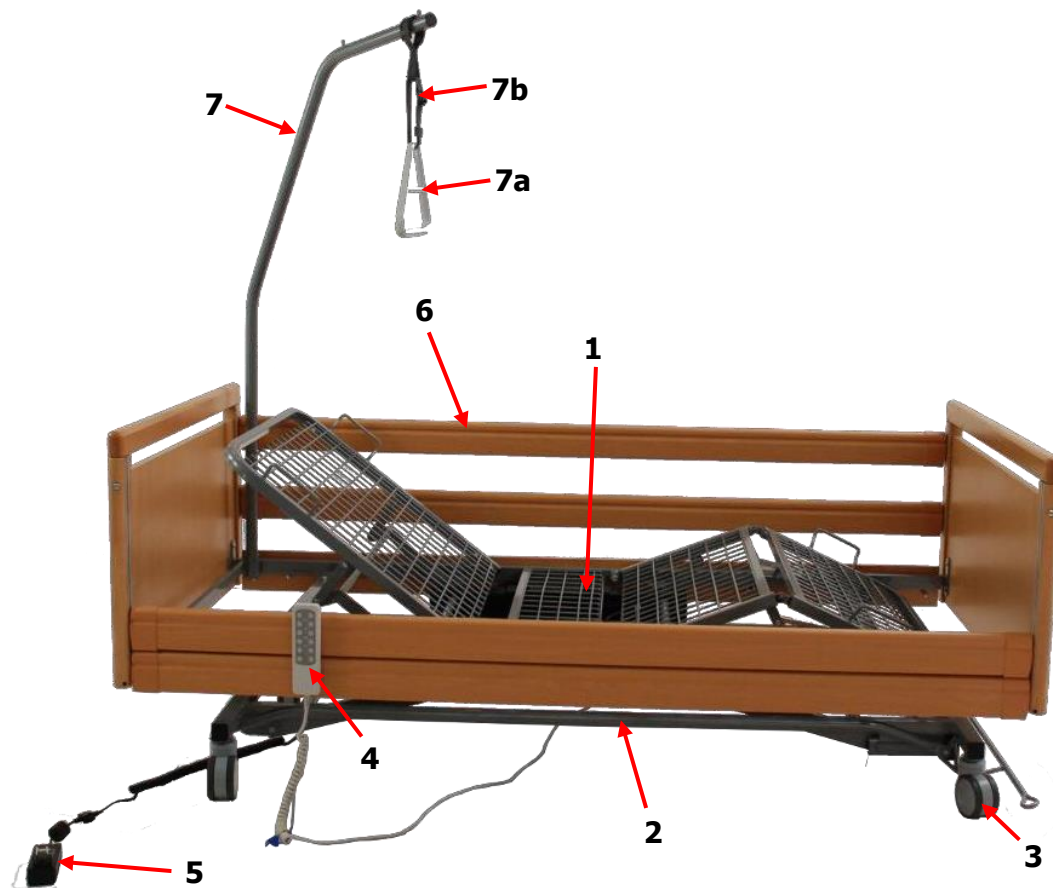


The service life for beds in domestic areas is assumed to be approx. 5 years. The nursing bed must not be disposed of with normal household waste at the end of its service life. For environmentally friendly disposal, please contact your local authority or Vital Mobility.

## 5 Control of delivery and scope of delivery

On receipt of the delivery and before commissioning, check whether the nursing bed is damaged. Complain visible damage immediately to the delivering company.

After unpacking, please check that the delivery is complete. You will receive a fully assembled care bed consisting of the following parts:



- (1) Adjustable lying surface with mounted adjustment drives
- (2) Lifting frame with two mounted lift drives for height adjustment
- (3) Track rollers with central brake
- (4) Hand switch with locking device
- (5) SMPS power supply with power cable
- (6) Four mounted wooden side rails with eight plastic side rail end caps (beige)
- (7) Optional: trapeze with triangle handle (7a) and strap (7b)
- (8) Instruction manual (without illustration)

## 6 Assembly and commissioning

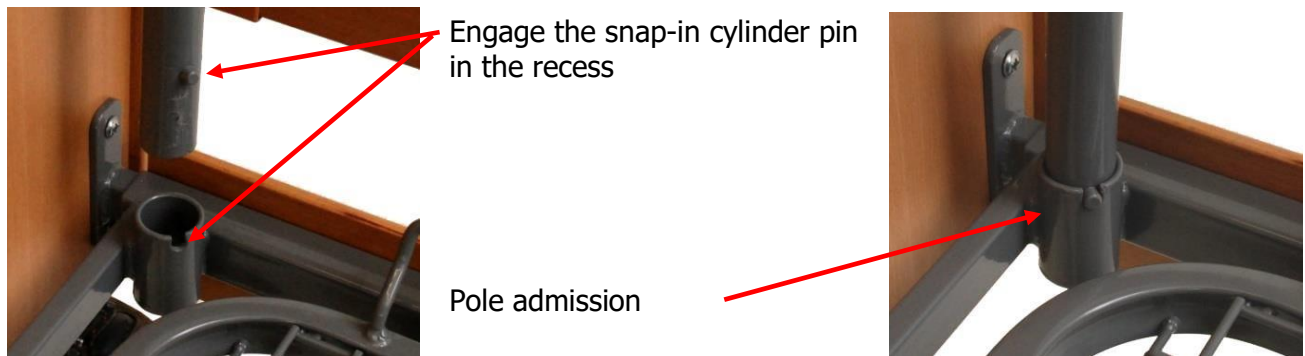
**Note:** The VitalFlex Elite LTC bed is supplied fully assembled.

### 6.1 Assembly of the trapeze (optional)

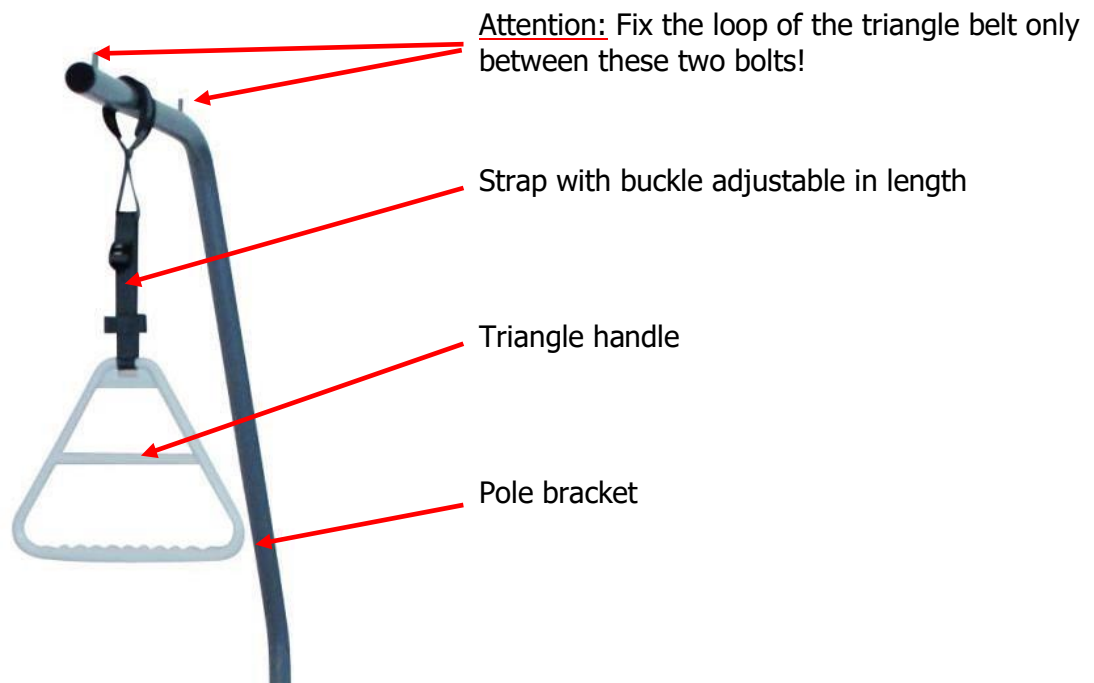
With the help of the trapeze, the patient can stand up and move more easily into another position. A triangle handle is attached to the trapeze pole.


Insert the pole bow (optional) into the erecting fixture in the lying surface. Make sure that the locking cylinder pin engages in the recess of the erecting fixture.

 **Attention: The erecting bracket must not be used outside the latching mechanism.**



Slide the fixed loop of the triangle belt over the first bolt of the erector and check its secure hold by pulling the triangle handle firmly downwards.

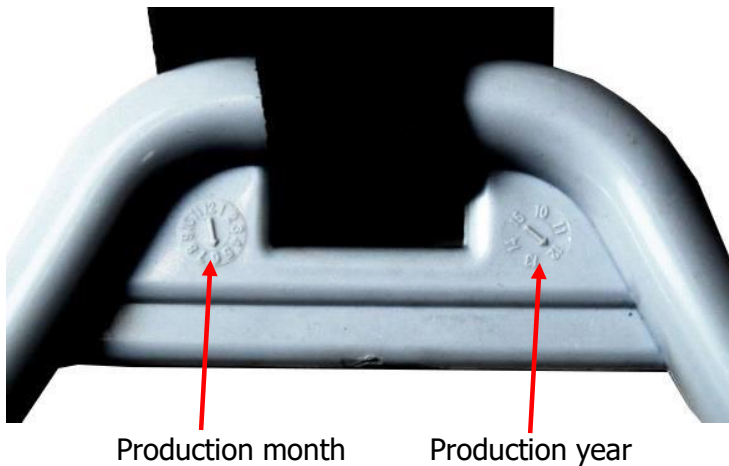


 After receipt of the series delivery, reassemble the trapeze and the pole socket, as the diameter may differ.

The length of the strap of the triangle handle can be adjusted by the buckle. Select an adjustment that allows the user to easily reach the handle when lying down (usually between 55-70 cm measured from the upper edge of the mattress).

Make sure that the belt is securely fastened again.

The triangle handle has a durability of at least 5 years with normal use. (see embossing of production date). It is then recommended to replace the triangle handle.



## 6.2 Commissioning

Connecting the nursing bed to the mains socket  
Insert the mains plug into the socket.



The mains plug should always be accessible so that in an emergency the system can be disconnected from the mains supply by pulling it out of the socket. The electric actuators are now ready for operation.

The VitalFlex Elite LTC bed is ready for operation after it has been successfully installed and all steps from chapter 6, paras. 6.1 and 6.2 have been observed.

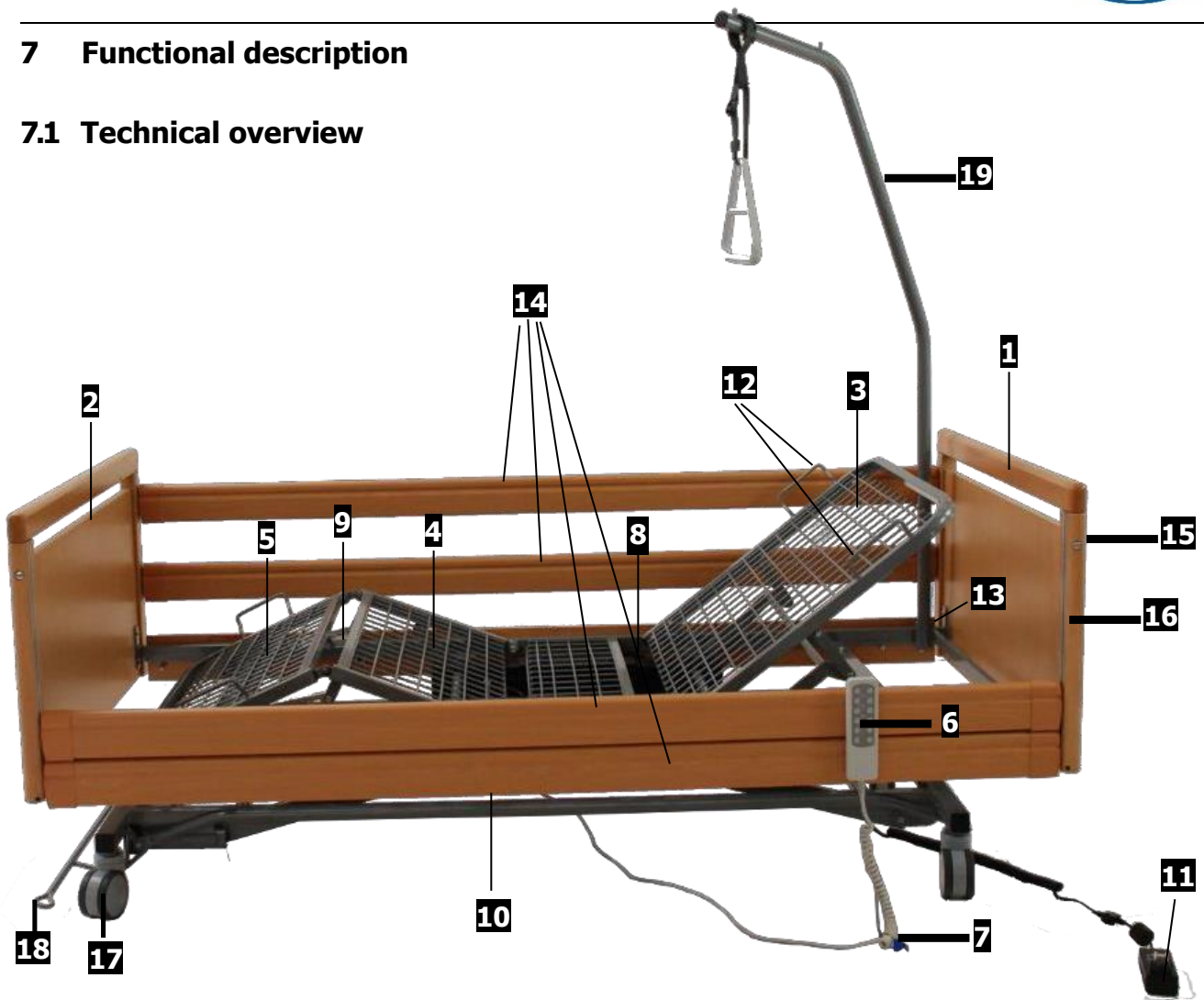
Once the VitalFlex Elite has been installed, carry out a check in accordance with Chapter 10, Para. 10.2.

Clean and disinfect the bed before using it for the first time and before each use according to chapter 8.



## 7 Functional description

### 7.1 Technical overview

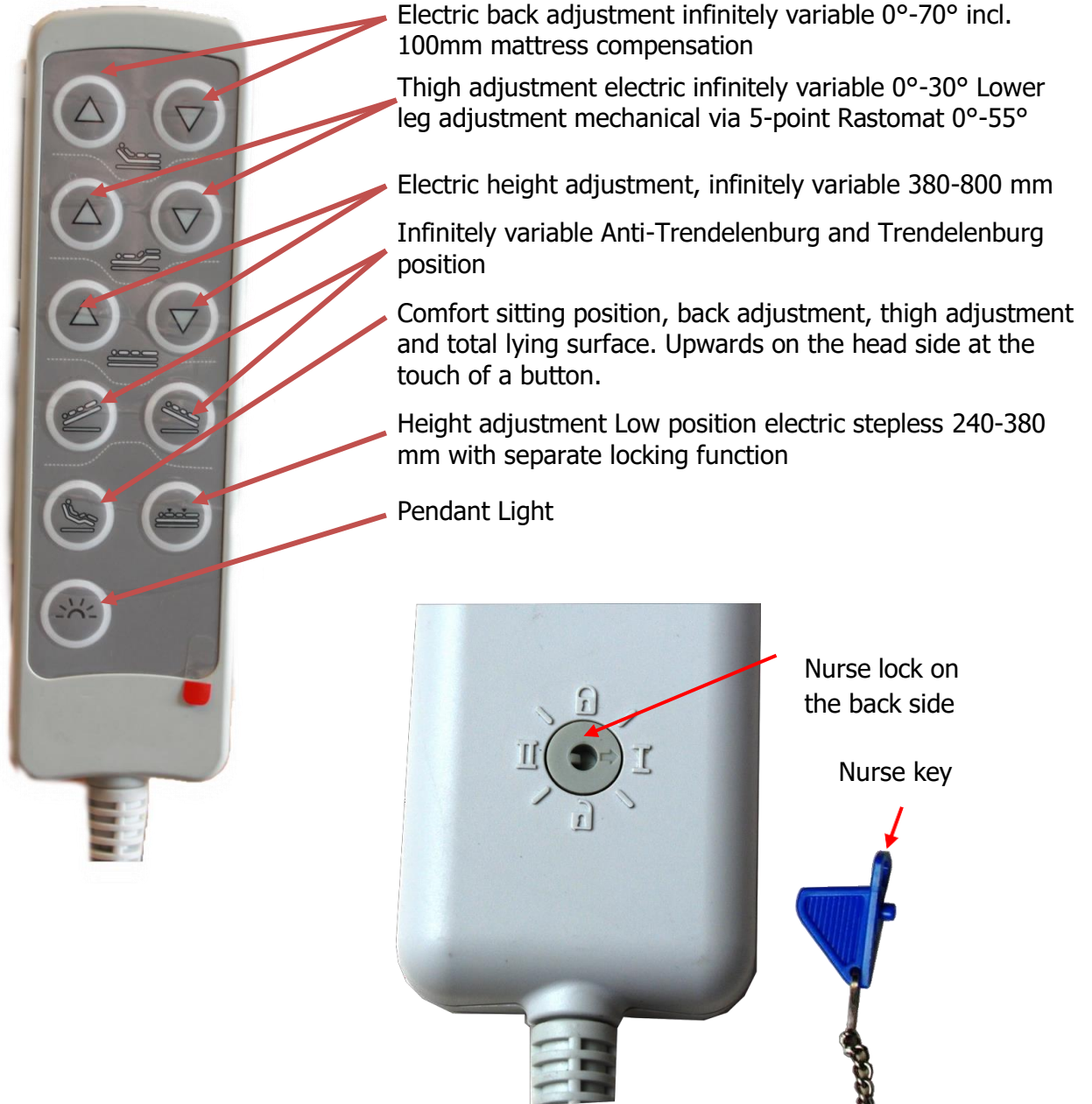


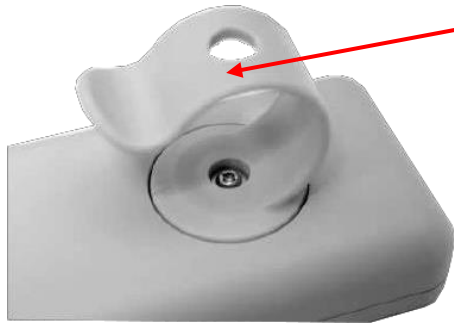
- 1 Head end
- 2 Feet end
- 3 Electrically adjustable backrest
- 4 Electrically adjustable thigh support
- 5 Mechanically adjustable lower leg support
- 6 Hand switch
- 7 Locking key for sister
- 8 Drive for electrical adjustment of the backrest and thigh support of the lying surface
- 9 Mechanical grid fitting for adjusting the lower leg support
- 10 Bed lifting frame with electric height adjustment drives
- 11 Mains supply line with SMPS transformer box
- 12 Mattress guide (4x)
- 13 Tube holder for erecting bracket (1 on each side)
- 14 Wooden side rails (4x)
- 15 Release button for side rail locking (4 x)
- 16 Side rail guide (4 x)
- 17 Track rollers (4 x)
- 18 Central brake
- 19 Trapeze pole with triangle handle (optional)

## 7.2 Handset with locking function

The electric bed functions can be operated via the handset. All functions can be locked with the nurse key.

### Button functions:





Hand switch hook:  
 -flexible  
 -rotatable  
 -can be replaced (fixed with a screw)


To avoid damage, the hand control should always be suspended from the hand control hook when not in use (e.g. lying surface frame or side guards).

 Do not press multiple keys at the same time as this may overload and damage the system.

### 7.3 Locking function for handset


There is a lock on the back of the hand control. All electrical adjustment functions can be locked simultaneously by turning the enclosed nurse key in the lock position.



Blocking function 1: 

All functions are locked.



Blocking function 2: 

Trendelenburg + low position are blocked. All other functions are enabled.



All functions are enabled. (I)

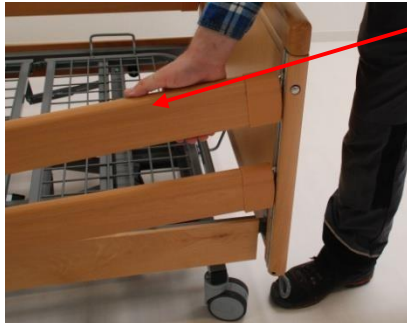


All functions are enabled. (II)

## 7.4 Operation of the side rails

To use the side rails, lift the upper side rail until it engages in the highest position.

To lower the side rail, lift the upper side rail and simultaneously press the release button for the side rail lock and release the side rail.



1. Raise upper side rail



2. Press the release button and lower the side rail.



When the side rail is raised, always ensure that it is securely engaged!



The side rails are only intended to prevent persons from falling out of bed. Under no circumstances should you climb over them or lean on them!

## 7.5 Operating the central brake

All the rollers of the bed can be locked via a central braking device by means of a brake bracket at the foot end of the bed and must always be locked during normal operation.

Press the brake lever downwards until it engages: the 4 rollers are locked. To disengage, raise the brake lever.



The brake may only be released to move the bed! See also safety instructions!



It is not permitted to stand with the entire body weight on the foot bar of the central brake.

## 7.6 Emergency lowering

### 7.6.1 Emergency lowering via integrated 9V battery (electric)

The control unit mounted on the lying surface is equipped with two 9V block batteries, which enable the individual electrical adjustment functions to be lowered in the event of a mains power failure. If the mains power fails, you have the option of returning the electric drives to their lowest position. Please note that this is only possible once per battery charge, as the capacity of the 9V batteries is limited.



After using the emergency lowering once, the 9V block batteries must be replaced with new equivalent ones (alkaline manganese battery type 6LR61).

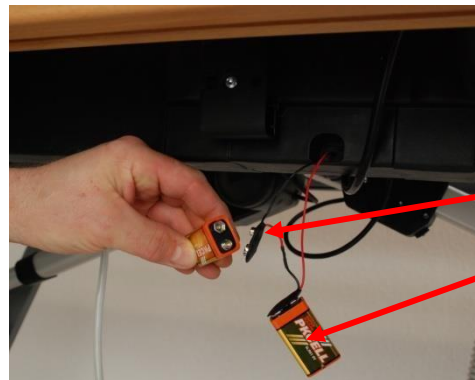
However, the 9V block batteries should be replaced every 2 years even if they are not used.

### 7.6.2 Battery change

To replace, check or remove the 9V batteries for longer storage, the batteries must be removed from the battery compartment on the lying surface drive, which is installed under the lying surface.

Replace the batteries as follows:

- Disconnect the mains plug!
- Slide the batteries out of the battery compartment.






Battery clip

9V-Battery

- Remove the batteries from the battery clip.
- Replace the batteries with new equivalent batteries of the type "Alkali- Manganese battery type 6LR61".
- Reinsert the battery clips.
- Slide the batteries back into the battery compartment.

### 7.6.3 Emergency lowering of the backrest (manual)

If the backrest must be lowered in less than 30 seconds in the event of a power failure or if the electric drive system of the VitalFlex Elite has failed, you can lower the backrest manually.

-  Observe these safety and implementation instructions, as non-compliance can lead to uncontrolled falls from the backrest and thus to serious injuries for the user and the patient!
-  Always carry out the emergency lowering of the backrest by hand with two users!
-  Manual emergency lowering may only be carried out by instructed users and should be practiced several times under normal conditions to be able to lower the backrest safely in an emergency.

#### Execution of mechanical emergency lowering

- The first user relieves the backrest before the emergency lowering by lifting the frame and holding it in this position. If necessary, the second user supports this process.
- The second user folds the bent safety clip of the pin at the end of the backrest lift motor.



- Then he pulls the locking pin out of the lifting rod. The lift motor is now separated from the backrest and swivels downwards.



- Both users lower the backrest slowly and in a controlled manner.

#### Restoration of the original condition


- Swivel the lift rod of the lift motor up again in the direction of the backrest.
- Insert the locking pin into the mounting of the lifting rod and the bed frame.
- Make sure to reinsert the socket pin from the operator side so that it is always accessible.
- Close the safety clip on the locking pin.

## 7.7 Trendelenburg / Anti-Trendelenburg function

The Trendelenburg positioning function or Anti-Trendelenburg positioning function is available for the VitalFlex Elite LTC bed.

In Trendelenburg positioning, the lying surface of the nursing bed is inclined towards the head. In the case of Anti-Trendelenburg positioning, the support surface is inclined towards the feet.

 **Trendelenburg positioning may only be used under the supervision of a doctor, as it can have an effect on the clinical condition of the patient.**

 Do not leave the patient unattended during Trendelenburg or anti-Trendelenburg positioning.

Push-button for antitrendelenburg function (inclination of the lying surface to the low foot position)



Push-button for Trendelenburg function (inclination of the lying surface to the head low position)

## 8 Care, cleaning, and disinfection

Clean and disinfect the VitalFlex Elite LTC bed before using it for the first time and before using it again. For cleaning, wipe the healthcare bed by hand with a damp cloth. We recommend suitable cleaning and care products as cleaning agents for wooden and plastic furniture.

Household cleaners without ammonia and abrasives are also permitted but should be dermatologically tested.

Solvents and scouring agents are not permitted as they attack and damage the various surfaces of the care bed.

For disinfection:


### Note:

To achieve effective disinfection, the VitalFlex Elite must be cleaned beforehand.

Disinfection is possible by spray or wipe disinfection with commercially available disinfectants. Do not use disinfectants containing chlorine as they can have a corrosive effect on metals, plastics etc. and are not environmentally friendly.

For wipe disinfection (surface disinfection) we recommend approved disinfectants and disinfection procedures from the list of disinfectants and disinfection procedures tested and approved by the Robert Koch Institute (<https://www.rki.de>).

 **Before cleaning and disinfection, the mains plug must be disconnected from the mains and securely suspended. The plugs for the handset and the motors which are plugged into the control unit on the lying surface drive must be plugged in. This is necessary so that no water can penetrate the control unit.**

 The electrical components must not be sprayed with a high-pressure cleaner or water jet. Only wipe disinfection is permitted.

## 9 Cause and remedy of malfunctions

Not every malfunction is directly attributable to a defect in the nursing bed. Before contacting your dealer or Vital Mobility, please check the malfunction using the table below.

Disruption	Possible cause	Remedy
No function	Mains plug not plugged in	Plug in the mains plug.
	Lock function on handset activated	Unlock the handset.
	Handset not plugged in	Insert the handset into the control unit.
	Drive not plugged in	Plug the drive into the control unit.
Reversed adjustment functions	Connection cable on the sockets reversed	Check plugs and sockets and reconnect.
No function after power failure	9V block battery is empty	Replace 9V block battery.
Bed moves very slowly	Bed can only be adjusted via battery. Mains plug not plugged in	Plug in the mains plug and replace the 9V block battery preventively.



## 10 Maintenance

### 10.1 Bases

Operators of care beds are required to ensure the safe and proper operation of the medical device by means of continuous maintenance measures (inspection and maintenance).

The service life of the healthcare bed depends essentially on handling and maintenance. To ensure safe operation, we recommend that a visual and functional check, including an electrical check, be carried out at least once a year and before each reuse as a guide value, under your own responsibility and with verifiable compliance with the 2% error rate. If during the electrical test it can be proven that an error rate of <2%, the test cycle can be extended to a maximum of two years.



If you have any doubts about the safety or function of any part of the VitalFlex Elite healthcare bed during the maintenance measures described below, the bed must never be put back into operation. Then contact the supplier or manufacturer.



Electrical components must not be opened and must be replaced. Defective electrical components must be replaced by qualified personnel.



The electrical tests described here may only be carried out by a qualified electrician or, if suitable measuring and testing equipment is used, by a person trained in electrical engineering.



4	Functional test			
4.1	All adjustment possibilities of the nursing bed without obstacles on site?			
4.2	Does the locking mechanism for lower leg adjustment work?			
4.3	Stress test successfully carried out according to regulations?			
4.4	Function test of the handset: correct operation of the buttons?			
4.5	Function test of the handset locking device: On/Off OK?			
4.6	Check of the first-error safety by means of an integrated locking box in the handset without complaint?			
4.7	Function of the side rails, secure engagement?			
4.8	Side rails run smoothly in their guide rails			
4.9	Max. Distance between the side rails 12 cm?			
4.10	Side rail height above the mattress at least 22 cm?			
4.11	Track rollers, easily rotatable by 360°?			
4.12	Rollers, central brake is functional (sufficient braking effect available)?			

**Overall rating**

Overall evaluation of the VitalFlex Elite LTC Bed in order?

Observations: .....

.....


.....

Place / Date: ..... Inspector: .....

Next exam: ..... Signature: .....

### 10.3 Check of first-error safety by means of integrated locking function in the handset

Proceed as follows to check the safety device:

 The 4 switching positions are test settings which are only used for safety checks as part of the annual inspection or after repair or before each re-use of the bed.

Move the lock to switching position **I** or **II**: First move all bed adjustments to a slightly raised position.



Blocking function 1:  
Functional test 1



Blocking function 1:  
Functional test 2



Blocking function 2:  
Functional test 1



Blocking function 2:  
Functional test 2

Set the switch positions to test position Locking function 1 or 2 (I): No electrical adjustments must be possible when the adjustment keys on the handset are pressed.

## 11 Warranty

Within the scope of our terms of delivery and payment, we guarantee the perfect condition of our care beds.

In the event of unauthorized modifications to the product, improperly carried out maintenance work and use contrary to the instructions for use, warranty and product liability claims shall lapse.

## 12 Useful life and disposal



The service life for beds in domestic areas is assumed to be approx. 5 years. The service life naturally depends on the way in which the bed is used. The VitalFlex Elite LTC bed is suitable for re-use in accordance with the measures in chapters 8 and 10. Frequent transport, installation and adjustment reduce the service life just as much as improper handling, irregular maintenance and exceeding the safe working load or permissible load cycles of the electric drives. The healthcare bed must not be disposed of with normal household waste at the end of its service life. For environmentally friendly disposal, please contact your local authority or Vital Mobility.

## 13 Technical specifications

### 13.1 Technical data (mechanical)

Safe working load (max. permissible load)	235kg
Individual loads of the safe working load	max. patient weight 200kg
	Mattress 200x90x12cm      20kg
	Accessories (trapeze)      15kg
	Total                              235kg
Safe erecting load	80kg
Max. Patient weight	200kg
Max. Mattress height with <u>undivided</u> side rail	12 cm -16,5cm
Max. Mattress height with <u>divided</u> side rail	12 up to 17,5cm
Length	211,5cm (with 200cm long lying surface)
Width	105cm (with 89cm wide lying surface)
Height adjustment of lying surface	electrical stepless from 24-80cm
Backrest adjustment	electrical stepless up to approx. 70°
Thigh rest adjustment	electrical stepless up to approx. 30°.
Foot elevation	mechanical, -25°to 0° in 5 steps
Lower leg rest adjustment	Electrical (if mech. engaged on stage 1 via thigh rest adjustment)
Lying surface floor	Steel spring slats
Side rails made of wood (optional aluminium incl. end caps)	
Can be lowered on both sides:	197,3 x 9,5 x 2,8cm
	Distance from unloaded mattress (12cm) to upper edge of side rails ≥22cm

Track rollers	Ø 100 mm
Max. Track roller load capacity	100kg (static)
Empty weight of the VitalFlex Elite	126kg


### 13.2 Technical data (electrical)

Control + power supply SMPS	MC220 + MC125 (Limoss company)
Input	100- 240Vac ~, 50/60 Hz, 250 W
Output SMPS	29V, 2,0A
Power consumption	250 Watt
Rated recording in idle state	0,5 Watt
Switch-on cycle	Max. ED 2 min. / min. AD 18 min. (max. 5 switching cycles/min.)
Emergency lowering battery	2x9V block battery (alkaline manganese type 6LR61)
Protection class	II
Protection class of the drives	IPX4 (protection against splashing water on all sides)
Operating noise	<53 db(A) at a distance of 1m
Reclining surface drive (back/knee)	2xMD125 (Limoss company)
Height adjustment drive	1xMD120 (Limoss company)

### 13.3 Technical data (environment)

Temperature range operation	+10°C to +40°C
Temperature range storage/transport	-10°C to +60°C
Air humidity	30% to 75% rel.
Air pressure	between 795 and 1060 hPa

### 13.4 Classification

Medical device	Class 1	
Degree of protection according to DIN EN 60601-1	Application part of type B (Protection against electric shock)	
Housing protection class according to DIN EN 60529	IPX4 (protection against splashing water on all sides, but not suitable for washing tunnels)	
Max. Duty cycle	10%, On 2Min/Off 18Min	
Max. Switch-on cycles / min	5	
Safety inspections	1x yearly	

### 13.5 Weights of the individual components


Lying surface	49 kg
Head / foot end panelling	10.3 kg/each
Lifting frame	57 kg
Wooden side rails	11 kg
Erector	5 kg



**13.6 Information on electromagnetic compatibility**

Guidelines and manufacturer's declaration - Electromagnetic emissions		
The care bed is intended for operation in an environment as specified below. The customer or user of the healthcare bed should ensure that it is operated in such an environment.		
Interference emission measurements	Concordance	Electromagnetic Environment - Guide
HF emissions according to CISPR 11 (partly)	Group 1	The nursing bed uses HF energy exclusively for its internal function. Therefore, its RF emission is very low and it is unlikely that adjacent electronic equipment will be disturbed.
HF emissions according to CISPR 11 (partly)	Class B	The nursing bed is suitable for use in all facilities and those directly connected to a public supply network that also supplies buildings used for residential purposes.
Transmittance of harmonics according to IEC 61000-3-2	Class A	
Transmissions of voltage fluctuations / flicker to IEC 61000-3-3	Matches	



Guidelines and manufacturer's declaration - Electromagnetic immunity			
The healthcare bed is intended for use in the electromagnetic environment specified below. The customer or user of the healthcare bed should ensure that it is used in such an environment.			
Immunity tests	IEC 60601 Test level	Concordance level	Electromagnetic environment - Guidelines
<p>Conducted HF disturbance variables according to IEC 61000-4-6</p> <p>Radiated HF disturbances according to IEC 61000-4-3</p>	<p>3 V</p> <p>3 V/m</p>	<p>3 V</p> <p>3 V/m</p>	<p>Portable and mobile radios should not be used at a shorter distance from the nursing bed, including the cables, than the recommended protective distance calculated according to the equation applicable to the transmission frequency.</p> <p>Recommended protective distance:</p> $d = \left[ \frac{3.5}{V_1} \right] \sqrt{P}$ <p>for 80 MHz to 800 MHz</p> $d = \left[ \frac{3.5}{E_1} \right] \sqrt{P}$ <p>for 800 MHz to 2.5 GHz</p> $d = \left[ \frac{7}{E_1} \right] \sqrt{P}$ <p>With P as the rated power of the transmitter in watts (W) according to the transmitter manufacturer's specifications and <sup>b</sup> d as the recommended protective distance in meters (m).</p> <p>The <sup>a</sup>field strength of stationary radio transmitters should be less than the compliance level at all frequencies according to a field study.</p> <p>Interference may occur in the vicinity of equipment bearing the following symbol.</p> 
NOTE 1 The higher frequency range applies at 80 MHz and 800 MHz.			
NOTE 2 These guidelines may not be applicable in all cases. The propagation of electromagnetic quantities <sup>a</sup> is influenced by absorptions and reflections from buildings, objects and people. The field strength of stationary transmitters such as base stations of radio telephones and land mobile radios, amateur radio stations, AM and FM radio and television transmitters cannot theoretically be predicted accurately. In order to determine the electromagnetic environment with respect to the stationary transmitters, an investigation of the location should be considered. If the measured field strength at the site where the healthcare bed is used exceeds the above compliance levels, the healthcare bed should be monitored to demonstrate proper functioning. If unusual performance characteristics are observed, additional measures may be required, such as a change in orientation or a different location of the healthcare beds.			





Recommended protective distances between portable and mobile HF telecommunications equipment and the nursing bed

The nursing bed is intended for use in an electromagnetic environment in which radiated HF disturbances are controlled. The customer or user of the healthcare bed can help prevent electromagnetic interference by maintaining the minimum distance between portable and mobile RF telecommunication devices (transmitters) and the healthcare bed, depending on the rated power of the communication device as specified below.

Transmitter rated power W	Protective distance dependent on transmission frequency m		
	150 kHz to 80 MHz $d = \lfloor \frac{3,5}{V_1} \rfloor \sqrt{P}$	80 MHz to 800 MHz $d = \lfloor \frac{3,5}{E_1} \rfloor \sqrt{P}$	800 MHz to 2,5 GHz $d = \lfloor \frac{7}{E_1} \rfloor \sqrt{P}$
0,01	0.12	0.12	0.23
0,1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

For transmitters whose maximum rated power is not specified in the table above, the recommended protective distance d in metres (m) can be determined using the equation corresponding to the frequency of the transmitter, where P is the maximum rated power of the transmitter in watts (W) as specified by the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the protective distance applies to the higher frequency range.

NOTE 2 These guidelines may not be applicable in all cases. The propagation of electromagnetic quantities is influenced by absorptions and reflections from buildings, objects and people.

