



INSTRUCTION MANUAL

ASSEMBLY AND OPERATION

**ELECTRICALLY ADJUSTABLE
SLATTED FRAME**

"Freestyle"



04456_GA_Freestyle_EN_26032026



Last update: 26.03.2026

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Dear client, dear customer,

The tecfor care GmbH team thanks you for the trust you have placed in our "Freestyle" slatted frame.

The "Freestyle" is characterized by the following features:

- Modern design
- Short assembly time
- Low overall height including engines of 9cm
- High level of safety by fulfilling the requirements for crushing and shearing points from the standard for healthcare beds
- Use of high-quality materials
- Available in standard widths of 80, 90, 100, and 120 cm
- Easy extension to 210cm and 220cm possible with additional elements
- Adjustability of the hardness properties for individual sleeping comfort

With the purchased "Freestyle" slatted frame we can offer you optimal lying and sleeping comfort.

All "Freestyle" slatted frame are thoroughly inspected by our staff before shipment.

The bed base delivered to you left our facility in perfect condition. Upon receipt of the "Freestyle" slatted frame, responsibility for its proper and intended use is transferred to you.

These instructions provide information on how the "Freestyle" slatted frame works and how to use it safely in daily use. Please keep these instructions nearby so they are always within easy reach.

Best regards

Your tecfor care-Team

Please read and observe these operating instructions before each use!
If you change ownership, please include these instructions for use.



Please read these instructions carefully before each use and during daily use to avoid hazards and damage caused by improper use. They provide information on how the "Freestyle" slatted frame works and how to use it safely.

The "Freestyle" slatted frame from tecfor care meets all safety and functionality requirements. During its development, the relevant safety requirements of the international standard for nursing beds were taken into account.

However, these safety requirements can only be met if the user verifies that the "Freestyle" slatted frame is in proper working order before use.

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.



Conformity mark in accordance with Regulation (EU) 2023/1230



manufacturing date



Manufacturer



Product batch number

IP20

Protection class according to DIN EN 60529 (VDE 0470)

Protection level for persons: Protected against access to hazardous parts with a finger. Protection level for equipment: Protected against solid foreign objects with a diameter of 12.5 mm or greater
Protection level against water: Not protected.



Symbol for device of protection class II, double protective insulation



The slatted frame may only be used indoors.



switching power supply



Safety transformer - short-circuit proof. Output voltage up to a maximum of 50 volts



The product must be collected separately in the European Union. 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

2.1 Intended use

The "Freestyle" electrically adjustable slatted frame is designed to provide ergonomic support for users and allow for comfortable adjustment of the back, thigh, and foot sections. It is intended solely to assist users in lying down, sitting up, and standing up.

It can be integrated into a standard slatted frame. It can also be combined with the "BiB-Lift" scissor lift system and the 'MLB' ("Freestyle" MLB) scissor lift system from tecfor care GmbH.

The "Freestyle" insert frame may only be used in dry indoor environments. The maximum user weight of 135 kg and the safe working load of 185 kg must not be exceeded.

2.2 Not Intended use



The "Freestyle" slatted frame is not a medical device and is not designed for medical use or for use in hospitals

The "Freestyle" slatted frame must only be used for the intended purpose as described in these instructions.


Any other use is considered improper.

The "Freestyle" slatted frame must not be used to lift or lower loads. It must not be used as a step, climbing surface, or load-bearing surface, nor should it be subjected to concentrated loads.

Children may only use the slatted frame under the supervision of an adult.

3.1 General safety instructions

The following General Safety Instructions are binding for all persons using the "Freestyle" slatted frame. To ensure safe use, the General Safety Instructions must be observed at all times.

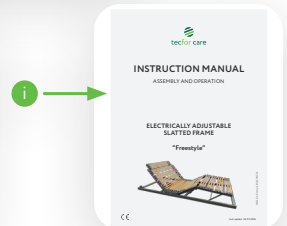
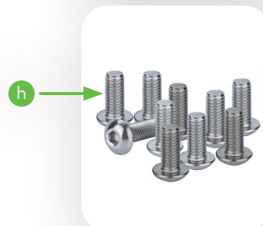
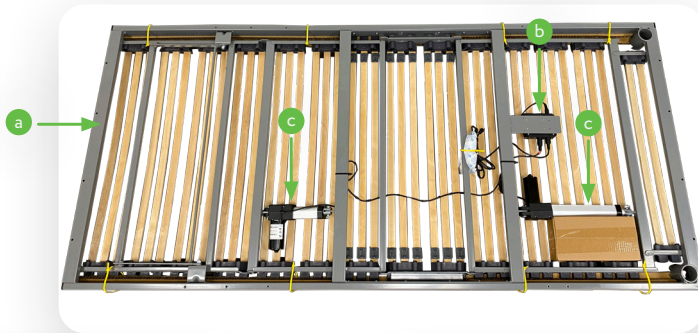
-  The "Freestyle" slatted frame must not be modified without the manufacturer's consent.
-  Before each use, make sure that the product and its accessories are in proper working order and free of defects.
-  Before use, check that the "Freestyle" slatted frame is securely fastened in the slatted frame.
-  Make sure that the electrical wiring in the room or area where the slatted frame will be installed meets current technical standards.
-  Make sure that the power cord and other cables (motors) are not pinched, crushed, or pulled.
-  Please note that the power cord and other supply cables (motors) must not be pinched, crushed, or pulled.
-  A damaged switching power supply, power cord, or power plug must be replaced. This work may only be performed by the manufacturer or authorized technical personnel.
-  Do not expose the "Freestyle" slatted frame or the electrical components to moisture. If moisture has entered the unit, unplug the power cord from the outlet and have it inspected by your dealer or us.
-  Do not use power strips to connect the power plug, as liquids can seep in (risk of fire and electric shock).
-  The maximum continuous operating time and safe working load must not be exceeded; otherwise, safe operation can no longer be guaranteed (see Technical Data).
-  The "Freestyle" slatted frame must not be used in areas at risk of explosion (where explosive or flammable gases or vapors are present, e.g., areas containing flammable anesthetics).
-  Please note that electromagnetic or other interference between the "Freestyle" slatted frame and other devices cannot be ruled out.
In such cases, increase the distance between the devices, do not use the same power outlet, or temporarily turn off the device causing or experiencing interference.
-  Do not allow children or individuals with severe intellectual disabilities to use the "Freestyle" without supervision.
-  Use only replacement parts and accessories that have been expressly approved for the "Freestyle" slatted frame.
-  Stop using the bed base immediately if you notice unusual noises, damage, or malfunctions.

4. Scope of delivery

Upon receipt of the delivery and before setting up the product, check the slatted frame for damage. Report any visible damage immediately to the delivery company. Please verify that the delivery is complete.

The delivery includes:

- a. slatted frame
- b. mounted control box
- c. Mounted bed motors
- d. SMPS power supply with power cord and plug
- e. Wireless remote control
- f. 2 x LR06 / AM-3 AA batteries
- g. 2 x 9-volt block batteries, 6LR61 / AM-6
- h. 14 hex socket screws with pan heads (Mounting screws for the lift frame on "Freestyle Plus")
- i. Instruction manual



5.1 Preparations



The "Freestyle" slatted frame is delivered fully assembled in one piece in widths of 80 cm and 90 cm. The 100 cm and 120 cm widths are delivered in two parts, i.e., as two separate halves of the sleeping surface. Please refer to the instructions in Section 5.2.

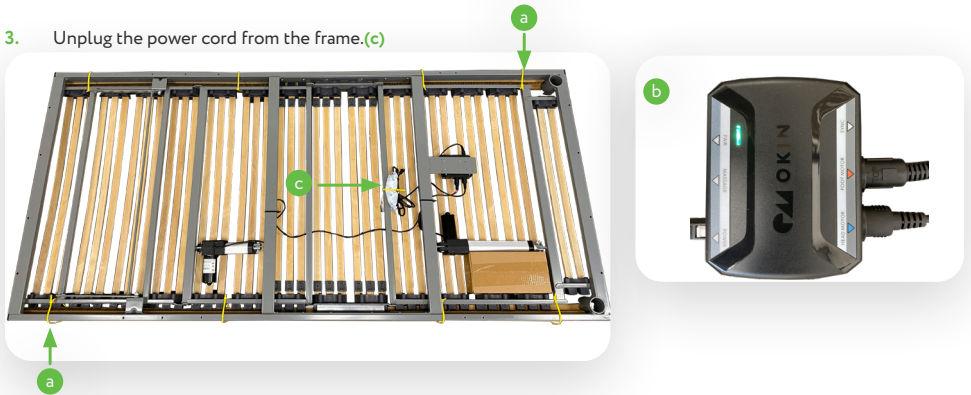
Before installing the "Freestyle" slatted frame into the slatted frame, please complete the following preparations:

1. Remove all cable ties (a) that were attached for secure transport.

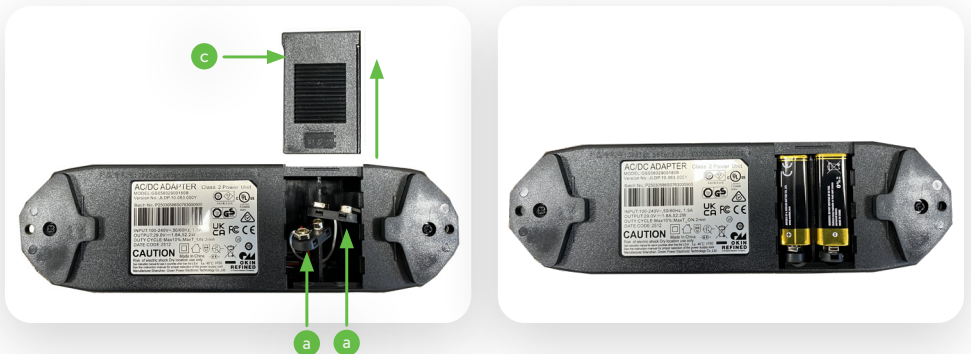


Be careful not to damage any cables.

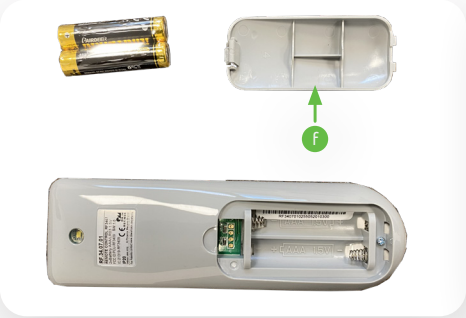
2. Check to make sure the plugs are securely inserted into the sockets on the control box. (b)
3. Unplug the power cord from the frame. (c)



4. Open the power supply's battery compartment by sliding the cover (d) and insert two 9V batteries into the battery terminals (e). Close the battery compartment with the cover.
5. Open the battery compartment of the remote control by sliding the cover (f) and insert two LR06 / AM-3 AA batteries into the battery compartment (g). Make sure the batteries are inserted with the correct polarity [(positive (+) to positive (+) and negative (-) to negative (-)]. Close the battery compartment with the cover.



5. Assembly and commissioning



- 6. Connect the short end of the cable to the power supply (h) and the other end to the power cord (i) coming from the control box.
- 7. Plug the power cord with the power plug (j) into the power supply (k).

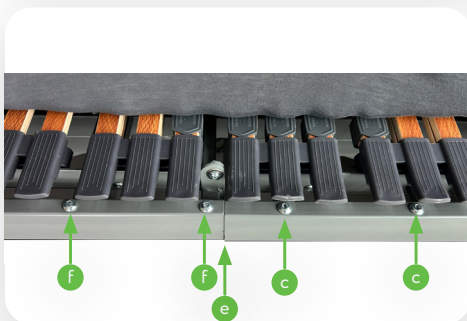
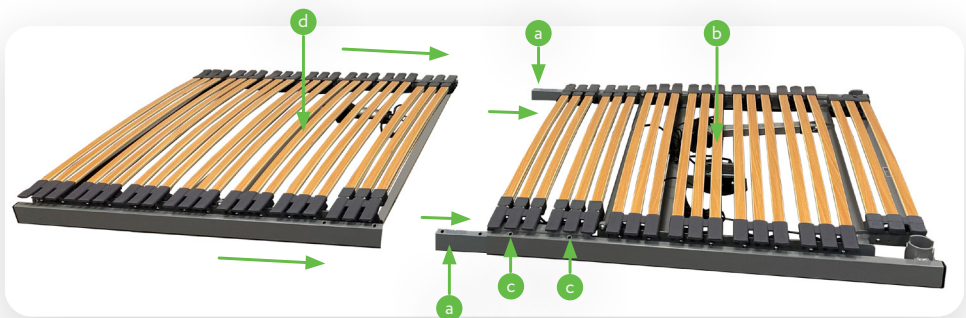


5.2 Assembling the two halves of the sleeping surface

The "Freestyle" slatted frame is delivered in two-piece sets in widths of 100 cm and 120 cm, meaning it is divided into two separate sleeping surfaces.

Follow these steps to connect the two sleeping surfaces:

1. Insert the two connecting profiles (a) into the frame openings of the head-end lying surface half (b).
2. Secure the connecting profiles to the frame tube of the head-end lying surface half (c) using hex socket screws (2 screws per connecting profile).
3. Slide the foot-end lying surface half (d) onto the free ends of the connecting profiles until both halves are flush with each other (e).
4. Secure the connecting profiles to the frame tube of the foot-end lying surface half (f) using hex socket screws (2 screws per connecting profile).
5. Finally, the motor plug for the thigh adjustment must be connected to the control box.



5.3 Installation in a bed frame

To integrate it into your bed frame, proceed as follows:

1. Check that all electrical plug connections are securely fitted.
2. Place the "Freestyle" slatted frame into your bed frame and ensure that it is resting securely.
3. Make sure that the power cable is not trapped or pinched.
4. Place your mattress on the slatted frame. The mattress dimensions must match the dimensions of the insert frame.
5. Plug the power plug into the power outlet.
6. The "Freestyle" slatted frame is now ready for use.




Check whether all adjustment functions of the slatted frame can move freely without rubbing against the bed frame or becoming jammed.




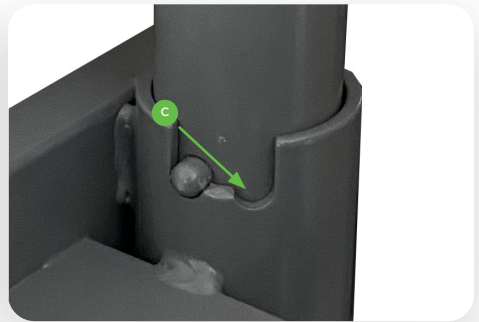
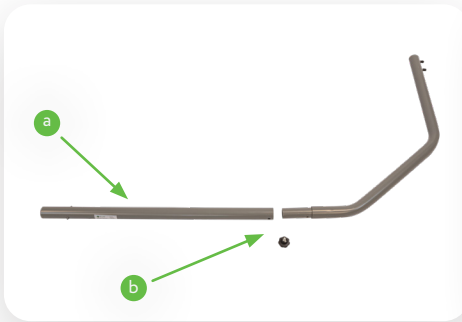
5.4 Assembly of the lifting pole (accessory)

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

Mount the erecting yoke by putting the two parts together (a) and screwing the star grip screw into the threaded hole (b) and tightening it! Insert it into the erecting fixture in the lying surface.

 Make sure that the locking pin (c) engages in one of the two bulges in the lifting pole holder.

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

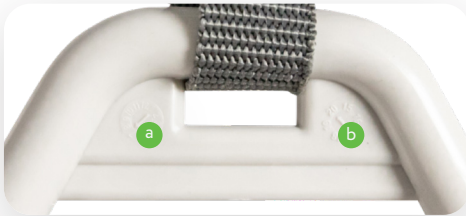


Slide the fixed loop of the triangle belt over the first bolt of the lifting pole (d) and check that it is securely held by pulling the triangle handle downwards.



The length of the support strap of the trapeze handle can be adjusted using the buckle. Choose a setting that allows the user to reach the handle easily while lying down.


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




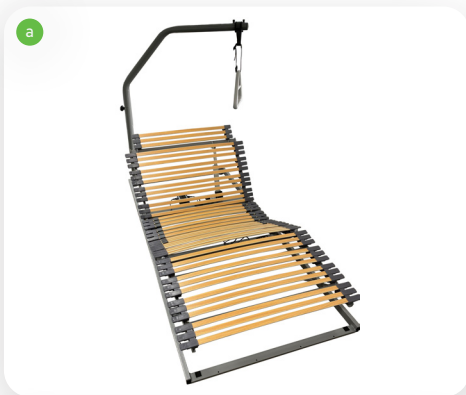
- a. Month of production
- b. Year of production

The lifting pole can be used in the following two positions:

- a. The lifting pole was positioned above the person lying in bed and serves as an aid to this person during the various positioning changes. To achieve this position, the lifting pole tube must be turned towards the center of the bed and the locking cylinder pin must engage in the inner bulge of the lifting pole holder.
- b. The lifting pole has been positioned parallel to the edge of the bed and can be placed in this position when it is not needed and is disruptive to the person lying in bed. To achieve this position, the lifting pole tube must be turned towards the outside of the bed and the locking cylinder pin must engage in the outer bulge of the lifting pole holder.

 Make sure that the locking cylinder pin always engages in one of the two bulges in the lifting pole holder.

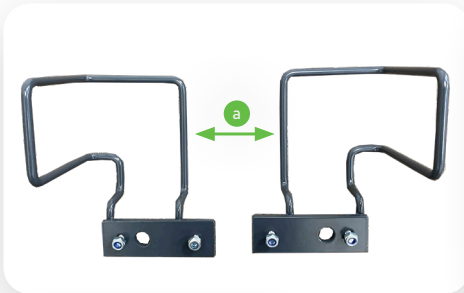
 Attention: The bar of the lifting pole must not be used outside of the two latches.



5.5 Assembly of the mattress holders (accessory)

Optional mattress holders (a) can be retrofitted to the corners at the foot end of the "Freestyle" slatted frame. These ensure that the mattress does not slip off the slatted frame. For installation, follow the steps below:

1. At the foot end of the "Freestyle," 2 mounting holes (b) are pre-drilled at each corner.
2. To make the mounting holes easier to access, raise the lower leg section of the lying surface frame.
3. Position the mattress retainer on the outside of the lying surface frame in front of the holes.
4. Secure the mattress retainer using two of the supplied hex socket screws and nuts (c).
5. Repeat steps 1–3 in the same way to install the mattress retainers on the opposite side.





5.6 Assembly of the lying surface extension (accessory)

A 10 cm lying surface extension (a) can optionally be retrofitted to the foot end of the "Freestyle" slatted frame in order to provide even taller users with optimal lying comfort while maintaining full functionality.

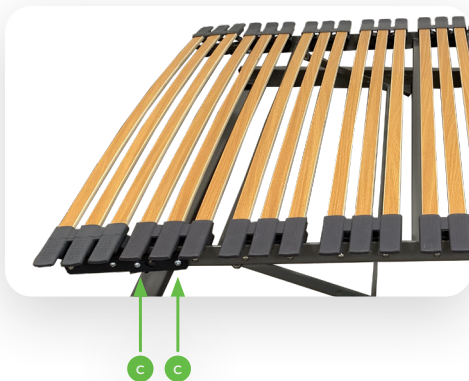
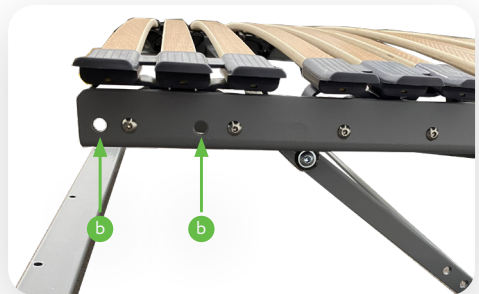
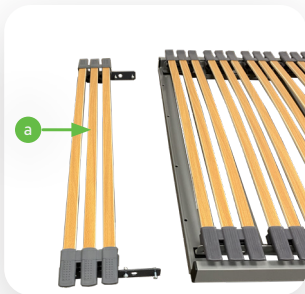
For installation, follow the steps below:

1. At the foot end of the "Freestyle," 2 mounting holes (b) are pre-drilled at each corner.
2. To make the mounting holes easier to access, raise the lower leg section of the lying surface frame.

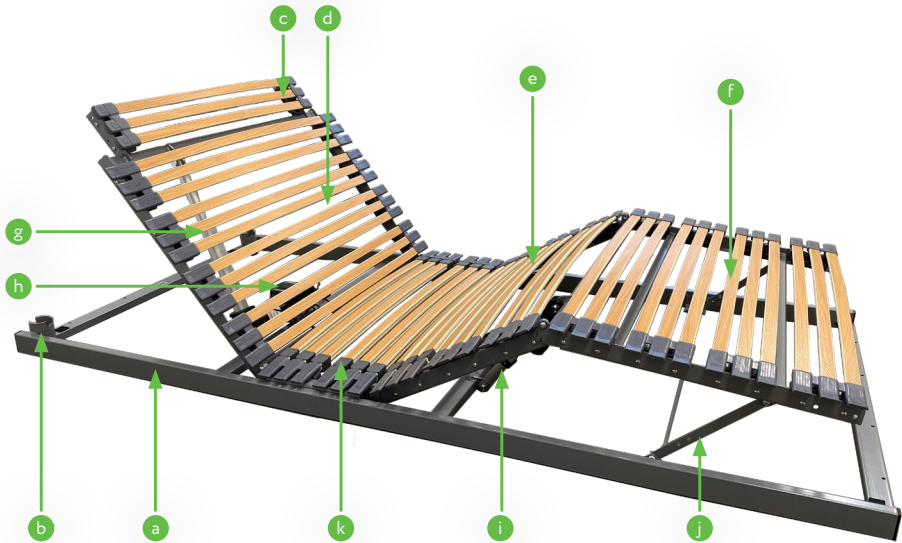
 If the two mattress retainers are installed at the foot end, they must first be removed.

 The mattress holders can then be mounted onto the bed extension at the end, in the same way as described in Section 5.5.

3. Position the lying surface extension on the outside of the lying surface frame in front of the holes.
4. Secure the lying surface extension to the lying surface frame using the supplied hex socket screws and nuts (c).



6.1 Technical overview

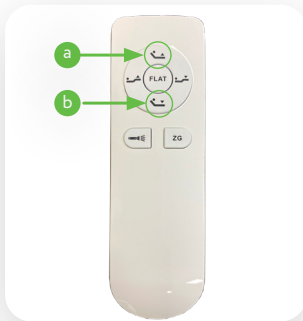


- a. Lying surface frame
- b. Tube holder for lifting pole (on both sides)
- c. Head end
- d. Electrically adjustable backrest
- e. Electrically adjustable thigh support
- f. Mechanically adjustable lower leg support
- g. Electric drive for backrest
- h. Control box
- i. Electric drive for the thigh support
- j. Mechanical ratchet fitting for adjusting the lower leg support
- k. Firmness adjustment slider

6.2 Backrest adjustment

The backrest of the “Freestyle” can be adjusted continuously and electrically within a range from 0° to approximately 70°.

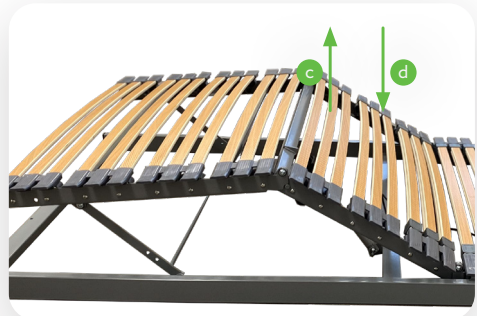
Button	Function	Button description
a	Backrest adjustment upwards	Press and hold the button. The backrest will move up continuously to a maximum angle of 70°, or stop when the button is released.
b	Backrest adjustment downwards	Press and hold the button. The backrest will move down continuously to 0°, or stop when the button is released.



6.3 Adjustment of the thigh support

The thigh support of the “Freestyle” can be adjusted continuously and electrically within a range from 0° to approximately 30°.

Button	Function	Button description
c	thigh support upwards	Press and hold the button. The thigh section will move up continuously to a maximum angle of 30°, or stop when the button is released.
d	thigh support downwards	Press and hold the button. The thigh section will move down continuously to 0°, or stop when the button is released.



6.4 Heart balance position (Zero-Gravity-Position)

In the heart balance position, the backrest and the foot section are slightly elevated. The foot section is positioned slightly higher than the backrest, so that the legs are placed a little above the level of the heart in order to promote circulation and relieve pressure on the spine. The heart balance position can also help relaxation, as the muscles are relaxed by the ergonomically favorable posture.

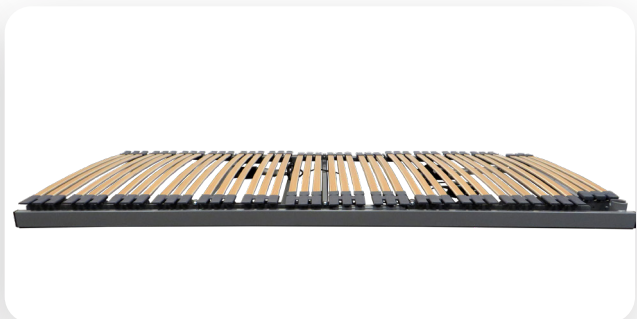
Button	Function	Button description
e	Heart balance position	Press the "ZG" button. The backrest and the thigh section will move up and stop automatically once the heart balance position has been reached.



6.5 Neutral position (Flat-Position)

In the neutral position, the backrest and the foot section are lowered completely into the horizontal position, regardless of their previous position.


Button	Function	Button description
f	Flat	Press the "FLAT" button. The backrest and the thigh section will move simultaneously into the horizontal position and stop automatically once the fully horizontal position has been reached.



6.6 Emergency electric lowering via integrated 9V battery


In the event of a power failure, you have the option of returning the backrest and the thigh/foot section of the "Freestyle" slatted frame to their original position once by battery operation. This requires two fully charged 9V block batteries to be installed in the switched-mode power supply.

In the event of a power failure, you can use the remote control to lower the backrest and the thigh/foot section as usual.

 Emergency lowering using the 9V block batteries is only possible once. After performing the emergency lowering, replace both 9V block batteries. It is also recommended to replace the batteries after approximately 2 years if they have not been used for a long period.

6.7 Button illumination and flashlight

The buttons on the remote control can be illuminated.

Button	Function	Button description
	Button illumination / flashlight	Press the button with the "flashlight symbol." This activates both the remote control's operating buttons and the flashlight integrated on the back for a limited period of time; the light then switches off automatically.





Before cleaning, the mains plug must be disconnected from the power supply and securely hung up.

Dry cleaning:

Regularly remove dust and lint with a soft, dry cloth or a vacuum cleaner fitted with a brush attachment.

Damp cleaning:

The wooden slatted base can be wiped with a soft cloth that is slightly dampened.

If necessary, only mild, pH-neutral cleaning agents may be used, such as a small amount of dishwashing liquid in water.

Do not use abrasive cleaners, rough sponges, solvents, alcohol-based cleaners, or aggressive disinfectants, as these may dull or dissolve the wood lacquer.

The steel frame can be wiped with a slightly damp cloth. In the case of heavier soiling, mild cleaning agents may be used.

Abrasive cleaning agents, steel wool, aggressive degreasers, or acidic/alkaline agents must not be used, as they may damage the powder coating. In that case, corrosion protection can no longer be guaranteed.

The electrical components (motors, control box, remote control, and power supply unit) may only be wiped with a dry cloth or cleaned using a vacuum cleaner.



No liquids must be allowed to enter the electrical components.



Steam cleaners or spray cleaners must not be used for cleaning.



Before plugging in the mains plug, make sure that all areas are completely dry.

8. Cause and remedy of malfunctions

If faults occur with your "Freestyle," please try to correct them using the following instructions. If the problem cannot be resolved, disconnect the "Freestyle" from the power outlet and contact your specialist dealer.

Fault	Possible cause	Measures
Remote control not functioning	Batteries are depleted	Replace the batteries in the remote control
	Connection to the control box is disrupted	1.) Supply power to the control box (the green Power LED lights up). 2.) Briefly press the PAIR button on the control box twice → the blue pairing LED on the box lights up (pairing mode) 3.) On the remote control, press and hold button (b) "Backrest adjustment down" and button (f) "FLAT" simultaneously → the remote control illumination flashes and pairing starts
Motors not functioning	The thermal switch on the transformer may have been triggered or may be defective	Leave the drive system in the rest position for approximately 20–30 minutes
	The thermal fuse in the transformer may have been triggered or may be defective	Contact your supplier / specialist dealer
	The device fuse may have been triggered or may be defective	Contact your supplier / specialist dealer
	No mains power supply	Check the mains plug connection or the switched-mode power supply connections
	Supply line interrupted (mains cable, motors)	Check the supply line and, if necessary, restore the connection
The independent emergency lowering function cannot be operated.	9V block battery/batteries depleted	Check the 9V block battery/batteries and replace if necessary
	9V block battery/batteries not connected	Connect the 9V block battery/batteries

9.1 Bases

Regularly check that the "Freestyle" slatted frame is functioning safely and properly, and ensure that it remains in a safe operating condition through ongoing maintenance measures (inspection and servicing). The service life of the "Freestyle" slatted frame depends largely on how it is handled and maintained. To ensure safe operation, we recommend, as a guideline, carrying out a visual and functional inspection at least once a year on your own responsibility.

If, during the visual and functional inspections described below, you have any doubts about the safety or function of even a single part of the "Freestyle" slatted frame, the insert frame must under no circumstances be put back into operation. In that case, contact the supplier or manufacturer.

Maintenance, inspection, and repair work must not be carried out on the slatted frame while it is in use and a person is lying on it.

Electrical components must not be opened and must be replaced only as complete units. The replacement of defective electrical components must be carried out by appropriately qualified specialist personnel.

9.2 Maintenance schedule

Size	<input type="radio"/>	80x200cm	<input type="radio"/>	90x200cm	<input type="radio"/>	100x200cm
	<input type="radio"/>	120x200cm				
Accessories	<input type="radio"/>	mattress holder	<input type="radio"/>	bed extension	<input type="radio"/>	lifting pole
batch number:		Responsible:		
Location:		Inspector:		
	<input type="radio"/>	Test before commissioning	<input type="radio"/>	periodic inspection	<input type="radio"/>	Inspection after repair
Test devices used (type/inventory number):						

Pos.	Test instruction	OK	n.OK	Comment
1.	Examination of the basic prerequisite			
1.1	Is the general condition okay?			
1.2	Type plate from the nursing bed and the electrical components, legible?			
1.3	Instructions for use available and accessible to personnel?			
1.4	Appropriate and safe use?			
1.5	The slatted frame is positioned firmly and securely in the bed frame.			
2.	Visual inspection			
2.1	No surface damage or corrosion?			
2.2	Mechanical components and welds without defects?			
2.3	All mechanical connecting elements are fixed?			
2.4	Lying surface floor without damage?			

2.5	lifting pole with grab handle and lifting pole holder undamaged and no wear?			
2.6	Mains cable, connecting cables and plugs without damage?			
2.7	Are all plug connections securely inserted?			
2.8	Correct and safe cable laying? (no damage)			
2.9	Motor, SMPS power supply and mains plug housings without damage?			
2.10	Is the remote control free from damage?			
2.11	Thrust tubes of the height adjustment drives are undamaged?			
2.12	9V block battery OK / expiration date sufficient until next test?			
2.13	Is the safe working load maintained?			
4.	Functional test			
4.1	Are all adjustment functions of the insert frame free from obstructions on site?			
4.2	Functional check of the remote control: are the buttons operating properly?			

Overall rating

Test passed

- No safety or functional defects were found
- No direct risk, the defects detected can be rectified at short notice

Test not passed

- Device must be taken out of service until the defects have been rectified!
- Device does not meet the requirements - Modification/ replacement of components/ decommissioning is recommended!

Remarks:

Place / Date:

Inspector:

Next test:

Signature:

10.1 Warranty

Within the scope of our terms of delivery and payment, we guarantee that our "Freestyle" slatted frame is free from defects in quality.

Any unauthorized modifications to the product, improperly carried out maintenance work, or use contrary to the instructions for use will void all warranty and product liability claims.

10.2 Service life and disposal

The service life naturally depends on the manner of use. With proper operation and intended use, the "Freestyle" slatted frame has an expected service life of up to 10 years. Frequent transporting, setting up, and adjusting reduce the service life, as do improper handling, irregular maintenance, and exceeding the safe working load or permissible duty cycle of the electric drives.



At the end of its service life, the "Freestyle" slatted frame must not be disposed of with normal household waste. For environmentally responsible disposal, please contact your local municipality. The electrical components (power supplies, control units, drives, and remote control) must be treated as electronic waste in accordance with WEEE Directive 2012/19/EU (Waste Electrical and Electronic Equipment) and disposed of properly.

11.1 Technical data (mechanical)

Maximum user weight	135 kg
Safe working load /	
Maximum permissible total load	185 kg
Safe working load of lifting pole	80kg
Length	1935mm
Width	790mm (Variation 800mm) 890mm (Variation 900mm) 990mm (Variation 1000mm) 1190mm (Variation 1200mm)
Height	90mm
Backrest adjustment	0° to 70° (electrically adjustable stepless)
Thigh rest adjustment	0° to 30° (electrically adjustable stepless)
materials	frame: Stahl steel (powder-coated) Slats: laminated beech wood Electronic components: plastic and aluminum
Weight (without accessories)	35kg (Variation 800mm) 39kg (Variation 900mm) 44kg (Variation 1000mm) 55kg (Variation 1200mm)


11.2 Technical data (electrical)


Control box	CB 1221 (company Dewert/Okin)
power supply SMPS	GS05802900180B (company Dewert/Okin)
Wireless remote control	RF3407 (company Dewert/Okin)
<u>Input:</u>	
Rated voltage	100V-240V, 1.5A
Nominal frequency	50/60Hz
Current type	AC~
<u>Output SMPS:</u>	
Rated voltage	29V, 1.8A
Nominal power	52,2W
Switch-on cycle	Max. 10%, MaxT_ON: 2min
battery type for Wireless remote control	2 piece LR06 / AM-3 AA batteries
battery type for power supply	2 piece 9-volt block batteries, 6LR61 / AM-6
Protection class	II
Protection rating	IP20 (Protection against the ingress of solid foreign objects ≥ 12.5 mm)


11.3 Technical data Environment


Temperature range Operation	+10°C to +40°C
Temperature range storage/transport	-20°C to +60°C
Atmospheric humidity	30% to 75% rel
Atmospheric pressure	between 70 kPa and 106 kPa


11.4 Information on electromagnetic compatibility


 The "Freestyle" slatted frame meets the normative requirements with regard to its electromagnetic interference emissions and its immunity to interference. Therefore, if the slatted frame is used as intended, no functional restrictions are to be expected due to possible electromagnetic interference from adjacent electrical devices.

 Attention:
Nevertheless, the use of the slatted frame in the immediate vicinity of other electrical devices should be avoided in order to prevent the slatted frame from malfunctioning due to electromagnetic interference. If it is necessary to use the slatted frame in addition to other electrical devices, the proper functioning of the slatted frame and these devices should be observed.

 Only spare parts (mains cable, handset, motors, etc.) and accessories that have been approved by the manufacturer tecfor care GmbH may be used in order to be able to guarantee trouble-free operation of the slatted frame.

 The use of other accessories, other converters and other cables than those provided by tecfor care for this slatted frame can result in increased electromagnetic interference emissions or reduced electromagnetic interference immunity of the slatted frame and lead to faulty operation.

 Portable HF communication devices (mobile phones, two-way radios, etc.) including their accessories (e.g. antenna cables and external antennas) should not be used within a distance of less than 30 cm from the electrical components and cables of the "Freestyle" slatted frame. Non-observance can lead to a reduction in the performance characteristics of the slatted frame.

 The "Freestyle" slatted frame is intended for use in the following specified electromagnetic environment during its entire service life in order to maintain basic safety and functional characteristics.
The operator or user of the slatted frame should ensure that it is used in such an environment.

The "Freestyle" slatted frame meets the requirements of the following EMC standards for interference emission and interference immunity:

Ambient limit values of the interference emissions	
Phenomenon	operation site in the field of medical care in a home environment
Conducted and radiated interference emissions	CISPR 11, Group 1, Class B
Harmonic distortions	see IEC 61000-3-2
Voltage fluctuations and flicker	see IEC 61000-3-3

Sheathing		
Phenomenon	EMC basic standard or test method	Immunity test level
Electrostatic discharge	IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air
High-frequency electromagnetic fields	IEC 61000-4-3	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 table Test specifications for the immunity of sheathings to high-frequency wireless communication equipment (at the end of this chapter)
Magnetic fields with energetically rated frequencies	IEC 61000-4-8	30 A/m, 50 Hz or 60 Hz
Magnetic fields at close range	IEC 61000-4-39	no magnetically sensitive components, therefore no immunity rating required

AC port for supply input		
Phenomenon	EMC basic standard or test method	Immunity test level
Short, transient electrical disturbances / bursts	IEC 61000-4-4	± 2 kV, 100 kHz repetition frequency
Surges: conductor to conductor	IEC 61000-4-5	± 0,5 kV, ± 1kV
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V 0,15 MHz up to 80 MHz 6 V in ISM and amateur radio frequency bands between 0,15 MHz and 80MHz 80 % AM at 1kHz
voltage dips	IEC 61000-4-11	0% U _n ; ½ period at 0, 45, 90, 135, 180, 225, 270 and 315 degree 0% U _n ; 1 period and 70% U _n ; 25/30 periods single-phase at 0 degree
voltage interruptions	IEC 61000-4-11	0% U _n ; 250/300 periods

DC port for supply input		
Phenomenon	EMC basic standard or test method	Immunity test level
Short, transient electrical disturbances / bursts	IEC 61000-4-4	± 2 kV 100 kHz repetition frequency
Surges: conductor to conductor	IEC 61000-4-5	± 0,5 kV, ± 1kV
Surges: conductor to earth	IEC 61000-4-5	± 0,5 kV, ± 1kV, ± 2kV
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V 0,15 MHz up to 80 MHz 6 V in ISM and amateur radio frequency bands between 0,15 MHz and 80MHz 80 % AM at 1kHz

Patients' connection ports		
Phenomenon	EMC basic standard or test method	Immunity test level
Electrostatic discharge	IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air
Conducted interference induced by high-frequency fields	IEC 61000-4-6	3 V 0,15 MHz up to 80 MHz 6 V in ISM and amateur radio frequency bands between 0,15 MHz and 80MHz 80 % AM at 1kHz

SIP/SOP-Tor (Signal input/output sections)		
Phenomenon	EMC basic standard or test method	Immunity test level
Electrostatic discharge	IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air
Short, transient electrical disturbances / 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 up to 80 MHz 6 V in ISM and amateur radio frequency bands between 0,15 MHz and 80MHz 80 % AM at 1kHz

Test specifications for the immunity of sheathings to high-frequency wireless communication equipment				
Test Frequency (MHz)	Frequency band (MHz)	Radioservice	Modulation	Immunity test level (v/m)
385	380 to 390	TETRA 400	Pulse modulation 18 Hz	27
450	430 to 470	GMRS 460, FRS 460	FM ± 5% lift, 1kHz sine	28
710	704 to 787	LTE band 13, 17	Pulse modulation 217 Hz	9
745				
780				
810	800 to 960	GSM 800/900, TETRA 800 iDEN820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	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	28
1845				
1970				
2450	2400 to 2570	Bluetooth, WLAN 802.11 b/g/n, RFID 2450, LTE band 7	Pulse modulation 217 Hz	28
5240	5100 to 5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	9
5500				
5785				




The minimum distances for higher immunity test levels shall be calculated using the following equation.

$$E = \frac{6}{d} \sqrt{P}$$

P = maximum power in watts (W)
 d = Minimum distance in meters (m)
 E = Immunity test level in volts per meter (V/m)

If a test with these increased test levels is passed, the stated minimum distance of 30cm can be replaced by the new minimum distance calculated for the increased immunity test levels.



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