

Nursing care beds

.bock^{///}

- floorline 15 | 80
- practico 25 | 80 plus



Dear valued customer,

With your decision to purchase a nursing care bed from Hermann Bock GmbH, you are receiving a long-lasting care product with superior functionality at the highest safety level. Our electrically operated nursing care beds guarantee optimal lying comfort and allow professional care at the same time. This product was designed with a focus on people in need of care, whose confidence must be reinforced and whose life needs protection. With this health care product, we meet these requirements.

We urge you to prevent potential malfunctions and the risk of accidents by complying strictly with the safety and operating instructions and by carrying out the necessary maintenance.

A handwritten signature in black ink that reads "Klaus Bock". The signature is written in a cursive, flowing style.

Klaus Bock

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1 Preface and general instructions

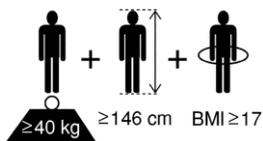
The various bed systems from Hermann Bock GmbH meet specific requirements for use in care and treatment facilities, as well as for the care at home. Reliable functionality and a long product life make each bed particularly valuable. Our beds need little maintenance with proper operation and care. Each bed from Hermann Bock GmbH must pass quality testing in a final inspection before it is shipped anywhere. The beds are manufactured according to the current standards for medically used beds and tested accordingly.

The beds comply with the EN 60601-2-52 standard. The electrical building components comply with safety standard EN 60601-1 for medical devices. Nursing care beds are medical devices and are classified as Class 1 products: nursing care beds.

These standards divide the beds in five different application environments:

1. Intensive care in a hospital; intensive care bed
2. Short-term care in a hospital or other medical facility; patient bed in the hospital
3. Long-term care in medical environment; stationary nursing care bed
4. Care at home, so-called "HomeCare bed"
5. Ambulant care either at home or in a medical facility

1.1 Intended use



The nursing care bed is suitable for people in need of care who are at least 146 cm tall. The person's weight must not exceed 185 kg and must be over 40 kg. The body mass index (BMI = $\text{Weight of the person (kg)} / (\text{body size of the person (m)})^2$) must be greater than or equal to 17.

The nursing care bed may be used in homes for the elderly or nursing homes and rehabilitation facilities. It is used to alleviate a disability and/or to facilitate the lives of people who are in need of care or to make the work of their caregivers easier. Furthermore, the nursing care bed was also designed as a convenient solution for the care at home of people in need of care, as well as for people with disabilities. Accordingly, the nursing care beds are designed to be used for the application environments 3 to 5. Any other use is considered improper and is excluded from a possible liability claim.

The Trendelenburg function may be used exclusively under supervision of medical professionals. The beds, which are determined for application environment type 4, are equipped with a hand control which is unable to operate the Trendelenburg function.

The nursing care bed is not suitable for use in hospitals. If the nursing care bed is equipped with visible wheels, it is suitable for the transport of patients. The nursing care bed can be moved while the patient resting in it. To move the bed , lock the castors and bring the lying surface to the lowest horizontal position, than unlock the castors and move the bed. After the transport, lock the castors again. If the nursing care bed is equipped with covered castors, it is is not designed for transporting patients. The beds can only be moved within the patient's room - even while the patient is in the bed - for cleaning or better access to the patient, for example. If the nursing care bed is equipped with height - adjustable feet, it cannot be moved.

The bed is suitable for the re-use. Please observe the instructions for cleaning, care and disinfection in these assembly and operation manual. Special attention must also be paid to the information regarding the inspections.

Attention: The beds do not have a special connection options for a potential equalisation. Electrical medical devices connected to the patient intravascular or intracardiac may not be used. The operator of the medical products has to ensure that the combination of the equipment meets the requirements of EN 60601-1.

This user manual contains safety instructions. All persons working with the beds must be acquainted with the contents of these instructions. Improper operation can result in personal injuries.

1.2 Definition of person groups

Operator

Operators (e.g. medical supply stores, specialist dealers, facilities and budgeting companies) include all physical or juridical persons, who use the beds or have the beds used for medical purposes. The briefing on the use of the product shall generally be conducted by the operator.

User

Users are persons whose training, experience or briefing on the product allows them to operate the nursing care bed or carry out works on it. The user is able to recognize possible hazards and/or to avoid them and to assess the health condition of the patient.

Patient/resident

Persons in need of care, as well as disabled and people who are lying in the nursing care bed.

Qualified personnel

Employees of the operator are referred to as qualified personnel. They are entitled to deliver the nursing care bed, assemble, disassemble and transport it, based on their training or instructions. Besides knowing how to operate, mount and demount the nursing care bed, these persons must be instructed according to the guidelines concerning the cleaning and disinfection of the nursing care bed.

1.3 Safety instructions

The intended use/operation of all moving parts is as important for the safety of the persons in need of care as well as for the relatives and the caregivers/nursing staff to avoid potentially dangerous situations. This requires the correct installation and operation of the bed. The individual physique of the person in need of care as well as type and the extent of their disability must be taken into account by all means when operating the bed.

Avoid dangers, accidental motor adjustments and incorrect operation by using the disabling function. When the operator, e.g. the caregivers or the care providing relative leaves the room, the entire operating functions of the bed should be disabled via the hand control. This is achieved by using the key of the hand control. First, lower the lying surface to the lowest position and activate the lock function with a twist of the keylock (located in the key lock on the backside). Remove the key and check for safety reason if the functions are locked.

These recommendations apply particularly:

- if the person in need of care cannot operate the hand control safely due to certain disabilities;
- if the person in need of care or the caregivers could be at risk due to those accidental adjustments;
- if the side rails are in a raised position and there could be danger of trapping and crushing,
- if children are unsupervised in the room with the bed.

Always make sure that the hand control (when not in use) is securely hooked with the support hook on the bed and cannot fall down.

As a general rule, the bed should be operated by instructed nursing staff/caregivers, relatives or in attendance of instructed persons.

When adjusting the lying surface, it is particularly important to ensure that no limbs are placed within the adjustment range of the side rails. If the side rails are adjusted, pay attention to the correct lying position of the person in need of care.

Prior to any electrical adjustment, it should generally be made sure that no limbs are positioned in the adjustment area between the chassis and the head or foot part, especially that there are no persons or animals in the area between the floor and the raised lying surface. Danger of damages or are particularly high in these areas. Always beware of objects that are located close to or even below the nursing care bed, they also can lead to damages.

The permitted person's weight depends on the total weight of the equipment that has been mounted to the bed (mattresses and other electronic medical devices). For safe working load, please refer to the type plate on the lying surface frame of the bed.

Service and maintenance must not be performed while the bed is used by a patient.

The nursing care bed may only be used for the care and positioning of people. The adjustment options on the head and foot sides serve exclusively for the changeable positioning of the respective body area of a patient. The care bed may only be used for its intended purpose and may not be misused or used improperly.

In the event of malfunction or functional failure, people in the bed must be removed immediately.

Make sure that service and maintenance are not permitted to be carried out while the bed is in use.

Incompatible side rails can cause trapping when used.

To take the bed out of operation and end operation safely, pull the mains plug out of the socket.

1.4 Service life / warranty

This nursing care bed was developed, designed and manufactured for safe operation over a long period of time. With proper operation and maintenance, this nursing care bed has an expected service life of 15 to 20 years. The service life depends on operating conditions and frequencies.

Attention: Unauthorised technical changes to the product voids all warranty claims.

This product is not approved for the North American market, particularly not for the United States of America (USA). Distribution and use of the nursing care bed in these markets, including through third parties, is prohibited by the manufacturer.

1.5 Requirements for the installation location

The company Hermann Bock GmbH is not liable for damages which might arise from the daily usage on the floor.

To avoid floor indentations, floor should correspond to the recommendations of the FEB - Fachverband der Hersteller elastischer Bodenbeläge e.V. (Association of Elastic Floor Coverings Manufacturers). To do this, the technical information FEB No. 3 can be referenced.

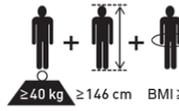
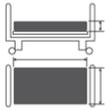
Hazard note from Bock

Simultaneous use of electrical appliances particularly in the vicinity of the operational bed may result in small electromagnetic interactions of the electric devices, e.g. static noise in the radio. In such rare events, increase the distance of the devices. Do not use the same socket or temporarily switch off the interference source and/or the disturbing or disturbed device. If the bed should be operated with electrical medical equipment (contrary to its intended use), the functions of the bed must first be disabled via the integrated lock function in the hand control for the duration of the application.

1.6 Type plate

Each nursing care bed is marked with an individual type and a general type plate.

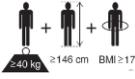
Individual and general type plate

<p>(1) Model: XXX</p> <p>(2) Date of manufacturing: XXXX-XX-XX</p> <p>(3) Serial-no. XXXXXXXX-XXX</p> <p>(4) XXX - XXX V ~ XX/XX Hz max. X,X A</p> <p>(5) Duty cycle XX % (XXmin ON /XXmin OFF)</p> <p>(6) Motor protection class IP X4</p> <p>(7)  XXX kg  XXX kg</p> <p>(8) Hermann Bock GmbH-Nickelstr.12 33415 D-Verl / Tel. 01805/262500</p>	    	 $\geq 40 \text{ kg}$ $\geq 146 \text{ cm}$ BMI ≥ 17	 	<p>.bock</p> <p></p> <p>Hermann Bock GmbH Nickelstr. 12 33415 Verl - Germany phone: +49 5246 9205-0 www.bock.net</p>
	     	<p>890.02355</p> <p>Made in Germany</p>		

(9)

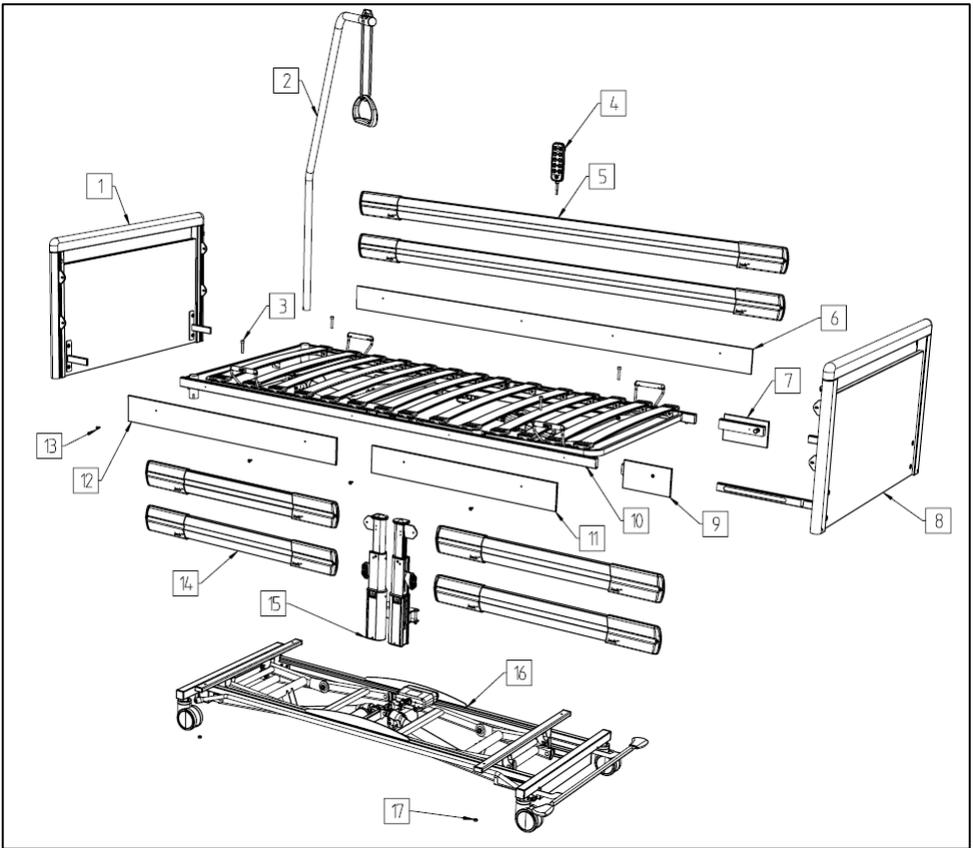
- (1) Model
- (2) Manufacture date: Year - month - day
- (3) Serial number: Order number - consecutive number
- (4) Mains voltage, mains frequency and power input
- (5) Duty cycle
- (6) Drive protection class
- (7) Maximum patient weight / safe working load
- (8) Manufacturer
- (9) Symbols (located on the right side)

Explanation of the symbols:

	Conformity mark according to the Medical Device Regulation
	Observance of the user manual
	Within the European Union, this product must be disposed via the separated municipal waste. Product may not be disposed of via household waste.
	Medical application part type B
	Use only in dry rooms
	Protection class II (double insulation, insulated for protection)
IPX4	Protection of electrical equipment against splashing water
	Maximum patient weight
	Safe working load
	Labelling of a medical device
	Patient population
	Follow the instructions appropriate for mattress size and thickness
	Address of the manufacturer

2 General description of the functions

2.1 Construction design and function



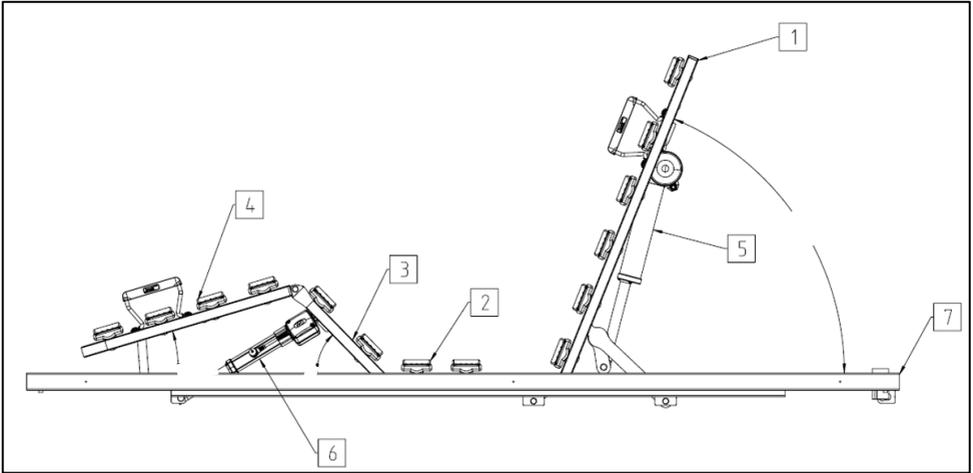
1	Head end panel	10	Lying surface
2	Lifting pole	11	Side panel, divided
3	Cylinder head screw M8	12	Side panel, divided
4	Hand control	13	Self-tapping screw for panel
5	Side rail, continuous	14	Side rail, divided
6	Side panel, continuous	15	Telescopic duo post
7	Extension / gap piece side panel	16	Chassis: / undercarriage/ Base
8	Foot end panel	17	Lock nut M8
9	Extension / gap piece side panel		

Corrosion protection

The Hermann Bock GmbH nursing care beds are developed and constructed for a long and safe use. Therefore, all materials that may corrode are protected accordingly. All metal parts are equipped with a surface protection. The steel parts are either galvanised or stove-enamelled with a PES powder coating and the aluminium profiles are anodised.

The lying surface with 4 function areas

The lying surface consists as standard of comfortable wooden slats (can alternatively be fitted with aluminium slats or a special suspension systems) and is divided into four sections: backrest, fixed middle part upper and lower leg rest.



1	Backrest	5	Lifting motor lying surface headboard (Backrest)
2	Fixed middle part	6	Lifting motor lying surface foot part (Upper leg rest)
3	Upper leg rest	7	Lying surface frame
4	Lower leg rest		

The comprehensive lying surface frame is welded from a steel tube. The backrest can be adjusted electrically and has a comfortable mattress compensation. The leg rest is split into an upper and lower leg rest. During electrical adjustment of the upper leg rest, the lower leg rest is automatically pulled along. By using a button on the hand control, each individual position can be adjusted continuously. The backrest can be lowered mechanically in the event of a power failure. Alternatively, the leg rest and backrest can be lowered using an optional battery.

The integrated bed extension and side rail

With the integrated bed and side rail extension, the bed can be extended to 210 or 220 cm without the use of any additional elements. This allows individual adaptation to the body length of the resident.

The chassis

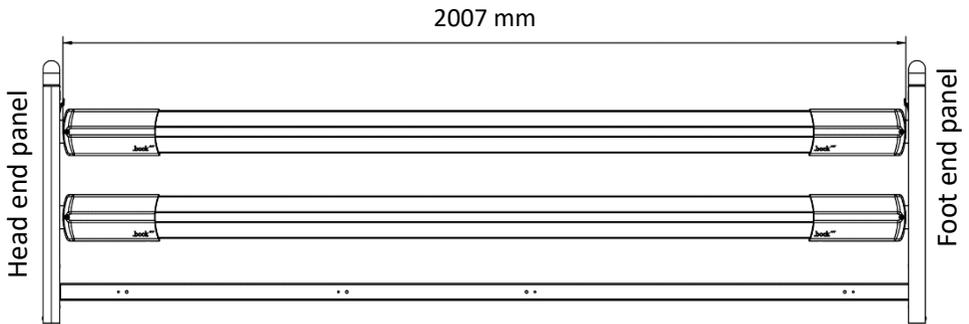
The height adjustment of the bed is performed through a base frame with individual drives. The electric variable height adjustment of the lying surface is carried out with protective low-voltage DC motors from 29 to 35V and controlled with the smooth keys of the hand controller.

The side rail

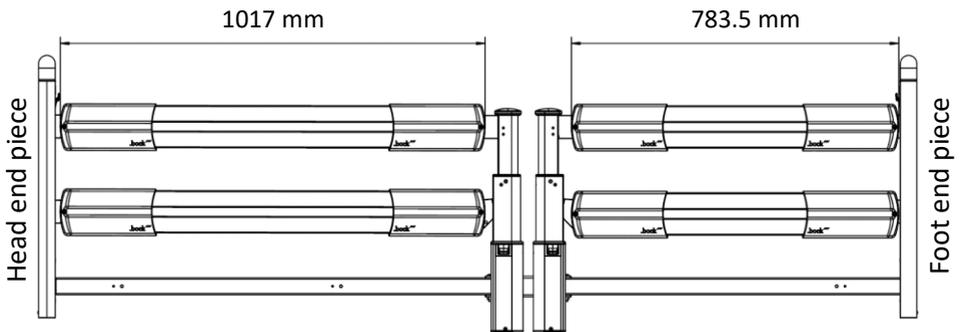
The floorline 15|80 nursing bed and the practico 25|80 plus nursing bed can be equipped with side rails on both sides at a special safety height. A side guard for the variant with upholstery is not provided. Each nursing care bed can be equipped on both sides with side rails at a specific safety height. The side rails can be lifted and lowered. The sliding pieces run particularly smoothly and quietly with an impact damper, and each end is fitted with a functional cap. Depending on the model, shorter or longer, continuous and divided side rail variations are available. All variants serve as a fall prevention. The split side rails also allow safe and comfortable entry and exit. By means of a simple release mechanism, each individual side rails element can be brought into a raised or lowered position.

The following side rail variants are currently available:

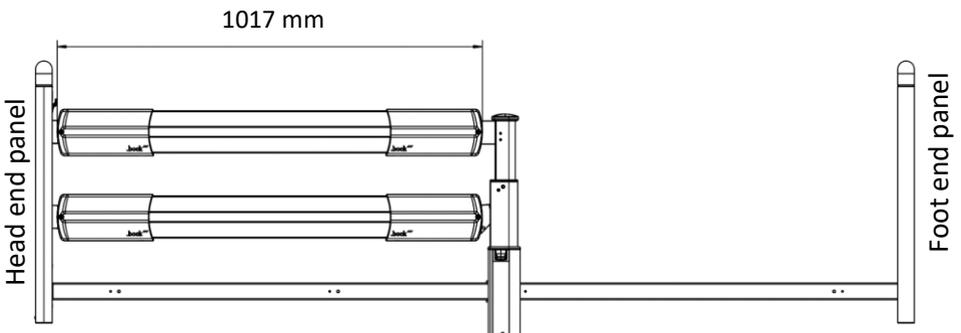
Continuous wood side rail



Long divided side rail



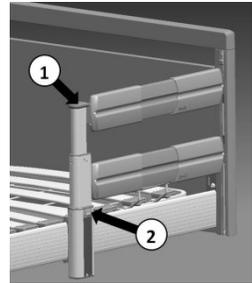
Head-side side rail (>50% solution)



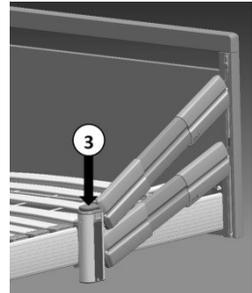
2.2 Operating the side rails

Each side rail element can be adjusted independently from the other. The release buttons for adjustment are on the bottom of the telescopic post (if available) and on the top of the end panel of the nursing care beds, right next to the metal guides for the side rail bars. The exact position of the release button on the end panel can vary slightly depending on the model.

To lower the side rail element, hold the upper knob (1) of the middle post with one hand, **lift it up slightly**, and with the other hand press the release button (2) on the middle post in the inner direction.



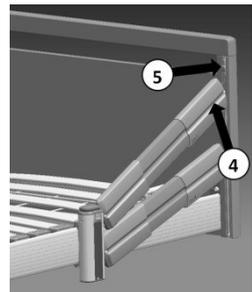
The side rail opens at the corresponding place and can be easily lowered downwards as far as it will go (3). The side rail is now diagonal.



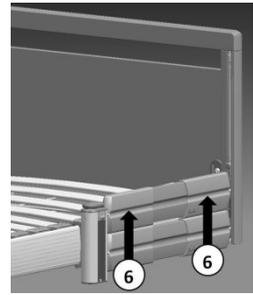
To also lower the other side, please hold the side rail - at the gripping groove (4), and slowly raise the side rail - Now, you can fully press the release button (5) and slowly lower the side rail.

Please note: Be sure to raise the side rail slightly, and only then press the release button! Failure to do so will result in damage to the release.

The side rail is now in the lowered position.



If the side rail element should be raised to the top position as an aid for fall prevention, reach with both hands in the centre of the gripping groove (6) in the upper side rail bar, and pull it upwards until you hear it click into place at both ends. The side rail is now in a pulled-up position.



Hazard note from Bock

Please note the increased risk of trapping caused by the raised side rails when adjusting the backrest and upper leg rest.

The side rails must maintain the required minimum length of at least more than 50% of the of the lying surface length, in order to serve as a "protection against an accidentally falling out of bed of a patient". This requirement is not met when the side rails are in an inclined position.

The side rails first and foremost serve as a fall prevention. In the case of very emaciated persons in need of care, this protection is no longer sufficiently provided by the side rails and additional protective measures must be taken (e.g. by adding a push-fit side rail padding (accessory)).

The distances between the side rail bars must be less than 12 cm. If necessary, pull the integrated side rails up until they lock into place. When using mattresses of different thickness, the minimum height of 22 cm, measured from the top edge of the side rail above the mattress without compression, needs to be maintained (additionally, a third attachment rail must be used).

Therefore, the following measurements must be observed for a safe use of the side rails:

- Height above the mattress: $\geq 220\text{mm}$
- Gap dimensions between each side rail bars and to the lying surface: $<120\text{mm}$
- Gap dimensions between side rail and end panel : $<60\text{mm}$ or $>318\text{mm}$

Hazard note from Bock

The operation of the side rail should be done with great care. Fingers can be quickly pinched between the longitudinal pieces. Only use the side rails in accordance with the described operation. Any other use can lead to an increased risk and is not permitted.

Use only original Bock side rails, which are available as accessories for every nursing care beds. Use only technically flawless and non-damaged side rails with the permissible gap dimensions.

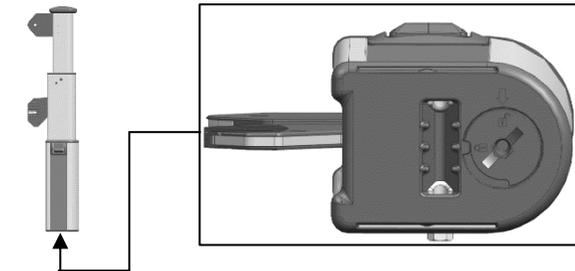
Make sure that the side rails are locked securely.

Before mounting aside rail and with each new use of the bed, inspect all mechanical parts on the bed frame, all parts of the side rails including all parts which secure the side rails, for any possible damages.

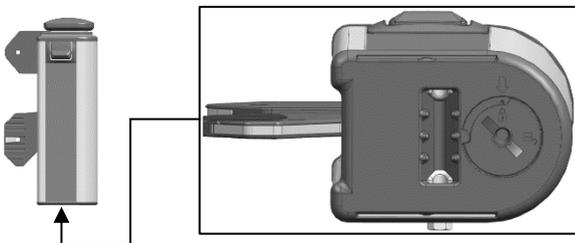
2.3 Locking the telescopic posts

As an option, the telescopic posts also have a latch mechanism with which the side rails can be locked in the lowered position. To use the latch, either a coin or an Allen key size 6 can be used.

First, bring the telescopic post into the lowered position (see previous chapter). Lock or unlock the latch on the bottom of the telescopic post.



Telescopic post up
and
Latch open



Telescopic posts down
and
Latch closed

2.4 The hand control

The hand control is equipped with a built-in locking device, which allows the caregivers to lock the handcontrol via a key completely or partially for its operation.

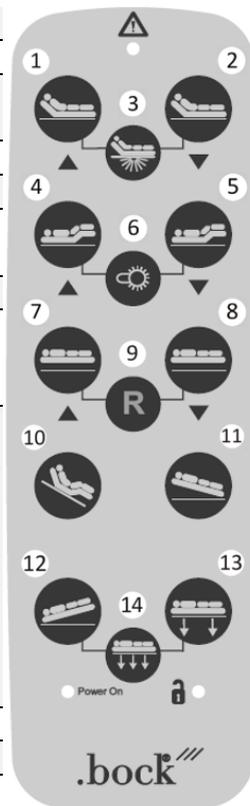
The lockable hand control, first-fault protected

The basic functions can be controlled through the ten buttons on the hand control. The four symbols in the middle indicate special functions that can be performed by simultaneously pressing the adjacent keys. The individual buttons are marked with corresponding symbols. The motors run - as long as a corresponding button is pressed. A coiled cable allows the necessary freedom of movement while operating.

With the rear-mounted suspension unit, the hand control can be attached to the side rail - particularly when cleaning and during the maintenance of the bed. Thus, a possible disruptive position of the hand control can be avoided by simply attaching it to any preferred spot on the bed.

2.5 Hand control - the functions of the buttons

(1)	Backrest upwards
(2)	Backrest downwards
(3)	Floor lighting: Push keys (1) and (2) simultaneously
(4)	Upper leg rest upwards
(5)	Upper leg rest downwards
(6)	Lightening / reading lamp: Push keys (4) and (5) simultaneously
(7)	Lying surface upwards
(8)	Lying surface downwards <i>(Interim stop at the 37.5 cm exit position, safety stop at 25 cm)</i>
(9)	Reset: It is absolutely necessary to this carry out during initial commissioning and after disconnection from the power supply! The reset is carried out by pushing buttons (7) and (8) simultaneously and keep them pushed. After approx. 8 seconds, the bed moves slowly into the lowest position. After a signal beep from the controller, the reset is carried out completely.
(10)	Comfort sitting position upwards (*)
(11)	Foot-down position (anti-Trendelenburg)
(12)	Head-down position (Trendelenburg) (**)
(13)	Lying surface, backrest and upper leg rest downwards <i>(Interim stop at the 37.5 cm exit position, safety stop at 25 cm)</i>
(14)	Low function: (***) Push keys (12) and (13) simultaneously Caution: foot crushing risk! <i>(Safety stop at 25 cm)</i>



(*) The comfort sitting position just moves upwards. All adjusted positions can be lowered by pressing key 13.

(**) The Trendelenburg function may be used exclusively under supervision of medical professionals. (***) This function is only available for the floorline 15|80.

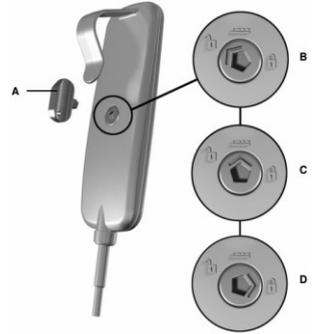
Hazard note from Bock

When lowering the nursing care bed to the low position (floor depth), there is a high risk of crushing (feet, toes, and objects, e.g. cables) underneath the aluminium longitudinal frames and/or the bed end panels or telescopic post.

2.6 Hand control - lock functions

The hand control comes with an integrated disabling function that can be activated and deactivated with the corresponding key. To disable the entire electrical function, insert the key in the keylock on the backside and turn the lock function on or off with a corresponding twist of the key.

- A: Socket key
- B: Hand control enabled
- C: Head-down position (Trendelenburg) blocked
additional low function with the floorline 15 | 80 locked
- D: Release hand control keys



Hazard note from Bock

Do not exceed the maximum duty cycle of 2 minutes. Observe a subsequent break of at least 18 minutes by all means.

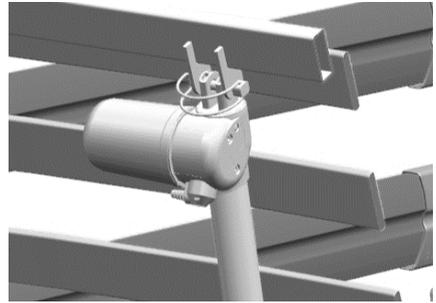
Hazard note from Bock

During the adjustment of the lying surface angle (moving into or out of the comfort sitting position, Trendelenburg - or Anti-Trendelenburg position), the floorline 15 | 80 has the chassis moving further apart or closer together. To enable this length compensation, the wheels must point in the longitudinal direction of the bed. In addition, to adjust the lying surface angle, the brake at one end of the bed must be released and then applied again to secure the bed.

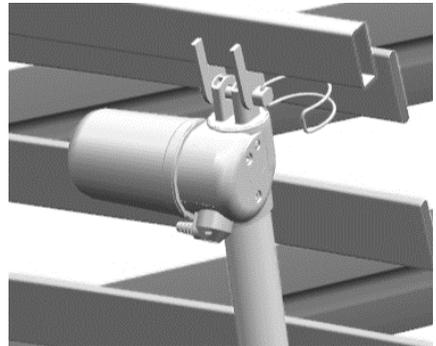
2.7 Emergency lowering – backrest (standard)

In case of power or drive system failure, you can lower the elevated back rest manually.

Must always be carried out by two people!



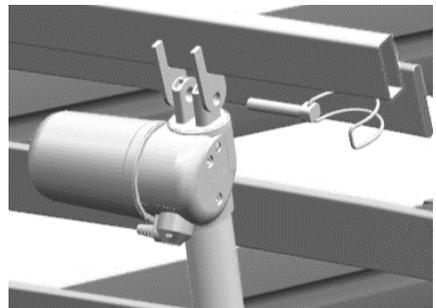
One person lifts the back rest slightly (to take the pressure off) and holds it in this position. The second person then removes the locking pin from the motor.



The motor is now separated from the back rest and can be swivelled downwards.

Once the second person has left the danger zone, the first person can lower gently the back rest.

Hold the back rest by all means until it is fully lowered.



Hazard note from Bock

Emergency lowering may- only be carried out in an emergency by people who safely master this operation.

Absolutely disconnect the bed from the mains as long as the motors have not been mounted again.

2.8 Emergency lowering – backrest (optional)

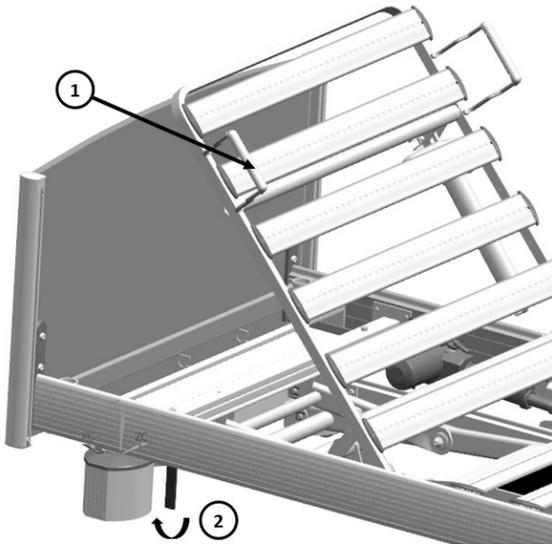
The backrest can be lowered in an emergency by means of a mechanical device on the nursing care bed. To do this, the red control lever is moved upwards in the direction of the head end panel. The speed of lowering depends on the weight of the mattress and the weight of the patient.

Hazard note from Bock

The backrest can lower very quickly in case of heavy patients. Always guide the backrest down by the mattress bracket with one hand to check the adjustment.

Operation:

Hold the mattress bracket (1) on the backrest with one hand and move the red control lever (2) upward in the direction of the head end panel (see direction of arrow). The backrest moves downwards. Keep your hand on the mattress bracket (1) until you release the control lever (2). The backrest is then held in this position. **Make sure that after operating the operating lever (2), it points downwards again in a vertical-right direction.**



3 Electric parts

3.1 The drive unit by Dewert

The drive unit consists of individual drives for the electrical adjustment of the back rest and leg rest. The height adjustment is performed with two individual drives that are attached to the chassis. The motors and the hand control are connected to the control box which is placed on the inside of the lying surface. A transformer in the power supply converts the input voltage into a low voltage power of max. 29 VDC (direct current). The motors, control box and the hand control work with this non-hazardous low protective voltage. The cables are double-insulated and the mains plug has a primary fuse.

Internal emergency lowering is carried out by loosening the locking pin on the motor mountings. Furthermore, power adjustment allows for constant speed of the functions. Therefore, the safety functions comply with protection class II and the moisture barrier protection type IPX4.

The maximum duty cycle is specified on the (type plate) of the bed. For example, 10% duty cycle (2 min. ON / 18 min. OFF) means that any electronic adjustment can be performed for a max. of 2 minutes within a timeframe of 20 minutes (protection against overheating).

If the maximum setting time of two minutes is exceeded by two minutes, e.g. someone continuously operates with the hand control, which could lead to overheating of the controller or drives, the thermal fuse immediately shuts off the power supply to the bed. After a cooldown time of approx. one hour, the power will be automatically supplied again.

3.2 Caution: Electric drive

The electrically operated nursing care bed enables the person in need of care to support the recovery process psychologically and physically and at the same time relieve pain through its various functions. Electrically operated beds that are medical products and need special maintenance in regards to constant safety checks. This includes safety-conscious handling of the bed, daily inspection of electrical equipment and proper maintenance and cleaning.

To prevent damages to the cables, they should be placed outside of the area in which damages could be caused. Furthermore, avoid touching the sharp parts. To prevent injury through an electric shock, avoid the possibilities of too high contact voltages. These circumstances may especially occur if the power cable is damaged, if inadmissible and excessive leakage currents exist, or if liquid was spilled into the motor housing, e.g. during improper cleaning. This damage can cause malfunction of the control box, which could result in unwanted movements of single bed elements, posing a risk of injury for the operator and the person in need of care.

Hazard note from Bock

All drive components must not be opened!

Troubleshooting or exchanging single electrical components may only be performed only by special qualified personnel.

Hazard note from Bock

The motors meet the water protection standard IPX4. Do not squeeze/crush the cables. Adjustment of moving parts may only be used for the intended use. Hermann Bock GmbH assumes no liability for unauthorized technical changes.

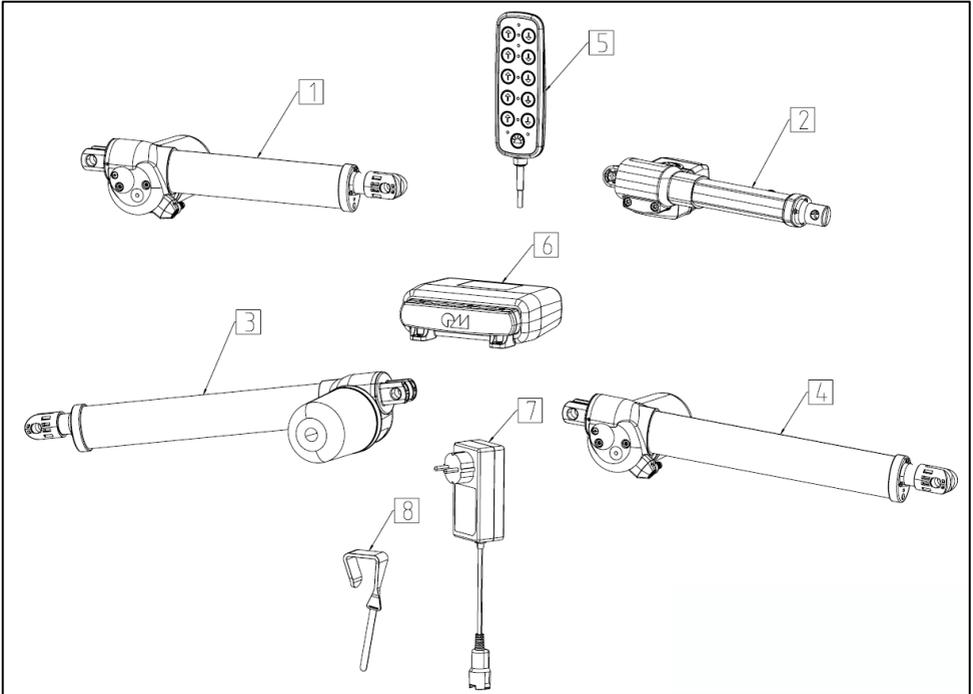
Hazard note from Bock

Do not try to fix failures on the electrical equipment yourself. It could be fatal! Either call the customer service of Hermann Bock GmbH or an authorised/licensed electrician who conducts the troubleshooting in compliance with all relevant VDE regulations and safety regulations.

3.3 The drive unit

Hermann Bock GmbH equips the nursing care beds with drive systems from the company DewertOkin GmbH.

The drive unit basically consists of the following components:



1	Lifting motor lying surface back rest	5	Hand control
2	Lifting motor lying surface foot rest	6	Control box
3	Lifting motor chassis – head end	7	Power supply unit
4	Lifting motor chassis – foot end	8	Power cord suspension

The housing principle of the individual drives guarantees the permanent function of all drive components. Through a detailed interior structure, the construction of the housing interior creates an essential prerequisite for the precise integration of the drive technology, as well as a trouble-free assembly/disassembly.

3.4 The external power supply unit SMPS

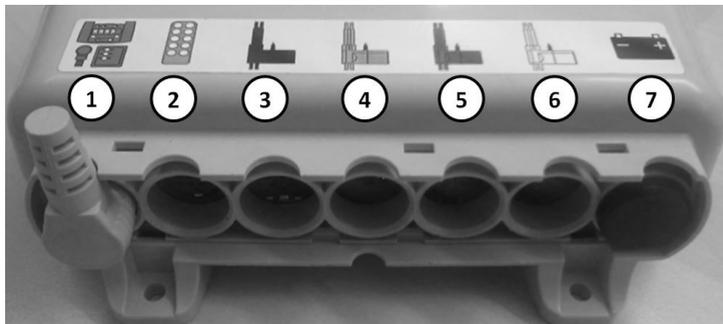
The plug-in part of the external switch mode power supply (SMPS) is an electronic transformer, which warms up only to a minimum degree under load and it is equipped with electronic performance monitoring. The result is a constant voltage up to the maximum load (no loss of speed) and a high level of protection against overloading. The external transformer ensures safety right from the socket because it converts the voltage directly into the 29V safety low-voltage which is used to actuate the bed. It is connected via plug coupling to the mains supply line feeder cable and can be replaced separately if defective.

The plug-in part of the external switch mode power supply complies with the European directives for electrical household appliances. In standby mode, it also has a low energy consumption of maximum 0.5 Watt and can be used internationally with variable input voltages from 100 V to 240 V. Electromagnetic alternating fields are not measureable on the SMPS adapter.



The external power supply unit

3.5 The control box



Controller

The nursing care beds with single drives are equipped with a control box from DewertOkin GmbH. Four drives can be connected to the controller (sockets 3,4,5 and 6). The following colour coding is used for the plug assignment:

- Red (2): Hand control or floor lighting
- Black (3): Lifting motor lying surface head part (backrest)
- Yellow (4): Lifting motor lying surface foot part (upper leg rest)
- Blue (5): Lifting motor chassis – head end
- White (6): Lifting motor chassis – foot end

Additionally, a floor lighting can be connected to the connection socket for the hand control (socket 2). Please make sure that a dummy plug is attached to the connector for the battery (socket 7) if no battery is connected. A jumper plug must be fitted to the connection for the additional control element (socket 1). The pigtail connector (not in Fig.) (cable that is run from the top of the controller) can be used to connect a reading lamp.

4 Assembly and operation

4.1 Technical data

Technical data	practico 25 80 plus	floorline 15 80
Lying surface dimension: cm	90 x 200	90 x 200
Outer dimension: cm	103,5 x 209	103,5 x 219
Outer dimensions of end panel type 1 plus: cm	104,5	104,5
Safe working load: kg	220	220
Max. weight of person: kg	185	185
Height adjustment: cm	25 - 80	15 - 80
Length of back rest: cm	86	86
max. angle of incidence to horizontal:		
- Back rest	70°	70°
- Lower leg rest	16°	16°
- Trendelenburg position	15°	15°
Side rail height with wooden slats: cm	39.5	39.5
Side rail height with ripolux neo®: cm	35	35
Selection options for side rails:		
- Continuous wooden side rail	•	•
- Telescopic wooden side rail	•	•
Lifter bottom space clearance: cm	> 15	> 15
Sound level: dB(A)	< 65	< 65
Weights:		
Total incl. continuous wooden side rail: kg	121,0	116,0
Lying surface: kg	40	40
Chassis (visible castors, central braking): kg	55	50
Wooden end panel (type 1 plus): kg	9	9
Continuous wooden side rail: kg/set	8	8
Telescopic wooden side rail: kg/set	11	11
Electric data		
Input voltage: V	100-240	100-240
Frequency: Hz	50/60	50/60
Max. power consumption: A	3.5	3.5

All parts and data are subject to constant further development and therefore may differ from the mentioned data. The technical data of variants may differ.

4.2 Special features of the practico 25|80 plus

The practico 25|80 plus offers particular flexibility with its integrated bed and side rail extension. The use of the extension of the side rails is possible without additional elements. Together with the comfortable lying surface, mattress compensation and a back rest of 860 mm, the nursing care bed offers a high degree of lying comfort. Due to its easy operation, it supports the optimal care of people who are in need of care or ill, as well as the care of people with disabilities.

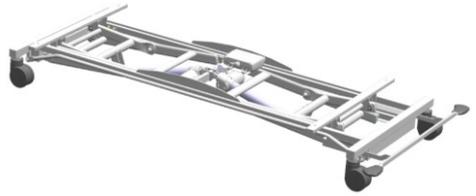
The practico 25|80 plus:

- is not suitable for the hospital use
- is suitable for the transport of patients. The nursing care bed can be moved with the patient resting in it. To prepare for this, lock the castors and move the lying surface to the lowest horizontal position. Unlock the castors and move the bed. After the transport, lock the castors.
- under certain circumstances can be used (if necessary) for medical purposes with other electric medical equipment (e.g. suction devices, ultrasonic humidifier, food systems, anti-bedsore systems, oxygen concentrators and similar devices). In this event, disable all bed functions for the duration of the application via the integrated disabling function.

Attention: The bed has no special connection options for a potential equalisation. Electrical medical devices connected to the patient intravascular or intracardiac may not be used. The operator of the medical products has to ensure that the combination of the equipment meets the requirements of EN 60601-1.

4.3 Assembly of the practico 25 | 80 plus

Remove all packaging from the bed and place the chassis on a free and flat surface.

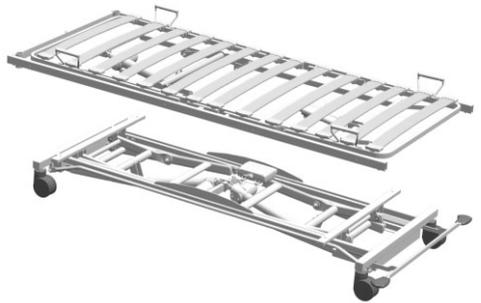


Place the lying surface on top of the chassis.

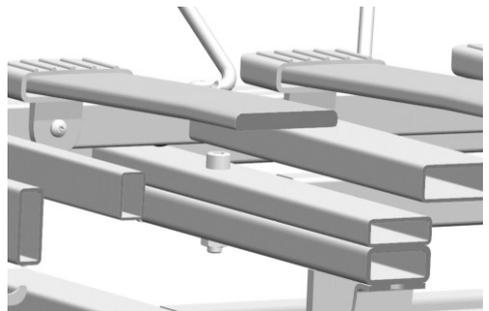
Pay attention to the head and foot end.

The picture shows the central locking foot pedal on the right side of the chassis, which must be located on the foot end of the lying surface.

The head end of the lying surface can be recognised by the lifting pole sockets.



Slide the lying surface on the chassis so that the holes are aligned on top of each other. Attach the lying surface using the 4 cylinder head screws and the 4 nuts provided.



Now, place the lying surface motor cables and the cable of the hand control safely below the lying surface up to the control box. Ensure that the cables cannot be not clamped or damaged in any way.

Follow the pin assignment of the control box according to chapter 3.5.

After all plugs have been connected to the controller, you can clip the supplied cover cap on the controller so that the connectors are securely fastened.

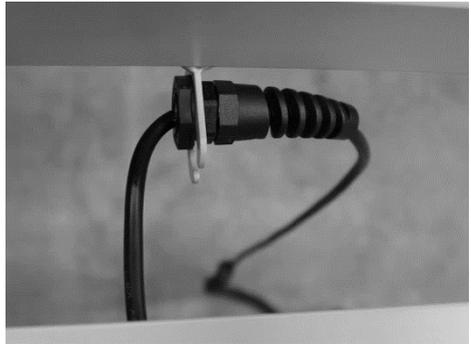


Attention: If your bed is factory-equipped with an floor lighting, you must insert the hand control into the free socket of one of the two floor lighting units. The floor lighting is already mounted on the lying surface frame. In this case, the plug of the floor lighting must be inserted into the socket for the hand control (red mark) on the control box. Ensure that all sockets are subsequently covered with the locking caps, in order to guarantee the protection class requirements.

Place the power cable in the middle across the frame of the undercarriage, all the way to the head end panel. There, please fasten the cable with the help of the strain relief.

IMPORTANT!

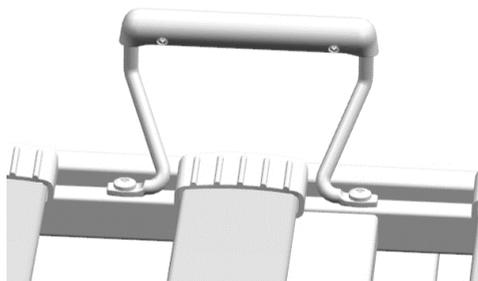
Please perform a reset of all the motors, before putting the bed into operation. This process is described in chapter 2.5.



If the mounting latches for the end panels are not yet mounted, slide them into the longitudinal bars of the lying surface, and attach them from below with the enclosed screws.



Now, attach the mattress brackets using the supplied self-tapping screws, if these were not factory-mounted (depending on shipping method of the nursing care bed).

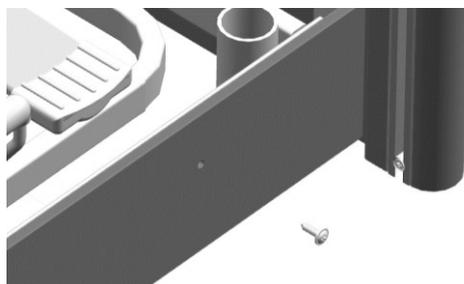
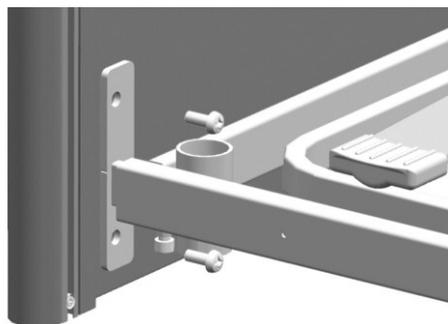


Subsequently, raise the chassis for the further assembly.

Brake the bed with the central braking to prevent an unintentional movement of the bed.



Mount the end panels and the side panels onto the lying surface.



4.4 Special features of the floorline 15|80

The floorline 15|80 offers all advantages of the practico 25|80 plus. In addition, it contributes to fall prevention due to its low overall height. The enormous height adjustment range enables caregivers to access the patient without strain on the back.

The floorline 15|80:

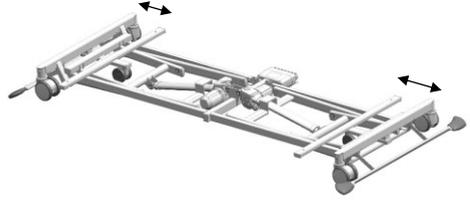
- is not suitable for the hospital use
- is suitable for the transport of patients. The nursing care can be moved with the patient resting in it. To prepare for this, lock the castors and move the lying surface to the height of 25 cm horizontal position. Unlock the castors and move the bed. After the transport, lock the castors.
- under certain circumstances can be used (if necessary) for medical purposes with other electric medical equipment (e.g. suction devices, ultrasonic humidifier, food systems, anti-bedsore systems, oxygen concentrators and similar devices). In this event, disable all bed functions for the duration of the application via the integrated disabling function.

Attention: The bed has no special connection options for a potential equalisation. Electrical medical devices connected to the patient intravascular or intracardiac may not be used. The operator of the medical products has to ensure that the combination of the equipment meets the requirements of EN 60601-1.

4.5 Assembly of the floorline 15|80

Remove all packaging from the bed and place the chassis on a free and flat surface.

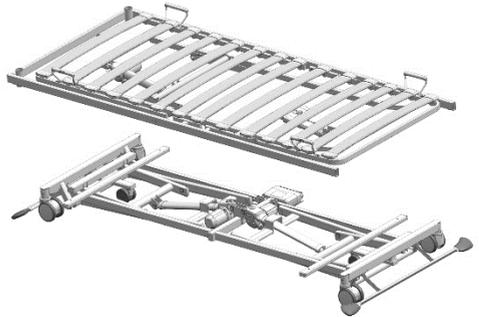
The crossbars for fastening the lying surface are not symmetrically installed. The distance to the head end of the chassis is smaller than at the foot end.



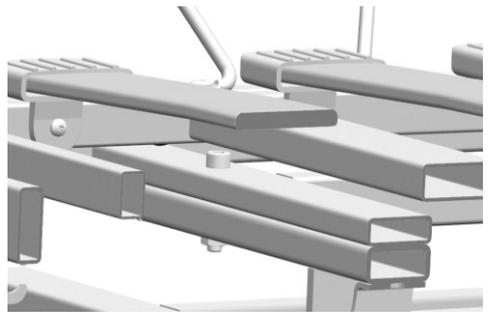
Place the lying surface on top of the chassis.

Pay attention to the head and foot part.

The head part of the lying surface can be recognised by the lifting pole sockets.



Slide the lying surface on the chassis so that the holes are aligned on top of each other. Attach the lying surface using the 4 cylinder head screws and the 4 nuts provided.



Now, place the lying surface motor cables and the cable of the hand control safely below the lying surface up to the control box. Ensure that the cables cannot be not clamped or damaged in any way.

Follow the pin assignment of the control box according to chapter 3.5.

After all plugs have been connected to the control box, you can clip the supplied cover cap on the controller so that the connectors are securely fastened.

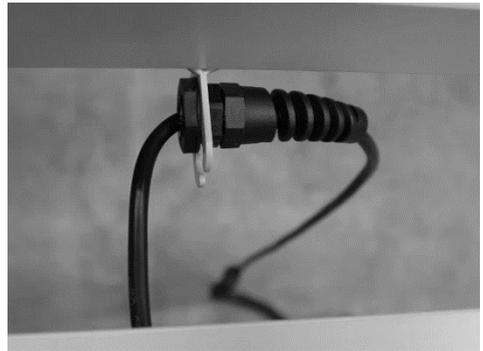


Attention: If your bed is factory-equipped with an floor lighting, you must insert the hand control into the free socket of one of the two floor lighting units. The floor lighting is already mounted on the lying surface frame. In this case, the plug of the floor lighting must be inserted into the socket for the hand control (red mark) on the control box. Ensure that all sockets are subsequently covered with the locking caps, in order to guarantee the protection class requirements.

Place the power cable in the middle across the frame of the undercarriage, all the way to the head end panel. There, please fasten the cable with the help of the strain relief.

IMPORTANT!

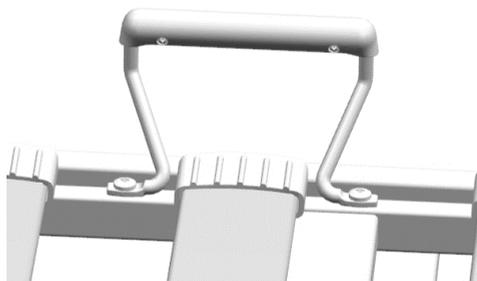
Please perform a reset of all the motors, before putting the bed into operation. This process is described in chapter 2.5.



If the mounting latches for the end panels are not yet mounted, slide them into the longitudinal bars of the lying surface, and attach them from below with the enclosed screws.



Now, attach the mattress brackets using the supplied self-tapping screws, if these were not factory-installed (depending on shipping method of the nursing care bed).

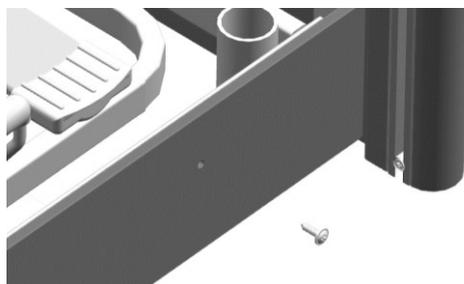
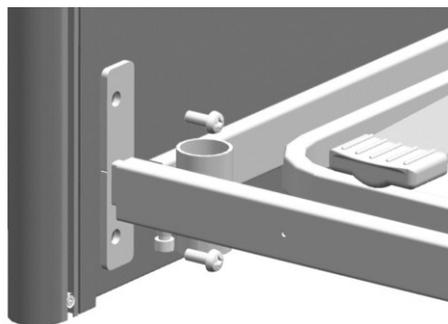


Subsequently, raise the chassis for the further assembly.

Brake the bed with the central braking to prevent an unintentional movement of the bed



Mount the end panels and the side panels onto the lying surface frame.



4.6 Mounting the side rails

Continuous side rail:

Loosen the screws of the insertion at the head end panel and pull it out a little bit.

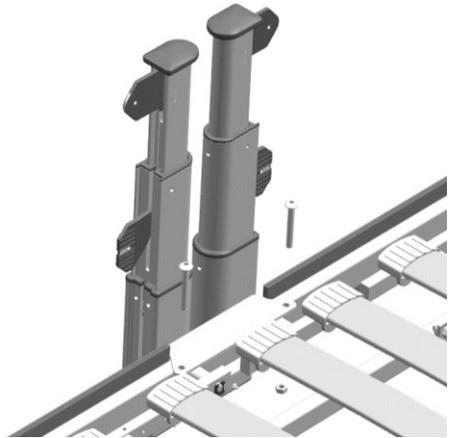
Now, insert the side rails onto the mounting latches and screw them together.

After all side rails have been installed, slide the end panel back and tighten the screws again.



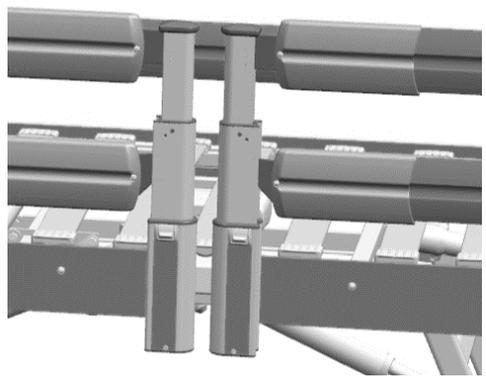
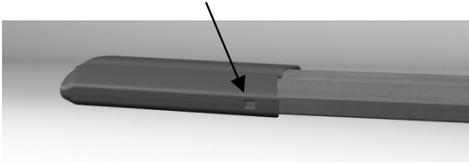
Telescopic side rails:

Place the middle posts approximately in the centre on the longitudinal frame of the lying surface.



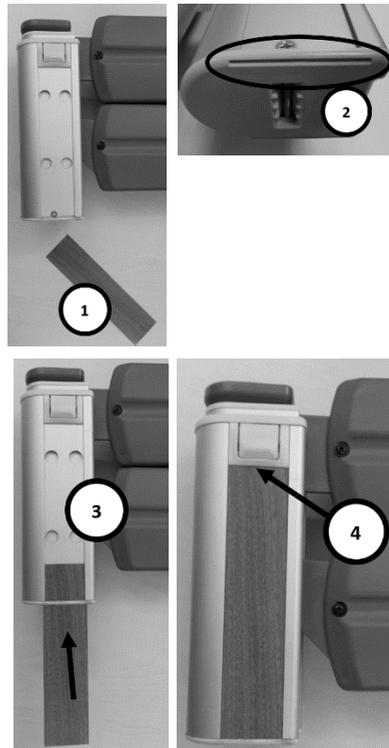
Insert the side rails onto the mounting latches and screw them together.

The markings on the side rail fixation caps must point downwards.



Inserting the decorative foil into the telescopic post

Take the decorative foil (1) and push it from below through the slot in the plug (2) into the aluminium profile of the side rail post (3). Please make sure that the correct side of the decorative film is facing outwards. This will be difficult to remove later. Push the decorative foil in until it is flush with the button (4). On the lower plug (2) there is a snap-in lug which prevents the decorative foil from falling out.

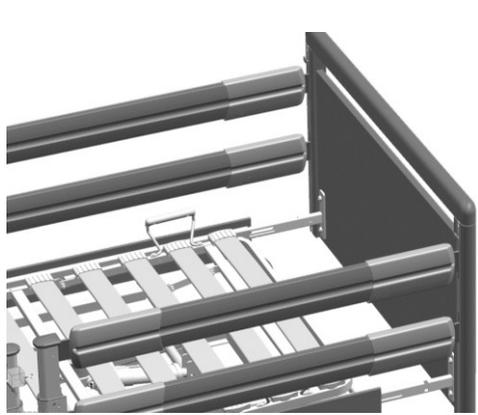


Hazard note from Bock

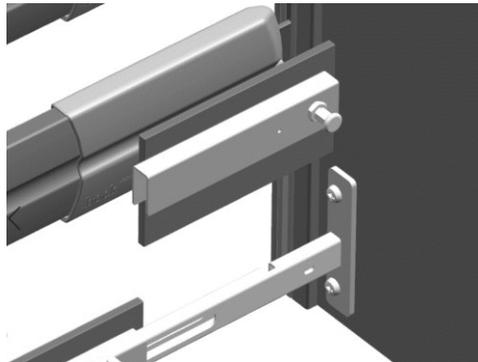
Check all screw connections again before the bed is put into operation.

4.7 Assembly of the integrated bed extension

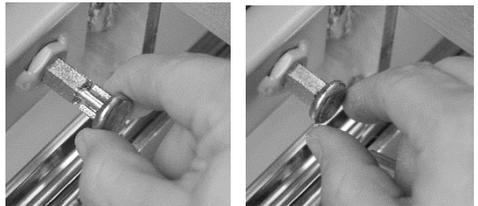
First unfast the Allen screws (key size 5) on each side the end panels.



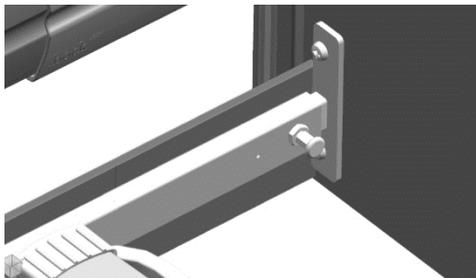
Now attach the side panel of the bed extension. Make sure that the spring bolt is unlocked. The side panel of the bed extension is now at the same height as the side panel of the bed.



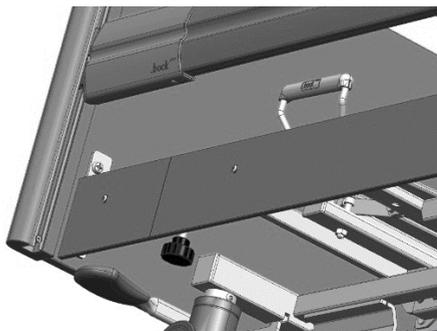
Then fit the side panel of the bed extension with the spring bolt.



Push the end panel back until the gap between the side panel of the bed and the side panel of the bed extension is closed.

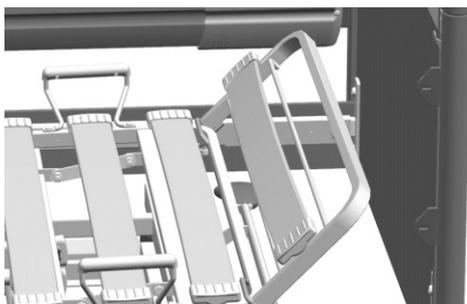


Retighten the Allen screws.



Finally, hook in the bracket for the leg rest extension

The integrated bed extension is now fully assembled.



Hazard note from Bock

Check all screw connections again before the bed is put into operation.

4.8 Putting the care bed into operation

Before using the bed for the first time:

Remove all transport locks and packaging foils.

Allow the bed to adjust to room temperature if it has previously been stored at the lowest or highest permissible temperature.

After the bed has been assembled, carry out a check according to the list shown below.

Assembly	Possible faults
Visual inspection of electrical components	
Hand control	Damage, foil
Motor	Damage
Control unit	Damage, cable routing
Power Supply	Damage, cable routing
Visual inspection of mechanical components	
Lifting pole	Damage, deformation
Lifting pole socket	Damage, deformation
Base frame	Damage, deformation, screw connections
Lying surface	Damage, deformation, screw connections
Wooden parts	Damage, splintering
Side rails	Damage, splintering
Function test of the electrical components	
Hand control	Function test incl. locking function
Function test of the mechanical components	
Castors	Braking, driving
Side rails	Engaging, unlocking

Hazard note from Bock

If there is damage or a malfunction, the bed must be taken out of service and operator needs to be informed immediately.

4.9 Change of location

If the bed must be moved to another location, please follow these safety instructions:

- To prepare, place the lying surface horizontally and lower it as far as possible avoiding that the end panels touch the central braking bar .
- Before proceeding, pull out the mains plug and attach it with the suspension device at the side rail, to avoid the power cable from falling and being crushed through over-travel. Make sure that the cable is not dragged over the floor.
- Before inserting the mains plug again, inspect the power cable visually for mechanical damage (kinks and dents, abrasions and bare wires).
- Place the power cable in a way that it will not be rolled over or strained during the operation of the bed or could be damaged when inserting the mains plug again.

4.10 Transport, storage and operating conditions

	Transport and storage	Operation
Temperature	0°C to +40°C	10°C to +40°C
Relative humidity	20% to 80%	20% to 70%
Air pressure	800hPa to 1060hPA	

4.11 Function notes

The chassis is comprised of an undercarriage with four castors. The castors are either individually lockable or equipped with a central locking system.

Castors with individual brakes – optional for the practico 25/80 plus

To keep the bed in one location, you must block the brakes on the castors of the chassis individually. To accomplish this, use your foot to move the locking lever on the castors downwards. To release the brakes, move the locking lever upwards with the foot.



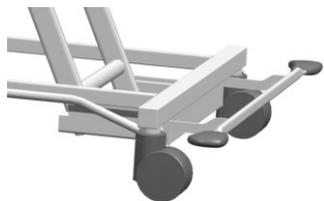
Central locking

The lever for the central locking is at the foot end of the chassis. All four castors can be braked by moving the lever downwards using the foot. To release the brakes, move the lever into a horizontal position with the foot. To move the bed, the two castors at the head end panel can be locked in position by moving the lever upwards using the foot. This particularly simplifies pushing in a straight direction.



Total locking of the brakes:

Lever down



Releasing the brakes:

Horizontal lever



Activation of the directional giving

device :

Lever up

2+2 - Central locking on the practico 15/80 plus

The lever for the central braking is at the head end and foot end of the chassis. With the brake levers, the castors at the head end and foot end can be braked separately. The operation is the same as for the central locking described above.

4.12 Disposal

The components made of plastic, metal and wood are recyclable and can be disposed/recycled in compliance with the relevant legal provisions. Please note that electric adjustable nursing care beds or nursing beds are considered commercially used electronic scrap according to the WEEE-EC directive 2012/19/EC (b2b). All replaced electrical and electronic components of the electrical adjustment system must be handled in accordance with the requirements of the Electrical and Electronic Equipment Act (ElektroG) and disposed of properly.

In general, when disposing a device, make sure that the components - are not infectious or contaminated.

4.13 Troubleshooting

This overview helps you to detect and correct malfunctions on your own and explains, what kind of malfunctions require the consultation of suitably qualified service personnel.

Malfunction	Potential causes	Remedy
The drive units cannot be controlled via the hand control	Power cable is not connected	Insert power cable
	Signals of the drives for the height adjustment are incorrectly processed within the controller	Perform reset movement as described in Chapter 2.5.
	No voltage in the socket	Check the socket or the fuse box
	Plug connector of the hand control not fixed firmly	Check the plug-in connection on the motor
	Hand control or drive unit defective	Notify the operator or Hermann Bock GmbH customer service
	Disabling function or control box in the hand control activated	Disabling function or control box in the hand control deactivated
When buttons are pressed, the drive units stop after a short time	There is an obstacle in the adjustment range	Remove obstacle
	The safe working load has been exceeded	Reduce the load
The drives stop after a longer adjustment time	The adjustment time or safe working load has been exceeded and the polyswitch in the transformer of the control box has responded to increased heat	Allow the drive system to cool down sufficiently for at least one minute
Opposite functions when operating the hand control	Check the pin assignments on the controller, see Chapter 3.5	Connect the cables according to the colour marking, or inform the operator or the customer service of Hermann Bock GmbH

Individual drive units run in one direction only	Hand control, drive unit or controller defective	Notify the operator or Hermann Bock GmbH customer service
Drive units stop and bed remains in a tilted position	Constant operation of adjustment functions	Move the lying surface to its lowest position and align it again horizontally. Activate disabling function in hand control
Telescopic side rail bar cannot be moved upwards	Telescopic side rail bar is locked in lowered position	Check the locking of the telescopic side rail bar

5 Accessories

Hermann Bock GmbH offers accessories which are practical, enhance the mobility and - ensure that each nursing care bed is fulfilling the individual needs of the person. The installation is done in a quick and easy manner using the fixing points on the bed that have already been prepared for this purpose. It goes without saying that every element of our additional equipment, meet the special quality and safety standards of Hermann Bock GmbH. In addition to the standard accessories included in basic equipment, the customer can also choose from our variety of accessories, which is available for each bed model. These optional accessories vary depending on the bed model and are fitted to its special functions and location of use. The range goes from technical elements over mattresses up to the occasional extra bed. A wide range of wooden finishes and a variety of colours allow for the harmonious integration of each nursing care bed with any kind of furniture.

5.1 Special dimensions

Special dimensions are an essential part of the production Hermann Bock GmbH. Optimal lying comfort for persons in need of care who have a particular physique can only be achieved by means of custom-made models. With its customized models, Hermann Bock GmbH enables customers to have their nursing care bed tailored to fit the individually physical requirements of the person in need of care. For body heights up from 180 cm, Hermann Bock GmbH recommends the use of the integrated bed extension that allows an extension of the lying surface to a length of 210 or 220 cm. This enables even tall people to lie comfortably while maintaining the same level of functionality.

Hazard note from Bock

When using accessories on the bed or medically necessary devices as infusion stands in close proximity to the bed, ensure particularly that there are no risks of crushing or shearing for the person in need of care when adjusting the back and leg rests.

The Hermann Bock GmbH service hotline representatives are looking forward to informing you about the best retrofitting for your bedsolution for your bed.

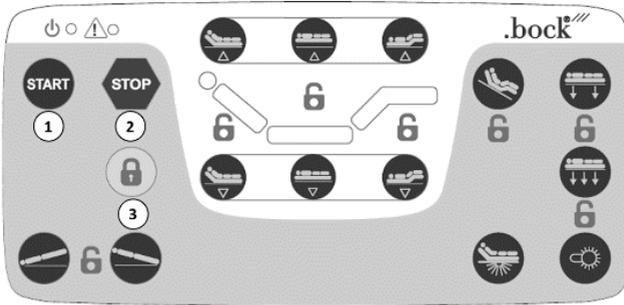
Hotline no. +49 1805 262500.

A wide product range of auxiliary furniture complements the various bed models up to the complete interior design of your home. This combination creates a care and living comfort resulting in perfect harmony.

5.2 Nurse control panel

The nursing care bed can optionally be equipped with an additional controller/ nurse control panel.

For this purpose a second control box is mounted to the bed, which is connected to socket 2 of the control box. The hand control in socket 1 and the nurse control panel - in socket 2 are plugged into this second control box. Sockets 3, 4 and 5 remain free and are equipped with a blind plug.



Operation:

To control the nursing care bed with the nurse control panel, the keys must be released by pressing the "START" key (1). Now all functions can be executed that you can also find on the hand control. After adjusting the nursing care bed, you can press the "STOP" button to activate the key lock immediately, otherwise it will be activated automatically after some time of non-use.

Locking of functions:

You can use the second control panel to lock individual functions. To do this, press the key with the symbolic lock (3). Now you can select individual functions. The function is not disabled when the respective control lamp is lit. If the respective control lamp does not light up, the function is disabled. The disabled function, do not work on the nurse control **and** neither on the hand control. After you have locked all the necessary keys, you can confirm your selection by pressing the "START" or "STOP" key. The settings remain saved.

ATTENTION: If certain functions have been locked on the hand control, they are not locked on the nurse control panel. These functions must be locked separately here.

5.3 Rechargeable battery

The battery serves as a mains-independent reset function. No warranty shall be provided for the functioning of the drive in the event of a power failure.

Fully charge the battery for at least 24 hours before the first use. The built-in rechargeable batteries only reach their full capacity after 5 to 10 charging and discharging cycles.

As long as the controller is supplied with mains voltage, the automatic charging circuit ensures permanent operational readiness. After using the drive system independently from the mains power, the battery should be recharged immediately by re-establishing the mains connection.

When the battery voltage reaches the cut-off threshold, the drive system is completely deactivated. The deep discharge protection, protects the battery from possible damages that could result from failure to observe the discharge warning. If the voltage of the battery reaches the threshold of the deep discharge protection, as a warning during driving an acoustic signal is given. The battery should be charged immediately when the acoustic signal sounds, but the drive can still be moved for a short time.



Technical data	AG7 rechargeable battery
Input voltage	24V DC
Capacity	1.2 Ah
Fuse	T 15 A
Degree of protection	IPX4
Battery type	Lead fleece
Charge cut-off voltage	29 V DC
Charging time	approx. 14 hours
Service life	approx. 1000 charging cycles
Self-discharge	approx. 6 months

Hazard note from Bock

Note the off-time of the battery. This must rest for at least one hour prior to commissioning, removal and replacement of the battery.

There is a danger of electric shock! Before mounting, be sure to disconnect the mains plug of the drive from the socket! Make sure that the mains plug is accessible at all times.

To increase operational safety, carry out the following measures before initial commissioning or after extreme mechanical loads: Check the housing for damages. If the housing show signs of damage, or if the unit heats up excessively: Then disconnect the battery from the controller and shut down the drive system.

Do not open or destroy the battery.

Do not expose the battery to heat or open fire. Avoid positioning in direct sunlight.

If the battery is leaking and there is a contact with the leaking liquid, rinse the liquid off thoroughly with water and seek medical attention immediately.

Dispose of the battery in accordance with the legal regulations for used batteries and rechargeable batteries, as these may not be disposed of with household waste.

Maintenance: Perform regular visual inspections (at least every 6 months). Pay attention to possible damages on the housing, and check the plug connections and the cables for damages, crushed sections or shearing.

Maximum storage time 6 is months at the recommended storage temperature. Afterwards, the battery should be charged again. At higher storage temperatures, the battery should be charged at an earlier point in time. This is to avoid a deep discharge, which could lead to an irreparable damageof the battery.

5.4 Side rail height increase

Delivery includes:

Fully assembled side rail height extension

To install the plastic latch, attach the side rail extension, position it in the middle and close the latch. Make sure that the release button of the side rail extension faces outwards.

Hazard note from Bock

The Bock side rail height increase is designed for use with all Bock wood side rail variants. Hermann Bock GmbH does not accept any liability for the use of these products on other makes!

5.5 Lifting pole with triangle handle

The weight of the lifting pole is 6.5kg.

The safe working load of the lifting pole is max. 75 kg.

Delivery includes:

1 piece lifting pole with hook-up loop

1 piece triangle handle

Place the lifting pole with triangle handle in the provided socket on the head part and adjust it accordingly. Insert the triangle handle in the eyebolt.

Make sure to only use mattress with a required mattress height as described by the Hermann Bock GmbH Bock.



ATTENTION: The lifting pole must not swivel outside of the lying surface.

When used in line with its intended purpose, the service life of the triangle handle is approx. 5 years. If a lifting pole with triangle handle installed to the bed, it must be tested during each safety technical control, but must be replaced no later than after 5 years. The handle can be infinitely adjusted within a range of 350mm. This allows an adjustment range between triangle handle and mattress of at least 550mm to 850mm, depending on the mattress thickness. The total height of the nursing care bed increases by 1300 mm when using a lifting pole.

5.6 Side rail pad

The weight of the side rail pad is 1.4kg.

Delivery includes:

1 piece cover

1 piece padding



Open the zipper (and/or the hook and loop fastener, depending on the version) of the cover and pull the side rail from above. Pull the foam padding from the inside of the bed into the cover and close the zipper and/or the hook and loop fastener.

5.7 Mattresses

In general, foam and latex mattresses are suitable for the Hermann Bock GmbH nursing care beds. A volumetric weight of at least 35kg/m^3 is required along with the dimensions of 90 x 190 cm, 100 x 190 cm, 90 x 200 cm and 100 x 200 cm.

The height of the mattress used may not exceed:

- 16 cm for aluminium or wooden slat lying surfaces
- 12 cm for lying surfaces with spring systems (ripolux neo)

For higher mattresses, an additional attachment guard (side rail extension) must be used, which is available as an accessory. When using foam mattresses, we recommended the use of a cut foam mattress to allow a better combination with the lying surface.



Hazard note from Bock

For safety reasons use only original Bock accessories when furnishing your nursing care bed further. Those accessories must be approved by Hermann Bock GmbH for the respective bed model. Hermann Bock GmbH assumes no liability for accidents, damages and hazards arising from the use of other accessories!

6 Cleaning, maintenance and disinfection

The individual bed elements consist of high quality materials. The surfaces of the steel tubes is covered with a durable polyester-powder coating. All surfaces of the wooden parts are surface-sealed with an ecologically coating that is low on harmful substances. All bed elements are easy to clean and cared for using wipe and spray disinfection means according to the applicable cleaning requirements with respect to the various areas of application. Observing the following care instructions will retain the usability and visual appearance of your nursing care bed for a long time to come.

6.1 Cleaning and care

Steel tubes and vanished metal parts:

Please use a wet wipe and a regular mild household detergent for the cleaning and care of these surfaces.

Wooden-, decorative-, and plastic elements:

All standard furniture cleaners and cleaning detergents can be used. Using a wet wipe without detergent additives for the cleaning of the plastic elements should generally be sufficient. For care of the plastic surfaces use a product that is specifically suitable for plastics.

Drive:

To prevent the intrusion of moisture into the motor housing, we recommended using only a damp rag to clean outside housing.

Spring systems ripolux neo:

Use a damp rag without adding any detergents, or, if deemed necessary, a detergent that is exclusively suitable for plastics and clean the spring elements made of plastics. In case of heavy contamination, remove the spring elements from the supporting elements and the supporting elements from the frame of the lying surface. The dismantled plastics elements can be rinsed or spray-washed with hot water to get them clean. For the disinfection, the components should be sprayed with a detergent suitable for plastics. Most of the moisture drips off the plastic surface by slightly shaking it, while the rest will dry on its own within a very short time. Remount the elements after they have completely dried. If required, you can also remove each of the individual lying surface elements completely from the frame to clean them.

Cover materials:

Fundamentally, a regular cleaning will increase the service life of textile and imitation leather covers. Particles not removed (dust, crumbs) can cause damage to the covers through abrasions and chafing.

To clean the polyester covers, vacuum them regularly and occasionally wipe them with a damp cloth or clean them with a high-quality upholstery shampoo. Adhering residues can be removed with a soft brush or cloth. To clean stains, moisten them with warm water and add a few drops of detergent liquid to the appropriate areas. Allow it to act briefly and then brush or rub off the cover vigorously. If necessary, repeat the procedure several times. Afterwards, rinse the cover with lukewarm water and rub dry with a cotton cloth.

To clean the artificial leather covers, use warm and mild soapy water, and a soft, lint-free cloth or hand brush. In case of heavy soiling, rinse the area with fresh water and dry it with a soft cloth. If any existing stains do not disappear, you can generously apply a solvent-containing cleaning agent to the stain with a soft cloth or sponge. Afterwards, rinse again with fresh water and dry with a soft cloth. The use of plastic cleaners is not recommended.

6.2 Disinfection

Disinfect the nursing care bed with a wipe disinfectant. Please adhere to the tested and recognised procedures of the Robert Koch Institute (RKI). You can use commercially available cleaning and disinfecting agents approved by the RKI. In order to maintain the material resistance of the plastic elements such as the motor housing and decorative elements, only mild and gentle agents should be used for disinfection. Concentrated acids, aromatic and chlorinated hydrocarbons as well as detergents containing highly concentrated alcohols, ether, ester and ketone may damage the material and should therefore be avoided. The list of disinfectants and disinfection methods tested and approved by the Robert Koch Institute can be found on the Internet at www.rki.de.

6.3 Avoidance of hazards

In order to avoid dangers in connection with cleaning and disinfection, you must first observe the following regulations in connection with the electrical components of your nursing care bed. Non-observance of these guidelines may result in considerable damage of the electrical lines and the drive.

1. Pull the mains plug and position it in such a way that contact with excessive amounts of water or detergents can be excluded.
2. Check all plug-connections for correct position according to the instructions.
3. Check the cables and electrical component parts for damage. Should you detect any damage, do not perform any cleaning operations but first have the defects repaired by the manufacturer or an authorised/ licensed electrician.
4. Before starting the operation, check the mains plug for residual moisture and dry or blow out the device, if necessary.
5. On any suspicion of the intrusion of moisture into the electrical components, disconnect the mains plug immediately and do not re-establish the connection. Put the bed out of operation immediately, attach an appropriate visible label and contact the manufacturer/supplier.

Hazard note from Bock

Use of abrasive cleansers and/or detergents containing grinding particles, cleaning pads or stainless steel cleaners for the cleaning is absolutely not recommended. Neither use organic solvents such as halogenated/aromatic hydrocarbons and ketones nor detergents containing acid or alkaline.

Under no circumstances must the bed be sprayed with a water hose or high-pressure cleaner, as liquid penetrates into the electrical components, and as a result malfunctions and dangers could occur.

Clean and disinfect the bed before using it again. Also, at the same time, perform a visual inspection to check for any mechanical damages. You will find detailed information on this in the inspection list.

7 Guidance and manufacturer's declaration

Guidance and manufacturer's declaration

– Electromagnetic emission

The *nursing bed* is intended for use in the electromagnetic environment specified below.

The customer or the user of the *medizinisches Bett* should assure that it is used in such an environment.

Emission test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11 (partly)	Group 1	The <i>medizinisches Bett</i> is suitable for use in all establishments other than domestic and those directly connected to the public-voltage power supply network that supplies buildings used for domestic purpose.
RF emissions CISPR 11 (partly)	Class B	
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	

– Electromagnetic immunity

The nursing bed is intended for use in the electromagnetic environment specified below.

The customer or the user of the *medizinisches Bett* should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	<5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the <i>medizinisches Bett</i> requires continued operation during power mains interruptions, it is recommended that the <i>medizinisches Bett</i> be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: U_T is the a. c. mains voltage prior to application of the test level.

– Electromagnetic immunity

The *nursing bed* is intended for use in the electromagnetic environment specified below.
The customer or the user of the *nursing bed* should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 V 150kHz-80MHz	3 V 150kHz-80MHz	<p>Portable and mobile RF communication equipment should be used no closer to any part of the EQUIPMENT <i>medizinisches Bett</i>, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance:</p> $d = \left[\frac{3,5}{3}\right] \sqrt{P}$ für 150 kHz bis 80 MHz $d = \left[\frac{3,5}{3}\right] \sqrt{P}$ für 80 MHz bis 800 MHz $d = \left[\frac{7}{3}\right] \sqrt{P}$ für 800 MHz bis 2,5 GHz
Radiated RF IEC 61000-4-3	3 V/m 80MHz-2500MHz	3 V/m 80MHz-2500MHz	

where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).
Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range^b.
Interference may occur in the vicinity of equipment marked with the following symbol:

Ⓜ

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

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the *medizinisches Bett* is used exceeds the applicable RF compliance level above, the *medizinisches Bett* should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the *medizinisches Bett*.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the nursing bed

The *medizinisches Bett* is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled.

The customer or the user of the *medizinisches Bett* can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communication equipment (transmitters) and the *medizinisches Bett* as recommended below, according to the maximum output power of the communication equipment.

Rated maximum output of transmitter [W]	Separation distance according to frequency of transmitter [m]		
	150 kHz to 80 MHz $d = \left[\frac{3,5}{3}\right] \sqrt{P}$	80 MHz to 800 MHz $d = \left[\frac{3,5}{3}\right] \sqrt{P}$	800 MHz to 2,5 GHz $d = \left[\frac{7}{3}\right] \sqrt{P}$
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 rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

8 Regular inspections with service

Regular inspections facilitate the maintaining of the highest possible safety level, and are considered to be an important safety precaution. Medical devices must be inspected regularly in terms of safety according to the stipulated regulations of the manufacturer and the generally accepted rules of technology. The safety-related protection measures are subject to different requirements and demands. This also applies to the potential wear and tear in the daily use. To prevent such risks, constant and consistent compliance with the deadlines for regular functional testing is absolutely necessary. The manufacturer has no influence on the operator's adherence with respect to the observance of these regulations concerning electric beds. Hermann Bock GmbH facilitates the observance of the necessary precautionary measures to be taken by means of their time-saving services.

The execution of the inspection, assessment and documentation must be performed only by or under supervision of professional persons such as electricians or electro-technically instructed persons who have a thorough knowledge of the relevant provisions and are able to recognize possible impacts and hazards.

Hermann Bock GmbH will provide necessary descriptions, instructions or other documents on request.

In the event that no person on the part of the user is eligible for the regular inspections or is commissioned, the Bock service offers you the assumption of the regular inspections with simultaneous control and observance of the corresponding intervals for a fee.

Hazard note from Bock

Service and maintenance are not permitted to be carried out while the bed is in use!

The bed must be inspected at least once per year, as well as before and after each re-use.

For support purposes, Hermann Bock GmbH will provide you with the inspection list in these instructions. You can copy them, or download them from the Internet at www.bock.net The completed checklists serve as proof and must be kept.

Attention: Unauthorised technical changes to the product void all warranty claims.

Inspection list for Bock nursing care beds

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Issuing date: 14.05.2020

Model designation		
Serial / Inventory-No.:		
Year of manufacture:		
Manufacturer:	Hermann Bock GmbH	

Visual inspection:

No.	Description	Yes	No	Remark
General:				
1	Type plate/sticker present on bed and legible?	<input type="checkbox"/>	<input type="checkbox"/>	
2	Operating manual available?	<input type="checkbox"/>	<input type="checkbox"/>	
3	Is the safe working load as per type plate (patient weight + mattress weight + accessory weight) observed?	<input type="checkbox"/>	<input type="checkbox"/>	
4	Are the accessories (e.g. lifting pole incl. handle and belt, stand-up aid, wall deflector rollers, etc.) in perfect condition? Are all accessories securely fixed and without signs of wear? Is the handle on the lifting pole not older than 5 years (service life of the handle according to the manufacturer's specifications)? Is the correct lifting pole fixture (welded instead of edged) used or has it already been retrofitted?	<input type="checkbox"/>	<input type="checkbox"/>	
Electric components:				
5	Power cables, connecting cables and plugs without cable breaks, pressure and kinking points, abrasions, porous points and exposed wires?	<input type="checkbox"/>	<input type="checkbox"/>	
6	Strain relief firmly fastened and efficient?	<input type="checkbox"/>	<input type="checkbox"/>	
7	Correct and secure cable leading and cable connections?	<input type="checkbox"/>	<input type="checkbox"/>	
8	Housings of motors and hand control without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
9	Motor lift pipes without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
Chassis (with scissors construction beds) / end panels (of actuator beds):				
10	Chassis construction free of defects with no ruptured welding seams?	<input type="checkbox"/>	<input type="checkbox"/>	
11	Are the castors and bumper rollers (if available) without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
12	Plastic end caps and mechanical connecting elements (screws, bolts, etc.) complete and without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
Lying surface and end panels:				
13	Wooden slats, aluminium/steel bars, carrier plate and/or springs without damages? (No cracks, no fractures, tight fit, enough pressure, etc.) <i>Only for nursing care bed dino:</i> Distance between aluminium bars less than 6 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
14	Frame of lying surface and lifting parts free of defects with no ruptured welding seams?	<input type="checkbox"/>	<input type="checkbox"/>	
15	Plastic end caps and mechanical connecting elements (screws, bolts, etc.) complete and without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
16	Tight fit and no cracks or breakages of head end panel and foot end panel?	<input type="checkbox"/>	<input type="checkbox"/>	
Side rail:				
17	Are the side rails without cracks, breakages or damages?	<input type="checkbox"/>	<input type="checkbox"/>	
18	Is the distance between side rail bar is not more than 12 cm? <i>Only nursing care bed dino:</i> Distance between bars less than 6 cm? Distance between side rail and lying surface smaller than 6 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
19	Is the height of the side rail above the mattress at least 22 cm? <i>Only nursing care bed dino:</i> Is the height of the side rail above the mattress at least 60 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
20	<i>Only with split side rails:</i> Is the distance between the end part and side rails and/or distance between divided side rails less than 6 cm or greater than 31.8 cm?	<input type="checkbox"/>	<input type="checkbox"/>	

Inspection list for Bock nursing care beds

Page 2 of 2

Issuing date: 14.05.2020

Name / location:		
Address / Postcode / City:		
Station / Room:		
Name of examiner / Date:		

Functional testing:

No.	Description	Yes	No	Remark
Side rail:				
21	Are the side rails running smoothly in the tracks and locking into place safely? <i>Only nursing care bed dino:</i> Smooth running of the doors on the aluminium profiles? Doors lock securely into the locking mechanism?	<input type="checkbox"/>	<input type="checkbox"/>	
22	Are the side rails/parts sufficiently mounted and firmly seated?	<input type="checkbox"/>	<input type="checkbox"/>	
23	Was the load stress test of the side rail without deformation?	<input type="checkbox"/>	<input type="checkbox"/>	
Lying surface:				
24	Back part, leg part adjustment and special functions properly and without any obstacles?	<input type="checkbox"/>	<input type="checkbox"/>	
25	Safe grid mechanism of lower leg rest (if available) in every step, even under stress?	<input type="checkbox"/>	<input type="checkbox"/>	
26	<i>Only domiflex 2 nursing care bed:</i> Is the clamping effect of the 6 eccentric clamps sufficient? If this is not the case, the stop nut must be tightened slightly!	<input type="checkbox"/>	<input type="checkbox"/>	
Chassis (with scissors construction beds) / end panels (of actuator beds):				
27	Does the height adjustment work properly and without any obstacles?	<input type="checkbox"/>	<input type="checkbox"/>	
28	Safe braking effect, blocking and free running of wheels?	<input type="checkbox"/>	<input type="checkbox"/>	
Electric components:				
29	Testing of hand control (keys and disabling function) all working properly without any defects? Function of the limit switch given?	<input type="checkbox"/>	<input type="checkbox"/>	
30	Battery/Block battery/emergency lowering: Function properly and without any defects?	<input type="checkbox"/>	<input type="checkbox"/>	
General:				
31	Function of the accessories flawless and safe? (e.g. lifting pole incl. grab handle and belt, stand-up aids, wall deflector holder, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	
32	With retrofitted lifting pole sleeve: Screw tightened to 6-9 Nm (9-14kg)?	<input type="checkbox"/>	<input type="checkbox"/>	

Electric measuring:

No.	Description	Yes	No	Remark
Insulation resistance - (must be only measured on old models before manufacture year of 2002.)				
33	Insulation resistance – measured value larger than 7 MΩ?	<input type="checkbox"/>	<input type="checkbox"/>	
Device leakage current - (This measurement does not have to be carried out for nursing care beds with a limoss drive set for nursing care beds manufactured from 2018-05 onwards, or for nursing care beds with a Dewert drive set for nursing care beds manufactured from 2015-07 onwards during the first 10 years of service life, if the visual and functional testing is passed, if this is a nursing care bed with a limoss or Dewert switched-mode power supply (SMPS). With these nursing care beds, the mains voltage is directly converted into a safety extra-low voltage of max. 35 V in the switch-mode power supply unit.)				
34	Device leakage current - measured value smaller than 0.1mA?	<input type="checkbox"/>	<input type="checkbox"/>	

Evaluation

No.	Description	Yes	No	Remark
35	All values/inspection within the permissible range passed?	<input type="checkbox"/>	<input type="checkbox"/>	

In the event the inspection result did not pass:	<input type="checkbox"/> Repair <input type="checkbox"/> Singling out
Date / Signature	Next inspection



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Our SALES PARTNERS

Our business partners pursue the same strategy as we do: quality, innovation and above-average standards that are internationally recognized. You can rely on our business partners as you can rely on us.

Please note that only our authorised personnel and our sales partners can provide training, supply of spare parts, repairs, inspections and other service. Otherwise, all warranty claims will be void.

A listing of our current distributors can be found under www.bock.net/kontakt/vertriebspartner