

# Children's & adolescents nursing care bed

.bock<sup>®</sup>///

- dino



Dear valued customer,

with your decision to purchase a children's and adolescents 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 young persons 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, reading 'Klaus Bock'. The signature is written in a cursive, flowing style with a large, stylized 'K' and 'B'.

Klaus Bock

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# 1 Preface and general instructions

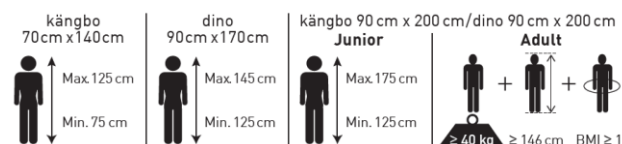
The various bed systems from Hermann Bock meet special requirements for the use in care and treatment facilities as well as for home care. Reliable functionality and a long product life make each bed particularly valuable. Our beds need little maintenance with proper operation and care. Each bed from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

The nursing care beds comply with the EN 50637 standard (medical beds for children) as well as the EN 716-1 and EN 716-2 standards (children's and travel beds for domestic areas). Where applicable, the standard EN 60601-2-52 (Particular requirements for the safety, including essential performance, of medical beds) also applies. The electrical building components comply with safety standard EN 60601-1 for medical devices. Nursing care beds are medical devices and are to be assigned to Class 1.

These standards divide the beds in five different areas of use:

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, a pure so-called "HomeCare Bed"
5. Home-care nursing service

## 1.1 Intended purpose



Model	Dimensions	Height Range	Weight	BMI
kängbo	70cm x 140cm	Max. 125 cm Min. 75 cm		
dino	90cm x 170cm	Max. 145 cm Min. 125 cm		
Junior	90cm x 200cm	Max. 175 cm Min. 125 cm		
Adult	90cm x 200cm	Max. 175 cm Min. 146 cm	≥ 40 kg	BMI ≥ 17

The 90 cm x 170 cm children's nursing care bed is suitable for persons in need of care (children / adolescents / adults) with a body height of less than or equal to 145 cm. The 90 cm x 200 cm adolescents nursing care bed is suitable for persons in need of care (children/adolescents/adults) with a body height of less than or equal to 175 cm. The weight of the person may not exceed 135kg.

The nursing care bed may be used in nursing homes and rehabilitation facilities (medical environment) but also in home care. 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. Therefore, the nursing care beds from the dino model series 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 nursing care bed is not suitable for use in hospitals. It is also not designed to transport patients. The beds can only be moved within the patient's room - even during patient positioning - for cleaning or better access to the patient, for example. After a movement, lock the rollers and turn them in the longitudinal direction of the bed (important for Trendelenburg, anti-Trendelenburg and comfort sitting position).

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

**Attention:** The beds come with 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.

**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 cost units) 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*

Person with one or more disabilities, one or more activity restrictions, one or more participation restrictions or a combination thereof.

### *Qualified personnel*

Employees of the operator are referred to as qualified personnel. They are entitled to deliver the nursing care bed, assemble, dismantle and transport it on the basis of 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 person 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 nursing staff/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 operating the key of the hand control. First, lower the lying surface to the safety position and activate the lock function with a twist of the key (located in the keylock on the backside). Remove the key and check the function of the hand control for safety reasons. Make sure that it is indeed locked.

These recommendations apply particularly:

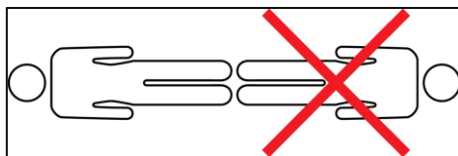
- if the person in need of care cannot operate the hand control safely due to certain disabilities;
- if the person in need of care or the caregivers could be at risk due to those accidental adjustments;
- if the doors are unlocked and jamming or crushing could develop,
- if children are unsupervised in the room with the bed.

Always make sure that the hand control and its cable (when not in use) is securely stored out of reach of the child in the intended box. The correct place of storage for the hand control is labeled with the following symbol:



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, special care must be taken to ensure that no limbs are located in the area of the wooden side panels. Even when the doors are being operated, care must be taken to ensure that the person in need of care is lying in the correct position. In doing so, the following symbol for the intended body position should be noted:



As a general rule, prior to making any electrical adjustment, it should be ensured that no limbs are positioned in the adjustment range between the chassis and the head or foot part, especially that there are no persons in the area between the floor and the raised lying surface. Danger of being crushed is particularly high in these areas.

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 in use with a patient.

#### **1.4 Service life / warranty**

This nursing care bed was developed, designed and manufactured for safe operation over a long period of time. When operated and used correctly, this nursing care beds typically has an expected service life of 7 to 10 years in the furnishing area. The service life depends on operating conditions and frequency.

**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 these 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 locking function in the hand control for the duration of the application.

### **Hazard note from Bock**

Always make sure that the cot is placed at a reasonable distance from curtains, blinds, heaters and powerpoints and keep medication, string, elastic, small toys or small items such as money out of reach from any position in the cot

## 1.6 Type plate

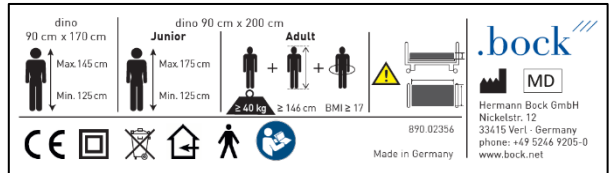
Each nursing care bed is marked with an individual and a general type plate.

### Individual and general type plate

- (1) **Modell: xxx**
- (2) Baujahr: xx.xx.xxxx
- (3) Serien-Nr. xxxxxxxx-xxx
- (4) xxx V ~ xx Hz, max. x A
- (5) ED xx % (x min ON / xx min OFF)
- (6) Anfr.- Schutzart IPX4
- (7)  $\frac{\text{max}}{\Delta} = \text{xxx kg}$   $\frac{\text{max}}{\Delta} = \text{xxx kg}$
- (8) Hermann Bock GmbH - Nickelstr. 12  
33415 Verl / Tel. 01805/262500



(9)



- (1) Model designation
- (2) Manufacture date: Day, month and year
- (3) Serial number: Order number - running 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



Symbol for 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 as household waste.



Medical application part type B



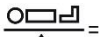
Use only in dry rooms



Protection class II (double insulation, insulated for protection)

IPX4

Protection of electrical equipment against splashing water



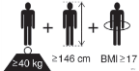
Symbol for maximum patient weight



Symbol for safe working load



Symbol for the identification 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

### Construction design and function

#### *Corrosion protection*

The Hermann Bock GmbH nursing care beds are developed and constructed in such a way that they can function long and safely. For this reason, 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*

By standard, the lying surface consists of a lying surface with aluminium struts and is divided into four functional areas: Backrest, solid seat, upper and lower leg rest.

The comprehensive lying surface frame is welded from a steel/aluminium tube. The steel tubes are stove-enamelled with a PES-powder coating. The electric variable height adjustment of the lying surface is carried out with protective low-voltage DC motors (29 to 35V), and controlled with the smooth keys of the hand controller. The backrest can be adjusted electrically. The leg part consists of a foot support that is divided into two parts. With a touch of a button on the hand control, each individual position can be adjusted continuously. In case of a power failure the back part that can be lowered by loosening the tube clip.

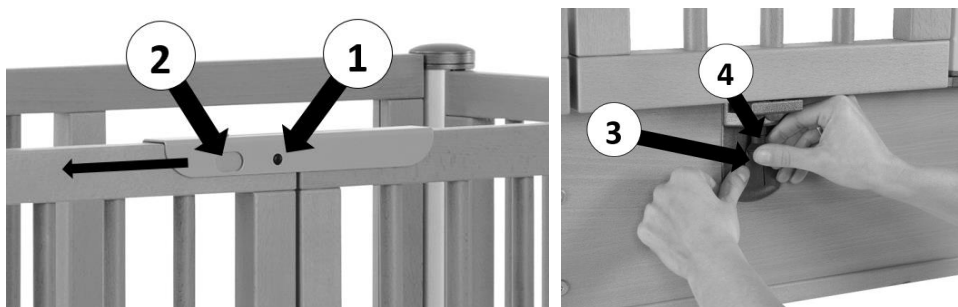
#### *The height adjustment*

The height adjustment of the beds is carried out through two telescopic aluminium lifting columns. These are each mounted on a foot tube with two castors. The surface of the tubular steel structure is stove-enamelled with a PES-powder coating. This is covered with an appealingly designed plastic cladding.

### *The door elements*

All side rail elements have been developed and constructed in such a way that all relevant standards are complied with. All distances are smaller than 60 mm and the surfaces are saliva-resistant according to DIN 53160.

The doors of the dino children's and adolescents nursing care bed can be opened on the whole length by four individual elements. To open the doors, please start with the middle elements. To do this, first slide the U-profile mounted above the doors to the side. To do this, first press the spring bolt (1) and at the same time use the groove (2) to move the slide as far as it will go. Then operate the door mechanism by means of a two-hand operation. To do this, press the lock securing device (3) and pull the locking bolt (4) down and towards you at the same time to open the door. The door element can be turned by 90 degrees. Repeat this procedure as necessary for the other doors. Pay attention to crushing points when folding down the doors.



To close the doors, bring the elements into a linear line, as the door hinges may move easily. Please close the outer door elements first, then the middle elements. To close the doors, press the catch (5) into the lock (6). The catch then engages automatically. If necessary, you can pull the locking bolt (4) downwards and then press the catch (5) into the lock (6). This allows you to close the doors very quietly.

Make sure that all door elements are tight after closing. Finally, slide the upper U-profile over the two door elements until the spring bolt engages.



When using the side rail attachment to increase height, the reinforcing strip above the doors must first be released by actuating the locking bolt and pushing up the locking device. Then perform the opening and closing procedure as described above.

## **Hazard note from Bock**

Do not leave opened doors unattended and secure them against improper use.  
Only use the height adjustment mechanism when the doors are closed to avoid collisions.

When doors are open and you put the bed in an inclined position (Trendelenburg, anti-Trendelenburg and comfort sitting position) doors can make uncontrolled movements.

Pay particular attention to crushing points in the area of the doors.

Only use technically perfect and undamaged elements with the permitted gap dimensions.

Make sure that the side rails are engaged securely.

Before attaching the door elements and each new use, check all mechanical parts on the bed frame that secure the doors for possible damage.

The doors should always be operated with the greatest care, as it can quickly lead to crushing of the fingers between the individual door elements.



## **3 Electric parts**

### **3.1 The drive unit**

The drive unit consists of individual drives for the electrical adjustment of the back and leg rest part. The level adjustment takes place via two lifting columns that are attached to the head and foot end. The internal control box includes a switch box with a rectifier in which the input voltage is converted into a protective low voltage of max. 29 VDC direct current. The motors, lifting columns and the hand control function with this non-hazardous low voltage.

A power adjustment provides constant speed. 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 plays continuously with the hand control), which could lead to overheating of the drives, the thermal fuse immediately shuts off the power supply to the bed. After a cooling time of approx. one hour, the power supply in the controller is automatically restored.

### **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 need special care 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, wiring should be conducted 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 be the case 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, 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.

### 3.3 The drives / lifting columns

Hermann Bock GmbH equips nursing care beds with various drive systems from the company's DewertOkin and Baumeister.

Each drive consists always of four main components.

- Housing
- Motor
- Gear
- Spindle with nut

The housing principle of the individual drive guarantees the permanent function of all drive components. The design of the interior of the housing creates an essential prerequisite for the precise mounting of the drive technology and particularly simple assembly/disassembly due to its detailed internal design.

### 3.4 The external switch mode power supply 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 measurable on the SMPS adapter.



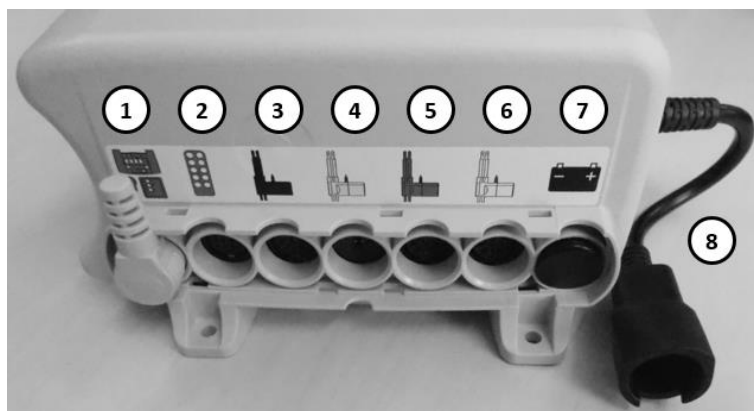
*The external switch mode power supply*



### 3.5 The controller

The dino children's and adolescents nursing care bed is equipped with a DewertOkin GmbH controller (Generation 1 / MCL 2 or Generation 2 / MCL 3). Alternatively, the dino can be equipped with a Smart-Care-Control (SCC) from Hermann Bock GmbH.

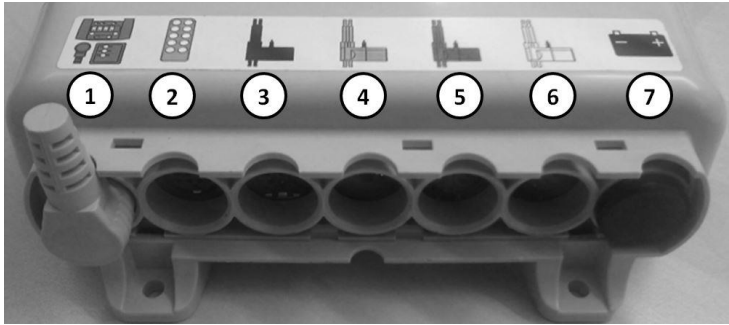
#### *Controller Generation 1 / MCL 2*



Controller Generation 1 / MCL 2

Four drives can be connected to the controller (sockets 3,4,5 and 6). The colour coding can be found in chapter 4 "Assembly and operation". A floor lighting can be connected to the connection socket for the hand control (socket 2), which in turn has a socket for the hand control. Please make sure that a dummy plug is attached to the connector for a battery (socket 7) if no battery is connected. The socket for the additional control element (socket 1) must be fitted with a so-called jumper plug. A reading lamp can be connected to the side pigtail connection (socket 8).

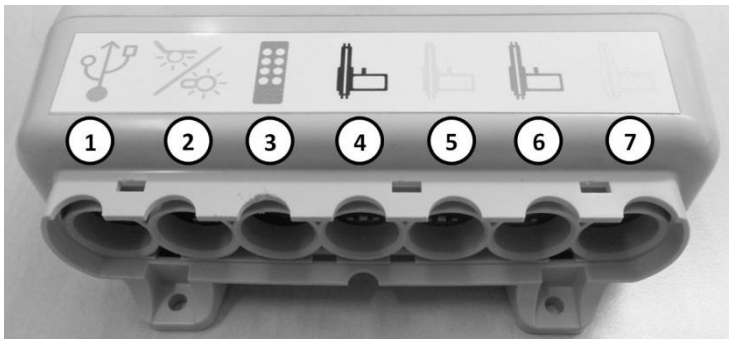
*Controller Generation 2 / MCL 3*



Controller Generation 2 / MCL 3

The connection sockets are identical to the Generation 1 controller (MCL 2) described above. The pigtail connector is located on the top of the controller.

*SCC Controller*



SCC Controller

The socket 1 is a CAN-BUS connection which can also be used to connect a sensor pad for a bed-off detection. Further details can be found in the separately supplied assembly and operation manual of the Smart-Care-Control unit. A Y-cable is plugged into socket 2 to which the floor lighting and the reading lamp are connected. The supplied hand control must be connected to socket 3. The connector sockets 4, 5, 6 and 7 are intended for the individual drives in the scissor and lying surface.

### **Hazard note from Bock**

All drive components must not be opened!

Troubleshooting or exchanging single electrical components may only be performed 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 itself. 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.

### **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.

## **3.6 The hand control**

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

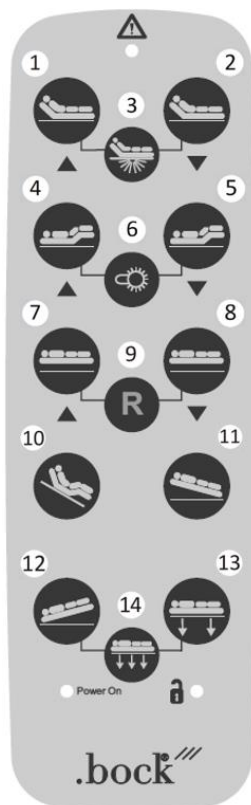
### *The lockable hand control, first-fault protected*

The base functions can be controlled through the ten operation keys on the hand control. The three icons in the centre indicate a special function that can be carried out by simultaneous applying finger pressure on the adjacent keys. The individual keys are marked with corresponding symbols. The servomotors run until as long as a corresponding key is pressed and held. 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.

## Function keys:

(1)	Back part upwards
(2)	Back part downwards
(3)	Floor lighting: Push keys (1) and (2) simultaneously
(4)	Lower leg part upwards
(5)	Lower leg part downwards
(6)	Lightening / reading lamp: Push keys (4) and (5) simultaneously
(7)	Lying surface upwards
(8)	Lying surface downwards <i>(Intermediate stop at the 44 cm exit position, safety stop at 34 cm safety position)</i>
(9)	Reset: <b>It is absolutely necessary to carry out this work during initial commissioning and after disconnection from the power supply!</b> (The reset motion is carried out by pushing keys (7) and (8) simultaneously. In doing so, after approx. 8 seconds, the bed moves slowly in the lowest position. After a signal beep from the control unit, reset is carried out completely.)
(10)	Comfort sitting position upwards (*)
(11)	Foot-lowering position (anti-Trendelenburg)
(12)	Head-lowering position (Trendelenburg) (**)
(13)	Lying surface, back and lower leg part downwards <i>(drives up to the safety stop on 34 cm)</i>
(14)	Low function: Push keys (11) and (12) simultaneously <b>Caution: foot crushing risk</b> <i>(Second safety stop at 22 cm, end stop at 16 cm low position)</i>



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

(\*\*) When using the Trendelenburg function, unlock the brakes on one end panel. All castors must be parallel to the longitudinal axis of the bed.

## Hazard note from Bock

Always make sure that the hand control and its cable (when not in use) is securely stored out of reach of the child in the intended box.

### 3.7 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

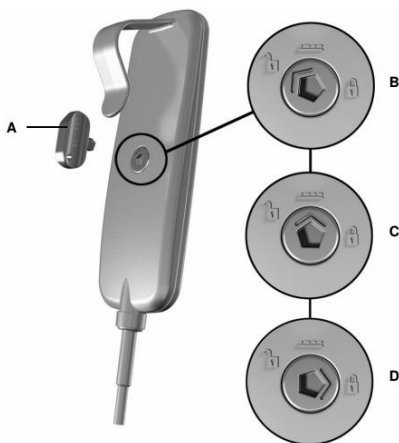
B: Release hand control keys

C: Head-lowering position

(Trendelenburg - key 11) and low function

(keys 12 and 13) closed

D: Release hand control keys



### Hazard note from Bock

Perform a reset before use and after any separation from the mains.

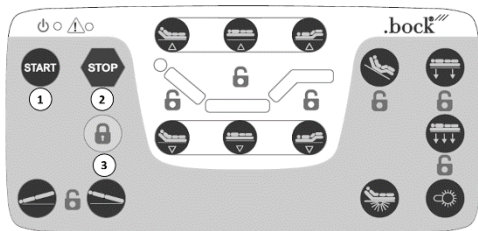
Pay attention to the position of the castors, particularly at comfort sitting position, Trendelenburg and anti-Trendelenburg.

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

### 3.8 Second control unit (optional as accessory)

The nursing care bed can optionally be equipped with an additional control unit.

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



### *Operation:*

To control the nursing care bed with the 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. These functions are then disabled on the control panel **and** 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 second control unit. These functions must be locked separately here.**

## **3.9 Rechargeable Battery (optional as accessory)**

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 a 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 warning during driving, an acoustic signal sounds. 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 idle 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 storage 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 damage of the battery,

## 4 Assembly and operation

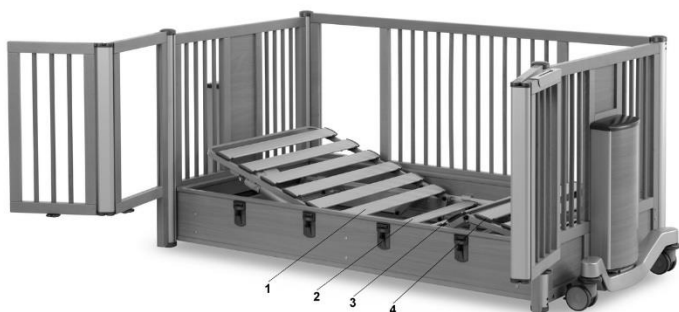
### 4.1 Technical data

Technical data		dino	
Lying surface dimension: cm		90 x 170	90 x 200
Outer dimension: cm		106.5 x 215	106.5 x 245
safe working load: kg		170	
max. Weight of person: kg		135	
Height adjustment: cm		16 - 86	
Length of back rest: cm		75	88
max. Angle of incidence to horizontal:			
- back part		< 70°	
- Lower leg part		< 20°	
Trendelenburg position		< 12°	
Side rail height with aluminium slats: cm		74	
Side rail selection options:			
- Wooden side railing (surrounding)		•	
Lifter bottom space clearance: cm		> 15	
Sound level: dB(A)		< 65	
Weights:			
Total incl. wooden side railing: kg		165	175
Lying surface and beams: kg		60	66
Wooden side railing without height increase: kg		43	47
Lifting column and foot: kg/set		30	
Electric data:			
Manufacturer	Dewert / Baumeister (MCL 2 and MCL 3)	Input voltage: V	100-240*
		Frequency: Hz	50/60
		max. Power consumption: A	4.0 (MCL 2) 3.5 (MCL 3)
Manufacturer	Hermann Bock (SCC)	Input voltage: V	100-240*
		Frequency: Hz	50/60
		max. Power consumption: A	3.5

All parts and data are subject to a constant further development and may therefore differ from the mentioned data. Please note that the beds are also available in special sizes, whereas the technical data may vary accordingly.

\*The voltage is converted into an extra-low safety voltage in the power supply unit, so that the input voltage at the controller is between 24-29V.





- 1 Back part
- 2 Fixed seat part
- 3 Upper leg rest
- 4 Lower leg rest

## 4.2 dino

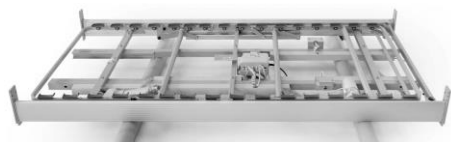
**Barrier-free and close to the floor:** The dino enables comfortable sleeping positions even with a bed height of only 16 cm. Technically perfected down to the last detail. The dino is a special nursing care bed for children and adolescents, and was designed for use in home care and for care facilities. In particular, the bed meets the requirements towards security, a safe freedom of movement and unhindered perception of space.

- dino is not suitable for hospital use.
- The dino is not suitable for transporting the patient and must not be used for transportation of a patient in any kind of vehicle. The beds must be only moved for cleaning purposes inside the patient's room or to allow access to the patient.
- The nursing care bed is suitable for persons in need of care (children/adolescents/adults) with a body height of less than or equal to 185 cm (less than or equal to 155 cm at 90 x 170 cm). The weight of the person may not exceed 135kg.
- Under certain circumstances dino 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.

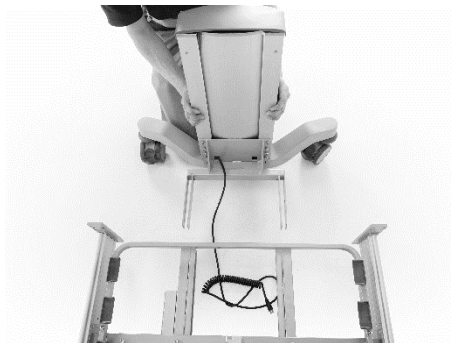
**Attention:** The bed has no special connection options for a potential equalisation. Electrical medical devices connected to the patient intravascular or intracardiac may not be used. The operator of the medical products has to ensure that the combination of the equipment meets the requirements of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

**Attention:** When routing cables from other equipment in the bed, precautions shall be taken to avoid squeezing these cables between parts of the bed.

dino becomes operational

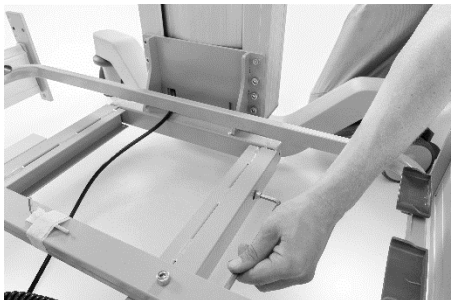


Please place the lying surface on a base with a height of about 7cm.



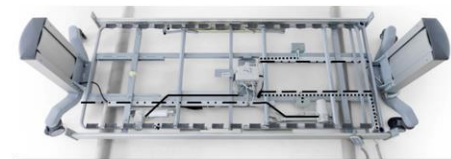
Now you can connect the lifting columns to the lying surface. To do this, insert the mounting latches into the beams of the lying surface.

Make sure that the lifting column with the pre-assembled power cable (not shown in the Fig. here) is at the head end of the lying surface.



Remove a few strips from the lying surface. This facilitates further assembly.

Push the columns in until you can screw in the screws as shown in the Fig.



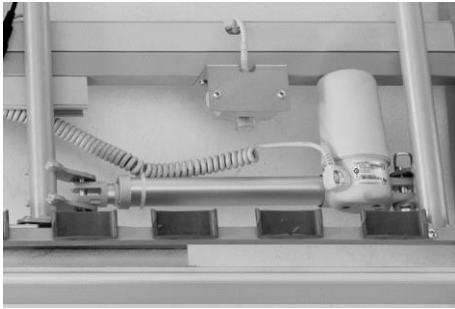
Here you can see the complete routing of the cables.

The cables of the lifting columns are connected to the extension cables, which have already been laid by the controller in the cable ducts at the factory.

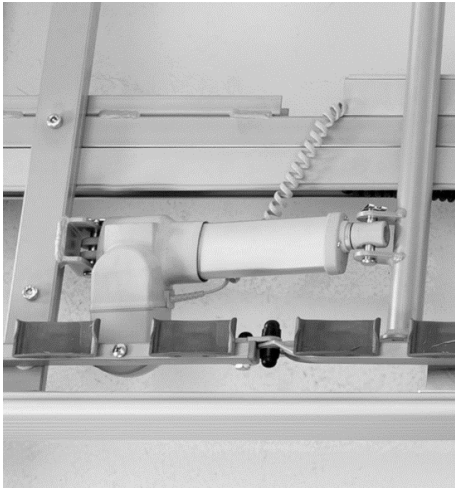
-----	Power cable
—————	Individual drives lying surface
.....	Hand control / floor lighting
— · — · — · — · —	Cables of lifting columns

Pin assignment of the control box:

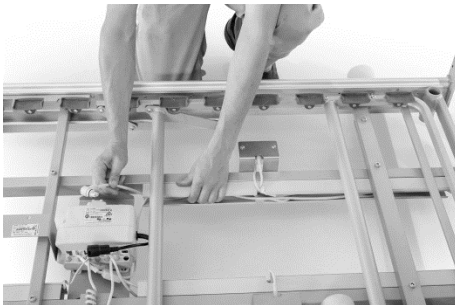
- Red: hand control or floor lighting
- Black: head part of lying surface
- Yellow: foot part of lying surface
- Blue: scissor drive - head
- White: scissor drive - foot



Head part motor details



Foot part motor details



You can then also connect the power cable to the controller.



Plug in the cable from the hand control into the left or right floor lighting. Then fit the locking cap (not shown in the Fig. here).



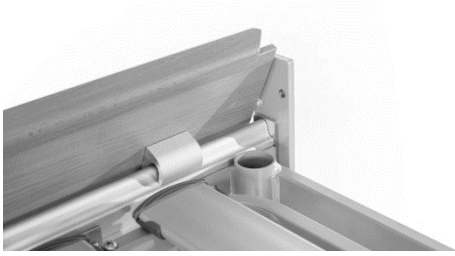
Now you need to unlock the hand control using the key on the back, in order to utilize all the functions.

First, you must perform a reset run by pressing the "Bed up" and "Bed down" buttons simultaneously. After about 10 seconds, the lifting columns slowly move to the lowest position. After a signal noise sounding, the control is ready for use.

For an easier assembly, move the bed a little higher.



Now mount the side bolsters. However, do not tighten them yet. Mount the side bolster with the door fittings on the side on which the door opening will later be located.



Place the upper retaining lug on the aluminium longitudinal frame first, as shown in the Fig.



Now push the end pieces between the lifting column and the mounting latches.

The end piece is screwed to the lifting column in the middle area with 2 flat head screws M6x40.



In the 90 cm x 200 cm version, there is a smaller strap between the lying surface and the two long brackets, which only serves as a spacer. In the 90 cm x 170 cm version, this component is not required.



Fasten the end piece with the enclosed screws (6 screws per end piece). However, only tighten them slightly now.



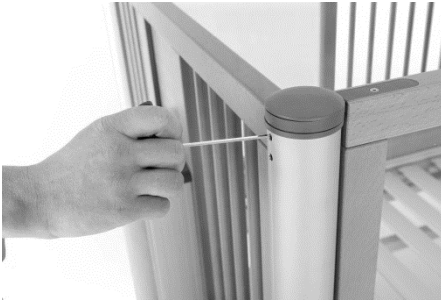
Now insert the fixed side panel into the aluminium profiles.



Insert the end caps...



... and tighten the threaded rods firmly.



Now you must firmly attach the side bolsters. For this, tighten the threaded rods which are located under the aluminium clips.



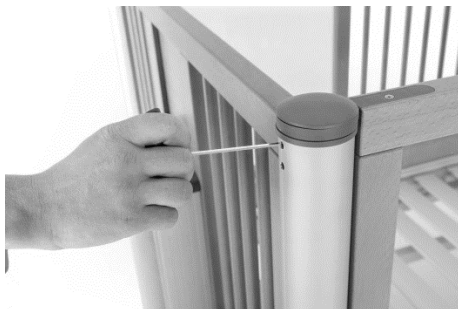
A metal bracket and two Phillips screws (4x13) are included in delivery. This angle is screwed to the side bolster at the underside in the middle of the fixed side part so that there is no pinch point between these elements.

Now attach the wooden doors to the aluminium profiles on the end piece. The doors are already pre-assembled.

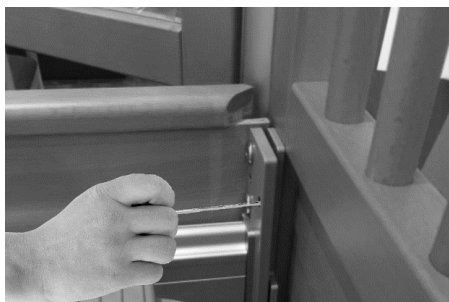




To fix the doors, slide the end caps into the aluminium profile from above and below.



Now the threaded rods, which are already in the aluminium profile, can be tightened firmly with an Allen key.



In order to compensate for the height tolerances of the doors, the threaded rods can be screwed into the lug on the end piece. If the 6 screws are already too tight, loosen them slightly.

Tighten the 6 screws again afterwards.





Turn the threaded rod until the catch on the door can easily slide into the receptacle on the side bolster.



If the gap dimensions between the doors are different, these can also be adjusted.

Unscrew the plastic cap and then loosen the screws slightly. Now the gap distance can be adjusted. Then tighten the screws firmly again.



Check that the metal slider slides smoothly over both doors and snaps into place.



Finally, screw the panels to the end pieces.



Please make sure that the castors are in the longitudinal direction as shown in the Fig. This position of the castors is important when the bed is inclined - Trendelenburg, anti-Trendelenburg and comfort sitting position.

### 4.3 Emergency lowering - back part

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

**Must be carried out always by two people!**

One person lifts the back part slightly (to take pressure off) and holds it in this position. As next step, the second person removes the locking pin from the motor.



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

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



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



#### **Hazard note from Bock**

Emergency lowering may be only 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.

4.4 Change of location

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

- Lower the lying surface with key (8) of the hand control.
- Before proceeding with the nursing care bed pull the mains plug and attach with the end piece to secure the power cable against falling and being crushed by anything. Make sure that the cable is not dragged over the floor.
- Before inserted the mains plug again, inspect the power cable visually for mechanical damage (dents and kinks, 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.
- Perform the reset movement, as described on page 16.

4.5 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	

4.6 Function notes

To keep the bed in one location, lock the castor brakes on the chassis. To accomplish this, use your foot to move the locking lever on each castor downwards. Make sure that the castors are parallel to the longitudinal axis of the bed. This is important in the Trendelenburg and the anti-Trendelenburg position but also in the comfort sitting position. (Here, the brakes on one end piece must be unlocked.)

When using mattresses of different thickness, the minimum height of 60 cm, measured from the top edge of the wooden side railing above the mattress without compression, may not be underrun (otherwise, a third side rail attachment guard must be used, which is available as an accessory).

4.7 Disposal

Each of 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.

## 4.8 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 lifting columns are incorrectly processed within the control	Perform the reset movement, as described on page 16.
	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 Bock 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 obstruction in the adjustment range	Remove obstruction
	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 unit 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	Motor connector switched internally	Notify the operator or Bock customer service
Individual drive units run in one direction only	Hand control, drive unit or controller defective	Notify the operator or Bock customer service
Drive units stop and bed remains in a tilted position	Constant operation of adjustment functions	Move lying surface in bottom or top position as this will straighten it again horizontally. Activate disabling function in hand control
Ultra-low position cannot be approached	Hand control locked	Deactivate locking device (page 11-12 if necessary, reset movement page 16)

## 5 Accessories

Hermann Bock GmbH offers practical and mobility-promoting accessories to ensure that each nursing care bed is tailored even more precisely to the individual needs of the person in need of care. 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 offer meets the special quality and safety standards of Bock. 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 stretches 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.

### **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 representative of the service hotline of Hermann Bock are looking forward to informing you about the best retrofitting solution for your bed. Hotline no. 0180 5262500 (14 cents/min. for calls from landline phones, 42 cents/min. for calls from mobile phones).

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.

### **Hazard note from Bock**

A lifting pole may not be attached to the dino children's and adolescents nursing care bed. The dino 90 cm x 170 cm children's nursing care bed model does not have a receptacle pocket for a lifting pole. The sleeve for the lifting pole is provided on the 90 cm x 200 cm dino adolescents nursing care bed, but may not be used for a lifting pole. Due to the large side rail height, there is a danger of crushing/catching point between side rail and lifting pole. For this reason, lifting poles etc. may not be mounted.

## **5.1 Mattresses**

Fundamentally, all foam and latex mattresses with a density of at least  $35 \text{ kg/m}^3$  can be used for Hermann Bock nursing care beds.

Different mattress designs are available for the dino bed models in the sizes 90 cm x 170 cm and 90 cm x 200 cm.

The height of the mattress used may not exceed 14 cm. For higher mattresses, an additional attachment side rail 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.

As a general rule, the mattress height must not be less than 10 cm.

## 6 Cleaning, maintenance and disinfection

The individual bed elements consist of high quality materials. The surfaces of the steel tubes are 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.



## 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 alcohol, 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](http://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 *medizinisches Bett* 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 medical used bed uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.  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 *medizinisches Bett* 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 % UT (>95 % dip in UT ) for 0.5 cycle 40 % UT (60 % dip in UT ) for 5 cycles 70 % UT (30 % dip in UT ) for 25 cycles < 5 % UT (>95 % dip in UT ) 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 *medizinisches Bett* 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
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 V 150kHz-80MHz  3 V/m 80MHz-2500MHz	3 V 150kHz-80MHz  3 V/m 80MHz-2500MHz	<p>Portable and mobile RF communications 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> $d = \left[ \frac{3.5}{3} \right] \sqrt{P} \quad 150 \text{ kHz to } 80 \text{ MHz}$ $d = \left[ \frac{3.5}{3} \right] \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = \left[ \frac{2}{3} \right] \sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$ <p>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, should be less than the compliance level in each frequency range.  Interference may occur in the vicinity of equipment marked with the following symbol:</p> 

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.

<sup>a</sup> 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*.

<sup>b</sup> 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 *medizinisches Bett*

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 communications equipment (transmitters) and the *medizinisches Bett* as recommended below, according to the maximum output power of the communications 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 $d = \left[ \frac{2}{3} \right] \sqrt{P}$
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. Bock 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.

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.

**The company Hermann Bock GmbH specifies an inspection interval which stipulates that a safety-technical inspection is to be executed at least once annually, and with each re-use of the bed.**


For support purposes, Hermann Bock GmbH will provide you with the inspection list in the assembly and operation manual for carrying out all the necessary tests. Please copy the checklist as a form for your inspection. The checklist serves as evidence report of the performed inspection and must be kept on file.

The inspection list can also be downloaded from the Internet: [www.bock.net](http://www.bock.net).

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


### **Hazard note from Bock**

Service and maintenance must not be performed while the bed is in use!

Inspection list for Bock nursing care beds		Page 1 of 2	Issuing date: 09.10.2018
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)?	<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	Sprung 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 and foot end piece?	<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 guard rails 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: 09.10.2018	
Name / location:				
Address / Postcode / City:				
Station / Room:				
Name of examiner / Date:				
<b>Functional testing:</b>				
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 guard 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	Hub adjustment 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?	<input type="checkbox"/>	<input type="checkbox"/>	
30	Battery/Bock 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"/>	
<b>Electric measuring:</b>				
No.	Description	Yes	No	Remark
Insulation resistance - (must be only measured on old models before manufacture year of 2002.)				
32	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.)				
33	Device leakage current - measured value smaller than 0.1mA?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Evaluation</b>				
No.	Description	Yes	No	Remark
34	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/contact/distribution-partners](http://www.bock.net/contact/distribution-partners)