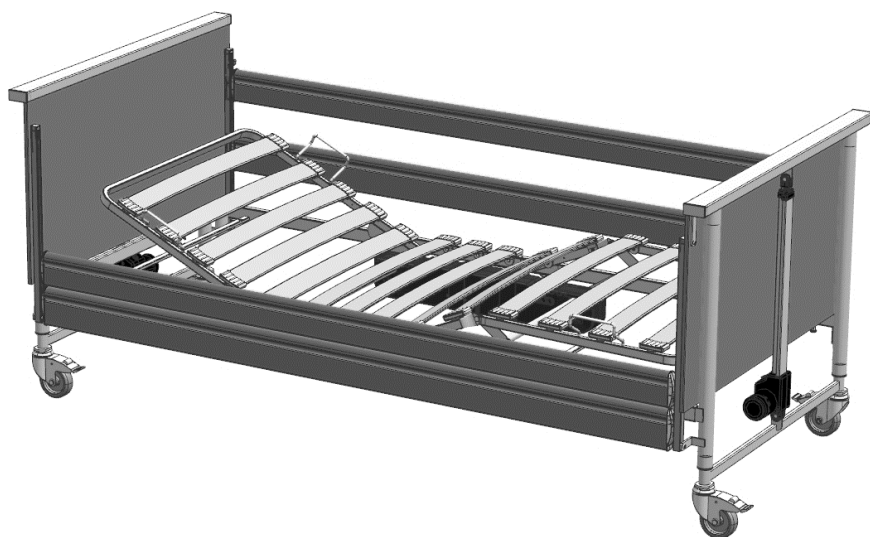


## Nursing care beds

- domiflex® 3

.bock<sup>®</sup>///



Dear Customer,

By purchasing a nursing care bed from Hermann Bock GmbH, you are acquiring a long-lasting health care product with first-rate functionality and the highest level of safety.

Our electrically operated nursing care beds ensure optimum lying comfort while also allowing for the provision of professional care. The focus here is on the person in need of care, whose confidence must be strengthened and whose life and health are important to be protected. With this health care product, we have created the foundation for that trusting relationship.

For your part, we ask that you fully comply with the safety and operating instructions in this manual, and with all maintenance requirements, in order to prevent any equipment malfunction or risk of injury.

A handwritten signature in black ink, reading 'Klaus Bock'. The signature is written in a cursive, flowing style with a large initial 'K'.

Klaus Bock

## Table of contents

<b>1</b>	<b>Instruction and general notes</b>	<b>5</b>
1.1	Intended use	5
1.2	Contraindications	6
1.3	Definitions of the groups of persons	6
1.4	Obligations as operator	7
1.5	Safety instructions	7
1.6	Service life	9
1.7	Warranty	9
1.8	Market reference	9
1.9	Installation site requirements	9
1.10	Type plate	11
1.11	Type plate for bed with reinforcing bars for 185 kg patient weight	11
<b>2</b>	<b>General description of the functions</b>	<b>13</b>
2.1	Adjusting the continuous side rail	14
2.2	Other side rail variants	16
<b>3</b>	<b>Electrical components</b>	<b>17</b>
3.1	Drive units	17
3.2	Caution: Electric drive system	18
3.3	Drive systems	19
3.4	External SMPS (switch-mode power supply)	19
3.5	Connections of the main motor system	20
3.6	Connections of the drive system with individual drives	20
3.7	Operating status display of the external switched-mode power supply unit 20	
3.8	Hand control	21
<b>4</b>	<b>Construction and operation</b>	<b>23</b>
4.1	Technical specifications – domiflex® 3	23
4.2	The domiflex® 3 model series	25
4.3	Assembly and installation videos	25
4.4	Assembly and installation – domiflex® 3	26
4.5	domiflex® 3 - Additional steps when attaching the reinforcement bars for 185 kg patient weight	31
4.6	domiflex® 3 – transport system	32
4.7	domiflex® 3 - Additional steps when attaching the bed extension	36
4.8	Disassembly	37
4.9	Relocating the bed	38
4.10	Transport, storage and operating conditions	38
4.11	Usage notes	38
4.12	Disposal	39
4.13	Troubleshooting	39
<b>5</b>	<b>Product accessories</b>	<b>40</b>

5.1 Non-standard dimensions .....40

5.2 Lifting pole with triangle grip .....41

5.3 Side rail padding .....42

5.4 Side rail height extender .....42

5.5 Grab rail with crossbar .....42

5.6 Mattresses .....43

**6 Cleaning, care and disinfection.....44**

6.1 Cleaning and care .....44

6.2 Disinfection.....45

6.3 Avoiding hazards .....45

6.4 Mechanical cleaning .....46

**7 Guidelines and manufacturer declaration .....49**

7.1 EU declaration of conformity .....50

**8 Safe use in a domestic environment .....51**

**9 Regular inspections with service .....52**

# 1 Instruction and general notes

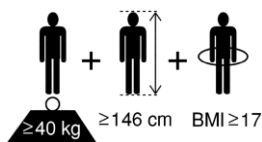
The different nursing bed systems from Hermann Bock GmbH meet special requirements for use in nursing and therapy facilities as well as for care at home. At the same time, reliable functionality and durability distinguish each individual care bed as being of particularly high quality. With proper operation and inspection, the care bed remains correspondingly maintenance-free. Each Hermann Bock care bed only leaves production after passing a quality test in the final inspection. The care beds are manufactured and tested in accordance with the currently applicable standards for medically used care beds.

The Nursing care beds are compliant with the EN 60601-2-52 standard. The electrical components are compliant with the EN 60601-1 safety standard for medical devices. Nursing care beds are medical devices and are categorised as Class 1.

The standard divides nursing care beds into five different usage environments:

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

## 1.1 Intended use



The nursing care bed is suitable for patients 146 cm or greater in height and a minimum weight of 40 kg. The patient's weight may not exceed the maximum body mass indicated on the nameplate. The patient's body mass index (BMI) must be 17 or greater.

The nursing care bed may be used in nursing or retirement homes and rehabilitation facilities. Its purpose is to alleviate a patient's disability and to make it easier for nursing staff to provide care. In addition, the nursing care bed was designed as a convenient solution for patients requiring care at home and for people with disabilities. The nursing care beds described below are thus intended for usage environments 3 to 5 above. Any other use is incompatible with the intended use and excluded from any claims of liability.

The nursing care bed is delivered without the Trendelenburg function as standard. The Trendelenburg function is available as an option for application environments 3 and 5.

The Trendelenburg function may only be used by qualified medical personnel. Nursing beds intended for application environment 4 are equipped with a hand control that cannot control the Trendelenburg function.

The nursing care bed is not suitable for use in hospitals. It is also not designed for transporting patients. The nursing beds are only mobile within the patient's room - also during patient positioning - for example for cleaning or for better access to the patient.

The nursing care bed is suitable for re-use. Please follow all guidelines in these assembly and operating instructions for cleaning, care and disinfection of the nursing care bed prior to re-use. Please pay particular attention to all information about inspecting the bed.

**Note:** The beds have no specific connectors for equipotential bonding. Electrical medical devices with intravascular or intracardiac connections to the patient may not be used. The operator of any medical devices is responsible for ensuring that the combination of devices meets the requirements of EN 60601-1.

**This manual contains safety instructions. All persons who work with the beds must be familiar with the contents of this manual. Improper operation may result in hazards.**

## 1.2 Contraindications

This bed is intended only for patients/residents who meet the following minimum body size and weight requirements:

- Height of 146 cm or taller
- Weight of 40 kg or higher
- Body mass index of 17 or higher

## 1.3 Definitions of the groups of persons

### *Operator*

An operator (e.g. a health care supplier, equipment dealer, institution or funding agency) is any natural or legal person that uses the nursing care beds or on whose behalf the nursing care beds are used. The operator is always responsible for proper use of the product.

### *User*

Users are persons who are authorised on the basis of their education, experience or product training to operate or perform work on the nursing care bed. The user is able to identify and/or prevent possible hazards and to assess the patient's state of health.

### *Patient/Resident/Layman*

The person requiring care, infirm person, or person with a disability who is lying in the nursing care bed. An instruction of the resident in the functions of the bed that are important for him by the operator or the nursing staff is necessary for each new occupancy. An introduction to how the resident has to behave in the event of unfavourable conditions of use. See the chapter Safe use in a home environment.

### *Qualified personnel*

Qualified personnel are employees of the operator who are authorised on the basis of their education or training to deliver, assemble, disassemble and transport the nursing care bed. In addition to operation, assembly and disassembly of the nursing care bed, these persons have been instructed in the guidelines for cleaning and disinfecting the nursing care bed.

## **1.4 Obligations as operator**

In Germany, observe your obligations as an operator in accordance with the Medical Devices Operator Ordinance in order to ensure that this medical device can be operated safely in the long term without any hazards. In other countries, the applicable national regulations on the obligations of the operator must be observed.

Point out the storage location of these instructions for use to the nursing staff in accordance with the Medical Devices Operator Ordinance. In other countries, the applicable national regulations must be observed. Instruct the nursing staff in the safe operation of the nursing bed with the aid of these instructions for use before the initial start-up.

Draw the attention of the nursing staff to possible hazards in case of improper use of the nursing bed. This applies in particular to the handling of the electrical drives and side rails.

According to the Medical Devices Operator Ordinance (MPBetreibV), operators must record their stock of electrically adjustable hospital and care beds (active medical devices) and keep an inventory.

## **1.5 Safety instructions**

Proper use of all moving components is essential for preventing hazards to the patient and for the safety of the patient's family and/or nursing staff. Ensuring proper use requires proper assembly and operation of the nursing care bed. The individual patient's physical condition and the type and extent of their disability must also be taken into account when using the nursing care bed.

Avoid hazards from accidental motorised adjustments and other incorrect operations by using the locking mechanism. When the user (e.g. the nursing staff or family member caring for the patient) leaves the room, all of the bed's functions should be locked using the

key on the hand control. To do this, first lower the lying surface to the lowest position, then activate the locking function by turning the key in the lock located on the back of the hand control. Remove the key and test the hand control functions to ensure that it has been properly locked.

It is especially important to follow these recommendations

- if the patient cannot safely operate the hand control functions themselves due to certain disabilities,
- if the patient or nursing staff could be put at risk by unintended adjustments,
- if the side rails are raised and there is a risk of pinching or crushing,
- if unsupervised children are present in the room with the nursing care bed.

When not in use, always make sure that the hand control or control unit is securely attached to the care bed with the suspension hook and cannot fall down.

The nursing care bed must only be operated by nursing staff or family members who have been trained in its use, or in the presence of trained users.

When adjusting the lying surface, it is especially important to ensure that no limbs are placed within the adjustment range of the side rail. If the side rails themselves 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. The risk of pinching or crushing is particularly high in these areas. Also check for objects located near or beneath the nursing care bed. Remove such objects to avoid damage during adjustment.

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 carried out while the nursing care bed is being 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.



The patient must be immediately removed from the bed in case of malfunction or equipment failure. Use of incompatible side rails may result in entrapment of extremities. To deactivate the nursing care bed and safely end operation of the bed, remove the mains plug from the socket.

### **Bock safety note**

When the user, e.g. the nursing staff or caring relatives, leaves the room, the lying surface should be moved to the lowest position in order to minimise the risk of injury if the patient falls out.

When the user, e.g. the nursing staff or caring relatives, leaves the room, the complete operating functions of the nursing bed should be locked using the key of the hand control.

## **1.6 Service life**

This nursing care bed was designed, engineered and manufactured to operate safely for a long period of time. When used and operated correctly, this nursing care bed has an expected service life of 10 years. The service life depends on operating conditions and frequencies.

## **1.7 Warranty**

For your warranty conditions for this nursing care bed, please consult your contact person. Any unauthorised technical modification to the product shall immediately void all warranty claims.

## **1.8 Market reference**

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

## **1.9 Installation site requirements**

Hermann Bock GmbH is not liable for any floor damage that may result from everyday use of this product. To avoid marks or impressions on the floor, the floor surface should comply with the recommendations of the FEB (*Fachverband der Hersteller elastischer Bodenbeläge e. V.*, the German Trade Association for Elastic Floor Coverings). FEB Technical Information Document no. 3 can be consulted for this purpose.

**Bock safety note**

When using multiple electrical devices simultaneously, small electromagnetic interactions between such devices may occur, e.g. static and distortion on a radio, especially in direct proximity to the activated nursing care bed. In these rare cases, increase the distance between devices, use a different wall socket, or temporarily switch off the device causing or affected by the disturbance. If the nursing care bed is to be used with electrical medical devices, contrary to its intended purpose, then the nursing care bed's functions must first be deactivated via the integrated locking function on the hand control for the duration of such use of these devices.

**Bock safety note**

Ensure that there is sufficient distance between the nursing care bed and any curtains, blinds, heaters and wall sockets, and ensure that any medications, cords, rubber bands, small toys, or other small objects like coins cannot be reached from any position in the nursing care bed.

**Bock safety note**

Ensure that the care bed is placed in such a way that there is easy access to the power supply to disconnect the care bed from the power supply.

### 1.10 Type plate

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

### Individual and general type plate

(1) **Modell: XXX**

(2) Baujahr: XXXX-XX-XX

(3) Serien-Nr. **XXXXXXXX - XXX**

(4) XXX - XXX V ~ XX/XX Hz max. X - X A

(5) ED XX % (X min ON /X min OFF)

(6) Antr.- Schutzart **IPXX**

**Made in Germany**

Hermann Bock GmbH-Nickelstr. 12  
33415 D-Verl / Tel. 01805/262500

890.02355  
Rev. 02  
Made in Germany

(1) **Model**

(2) **Date of manufacture: Year - Month - Day**

(3) **Serial number: Order number - Sequential number**

(4) **Mains voltage, mains frequency and power input**

(5) **Duty cycle**

(6) **Drive protection class**

(7) **Manufacturer**

(8) **Safe working load**

(9) **Maximum patient weight**

(10) **Own weight of the bed**

(8) = **XXX kg**

(9) = **XXX kg**

(10) = **XX kg**

REV.XX

### 1.11 Type plate for bed with reinforcing bars for 185 kg patient weight

Each reinforcement bar is marked with an individual and a general type plate.


### Individual and general type plate

**Modell: Verstärkungsstrebe**

Baujahr: XXXX-XX-XX

Serien-Nr XXXXXXXX - XXX


Gesamtgewicht  = XX kg


Hermann Bock GmbH-Nickelstr. 12  
 33415 Di-Verl / Tel. 01805/262500


REV.XX


**Made in Germany**






**Nur bei beidseitigem Anbau der Verstärkungsstreben**  
Only if the reinforcing struts are fitted on both sides

(6)  = 220 kg


(7)  = 185 kg

















**.bock**



Hermann Bock GmbH  
 Nickelstr. 12  
 33415 Verl · Germany  
 phone: +49 5246 9205-0  
[www.bock.net](http://www.bock.net)

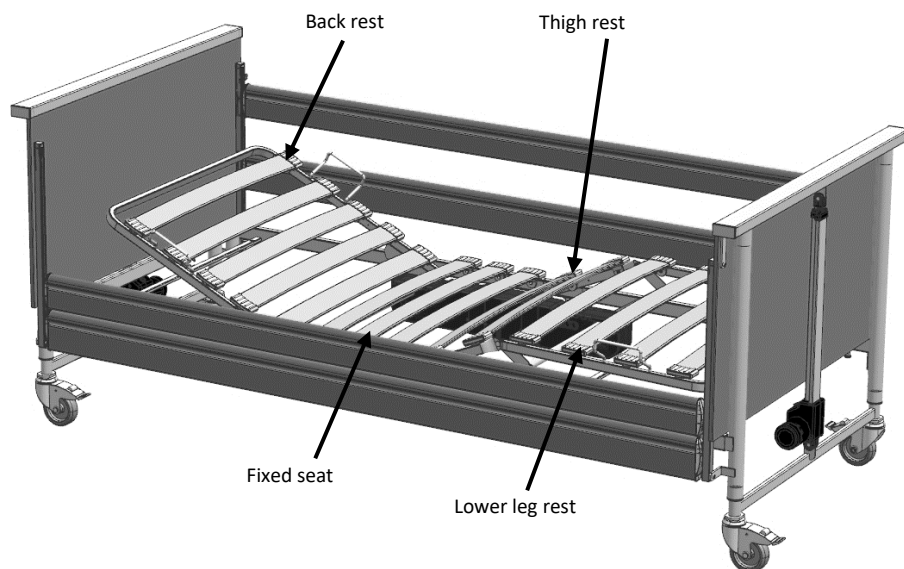
890.02581  
 Rev. 04  
 Made in Germany

## Explanation of symbols:

	Conformity marking for compliance with Medical Device Regulation
	Refer to manual
	Product is subject to separate waste disposal requirements in the European Union. Product may not be disposed of in household waste.
	Type B medical applied part
	Use only in dry areas
	Protection class II (double insulation, protective insulation)
IPX4	Electrical equipment protected from splashing water
	Maximum patient weight
	Safe working load
	Own weight of the bed / reinforcement bars
MD	Medical device marking
	Patient population
	Follow guidelines for mattress size and thickness
	Manufacturer's address

## 2 General description of the functions

### Construction and function



#### *Corrosion protection*

Nursing care beds from Hermann Bock GmbH are designed and engineered to operate safely for a long period of time. Therefore, all materials that may corrode are protected accordingly. All metal parts are treated with surface protection. Steel parts are either galvanised or stove-enamelled with a PES powder coating, and aluminium profiles are anodised.

#### *Four-zone lying surface*

The lying surface comes standard with a comfort slatted frame (or can alternatively be fitted with aluminium slats) and is divided into four functional zones: back rest, fixed seat, thigh rest and lower leg rest.

The outer edge of the lying surface is constructed from tubular steel. The tubular steel segments are stove-enamelled with a PES powder coating on their outer surface. Continuous electrical height adjustment is provided by DC motors with safety extra-low voltage from 29 to 35V and controlled with an easy-to-operate keypad on the hand control. The back rest can be electrically adjusted. The leg section consists of a two-part foot bar. Each individual position can be continuously adjusted with the push of a button on the hand control.

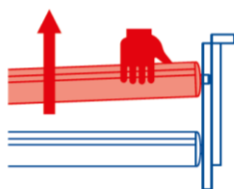
#### *Chassis*

The height adjustment of the nursing care beds is done by two height-adjustable adjusting units. The surface of the tubular steel construction is stove-enamelled with a PES powder coating.

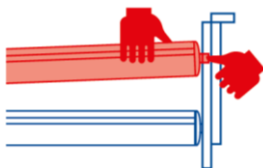
### Side rails

Each nursing bed is equipped with two side rails on both sides at a special safety height. The side rails run in a track and can be raised or lowered by means of a release button. The sliders are particularly smooth-running due to an impact damper, and the ends are fitted with a functional locking cap. The ergonomically shaped release button makes it easy to operate the side rail.

## 2.1 Adjusting the continuous side rail

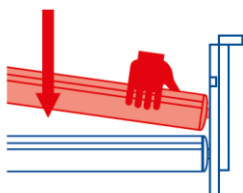


Step 1: Grip side rail and lift slightly.



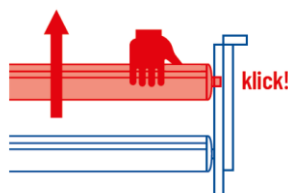
Step 2: Press release button.

Note: Be sure to lift the side rail slightly and then press the release button!



Step 3: Downward lowering.

Note: Both sides must be lowered!



Bring to the top position as fall protection:

Pull the side rails up until it clicks audibly into place at the ends

The release button for adjusting the continuous side rails is located just above the upper side rail in the sliding track.

To lower the side rails, hold the provided gripping groove of the upper side rail, **lift the side rail slightly**, and press the release button on either the headboard or footboard. The side rail is then released on that side and can be easily lowered to the end of the track. The side rail is now in a diagonal position. To lower the other side, perform these steps again at the opposite end of the bed. The side rail is now in its

lowered position.

### Bock safety note

Always lift the side rail slightly before pressing the release button! Failure to do so will damage the release mechanism.

To raise the side rails to the upper position for protection against falls, hold the upper side rail in the centre of the groove and pull the side rail up until you hear it click into position at both ends. The side rail is now in its raised position.

The primary purpose of the side rails is to protect the patient from falling out. For extremely emaciated patients, the side rails no longer offer adequate fall protection, and additional protective measures must be taken, e.g. by placing additional fitted side-rail bumpers (product accessory) in the bed.

The gap between the continuous side rails must be no larger than 12 cm. The side rails must not be left in a diagonal position during use.

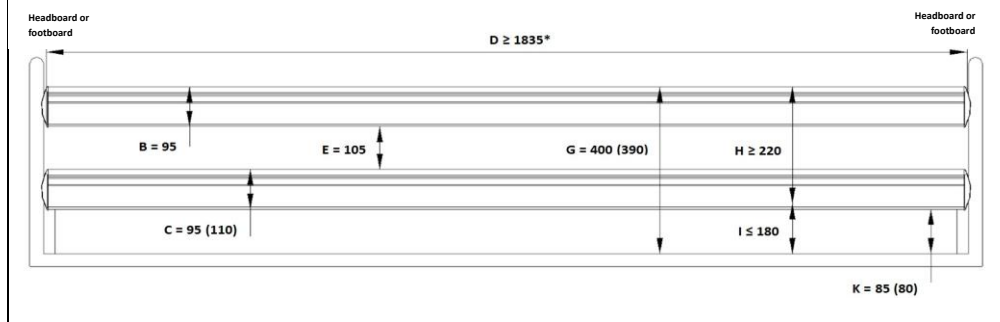
### **Bock safety note**

Always operate the side rails with great care, as fingers can easily be pinched. Only use the side rails in accordance with the mode of operation described here. Any other use can lead to increased risks and is prohibited. Use only original Bock side rails. Use only side rails that are undamaged and free of technical defects, and ensure that the gap between rails is always within the permissible range. Ensure that the side rails click securely into position. Before placing the side rails and before each new use, check for damage on all mechanical parts on the bed frame and the side rails that serve to hold the side rails in place.

### **Bock safety note**

Always be aware of the increased risk of pinching associated with a locked side rail when adjusting the position of the back and thigh rests.

Figure 1: Continuous wood/steel side rail system with two elements



All dimensions in mm. \* Depending on the length of the lying surface. The dimension in brackets is optional

### Legend

Area	Description
A	Distance between headboard and side rail
B	Side rail height 1
C	Side rail height 2
D	Side rail length 1
E	Distance between elements of the side rail system
F	Distance between divided side rails
G	Distance between lying surface and top edge of side rail system
H	Height of top edge of side rail system above the mattress without compression
I	Mattress thickness in accordance with intended use
J	Side rail length 2
K	Smallest distance between side rail system and lying surface
L	Distance between footboard and side rail

## 2.2 Other side rail variants

The side rail SR2 can be used with the domiflex® 3. The side rail SR2 comes with its own installation and operating instructions for the side rail.



## 3 Electrical components

### 3.1 Drive units

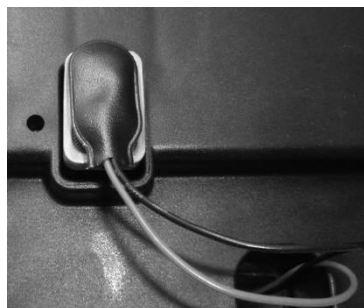
Depending on the model, the drive unit consists either of a main motor with two separate drive units for motorised adjustment of back rest and leg rest positions, or two individual single drives. The height level of the bed is adjusted by means of one actuator in each end panel. The motors and the hand control are connected to the internal control box. The power supply unit converts the input voltage to a safety extra-low voltage of max. 35V DC. This safety extra-low voltage is used to operate the motors and the hand control. Cables are double-insulated and the power supply unit has a primary fuse.

The internal emergency lowering mechanism uses a 9V block battery. In addition, a power adjustment system ensures constant operating speed. These safety measures correspond to protection class II, and liquid ingress protection meets the standards of protection code IPX4.

The maximum duty cycle is indicated on the nursing care bed (type plate). For example, a 10% duty cycle (2 min. ON / 18 min. OFF) means that each electrically-powered adjustment can be run for no longer than 2 minutes out of every 20 minutes to prevent overheating.

If the maximum motor activation time of two minutes is exceeded, for example due to excessive use of the hand control, and the motors overheat as a result, the thermal fuse immediately cuts off all power to the bed. After a cooldown time of approx. 1 hour, the power supply is automatically restored.

If the lifting drives do not move synchronously and this leads to an inclined position of the lying surface, move the lying surface height to the upper or lower end position. This enables an automatic compensation of the two lifting drives and thus a horizontal lying surface.



*9V block battery for emergency lowering (main motor)*

### **Bock safety note**

The 9-volt batteries in the control unit must be checked once a year and replaced if necessary. In addition, visual inspections should be conducted on a regular basis.

### 3.2 Caution: Electric drive system

With its wide variety of functions, the electrically powered nursing care bed provides the patient with substantial physical and emotional support for their recovery process, while also alleviating pain. As medical devices, electrically powered beds require a high level of diligence with regard to regular safety inspections. This includes safe use of the nursing care bed, daily inspection of electrical equipment, and proper cleaning and maintenance.

To avoid cable damage, cords and cables should be placed outside of any area where damage could occur. Any contact with sharp-edged components should also be prevented. To avoid risk of injury from electric shock, any possibility of excessive touch voltage should be eliminated. Such circumstances are especially likely to occur when the mains power cable has been damaged, when dangerous and excessive leakage currents are present, or when liquid has entered the motor housing, e.g. as a result of improper cleaning. Such damage can result in control unit malfunction which can in turn lead to unintended movements of individual bed components, raising the risk of injury to patients and users.

#### **Bock safety note**

Do not open any components of the drive system!

Only specifically authorised professionals are permitted to repair any defects or replace individual electrical components.

#### **Bock safety note**

Cables must not be pinched or crushed. Adjustment of moveable parts may only be used for the intended purpose. Hermann Bock GmbH assumes no liability for unauthorised technical modifications.

#### **Bock safety note**

Never attempt to repair electrical equipment yourself. In some cases there may be a risk of life-threatening electric shock! Contact either the Customer Service department at Hermann Bock GmbH or an authorised professional electrician to repair any defects in accordance with all applicable VDE guidelines and safety requirements.

### 3.3 Drive systems

The domiflex® 3 is equipped with drives from company Limoss (drive system with external switching power supply). Depending on the version, the domiflex® 3 lying surface is equipped with a main motor or separate single drives for head and foot rest.

The main motor for the stepless adjustment of the lying surface and the linear drives as single drives for the height adjustment at the end panels or the adjustment of the lying surface, each consist of four main components.

- Housing
- Motor
- Gearbox
- Spindle with nut

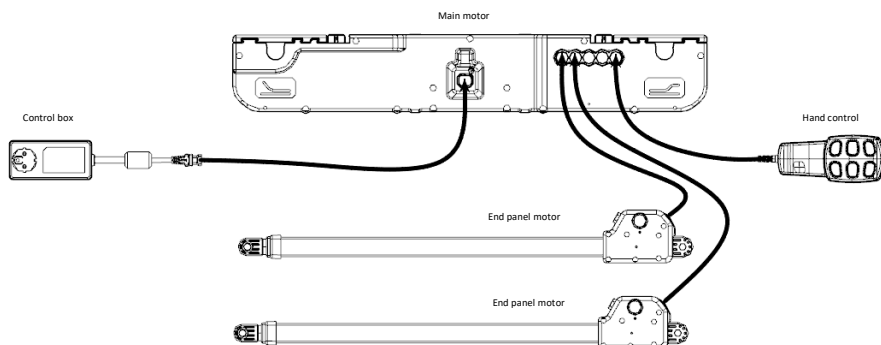
The housing design of the main motor and single drive systems ensures long-term operation of all drive components. The special construction design is based on two load-bearing housing shells. The inside of the housing has a detailed internal construction that provides a precise fit for the drive unit hardware. The housing allows for simple assembly and disassembly, and provides generous space for installation of the emergency lowering battery and control electronics. The main motor also features a robust side shutter.

### 3.4 External SMPS (switch-mode power supply)

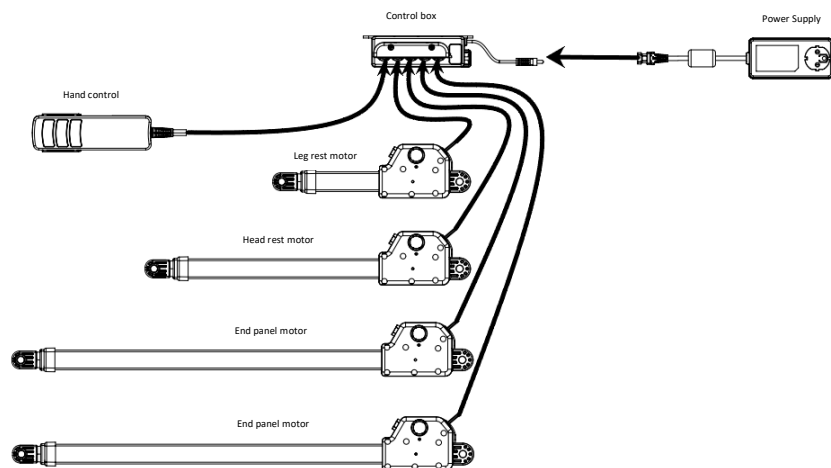
The drive system includes a primary fuse in the power supply unit and an emergency lowering mechanism. The SMPS (switch-mode power supply) is an electronic transformer that warms up only minimally under load and has an integrated electronic power monitoring unit. The resulting system provides constant voltage up to the load limit (no loss of speed) and strong protection against overloading. The external transformer provides safety right from the wall socket, where it transforms the mains voltage directly into the safety extra-low voltage used to operate the nursing care bed. It is connected to the mains power supply cable by means of a plug coupling, so that it can be replaced separately in case of a defect.

The power supply unit complies with European guidelines for household electrical devices, so it also maintains low energy consumption of no more than 0.5 watts in standby mode and can be used internationally with input voltages from 100 V to 240 V. No alternating electromagnetic fields can be detected at the SMPS, and such fields are even lower during operation (due to the very low direct current) than when disconnected from mains power.

### 3.5 Connections of the main motor system



### 3.6 Connections of the drive system with individual drives



### 3.7 Operating status display of the external switched-mode power supply unit

The switched-mode power supply SMPS has an LED that can indicate the following operating states:

- LED On: Ready for operation
- LED Off: Discharged, not connected
- LED Flashing: Error, thermal overload, or short circuit.

After disconnecting the mains plug or the connection to the motor, the LED "glows" and then goes off.

### 3.8 Hand control

The hand control includes an integrated locking mechanism that allows nursing staff to fully or partially lock hand control operations with a key.

#### *Lockable hand control, with first-fault protection*

The ergonomically shaped hand control allows users to control the bed's basic functions with either six or ten large, safe-to-operate buttons. Each button is marked with an appropriate symbol. The position adjustment motors will continue to run as long as the corresponding button is pressed. A coiled cable offers the necessary freedom of movement during use.

The rear-mounted hanger can be used to hang the hand control on the nursing care bed, e.g. during cleaning or when providing patient care. To keep the hand control from getting in the way, simply clip it anywhere on the bed frame.



Back rest upwards



Back rest downwards



Lower leg rest upwards



Lower leg rest downwards



Lying surface upwards



Lying surface downwards



Foot-down position (anti-Trendelenburg)\*



Head-down position (Trendelenburg)\*



Comfortable sitting position\* (upward only\*\*)



Release of lowering function\*



Light on/off\*

\* Availability depends on model

\*\* This button will only raise the bed into the sitting position. The affected sections must each be lowered individually.

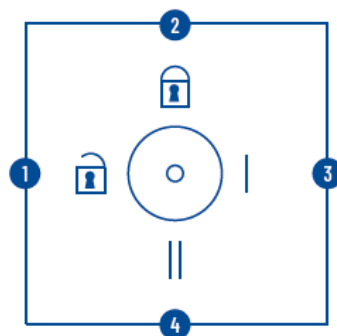
### Bock safety note

The maximum activation time of 2 minutes must not be exceeded. No further adjustments may be made for at least 18 minutes afterwards.

## Hand control – Locking functions

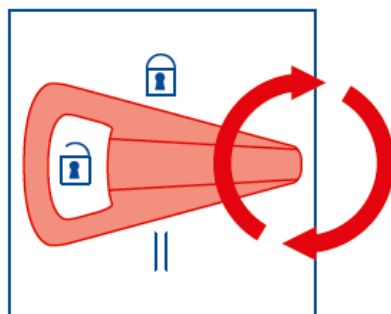
The hand control includes an integrated locking mechanism that can be activated and deactivated with the corresponding key. To lock out all electrical functions, place the key in the lock on the back of the hand control and turn the key to turn the locking function on or off.

### Locking mechanism 1 (Standard)



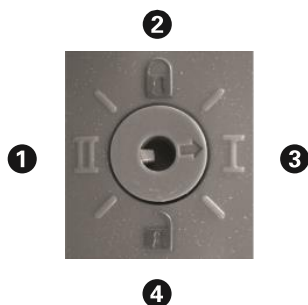
Locking device

- 1, 3, 4:**  
All functions executable
- 2:**  
All manual switch functions locked



Locking device key

### Locking mechanism 2 (Option with Trendelenburg function)



1	Only Trendelenburg function is locked
2	All hand control functions locked
3 + 4	All functions available (incl. Trendelenburg function, if applicable)

## 4 Construction and operation

### 4.1 Technical specifications – domiflex® 3

Technical Specifications	domiflex® 3		
	90 x 180 (200)	90 x 200 (220)	100 x 200 (220)
Lying surface dimensions: cm	90 x 180 (200)	90 x 200 (220)	100 x 200 (220)
External dimensions: cm (W x H x L)	103 x 90,7 x 190,7 (210,7)	103 x 90,7 x 210,7 (230,7)	113 x 90,7 x 210,7 (230,7)
Safe working load: kg	190	190	190
Max. patient weight: kg	155	155	155
Height adjustment range: cm	35 - 80	35 - 80	35 - 80
Back rest length: cm	66	66	66
Backrest length with mattress compensation: cm	-	77,5	77,5
Lifter floor clearance: cm	> 15	> 15	> 15
Noise level: dB(A)	< 65	< 65	< 65
<b>Adjustment angle</b>			
Back rest	70°	70°	70°
Thigh rest	42°	42°	42°
Lower leg rest	16°	16°	16°
Trendelenburg position	15°	15°	15°
<b>Weights</b>			
Total incl. wooden side rails: kg	73,9 (75,8)	77,8 (79,7)	80,8 (82,7)
Lying surface, head: kg	18,6	18,6	18,6
Lying surface, foot: kg	10,0 (11,0)	11,0 (12,0)	12,0 (13,0)
End panel: kg	19,6	19,6	20,6
Wooden side rails (pair): kg	8,1 (9)	9 (9,9)	9 (9,9)
<b>Electrical specifications</b>			
Input voltage: V	100-240	100-240	100-240
Frequency: Hz	50/60	50/60	50/60
Max. power consumption: A	2,1-0,9	2,1-0,9	2,1-0,9

All information given in brackets refers to the domiflex® 3 nursing home bed with the bed extension installed.

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

Technical Specifications	domiflex® 3 with reinforcement bars for 185 kg patient weight	
Lying surface dimensions: cm	90 x 200	100 x 200
External dimensions: cm (W x H x L)	103 x 90,7 x 210,7	113 x 90,7 x 210,7
Safe working load: kg	220	220
Max. patient weight: kg	185	185
Height adjustment range: cm	35 - 80	35 - 80
Back rest length: cm	66	66
Mattress compensation length: cm	-	-
Lifter floor clearance: cm	> 15	> 15
Noise level: dB(A)	< 65	< 65
<b>Adjustment angle</b>		
Back rest	70°	70°
Lower leg rest	16°	16°
Trendelenburg position	15°	15°
<b>Weights</b>		
Total incl. wooden side rails: kg	89,2	92,2
Lying surface, head: kg	18,6	18,6
Lying surface, foot: kg	11,0	12,0
End panel: kg	19,6	20,6
Support bars (pair): kg	11,4	11,4
Wooden side rails (pair): kg	9	9
<b>Electrical specifications</b>		
Input voltage: V	100-240	100-240
Frequency: Hz	50/60	50/60
Max. power consumption: A	2,1-0,9	2,1-0,9

### Bock safety note

The use of a bed extension is not possible with the domiflex® 3 with reinforcement bars.

All parts and data are subject to constant development and may therefore deviate from the data deviate from the listed data. The technical data of variants may deviate.



## 4.2 The domiflex® 3 model series

The model series domiflex® 3, consisting of the models domiflex® 3 and domiflex® 3 with reinforcement bar and was specially designed for the requirements of daily continuous use in care at home. The above-mentioned models offer a high level of lying comfort to frail people, sick people in need of care and people with disabilities, while at the same time supporting optimal care through their easy operation.

The domiflex® 3 model:

- is not intended for use in hospitals.
- can in some circumstances be combined for medical purposes (when needed) with other electrical medical devices, e.g. aspirators, ultrasonic nebulisers, feeding systems, anti-bedsore systems, oxygen concentrators, etc. In this case, the bed and all additional devices must be checked for correct operation by trained personnel during the entire operation. Apart from the necessary adjustment, the functions of the bed must be deactivated via the integrated locking function of the hand control for the operating time of the additional devices.

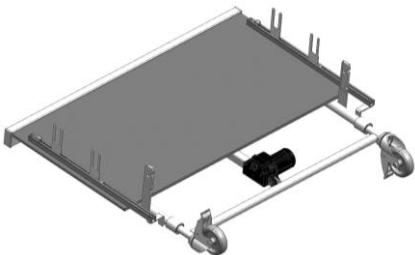

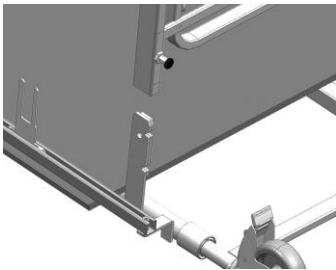
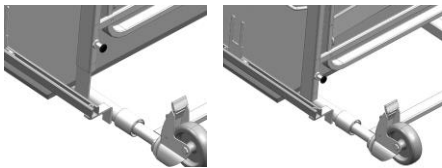
**Note:** This bed has no specific connectors for equipotential bonding. Electrical medical devices with intravascular or intracardiac connections to the patient may not be used. The operator of any medical devices is responsible for ensuring that the combination of devices meets the requirements of EN 60601-1.

## 4.3 Assembly and installation videos

- Installation video domiflex® 3
- Installation video bed extension
- Installation video reinforcing bars
- Transport



#### 4.4 Assembly and installation – domiflex® 3

<p>Lay the end panel on the ground as shown in the figure at right. Before starting assembly, fully remove all packaging materials (incl. cable ties).</p>	
<p>Locate the foot section of the lying surface, which has no mounting bracket for the lifting pole. The tension bolts should be brought into the locking position before insertion, in order to be able to push in the lying surface completely.</p>	
<p>Connect the lying surface to the end panel by placing the lying surface on the mounting brackets. By placing the lying surface in a slightly diagonal position, it is easier to find the connectors and the assembly is more back-friendly.</p>	
<p>Make sure that the tool-free connection is pushed up to the second retaining point. Then return the tension bolt to the engaged position.</p>	

Check that the lying surface is correctly connected to the end panel. The tension bolt must be clicked into place.



Locate the head section of the lying surface.

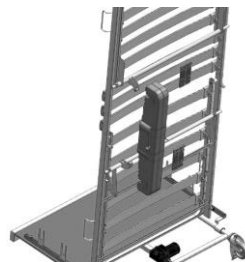




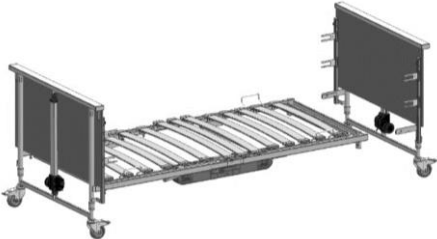
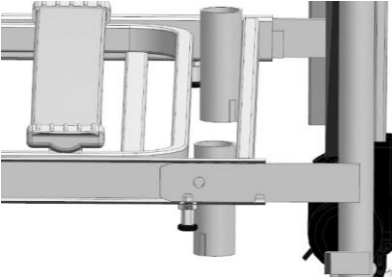
Put the head side lying surface onto the foot side lying surface, the tool-free connection must click into place. By placing the lying surface slightly diagonally, it is easier to find the connection points and the assembly is more back-friendly.



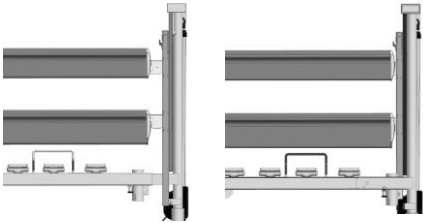



**The following steps are only for the domiflex® 3 version with main motor.**

To assemble the main motor, pick up the motor and the two cover plates.



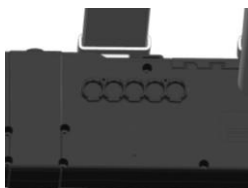
<p>Press the motor onto the motor cams. The icons and cable connectors should be facing towards the centre of the bed.</p>	
<p>Insert the cover plates sideways into the locking device of the main motor.</p>	
<p><b>The assembly of the main motor is now complete.</b></p> <p><b>The individual drives are permanently mounted and only need to be connected during assembly.</b></p>	
<p>Locate the second end panel.</p>	
<p>Push the end panel into the head section of the lying surface up to the first click. This is the installation and removal position for the side rails.</p>	

<p>Assemble the side rails. They can be inserted in a diagonal position. Pay attention to the marking "top" and "bottom" on the plugs (end caps). This indicates whether it is the upper or lower rail. The lower rail is higher.</p>	
<p>Pull all side rails upwards.</p>	
<p>Then push the end panel up to the second click position of the tool-free connector. This is the final locking position.</p>	
<p>Check all tool-free connections for secure locking.</p> <p><b><u>Make absolutely sure that all tension bolts are locked!</u></b></p>	

Connect the drives according to the overview in chapter 3.5 or 3.6, depending on the version.

The cables should be laid above the connecting tubes of the lifting elements.

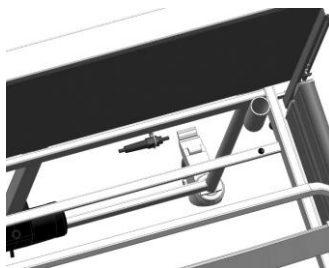
#### Connections on the main motor:



#### Control box for single drives:



The mains cable must be screwed to the tab on the lying surface with the strain relief device located on the cable.



If applicable, insert the lifting pole into the mounting bracket. Ensure that it is locked in place with the groove. Test the operation of the nursing care bed, including adjustment of the lying surface positions as well as adjustment of the height.

Your domiflex® 3 nursing care bed is now ready for use



### Bock safety note

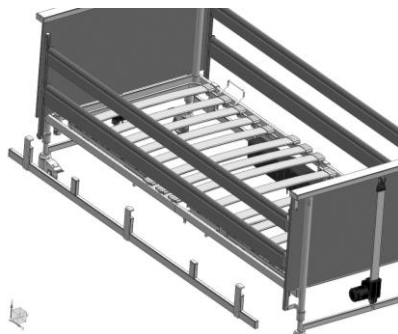
Check all screw- and tool-free connections again before the care bed is put into operation.

## Bock safety note

Cables must not be pinched or crushed. Repositioning of moveable parts may only be used for the intended purpose. Hermann Bock GmbH assumes no liability for unauthorised technical modifications.

### 4.5 domiflex® 3 - Additional steps when attaching the reinforcement bars for 185 kg patient weight.

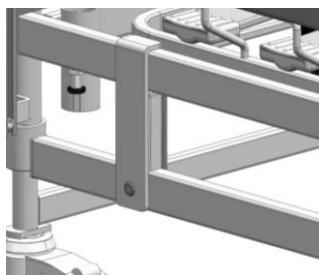
For the domiflex® 3 with reinforcement bars, take the reinforcement bars out of the packaging.



Hang the reinforcement bars onto the bed frame and attach them with the screws provided.



Tighten the screws fully.



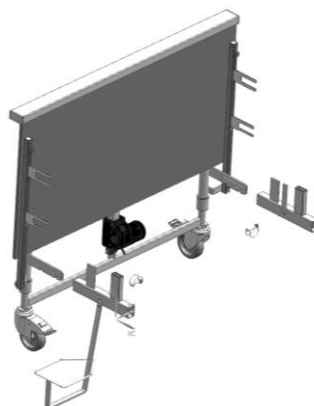
**Make absolutely sure that the reinforcement bars are fitted on both sides.**

Now your domiflex® 3 with reinforcement bars is ready for use.



#### 4.6 domiflex® 3 – transport system

The transport system consists of two connector pieces, each with a tube clip to make a connection between the end panels.



Arrange the end panels to be slightly offset from one another. Push in both end panels.

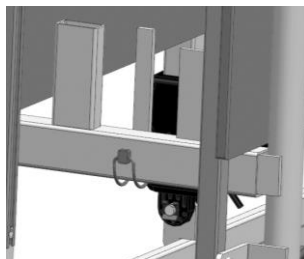




Place the tube clip as shown in the figure, starting on the inside and moving to the outside, then close it.

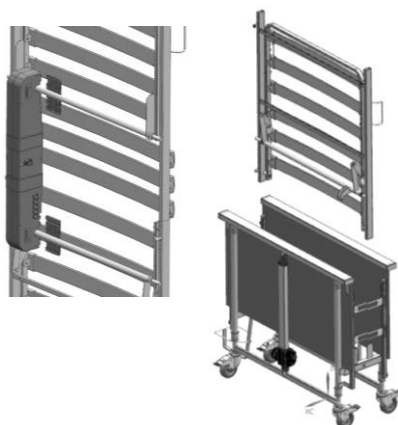


Place the second tube clip as shown in the figure, starting on the outside and moving to the inside, then close it.

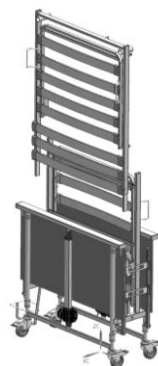


Disassemble the main motor, if present, by loosening the slides and then putting it aside.

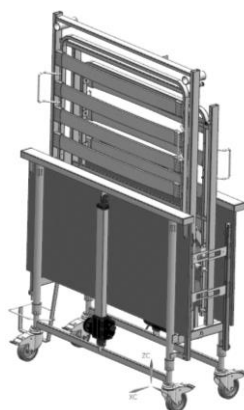
Next, insert the foot section of the lying surface from above. The mattress brackets should face upward and outward.



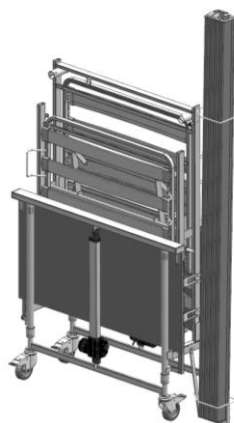
Then insert the head section of the lying surface from above. The mattress brackets should face upward and outward.



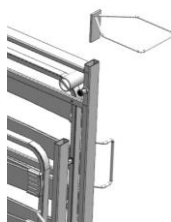
Visually compare the assembly with the figure at right.



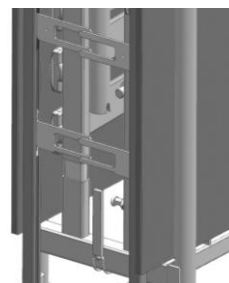
The side rail system can now be inserted.



Next, insert the side rail holder into the head section of the lying surface.

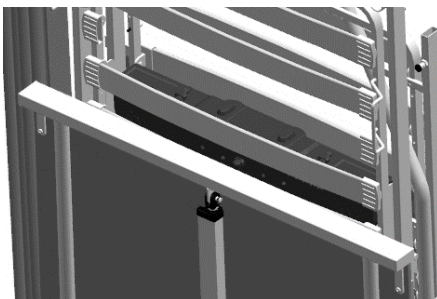


Then the lifting pole can be inserted, this is placed on the existing, free flat steel.  
The lifting pole should face inwards.



Be careful not to damage the tool-free connection.


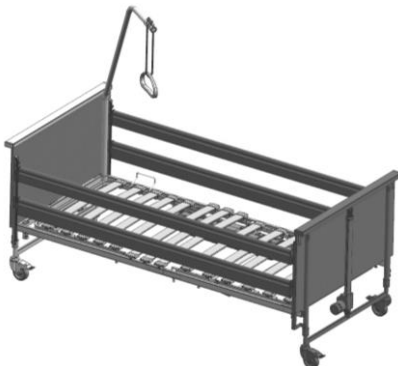
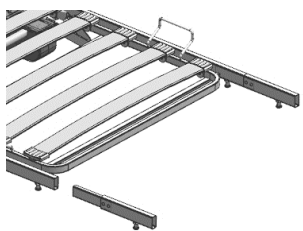

For the version with main motor: Fold out the head section of the lying surface, place the main motor incl. transformer and hand control on the round tube cross-bar. Then close the head section and secure it against opening with the triangle handle.






The complete transport unit is pictured at right.



#### 4.7 domiflex® 3 - Additional steps when attaching the bed extension

<p>Complete view of the bed extension set</p>	
<p>Disassemble the end panel. To do this, loosen the tool-free connection and pull the end panel out of the lying surface to the first click position. The side rails are also released by doing so and can be put aside. Then remove the end panel completely.</p>	
<p>Insert the frame extensions and lock them in place with the tool-free connection of the lying surface.</p>	
<p>Insert the new side rails and put the foot end panel back on, as usual, following the assembly instructions for the domiflex® 3.</p>	

<p>Locate the lying surface extender and insert it at the end of the foot bar of the lying surface, as shown in the figure.</p>	
<p>Lay in the lying surface extender, so that it is levelled with the foot bar element.</p>	
<p>Once you have finished this step, your assembly of the bed extension is complete.</p>	

#### 4.8 Disassembly

Before starting to disassemble the bed, unplug it from the wall socket. The domiflex® 3 and the domiflex® 3 with reinforcement bars can be disassembled by following the assembly instructions in reverse order.

## 4.9 Relocating the bed

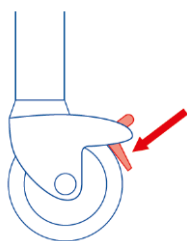
When moving the bed to a different location, please follow the safety instructions below:

- Lower the lying surface to the lowest position.
- Before moving the bed, pull out the mains plug and attach it to the frame with the hanger to prevent the power cord from falling down and being run over. Ensure that the cord does not drag on the ground.
- Before reinserting the mains plug, visually inspect the power cord for any signs of mechanical damage (kinks or pinched areas, abrasions or exposed wires).
- Run the cable in such a way that it cannot be pulled, run over or be damaged by moving parts of the nursing care bed; then put the mains plug back into the socket.

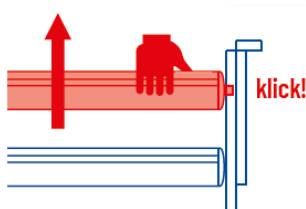
## 4.10 Transport, storage and operating conditions

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

## 4.11 Usage notes



To keep the nursing care bed in a particular location, the brakes on the bed frame castors must be locked. To do this, push the locking lever on the lower frame downwards with your foot.



When needed, the integrated side rails must be pulled up until they click into position. When using mattresses of different thicknesses, a minimum distance of 22 cm must be maintained between the top edge of the side rail and the mattress without compression; otherwise, a third top-mounted rail should be used.

## 4.12 Disposal

The individual plastic, metal and wooden components are recyclable, and can be disposed of for recycling in accordance with applicable laws. Note that electrically adjustable nursing care beds are considered as waste electrical equipment used for professional purposes (b2b) under EC WEEE directive 2012/19/EC. All replaced electrical and electronic components of the electrical bed adjustment system must be handled in accordance with the requirements of the German Act on Electrical and Electronic Devices (*Elektro- und Elektronikgerätegesetz, ElektroG*) and properly disposed of.

## 4.13 Troubleshooting

This overview offers tips on which malfunctions you can check and easily resolve on your own, and which malfunctions should always be entrusted to qualified professionals.

Malfunction	Possible causes	Suggestion
Drive system cannot be operated via hand control	Power cable unplugged	Plug in the power cable
	No power from wall socket	Check wall socket and/or fuse box
	Hand control plug not fully in place	Check plug connection at the motor
	Hand control or drive system is defective	Inform the operator or H. Bock customer service
	Locking mechanism or lock box on hand control is activated	Deactivate locking mechanism or lock box on hand control
Motors stop working when button is pressed after running for a short time	Obstacle preventing bed from changing position	Remove obstacle
	Safe working load is exceeded	Reduce load on bed
Drive units stop after extended adjustment time	Adjustment time or safe operating weight exceeded – PolySwitch in control device's transformer has reacted to overheating	Allow drive system at least one minute to cool down sufficiently

### Hazard note from Bock

You are welcome to contact us for assistance with commissioning, if required, with the use or maintenance of the nursing care bed or to report unexpected operation or incidents.

Our contact details are available on the last page.

## 5 Product accessories

To adapt each nursing care bed more closely to each patient's individual needs, Hermann Bock GmbH offers practical accessories to promote patient mobility. These accessories can be quickly and easily installed at their predetermined attachment points on the nursing care bed. Naturally, each additional piece of equipment meets Bock's highest standards of quality and safety. In addition to the standard accessories provided as basic equipment for each nursing care bed, Bock also offers an extensive range of optional extra accessories. The available extras vary by bed model, and are adapted to each model's specific functions and location of use. The spectrum of options here ranges from technical components to mattresses and even a side bed.

### 5.1 Non-standard dimensions

For patients taller than 180 cm, Hermann Bock GmbH recommends use of a bed extension in order to extend the lying surface to a length of 220 cm, allowing taller patients to enjoy a high level of comfort with identical functionality.

#### **Bock safety note**

When using accessories with the nursing care bed, or when using medically necessary devices like IV poles in close proximity to the nursing care bed, it is especially important to ensure that the patient is not exposed to any crush or shear points when adjusting the back and leg rests.



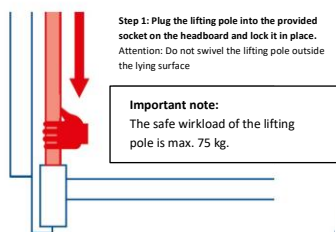
## 5.2 Lifting pole with triangle grip

The lifting pole accessory weighs 6.5 kg.

The lifting pole's maximum safe working load is 75 kg.

Includes:

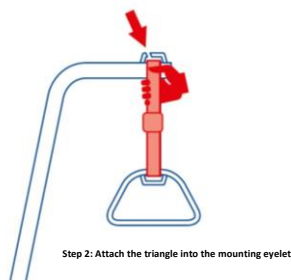
Lifting pole with mounting loop  
incl. triangle grip



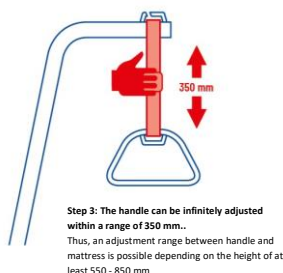
To install, insert the lifting pole into the socket provided on the head section of the bed and lock it into position. Hang the triangle grip through the mounting loop.

Be sure to use only mattresses in the thickness range recommended by Hermann Bock GmbH.

**NOTE: Do not swing the lifting pole outside of the lying surface!**



Under normal use conditions, the triangle grip has a service life of approximately 5 years. If a lifting pole with triangle grip is installed on the nursing care bed, the bar must be checked as part of each inspection and replaced after no more than 5 years.



The grip height can be continuously adjusted through a range of about 350 mm. Depending on the mattress thickness, the triangle grip can therefore be adjusted to a height of 550 to 850 mm above the mattress surface. When using a lifting pole, the overall height of the nursing care bed is increased by 1300 mm.

### 5.3 Side rail padding

The side rail bumpers weighs 1.4 kg.

Includes:

Cover incl. padding



To install, open the zip on the cover (or the hook-and-loop strip, depending on the product version) and pull it down over the side rail. Pull the foam padding into the cover from the inside of the nursing care bed, then close the zip or hook-and-loop strip.

### 5.4 Side rail height extender

The side rail height extender weighs 1.0 kg.

Includes:

Side rail height extender, fully assembled



Open plastic closure, place height extender on top of rail, position in the centre of the rail, and close the closure. Be sure that the height extender's release button is facing outward once installed.

#### Important note:

**The side rail height extender is designed for use with all varieties of Bock wooden side rails. Hermann Bock GmbH assumes no responsibility for use with side rails from other manufacturers!**

### 5.5 Grab rail with crossbar

The weight of the grab rail with crossbar is 3.0 kg.

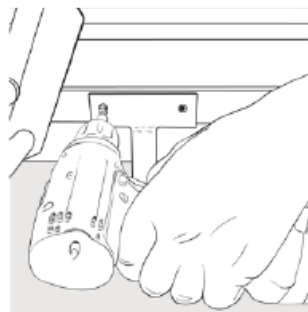
The safe working load of the grab rail is max. 40 kg.



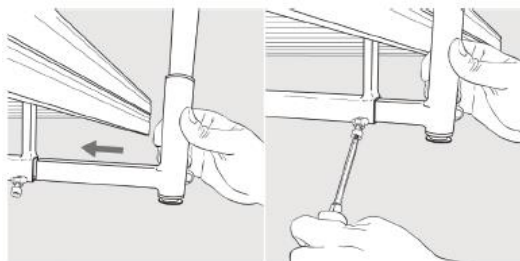
Includes:

Grab rail with attachment crossbar and installation hardware

Affix the crossbar to the lying surface by means of the included screws.



Insert the grab rail into the crossbeam, adjust it to the desired position, and tighten screws firmly.



## 5.6 Mattresses

In general, nursing care beds from Hermann Bock GmbH can be fitted with any foam or latex mattress with a minimum weight per unit volume of  $35\text{kg/m}^3$ , a width of 80 cm, 90 cm, or 100 cm, and a length of 180 cm, 200 cm, or 220 cm.

The thickness of the mattress may not exceed:

- 15 cm for aluminium or wooden lying surfaces.
- 12 cm for lying surfaces with spring systems.

For thicker mattresses, an additional side rail (side rail height extender), available as a product accessory, must be used.



**The mattress thickness must not be less than 10 cm.**

When using foam mattresses, we recommend cuts or notches for a closer fit to the lying surface.

## Bock safety note

For safety reasons, use only original Hermann Bock accessories that are approved for use with your specific bed model. A detailed overview of accessories and extras available for your bed model is provided on a separate data sheet. Hermann Bock cannot be held liable for any accidents, damages or hazards that may result from use of other accessories.

## 6 Cleaning, care and disinfection

The individual components of this nursing care bed are all made from top-quality materials. The surface of the tubular steel frame is coated with a long-lasting polyester powder coating. All wooden parts are sealed with low-pollutant surface sealants. All bed components can be easily cleaned and maintained in accordance with applicable hygiene requirements in the various usage environments, using wipe-down and spray disinfection techniques.

A routine cleaning of the nursing bed within the use by the same patient is recommended every month or even if necessary. Disinfection of the nursing bed is only necessary in case of visible contamination with infectious or potentially infectious material or in the presence of an infectious disease. The nursing care bed must be disinfected in case of a change of user, before repair, storage or transport.

By following the care instructions in this section, the functionality and appearance of your nursing care bed can be maintained for a long time.

### 6.1 Cleaning and care

#### *Tubular steel and enamelled metal parts:*

To clean and care for these surfaces, use a damp cloth together with standard mild household cleansers.

#### *Wood, decorative and plastic components:*

All standard furniture cleansers and care products can be used with these components. For cleaning plastic elements, a damp cloth with no added cleansers is generally sufficient. When caring for plastic surfaces, use products that are specifically intended for use on plastic.

#### *Drive system:*

To prevent moisture from entering the motor housing, the housing should only be wiped gently with a damp cloth.

## 6.2 Disinfection

Disinfect the nursing care bed via wipe-down disinfection. Follow the procedures tested and approved by the Robert Koch Institute (RKI). You can use standard cleansers and disinfectants approved by the RKI. To maintain the durability of plastic components like the motor housing and decorative elements, only mild and gentle products should be used for disinfection. Concentrated acids, aromatic and chlorinated hydrocarbons, higher alcohols, ethers, esters and ketones will corrode the material and therefore should not be used. The list of disinfectant agents and procedures tested and approved by the Robert Koch Institute can be found online at [www.rki.de](http://www.rki.de).

We have tested and approved the following disinfectants:

Manufacturer	Product name	Concentration
Ecolab	Incidin Plus	0.5% solution
Bode Chemie	Bacillol AF	0.5% solution
Schülke	Terralin Protect	0.5% solution

## 6.3 Avoiding hazards


Read the following guidelines for the electrical components of the bed in advance to avoid any hazards related to cleaning and disinfection. Failure to follow these guidelines may lead to a risk of injury and significant damage to electric cords and to the drive system.

- Pull out the mains plug and set it aside to prevent any contact with excessive amounts of water or cleansing agents.
- Check that all connectors are properly seated.
- Check cables and electrical components for damage. If any damage is detected, do not do any cleaning; instead, first have the defects repaired by the operator or by authorised professionals.
- Before returning to normal operation, check the mains plug for any remaining moisture, and wipe or blow it dry if necessary.
- If you suspect that moisture may have got into the electrical components, immediately pull out the mains plug and/or do not plug it back into mains power under any circumstances. Immediately take the bed out of service, mark it accordingly, and inform the operator.

## 6.4 Mechanical cleaning

### *Steps required for mechanical cleaning*

The bed must be specially prepared for mechanical cleaning in order to prevent damage. The following steps are required to preserve the service life and functionality of the bed.

- Lower the bed to the lowest position.
- Set up the bed on the supplied transport bracket (see: 'Disassembling the nursing bed' on p. 38 of these domiflex® 3 assembly and operating instructions).
- Check to ensure that the housings for the drive components are undamaged (visual inspection)
- Please note that the side rails can only be cleaned manually. If the coated surface is already damaged, mechanical cleaning will cause moisture to penetrate into the rail, resulting in permanent damage.
- The lifting pole can also be washed if the washing system permits. Otherwise, it can be cleaned manually, as well.
- Remove the main motor including hand control and power supply unit. These components cannot be washed. The end panels/lying surfaces with washable electronic components are marked with the following label: 
- The jet discharge pressure (directly at the jet's discharge point) should not exceed 3 bars.
- The surface temperature should not exceed 55°C during the washing and drying process. However, the washing temperature also should not be too low, as the bed will not dry properly.

### **Block safety note**

All components of a domiflex® 3 bed should be properly dried after each washing cycle. Please ensure that all exposed components are completely dry. All sockets and plugs for the electrical components should be free from moisture before use. The beds must be thoroughly inspected after each washing cycle. All components of the bed must be checked during this process. Please complete this check in accordance with the inspection list at the end of this manual. Faulty components must be replaced by qualified technicians.

### **Block safety note**

If the bed has a main motor installed, the motor, its hand control and its power supply unit must be removed before the bed is washed. Before washing, please note that only the lift motors with protection class IPX6 in the end panels and the lying surface can undergo a washing cycle.

**Exception:** If the domiflex® 3 bed is equipped with single drives on the lying surface, the control box, power supply unit and hand control can be included in the washing cycle. After washing, the electrical components will also need to be inspected by qualified technicians.

#### *Washing parameters*

A washing system from the company Kluge & Fielitz is certified according to the DIN EN ISO 15883-5 standard. This system served as a reference for washing the domiflex® 3. These beds were designed to be washed in a system like this. The manufacturer of the washing system also determines the dosages of cleansers, detergents and disinfectants. If the bed is washed in a process that deviates from the parameters set out by the washing system manufacturer, the warranty on the bed will be null and void.

### *Cleansers and disinfectants*

The following cleansers and disinfectants have been successfully tested on the domiflex® 3.

<b>Cleansers</b>	<b>Disinfectant</b>
neodisher MediClean forte	neodisher Dekonta AF
neodisher MediKlar special	Neodisher Septo

Other cleansers and disinfectants can be used to clean the beds; however, they should have similar specifications to the cleansers and disinfectants listed above. They must be approved by the washing system manufacturer.

## **Bock Safety Note**

Under no circumstances may abrasive cleaners or cleansers containing abrasive particles or cleaning pads or stainless steel care products be used for cleaning. Organic solvents such as halogenated/aromatic hydrocarbons and ketones as well as cleaning agents containing acids and alkalis are also not permitted.

Under no circumstances may the care bed be sprayed with a water hose or high-pressure cleaner, as liquid could penetrate the electrical components and cause malfunctions and hazards as a result.

Before each use, the bed must be cleaned and disinfected. A visual inspection must also be carried out to check for any mechanical damage. You will find detailed information on this in the inspection list.



## 7 Guidelines and manufacturer declaration

### Guidelines and manufacturer declaration

#### – Electromagnetic emissions

The nursing care bed is intended for use in an environment meeting the criteria listed below. The customer or user of the nursing care bed should verify that the bed is being operated in an appropriate environment.

Emitted interference measurements	Compliance	Electromagnetic environment – Guideline
HF emissions per CISPR 11 as	Group 1	The nursing care bed uses HF energy only for its internal functions. Its HF emissions are therefore very low, and it is unlikely that nearby electrical devices will be affected by interference.  The nursing care bed is suitable for use in all facilities excluding those in living areas and those that are directly connected to a public power grid that also supplies buildings used for residential purposes.
HF emissions per CISPR 11 as	Class B	
Emission of harmonics as per IEC 61000-3-2	Class B	
Emission of voltage fluctuations/flicker as per IEC 61000-3-3	Compliant	

#### – Electromagnetic interference immunity

The nursing care bed is intended for use in an electromagnetic environment meeting the criteria listed below. The customer or user of the nursing care bed should verify that the bed is being operated in an appropriate environment.

Interference immunity tests	IEC 60601 test level	Compliance test level	Electromagnetic environment – Guidelines
Electrostatic discharge (ESD) as per IEC 61000-4-2	Contact discharge: $\pm 8$ kV Air discharge: $\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV	Contact discharge: $\pm 8$ kV Air discharge: $\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV	Floors should be made of wood or concrete or be covered with ceramic tiles. If the floor is covered with synthetic material, the relative humidity must be at least 30%.
Electrical fast transients/bursts as per IEC 61000-4-4	$\pm 2$ kV for mains power cables $\pm 1$ kV for input and output cables	$\pm 2$ kV for mains power cables $\pm 1$ kV for input and output cables	The quality of the power supply should correspond to that of a typical business or hospital environment.
Surge voltages as per IEC 61000-4-5	$\pm 1$ kV differential mode voltage	$\pm 1$ kV differential mode voltage	The quality of the power supply should correspond to that of a typical business or hospital environment.
Voltage drops, short interruptions and supply voltage fluctuations as per IEC 61000-4-11	0% UT; ½ period; at 0,45,90,135,180,225,270 and 315 degrees;  0% UT; 1 period; 70% UT; 25/30 periods; single-phase at 0 degrees  0% UT, 250/300 periods	0% UT; ½ period; at 0,45,90,135,180,225,270 and 315 degrees;  0% UT; 1 period; 70% UT; 25/30 periods; single-phase at 0 degrees  0% UT, 250/300 periods	The quality of the power supply should correspond to that of a typical business or hospital environment. If the user of the nursing care bed requires continued functionality even in the event of interruptions to the power supply, it is recommended that the nursing care bed be powered from an uninterruptible power supply or a battery.
Magnetic field at supply frequency (50/60 Hz) as per IEC 61000-4-8	30 A/m	30 A/m	Magnetic fields at the mains frequency should correspond to the typical values seen in business or hospital environments.

NOTE:  $U_T$  is the mains AC voltage before application of the test level.

## – Electromagnetic interference immunity

The nursing care bed is intended for use in an electromagnetic environment meeting the criteria listed below. The customer or user of the nursing care bed should verify that the bed is being operated in an appropriate environment.

Interference immunity tests	IEC 60601 test level	Compliance test level	Electromagnetic environment – Guidelines
Conducted HF disturbances as per IEC 61000-4-6	3 V 150kHz-80MHz	3 V 150kHz-80MHz	
Radiated HF disturbances as per IEC 61000-4-3	6 V in ISM and amateur radio frequency bands	6 V in ISM and amateur radio frequency bands	
Special frequencies as per IEC 61000-4-3, Table 9 were tested as well	10 V/m 80MHz-2700MHz	10 V/m 80MHz-2700MHz	
<p>NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not be applicable in all cases. Emanation of electromagnetic effects is influenced by absorption and reflection by buildings, objects and people.</p>			
<p>* The field strength of fixed transmitters, e.g. base stations for mobile phones and land mobile radios, amateur radio stations, AM and FM radio broadcasters and TV broadcasters, cannot be theoretically predicted with accuracy. To determine the electromagnetic environment with regard to fixed transmitters, an investigation of the specific site should be considered. If the field strength measured at the site where the nursing care bed is being used exceeds the upper compliance limit, the nursing care bed should be monitored to ensure that it is functioning as intended. If unusual performance characteristics are observed, additional measures may be necessary, e.g. changing the orientation or location of the nursing care bed.</p> <p><sup>b</sup> Above the frequency range from 150 kHz to 80 MHz, the field strength should be less than 3 V/m.</p>			

## Bock Safety Note

In the immediate proximity of the nursing care bed, portable communication devices and accessories such as antenna cables and external antennas should not be used within 30 cm of the bed's electrical components and cables.

Failure to observe this restriction may result in malfunctions.

### 7.1 EU declaration of conformity

We, Hermann Bock GmbH, declare under our sole responsibility that this medical device complies with the requirements of the Medical Device Regulation (EU) 2017/745.

The current declaration of conformity can be found on our website:  
[www.bock.net](http://www.bock.net)

## 8 Safe use in a domestic environment

### Detection and avoidance of possible unfavourable application conditions

Electrical components of the nursing care bed	
Unfavourable application condition	Possible measures for prevention
Damage to the hand control	Securely fasten the hand control to the bed with the attached hook.
Damage to the hand control cable	Check the course of the hand control cable and route it away from shearing and crushing points
Heat accumulation due to lint or dust	Regular cleaning of the components
Defective electrical cables due to pets and children	Do not leave pets and children unattended in the room
Defective electrical cables due to pests	Have pests removed by qualified personnel
Defective electrical cables due to crushing and shearing	Fix electrical cables so that they cannot be crushed or sheared off.

Interfering devices and objects	
Unfavourable application condition	Possible measures
Fire hazard due to hot, stationary objects (fireplace, cooker, oven, radiator ...) in the vicinity of the healthcare bed	Select a location for the nursing home bed with a safe distance.
Fire hazard due to hot, movable objects (reading lamp, radiant heater, ...) in the vicinity of the care bed	Keep a safe distance from these objects or replace them, for example with LED lamps.
Collision due to adjustment movement of the nursing bed	Choose a location for the nursing home bed with a safe distance.

Pinching of hoses for ventilation or positioning of residents	Fix the hoses so that they cannot be pinched.
---	---

## 9 Regular inspections with service

Regular inspections help to maintain the highest possible level of safety, and are therefore an important safety measure in themselves. Medical devices must be regularly inspected at the intervals specified by the manufacturer and in accordance with generally recognised good engineering practice. In day-to-day practice, the protective measures required for safety reasons are subject to various stresses and requirements, and thus also to the potential signs of associated wear. To reliably minimise risks, it is essential to consistently comply with regular inspection intervals at all times. The manufacturer has no influence over the extent to which the operator of its electric beds complies with the applicable rules. Hermann Bock GmbH makes it easier for you to comply with all necessary safety measures with its time-saving service offerings.

Inspections, assessments and documentation may only be done by or under the supervision of qualified professionals, such as qualified electricians or people with technical training in electrical systems, who are familiar with the applicable guidelines and able to recognise potential impacts and hazards.

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

If no one on the user's side is qualified for or assigned to perform regular inspections, the Bock service department can take over the regular inspections for a fee, while also confirming and complying with the appropriate inspection intervals.


### Bock Safety Note

Service and maintenance may not be performed when the bed is in use.

**The nursing care bed must be inspected at least once per year, and before and after each new use.**

Hermann Bock GmbH offers an inspection checklist to support you in this process. You can copy this checklist or download it at [www.bock.net](http://www.bock.net). Completed checklists constitute an audit trail and should be retained in your files.

**Note: Any unauthorised technical modification to the product shall immediately void the warranty.**


Inspection checklist for Bock Nursing care beds			
		Page 1 of 2	Publication date: 01/09/2021 / Ver. 08
Model number / Year of manufacture:			
Serial/Inventory no.:			
Manufacturer:	Hermann Bock GmbH		
<b>Visual/Functional inspection:</b>			
No	Description	Yes	No
<b>General:</b>			
1	Type plate/Sticker present on bed and legible?	<input type="checkbox"/>	<input type="checkbox"/>
2	User manual available?	<input type="checkbox"/>	<input type="checkbox"/>
3	Does operator's use comply with the product's intended use?	<input type="checkbox"/>	<input type="checkbox"/>
4	Is the safe working load indicated on the type plate (patient weight + mattress weight + accessory weight) complied with?	<input type="checkbox"/>	<input type="checkbox"/>
5	Are accessories (e.g. lifting pole incl. grip and strap, grab rail, bumper wheels, etc.) safe and free of defects? Are all accessories securely fastened in place and free of any signs of wear? Is the grip on the lifting pole no older than 5 years (usable service life of the grip as per manufacturer guidelines)? Is the correct attachment method used for the lifting pole ((welded instead of edged), or has it already been retrofitted?	<input type="checkbox"/>	<input type="checkbox"/>
6	For retrofitted lifting pole sleeve: Screw tightened to 6-9 NM?	<input type="checkbox"/>	<input type="checkbox"/>
7	Are mechanical fasteners (screws, bolts etc.) complete and free of defects? Screws fully tightened?	<input type="checkbox"/>	<input type="checkbox"/>
8	Can any splinters, cracks or other damage be seen in the wood?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Electrical components:</b>			
9	Are power cables, connecting cords and plugs free of breaks, kinks or pinched areas, abrasions, porous areas and exposed wires?	<input type="checkbox"/>	<input type="checkbox"/>
10	Strain relief device firmly screwed into place and working properly?	<input type="checkbox"/>	<input type="checkbox"/>
11	Safe, correct cable management?	<input type="checkbox"/>	<input type="checkbox"/>
12	Motor and hand control housings free of damage? Has any moisture made its way inside?	<input type="checkbox"/>	<input type="checkbox"/>
13	Is the power supply unit free of damage?	<input type="checkbox"/>	<input type="checkbox"/>
14	Motor's lift tube and clevis free of damage and defects?	<input type="checkbox"/>	<input type="checkbox"/>
15	Hand control (buttons and lock mechanism) free of defects? Limit switch functioning correctly?	<input type="checkbox"/>	<input type="checkbox"/>
16	Block battery/Emergency lowering system: Working correctly and free of defects?	<input type="checkbox"/>	<input type="checkbox"/>
17	<i>For adi.flex bed only:</i> Has the lift tube been sprayed with silicone spray?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Lower frame (for scissor lift beds) / end panels (for control unit beds):</b>			
18	Is the frame construction free of defects and cracked welding joints?	<input type="checkbox"/>	<input type="checkbox"/>
19	Are castors and bumper wheels (if present) free of damage?	<input type="checkbox"/>	<input type="checkbox"/>
20	Plastic end caps and mechanical fasteners (screws, bolts etc.) complete and free of defects?	<input type="checkbox"/>	<input type="checkbox"/>
21	Vertical adjustment working correctly and free of defects?	<input type="checkbox"/>	<input type="checkbox"/>
22	Safe brake and locking operation, wheels spinning freely?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Mattress support frame and end panels:</b>			

23	Wooden slats, aluminium/steel slats, support plate and/or springs free of defects? (no cracks or fractures, firmly seated, adequate load pressure, etc.) <i>For dino bed only: Aluminium slats no more than 6 cm apart?</i>	<input type="checkbox"/>	<input type="checkbox"/>
24	Mattress support frame and lifting components free of defects, and no damage to welding joints?	<input type="checkbox"/>	<input type="checkbox"/>

## Inspection checklist for Bock Nursing care beds

Page 2 of 2

Publication date: 01/09/2021 / Ver. 08

Client:		
Address:		
Location:		

25	Plastic end caps and mechanical fasteners (screws, bolts etc.) complete and free of defects?	<input type="checkbox"/>	<input type="checkbox"/>
26	Head and foot end panels firmly seated and free of damage?	<input type="checkbox"/>	<input type="checkbox"/>
27	Back/leg rest adjustment and special functions working correctly and without obstruction?	<input type="checkbox"/>	<input type="checkbox"/>
28	Secure position-locking mechanism at every stage in lower leg rest (if present), including under load?	<input type="checkbox"/>	<input type="checkbox"/>
29	<i>domiflex® 2 bed only:</i> Does the 6 tappet spanner provide adequate clamping? The lock nut must be tightened to at least 6 NM.	<input type="checkbox"/>	<input type="checkbox"/>

### Side rails:

30	Side rails in place and free of cracks, breaks or damage?	<input type="checkbox"/>	<input type="checkbox"/>
31	Side rail beams no more than 12 cm apart? <i>For dino bed only:</i> Vertical bars no more than 6 cm apart? Distance between side rail system and lying surface no more than 6 cm?	<input type="checkbox"/>	<input type="checkbox"/>
32	Top of side rail more than 22 cm above mattress surface? <i>For dino bed only:</i> Top of side rail more than 60 cm above mattress surface?	<input type="checkbox"/>	<input type="checkbox"/>
33	<i>For divided side rails only:</i> Distance between end panel and side rail no more than 6 cm, and distance between separated side rails greater than 31.8 cm?	<input type="checkbox"/>	<input type="checkbox"/>
34	Side rails slide easily in tracks and lock securely into place? <i>For dino bed only:</i> Gates slide easily along aluminium profiles? Gates lock securely into locking mechanism?	<input type="checkbox"/>	<input type="checkbox"/>
35	Side rails/sections adequately anchored or seated?	<input type="checkbox"/>	<input type="checkbox"/>
36	Side rail stress test with no deformation?	<input type="checkbox"/>	<input type="checkbox"/>

### Electrical tests:

Insulation resistance – (Only needs to be measured for models built before 2002.)

38	Insulation resistance – measured value greater than 7 MQ?	<input type="checkbox"/>	<input type="checkbox"/>
----	---	--------------------------	--------------------------

Device leakage current – (This measurement does not need to be done for beds manufactured in May 2018 or later for beds with a drive unit from Limoss, or for beds manufactured in July 2015 or later for beds with a drive unit from Dewert in the first 10 years of their useful service life if a visual and functional inspection has been conducted, provided that the bed in question is a nursing care bed with a switch-mode power supply (SMPS) from Limoss or Dewert. For these beds, the SMPS converts the mains voltage directly into a safety extra-low voltage no greater than 35 V.)

39	Direct measurement of device leakage current – measured value less than 0.1 mA?	<input type="checkbox"/>	<input type="checkbox"/>
----	---	--------------------------	--------------------------

### Evaluation:

40	All values in acceptable range, inspection passed?	<input type="checkbox"/>	<input type="checkbox"/>
----	--	--------------------------	--------------------------

If inspection not passed:

☐ Repair  
☐ Reject

Date / Inspector's name in block letters / Inspector's signature

Next inspection



Hermann Bock GmbH  
Nickelstr. 12  
D-33415 Verl

Telefon: +49 (0) 52 46 92 05 - 0  
Telefax: +49 (0) 52 46 92 05 - 25  
Internet: [www.bock.net](http://www.bock.net)  
E-Mail: [info@bock.net](mailto:info@bock.net)



#### Our SALES PARTNERS

Just like us, our business partners are focused on quality, innovation, and exceptionally high standards that are recognised worldwide. We can rely on our partners as confidently as you rely on us.

Please note that training, replacement parts, repairs, inspections and other forms of service can only be provided by our authorised personnel and sales partners. Otherwise, all warranty claims will be void.

For a list of our current sales partners, see [www.bock.net/kontakt/vertriebspartner](http://www.bock.net/kontakt/vertriebspartner) (German only)