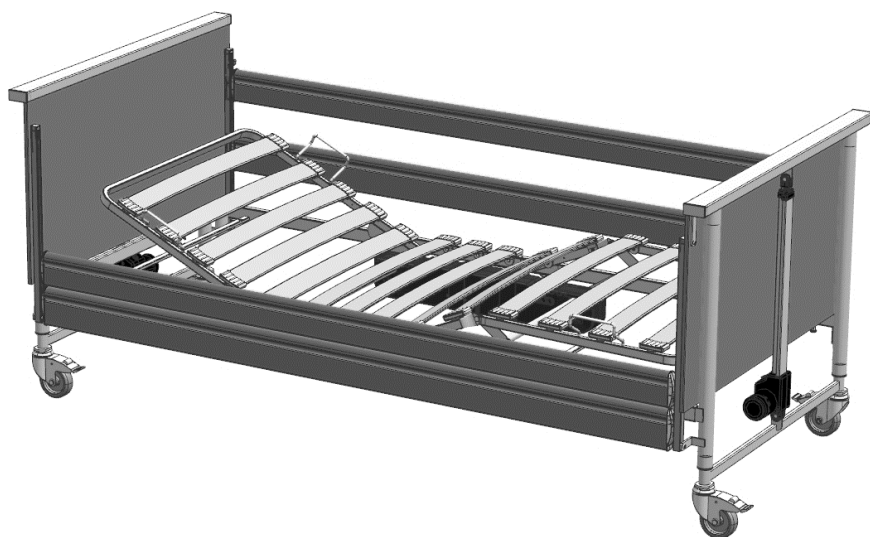


## Nursing care beds

- 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 comfort while also allowing for the provision of professional care.

The focus here is on the patient, whose trust their health care providers seek to earn as they protect the patient's life and health. 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

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## 1 Instruction and general notes

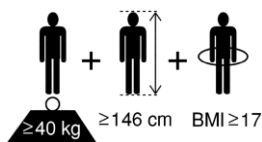
The different nursing bed systems from Hermann Bock GmbH meet special requirements for use in nursing and therapy facilities as well as for care at home. At the same time, reliable functionality and durability distinguish each individual care bed as being of particularly high quality. With proper operation 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, nursing care bed in a hospital
3. Long-term care in a medical environment, in nursing care bed
4. In-home care, solely for use as a “home-care nursing care bed”
5. Outpatient care

### 1.1 Intended use



The nursing care bed is suitable for patients 146 cm or greater in height. The patient's weight may not exceed the maximum body mass indicated on the nameplate, and must be greater than 40kg. 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 in-home care 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 care bed is delivered without the Trendenburg 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 manual switch that cannot control the Trendelenburg function.

The nursing care bed is not intended for use in hospitals. If the nursing care bed is equipped with open casters, the nursing care bed can be used to transport patients. The nursing care bed can be moved while the patient is lying in it. To prepare for moving the bed, lock the casters and lower the mattress support frame to the lowest horizontal position. Release the casters and move the bed. Once transport is complete, lock the casters. If the nursing care bed has covered casters, the nursing care bed is not designed for transporting patients. In this case, the bed can only be moved within the patient's room (including while the patient is lying in the bed), e.g. for cleaning or to provide better access to the patient. If the nursing care bed has fixed feet, it cannot be moved.

The nursing care bed is suitable for reuse. Please follow all guidelines in these assembly and operating instructions for cleaning, care and disinfection of the nursing care bed prior to reuse. 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/occupants who meet the following minimum body size and weight requirements:

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

## 1.3 Definitions

### *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/Occupant*

The person requiring care, infirm person, or person with a disability who is lying in the nursing care bed.

#### *Technical personnel*

Technical 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 guards.

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 position changes 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 switch. To do this, first lower the mattress support frame to the lowest position, then activate the locking function by turning the key in the lock located on the back of the hand switch. Remove the key and test the hand switch 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 switch functions themselves due to certain disabilities,
- if the patient or nursing staff could be put at risk by unintended changes in the bed's position,
- 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 the hand switch is not in use, always ensure that it is safely hung on the storage hook and cannot fall to the ground.

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 changing the bed position, it is especially important to ensure that limbs and extremities are clear of the side rails in the area being repositioned. Also ensure that the patient is lying in the correct position when repositioning the side rails themselves.

Before using any motorised repositioning function, always check that limbs and extremities are clear of the area between the bed frame and the headboard or footboard of the bed, and ensure that no children or pets are in the space between the floor and the raised mattress support frame. The risk of pinching or crushing is especially high in these areas. Also check for objects located near or beneath the nursing care bed. Remove such objects to avoid damage during repositioning.

The permissible patient weight depends on the total weight of other accessories present at the same time (mattresses or other electrical medical devices). Please check the nameplate on the mattress support frame for the maximum safe operating weight.

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



The nursing care bed may only be used for patient care and rest. Functions to reposition the head and foot of the nursing care bed are intended solely for repositioning the corresponding areas of the patient's body. The nursing care bed must only be used for its intended purpose, and must not be used improperly or for any unintended purpose.

The patient must be immediately removed from the bed in case of malfunction or equipment failure.

Use of incompatible side rails may result in pinching of extremities.

To deactivate the nursing care bed and safely halt operation of the bed, remove the wall 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 Usable lifespan**

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 lifespan of 10 years. The actual lifespan will depend on the conditions and frequency of use.

### **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, nor for the United States of America in particular. 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 switch for the duration of such use of these devices.


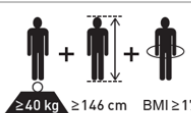

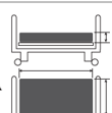






### **Bock Safety Note**

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.

## 1.10 Nameplate


Each nursing care bed is affixed with both an individual and a general nameplate.


### Individual and general nameplates

|  |  |   |   |   |  |
|--|--|---|---|---|--|
| <p>(1) <b>Modell: XXX</b></p> <p>(2) Baujahr: XXXX-XX-XX</p> <p>(3) Serien-Nr. <b>XXXXXXXX - XXX</b></p> <p>(4) XXX - XXX V ~ XX/XX Hz max. X,X - X,X A</p> <p>(5) ED XX % (XXmin ON /XXmin OFF)</p> <p>(6) Antr.- Schutzart <b>IPX4</b></p> <p>(7)  = XX kg</p> <p>(8) Hermann Bock GmbH-Nickelstr.12<br/>33415 D-Verl / Tel. 01805/262500</p> <p>REV:XX</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Made in Germany</p> | <br>$\geq 40 \text{ kg}$ $\geq 146 \text{ cm}$ $\text{BMI} \geq 17$  |  |  | <p><b>.bock</b></p> <p></p> <p>Hermann Bock GmbH<br/>Nickelstr. 12<br/>33415 Verl - Germany<br/>phone: +49 5246 9205-0<br/>www.bock.net</p> |
|  |  |      | <p>890.02355</p> <p>Made in Germany</p>   |   |  |

- (1) Model number
- (2) Date of manufacture: Year - Month - Day
- (3) Serial number: Order number - Sequential number
- (4) Voltage, power frequency and current consumption
- (5) Duty cycle
- (6) Antriebsschutzart
- (7) Own weight of the bed
- (8) Manufacturer
- (9) Maximum patient weight / Safe operating weight

(9)














 = XXX kg

 = XXX kg

## 1.11 Nameplate with reinforcing struts











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

### Individual and general nameplates

|  |  |  |   |   |  |
|--|--|--|---|---|--|
| <p>(1) <b>Modell: XXX</b></p> <p>(2) Baujahr: XXXX-XX-XX</p> <p>(3) Serien-Nr. <b>XXXXXXXX - XXX</b></p> <p>(4)  = XX kg</p> <p>(5) Hermann Bock GmbH-Nickelstr.12<br/>33415 D-Verl / Tel. 01805/262500</p> <p>REV:XX</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Made in Germany</p> | <p>(6) Nur bei <u>beidseitigem</u> Anbau der Verstärkungsstreben</p> <p> = 185 kg</p> <p> = 220 kg</p>   |  |  | <p><b>.bock</b></p> <p></p> <p>Hermann Bock GmbH<br/>Nickelstr. 12<br/>33415 Verl - Germany<br/>phone: +49 5246 9205-0<br/>www.bock.net</p> |
|  |  |                       | <p>890.02581</p> <p>Made in Germany</p>   |   |  |

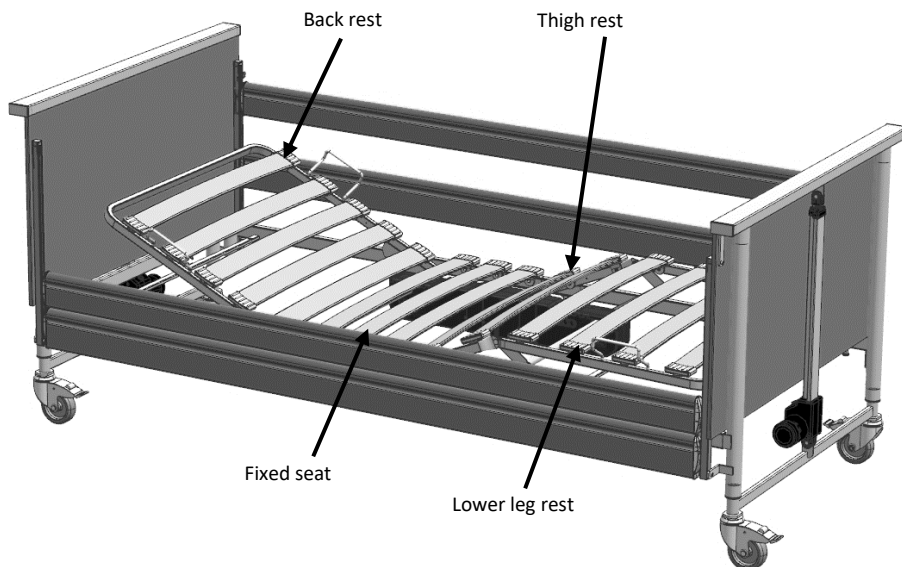
- (1) Model number
- (2) Date of manufacture: Year - Month - Day
- (3) Serial number: Order number - Sequential number
- (4) Own weight of the bed
- (5) Manufacturer
- (6) Maximum patient weight / Safe operating weight

## Explanation of symbols:

|   |  |
|---|--|
|    | Conformity marking for compliance with Medical Devices 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 operating weight  |
|    | Own weight of the bed / reinforcement struts   |
|     | Medical device marking   |
|     | Patient population   |
|    | Follow guidelines for mattress size and thickness  |
|  | Manufacturer's address   |

## 2 Overview of nursing care bed 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. Corrosion protection has therefore been applied to all corrosion-prone materials. 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 mattress support frame*

The mattress support frame comes standard with a comfort slatted frame (or can alternatively be fitted with aluminium bars or special spring support systems) and is divided into four functional zones: Back rest, fixed seat, thigh rest and lower leg rest.

The outer edge of the mattress support frame 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 switch. The back rest can be electrically adjusted. The leg portion consists of a two-part foot bar. Each individual position can be continuously adjusted with the push of a button on the hand switch. In the event of a power outage, the back and leg zones can be lowered with power from a 9-volt battery.

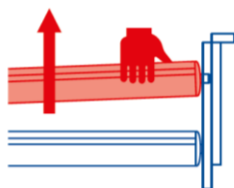
#### *Chassis*

The height of the nursing care bed can be adjusted either via two height-adjustable actuators or through a base frame equipped with a single or dual drive system. The outer surface of the tubular steel frame is stove-enamelled with a PES powder coating.

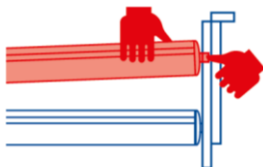
### Side rails

Each nursing care bed can be equipped with two side rails on each side at a specific safety height. The side rails can be raised and lowered along a track. Impact absorbers ensure quiet slider operation, and the ends are fitted with functional end caps. An ergonomically shaped release button allows for easy adjustment of the side rails.

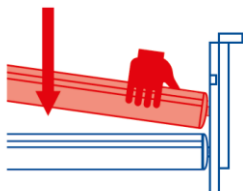
## 2.1 Adjusting the continuous side rail



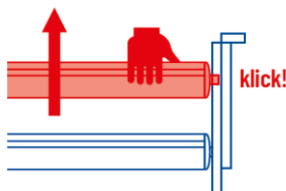
Schritt 1: Holm greifen und leicht anheben.



Schritt 2: Auslöseknopf drücken.  
Beachten Sie: Heben Sie unbedingt die Seitensicherung leicht an und drücken dann erst den Auslöseknopf!



Schritt 3: Absenkung nach unten.  
Beachten Sie: Beide Seiten müssen abgesenkt werden!



In die oberste Position als Herausfallschutz bringen:  
Seitensicherung so weit nach oben ziehen bis sie an den Enden hörbar einrastet.

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 groove in 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 padding (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**

Use only original Bock side rails, which are available as product accessories for each type of nursing care bed.

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.

Always operate the side rails with great care, as fingers can easily be pinched between the rails.

### **Bock Safety Note**

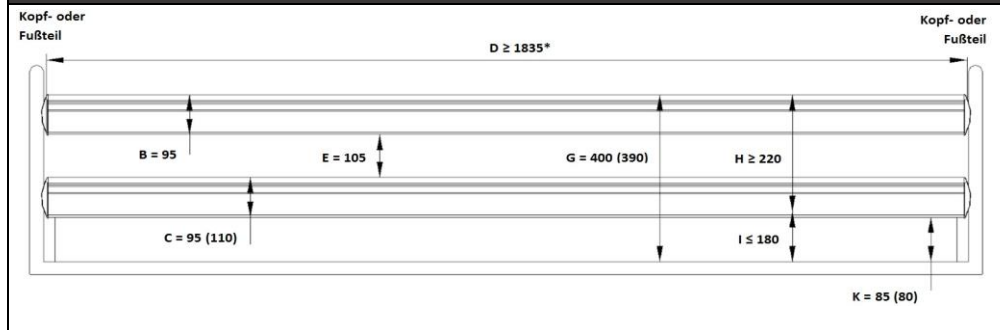
Always operate the side rails with great care, as fingers can easily be pinched. Only use the side rails in accordance with the mode of operation described here. Any other use can lead to increased risks and is prohibited. Use only original Bock side rails. Use only side rails that are undamaged and 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



Alle Maße in mm. \* Je nach Länge der Liegefläche. Das Maß in Klammern gilt optional

| Legend |  |
|--------|--|
| Area   | Description  |
| A      | Gap 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 separated side rails                                    |
| G      | Distance between mattress support frame and top edge of side rail system |
| H      | Height of top edge of side rail system over mattress without compression |
| I      | Mattress thickness in accordance with intended use                       |
| J      | Side rail length 2   |
| K      | Smallest distance between side rail system and mattress support frame    |
| L      | Distance between footboard and side rail                                 |

## 2.2 Other side rail variants

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



## 3 Electrical components

### 3.1 Drive Unit

Depending on the model, the drive unit consists either of a dual drive system with two separate drive units for motorised adjustment of back rest and leg rest positions, or two individual drive systems. The level of the lifting frame is adjusted with one or two individual drive systems (depending on the model). The motors and the hand switch are connected to the internal control box. The power supply unit converts the input voltage to a safety extra-low voltage of no greater than 35V DC. This safety extra-low voltage is used to operate the motors and the hand switch. 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 (nameplate). 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 to prevent overheating.

If the maximum motor activation time of two minutes is exceeded, for example due to excessive use of the hand switch, 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*

### **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**

The motors have IPX4 protection against splashing water. 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.

#### **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

Hermann Bock GmbH equips its beds with drive systems from Limoss and from DewertOkim GmbH (drive system with external switch-mode power supply).

The dual drive system for continuous repositioning of the mattress support frame, and the linear drive unit that serves as the single drive system for adjusting the height of the lifting frame, each consist of four main components.

- Housing
- Motor
- Gearbox
- Spindle with nut

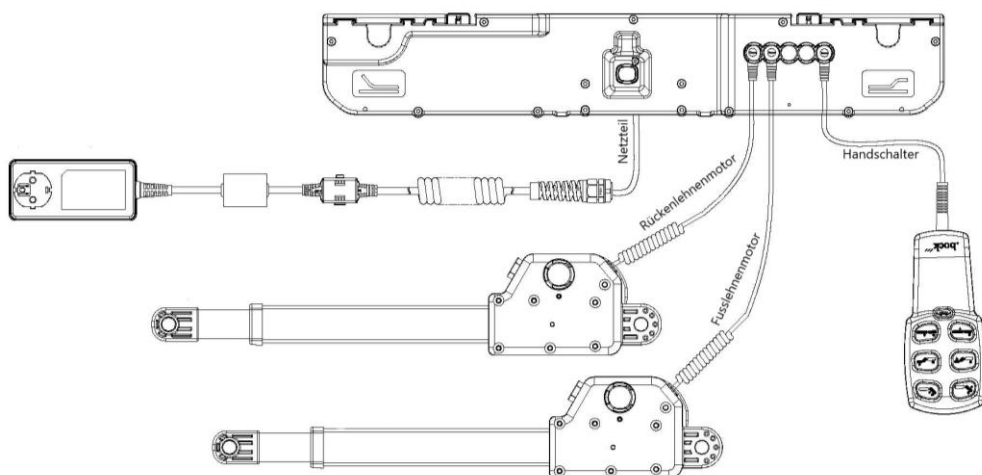
The housing design for the dual and single drive systems ensures long-term operation of all drive components. The special construction design is based on two load-bearing housing shells. The inside of the housing has a detailed internal construction that provides a precise fit for the drive unit hardware.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



### 3.6 Operating status display of the external SMPS switching power supply unit

The SMPS switched-mode power supply 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 out.

### 3.7 Hand switch

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

#### *Lockable hand switch, user error protection*

The ergonomically shaped hand switch 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 switch on the nursing care bed, e.g. during cleaning or when providing patient care. To keep the hand switch from getting in the way, simply clip it anywhere on the bed frame.



Back rest up



Back rest down



Lower leg rest up



Lower leg rest down



Mattress support frame up



Mattress support frame down



Feet-down position (anti-Trendelenburg)\*



Head-down position (Trendelenburg)\*



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



Release bed 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 low-

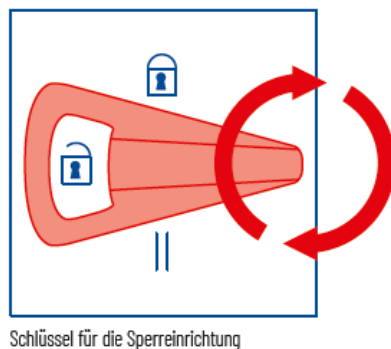
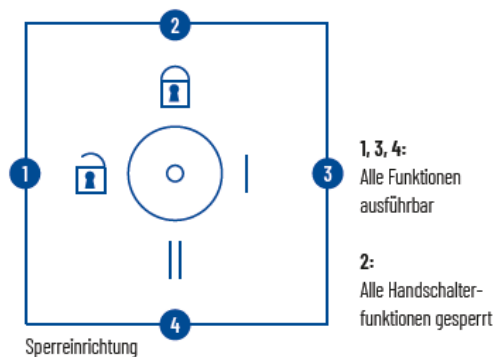
### **Block Safety Note**

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

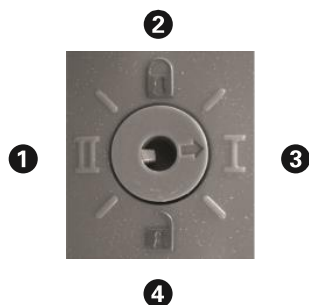
## Hand switch – Locking functions

The hand switch 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 switch and turn the key to turn the locking function on or off.

### Locking mechanism 1 (Standard)



### Locking mechanism 2 (option with Trendenburg function)

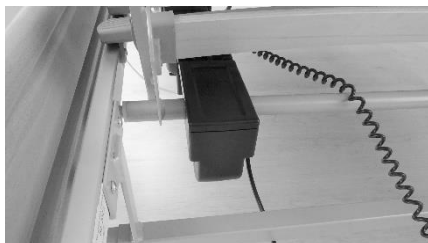


|       |   |
|-------|---|
| 1     | Only Trendenburg function is locked                                 |
| 2     | All hand switch functions locked                                    |
| 3 + 4 | All functions available (incl. Trendenburg function, if applicable) |

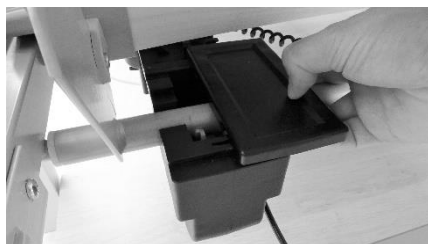
### 3.8 Emergency lowering – Back rest (manual)

In case of a power outage or drive system failure, you can lower the back rest by hand.

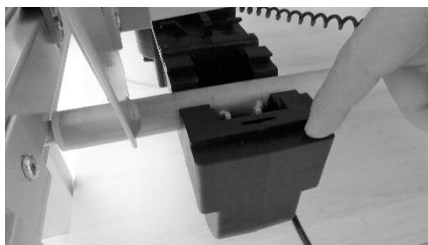
**Always perform these steps with two people!**



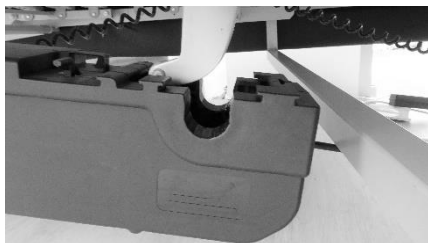
One person lifts the back rest slightly and holds it in the raised position. The second person then removes the motor cover.



The motor is now separated from the back rest and can be pushed downward. Once the second person has left the danger zone, the first person can carefully lower the back rest.



Be sure to keep a firm grip on the back rest until it has been fully lowered. Before the motor can be reassembled, it must be fully put back in place (lower the back rest).



#### **Back Safety Note**

This emergency lowering procedure must only be used in a true emergency, and only by people who are able to carry it out safely. The bed must always be unplugged from mains power until the motor has been put back in place.

## Construction and operation

### 3.9 Technical specifications – domiflex 3

| Technical Specifications               | domiflex 3                    |                               |                               |
|--|-------------------------------|-------------------------------|-------------------------------|
| Mattress support frame: cm             | 90 x 180 (200)                | 90 x 200 (220)                | 100 x 200 (220)               |
| External dimensions: cm<br>(W x H x L) | 103 x 90,7 x 190,7<br>(210,7) | 103 x 90,7 x 210,7<br>(230,7) | 113 x 90,7 x 210,7<br>(230,7) |
| Safe operating weight: 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                            |
| Mattress compensation length: 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°                           |
| Thieg 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)                   |
| Mattress support frame, head: kg       | 18,6                          | 18,6                          | 18,6                          |
| Mattress support frame, foot: kg       | 10,0 (11,0)                   | 11,0 (12,0)                   | 12,0 (13,0)                   |
| End piece: kg                          | 18,6                          | 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                         |

### Bock Safety Note

This emergency lowering procedure must only be used in a true emergency, and only by people who are able to carry it out safely. The bed must always be unplugged from mains power until the motor has been put back in place.



|                      |         |         |         |
|----------------------|---------|---------|---------|
| Max. current draw: 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. deviate from the listed data. The technical data of variants may deviate.

| Technical Specifications               | domiflex 3 with reinforcing struts |                    |
|--|------------------------------------|--------------------|
| Mattress support frame: cm             | 90 x 200                           | 100 x 200          |
| External dimensions: cm<br>(W x H x L) | 103 x 90,7 x 210,7                 | 113 x 90,7 x 210,7 |
| Safe operating weight: 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               |
| Mattress support frame, head: kg       | 18,6                               | 18,6               |
| Mattress support frame, foot: kg       | 11,0                               | 12,0               |
| End piece: kg                          | 19,6                               | 20,6               |
| Support beams (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. current draw: A                   | 2,1-0,9                            | 2,1-0,9            |

### **Bock Safety Note**

The use of the bed extension is not possible with the domiflex 3 with reinforcement struts.

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.

#### **3.1 The domiflex 3 model series**

The model series domiflex 3, consisting of the models domiflex 3 and domiflex 3 with reinforcement strut and was specially designed for the requirements of daily continuous use in home care. 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, all nursing care bed functions must be deactivated via the integrated locking mechanism throughout the time when such devices are used.

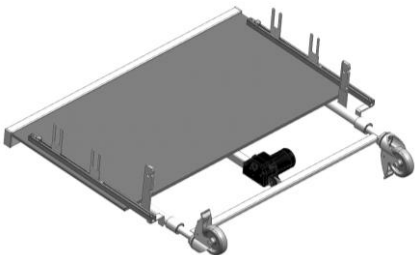

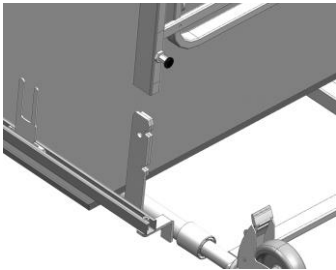
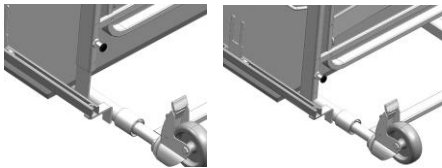
**Note:** This bed has no specific connectors for equipotential bonding. Electrical medical devices with intravascular or intracardiac connections to the patient may not be used. The operator of any medical devices is responsible for ensuring that the combination of devices meets the requirements of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




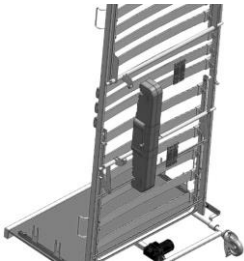
### 3.2 Assembly and installation video



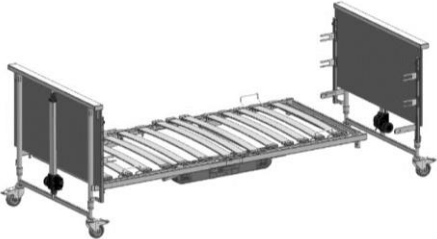
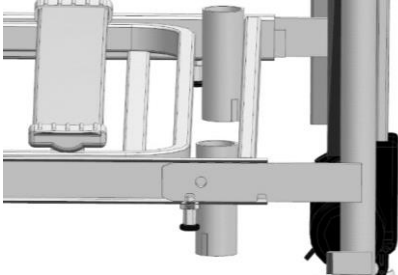
- Mounting video domiflex 3
- Extension video bed extension
- Extension video reinforcing stuts
- Transport


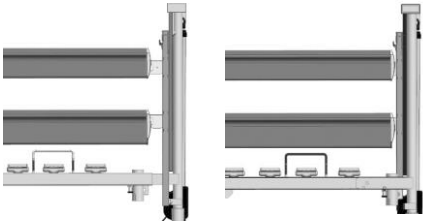



### 3.3 Assembly and installation – domiflex 3

|  |  |
|--|--|
| <p>Lay the end piece on the ground as shown in the figure at right. Before starting assembly, fully dispose of all packaging materials (incl. cable ties).</p>   |    |
| <p>Locate the foot section of the mattress support frame, which has no mounting bracket for the trapeze bar.</p>   |     |
| <p>Attach the mattress support frame section to the end piece by sliding the mattress support frame over the mounting tabs. The end piece can be pushed on more easily by moving it slightly diagonally.</p> |    |
| <p>Make sure that the toolless connection is pushed up to the second retaining point. If necessary, the pull catch must be pulled so that the lying surface can be pushed open further.</p>                  |  |

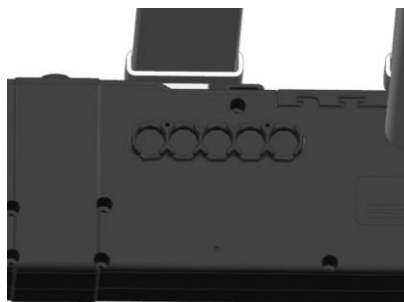
|  |   |
|--|---|
| <p>Check that the mattress support frame section is correctly connected to the end piece. The locking pin must be locked in position.</p>  |    |
| <p>Locate the head section of the mattress support frame.</p>  |    |
| <p>Put the lying surface on the head side onto the lying surface on the foot side, the tool-free connection must snap into place. The lying surface can be pushed on more easily by moving it slightly diagonally.</p> |    |
| <p>To assemble the box motor, pick up the motor and the two cover plates.</p>  |  |

|   |   |
|---|---|
| <p>Press the motor onto the motor cams. The icons and cable connectors should be facing toward the centre of the bed.</p> |  A close-up photograph showing a motor unit being aligned with a series of horizontal slats. The motor is positioned on the left, and its components are being guided towards the center of the slat assembly.   |
| <p>Insert the cover plates sideways into the slide locks on the box motor.</p>  |  A close-up photograph showing a motor unit with a cover plate being inserted into a slide lock mechanism. The cover plate is being guided from the side into the lock.  |
| <p>Locate the second end piece.</p>   |  A photograph of a complete bed frame assembly. It consists of a central slatted support structure with two end pieces attached to the sides. The end pieces are dark-colored and have a rectangular shape. The entire assembly is mounted on wheels. |
| <p>Push the end piece into the head section of the mattress support frame until the first click.</p>                      |  A close-up photograph showing a dark-colored end piece being pushed into a head section of a mattress support frame. The end piece is being guided into a slot, and the frame is shown in a partially assembled state.                              |

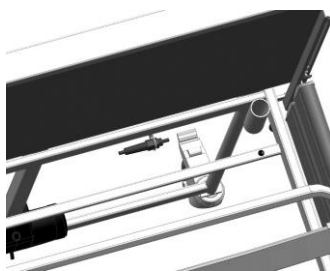
|   |  |
|---|--|
| <p>Assemble the side rails. They can be inserted in a diagonal position. Look for the “top” and “bottom” markings on the end plugs, indicating which is the top rail and which is the bottom rail. The lower rail is also taller than the upper rail.</p> |     |
| <p>Pull all side rails upward.</p>  |    |
| <p>Then push the end piece into the second detent position of the tool-less connector. This is the final position of the detent.</p>  |     |
| <p>Check all toolless connections for secure latching.</p>  |  |

The lift motors for height adjustment must be plugged into the appropriate sockets on the box motor.

The cables should each be run along the connecting tubes of the lifting components.

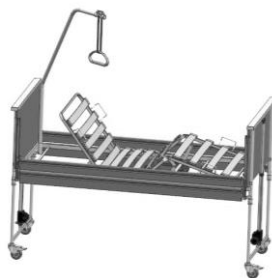


The main power cable must be screwed to the tab on the mattress support frame with the strain relief device located on the cable.



If applicable, insert the trapeze bar into the mounting bracket. Ensure that it is locked in place with the groove. Test the operation of the nursing care bed, including adjusting the position and height of the mattress support frame.

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



### Bock Safety Note

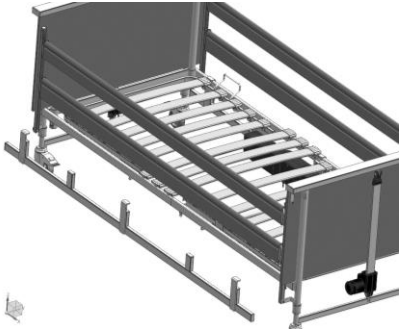

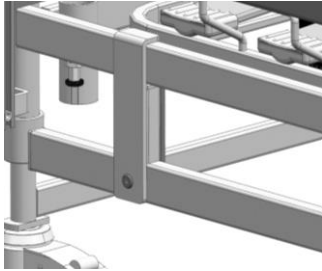

Check all screw and tool-free connections again before the care bed is put into operation.

### 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.

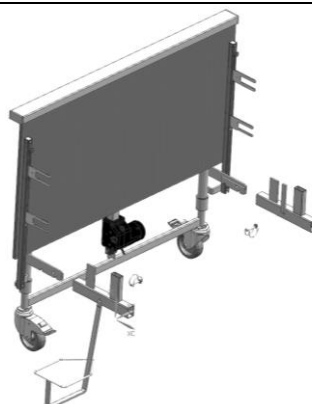


### 3.4 domiflex 3 - Additional steps when attaching the reinforcement struts

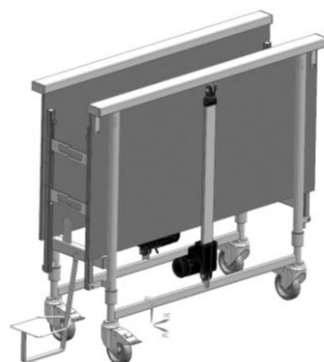
|  |  |
|--|--|
| <p>For the domiflex 3 with reinforcing struts, take the reinforcing struts out of the packaging.</p>   |     |
| <p>Hang the reinforcing struts on the bed frame and attach them with the screws provided.</p>  |     |
| <p>Tighten the screws fully.</p>   |    |
| <p><b><u>Make absolutely sure that the reinforcing struts are fitted on both sides.</u></b></p> <p>Now your domiflex 3 with reinforcement struts is ready for use.</p> |  |

### 3.5 domiflex 3 – transport system

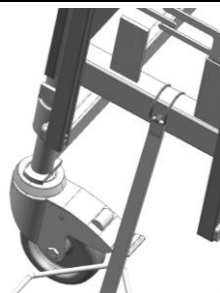
The transport system consists of two connector pieces, each with a tube clip to make a connection between the end pieces.



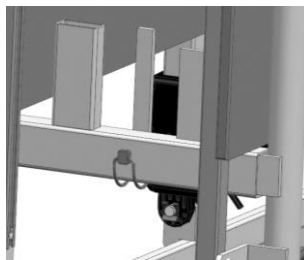
Arrange the end pieces to be slightly offset from one another. Push both end pieces in.



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

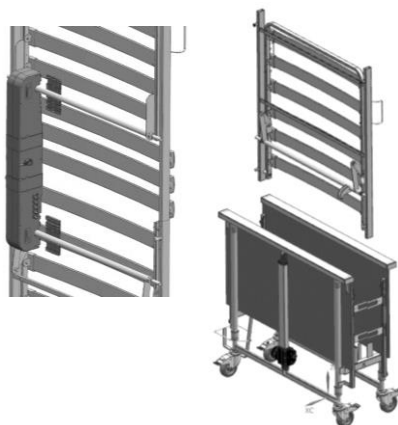


Place the other tube clip as shown in the figure, starting on the outside and moving to the inside, then close it.

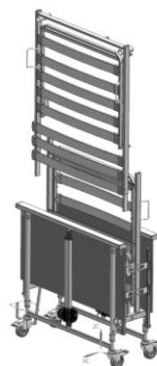


Dismantle the box motor by loosening the slides and then putting it aside.

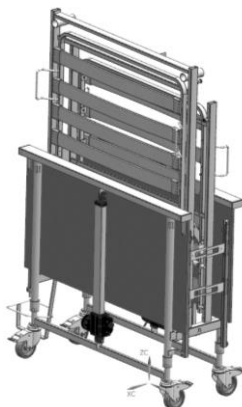
Next, insert the foot section of the mattress support frame from above. The mattress brackets should face upward and outward.



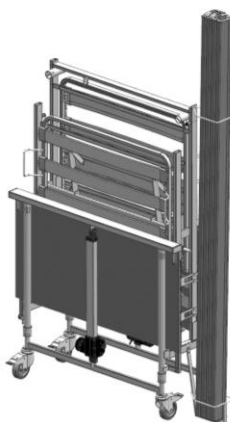
Then insert the head section of the mattress support frame from above. The mattress brackets should face upward and outward.



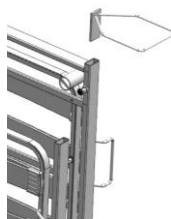
Visually compare the assembly with the figure at right.



The side rail system can now be inserted.

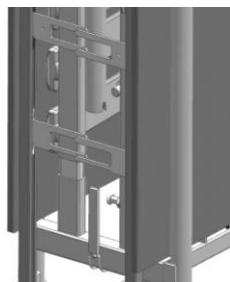


Next, insert the side rail holder into the head section of the mattress support frame.

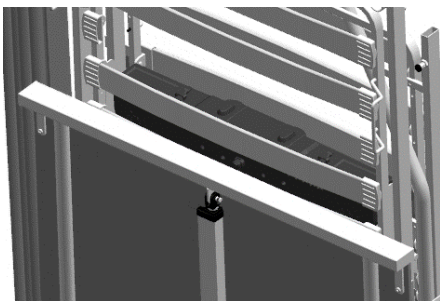


Then the erector can be inserted, this is placed on the existing, free flat steel. The erector should face inwards.

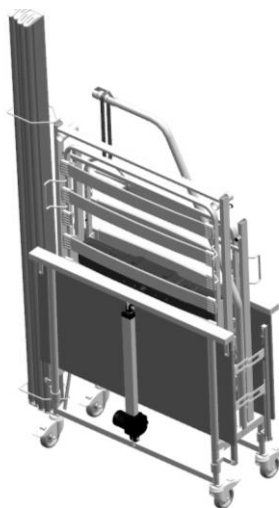
Be careful not to damage the tool-free connection.




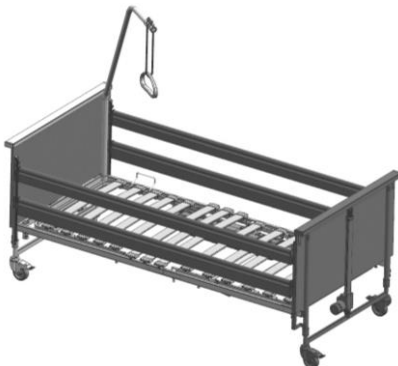
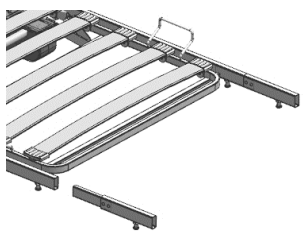

Now take a springwood slat out of the moulding on one side and place the box motor between the lying surfaces as shown.



The complete transport unit is pictured at right.



### 3.6 domiflex 3 - Additional steps when attaching the bed extension

|  |   |
|--|---|
| <p>Complete view of the bed extension set</p>  |    |
| <p>Dismantle the end piece. To do this, loosen the tool-free connection and pull the end piece out of the lying surface to the first detent. The side guards are also released by this and can be put aside. Then remove the end piece 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-board back on as usual, following the assembly instructions for the domiflex 3.</p>  |  |

Locate the bed surface extender and insert it at the end of the foot bar of the frame, as shown in the figure.



Lay the bed surface extender so that it is level with the foot bar.



Once you have finished this step, your assembly of the bed extension is complete.



### 3.7 Disassembly

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

### 3.8 Relocating the bed

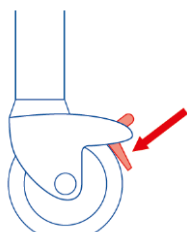
When moving the bed to a different location, please follow the safety instructions below:

- Lower the mattress support frame to the lowest position.
- Before moving the bed, pull out the wall 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 wall 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 plug back into the socket.

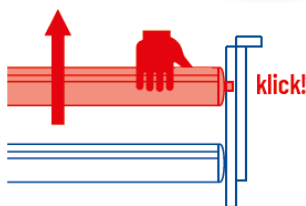
### 3.9 Transport, storage and operating conditions

|                      | 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     |               |

### 3.10 Usage notes



To keep the nursing care bed in a particular location, the brakes on the bed frame casters must be locked. To do this, push the locking lever on the lower frame downward 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.



### 3.1 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.

### 3.1 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 switch                           | Power cable unplugged   | Plug in the power cable  |
|   | No power to wall socket   | Check wall socket and/or fuse box                                |
|   | Hand switch plug not fully in place   | Check plug connection at the motor                               |
|   | Hand switch or drive system is defective  | Inform the operator or H. Bock customer service                  |
|   | Locking mechanism or lock box on hand switch is activated   | Deactivate locking mechanism or lock box on hand switch          |
| Motors stop working when button is pressed after running for a short time | Obstacle preventing bed from changing position  | Remove obstacle  |
|   | Safe operating weight 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 |

## 4 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 range of options here runs the gamut from technical components to mattresses and even a rollaway bed. A wide selection of wood elements and colour variations offers room to customise your choice and integrate each nursing care bed with existing furnishings.

### 4.1 Non-standard dimensions

At Hermann Bock GmbH, non-standard dimensions are a key part of our manufacturing process. For patients with less common body types, optimal comfort can only be achieved with special design variants. With its options for beds with non-standard dimensions, Hermann Bock GmbH makes it possible to adapt each bed to the body type of the individual patient. For patients taller than 180 cm, Hermann Bock GmbH recommends use of a bed extender to extend the mattress support frame to a length of 220 cm, allowing taller patients to enjoy a high level of comfort with identical functionality. gleichbleibender Funktionalität ermöglicht.

#### **Bock Safety Note**

When using accessories with the nursing care bed, or when using medically necessary devices like IV stands 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.

The Hermann Bock customer service team will be happy to help you determine the best equipment solution for your nursing care bed. Customer service line: +49 180 5262500 (14 cents/minute from a landline, up to 42 cents/minute from a mobile phone).

An extensive range of additional furniture options is available to complement our various bed models with a complete room layout, integrating care and home comfort like never before.

## 4.2 Trapeze bar with triangle grip

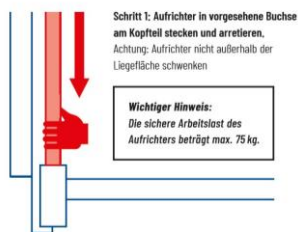
The trapeze bar accessory weighs 6.5 kg.

The trapeze bar's maximum safe operating weight is 75 kg.

Includes:

Trapeze bar with mounting loop

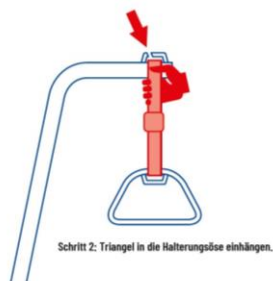
incl. triangle grip



To install, insert the trapeze bar 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 trapeze bar outside of the bed perimeter!**



Under normal use conditions, the triangle grip has a lifespan of approximately 5 years. If a trapeze bar 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 trapeze bar, the overall height of the nursing care bed is increased by 1300 mm.

### 4.3 Side rail padding

The side rail padding 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.

### 4.4 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!**

### 4.5 Tray

The tray weighs 4.0 kg.

Includes:

Tray



The tray is placed on the side rail and is prevented from sliding by two spacers.

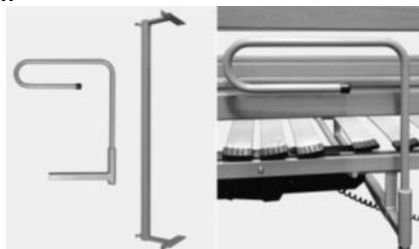
#### 4.1 Stand-up bar with attachment crossbeam

The weight of the stand-up bar with crossbar is 3.0 kg.

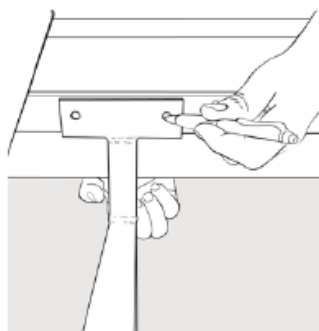
The safe working load of the stand-up bar is max. 40 kg.

Includes:

Stand-up bar with attachment crossbeam and installation hardware



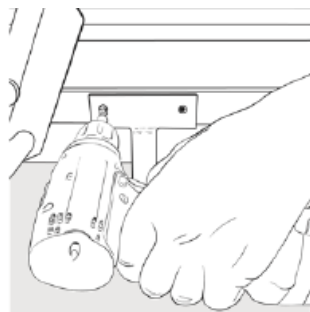
Hold the attachment crossbeam against the mattress support frame from below and mark the drill holes on the frame with a pencil.



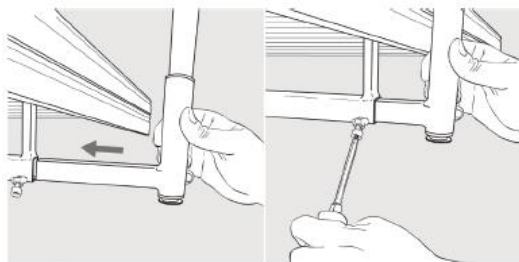
Drill holes (3.5 mm) in the mattress support frame at the previously marked points.



Affix the crossbeam to the mattress support frame with the included screws.



Insert the stand-up bar into the crossbeam, adjust it to the desired position, and tighten screws firmly.



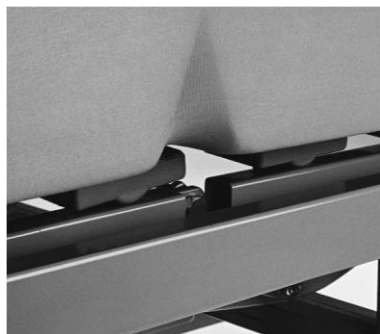
## 4.2 Mattresses

In general, Nursing care beds from Hermann Bock GmbH can be fitted with any foam or latex mattress with a weight per unit volume of  $35\text{kg/m}^3$  or greater, 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 mattress support frames, or
- 12 cm for mattress support frames with spring systems.

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



**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 mattress support frame.

### 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.

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

### 5.1 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.

### 5.1 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 |

## 5.2 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 wall 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 wall 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 wall 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.

### **Bock Safety Note**

Never use scouring agents or abrasive cleansers, scrub pads, or stainless steel care products to clean the nursing care bed. Also prohibited are organic solvents like halogenated/aromatic hydrocarbons and ketones, as well as cleansers containing acids or bases.

Under no circumstances should the bed be sprayed down with a hose or pressure washer, as liquid could get into the electrical components, resulting in malfunctions and hazards.

Before each new use, the nursing care bed must be cleaned and disinfected. A visual inspection must also be conducted to check for any mechanical damage. Further details can be found in the inspection checklist.



## 6 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.<br><br>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<br>Air discharge:<br>$\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV   | Contact discharge: $\pm 8$ kV<br>Air discharge:<br>$\pm 2$ 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<br>$\pm 1$ kV for input and output cables  | $\pm 2$ kV for mains power cables<br>$\pm 1$ 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;<br>at 0,45,90,135,180,225,270 and 315 degrees;<br><br>0% UT; 1 period;<br>70% UT; 25/30 periods;<br>single-phase at 0 degrees<br><br>0% UT, 250/300 periods | 0% UT; ½ period;<br>at 0,45,90,135,180,225,270 and 315 degrees;<br><br>0% UT; 1 period;<br>70% UT; 25/30 periods;<br>single-phase at 0 degrees<br><br>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<br>as per IEC 61000-4-6   | 3 V 150kHz-80MHz                             | 3 V 150kHz-80MHz                             |  |
| Radiated HF disturbances<br>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<br>as per IEC 61000-4-3, Table 9<br>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 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


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

|                                     |                   |  |
|-------------------------------------|-------------------|--|
| Model number / Year of manufacture: |                   |  |
| Serial/Inventory no.:               |                   |  |
| Manufacturer:                       | Hermann Bock GmbH |  |

## Visual/Functional inspection:

| No  | Description  | Yes                      | No                       |
|---|--|--------------------------|--------------------------|
| General:  |  |                          |                          |
| 1   | Nameplate/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 operating weight indicated on the nameplate (patient weight + mattress weight + accessory weight) complied with?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 5   | Are accessories (e.g. trapeze bar incl. grip and strap, stand-up bar, 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 trapeze bar no older than 5 years (usable lifespan of the grip as per manufacturer guidelines)? Is the correct attachment method used for the trapeze bar (welding rather than folding), or has it already been retrofitted? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6   | For retrofitted trapeze bar 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"/> |
| Electrical components:  |  |                          |                          |
| 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 switch housings free of damage? Has any moisture made its way inside?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 13  | Is the power supply 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 switch (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"/> |
| Lower frame (for scissor lift beds) / end pieces (for control unit beds): |  |                          |                          |
| 18  | Is the frame construction free of defects and cracked welding joints?  | <input type="checkbox"/> | <input type="checkbox"/> |
| 19  | Are casters 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"/> |
| Mattress support frame and end pieces:                                    |  |                          |                          |
| 23  | Wooden crossbars, aluminium/steel crossbars, support plate and/or springs free of defects? (no cracks or fractures, firmly seated, adequate load pressure, etc.)<br><i>For dino bed only:</i> Aluminium crossbars no more than 6 cm apart?   | <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 footboards 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?<br><i>For dino bed only</i> : Vertical bars no more than 6 cm apart? Distance between side rail system and mattress support frame no more than 6 cm? | <input type="checkbox"/>   | <input type="checkbox"/>               |
| 32  | Top of side rail more than 22 cm above mattress surface?<br><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 separated side rails only</i> : Distance between end piece 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?<br><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"/>               |
| 37  | <i>For Dormi bed only</i> : Are hooks and latches free of damage?  | <input type="checkbox"/>   | <input type="checkbox"/>               |
| <b>Electrical tests:</b>  |  |  |  |
| Insulation resistance – (Only needs to be measured for models built before 2002.)   |  |  |  |
| 38  | Insulation resistance – measured value greater than 7 MΩ?  | <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 lifespan 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"/>               |
| <b>Evaluation:</b>  |  |  |  |
| 40  | All values in acceptable range, inspection passed?   | <input type="checkbox"/>   | <input type="checkbox"/>               |
| If inspection not passed:   |  | <input type="checkbox"/> Repair<br><input type="checkbox"/> Reject                 |  |
| Date / Inspector's name in block letters / Inspector's signature  |  | Next inspection  |  |
|   |  |  |  |



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#### 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)