

# Assembly and Use Manual

.bock<sup>///</sup>

adi.lec

Dear esteemed customer,  
with your choice for a therapy and nursing bed manufactured by the company Hermann Bock GmbH, you have purchased a long life care product that guarantees top functionality according to the highest safety standards. Our electrically operated nursing beds ensure ideal comfort while, at the same time, providing the best conditions for a professional nursing. We put emphasis on the care-dependent person, whose trust in the nursing care and staff is meant to be encouraged and whose life is being protected by us. Our care product provides the requirement to achieve this. Please make sure that the safety and use instructions are followed fully and in detail taking also into account the maintenance guidelines. Only that way you can prevent possible malfunctions and accident risks from occurring.

Sincerely yours

A handwritten signature in black ink, appearing to read 'Klaus Bock', with a stylized flourish at the end.

Klaus Bock

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#### \* Bock Hazard Note

Please make sure to read this assembly- and use manual thoroughly in order to avoid possible malfunctions from occurring during the assembly and start-up process.

## 1. General notes

The various bed systems that are made by Hermann Bock GmbH meet the special requirements for use in rehabilitation and therapy establishments as well as for care at home. Their reliable functioning and long service life mean that all our beds are of a particularly high quality. Our beds need little maintenance when used and inspected properly. No bed leaves the Hermann Bock production plant until it has passed final quality inspections and has been tested by a technical inspectorate in Germany named TÜV. Every health bed thus meets the requirements of directive 93/42/EEC for medical products. The beds are manufactured and tested on the basis of actual European standards for electrically operated hospital beds.

The electric components of our beds conform with safety standard EN 60601-1 for medical devices.

All care beds are subjected to a careful function check on site by our trained delivery staff. At the same time authorised persons are given basic training in the functioning and safe handling of the beds. Additional information is given in the Bock security guide, these assembly and operating instructions and in the "Upgrading with Bock" brochure.

**Note:** An evaluation of the bed in accordance with EN 60601-1 is only partly possible, since for beds there is the product specific standards EN 60601-2-38+A1. Should there be product specific standards, these should be used in the first place for testing. EN 60601-1 is used additionally for electronic testing.







### 1.1 Convenient – without packing

For the purpose of ensuring safe transport conditions and a space-saving storage of nursing beds, Bock has developed a special transport-system. The smart Bock-Push-Fit-System is extremely eco-friendly since it comes with almost no packing at all. Another advantage is the easy and quick assembly of the bed requiring only one person. Bed models that require a more elaborate fitting are completely assembled by Bock before they are prepared for delivery without packing

### 1.2 The first impression – Visual inspection

Please conduct a thorough visual inspection of the bed and check it for external damages and completeness prior to the assembly and initial operation. Please note that the bed should be in a sound and faultless state before continuing with the next step that informs you about the intended use of the individual bed elements set out in the following functional description.

### 1.3 Name plate

Line 1	<b>Model: adi.lec 220</b>
Line 2	construction year: xx.xx.xxxx
Line 3	Serial-No: xxxxxxxx - 000
Line 4	S.W.L. / max.pat.weight 185 / 220 Kg
Line 5	230 V ~ 50/60 Hz 350 W
Line 6	ED 15 % class of protection <b>IP X4</b>
Line 7	<b>Hermann Bock GmbH - Nickelstr.12</b> <b>33415 Verl - Phone: +491805/262500</b>
Line 8	     


Made in Germany

#### > Bock Top Advice

An overview of the amount and kind of components to check for presence during the visual inspection of your nursing bed is provided in chapter 7 of the the assembly manual of your bed.

- (1) Model labelling: as an example adi.lec 220
- (2) Date of production: day, month, year
- (3) Serial number: order confirmation number – consecutive number
- (4) Safety load of working/ maximum person weight
- (5) Input: Power supply voltage; mains frequency and power input
- (6) Switch-on time and protection category of the motors
- (7) Manufacturer
- (8) Symbols

#### Explanation of symbols used on name plate:

 Mark of conformity according to guidelines for medical products

#### IPX4 Protection of electrical parts from splashwater



„Medical equipment part, type B“



„Only to be used in dry environment“



Protection class II (double insulation, protective insulation)



This product must be disposed to a selected waste disposal within the european union. This product may not be disposed together with unsorted domestic waste.



Take note of the accompanying documents

### > Bock Top Advice

Scrapes and varnish chip-pings going through the entire varnish coating should be preventively sealed with appropriate repair means against the infiltration of moisture

## 2. Cleaning, care, disinfection

The individual bed elements are made up of high-quality materials. The surfaces of the steel tubes are covered with a permanent polyester powder coating.

All wooden components have an environmentally-compatible surface-seal. The patented support-system ripolux consists of high-quality synthetics. All bed elements are easy to clean using wipe- and spray disinfection means according to the applicable sanitary requirements with respect to the various fields of application. Observing the following care instructions will retain the usability and visual appearance of your nursing bed for a long time.

### 2.1 Cleaning and care

Steel tubes and varnished metal components:

Please use a wet wiper and a customary, mild household detergent for the cleaning and care of these surfaces.

*Wooden-, decorative- and plastic elements:*

All customary furniture cleaners and cleaning detergents can be used. The cleaning of the plastic elements using a wet wiper without detergent additives should generally suffice. As regards the care of the plastic surfaces, we recommend the use of products that are specifically suitable for plastics.

*Drive:*

In order to prevent the intrusion of moisture, the drive housing should only be wiped with a slightly moist cloth.

### 2.2 Disinfection

You may use any detergent that complies with the requirements of standard EN 12720 for the wet wipe disinfection. However, you should apply only mild and gentle means so as to retain the material resistance of the plastic elements such as the drive housing, decorative elements, ripolux and ripolan. Concentrated acids, aromatic and chlorinated hydrocarbons, as well as detergents containing highly concentrated alcohol, ether, ester and ketone may damage the material and should therefore be avoided.

## 2.3 Hazard avoidance

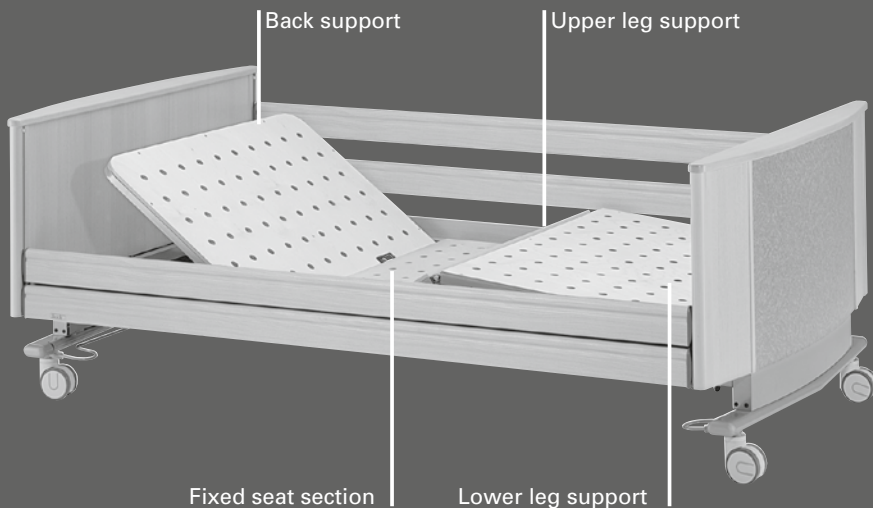
Please make sure to consider the following provisions with respect to the electrical components of your nursing bed in order to avoid any hazards from occurring during the cleaning and disinfection. Non-observance of these provisions increases the risk of injuries and significant damages in the electrical lines and drive.

1. Disconnect the mains supply and put it somewhere, where it won't be exposed to plenty of water or detergents.
2. Check all plug-connections for their correct positioning.
3. Check all wires and electrical parts for damages. If you detect any damage, do not perform any cleaning measures, but have the damage first repaired by the supplier or authorized staff.
4. Check the mains supply for residual moisture and dry or blow it out before putting the bed into operation.
5. If you suppose a water intrusion in the electrical components, disconnect the mains supply immediately resp. do not reconnect. Turn off the bed, mark it accordingly and inform the supplier.

### \* **Back Hazard Note**

Never use any abrasive cleansers resp. detergents containing grinding particles, cleaning pads or stainless steel detergents for the cleaning. Do neither use organic solvents such as alkyl/aromatic halids and ketones nor detergents containing acid or alkaline.

Never clean the bed using a water hose or high-pressure cleaning devices, as this might lead to the intrusion of fluid into the electrical components, which causes malfunctions and other hazards.



*adi.lec 280*

## 3. General functional description

### 3.1 Design structure and functionality

The lying surface and its 4 functional features

The lying surface consists of water-resistant flat laminates with ventilation holes and is divided into four sections: Back rest, stationary seat part, upper and lower leg rest. A steel tube welding provides the wide frame of the lying surface which is stove-enamelled with a PE-powder coating. The electrical, continuous height adjustment of the lying surface is based on two 24 V-direct current drives and can be controlled using the smooth-running keyboard of the hand switch. The back rest allows for adjustment positions between 0 and 70°. Besides, the electrical control of adi.lec provides the seat-comfort-position.

#### The leg rest

The leg section is made of a foot rest divided into two parts. Each individual position is progressively adjustable using the manual touch button control. The control of the electronic hand switch comes with an automatic triple function enabling the extended leg elevation, as well as a bending position adjustment at the level of the heart and knee. Adjusting one of these positions involves the movement of the lower-leg rest, which is automatically adjusted in line with the height of the upper rest leg and in parallel to the lying surface. In the event of a power blackout, the leg rest can be easily lowered by means of a 9-volt battery.



### The carriage

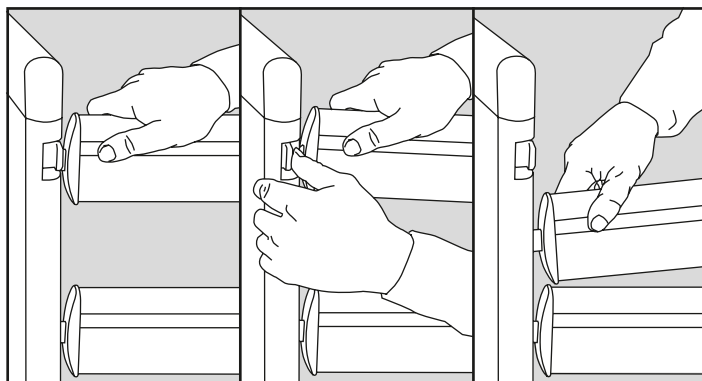
The lifting carriage is made up of two lifting columns whose height can be adjusted progressively using the hand switch. The surface of this steel tube construction is enamelled with a PE-powder coating.

### The side railings

Every nursing bed is equipped with each two integrated side railings on both sides providing for a special safety height. The side railings can be lifted and lowered through a steel bar. A shock absorber ensures a particularly quiet operation of the sliding components. The ends are furnished with decorative sealing caps. The side railings can be controlled through an ergonomically shaped release button.

### Control of the side railings

The release button for the adjustment of the side railings is positioned at the top of the inner panels of the head- and foot part, thus directly beside the metal rails for the side railing crosspieces. To lower the side railing, just grasp the appropriate handle of the upper side railing crosspiece (Fig. 1), slightly lift the side railing and press the release button at the head- or the foot part (Fig. 2). The side railing gets unlocked at the corresponding side and can be easily let down to the end stop (Fig. 3). The side railing is now placed in a diagonal position. Lowering the other side simply requires the repetition, of the aforesaid steps on the opposite side. The side railing is now in the lower position.



*Left: Fig. 1, Middle: Fig. 2, Right: Fig. 3*

If you want to put the side railings into the upper position, hence providing a fall-out protection, just grasp the handle's middle of the side rail crosspiece and pull the side rail up until it clicks into place at both ends. The side railing is now in the lifted position.

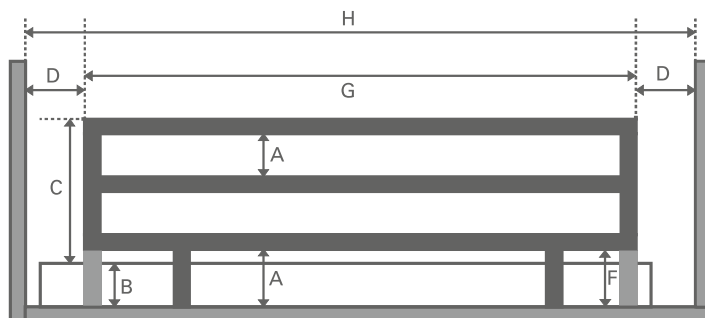


### > Bock Top Advice

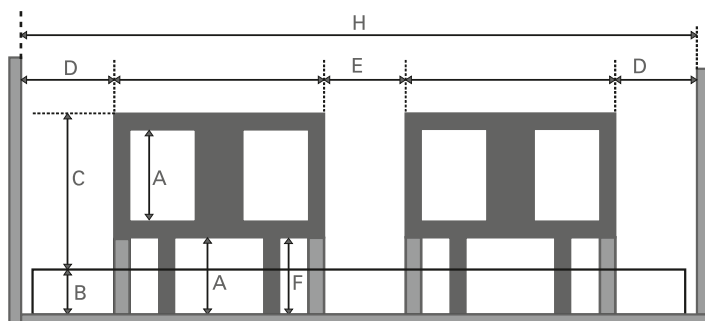
When using different mattress thicknesses, the minimum height of 22 cm, measured from the upper edge of the side railing above the mattress and minus the thickness of the compression layer, must be maintained by all means. The use of thicker mattresses requires an additional plug-in railing which is part of the optional equipment. Various nursing beds manufactured by Bock provide special functions that are each described in chapter 7 of the respective assembly manual.

The main purpose of the side railings is a fall-out protection. It must be considered, though, that this form of protection wouldn't suffice with very emaciated care recipients, therefore, we advise you to take additional protective measures such as mounting a slideable side railing cushioning (equipment).

It must be seen to that the distance between the side rails amounts less or equal 12 cm. Consider that the side rails must not be in diagonal position when the bed is being used.



*Dimensions of a simple side railing*



*Dimensions of a segmented side railing*

### Note:

If the braces/attachment points of the side railings are positioned outside (marked in bright blue), the dimensional basis is given by distance A running along the bottom of the side rails to the lying surface.

Letter	Dimensions	Requirements in mm
A	The shortest distance between elements of the side rail in its upright/locked position or the area that is formed by the side rail and fixed parts of the bed.	$A \leq 120$
B	Thickness of the mattress for proper usage.	See maker's specifications
C	Height of the top edge of the side rail above the mattress without compression (see "B").	$C \geq 220$
D	Distance between the head or foot section and the side rail.	$D \leq 60$ or $D \geq 235$
E	Distance between split side rails and the lying surface in a flat position.	$E \leq 60$ or $E \geq 235$
F	Smallest size of all accessible apertures between the side rails and the lying surface.	if $D \geq 235$ then $F \leq 60$ if $D \leq 60$ then $F \leq 120$
G	Total length of the side rails or the total lengths of split side rails on one side of the bed	$G \geq 1/2$ on the lying surface
H	Distance between the head and foot section without extensions to these parts	No requirements

Extract of the TÜV PS 51036 Inspection Program; dimensions of the side rails according to EN 60601-2-38

#### \* Bock Hazard Note

- Do only use original side rails manufactured by Bock. These are available as optional equipment for every nursing bed.
- Do only use technically sound and intact side rails that meet the requirements for the allowable clearance.
- Make sure that the side rails click into place before using the bed.
- Check the soundness of all mechanical parts required for the fastening of the side rails to the bed frame and side railing.
- Pay utmost care while operating the side rails, as your fingers may be crushed by the rails running alongside the bed.

### **> Bock Top Advice**

Should you detect any malfunctions whose source are unclear, or if you notice any failure or damage in the power supply or equipment of the bed, please see to that the mains plug is disconnected immediately and the emergency lowering function is enabled. Afterward, please contact the supplier or the support team of Hermann Bock.

### **\* Bock Hazard Note**

With care recipients who are in a very unsettled or restless state, it may sometimes be necessary to take special safety measures in order to prevent their limbs from getting caught or falling out of the bed. Bock's support team would be glad to consult with you about our special solutions for this kind of nursing requirements.

## **3.2 Caution: Personal injuries**

The intended use of all moveable component parts is crucial for both the hazard avoidance for the care recipient and the safety of the relatives and/or nursing staff. The correct assembly and operation of the bed are vital factors in achieving and maintaining this goal. Other aspects to be factored into the operation and use of the bed are the individual physical condition of the care recipient and the kind and degree of their disability.

Avoid hazards arising from unintentional adjustments related to the drive and incorrect use of the locking device. When the room is being left by the operator, that is e.g. the nursing staff or caring relatives, it should be seen to that the entire control functions of the bed are locked by means of the hand switch or the separate locking box. For this purpose, the lying surface has to be brought into its lowest position in order to enable the locking function by turning the key in the lock on the reverse side. Then, pull off the key and make certain that the lock is really activated by performing an actuation test of the functions through the hand switch. The operating handle of the locking box must always be turned into the appropriate position to enable the function. This should be considered in particular, when:

- > Due to certain disabilities, the care recipient is unable to operate the hand switch on their own.
- > The care recipient may put themselves in danger due to accidental adjustments.
- > The side railing is in lifted position and, thus poses a danger of limbs getting caught or crushed.
- > Children are being left unattended in the room with the bed.

Always make sure that the hand switch is placed back into the suspension hook at the bed and cannot drop off, when it's not in use.

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

Make sure that the care recipient's limbs are not resting between the side rails before performing any adjustments on the bed.

As well you should always ensure that the area between the base frame and head or feet rest is completely clear before making any adjustments. This goes also for persons that might sit or stand in the area between floor and the lifted lying surface. Please keep in mind that these are the areas bearing a particularly high risk of injuries.



*Motor housing*

#### **> Bock Top Advice**

Thanks to the mains isolation, the bed is entirely unaffected from electric smog and very eco-friendly, as energy is only used when the bed's adjustment functions are being operated.

#### **\* Bock Hazard Note**

The maximum period of operation of 2 minutes must not be exceeded. Afterwards it is essential to leave it unused for at least 18 minutes.

## 4. Electrical components

### 4.1 The drive

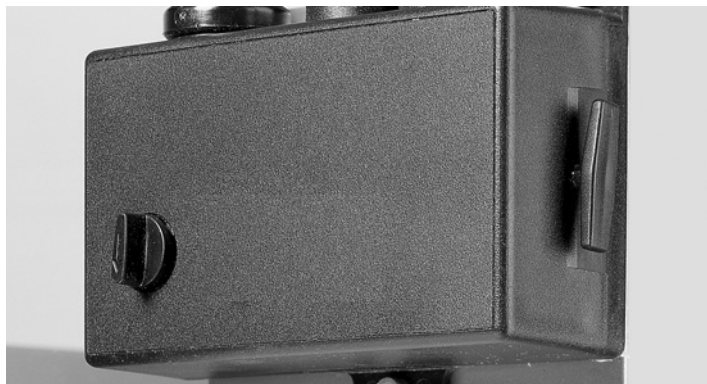
The drive unit consists of a motor box that comprises two drives for the adjustment of the electrically movable parts of the back and leg rests. The integrated motor box has a transformer and a rectifier converting the input voltage of 230 V with 50 – 60 HZ, thus 150 W into low voltage corresponding to 24 V of direct current. This non-hazardous low voltage is used for the operation of the drives and the hand switch. The wires are double-insulated and the mains supply has a primary fuse (according EN 60601-1).

An additional mains isolation can be enabled by actuating the hand switch. A 9-V-block battery comes into use when the emergency lowering function is actuated. Besides, a voltage switch provides for constant operational speed. Hence, the safety performances fulfill the requirements of protection degree II and the moisture protection complies with the standards of protection degree IPX4 of EN 60529.

Continuous playing on the hand switch may lead to the exceedance of the maximum adjustment interval of two minutes, thus causing an overheating of the actuators and triggering the thermal fuse to enable the immediate disconnection of the bed's mains supply. It takes a cooling-down time of approx. one hour, until the power supply is automatically switched on again. As the drive is not equipped with a clock frequency > 9 kHz and has been designed for only short-term operation, EN 550014-1 applies according to the standards of EN 6061-1-1-2 36.201.1.1.4 in this case.

#### 4.2 Control box for all functions

The series hand control with six keys is fitted with an integrated disabling function which enables carers to lock the hand control completely. The easy disabling function in the hand control can therefore replace the current control box, when it is necessary to cut off the entire function of the bed.



*Control box*

#### 4.3 Height adjustment drive unit

The level of the lifting chassis can be adjusted via two built-in low voltage DC motors whose adjustment range is defined by an integrated limit switch. The height adjustment drive unit is connected by a coiled cable to the control unit.

#### \* Bock Hazard Note

Although all Bock care beds are made to a very high safety standard this does not mean that there are no risks. Only when the manufacturer's specifications are heeded and the beds are used properly do the safety measures fulfil their actual purpose – acting on a preventive basis and actively avoiding risk

#### 4.4 The hand switch

The extra-large, easy-to-use operating buttons positioned on the ergonomically shaped hand switch constitute the main functions and can be controlled at the touch of a finger. Each of the function buttons is labeled with appropriate symbols. The actuators remain in active mode until you let go of the corresponding button. A spiral-shaped cable provides for the necessary clearance whilst the operation is being performed.



*The Bock hand switch*

Function button 1	Back rest up
Function button 2	Back rest down
Function button 3	Lower leg rest up
Function button 4	Lower leg rest down
Function button 5	Lying surface up
Function button 6	Lying surface down

Both sides of the rear-mounted suspension device are rotatable by 90°. The radius corresponds exactly to the radius of the side railing and the lifter, so that there are no unsteady clearances. As the position of the hand switch may be perceived as uncomfortable by the care recipient whilst performing cleaning or maintaining actions on the bed, you can simply rotate it to the other side or clip it to any part of the bed.



#### 4.5 Caution: Electrical drive

Hermann Bock calls their electrically operated nursing and therapy beds health beds, because their versatile functionality contributes to the care recipient's recovery process in both physical and mental aspects while at the same time relieving the patient from pain. As the beds represent a medical product, the adherence to safety and maintenance measures is of particular importance. Besides the competent handling of the bed, these measures include the daily check of the electrical equipment and the proper maintenance and cleaning.

In order to prevent the wires from being damaged, the installation should take place outside the potential damage areas. Try also to avoid any skin contact with edgy parts.

Please see chapter 7.4 to learn more about the proper installation of wires. Try to avoid high contact voltages to exclude the risk of injuries due to electrical shocks. This needs to be considered especially in the event of any damages in the power supply line, with leakage currents being at an impermissible and thus too high level, or if any fluids have entered the motor box, which might have occurred due to improperly performed cleaning measures. These damages may lead to malfunctions of the control and hence to unintended movements of the individual bed elements, that bear an increased risk of injuries for care recipient and the person operating the bed.

#### \* Bock Hazard Note

The simultaneous use of electrical devices may lead to a slight interference with the electromagnetic fields of the devices used, causing e.g. white noise of radios and prone to occur in the close surrounding of the operable bed. Though hardly occurring, this may be avoided by keeping a preferably broad distance between the devices, as well as by using another plug or switching off the interfering device for the time being.

If you plan to use the bed along with electrically operated, medical devices which, however, doesn't comply with the intended purpose, please make sure to disable the bed functions by means of the integrated locking box for the time of the operation.



IlcoFlexx 581



IlcoDrive EZ

#### \* Bock Hazard Note

Never open any part of the drive components! Fault repairs or replacements of individual electrical parts must be performed by authorized and competent staff, only. Learn more about the assembly and disassembly in part II of the leaflet „Retrofitting with Bock“– Instructions for electrical specialists.

## 5. The drives

Hermann Bock equips all health beds with ILCON drive systems. ILCON is a leading maker of adjustment systems with the necessary skills and expertise. This gives rise to an ideal partnership for medical devices with a unique level of quality thanks to this synergy.

### 5.1 IlcoFlexx 581- Drive systems

The dual drive IlcoFlexx 581 used for the stepless adjustment of lying surfaces and the IlcoDrive EZ-linear drive which serves as single drive for the height adjustment of the lifting appliances consist each of four main components.

- Motor box
- Drive
- Gear box
- Arbor with nut

The box principle of the IlcoFlexx 581 dual drive and IlcoDrive EZ-linear drive guarantees a durable functionality and long service life of all drive components. The special engineering design is based on two force-absorbing box cases. That way, the unique, patented design of the purpose-specific internal construction allows for the exact integration of the drive technology.

We don't use any completely pre-assembled component groups. The easy assembly/disassembly and the spacious installation compartment for battery and electronics positioned above the robust hinged cover make the housing of the IlcoFlexx 581 stand out. IlcoFlexx 581 serves as well as auxiliary drive in combination with all ILCON-controls. IlcoFlexx comes with a mains insulation in the mains plug and is equipped with an emergency lowering function. The sound level of ILCON-drives may be higher than 65dB(A) during the operation.

## 5.2 The mains insulation

Besides a high degree of safety, the integrated ILCON-mains insulation in the mains plug offers many practical advantages when in use. With the mains disconnected it won't come to any magnetic and electric AC fields in the bed. The mains insulation works self-contained and requires no additional transformer for its stand-by. With the drive working in disconnected mode, there isn't consumed any energy while the correct operation is indicated by means of a switching sound in the relay. The mains insulation is certainly compatible with primary mains insulations. The ILCON-mains insulation in the mains plug is enabled by pressing the touch button on the hand switch. A direct-current loaded capacitor in the drive conducts current to the double-pole relay in the mains connection and activates the transformer whilst the drive is in use. In this process, the capacitor is being reloaded in order to be ready for the next actuation. Every time the hand switch button is being let go of, the mains is disconnected from both poles by the relay. A switching sound indicates the proper performance of this function. In longer periods of idleness, the capacitor of the mains insulation is being buffered by means of the 9-volt battery which is, by the way, a standard installation in the control, and hence ensures the operability of the mains insulation if the voltage has been used up. Should the capacitor and the buffering 9-volt battery be used up, simply press the green button and the mains insulation starts working as usual again. Make sure to disconnect the contact to the buffering 9-volt battery every time you switch the bed off .

### > Bock Top Advice

We recommend performing a yearly functionality check of the 9-volt batteries, so that it can be replaced, if required. Furthermore, you should carry out regular visual inspections.



*9-V-monobloc battery for the emergency lowering function*



*Mains insulation in closed and open state*

## > Bock Top Advice

Your support team of Hermann Bock will gladly consult with you about the ideal retrofitting solution for your bed. Call us under: +49 (0)180.5262500. Have a look at our wide selection of complementing furniture for the various bed models that even allow for the entire rearrangement and adaptation of the care recipient's home, thus forming an ideal basis for the combination of care and living,

# 6. Equipment

## 6.1 Assembly - Equipment

Folgendes Standard-Zubehör ist mit dem Bettmodell adi.lec zu kombinieren:

### Side rails attachment (Fig. 1)

Package: side rails attachment completely assembled

- Open plastic closure, mount side rails attachment, center and close it. Please take care that the release button is on the outside of the bed.

Important advice:

The bock side rails attachment is designed for the use with all variants of bock wooden or steel side rails. If you use it with side rails from other manufacturers there will be no guarantee from bock. The following standard accessories can be combined with every Bock bed model:

### Lifting device with triangle-handle, 6.5 kg (Fig. 2)

The safe load capacity of the lifting device is limited to max. 75 kg. Scope of delivery: 1 Lifting device with holder eyelet, 1 Triangle

- Put the lifting device into the provided hole at the head end and lock it into place. Hook triangle into the holder eyelet..
- The height adjustment scale of the triangle handle must not at least amount to a distance of  $\leq 550$  mm to  $\geq 700$  mm, measured from the upper edge of the mattress (mattress height 100 mm and 120 mm) to the lower edge of the horizontally running handle

### Cushion for side railing, 1.4 kg (Fig. 3)

Scope of delivery: 1 Cover, 1 Cushion

- Open zipper of the cover, pull the cushion onto the side railing .
- Put the foam cushion into the cover by pulling it along the inside toward the outside, then close the zipper.



Fig. 1



Fig. 2



Fig. 3

### Tray, 4.0 kg (Fig. 4)

Scope of delivery: 1 Tray

- The tray is placed onto the side railing and fixed on two distance pieces in order to prevent it from slipping out of place.

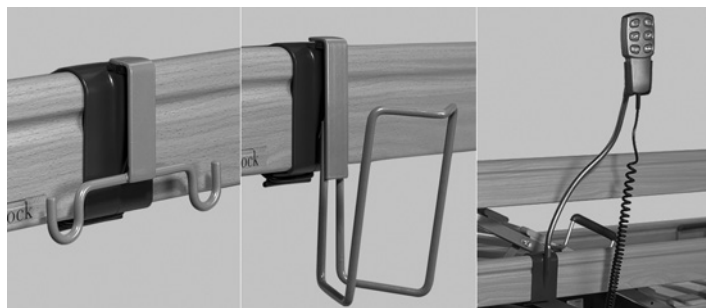


Fig. 4

### Universal clamp (0.6 kg)

Scope of delivery: 1 Clamp, 1 Fastening ring

- The universal clamp is a special holding appliance that provides more flexibility with respect to the positioning of the modular functional equipment. You may use it for the attachment of e.g. quivers, fixtures for urine bottles, infusion systems or a lamp. The universal clamp can be shifted alongside the side railing, right in accordance with your needs.
- The universal clamp is mounted onto the upper side of the side railing and fixed with the fastening ring.



*Universal clamp with fixture for drainage bag, fixture for urine bottle, quiver for swan neck and hand switch (left to right)*

#### \* Bock Hazard Note

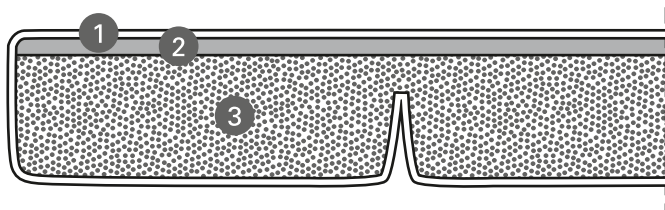
For safety reasons, it is highly recommended to use exclusively original parts manufactured by Hermann Bock GmbH if you opt for complementing the equipment of your health bed. A full overview of the optional equipment and accessories for your bed can be found on the data sheet enclosed to this manual. Hermann Bock assumes no liability for accidents, damages, and risks arising from the use of parts provided by external manufacturers! With the use of equipment parts along with the bed or medically necessary devices, such as infusion racks close to the bed, please ensure that the care recipient is not posed to the risk of injury when performing any adjustment of the back or leg rests.

### > Bock Top Advice

Feel free to call the Hermann Bock support hotline to get useful advice about the appropriate mattress when used along with our ripolux-support. Hotline: 0180.5262500

## 6.2 Mattresses

We recommend the use of special heavy-load mattresses with PU-full cover and gel support for our health bed adjuster. The high density of 50kg/m<sup>3</sup> provides for a particular hardness, making the mattresses suitable for persons with a weight of up to 280 kg. Please consider that the height of the heavy-load mattress amounts at least to 12cm and not more than 14 cm.



- 1 - PU-Full cover
- 2 - Gelauflege, 0,5 cm
- 3 - Foam



*Left: adi.lec 280; right: adi.lec 220*

## 7. Assembly and operation – adi.lec

### 7.1 Purpose

adi.lec is a special bed enabling the ideal care of overweight and adipose patients. It's suitable for the use in therapeutic and rehabilitation purposes, but also as nursing bed for the domestic care. adi.lec 220 is suitable for persons weighing up to 220 kg, while adi.lec 280 allows for the care of persons weighing between 220 and 280 kg. The design of adi.lec is based on the model ancona, which features a highly solid ball gearing system. Besides, the frame statics are provided with an additional reinforcement, while two dual motors ensure a safe and appropriate functionality.

- > adi.lec has been especially designed to meet the high demands of the daily use in rehabilitation and nursing facilities. adi.lec creates a particularly comfy living environment under easy conditions and supports the individual care ill and disabled persons in the most convenient way.

- > adi.lec is not suitable for being used in hospitals.
- > The purpose of the nursing bed is to prevent illnesses and relieve pain of the care recipients in order to facilitate their recovery.
- > adi.lec is not suitable for the long transports or passing across ground sills, such as may be required to enable the transport. The bed is exclusively designed for being moved for cleaning purposes within the room.
- > adi.lec is suitable for persons in need of care up from the age of 12 and a body height of 150 cm.
- > If required, adi.lec may be operated along with additional electrical devices for medical purposes (e.g. aspiration devices, ultra-sound nebulizer, nutrition systems, anti-decubitus systems, oxygen concentrators etc.). In this event, please make sure to disable all bed functions using the integrated locking device and do not enable them, before the operation is completed.
- > Please ensure to mount adi.lec in dry rooms only. This may prevent possible environmental impacts on the individual bed components.
- > Assembly or disassembly and the installation of the nursing bed adi.lec must only be performed by qualified persons (e.g. specialist dealers, the customer) and in accordance with the provisions and guidelines set out in the documentation. This contributes to the avoidance of incorrect operation of or malfunctions in the bed.
- > The operation or control of the nursing bed must be performed by correspondingly instructed nursing staff/relatives. Please get back to the purchaser of the bed, resp. supplier as these are responsible to provide appropriate instruction with respect to the correct use and operation of the bed. Please use the documentation provided by the manufacturer as reference.

**Caution:** The bed doesn't provide for any specific plugs to enable a potential equalization. Therefore you must not use any electrical medical devices that are connected with the patient by intravascular or intracardinal means. The responsibility for compliance of the employed device combination with the requirements of DIN EN 60601-1-1 rests with the operator of the bed.



## 7.2 Special features

adi.lec combines technical perfection with elegant design. These health beds are outstanding due to their numerous and diversified adjustment options and special functions, which is only topped by the wide selection of decors and complementing furniture. Therefore our beds are the perfect partner when it comes to the fulfillment of highest demands concerning comfort and individual care demands, wherever you need it.

A special quality feature of adi.lec is the unique and highly robust ball gearing system. The adjustment height of the bed is considerably wide and very handy. The electrical adjustment of the back and lower leg rests of the 4-fold lying surfaces is made by means of the hand switch including its automatic triple-function.

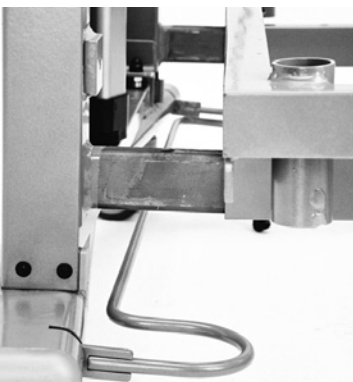
## 7.3 Technical Data

### adi.lec 280

Total weight:	210 kg
Lying surface area:	100 x 200 cm 120 x 200 cm
External dimensions:	116 x 223 cm 136 x 223 cm
Safe capacity:	315 kg
max. person weight:	280 kg
Height adjustment range:	40 - 81 cm
Max. angle to horizontal:	Back section 70° Lower leg section 20°
Hoist clearance:	> 15 cm
Noise level:	< 65 dB(A)

### adi.lec 220

Total weight:	155 kg
Lying surface area:	100 x 200 cm 120 x 200 cm
External dimensions:	116 x 223 cm 136 x 223 cm
Safe capacity:	255 kg
max. person weight:	220 kg
Height adjustment range:	40 - 81 cm
Max. angle to horizontal:	Back section 70° Lower leg section 20°
Hoist clearance:	> 15 cm
Noise level:	< 65 dB(A)



## 7.4 adi.lec in its individual components

adi.lec is either supplied to you as pre-assembled bed by Hermann Bock GmbH or in single components in order to be subsequently assembled by our experts or your local specialist dealer. Hence the following assembly instruction serves rather as guideline for experts holding the corresponding authorization for the assembly.

The scope of delivery of the Bock health adi.lec includes the following components:

Lying surface with box drive	1 item
Lifting racks with single drive and castors	2 items
Wooden side rails	4 items
Side panels	2 items
Head resp. Feet rest	2 items

### *Weight of demountable components – adi.lec:*

	adi.lec 280 kg	adi.lec 220 kg
Metal lifting rack	34,0 kg/Item	22,0 kg/Item
Wooden end piece	22,0 kg/Item	12,0 kg/Item
Lying surface	81,0 kg/Item	74,0 kg/Item
Wooden side rails	13,0 kg/Set	10,0 kg/Item
Wooden side panels	3,0 kg/Set	3,0 kg/Item

## 7.5 adi.lec – Ready for use

Please ensure that all packing materials are removed from the bed before continuing with the next assembly step.

- Pull down the wooden end piece from both sides of the lifting rack.
- Pull off both lifting racks from the metal transport protection.
- Insert both lifting racks into the guide tubes under the lying surface and screw together with the bolts provided. .
- Remove the transport protection (cable tie wraps) from the lying surface.
- Plug the electrical connectors into the drive of the lifting rack.
- Mount the strain relief device. Ensure a proper wire installation.

- For reasons of simplifying the further assembly and installation of the bed, we recommend to drive the bed into its highest position.
- Screw the lying surface together with the lifting racks on both sides. Do only use bolts (M8x60, M8x40 with adi. lec 280; M8x25, M8x40 with adi. lec 220) with plates.



- Put the wooden end pieces over the lifting racks. The lifting racks must click into place with the milling groove in the inside of the wooden end piece.
- Attach the wooden end pieces to all four sides using the bolts provided. (Bolts: M8x35 with adi. lec 280; M8x30 with adi. lec 220).



- Mount the wooden side panels on the lying surface, ensure that the soft edge faces to the top.
- Plug the four side railings into the insert holes of the end piece, make sure to consider the labels on the plastic ends of the nog marked with „top“ and „bottom“. The side rails with the deep holes must be plugged into the top side with the holes facing to the outside. Plug the other mounting into the side railing, remove the locking bolt from the bottom side of the wooden end piece's metal profile. Insert the side railing panel into the profile and push upwards until it clicks into place. Remount the removed bolt and mount the release buttons.
- Check the ideal positioning of the cables by performing a function test of the adjustment positions using the hand switch before putting the bed into operation, Ensure that the adjustment area is completely clear and accessible from all sides. The power cord should run along the external sides of the bed and the hand switch is preferably placed on a plain surface.



adi.lec is ready for operation!



## 7.6 Control

Use the hand switch to operate the electrical control of adi.lec .  
The hand switch provides the following function options:



*The .bock hand switch*

### Hand switch adi.lec

Function button 1	Back rest up
Function button 2	Back rest down
Function button 3	Lower leg rest up
Function button 4	Lower leg rest down
Function button 5	Lying surface up
Function button 6	Lying surface down

The locking box enables the interlocking of the entire electrical functionality (mains disconnection)

## 7.7 Disassembly

Disconnect the main power plug before performing the disassembly. The disassembly of adi.lec is made in reverse order of the assembly.

## 7.8 Relocation

Make sure that the following safety guidelines are being observed when the bed is relocated:

- Drive the lying surface into the lowest position
- Disconnect the mains plug and protect the mains cord from dropping down or getting overridden before relocating the bed.
- Carry out a visual inspection of the mains plug and the mains cord to ensure that there are no mechanical damages before you put the bed back into use (Bending and squeezings, abrasions and bare wires)
- Lay the mains cord in such a way that it isn't being dragged, overridden or posed to any hazards due to the movable parts of the beds during the operation. Then plug in the mains again.

*Transport and storage conditions of our beds:*

- 0°C to 40°C
- Humidity 20% - 80%
- Air pressure between 700 and 1060 hPa

## 7.9 Functional recommendations

The firm positioning of adi.lec at any place requires the activation of the castor brakers. adi.lec, provides a central locking system for the brakes. The simultaneous fixing of all castors is done by a step onto the brake bail.

As the case may be, the integrated side railing has to be pulled to up until it clicks into place on both sides. To lower the side railing, simply lift it slightly and slide the release buttons provided on the end piece to the outside.

The lying surface's degree of hardness with adi.lec 220 can be individually and stepless adjusted using the slider. Move the slider to the outside to achieve a higher hardness degree. When using different mattress thicknesses, the minimum height of 22 cm, measured from the upper edge of the side railing above the mattress and minus the thickness of the compression layer, must be maintained by all means. (The use of an additional plug-in railing is required)

### \* Bock Hazard Note

The drives are provided with a spray water protection system called IPX4. The wires must not be squeezed. The adjustment of the movable components is only allowed for the intended purpose. Hermann Bock GmbH assumes no liability for technical modifications which haven't been approved prior to their performance.

### \* Bock Hazard Note

Never try to repair any defects or malfunctions of the electrical equipment on your own – Danger to life! Please contact either the customer support of Hermann Bock or consult an authorized specialist dealer for electronic devices, as these experts will perform the repair in compliance with all VDE directives and safety regulations.

The bed has to be cleaned and disinfected before using it for the care of another person. Do also make a visual inspection so that possible damages are detected early.

Learn more about this in the safety guidelines set out on the pages 26 – 30 of the safety manual “Bock, what else?”

### 7.10 Disposal

Each of the components made of plastics, metal, and wood are recyclable and can be disposed in compliance with the relevant legal provisions.

### 7.11 Troubleshooting

This overview helps you to detect and correct malfunctions on your own and describes those kinds of malfunctions that require the consultation of experts.

<b>Malfunction</b>	<b>Potential causes</b>	<b>Remedy</b>
The drive units cannot be controlled via the hand control	<p>Mains cable not connected</p> <p>No voltage in the socket</p> <p>Plug of the hand control not fixed firmly</p> <p>Hand control or drive unit defective</p> <p>Mains isolation appliance not activated</p> <p>Disabler or control box in the hand control activated</p>	<p>Connect the mains cable</p> <p>Check the socket or fuse box</p> <p>Check the plug-in connection on the motor</p> <p>Notify the operator or Bock customer service</p> <p>Press the green button to activate mains isolation, and also replace the 9 V battery</p> <p>Deactivate disabler or control box in the hand control</p>
When buttons are pressed, the drive units stop after a short time	<p>There is an obstruction in the adjustment range</p> <p>The safe capacity has been exceeded</p>	<p>Remove the obstruction</p> <p>Reduce the load</p>
The drives stop after a longer adjustment time	The adjustment time or safe capacity has been exceeded, and the Polyswitch in the transformer of the control unit has responded to increased heat	Let the drive system cool down sufficiently for at least a minute
Opposite functions when the hand control is used	Motor plugs have been swapped round internally	Notify the operator or Bock customer service
Individual drive units run in one direction only	Hand control, drive unit or controller defective	Notify the operator or Bock customer service
Drives stop and bed remains in sloping position	Continuous operation of the up/down adjustment function or head/leg low position. Activate disabler in hand control.	Lower lying surface into its lowest position and thus realign horizontally.



#### > Bock Top Advice

Hermann Bock's quality assurance includes the provision that each health bed has to be subjected to an extensive functionality test on site after leaving the production line. Every first delivery comes with the instruction of the person assigned by the customer concerning the appropriate handling of the bed. Customers are offered to participate in trainings for the correct and safe use of electrical nursing beds manufactured by Hermann Bock GmbH.

## 8. Safety guidelines

### General safety test

The safety standards of an electrically operated nursing bed are subject to the compliance with the specified European standards. This includes as well the manufacturer's strict adherence to the specifications and official standards defined by the government and which are in accordance with the safety recommendations of the BfArM (Federal institution for drugs and medical devices) for the enforcement of the Medical Products Act. Regular TÜV inspections ensure the maintenance of the high safety standards.

### Bock-Top-Safety Standard

What goes without saying as regards the safety and protection of the person in need of care is not limited to the scope of all legal provisions and recommendations but goes far beyond when it comes to the health beds of Hermann Bock. A separate department for research and safety develops additional and preventive safety measures on the basis of accident analyses, market observations, and practical experiences. That's why Hermann Bock health beds have already achieved the highest safety level long before legally required standards become effective. That's what we call the Bock-Top-Standard.



## 8.1 Safety guidelines for electrically operated bed systems

The following safety requirements according to the current state of knowledge on accident- and fire prevention apply to electrically operated nursing beds:

### > Bock-Top-Standard:

Use of reinforced mains power leads (EPR-wire or cable of comparable quality).

### > Bock-Top-Standard:

Appropriate bending protection and adequate strain relief for the connections between the drive unit and mains power lead (comp. fig 1).

### > Bock-Top-Standard:

The mains power leads and electrical connection lines between the drive system's components need to be installed within the bed in such a way, that a mechanical damage is unlikely to occur (comp. Fig. 2).

### > Bock-Top-Standard:

It has to be seen to that the wire doesn't get in touch with the floor, when the bed is being transported (comp. fig. 3).

### > Bock-Top-Standard:

The assembly and use manual should include notes that help to avoid mechanical strain on the mains power lead when the bed is in operation.

### > Bock-Top-Standard:

The assembly- and use manual should include the note pointing out the importance of visual inspections of the mains power lead regarding any mechanical damages which should be performed in regular intervals and especially after the occurrence of each mechanical strain.

### > Bock-Top-Standard:

Protection of the drive system against humidity. Older beds have to fulfill at least the provision, that liquids dripping from above cannot penetrate the drives.

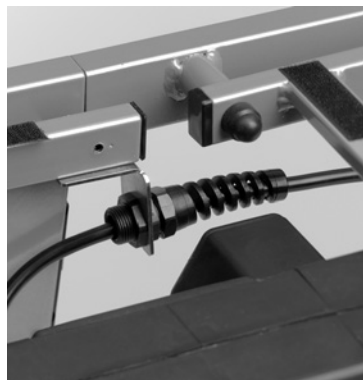


Fig. 1



Fig. 2



Fig. 3



Fig.. 4

### Important safety requirements for nursing beds:

- > The entire drive system incl. hand switch, thus not only the lying surface drive, has to be protected against splashing water (protection level IPX 4), (comp. fig. 4).
- > Bending protection, strain relief on the bed and high-quality mains lead
- > The distances between the side railings have to be less than 12 cm, which also applies in the event of the exertion of strains or pressure. The lower side railings must, despite pushing them up and forces that cause strain to the in- and outside, not exceed a distance of 12 cm.
- > All motors of the bed systems are provided with an absolute mains disconnection including integrated fuse in the plug. The fuse in the mains lead responds immediately to any damages occurring in the mains power lead and disconnects the power from its load supply in the plug. At the same time, the emergency lowering ensures the safe positioning of the care recipient. A qualitative, resistant spiral cord serves as secure protection against damages of the mains lead.



#### \* Bock Hazard Note

The bed needs to be disinfected and cleaned before re-using it for another care recipient. Do as well carry out a visual inspection of the mechanical parts in order to detect any damages.

## 8.2 The Top-Ten-Safety commitments of Bock nursing beds in detail:

### Bock-Safety-Commitment 1: Mains insulation

The mains insulation enables the power supply only upon actuation of the hand switch. Otherwise, the drive is insulated from all poles in the plug and hence separated from the power supply. The drive is thus in a state equal to the actual disconnection of the mains lead from the plug.

### Bock Safety Commitment 2: Primary fuse

The primary fuse is installed directly in the wall mains plug, thus not in the case motor. This placement provides a great safety advantage as the bed is already being disconnected from the mains when it comes to minor irregularities, which prevents the occurrence of hazards in case of damages in the mains lead.

- > Safety advantage 1: If, nevertheless, it should come to any damages of the spiral power cord, the short circuit will only occur for the short time of the hand switch actuation, and only in that case, the phase is connected with the zero conductor. The primary fuse in the mains plug responds immediately to any damages occurring in the mains lead and releases a power switch-off as soon as the exceedance level of the nominal current is being detected.
- > Safety advantage 2: Regardless of the mains disconnection, it is of vital importance that the bed is immediately supplied with current upon putting it into service. Should there be detected a damage in one of the control wires integrated into the mains lead, the

mains will be automatically disconnected.



### **Bock Safety Commitment 3: Secondary fuse / Polyswitch**

If a short circuit occurs in the secondary circuit (24 V), the secondary fuse will be activated right away. The motor is disconnected from the mains for a short time. Also in cases of a potential short circuit or an overload in the load circuit, the secondary fuse ensures the voltage-free operation. After an appropriate cooling-down time, the drive gets automatically reactivated by the polyswitch.

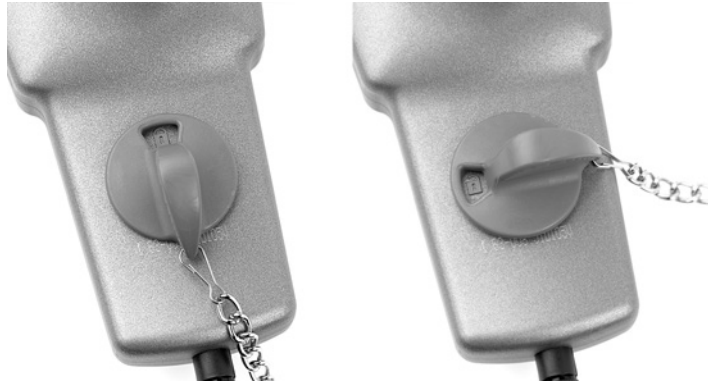
### **Bock Safety Commitment: Thermal fuse**

Provided, that the electrical resistance isn't low enough at the time the short circuit occurs, the mains disconnection might not respond automatically. As the motor would then, however, not drive or only at a very slow speed, the adjustment operation would take correspondingly longer. The hand switch would, thus, be actuated for a considerably long time and the drive would be constantly connected with the mains. This would lead to the exertion of high strain on the transformer. If the heat thereby incurred rises up to approx. 130 degrees, the transformer's thermal fuse responds instantly and disconnects the motor from the mains power supply. The occurrence of such a case requires the subsequent maintenance of the motor by the manufacturer or operator and the installation of a new transformer.

### **Bock-Safety-Commitment 5: Locking device for the overall functionality of the hand switch**

The lockable hand switch is provided with an integrated locking device, enabling the operator to lock the operation of the hand switch by means of a key. In order to activate the locking of all the electrical functions, just put the key into the rear-sided lock and activate or deactivate the locking function with a corresponding rotation. The central locking device in the hand switch is available for all health beds that are provided with a horizontal

motor adjustment.



#### **Bock Safety Commitment 6: Locking device for single functions**

For the reasonable prevention of personal injuries, all special beds by Bock and all the bed models featuring the special function „Trendelenburg“ provide, in addition to the locking of particular functions, a locking device for single functions.



#### **Bock Safety Commitment 7: Special spiral mains cord**

This particular mains lead has four instead of the usual two wires which is due to the mains disconnection. The insulation is, therefore, considerably thicker than it is with common mains leads. The round model comes with an additional coil which increases the lead's stability to a significant extent.



- > Safety advantage 1: It's virtually impossible to drive over the wire with the castors of the bed, as it's rather difficult to drive over a coiled wire, so that it would rather being pushed before the castors.
- > Safety advantage 2: The coiling of the wire allows for great length compensation, so that pulling off the mains plug in a jerk can be prevented.
- > Safety advantage 3: The spiral shape supports the constant stretching of the wire and that way it can be hung directly into the transport holder.

#### **Bock Safety Commitment 8: Strain relief of the mains lead and bending protection**

### > Bock Top Advicep

Our friendly and professional hotline service will gladly answer your questions regarding the safety of Bock health beds, the Bock STK trainings and provides you with competent advice when you face any problems with the handling of electrically operated beds. Call our hotline service under +49 (0)1805262500 from Monday to Friday, 9 a.m. to 4 p.m. and our experts will be at hand with support and advice.

The customer bears the responsibility concerning the handling of the locking devices, whose use should be considered upon assessment of the physical and mental state of mind of the care recipient.

Thanks to a strain relief which is directly installed in the mains lead's drive housing, the wire can't get unplugged. An additional strain relief fitted to the bed is designed in such a way, that the wire leaves the chassis at whose furthest edge. In so doing and provided that the wire is appropriately laid from the bed to the plug, the wire will not get in contact with moving parts of the bed.

#### **Bock Safety Commitment 9: Lockable hand switch, fault-safe initial operation**

The locking device which is integrated in the lockable hand switch can be activated by means of two integrated switches. If one switching function fails, the second switch will provide for the reliable and safe function of the locking device. The locking device is equipped with two test positions so as to carry out the single check of the functions for each switch in the scope of the safety-technical inspections.

#### **Bock Safety Commitment 10: Humidity protection**

With its nut- and spring mechanism, the housing of the drive meets the provisions of the protection level IPX4 and is, owing to silicone gaskets, protected against the intrusion of splashing water. In the unlikely event of the intrusion of liquid for whatsoever reason or cause, the elaborately designed internal structure of the electrical component parts in the upper area of the housing will prevent any contact. The humidity will automatically drain off down and leave the drive without causing any damages to the component parts.



### 8.3 Safety-technical inspections (STK) including service

Safety-technical inspections (STK) serve for the maintenance of the highest possible safety level and are therefore an important safety precaution. According to the specified terms of the manufacturer and the general recognized rules of engineering, it is required that medical products are put to regular safety-technical inspections. Considering the everyday practice, the safety-technical protection measures are subject to various demands and strains, and hence also to possible signs of wear and tear. The prevention of hazards makes the continuous and consequent compliance with the terms for the STK vitally necessary. The manufacturer is no way responsible for the way and extent of compliance which is given by the operator of the electrical beds. Bock makes it easier for you to comply with the necessary precautionary measures by providing time-saving services.

The performance of the inspection, assessment and documentation must be exclusively performed by or under supervision of professional persons, such as electricians or electro-technically instructed persons who possess of a solid knowledge with respect to the relevant provisions and are able to recognize possible interferences and hazards.

In case that there is no suitable person available on part of the operator to perform the STK, Bock's service offers you to carry out the STK including check and observance of the respective inspection terms against a fee.

**The company Hermann Bock GmbH recommends to the performance of an STK at least once a year and before and after each re-use of the bed.**

The company Hermann Bock GmbH recommends to the performance of an STK at least once a year and before and after each re-use of the bed.

In order to facilitate the performance of all necessary safety inspections, Hermann Bock GmbH provides you with the STK checklist which can be found in the assembly and use manual. Please make a copy of the checklist so as to have a reference form in the course of your safety-technical inspection. The STK checklist serves as evidence report of the performed inspection and needs to be kept on file

#### > Bock Top Advice

The Bock STK training is conducted either at your site or ours and includes the instruction of your technical staff with respect to the performance of the STK inspection on health beds, so that they'll be in the position to carry out safety-technical inspections in the correct way.

#### \* Bock Hazard Note

The bed needs to be cleaned and disinfected prior to every re-use. This provision is accompanied by the requirement of a visual inspection to be carried out in order to prevent any mechanical damages.

# STK - List according DIN EN 62353

.bock

Test specimen: ☐ Bed

☐ Insert frame

☐ Controller/main drive

Model name:

Series /inventory number:

Location:

Person in charge:

Date, examiner:

## Visual, mechanical and electrical step of examination

1.	Is the overall condition of the bed alright?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
2.	All stickers, EC registrations and type plates present on bed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
3.	Manufacturer's details such as safety guidelines and assembly or operating instructions present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
4.	Mechanical construction defect free with no welds, bent metal frames/lifting poles, wooden elements?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
5.	Firm fit and completeness of all plastic end caps and mechanical connecting elements (screws etc.)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
6.	Sprung slats, carrier plates and dowels for ripolux/riplan without cracks or breakages?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
7.	Tight fit in correct position of all sprung slats and carrier plates?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
8.	Tight fit and straight alignment of all spring elements?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
9.	Do spring elements return to their original position after pressure load?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
10.	Tight fit and no cracks or breakages of head and foot end panels?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
11.	Adjusting space of lying surface and room for lifting height sufficient without obstructions at current location?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
12.	Safe grid mechanism of lower leg section in every step even under charge?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
13.	Side rail bars without cracks, breakages or damages?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
14.	Adequate fastening and respectively secure fit of side rails?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
15.	Load test of side rails without distortion?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
16.	Easy run of side rail bars within the tracks and easy locking?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
17.	Correct functions of side rails?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	
18.	Distance between side rail bars not more than 12 cm?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Description of defects:	



19. Height of side rails above mattress at least 22 cm?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
20. Bed-accessories (lifting pole, triangle grab handle, belts, control box etc.) without damages and with secure fixing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
21. Safe breaks, arresting and free running of wheels?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
22. Mains cable, connecting cables and plugs without scratches, dents, kinks, porous parts or bare wires?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
23. Strain relief fastened and efficient?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
24. Internal plugs fully inserted and connected with strain relief?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
25. Mains cable and plug without damage?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
26. Correct and secure cable leading and cable connections?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
27. Housings of motors and hand controls sealed and without damages?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
28. Leak-prevention of motor for models older than 2001 present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
29. Motor lifting poles without damages?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
30. Testing of hand controls: all buttons fully usable?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
31. Testing of disabler on hand control: everything correct?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
32. Testing of battery: faultless function?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
33. Resistance of protective conductor: not applicable, because no protective conductor present (security class II)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	
34. Resistance of isolator (for old appliances) (initiate proof voltage and measure resistance; measured value must be more than 7 MΩ):	
Description of defects:	
35. Alternative leakage current, maximum value (device over 200 V, security class II, type B, threshold value = 0,1 mA):	<input type="checkbox"/> OK <input type="checkbox"/> Not OK
Description of defects:	
36. Exceeds the patient-, mattress and accessory weight the assigned safe capacity (see technical data)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Description of defects:	

Overall condition of the bed: everything faultless?	<input type="checkbox"/> Yes <input type="checkbox"/> No
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Notices:

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Place and date:

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Signature of examinant:

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Next examination:

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## Declaration of conformity

Manufacturer: Hermann Bock GmbH  
Nickelstraße 12  
D-33415 Verl

Product: care bed adi.lec 220

Classification: Medical products Class I, Rule 1 and 12  
according to Appendix IX of the MDD

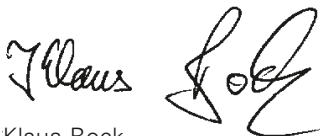
Applied procedure for  
conformity assessment- Appendix VII of the MDD

We hereby declare that the above mentioned products are in conformity with the precautionary principles of the directive 93/42/EEG stipulated by the council for medical products.  
The entire associated documentation is kept on file in the premises of the manufacturer

Applied standards: Harmonized standards in order to declare  
conformity:

DIN EN 14971	Application of risk management to medical products
DIN EN 1970	Adjustable beds for disabled persons
DIN EN 60601-1	Medical electronic devices (MEG) Part 1
DIN EN 60601-1-2	MEG Part 1-2 Electromagnetic compatibility
DIN EN 60601-2-38/A1	MEG Part 2-38 Electrically operated hospital beds (for the requirements of domestic care)

Verl, 11.04.2012



Klaus Bock  
(Management)



Jürgen Berenbrinker  
(Management)

## Declaration of conformity

Manufacturer: Hermann Bock GmbH  
Nickelstraße 12  
D-33415 Verl

Product: care bed adi.lec 280

Classification: Medical products Class I, Rule 1 and 12  
according to Appendix IX of the MDD

Applied procedure for  
conformity assessment- Appendix VII of the MDD

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