

Bock Manual – kängbo



Tubular Steel Products
Interior Furnishings
Therapy and Rehabilitation Beds

bock

Assembly and
Operating Instructions

Dear Customer,

In deciding to buy a therapy and rehabilitation bed from Bock you have opted for a care product that has a long service life and delivers first class functionality at the highest safety level. Our electrically adjustable care beds guarantee optimum comfort when lying, and support professional care activities. The focus is on people who need care, encouragement and protection. We have created the basic requirements for this with our care products. We urge you to prevent potential malfunction and risk of accidents by complying strictly with the safety and operating instructions and carrying out the necessary maintenance.

Yours sincerely



Klaus Bock

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*** Warning note from Bock**

As the user, you should read these installation and operating instructions completely in order to avoid any damage or malfunction in the course of assembly and use.

1. General information

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 tested not only on the basis of the new European standard EN 1970/2000 but also on DIN 32623/2002. The electric components of our beds conform with safety standard EN 60601-1/1996 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. These assembly and operating instructions provide you with the necessary knowledge for safe and effective handling of the kängbo care bed for children and youths. In addition to this you receive the Bock safety guidelines, which additionally informs you about the legal regulations and the safety engineering of Hermann Bock care beds. Please keep both documents carefully.

1.1 Practical – no packaging

The kängbo care bed for children and youths is already supplied in a pre-mounted version of the lying surface, end pieces and side segments and without packaging.


1.2 First impression – visual inspection

Before assembling the bed and putting it into service, look at it carefully to see that it is complete and has no visible damage. Only when you are convinced that the bed is in its proper, fault-free state should you get round to learning the correct way of using the individual bed elements in the following function description.

> Tip from Bock

Please refer to the assembly instructions for your specific model (from chapter 7 on) to see which parts, and how many of them, have to be present for your visual checks of the care bed.

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

> Tip from Bock

Scratches that go through the entire coating should be sealed with suitable repair agents to prevent the penetration of moisture.

2. Cleaning, care and disinfection

The individual bed elements are made of first-class materials, largely from steel, whose surface has been given a durable polyester powder coating. The break-proofed plastic-glass has a surface without pores, which can hardly be polluted with dirt.

The surfaces of all wooden parts have been sealed with a material that contains no harmful substances. All bed elements can be easily cleaned and looked after with wipe and spray disinfectants that meet the hygiene requirements for the various areas of use. The usefulness and optical condition of your care bed will be retained for a long time if you heed the following care instructions.

2.1 Cleaning and care

Steel tubing and sprayed metal parts:

To clean and care for these surfaces use a moist cloth with a mild commercial household cleanser.

Wooden, decorative and plastic parts:

All common furniture care and cleansing agents are suitable. To clean plastic parts a moist cloth with a mild commercial household cleaner is suitable. A special product for plastic material should be used for the care of plastic surfaces.

Transparent plastic:

Use only a soft cloth or a sponge, preferably a microfiber cloth, dampened with water for the removal of adhering dust. Particularly suitable are an antistatic plastic cleaner and keeper (AKU). For stronger, in particular greasy contamination, benzene-free pure gasoline (petroleum ether, ligroin) can also be applied on the soft cloth. A common domestic scrub-free and mild cleaning agent should be used for thorough cleaning. Smaller scratch marks of small depth can possibly be eliminated by hot-air polishing or with a polishing paste. Never rub the plastic window panels dry and do not use strongly alkaline cleaning agents containing solvent, lead-containing gasoline or carbon tetrachloride. Likewise no sharp edged objects and tool systems of mechanical type, e.g. with rotary brushes, strippers etc. are to be used for cleaning and care.

Motor unit:

The motor housing should only be wiped with a slightly moist cloth in order to prevent moisture getting into it.

2.2 Disinfection

All disinfectants set out in EN 12720 can be wiped on the beds to clean them. To maintain the material condition of plastic elements such as the motor housing only use mild agents. Concentrated acids, aromatic and chlorinated hydrocarbons, high alcohol, ether, ester and ketone corrode the material and should therefore not be used.

2.3 Avoiding danger

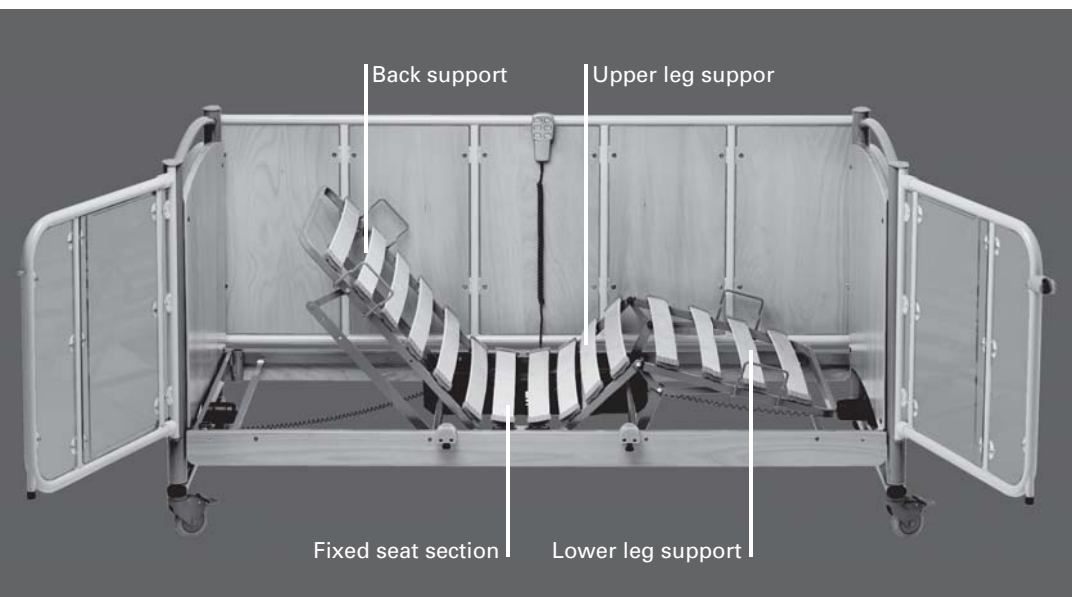
Before cleaning and disinfecting electric parts of your care beds it is essential to read the following rules in order to avoid danger in conjunction with cleaning and disinfecting them. Failure to comply with these rules can result in personal injury and considerable damage to the electric cabling and the drive unit.

1. Pull the mains plug out and place it where it cannot come into contact with excess water or cleaning agents.
2. Check that all plug-in connections fit properly.
3. Check the cabling and electric parts for damage. If you detect any damage do not clean the parts involved but first make sure that the defect is eliminated by the operator or by authorised technicians.
4. Before putting the bed back into service check that the mains plug does not have any residual moisture on it, and rub or blow it dry if necessary.
5. If you suspect that moisture may have penetrated any electric components pull out the mains plug immediately, or do not reconnect it to the mains if you have already removed it. Take the bed out of service without delay, label it accordingly, and notify the operator.

* Warning note from Bock

Never use scouring agents or other abrasive cleansers, cleaning pads or stainless-steel care agents to clean the beds. Nor should you use organic solutions such as halogenated/aromatic hydrocarbons and ketones, or acidic and alkaline cleaners.

The bed must never be sprayed with a water hose or high-pressure cleaner because this could let moisture penetrate the electric components, thus leading to malfunctions and danger.



kängbo care bed for children and youths

3. General description of function

3.1. Structure and function

Lying surface

The lying surfaces of the kängbo beds are equipped with a water resistant slatted frame.

Kängbo 90 x 200 has a lying surface with four functional areas:

Back support, fixed seat section, upper leg support and lower leg support. The frame for the lying surface is made of welded steel tubing that has been baked with a PE powder coating. The height of the lying surface is continuously adjustable by means of 24 V direct current motors that are operated via the easy-to-use hand control. Apart from the electrical individual adjustment of back and leg section, the seat comfort position can also be controlled via the manual switch.

The leg section

The leg section consists of a two-part foot unit. Each individual position can be continuously adjusted by pressing a button on the hand control. The electronic hand control can also be used for an automatic tri-function to raise the occupant's legs to a stretched position and to make a bend in the area between the heart and knees. The lower leg

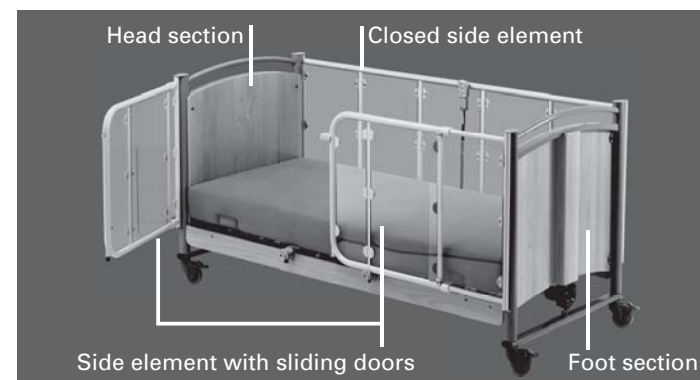
support automatically moves parallel to the lying surface in proportion to the upper leg support. The leg section can be lowered with the aid of a 9-volt battery in the event of a power failure.

The chassis

The telescopic lifting chassis consists of a basic frame whose height is adjusted by two lifting columns. The surface of this steel tubing construction has a heat seated PE powder coating.

Side element and sliding doors

The side elements, of which one has a sliding door, of the kängbo care bed for children and youths are manufactured from a combination of scratch-proof plastic window panels and coloured steel tubes. The closed side element is additionally available in wood décor for the kängbo 90 x 200. The side elements are firmly screwed onto the head and foot section at 4 points and provide safe protection against falling out in each adjustment position.



* Warning note from Bock

- Before opening the sliding doors the person in need of care must be secured against falling and/or remain under constant observation.
- Sliding doors are only to be operated for treatment purposes.
- Ensure secure locking when operating the sliding doors.
- When the lying surface is raised and the sliding doors are open take care regarding the danger of the person in need of care falling and/or never leave them unobserved during the procedure.
- Use of the bed without a mattress is not permitted because of the danger of becoming jammed and crushing.



Correct operation of the sliding doors in a safe manner is carried out as follows:

- Pull the release button on the guide rail downward slightly and push back to the head and/or foot section with light pressure.



- The door elements must be pushed back over the guide rail as far as the stop for complete opening.



- The sliding doors can be opened on one side and also completely on both sides and can be folded away laterally up to a 180 degree angle.
- Position the wing elements parallel to the lying surface to close the sliding door. By slightly pulling to the centre over the guide rail push until it engages fully and audibly.

3.2 Caution: Risk of injury

Proper use of all movable parts is essential to guarantee the safety of occupants, carers and nursing staff. The correct assembly and operation of the bed are essential for this. The physical constitution of the specific individual and the type and extent of disability must be taken into account when using the bed.

Use a control box to avoid hazards resulting from unintentional motor adjustments and incorrect handling. When the user, for example a nurse or caring relative, leaves the room, the functions of the hand control should be disabled completely by using the hand control key or disabled by using the separate control box. Then the lying surface has to be brought to its lowest position and activated the disabler with an appropriate turn of the key in the keylock located on the back.. Withdraw the key and as a precaution check that the hand control functions are actually disabled. Turn the knob switch when using a control box. These recommendations apply especially

- > When the occupant is unable to use the hand control properly because of certain disabilities
- > When the occupant could be put in danger as a result of unwanted adjustments
- > When children are in the room containing the bed without supervision

When the hand control is not in use, make sure it is hung on the hook on the bed and cannot fall off.

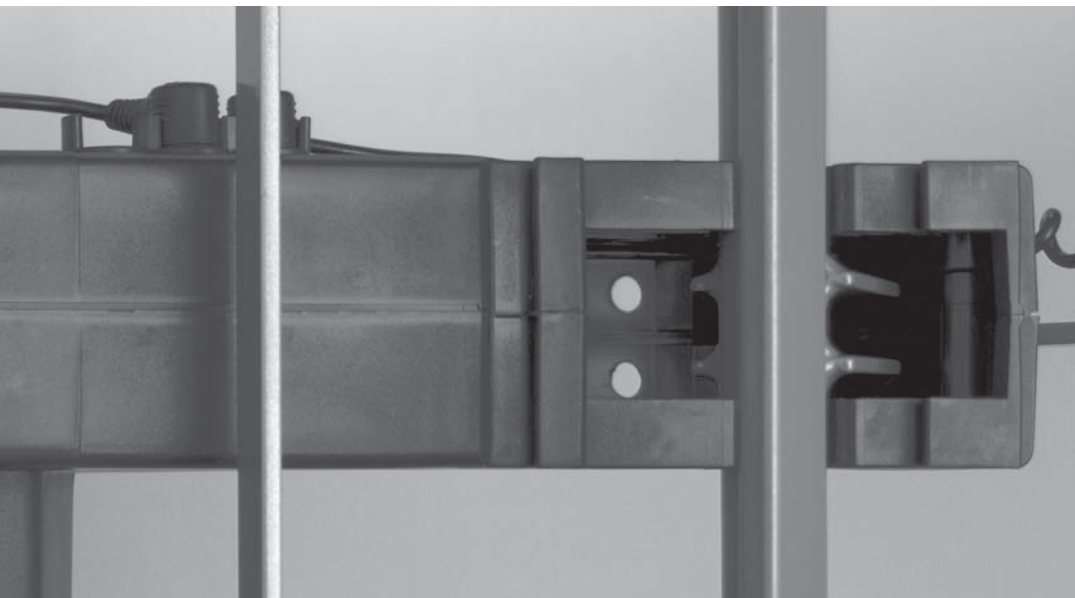
The bed should only ever be operated by nursing staff or relatives who have received training, or in the presence of such persons.

When adjusting the lying surface, particular care is to be taken that the sliding door is in the secured closed position in order to effectively secure the person in need of care against falling out.

Before starting an electrical adjustment always check whether any limbs are present in the adjustment area between lower chassis and back or lower leg section or even any child or person between the floor and raised lying surface. There is a particular high risk of injuring here.

> Tip from Bock

In the event of uncertain malfunction, failure or damage of the electric bed or its accessories, the first thing you should do is to remove the mains plug and activate the emergency lowering appliance. Please inform the operator or the Bock service team about the problem.



Motor housing

> Tip from Bock

When isolated from the mains, the bed is completely free of electromagnetic radiation. Electricity is only consumed when adjustments are carried out.



9-volt battery for emergency lowering

4. Electric components

4.1 Drive unit

The drive unit consists of the motor box in which there are two motors for the individual drives to adjust the electrically operated parts of the back and leg supports. The integrated motor box incorporates a transformer and a rectifier in which the input voltage of 230 V at 50 - 60 Hz at 150 W is converted to low voltage of 24 V DC. The motors and the hand control operate with this non-dangerous low voltage. The cables are doubly insulated, and the mains plug has a primary fuse in accordance with EN 60601-1/1996. An additional mains isolation appliance is coupled to actuation of the hand control. Emergency lowering of the bed is driven via a 9 V monobloc battery. Furthermore, voltage selection ensures the constant speed of functions. Safety features thus conform with protection class II and, for protection against moisture, IPX4 according to EN 60529.

If the maximum adjustment time of two minutes is exceeded, for instance through fiddling with the hand control, and if the motors overheat, the thermal release will immediately disconnect the power supply from the bed. Power will automatically be restored after a cooling-down time of about one hour. Since this drive does not operate at a frequency rate > 9 kHz and is mainly run for short periods, the guideline EN 550014-1 applies according to EN 60601-1-2 36.201.1.4.

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.

4.3 Height adjustment drive unit

The level of the lifting chassis can be adjusted via one or 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.

4.4 Lockable hand control, single fault safety

Basic functions can be controlled by the press of a button on the ergonomic hand control using the six extra-large, user-friendly operating buttons.

The individual buttons are labelled to indicate their function. The motors run while a button is held down.

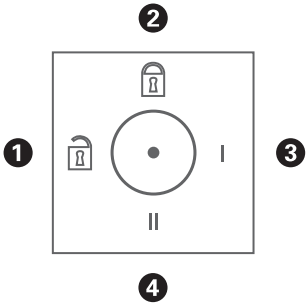
A coiled cable allows the necessary freedom of movement for operating.

The hook on the back can be turned 90° in both directions. The radius corresponds exactly to the radius of the side rail and support so that the handset fits securely. Special attention should be paid that during cleaning, disturbance by the hand control position be averted by turning it or clipping it to one of the appropriate places on the bed. The hand control also has an integrated disabler that can be activated or deactivated by its key.

To disable the entire electrical function, insert the key into the lock located on the rear and activate or deactivate the disabling function with a corresponding twist of the key.

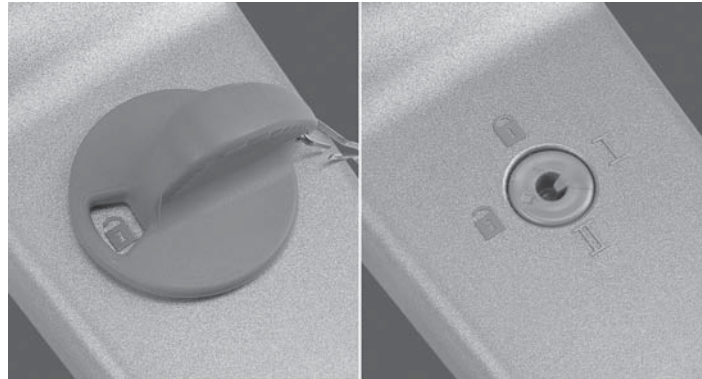
* Warning note from Bock

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.



The new Bock hand control:
Fig. left: kängbo 70 x 140, Fig. right: kängbo 90 x 200

- | | |
|----------|------------------------|
| Button 1 | Back section up |
| Button 2 | Back section down |
| Button 3 | Lower leg section up |
| Button 4 | Lower leg section down |
| Button 5 | Lying surface up |
| Button 6 | Lying surface down |



Key for disabler

- | | |
|-----------------|------------------------------------|
| Knob position 1 | Hand control functions active |
| Knob position 2 | Hand control functions deactivated |

Knob positions 3 and 4 are settings for safety controls. Further information on this can be found in the safety guidelines.

4.5 Caution: Electrical drive unit

Hermann Bock refers to its electrically operated therapy and rehabilitation beds as health beds because they have many functions that help their occupants to recover physically and psychologically while reducing pain. As medical devices, electric beds require special safety precautions including handling in a suitable way for safety, daily checks of electric equipment and proper maintenance and cleaning.

To avoid damage, cables should be laid outside the area in which damage can occur. Contact with edged parts should also be avoided.

Hints on adequate cable laying are given in chapter 7.7.

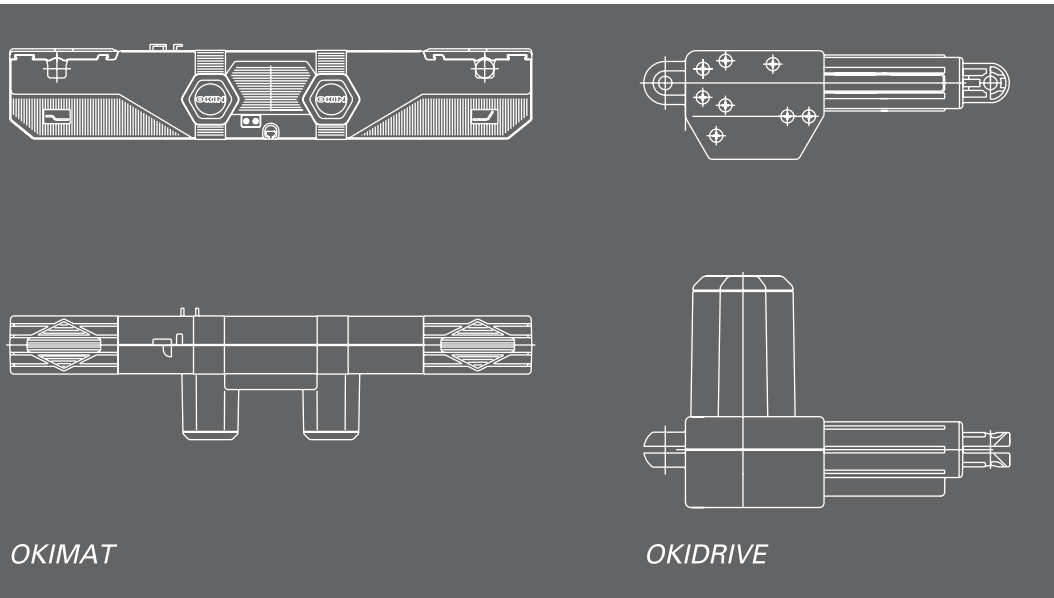
Excessive touch voltage should be avoided in order to prevent injury through electric shocks. These circumstances may arise, in particular, when the mains cable has been damaged, when there is inadmissible, excessive leakage current, or when liquid has penetrated the motor housing, for example because of incorrect cleaning.

Such damage can cause the controls to malfunction, resulting in unwanted movements of the individual bed elements that increase the risk of injury for nursing staff and users.

* Warning note from Bock

Simultaneous use of electrical equipment can, particularly in the immediate environment of the bed when it is ready to operate, result in small electro-magnetic interactions between the electrical devices, similar to the interfering noise heard on the radio. In such a rare cases, increase the distance between the devices, do not use the same wall socket, or temporarily switch off either the interfering device or the one being interfered with.

If the bed, contrary to its intended use, is operated in combination with electrical and medical devices, the function of the bed must first be deactivated by means of the integrated locking function in the hand switch for the duration of use.



OKIMAT

OKIDRIVE

complete assemblies are not used. OKIMAT housings are characterised by particularly easy assembly/disassembly and convenient space for the battery and electronic parts beneath the robust cover. The OKIMAT can also be combined with all OKIN controls as an additional drive unit. The OKIMAT has an isolation appliance in the mains plug and features emergency lowering. The noise level of OKIN drive units can exceed 65 dB(A).

5.2 Mains isolation

The OKIN mains isolation facility that is integrated in the mains plug provides other practical advantages in addition to guaranteeing a high level of safety. Activation of mains isolation prevents magnetic and electric alternating fields from being generated in the bed. The mains isolation facility operates independently and does not require an additional transformer for its standby mode. When the drive unit has been disconnected from the mains, no electricity is used and a switching noise in the relay indicates correct operation. Of course, mains isolation is compatible with higher-level mains isolation options.

The OKIN isolation facility in the mains plug is activated by pressing a button on the hand control. A capacitor charged with direct current in the drive unit supplies electricity to the two-pole relay in the mains isolation facility, and turns on the transformer in the drive. The capacitor is recharged, and is ready for the next actuation. Whenever the button on the hand control is released, the relay in the mains isolation facility turns off the mains network (two poles). A switching noise indicates that this function is being executed. The 9-volt battery that is installed in the control as standard for emergency movements will, if necessary, back up the mains isolation capacitor if the latter has not been used for some time and has therefore lost its voltage. If the capacitor and the 9-volt battery have been exhausted, it is sufficient to press the green button to get the mains isolation facility working again. When taking the bed out of service, the contact to the 9 Volt battery should be released by pulling out the plug.



Mains isolation closed and open

> Tip from Bock

The 9-volt batteries in the control should be tested once a year to see that they are functioning correctly, and be replaced if necessary. In addition visual inspections should be regularly carried out.



9-volt battery for emergency lowering

5. Drive units

Hermann Bock equips all health beds with OKIN drive systems. OKIN 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 OKIMAT drive systems

The OKIMAT dual drive unit for continuous adjustment of lying surfaces and the linear OKIDRIVE as a single drive unit to adjust the height of the lifting chassis each consist of four main components.

- Housing
- Motor
- Gearing
- Spindle with nut

The principle of the housing for the OKIMAT dual drive unit and linear OKIDRIVE guarantee that all components will continue to function for a long time. The special design principle is based on two force-absorbing capsules. The patented, detailed interior design of the housing ensures that the drive technology will sit accurately. Ready-made,

* Warning note from Bock

No drive unit components are allowed to be opened! Only specially authorised technicians are allowed to carry out troubleshooting activities and replace individual electric components. Assembly and disassembly instructions for electrical technicians are given in the "Upgrading with Bock" brochure, in part II - Instructions for electricians.

*** Warning note from Bock**

For reasons of safety, only use original accessories from Bock that have been released for the bed model in question. A precise overview of accessories and extras for your bed is given in a separate data sheet. Hermann Bock GmbH will assume no liability for any accidents, damage, injury and risks that come about through the use of other accessories.



Fig. 1

6. Accessories

6.1 Special sizes

At Hermann Bock GmbH, special sizes are standard models in our production processes.

Occupants with a particular physical build can only lie with optimum comfort if the beds have been specially made for them. With our special sizes, Hermann Bock enables every care bed to be tailored specifically to the occupant's physical condition.

6.2 Assembling accessories for kängbo 90 x 200

Lifting pole with grab handle, 6.5 kg (Fig. 1)

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

Package: 1 lifting pole with mounting ring, 1 grab handle

- Insert the lifting pole in the headboard receptacle and arrest it, attach the grab handle to the mounting ring.
- The height setting of the triangle should be at a distance of no less than 550 mm to ≥ 700 mm from the upper edge of the respective mattress (mattress height of 100 mm and 120 mm) to the lower edge of the horizontal grip.

6.3 Mattresses

Basically all foam and latex mattresses that have, at least, a volume weight of 35 kg per cubic meter and do not exceed a height of 10 to 12 cm for the dimensions of 90 x 190 cm, 100 x 190 cm, 90 x 200 cm and 100 x 200 cm can be used for the kängbo care bed for children and youths.



> Tip from Bock

Extensive accessories are available for the kängbo care bed for children and youths. The Bock service hotline will be pleased to advise you about the optimum upgrade option for your bed. Please phone +49 (0)180.5262500



Fig. left: kängbo 90 x 200, fig. right: kängbo 70 x 140

Bock specifications

> kängbo 70 x 140

Total weight:
ca. 92 kg

Lying surface area:
70 x 140 cm

External dimensions:
82 x 157 cm

Safe capacity:
170 kg

Max. person weight:
135 kg

Height adjustment range:
34 - 84 cm

Max. angle to horizontal:
Back section 70°,
Lower leg section 20°

Noise level:
< 65 dB(A)

Special widths not possible!

7. Setting up and operating – kängbo

7.1 Design and purpose

The kängbo is a special care bed for children and young people and was conceived for use in domestic care. The bed corresponds in particular to the desire for security, safe freedom of movement and unobstructed view to all sides. The extremely low bed depth of 35 cm enables safe and comfortable getting in and getting out.

- > The kängbo is not suitable for deployment in hospitals.
- > The kängbo is suitable for transport of patients. The bed can move whilst occupied by a patient. To do this first lock the castors, lower the lying area to its lowest setting, and set horizontally. Unlock the castors and move the bed.
- > The kängbo can in some circumstances (when required) be applied for medical purposes together with other electro-medical devices (e.g. extraction equipment, ultrasonic atomisers, feeding systems, anti-bedsore systems, oxygen concentrators etc.). In such cases, all the bed's functions must be deactivated by means of the integrated locking facility for the duration of use of the other equipment.

Attention:

The bed does not have any special connection provision for equipotential bonding. Medical electrical equipment connected intravascularly or intracardially to the patient shall not be used. The operator of the medical products is responsible for ensuring that the combination of devices satisfies the requirements of DIN EN60601-1-1.

7.2 Special features

The kängbo is a special care bed for children and youths and as such has special equipment and safety-relevant characteristics. The care bed from Bock is available in the bed size 70 x 140 cm for babies and infants as well as in 90 x 200 cm for larger children, young people and young adults. The kängbo has a decidedly stable construction for a long operating life. Electrical adjustment is carried out comfortably with the Ergo-Plus hand switch with integrated locking function for locking the motor machinery. At only 35 cm, the bed's access height is particularly low, and therefore suitable for children. The kängbo can be continuously moved in height over an adjustment range of 50 cm. The bed is movable in each adjustment position and the area underneath remains free as a result of its complete ground clearance. The sliding door can only be opened from the outside by the release button on the bed frame. It can either be pushed sideways in a space-saving manner and thus the size of the door opening can be varied or be completely folded away from the bed. The break-proof transparent plastic elements are enclosed by a sturdy steel tube without the possibility of putting a hand through. The kängbo 90 x 200 has a quadruply adjustable lying surface with adjustment of the seat comfort position. Additionally the kängbo 90 x 200 is optionally available with closed side elements in wood decor.

> Tip from Bock

Bock supports you with a maintenance instruction as a pre-prepared checklist in accordance with VDE 0751-1 (in security guidelines page 22) for your essential technical security checks. It saves time and gives you the necessary certainty for a thorough execution. From page 22 you can read which services Bock still offers for your checks and controls.

Bock specifications

> kängbo 90 x 200

Total weight:
approx. 129 kg with wood,
approx. 142 kg with glass

Lying surface area:
90 x 200 cm

External dimensions:
102 x 217 cm

Safe capacity:
170 kg

Max. person weight:
135 kg

Height adjustment range:
34 - 84 cm

Max. angle to horizontal:
Back section 70°,
Lower leg section 20°

Noise level:
< 65 dB(A)

Special widths not possible!

7.3 kängbo in parts

The kängbo care bed for children and youths package consists of the following parts:

kängbo 70 x 140

Head resp. food section	1 item
Lying surface with side elements and hand switch	1 item
Sliding door with wood resp. glass	2 items
Backplane with wood resp. glas	2 items



kängbo 90 x 200

Head resp. food section	1 item
Lying surface with motor, hand switch and side elements	1 item
Sliding door with wood resp. glass	2 items
Backplane with wood resp. glas	2 items



Weights of separable kängbo 70 x 140 parts:

Head resp. foot section	25 kg/item
Lying surface with side element and hand switch	20.6 kg/item
Sliding door with wood	6 kg/item
Sliding door with glass	7.1 kg/item
Backplane with wood	9.1 kg/item
Backplane with glass	12.1 kg/item

Weights of separable kängbo 90 x 200 parts:

Head resp. foot section	30 kg/item
Lying surface with motor, side element and hand switch	37.7 kg/item
Sliding door with wood	8 kg/item
Sliding door with glass	11.9 kg/item
Backplane with wood	14.6 kg/item
Backplane with glass	20 kg/item

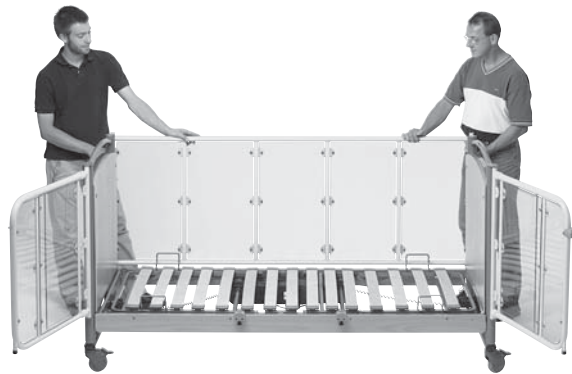
7.4 The kängbo ready for use

The simple assembly of the kängbo should be carried out by 2 persons. A check is first carried out as to whether all construction units are present. Completely remove remaining packing residue and continue to proceed by the following steps:

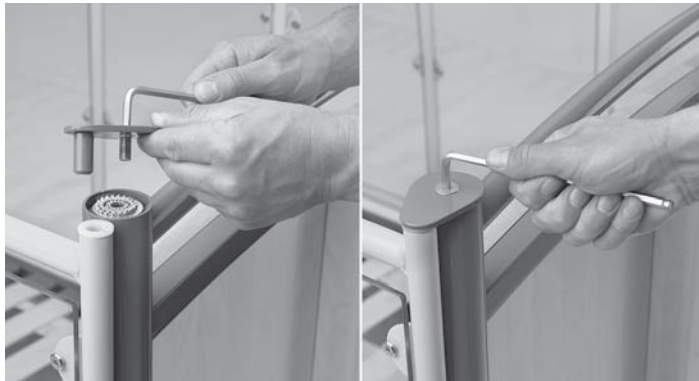
1. Push in the lying surface with pre-mounted decoration screen into the two guide tubes at the head and section part and fix firmly with the enclosed screws.



- Place the closed side element into the lower receiving tubes located on the outsides of the head and foot section.



- Fit the upper connecting cap accurately onto the side section tube and the outer tube of the head and foot part and screw firmly with the enclosed screws.



- Assembly of the sliding door elements is carried out exactly as for the side element. Place the two sliding door elements on the other bed side and screw firmly to the head and foot section.

After assembling the bed and before putting it into service use the control to move the whole lying surface's adjustment range in order to test optimum positioning of the cabling. It must be possible to cross the entire adjustment range without obstruction. The mains cable must run outside the bed, and the hand control must be readily accessible.

Your kängbo is now ready for use!

7.5 Control

The hand control is used to control the settings. The following functions can be controlled by pressing the appropriate button on the hand control:



The new Bock hand control:

Fig. left: kängbo 70 x 140, Fig. right: kängbo 90 x 200

Hand control kängbo 70 x 140

Button 1	Lying surface up
Button 2	Lying surface down

The remaining buttons are not used in kängbo 70 x 140.

Hand control kängbo 90 x 200

Button 1	Back section up
Button 2	Back section down
Button 3	Lower leg section up
Button 4	Lower leg section down
Button 5	Lying surface up
Button 6	Lying surface down

*** Warning note from Bock**

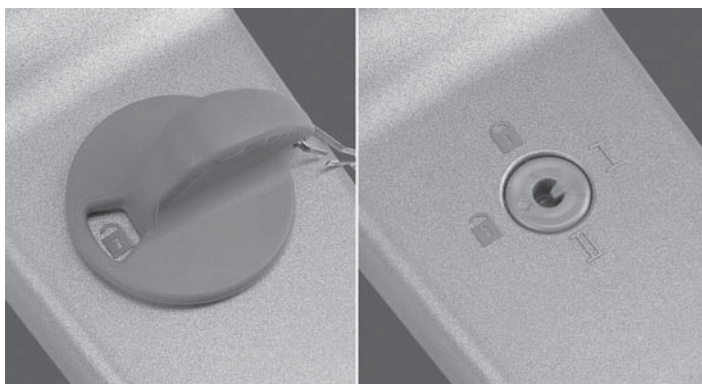
The motors comply with the IPX4 splash-water protection level. The cables must not be squashed. Movable parts must only be adjusted in keeping with the rules for proper usage. Hermann Bock GmbH will not assume any liability for unapproved technical modifications.

Knob position 1
Knob position 2

Hand control functions active
Hand control functions deactivated

Knob positions 3 and 4 are settings for safety controls. Further information on this can be found in the safety guidelines.

The hand control also has an integrated disabler that can be activated or deactivated by its key. To disable the entire electrical function, insert the key into the lock located on the rear and activate or deactivate the disabling function with a corresponding twist of the key.



Key for disabler

7.6 Disassembly

Before starting disassembly pull out the mains plug. The kängbo is disassembled in the opposite order to assembly.

7.7 Relocation

Note the following safety instructions if the bed has to be relocated:

- Before relocating the bed, remove the mains plug and fasten it to the wooden siderail with the suspension device to make sure that the mains cable does not fall down or cannot be run over. It is important that the cable does not drag over the floor.
- Pull plug out of the 9 volt battery. When reconnecting the bed fasten the plug onto the OKIMAT again.
- Place the lying surface in its lowest position.

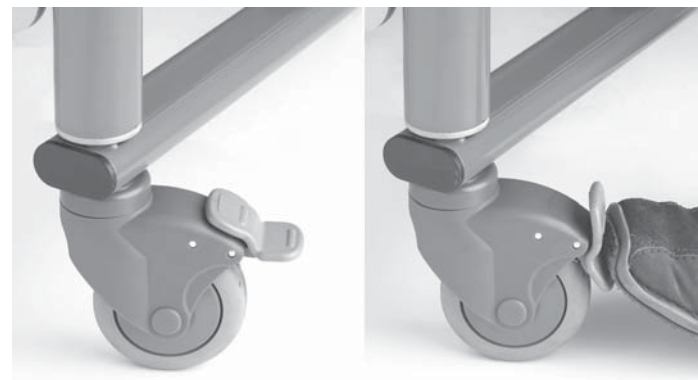
- Before relocating the bed, remove the mains plug and make sure that the mains cable cannot fall down and be run over.
- Before reinserting the mains plug, visually check the mains cable for mechanical damage (bends, pressure points, abrasions and exposed wires).

7.8 Storage conditions

- 0 °C to 40 °C
- Humidity 20% -80%

7.9 Functioning advice

The brakes have to be locked onto the castors in order to fix the bed in one place. The foot lever on the breaking units on each castor has to be depressed downwards.



Foot lever on arresting unit.

7.10 Disposal

The individual plastic, metal and wood component materials are recyclable and can be recycled according to legal regulations.

*** Warning note from Bock**

Never try to fix problems relating to electric equipment yourself as this could endanger your life in certain circumstances! Either get the Bock customer service or authorised electrical technicians to solve the problem; they will comply with all key safety rules and regulations.

Before reuse, the bed has to be cleaned and disinfected. A visual check must also be carried out to check for any mechanical damage. For detail, please consult the "Guaranteed Bock" safety guidelines on pages 26 to 30 in the checklists.

7.11 Troubleshooting

This overview indicates malfunctions that you can easily test and eliminate yourself, and what malfunctions have to be dealt with by experts.

Malfunction	Potential causes	Remedy
The drive units cannot be controlled via the hand control	Mains cable not connected No voltage in the socket Plug of the hand control not fixed firmly Hand control or drive unit defective Mains isolation appliance not activated Disabler or control box in the hand control activated	Connect the mains cable Check the socket or fuse box Check the plug-in connection on the motor Notify the operator or Bock customer service Press the green button to activate mains isolation, and also replace the 9 V battery Deactivate disabler or control box in the hand control
When buttons are pressed, the drive units stop after a short time	There is an obstruction in the adjustment range The safe capacity has been exceeded	Remove the obstruction Reduce the load
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.

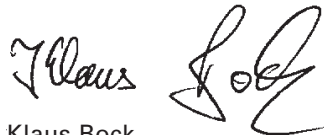
Declaration of conformity

Manufacturer:	Hermann Bock GmbH Nickelstraße 12 33415 Verl
Product:	Care bed for children and youths kangbo 90 x 200
Classification:	Medicine products class I Norm 1 and 12 appendix XI the MDD
Selected conformity appraisal procedure:	Appendix VII the MDD

Hereby we declare that the products specified above fulfil the precautions of the guideline 93/42/EWG of the advice over medicine products. The entire associated documentation is kept in the premises of the manufacturer.

Applied standards:	Harmonized standards for which the proof of the agreement can be supplied: DIN EN 32623:2002-07 DIN EN 60601-1-1996-03 DIN EN 60601-2-38:2001-07 (in support) EN 60601-2-38:1996 + A1:2000 (in support) DIN EN 1970:2000-12 (in support)
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Verl, 24. Februar 2004



Klaus Bock
(Geschäftsleitung)



Jürgen Berenbrinker
(Geschäftsleitung)

.bock[®] ///

Hermann Bock GmbH
Nickelstr. 12
33415 Verl
Germany

Phone: +49 (0) 52 46 92 05 - 0
Fax: +49 (0) 52 46 92 05 - 25
Internet: www.bock.net
E-Mail: info@bock.net