Instructions for use
Models 2080, 3080, 3080 K

VOLKER

Help

Hyperlinks

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Version, Imprint, Type plate

Instructions for Use G57
Version 1.0 (12.02.2009)
for care bed models 2080, 3080 and 3080 K built after March 2003

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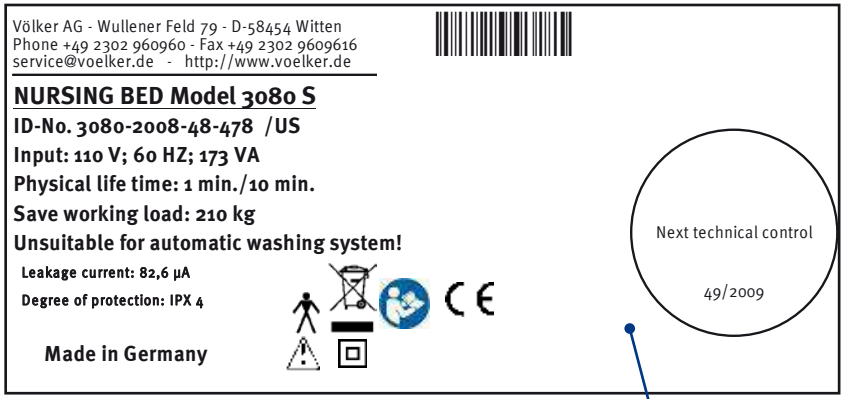
We reserve the right to make changes to reflect technical advances.

The contents of this document are subject to change without prior notification.

Customers are advised to contact the responsible area sales manager before placing an order.

Type plate



The type plate is located on the inside of the head panel.

Raise the rear section to read the type plate.

For further information on the type plate, see Appendix 🕮 67.

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Foreword

We are delighted that you have chosen Völker care beds.

We are also grateful for the trust you have placed in our company and our products.

This step is undoubtedly the result of extensive considerations and examinations of the requirements that you want to make on new care beds based on your previous experiences.

You clearly had good reasons to choose Völker care beds.

We promise you that Völker care beds will not disappoint you.

It is not without good reason, after all, Völker care beds are now regarded worldwide as extremely innovative medical products. This relates not just to the design principle, which has been completely redeveloped by Völker, but also to the range of product advantages that have been checked and improved time and time again based on their practicality in use. These advantages now benefit the patient in terms of comfort, but also make the everyday work of care personnel easier.

Now, every care bed has product features that are of practical benefit to their users. However, as far as we know, none of them offers the range of advantages that a Völker care bed does.

Völker care beds not only look great, but they also offer functions that can be controlled or adjusted mechanically, although most of them are controlled or adjusted using electric motors or electronic components.

If you purchase these beds, the responsibility for their correct and appropriate use is transferred to you. Consequently, we strongly advise that you consult the enclosed instructions for use to learn about the technical features, handling and use of all the functions.

We wish you every success with Völker care beds

Heinrich Völker
Chairman, Völker Aktiengesellschaft

Notes

The **Notes** section contains information on the designated purpose of the product, as well as general safety notes.

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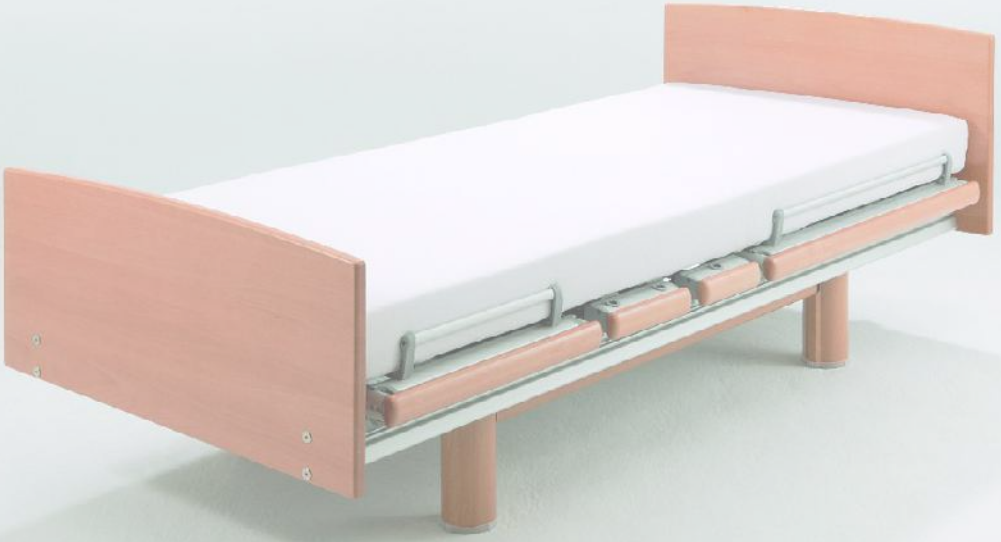

General notes

You have purchased a care bed from Völker AG. This care bed has been built in accordance with the applicable national and international standards and the regulations reflecting the current state of the technological art.

Völker care beds satisfy all the requirements in terms of safety and functionality. They are tested in accordance with international standards and bear the CE mark, which documents the beds' compliance with essential requirements for medical products.

Please read the general safety notes 📖 11. Please also note (with particular attention to any warranty claims) the further notes on the following pages.

Standard design

The standard design of the bed can be supplied with various options. A description of these options can be found in the section entitled Versions and Options 📖 23.

Copyright protection

Warranty and liability

Völker AG is liable for any faults or failures, not including further claims arising in the context of the warranty obligations detailed in the main agreement. Claims for compensation, for whatever legal reason such claims may be raised, will not be entertained.

We reserve the right to make technical modifications as part of the further development of the care beds which form the subject of these instructions for use.

We accept no liability for damage and operational faults caused as a result of misuse and/or non-observance of these instructions for use.

The portrayal of the accessories does not necessarily match the actual product.

Correct use

Völker care bed models 2080, 3080 and 3080 K are designed for the laying down and care of patients in care institutions, hospitals and in suitable rooms in residential buildings.

The bed is intended for use by people over the age of 12 or who are taller than 146 cm.

The bed's safe working load is 210 kg. The maximum permissible weight of the individual is derived by deducting the weight of the mattress, the trapeze handle and other accessories from this.

Any use of the Völker care bed other than for the purpose intended excludes the company from any possible liability.

Inappropriate use

Inappropriate use can cause danger. These include, but are not limited to:

- Incorrect actuation of electrical functions and uncontrolled positioning;
- Operation of the care bed by the occupant without having received prior instruction in how to do so;
- Use of electrical equipment on the bed that is not intended for such use (subject to the operator's obligation to exercise care);
- Pulling on cables to move the bed;
- Loosening electrical plug connections by pulling on the cable;
- Use of the bed on a sloping base with more than ten degrees of inclination (the bed's brakes are designed for an angle of inclination of no more than ten degrees);
- Any attempt to move the bed while it is in braked position;
- Use of the bed to transport people;
- Use of the bed for transport with a vehicle;
- Overloading of the bed beyond the specified safe working load.

⚠ **CAUTION** If, in an emergency situation, it is impossible to avoid putting children under the age of 12 or people who are less than 146 cm tall in the bed, protective covers must be placed on the side rails. This also applies to the use of the bed by weak or confused patients.

General regulations

The care bed must only be operated and used in accordance with its designated purpose, in line with the conditions of the Medical Products Directive (MPG) and approved legislation pursuant to this, the generally acknowledged rules of technology and the stipulations of occupational safety and accident protection guidelines. The care bed must **not** be operated in a faulty state that could endanger its occupant, care personnel or third parties.

User training

The care bed may only be operated by individuals whose training or understanding and experience offer surety for correct handling (Medical Products Directive).

User instruction

The thorough induction of care personnel in the operation of the bed can be provided by Völker or its representative at the customer's request.

Attendance of such training can be certified and confirmed by Völker using the form provided for this purpose, specifying the name, date and signature.

Patients must be instructed in the use of the bed before care personnel hand over the hand control to them.

Other requirements

Whoever is in charge of the activation, operation or preparation of the bed must have been given a copy of these instructions for use (in printed or electronic form) and have read them.

To avoid operating errors and to safeguard the smooth operation of the bed, care personnel must always have access to the safety notes below.

Warning symbols
Information marked with this symbol must be read and its content strictly observed.

DANGER represents an immediate threat of danger that can cause serious physical injury or death.

WARNING represents potentially dangerous situations that can lead to serious physical injury or death.

CAUTION represents potentially dangerous situations that can cause slight physical injuries.

NOTE warns of potential damage to objects or property.

Before first activation

Before the care bed is put into action for the first time, care personnel must read these instructions for use in full and with care.

Before the bed is activated for the first time, care personnel must be instructed in the handling of the bed using the instructions for use. The potential dangers that can arise despite correct operation of the bed must also be pointed out in full.

Before and during use

Before each use of the bed, the user must be sure that the bed is in a good, safe condition and will ensure safe use (Functional check 🕮 33).

Position of the care bed

CAUTION To avoid injuries caused by falling, we recommend (except while care is being given) that the bed is generally set at its lowest position when the castors are raised.

Transporting the bed

CAUTION The care bed is not designed for transporting people. When the bed is being transported, it must always be ensured that the mains connection cable is not touching the floor and that the lying surface is in a horizontal position as low down as possible. The bed should only be moved on a solid floor. Never attempt to push it over obstacles of over 1 cm in height. The maximum angle of inclination of the floor must not exceed 10°.

Securing the bed

CAUTION "Risk of accident"
If the bed is not being transported, the castors must always be raised, since the bed may be required as a support for when the occupant stands or lies down. If the bed rolls away while the castors are down, this can lead to a serious fall. Once the castors have been raised 📖 36, it must be checked that the bed is actually securely parked, i.e. the castors are completely raised. The bed can be in a non-fully-braked status even after first activation or reactivation, and consequently it must be checked that the castors are correctly raised.

One-sided load on the bed

NOTE In order to prevent one-sided loads on the bed, it must not be used as a seat for persons other than the occupant (i.e. visitors must not sit on the edge of the bed).

Side rails

WARNING "Risk of entrapment"

Where the physical or mental status of a patient deems it necessary to use side rails to prevent the patient from falling out of bed, the following safety measures must be observed:

- It must be checked that the use of side rails is permissible by law.
- The side rails may only be operated by trained care personnel.
- Ensure that the side rails (or parts thereof) are either completely raised and locked in position, or completely lowered.
- It must be ensured that the occupant does not come into contact with the side rail elements when the electrical lying surface adjustment mechanism is actuated. Equally important is that no parts of the body are sticking out through the side rails.
- If the side rails are used for a child or a person whose psychological status deems their use necessary, then it must be ensured that the hand control is kept out of their reach or is blocked. It is also strongly recommended that side rail protective covers are used.

- If these safety measures are not observed by care personnel, injuries to the hands, knees, fingers, feet and hips, haematomas or other injuries can occur as a result of entrapment. Where children or individuals who are less than 146 cm tall are concerned, non-observance of these measures can cause death!

⚠ **WARNING "Risk of entrapment"** On model 2080, the side rails must either be fully raised and securely locked in position, or be completely lowered.

⚠ **WARNING "Risk of injury"** If the side rails are damaged, the bed must not be used and must be repaired.

Height adjustment

⚠ **DANGER "Risk of entrapment between the lower frame and/ or floor and the bed frame when the bed is lowered"** It must be ensured that no people, limbs, pets, bed linen or other objects are caught between the bed frame and the lower frame and/or floor.

⚠ **DANGER "Danger of movement"** If any movement of the bed could represent a danger to the occupant, all functions must be blocked.

Accessories

⚠ **WARNING "Risk of injury"** Only original Völker accessories must be used! Third-party accessories must be subjected to testing before use.

Use of lifting devices

⚠ **WARNING "Risk of injury"** No lifting device must be fastened directly to the bed (patient transport, repair).

The lifting devices specified are appliances that can be attached to the bed for transport purposes.
Patient lifters can be used.

Use of oxygen equipment

⚠ **DANGER "Risk of fire"**
Do not use any oxygen equipment other than that which is delivered via nasal prongs or masks. Do not use this bed in a room where there is a risk of explosion.

(Provided it has been ensured (e.g. through information in the instructions for use supplied with the equipment being used) that the use of the equipment will not raise the O_2 concentration to such a high level that there is the risk of explosion (even when no fault occurs), the device can be used).

Rail spacers

When using the rail spacer, read the separate instructions for use applicable to this accessory. During technical checks, the rail spacers should be checked to ensure they are suitable for the size of side rail used.

Cleaning and disinfection

In order to maintain a consistent functional capability, the care bed should be cleaned, disinfected and tested at the soonest possible opportunity following each use, so that it can be reused immediately without risk.

Risks can occur if the bed is not subjected to proper cleaning/disinfection 🕮 49.

Maintenance and repair

Every individual involved with maintenance and repair must at least have read the safety regulations and the service manual, and be trained and qualified in accordance with Medical Devices Operator Ordinance (MPBetreibV) §§ 4 and 6.

After maintenance work or repairs have been carried out, a technical check 🕮 54 must be carried out. During this check, it must be determined that the bed can be used in accordance with the specifications without risk to the occupant, user or third party.

The technical check must be carried out at least once a year and after every lengthy period of non-use.

Any discernible damage, such as signs of wear and tear, loose screws or breaks/fractures must be eliminated immediately.

Electromagnetic / static interference

The care beds in model series 2080, 3080 and 3080 K satisfy the EMC requirements in accordance with the law on medical products (MPG). The basis for testing is standard EN 60601-1-2.

Functional description

The features of the Völker care bed and its function are set out in the section **Functional description**.

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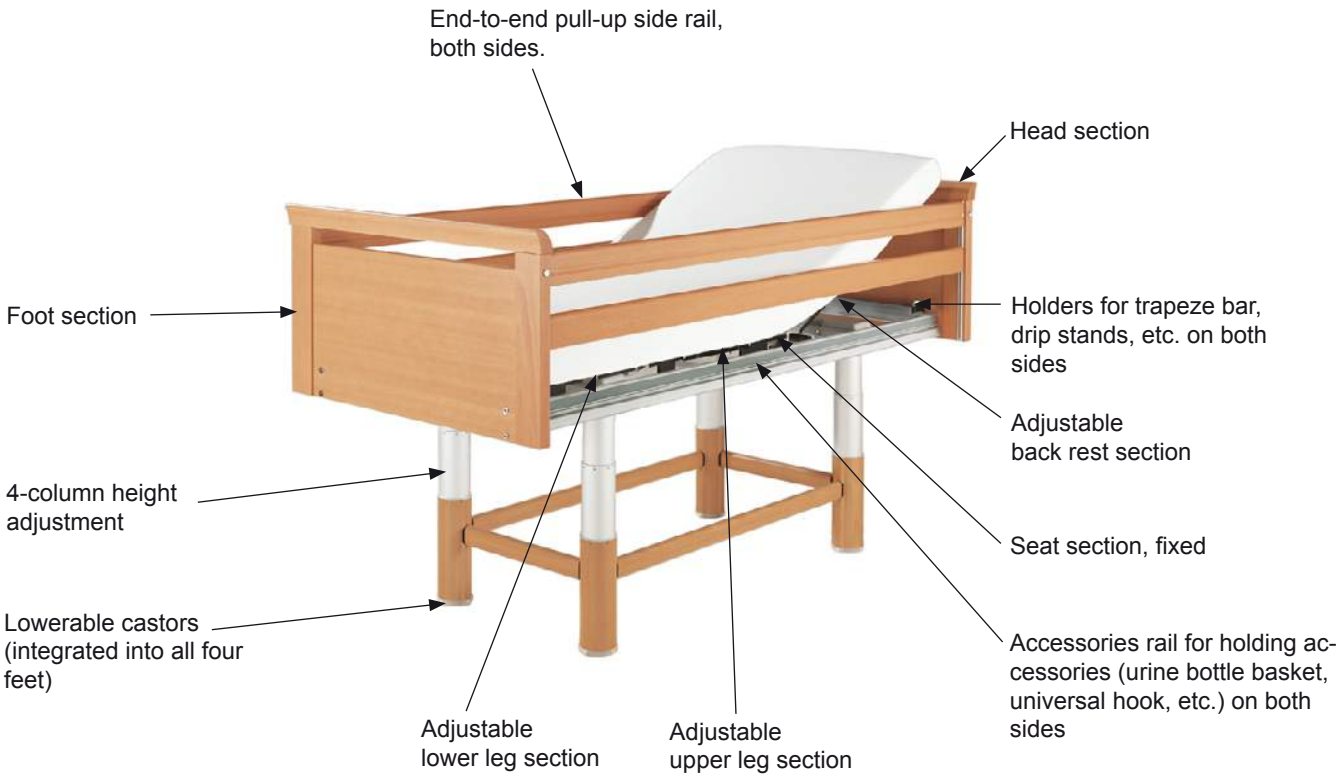
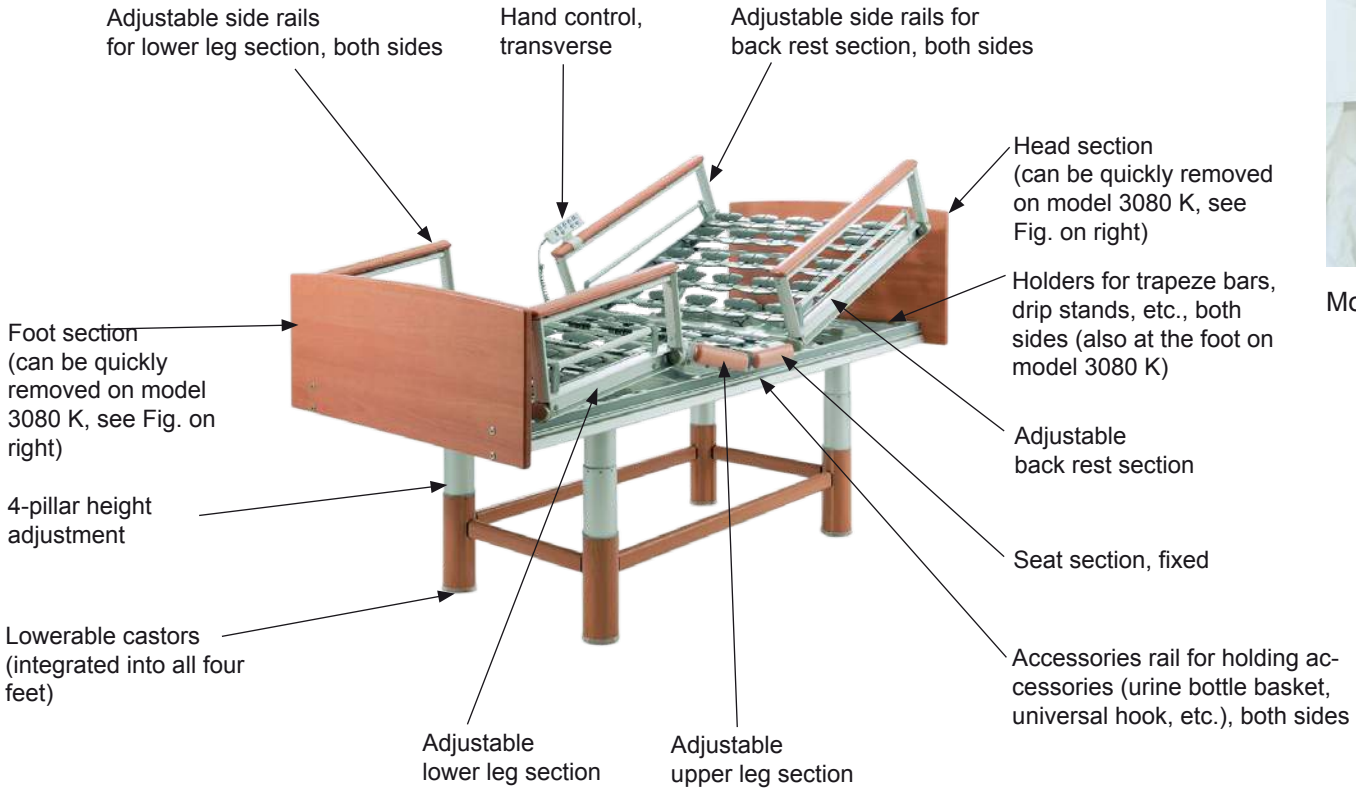
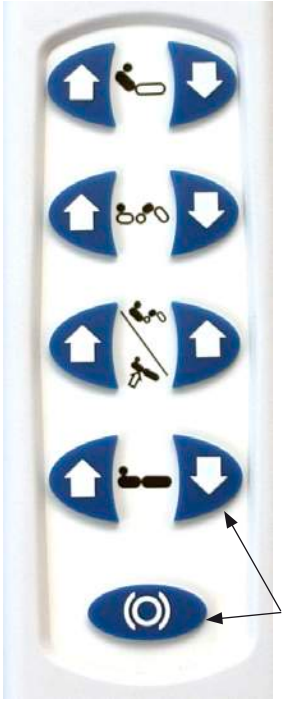

End-to-end pull-up side rail, both sides.
Head section
Foot section
Holders for trapeze bar, drip stands, etc. on both sides
Adjustable back rest section
4-column height adjustment
Seat section, fixed
Lowerable castors (integrated into all four feet)
Accessories rail for holding accessories (urine bottle basket, universal hook, etc.) on both sides
Adjustable lower leg section
Adjustable upper leg section


Adjustable side rails for lower leg section, both sides
Hand control, transverse
Adjustable side rails for back rest section, both sides
Head section (can be quickly removed on model 3080 K, see Fig. on right)
Holders for trapeze bars, drip stands, etc., both sides (also at the foot on model 3080 K)
Foot section (can be quickly removed on model 3080 K, see Fig. on right)
Adjustable back rest section
4-pillar height adjustment
Seat section, fixed
Lowerable castors (integrated into all four feet)
Accessories rail for holding accessories (urine bottle basket, universal hook, etc.), both sides
Adjustable lower leg section
Adjustable upper leg section

Model 3080 K

Functional description | Hand control with hook



Back rest section up

Back rest section down

Upper leg section up

Upper leg section down

Anti-Trendelenburg positioning[1] (optional)

Auto-Contour [2] (optional)

Lying surface up

Lying surface down

Lower the castors [3]

Reverse:

Hand control unblocked

Hand control blocked

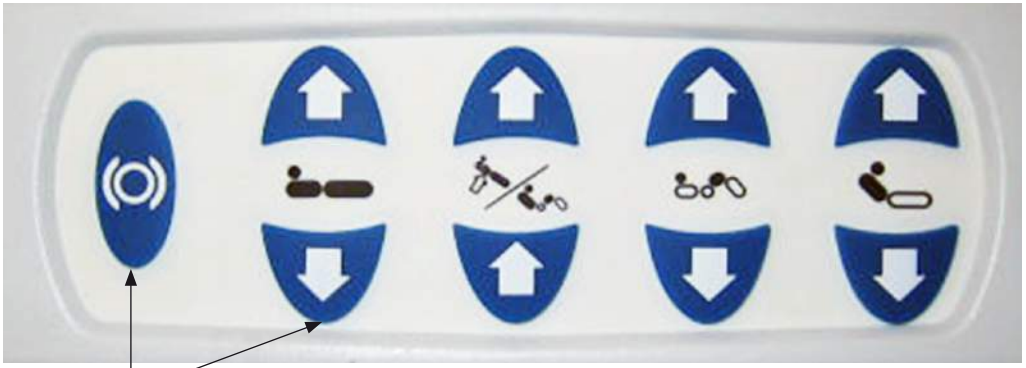
[1] Head end raised

[2] Back rest and upper leg section raised

[3] Press both buttons simultaneously. The lying surface moves to the lowest position and the castors lower.

⚠ **WARNING** When the motorised adjustments are actuated with the side rails up, it must be ensured that the occupant does not have any contact with the side rails, or that any parts of either the patient's body or of other persons are sticking through the side rails!

Functional description | Transverse hand control (option)



Reverse:

Hand control unlocked

Hand control locked

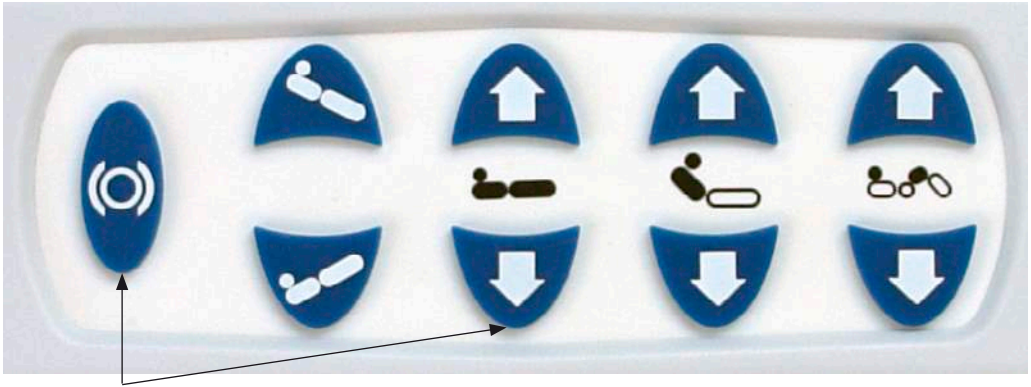
[1] Head end raised

[2] Press both buttons simultaneously.
The lying surface moves to the lowest position and the castors lower.

[3] Back rest and upper leg section raised

⚠ **WARNING** When the motorised adjustments are actuated with the side rails up, it must be ensured that the occupant does not have any contact with the side rails, or that any parts of either the patient's body or of other persons are sticking through the side rails!

Functional description | Personnel keypad with complete lock-out 1/2 (option)



[1] Head end raised

[2] Press both buttons simultaneously. The lying surface moves to the lowest position and the castors lower.

[3] Head end lowered

[4] The personnel keyboard can be equipped with an automatic function (double-click) on a country-by-country basis (see next page).

⚠ **WARNING** When the motorised adjustments are actuated with the side rails up, it must be ensured that the occupant does not have any contact with the side rails, or that any parts of either the patient's body or of other persons are sticking through the side rails!

Reverse:

Keypad unblocked

In this position, the keypad and hand control are completely blocked.

Double-click function "Lying surface up/down"

The personnel keypad can be equipped with an automatic function (double-click) for lying surface height adjustment on a country-by-country basis.

With a double-click on the "Lying surface up" or "Lying surface down" button, the lying surface moves to the highest or lowest position, respectively. This function can be stopped at any time by pressing any button.

⚠ **WARNING "Risk of entrapment"**
If the double-click function is being used, the care giver must supervise the occupant of the bed until the adjustment procedure has completed.

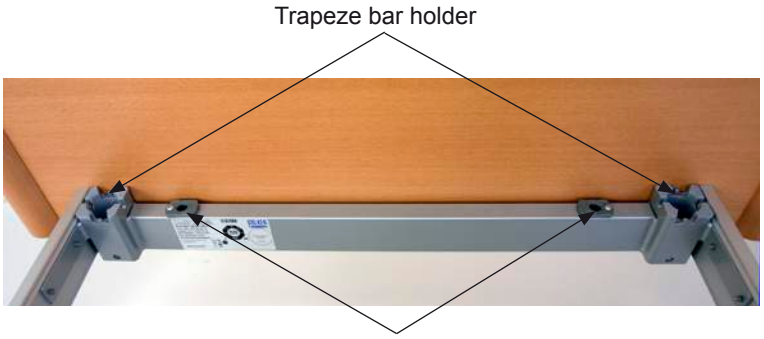
⚠ **DANGER "Risk of entrapment between the lower frame and/or floor and the bed frame when lowering the bed"**
It must be ensured that, during adjustment procedures, no people, limbs, pets, bed linen or other objects are trapped between the bed frame and the lower frame and/or floor.

On the inside of the head panel are holders for the trapeze bar and accessories.

The trapeze bar and other accessories must be slotted into the holders until they audibly engage.

⚠ **WARNING "Risk of injury"**
Ensure that the trapeze bar is completely slotted into the holder and securely seated.
Note: the safe working load of the trapeze bar is max. 75 kg.

⚠ **WARNING "Risk of falling"**
The trapeze bar must not be used by the patient as a means of climbing into the bed.
The trapeze bar must never jut out beyond the outer edge of the bed and then be used as a pulling-up aid (e.g. when getting out of a wheelchair).



There is an accessories rail on either side of the bed to accommodate accessories.

Functional description | Versions and Options 1/2

The standard designs of the care beds can be supplied with various versions and options:

Version / option	Description
Hand control (versions)	1. With hook (standard) *:  2. Transverse on the side rail (option; only possible with model 3080 and 3080 K) *: 
Personnel keypad (options)	1. In drawer:  2. In bed linen storage area:  3. Clicked into the accessories rail: 

* Hand control with buttons for anti-Trendelenburg positioning and / or Auto-Contour are optionally available.

Version / option	Description
Bed extension (option)	Models 3080 and 3080 K can be extended by 20 cm with a telescopic bed extension.
Side rails (versions)	Models 3080 and 3080 K can be equipped with various side rail versions: Back rest / lower leg section: 1. Can be pulled out up to 34* cm (standard) 2. Can be pulled out to 40* cm (version) * Measured from the top edge of the side rail to the lying surface (without the mattress).

These instructions for use cover all of the versions and options listed.

Precise details of the supplied bed designs can be found in the order specifications for your beds. If the original bed specification should no longer be available, please contact Völker Customer Services. Make a note of the Völker serial number (ID No.) on the type plate 🕮 67 before you call.

Functional description | Accessories 1/2

To offer the greatest possible degree of flexibility, Völker offers a wide range of easy-to-attach accessories. The care beds are equipped as standard with holder devices for accessories, such as drip stands and trapeze bars. Urine bottle baskets, universal hooks, standard bars, etc., can be mounted on the accessory rails provided on both sides of the bed.

Further information about accessories can be found in our current information brochure or on the Internet at www.voelker.de 🕮. Our staff will gladly provide you with more details on the accessories that are available for your bed model.

⚠ **WARNING** Only original Völker accessories should be used! Third-party accessories must be subjected to testing before use.

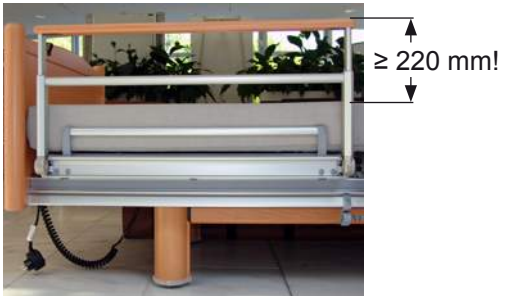
Mattresses

Mattress size	Mattress frame size	Density
88 x 200/210/220 x 12 cm	90 x 200/210/220 cm	40-50 kg/m³
98 x 200/210/220 x 12 cm	100 x 200/210/220 cm	40-50 kg/m³

To minimise the risk of injury, only use mattresses with the dimensions and properties detailed above. If you do not use Völker mattresses, please contact a dealer in whom you have confidence.

⚠ **DANGER** If mattresses are used that do not match these specifications, there is a risk of suffocation!

⚠ **DANGER** The height of the raised side rail above the mattress must always be greater than or equal to 220 mm; otherwise the occupant of the bed may accidentally fall out of bed. Please note that the height of the mattress has a direct influence on this.



Use of securing systems

Securing systems such as belts or straps should only be used exactly as specified by the manufacturer.

If securing systems in the form of abdominal belt are used, then it must be ensured that the side rails are completely raised. On models 3080 and 3080 K, the gap in the middle of the rails must always be closed using a rail spacer.

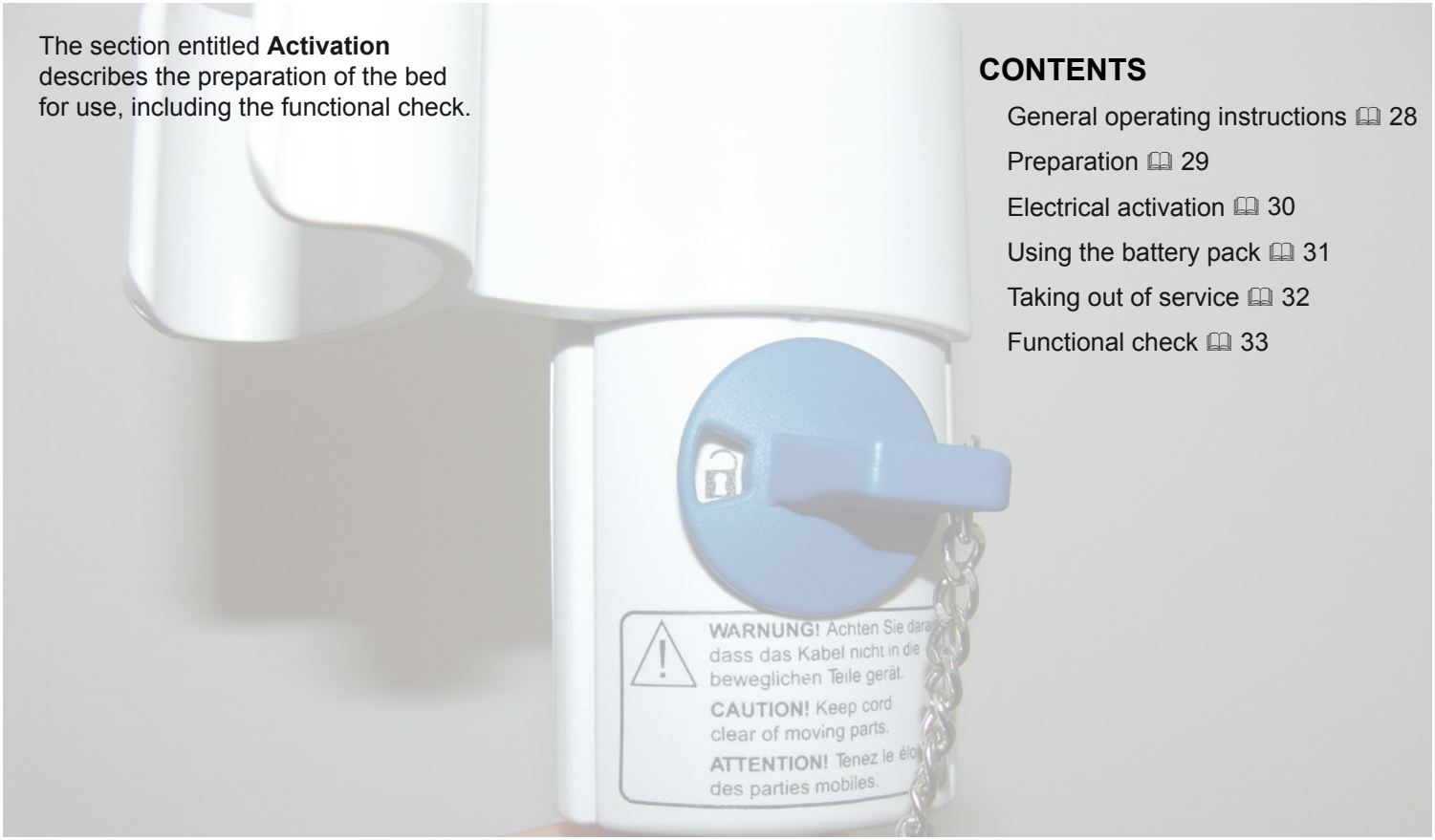
⚠ **DANGER** When using securing systems and rail spacers, please note the separate instructions for use pertaining to these accessories.

The lying surfaces must **never** be adjusted while the patient is secured **and** must always be in the lowest position!

The lying surface adjustment functions must be locked-out when a patient is secured, and the hand control must be kept out of the bed occupant's reach!

Activation

The section entitled **Activation** describes the preparation of the bed for use, including the functional check.



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On-time

The maximum duty cycle for the electromotive bed functions is specified on the bed (type plate 📖 67) or in the technical data sheet.

1 min/10 min. means that each electromotive adjustment may be operated for a maximum of 1 minute in 10 minutes (protection against overheating).

> ***NOTE*** Should the maximum duty cycle of 1 minute be exceeded repeatedly or for longer, safety cutout devices on the bed may cause the electromechanical motor system to stop. The bed must not be manoeuvred using the motors until it has cooled down sufficiently! In the event of severe overloading, damage can occur to the motor.

Battery pack (option)

The battery pack in the bed has a charge capacity that is equivalent in theory to a constant operation of 2 lifting and lying surface adjustments with a working load of 210 kg.

> ***NOTE*** If the bed is parked at its location and the mains plug is not connected, this will cause self-discharging of the battery pack!
>
> Fully discharged battery packs can be damaged to the extent that premature replacement is needed!
>
> Appropriate and correct use of the battery is essential for achieving a long service life for the battery pack!

In order to guarantee electrical functionality at all times, the bed should be connected to the mains when ever possible.

Safety cut-out device

The bed is equipped with an electrical, self-resetting safety cut-out device that prevents overloading of the motor systems. In the event of very severe overloading, the bed is automatically switched off.

Conditions for set-up

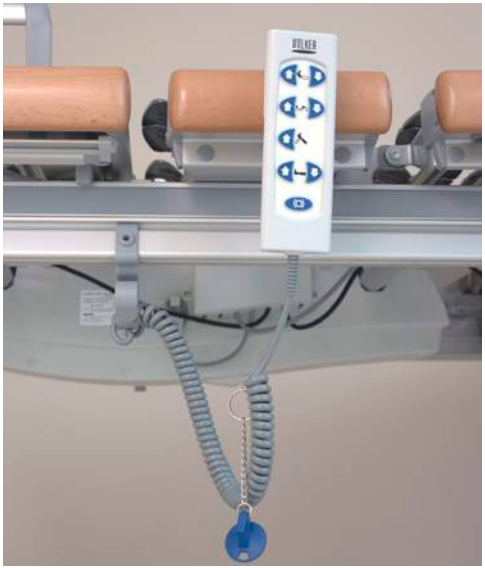
The bed is only approved for use in dry rooms (see technical data sheet). A mains power supply and possibly a potential connector are required for operation of the bed in any suitable room.

Mechanical activation

The supplied head and foot sections must be slotted into the corner connectors on the bed frame (model 3080 K only).

Hand control connection

The hand control should be connected to the socket provided, where appropriate. The spiral cable must be routed so that it is not under tension.



Routing the hand control cable

Bed transport

The bed can be moved without auxiliary transportation devices. To do this, set the bed to transport mode (lower the castors 📖 36).

⚠ **CAUTION** The care bed is not designed for transporting people. If a patient is lying in the care bed, it must be pushed. The bed should only be moved on a solid floor. Never attempt to push it over obstacles of over 1 cm in height. The maximum angle of inclination of the floor must not exceed 10°.

NOTE The bed must be transported by at least two people, taking hold of the bed at the head and foot section.

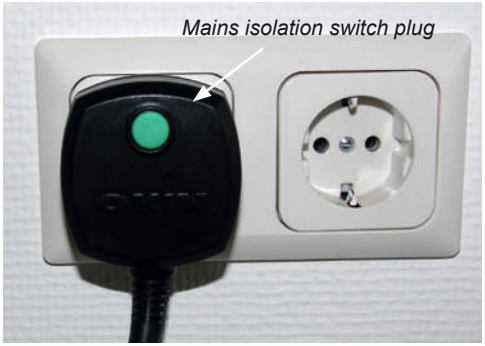
Bed transport by at least two people

⚠ **WARNING** Ensure that the plug connection between the mains cable and the lying surface adjustment motor is correctly positioned!

⚠ **WARNING** Check the mains cable for damage.
If the cable is damaged, the bed must not be used and must be taken out of service immediately!

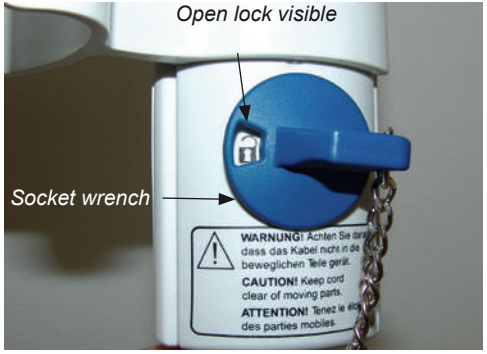
NOTE Please be aware that incorrect handling of the mains isolation can lead to the battery pack (optional) no longer charging. Incorrect handling includes, but it is not limited to, allowing the mains isolation switch to fall, pulling the mains isolation switch cable to release it from the socket and driving over the cable when transporting the bed.

1. Connect the mains isolation switch plug to the mains power socket.



2. Press the green button on the mains isolation switch plug for a second to allow the mains connection.

3. Unlock the lock-out switch on the reverse of the hand control and the personnel keypad (optional) using the socket wrench (open lock visible) in order to activate the bed's electrical functions.



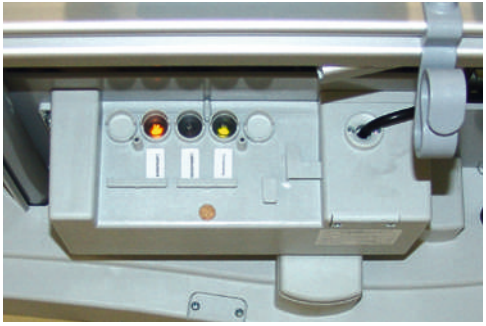
Activation | Using the battery pack (option) 1/2

The battery pack (option) allows the bed to be operated independently of the mains supply for at least three adjustment cycles.

The LED displays three colours:

Green	The battery pack is connected to the mains supply. The charging cycle is running.
Orange	The battery charger is being charged. The bed should not be operated independently of the mains supply.
Red	DANGER ZONE. The battery pack must be charged. The bed cannot be operated independently of the mains supply.
All lights off	The battery pack is fully charged: the mains cut-off is activated. No current flows in standby mode.

If you hear a beep, the battery pack needs to be recharged. The beep becomes weaker as the battery pack's charge diminishes. The battery pack is switched off shortly before deep discharging. After the bed is connected to the mains supply, press any button on the hand control to render it fully functional again. The battery pack is charged when it is connected to the mains after every use or if the charge has fallen too low.



NOTE If the bed is stored for a long period without being connected to the mains supply, the battery pack can discharge. The degree of discharge depends on the environmental conditions.

NOTE During the charging cycles, the battery pack is connected to the mains supply and is therefore fed with electricity. The LED displays the battery pack's charging status during the charging cycle. The current cut-off is deactivated and current flows to the bed.

⚠ **WARNING** If electromagnetic interference occurs with other equipment in the area around the bed, please refrain from using these devices.

When the bed is being transported, it must always be handled carefully and protected from moisture.

NOTE The bed is designed for use in an ambient temperature range from 10 °C to 40 °C, with a relative humidity of 30% to 40% and an air pressure of 700 to 1060 hPa.

⚠ **WARNING** The battery pack must only be replaced by personnel trained by Völker AG.

⚠ **WARNING** If the battery pack is faulty, degassing can occur. In rare cases, this can cause deformation of the battery pack housing. If this occurs, the bed must be immediately taken out of service and taken to an adequately ventilated room without sparks (electrical or fire). Immediately inform customer services should this occur!

⚠ **WARNING** The battery pack must be disposed of in an environmentally responsible manner using the appropriate services. Alternatively, you can return it to Völker AG for disposal.

To activate the hand control and the personnel keypad once the bed has been activated, the function key lock-out must be disabled 🕮 35.

Taking out of service

The bed is taken out of service by disconnecting it from the mains supply. To do this, the mains plug is disconnected from the mains socket and, if necessary, the optional battery pack disconnected from the control unit. If the bed is to be out of service for a period longer than two weeks, then the 9V battery must also be disconnected from the motor.

To disconnect the 9V block battery, remove the two screws from the battery compartment lid on the two-side drive.

Then pull the contact strip off the battery.

Visual inspection

Before each new occupancy of the bed, the following checks must be carried out:

1. Ensure the bed exhibits no visible signs of damage.
2. Ensure that the insulation of the electrical cables is intact.
3. Ensure that the next testing date has not been missed (see testing label).

⚠ **WARNING** Only undamaged beds that are still within their testing interval periods may be used!

Functional check

A functional check must be carried out before each new occupancy:

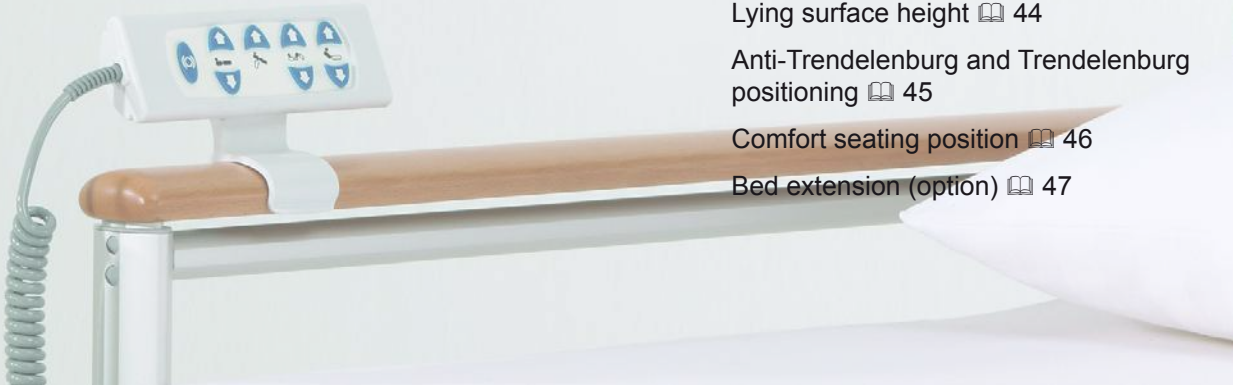
1. All electrical functions must be actuated once to their terminal positions.
2. The function of all side rails must be checked.
3. The secure position of the bed must be checked.

Once a fault-free functional check has been carried out, the bed is ready for use.

Operation

The **Operation** section provides you with all the information required to operate the Völker care bed.

CONTENTS



Operation | Key lock-out

Activating the key lock-out disables all of the bed's electrical functions.

The lock-out switches are located on the reverse of the hand control and the personnel keypad (option). They are unblocked and blocked with the socket wrench (open lock visible).

If the bed functions cannot be actuated, check whether the key block is engaged or not.

The socket wrench should be removed from the bed when it is not required.

Hand control or keypad locked

Hand control or keypad unlocked

If the personnel keypad is locked, the hand control is also automatically locked (system lock).

If only the hand control is locked, the personnel keypad retains its full functionality.

To move the bed, the castors integrated into the four feet of the bed must be lowered. The lying surface must be in its lowest position before this can be done.

⚠ **CAUTION "Risk of accident"**
If the bed is not being transported, the castors must always be raised, since the bed may be required as a support for when the occupant stands or lies down. If the bed rolls away while the castors are down, this can lead to a serious fall. Once the castors have been raised , it must be checked that the bed is actually securely parked, i.e. the castors are completely retracted.

NOTE The bed is not suitable for transporting the occupant.

Lowering the castors

1. Move the lying surface to its lowest position by pressing the button.
2. Press the button while holding the button down until the lifting device automatically switches off.

The bed is now standing on its four castors and can thus be moved easily.

Raising the castors

1. Press the button on the height adjustment control.

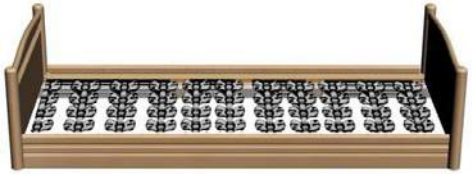
The castors retract into the pillars of the lower frame so that the bed stands firmly on four floor protection caps.

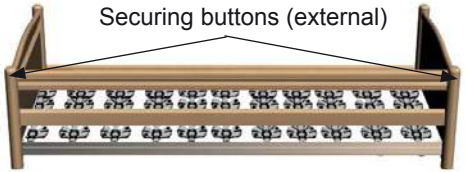
⚠ **WARNING** All people whose duties involve using the side rails must have read and understood the following information:

- During actuation of the back rest, upper leg or lower leg section adjustment, of the lift or of the side rails, it must always be ensured that the patient is not touching the side rails, and that no part of their body is sticking out through the side rails.
- If the side rails are used for a child or for a patient whose psychological state would deem their use necessary, then it must be ensured that the hand control is kept out of their reach. In all cases, care must be taken to ensure that no dangers or risks can arise.
- Protective coverings are available as an accessory for the side rails. These provide additional protection against injury from contact with the side rails. The use of these protective covers is recommended for all individuals where the risk of injury caused by unavoidable contact with the side rails is very high. The use of these protective covers, however, does not absolve care providers or the patient of the obligation to exercise the appropriate care and attention when operating the bed.
- If the side rails are used, they must always be either completely raised and securely engaged, or completely lowered to the end stop. Because of the risk of entrapment, they must **never** be left in a position where they are not completely engaged.
- If the side rails are damaged, there is a risk that the patient will fall out of bed.

Raising the side rails

To raise the side rails, take hold of the grip recess and lift it first at the head end and then at the foot end until the rail audibly engages.





Lowering the side rails

To lower the side rails, take hold of the grip recess and lift it slightly.

Press the securing button on the side and then allow the side rail to lower using your hand first at the foot end and then at the head end.

⚠ **WARNING "Risk of entrapment"**
On model 2080, the side rails must be either completely raised and securely engaged or be in the fully lowered position.

For safety reasons, the side rails cannot be released when there is pressure being exerted on them from above.

Two configurations are possible for the side rails on model 2080:

All side rails down: the bed is accessible without restriction from both sides.

All side rails up: The occupant enjoys maximum protection against rolling out of bed.

Raising the side rails

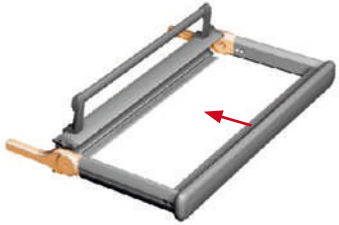
1. Pull the side rail element out horizontally sideways until the end stop, and fold it upwards.
2. To adjust the height of the side rail, pull the telescopic section upwards until it reaches its end stop.

Lowering the side rails

1. Press both buttons on the outside of the frame, right under the cross-member, to bring the height-adjustable rail element to its lowest position.

2. Press the "Drücken / Push" trigger at the lower end of the side rail element and tilt it sideways into the horizontal plane, so that it lies parallel to the floor.

3. Push the rail element completely underneath the lying surface.



The side rail elements can be used various configurations as required to protect the occupant of the bed.

Raising all four rail elements offers the occupant maximum protection.

⚠ **WARNING** The side rails should always be gripped with two hands at the ends of the element in question and guided upwards or downwards.

⚠ **CAUTION** Any weight on side rail elements that are pulled out horizontally must not exceed 15 kg!

NOTE Due to their exceptional stability, the side rail elements can also be used as a surface for storing bed linen (max. 15 kg) or as an additional supporting surface for care-related positions, such as Bobath treatments, or for the delivery of physiotherapy-related treatments.

Operation | Back rest section

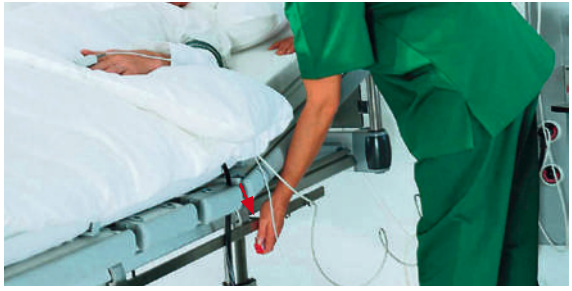
The back lying surface can be adjusted using the hand control or the personnel keypad (option).

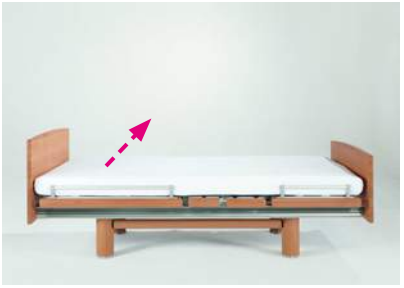
If necessary, disable the keypad lock 🕮 35.

The back rest section of the lying surface can be raised up to an angle of max. 70°.

⚠ **WARNING** When the back rest section is being raised with the side rails up, it must be ensured that none of the occupant's or any other person's body parts are sticking out through the side rails or are on top of them!

Option: rapid lowering of the back rest section for resuscitation (CPR):

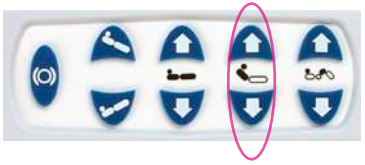




Back rest section up / down

Back rest section up / down

Hand control



Personnel keypad (option)

⚠ **WARNING "Risk of entrapment"** When adjusting the position of the back rest section, do not touch the frame in the area of the back rest section!

Operation | Upper leg section

The position of the upper leg lying surface can be adjusted using the hand control or the personnel keypad (option).

If necessary, disable the keypad lock 🕮 35.

The upper leg section of the lying surface can be raised up to an angle of max. 45°.

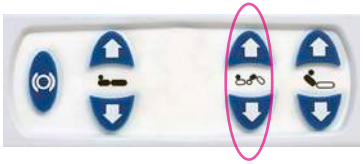
⚠ **WARNING** When the upper leg section is being raised with the side rails up, it must be ensured that none of the occupant's or any other person's body parts are sticking out through the side rails or are on top of them!

Please note that the position of the lower leg section can be adjusted by pulling on the mattress holder (or on model 2080 on the lying surface) (see also next page).

⚠ **WARNING "Risk of entrapment"** When the position of the upper leg section is being adjusted, there is a risk of entrapment between the raised side rail and the foot section.

Upper leg section up / down

Upper leg section up / down



Hand control

Personnel keypad (option)

Operation | Lower leg section

The lower leg section can be moved manually to any position of maximum 45° angle by pulling on the mattress holder (or the lying surface on model 2080).

To lower the lower leg section, the mattress holder (or the lying surface on model 2080) is pulled and the section lifted to the end stop and then lowered. The locking mechanism is disengaged automatically.

⚠ **WARNING** When the upper leg section is being raised with the side rails up, it must be ensured that none of the occupant's or any other person's body parts are sticking out through the side rails or are on top of them!

Operation | Lying surface height

The position of the entire lying surface can be adjusted using the hand control or the personnel keypad (option).

If necessary, disable the keypad lock 🕮 35.

The lying surface height can be adjusted from 40 cm to 80 cm (optionally 35 to 70 cm).

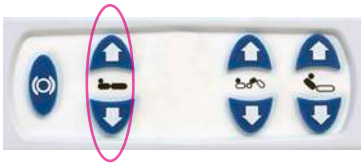
⚠ **WARNING** To avoid dangers to the occupant from falling, we recommend that the bed be lowered all the way except when delivering care.

⚠ **DANGER** Before lowering the bed, it must be ensured that no people, limbs, pets, bed linen or other objects are trapped between the lying surface and the lower frame or floor. The bed's position must be stable (castors raised) when the patient is getting in and out of the bed!

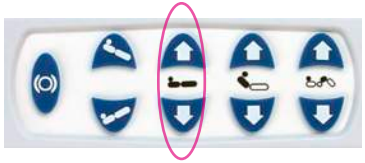
⚠ **WARNING** When the height adjustment mechanism is actuated with the side rails up, it must be ensured that the occupant does not have any contact with the side rails, or that any parts of either the patient's body or of other persons are sticking through the side rails!

Lying surface up / down

Lying surface up / down



Hand control



Personnel keypad (option)

Operation | Anti-Trendelenburg and Trendelenburg positioning

Trendelenburg positioning can only be set using the personnel keypad (option).

If necessary, disable the keypad lock 🕮 35.

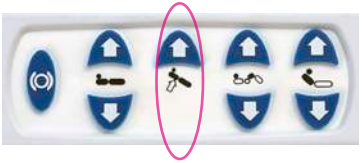
The Trendelenburg position can be adjusted up to an angle of 12°.

⚠ **CAUTION** If a fault occurs with the lifting function, or the mains power supply fails and the battery pack is completely discharged, the Trendelenburg function cannot be engaged. The occupant may have to be placed in a different bed. With the optionally-available battery pack, all of the bed's functions remain available to you even in the event of a power failure.

⚠ **WARNING** Since the Trendelenburg position depends on clinical indications, it must only be used with a doctor's approval.

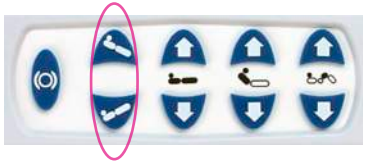
The lying surface is automatically returned to its horizontal position if it is moved to its highest or lowest position.

Anti-Trendelenburg positioning [1]



Hand control

Anti-Trendelenburg [1] and Trendelenburg positioning [2]

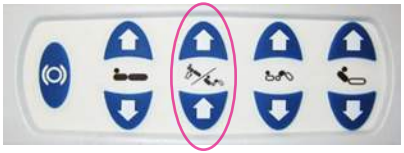


Personnel keypad (option)

[1] Head end raised [2] Head end lowered

Occupants who are unable to leave the bed either because their circulatory system is too unstable or they first have to be "taught" how to sit can gain a lot of benefit from the comfort seating position. It causes them to adopt an active seated position in the bed.

Anti-Trendelenburg positioning



Auto-Contour

Hand control with Anti-Trendelenburg positioning (option) and Auto-Contour (option)

Adjusting the comfort seating position

1. Move the back rest  and the upper leg section  upwards a little to a comfortable position.
   you can alternatively reach this position in a single step by pressing the Auto-Contour button  .
2. Tilt the bed to the comfort seating position by pressing the Anti-Trendelenburg button  .

Restoring the straight lying surface

To return to a horizontal lying position, move the lying surface  and the back rest  and upper leg section  in any preferred order to their lowest position.

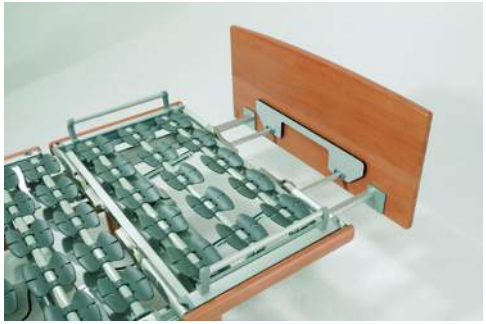
The bed can be extended using a telescopic bed extension (option) by 20 cm.

Model 3080

To pull out the bed extension, pull the two pins located on the underside of the bed extension simultaneously downwards.

Model 3080 K

To pull out the bed extension, press the two lever buttons simultaneously downwards.



Cleaning and disinfection

This section contains details on the **cleaning and disinfection** of the bed.

CONTENTS

Cleaning and disinfection 1/2

In order to maintain consistent functioning, the care bed should be cleaned, disinfected and tested at the soonest possible time following each use, so that it can be reused immediately without risk. Incorrect cleaning/disinfection of the bed can cause the bed to malfunction.

Cleaning

Depending on the degree of soiling, we recommend cleaning the bed with a damp cloth or similar.

Wipe and spray disinfection

For wipe and spray disinfection, the disinfecting agents featured in the VAH (Verbund für angewandte Hygiene e.V.) list dated 01.01.2008 can be used in their specified concentrations. They must be applied at the dilution ratio specified by the relevant manufacturer's instructions for use. The list can be obtained under ISBN Number 978-3-88681-089-5.

NOTE Solvents are not permitted. Scouring agents, abrasive sponges or other blunting agents must not be used.
Organic solvents such as halogenated / aromatised hydrocarbons and ketones must not be used.

Depending on the degree of soiling, we recommend cleaning the bed with a damp cloth or similar.

The following instructions must be noted when using cleaning and disinfecting agents:

- The working solutions should generally be freshly prepared.
- The concentrations used should be neither higher nor lower than those given in the list. The so-called "shot" method should not be used under any circumstances. Under no circumstances should someone using a disinfectant follow their own judgement to add a detergent such as a soap or detergent substance (leads to soap failure).
- There is a risk of fire or explosion from alcoholic spray disinfectants when these are used over large areas.
- They must not contain any corrosive or irritant components.
- They must not contain any substances that change the surface structure or gripping properties of the materials.
- Cleaning methods should not remove lubricants.
- The pH value of the water must be no higher or lower than 6 - 8.
- Water should not exceed a total water hardness of 0.9 mmol/l (up to 5 deg d). (Desalinated water should not be used).

Cleaning and disinfection 2/2

Chloride	< 100 ppm
Silicates as SiO_2	< 15 ppm
Iron	< 0.05 ppm
Manganese	< 0.01 ppm
Copper	< 0.05 ppm

The specifications in the VAH list, as well as the specifications we have issued do not absolve the user of the obligation to carry out his or her own checks and investigations, since the ratios (e.g. water hardness) can vary depending on the geographical location. It is therefore impossible to offer legally binding assurance of certain properties.

If unsuitable washing and disinfecting agents are used, if the mixing ratio is incorrect or if there is inadequate care of the beds, damage can occur to the surface coating for which Völker AG is not liable.

WARNING "Risk of electric shock / fire and functional failure"
The bed must always be disconnected from the power supply during cleaning and disinfection.

The plug and the socket of the hand control are only protected against spray when the control is stowed and the appropriate cover is in place.

Spray lances and automatic washing systems

Cleaning and disinfection using spray lances from high-pressure cleaning equipment and in automatic bed washing systems is **not** permissible.

Maintenance

The **Maintenance** section contains information on how to carry out maintenance work.

CONTENTS

Staff training

Every person involved with maintenance or servicing must at least have read

- the safety notes and
- the service manual

and be trained in accordance with MPBetreibV §§ 4 and 6. To avoid errors and to ensure the fault-free operation of our care beds, these documents must always be available to service personnel.

Before commencing maintenance work, the service manual and the instructions for use must be read in full by the person responsible for carrying out the servicing.

Safety notes

During maintenance and technical checks, the following specifications must be strictly observed:

- The room's electrical installations must conform to all applicable safety standards and requirements, and the care bed must be used accordingly.
- The castors must be raised (bed is fixed in position).
- The care beds are not protected against explosion and must therefore only be maintained in an environment free from flammable substances and materials.

⚠ **WARNING** Before carrying out any maintenance work, always disconnect the mains plug **and** disconnect the bed from the battery pack.

⚠ **WARNING** Maintenance and repair work should only be carried out after the bed has been disinfected.

⚠ **WARNING** After maintenance (repair) work is complete, always check that the bed is functioning correctly. It must be checked that the bed can be used correctly without risk to the occupant or care personnel.

The care beds require little maintenance. All movable parts for the height adjustment mechanism, the lying surface motor systems and the side rails are provided with long-lasting lubricant at the factory. It is recommended that **the care beds are subjected to a regular, or at least once a year, technical check** 🕮 54 **(incl. visual inspection and functional check) as described in the checklist** 🕮 79 and any damage uncovered as a result, such as signs of wear and tear, loose screws or breaks/ fractures, be eliminated immediately.

After every lengthy period of non-use, a technical check 🕮54 must be carried out.

Period	Work to be carried out
Annually and after lengthy periods of non-use	Technical check 🕮 54
Every 2 years *	Replace the 9V block battery (see below)
As required	Lubricate and replace the battery pack (wear part, see the service manual)

Replace the battery

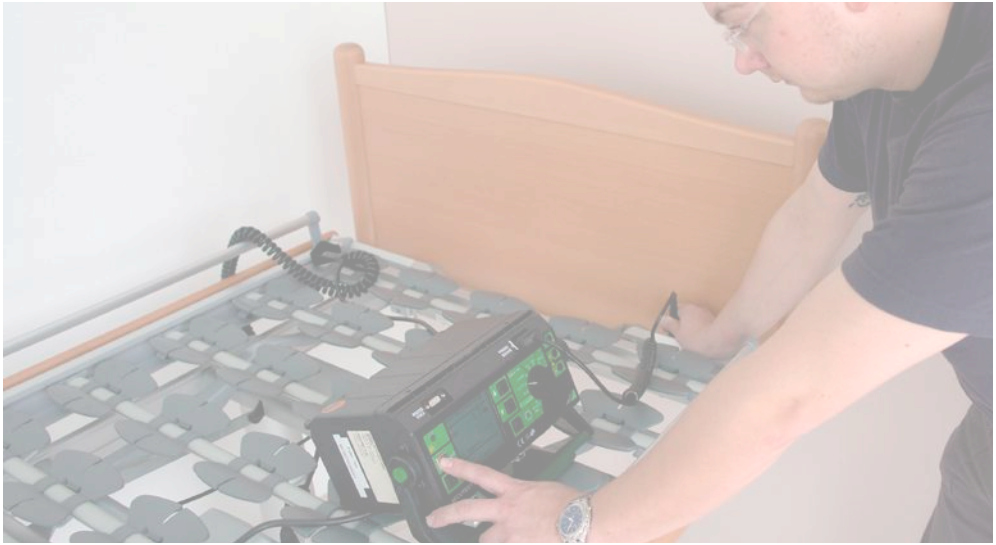
To replace the 9-V block battery, remove the two screws from the battery housing on the double drive.

Use only brand-name batteries, and dispose of spent batteries in an environmentally friendly way.

* as well as after every emergency lowering of the back rest section, if the bed does not have a battery pack (option).

Technical check

The section entitled **Technical check** contains all the information needed to carry out the technical check in accordance with MPBetreibV, BGVA3, UVV on care beds and measurement as per VDE 0751-1. Other (e.g. country-specific) specifications have not been included here. This does not absolve the operator from the obligation to observe any such specifications.



CONTENTS

Technical check 1/3

1. Visual inspection

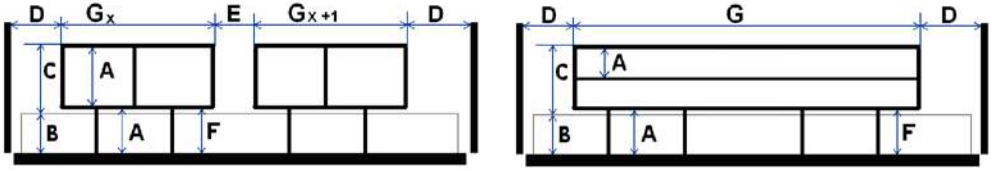
Check the frame parts for plastic deformations and / or wear and tear. These include the lower frame, the lifting mechanism, all parts of the lying surface (back rest, seat, upper leg and lower leg sections), trapeze bar, trapeze bar holder and castors.

2. Functional check of the side rails

Check that the locking mechanism for the side rails is working correctly and that there are no visible deformations or signs of wear and tear on the side rails.

Check that the prescribe distances are maintained, even when the side rails are placed under load. All measurements of side rail distances must be carried out in the flat lying surface position.

The measurement of A and D must be performed using a cone as defined in IEC 60601-2-38. The force used for measurement A must be at least 50 N.



Letter	Description	Dimension
A	The largest distance between elements within the scope of the SIDE RAIL in its raised / engaged position or of the area formed by the SIDE RAILS and the fixed parts of the BED.	≤120 mm
B	Thickness of the mattress for CORRECT USE	defined by the manufacturer
C	Height of the upper edge of the SIDE RAIL over the mattress (see "B") without compression	≥220 mm
D	Distance between the HEAD or FOOT SECTION and the SIDE RAIL	≤60 mm or ≥235 mm
E	Distance between the separated SIDE RAIL with the LYING SURFACE in flat position	≤60 mm or ≥235 mm
F	Distance of all accessible openings between the SIDE RAILS and the LYING SURFACE	if D or E ≥235 mm then F ≤60 mm if D or E ≥60 mm then F ≤120 mm
G	Total length of the SIDE RAIL S or sum of the length of the divided SIDE RAILS on one side of the BED	∑ Gx ≥1/2 the length of the LYING SURFACE

Technical check 2/3

3. Functional check of the brakes

Check the function of the brakes. Raise and lower the castors.

4. Functional check of the motor

Travel through the full adjustment range of each motor. Look out for any unusual noises, watching the speed, ease of running etc., and check that the selected function travels in the correct direction. Particularly ensure that the motor switches off automatically when it reaches its terminal position* (terminal position switch).

* Please note that the terminal position can vary from bed model to bed model. Please consult the technical specifications for this, or if in doubt, contact our service department.

5. Mains connection cable

Check

- the mains connection cable, incl. cable guides,
- the strain relief, including kink protection sleeve,
- the mains connection plug

for damage.

6. Cabling

Check the cable guides and that the plug connectors are correctly seated and do not exhibit any damage.

Check the cables for damage.

7. Housing

Check all housings for damage. All screws must be firmly tightened and seals must not exhibit any visible damage.

8. Mechanical check

Check the function of the raster or the pneumatic spring (where fitted) by manually moving the lower leg section to the individual positions.

9. Battery change

Replace the 9V block battery at 2-yearly intervals. Only use brand-name batteries and dispose of the old ones in an environmentally responsible manner (Replacing the batteries 📖 53).

Technical check 3/3

10. Measurement as per VDE 0751-1

The bed must be checked electrically in accordance with VDE 0751-1. The equivalent unit current leakage must be measured.

On beds with a potential equalisation connection (see diagram below), the impedance of the potential equalisation within the bed must also be measured.

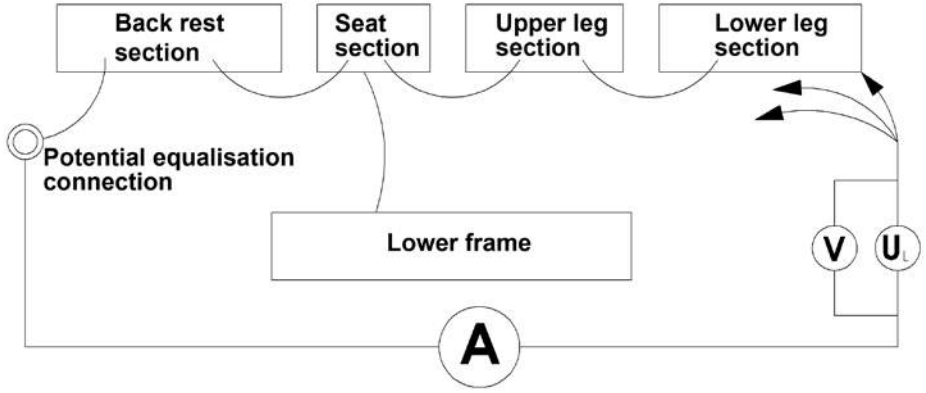
11. Grab handle

Check whether the plastic and holding frame of the grab handle exhibit any damage and that the fixing rods on the trapeze bar are intact.

The handle of the trapeze bar, including the fastening strap, must be replaced every five years.

12. Other accessories

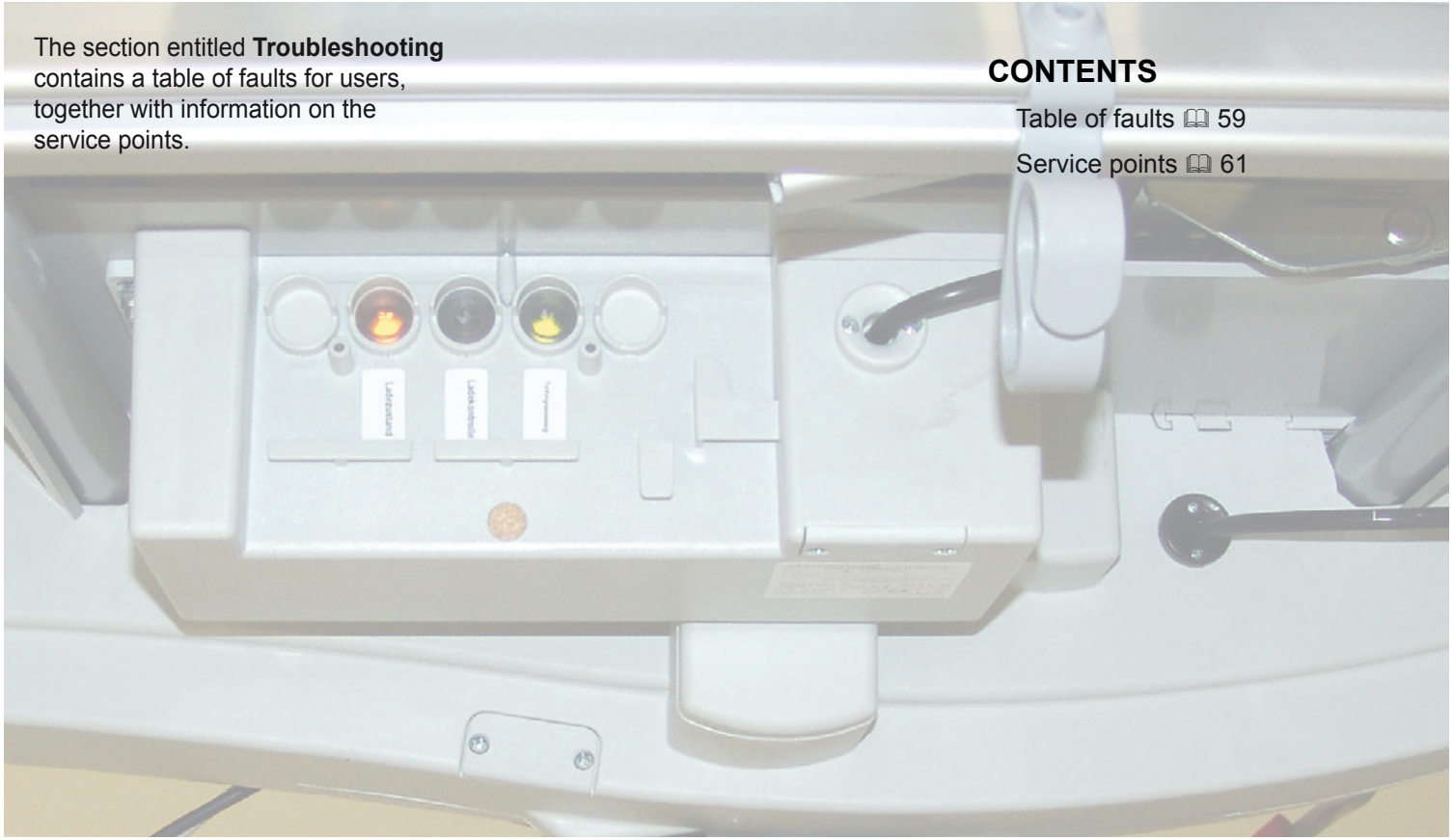
Other accessories must always be checked in accordance with the manufacturer's instructions.



Troubleshooting

The section entitled **Troubleshooting** contains a table of faults for users, together with information on the service points.

CONTENTS



Troubleshooting | Table of faults 1/2

The table below contains information on possible problems that users can resolve themselves.

Faults that can only be eliminated by technical engineers are described in the service manual.

Anyone responsible for carrying out maintenance and repair work must at least have read the safety notes and the service manual and be qualified in accordance with MPBetreibV §§ 4 and 6.

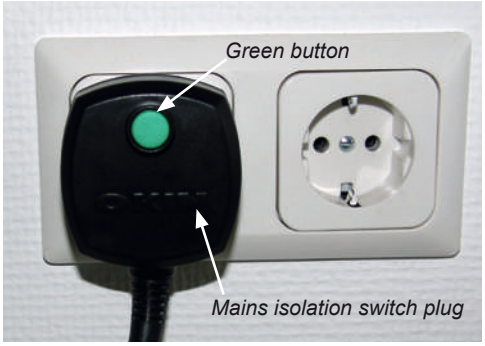
NOTE Before carrying out any troubleshooting, ensure that the battery pack (option) is charged (the yellow LED flashes during the charging process at intervals commensurate with the charge level) and that the bed is connected to the mains supply (the mains plug is in a live socket).

⚠ **WARNING** Before carrying out any repair work, ensure that the bed has been disconnected from the power supply and the battery pack has been disconnected if present.

Troubleshooting | Table of faults 2/2

Fault	Possible cause	Troubleshooting
The bed cannot be adjusted electrically.	• The keypad lock is engaged. • The mains plug is not plugged in or the socket is not live. • The battery pack (options) is not connected or is flat. • The hand control is faulty.	(1) Disengage the key lock 🕮 35. (2) Connect the plug or check the socket. (3) Press the green button on the mains isolation switch [1] while simultaneously actuating any function on the hand control. (4) Replace the hand control.

[1] Green button on the mains isolation switch:



The mains isolation switch ensures that when no electrical function is being actuated, there is no mains voltage to the bed. (Exception: while the battery pack (option) is being charged, there is mains voltage to the bed. This is indicated by a flashing LED on the battery pack).

Troubleshooting | Service points

If necessary, please seek assistance from the relevant contact at your nearest Völker sales organisation. You will receive all the information you need for comprehensive service promptly.

Appendix

The **Appendix** section contains the technical specifications and classifications, information on the service life and disposal of the equipment and links to the manufacturers' declarations and forms found in the Appendix.

CONTENTS

Konformitätserklärung
Anhang VII
EU-Richtlinie 93/42/EWG

Der Unterzeichnende
Völker AG
Wullener Feld 79
58454 Witten

bestätigt, dass die nachfolgend bezeichneten Produkte in der von uns in Verkehr gebrachten Ausführung die grundlegenden Anforderungen des Anhangs I der EU-Richtlinie 93/42/EWG erfüllen. Es wurden die folgenden Normen angewendet :

DIN EN 60601-1,
DIN EN 60601-1-2,
DIN EN 60601-2-38 (Anwendungen der relevanten Teile),
EN 1970 (Anwendungen der relevanten Teile).

Declaration of conformity
Appendix VII
EU Directive 93/42/EEC

The signatory
Völker AG
Wullener Feld 79
58454 Witten/Germany

confirms that the products described below and in the form distributed by ourselves meet the basic requirements of Appendix I of EU Directive 93/42/EEC. The following standards are applied :

DIN EN 60601-1,
DIN EN 60601-1-2,
DIN EN 60601-2-38 (applicable parts only),
EN 1970 (applicable parts only).

Déclaration de conformité
Annexe VII
Directive EU 93/42/CEE

La soussignée
Völker AG
Wullener Feld 79
58454 Witten/Allemagne

confirme que les produits spécifies ci-dessous sont conformes, dans le modèle mis en circulation, aux exigences fondamentales de L'annexe L de la directive européenne 93/42/CEE. Les standards suivants sont appliqués :

DIN EN 60601-1,
DIN EN 60601-1-2,
DIN EN 60601-2-38 (en partie applicable),
EN 1970 (en partie applicable).

Appendix | Symbols used

Warning symbols
Information marked with this symbol must always be read and strictly observed!

Warning about the risk of crushing and entrapment!

Note the information in the instructions for use!

= 210 kg
Safe working load 210 kg

= 180 kg
Max. permissible weight of the occupant 180 kg (approx. 30 kg for the mattress, trapeze bar and accessories)

Direct current

Alternating current

Protection class II device, protection-insulated

Type B device as per DIN EN 60601-1

CE
The product satisfies the fundamental requirements of Appendix 1 of EU Directive 93/42/EEC.

The product must be disposed of in accordance with EU Directive 2002/96 pertaining to old electrical and electronic equipment.

Appendix | Technical data (standard design) 1/2

The details marked below with * are dependent on the length, width or model of the bed. The values specified relate to model 3080 S.

External dimensions (W x L) for lying surface 90 x 200 cm * for lying surface 90 x 210 cm * for lying surface 90 x 220 cm * for lying surface 100 x 200 cm * for lying surface 100 x 210 cm * for lying surface 100 x 220 cm *	 98 x 210 cm 98 x 219 cm 98 x 229 cm 109 x 210 cm 109 x 219 cm 109 x 229 cm
Height of the lower edge (min./max.) *	approx. 25 / 65 cm
Height of the upper edge (min./max.) *	approx. 76 / 116 cm
Height of the upper edge of the lying surface *	35 – 70 cm or 40 – 80 cm
Lying surface (4-part) *	90 x 200/210/220 cm 100 x 200/210/220 cm
Volumetric weight of the mattress material	40 – 50 kg/m^3
Dead weight *	96 kg

Safe working load for the bed	210 kg As a result of the weight (approx. 30 kg) of the mattress, trapeze bar and other accessories, the maximum permissible weight of the occupant is 180 kg. If another mattress is used or other accessories, this value must be recalculated!
Safe working load for the trapeze bar holder	75 kg
Rolling castors	4 pcs., Type: K-100/2x1, Halver castors or Blickle castors
Castor load (dynamic)	100 kg, Vulkolan tyres
Mains voltage Rated power Rated frequency	AC 220 – 240 V, 100 – 120 V 173 VA 50 / 60 Hz
Primary fuse	2.0 A
Hand control fuse	Type: Polyswitch RXE 025
Lying surface motor fuse	Type: Polyswitch, solid, 2.5 A

Appendix | Technical data (standard design) 2/2

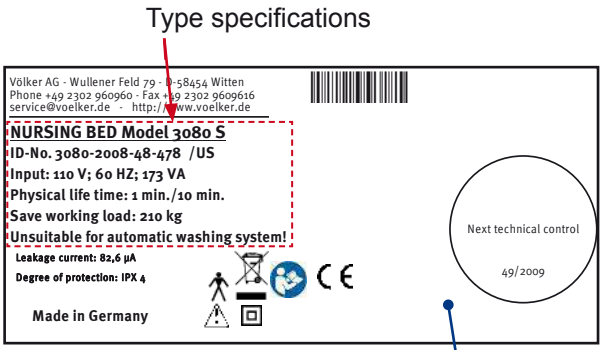
Lifting motor fuse	Type: Polyswitch, solid, 3.75 A per motor
Battery	Type 9 V block battery (alkali manganese, commercially available)
Battery pack (option)	Type: 4 x 6 V block battery (lead gel) 1.2 Ah
Operating temperature range	+ 10 °C to + 40 °C
Transport / storage temperature range	- 20 °C to + 60 °C
Air humidity	30 % to 75 % rel.
Atmosphere range	700 hPa to 1,060 hPa

Appendix | Classification

Protection against electric shock	Protection class II or device with internal electrical current source 
Protection type by housing as per EN 60259	IPX4 not suitable for cleaning in automatic washing systems
Degree of protection of the applied part against electric shock as per DIN EN 60601-1	Type B 
Degree of protection against explosive substances and mixtures	The bed is not protected against explosion and should not be used in an environment in which flammable anaesthetics or flammable cleaning agents are present (see brochure from accident prevention organisation ZH 1/200)
MPG grouping	Class I

Mode of operation	Int. 1 min. / 10 min. On-time max. 1 min. Off-time 10 min.
Technical check	1x yearly

Appendix | Type plate 1/2

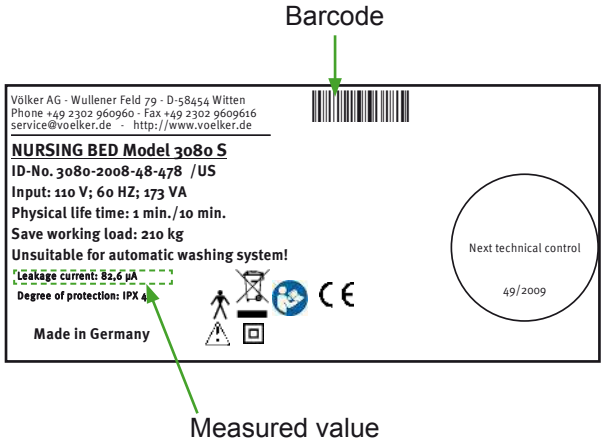


The type plate is located on the inside of the head panel.

Raise the back rest section to read the type plate.

Type specifications	Explanation
1st line	Model designation. In the example: NURSING BED model 3080 S
2nd line	ID No. (made up as follows): 3080 = Model -2008 = Year of construction -48 = Production week (calendar week) -478 = Consecutive number US = Mains plug version (e.g. US = United States)
3rd line	Input: mains voltage; mains frequency; consumed power
4th line	Physical life time: Max. uninterrupted on-time of electric motor adjustment. In the example: 1 min./10 min. In other words, the bed may be operated with the electric motors for max. 1 min uninterrupted within a 10-minute period (protection against overheating).
5th line	Safe working load (accessories, mattress and weight of occupant).
6th line	Compatibility with automatic washing systems In the example: Unsuitable with automatic washing system.

Appendix | Type plate 2/2



Measured values	Explanation
1st line	Equivalent unit current leakage in µA

The specified initial measured values were measured in accordance with VDE 0751-1.

The barcode (code 39) contains the numeric ID No. (10 digits).

Appendix | Service life / disposal

The care bed's expected service life is approx. 10 years. To ensure environmentally responsible disposal after decommissioning, please contact your responsible area sales manager.

Appendix | Manufacturer's declarations, forms, electronic instructions for use

Manufacturer's declarations

- Declaration of conformity 🕮 71
- Table 201 – Guidelines and manufacturer's declaration – Electromagnetic compatibility (6.8.3.201 a) 3)) 🕮 72
- Guidelines and manufacturer's declaration – Electromagnetic compatibility (6.8.3.201 a) 6)) 🕮 73
- Table 204 – Guidelines and manufacturer's declaration – Electromagnetic compatibility for all devices and systems that are not life-sustaining (6.8.3.201 b)) 🕮 75
- Table 206 - Recommended protective distance between portable and mobile HF telecommunications equipment and the 2080, 3080 or 3080 K – for devices and systems that are not life-sustaining (6.8.3.201 b)) 🕮 77

Forms

- Technical check as per MPBetreibV, BGVA 3, UVV on hospital and care beds, incl. measurement as per VDE 0751-1 🕮 79
- Spare parts order form 🕮 80

Electronic instructions for use

- Requirement for the use of the electronic instructions for use 🕮 81
- CD-ROM with the electronic instructions for use 🕮 82

Konformitätserklärung / Declaration of Conformity / Déclaration de conformité

Konformitätserklärung
Anhang VII
EU-Richtlinie 93/42/EWG

Der Unterzeichnende
Völker AG
Wullener Feld 79
58454 Witten

bestätigt, dass die nachfolgend bezeichneten Produkte in der von uns in Verkehr gebrachten Ausführung die grundlegenden Anforderungen des Anhangs I der EU-Richtlinie 93/42/EWG erfüllen. Es wurden die folgenden Normen angewendet :

DIN EN 60601-1,
DIN EN 60601-1-2,
DIN EN 60601-2-38 (Anwendungen der relevanten Teile),
EN 1970 (Anwendungen der relevanten Teile).

Damit sind die Anforderungen des Medizinproduktegesetzes zur Anbringung einer **CE Kennzeichnung** erfüllt.

Bei einer nicht mit dem Hersteller abgestimmten Änderung des Produktes verliert diese Konformitätserklärung ihre Gültigkeit.

Bezeichnung der Produkte :
Pflegebetten 5380, 2080, 3080, S 380 und S 280.

EG-Richtlinien :
Richtlinie 93/42/EWG vom 14.06.1993 über Medizinprodukte (Anhang I „Grundlegende Anforderungen").
Die Produkte sind Produkte der Klasse I gemäß Anhang VII des Medizinproduktegesetzes MPG vom 02.08.1994.

Declaration of conformity
Appendix VII
EU Directive 93/42/EEC

The signatory
Völker AG
Wullener Feld 79
58454 Witten/Germany

confirms that the products described below and in the form distributed by ourselves meet the basic requirements of Appendix I of EU Directive 93/42/EEC. The following standards are applied :

DIN EN 60601-1,
DIN EN 60601-1-2,
DIN EN 60601-2-38 (applicable parts only),
EN 1970 (applicable parts only).

The requirements of the medical products law pertaining to the display of a **CE seal** of approval are thereby fulfilled.

This declaration of conformity becomes invalid if the products are altered without the agreement of the manufacturer.

Description of products Type/Article No.:
Nursing beds 5380, 2080, 3080, S 380 and S 280.

EU Directives :
Directive 93/42/EEC of 14.06.1993 concering medical products (Appendix I, Basic requirements). The design and construction of this product conforms to Class I (Appendix VII) Medical products law (MPG) of 02.08.1994.

Déclaration de conformité
Annexe VII
Directive EU 93/42/CEE

La soussignée
Völker AG
Wullener Feld 79
58454 Witten/Allemagne

confirme que les produits spécifies ci-dessous sont conformes, dans le modèle mis en circulation, aux exigences fondamentales de L'annexe L de la directive européenne 93/42/CEE.
Les standards suivants sont appliqués :

DIN EN 60601-1,
DIN EN 60601-1-2,
DIN EN 60601-2-38 (en partie applicable),
EN 1970 (en partie applicable).

Les exigences de la loi sur les produits médicaux concernant leport de la **marque CE** sont ainsi satisfaites.

Cette déclaration de conformité est invaledée en cas de modification des produits, non autorisée par le fabricant.

Désignation des produits
Modèle/Référence :
Lits médicalisés 5380, 2080, 3080, S 380 et S 280.

Directives européennes :
Directive 93/42/CEE du 14.06.1993 sur les produits médicaux (annexe I « Exigences fondamentales »). La conception du produit est conforme à la classe I (annexe VII). Loi sur les produits médicaux (MPG) du 02.08.1994.

Witten 04.01.08

Heinrich Völker
Vorstandsvorsitzender / Executive board (chair) / Dirctoire (Président)

Info
To print out this document, please use the corresponding PDF file on the CD-ROM.

Table 201 - Guidelines and manufacturer's declaration - Electromagnetic compatibility

(6.8.3.201 a) 3))

The 2080, 3080 and 3080 K is intended for use in the electromagnetic environment as described below. The customer or user of the bed should ensure that it is used in such an environment.

Emissions measurements	Conformities	Electromagnetic environment - guideline
HF emissions IEC 61000-3-2	Class A	The 2080, 3080 and 3080 K is suitable for use in all institutions, including residential areas and such that are directly connected to a public mains supply network that also supplies buildings intended for residential purposes.
Fluctuations in voltage / flicker IEC 61000-3-3	Satisfied	
RF emissions CISPR 14 – 1	Satisfied	The 2080, 3080 and 3080 K is not suitable for connection to other equipment.

Guidelines and manufacturer's declaration - Electromagnetic compatibility (6.8.3.201 a) 6))			
The 2080, 3080 and 3080 K is intended for use in the electromagnetic environment as described below. The customer or user of the bed should ensure that it is used in such an environment.			
Compatibility check	**IEC 60601 Testing level**	**Conformity level**	**Electromagnetic environment - guideline**
Discharge of static electricity (ESD) IEC 61000-4-2	± 6 kV contact discharge ± 8 kV air discharge	± 6 kV contact discharge ± 8 kV air discharge	The ground should be made of wood or concrete and be laid with ceramic tiles. If the ground is covered with synthetic material, the relative air humidity must be at least 30%.
Rapid transient electrical disturbance / bursts IEC 61000-4-4	± 2 kV for voltage supply ± 1 kV for input and output cables	± 2 kV for voltage supply Not suitable!	The quality of the voltage supply should be commensurate with a typical commercial or hospital environment.
Surge voltages IEC 61000-4-5	± 1 kV series mode voltage ± 2 kV common-mode voltage	± 1 kV series mode voltage Not suitable!	The quality of the voltage supply should be commensurate with a typical commercial or hospital environment.

☞ *Continued on next page.*

Compatibility check	IEC 60601 Testing level	Conformity level	Electromagnetic environment - guideline
Voltage drops, short interruptions and voltage fluctuations in the mains voltage supply IEC 61000-4-11	< 5 % U_T (>95 % voltage peaks in U_T) for 0.5 cycles 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles < 5 % U_T (>95 % dip in U_T) for 5 sec	< 5 % U_T (>95 % voltage peaks in U_T) for 0.5 cycles 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in UT) for 25 cycles < 5 % U_T (>95 % dip in U_T) for 5 sec	The quality of the voltage supply should be commensurate with a typical commercial or hospital environment. If the user requires continued function from the 2080, 3080 or 3080 K when interruptions in the power supply occur, it is recommended that the 2080, 3080 or 3080 K be powered via an uninterruptible power supply or a battery.
Magnetic field at supply frequency (50/60 Hz) IEC 61000-4-8	3 A/m	3 A/m	Magnetic fields at mains frequency should correspond to the typical values present in commercial and hospital environments.
Remark 1: U_T is the mains AC voltage before the testing level is applied.			

Table 204 – Guidelines and manufacturer's declaration – Electromagnetic compatibility for all devices and systems that are not life-sustaining (6.8.3.201 b))

The 2080, 3080 and 3080 K is intended for use in the electromagnetic environment as described below. The customer or user of the bed should ensure that it is used in such an environment.

Compatibility check	IEC 60601 Testing level	Conformity level	Electromagnetic environment - guideline
Conducted HF disturbances IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 V	Portable and mobile radio equipment should not be used any closer to the 2080, 3080 or 3080 K, or their cables, than the recommended protective distance which is calculated based on the equation applicable for the transmission frequency. **Recommended protective distance** $d = 1.17\sqrt{P}$ $d = 1.17\sqrt{P}$ 80 MHz to 800 MHz $d = 2.33\sqrt{P}$ 800 MHz to 2.5 GHz

☞ *Continued on next page.*

Compatibility check	IEC 60601 Testing level	Conformity level	Electromagnetic environment - guideline
Radiated HF disturbances IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	Where *P* is the rated output of the transmitter in Watts (W) as specified by the transmitter manufacturer and *d* is the recommended protective distance in metres (m). The field strength of stationary radio transmitters should be less than the conformity level[b] at all frequencies, as verified by an on-site test[a]. Disturbance is possible in the environment of equipment that bears the following label. 
Remark 1: At 80 MHz and 800 MHz, the higher frequency range applies. Remark 2: These guidelines may not be applicable in all cases. The spread of electromagnetic parameters is influenced by the absorption and reflection of buildings, objects and people.			
[a] The field strength of stationary transmitters, such as base stations of cordless telephones and mobile land radio, amateur radio stations, AM and FM radio and TV stations cannot be quantified in theory in advance accurately. To determine the electromagnetic environment in relation to a stationary transmitter, a study of the site should be considered. If the measured field strength at the site where the 2080, 3080 or 3080 K is used exceeds the conformity levels stated above, the 2080, 3080 or 3080 K should be observed to ensure that it functions correctly. If unusual features are observed, additional measures may be required, such as modified alignment or a different location for the 2080, 3080 or 3080 K. [b] In the frequency range from 150 kHz to 80 MHz, the field strength should be less than 3 V/m.			

Table 206 - Recommended protective distance between portable and mobile HF telecommunications equipment and the 2080, 3080 or 3080 K – for devices and systems that are not life-sustaining (6.8.3.201 b))

The 2080, 3080 or 3080 K is intended for operation in an electromagnetic environment in which HF disturbances are controlled. The customer or user of the 2080, 3080 or 3080 K can help to avoid electromagnetic disturbances by respecting the minimum distance between portable and mobile HF telecommunications equipment (transmitters) and the 2080, 3080 or 3080 K. The recommended minimum distance d is dependent on the maximum power output of the communication device (see below).

Use in environments specified in which the radiated RF disturbances are controlled. The buyer or user of the 2080, 3080 or 3080 K can help avoid electromagnetic interference by respecting the minimum distance between portable and mobile RF communications equipment and the 2080, 3080 or 3080 K. The recommended minimum distance is dependent on the maximum power output of the communication device.

Rate output of the transmitter W	Protective distance according to the frequency of the transmitter m		
	150 kHz to 80 MHz $d = 1.17\sqrt{P}$	80 MHz to 800 MHz $d = 1.17\sqrt{P}$	800 MHz to 2.5 GHz $d = 2.33\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

☞ *Continued on next page.*

For transmitters whose maximum rated output is not specified in the table above, the recommended protective distance *d* in metres (m) can be calculated using the equation in the column that features *P* as the maximum power output of the transmitter in Watts (W) as defined by the transmitter manufacturer.

Remark 1: At 80 MHz and 800 MHz, the higher frequency range applies.

Remark 2: These guidelines may not be applicable in all cases. The spread of electromagnetic parameters is influenced by the absorption and reflection of buildings, objects and people.

Technical check of Völker hospital and healthcare beds in accordance to German standards and safety regulations incl. measurements required

VÖLKER
Wullener Feld 79
58454 Witten/Germany
Tel.: +49 2302 96096-62
Fax: +49 2302 96096-66
E-Mail: service@voelker.de

Project/customer no.:	Location of the bed:	Type of bed/product :

Identification of the hospital and healthcare beds (e.g. due to the inventory of the facility and Völker bed identification number):			
Date of check:		Name of technician:	

Kind of check	Component to be checked	Anually	Accepted	Not accepted	Not applicable
Visual inspection	Inscription on device readable				
	Instructions for use available				
	Base frame	B*			
	Lying surface	B*			
	Trapeze bar adapter/infusion bar adapter	B*			
	Power supply cable and plug/charging connection (charging connection only for S 960, S 960-1 and S 960-1MT)	B*			
	Pull relieve/bend protection	B*			
	Fit of plug-and-socket connections	B*			
	Motor housing/transformer housing	B*			
	Housing of hand control	B*			
	Cable of hand control	B*			
	Nurse control	B*			
	Trapeze bar, assist rail spacer, additional accessories	B*/F*			
	Stroke head traverse, head and foot section	B*			
	Castors	B*			
	Repulse rolls (if existing)	B*			
	Side rails, if applicable with telescope	B*			
	HiLow-elevation: check screw locking (only for 5380)	S*			
Functional inspection of side rails, if applicable with telescope	Locking devices	X*			
	Deformation	X*			
	Abrasions	X*			
Functional inspection of drives with hand control and caregiver's console	Lying surface, back section, upper leg section, lower leg section, height adjustment, Trendelenburg position / reverse Trendelenburg position, base frame, approach all end switches	X*/M*			
	Angle limitation of back section and upper leg section > 90° (only for hospital beds)	X*			
	Catch adjustment of foot section/gas spring	X*			
	CPR function (if existing)	X*			
	Brake (electrical of mechanical) - brake applied - brake not applied (only for hospital beds and S 280 / S 310 / S 380) - straight forward	X*			
	Mechanical release (only for electrical brakes of hospital beds)	X*			
Functional inspection replacement	9V battery (only for healthcare beds and S 960-2) Replaced (Yes/No)	A2*			
	Trapeze bar handle and belt (if existing) Replaced (Yes/No)	A5*			
Functional inspection miscellaneous	Bed extension (if existing)	B*			
	Bedding storage / bedding drawer (if existing)	B*			
Comment					

Legally relevant for Germany only						
	Leakage current < 5000 µA, in accordance to VDE 0751		µA			
	Potential equalization impedance < 0.2 Ohm, in accordance to VDE 0751 (if existing)		Ω			
	Measuring instrument S/N					
Total result of the inspection:						
Signature of technician:						
Next regular inspection:						

Info
To print out this document, please use the corresponding PDF file on the CD-ROM.

Spare part order

Völker AG
Service
Wullener Feld 79
58454 Witten/Germany

Tel.: +49 2302 96096-62
Fax: +49 2302 96096-66
E-Mail: service@voelker.de

Address: _____

_____

Contact person: _____

Street address:: _____

Zip code/city/country: _____

Telephone number: _____

Customer number: _____

Customer order number: _____

Purchase order date: _____

Signature: _____
(Please, to fill in the form use block letters)

Stamp

Shipping address, if differently from the billing address

Address: _____

_____

Attention of: _____

Street address: _____

Zip code/city/country: _____

Please, fill out all information carefully and complete in the form, otherwise we have problems in delivery and processing this order.

MODEL (Bed-type)	SERIAL NO./ YEAR OF MANUFACTURE (Identifaction label inside of the bed-head)	SPARE PART DESCRIPTION	ITEM NUMBER	QUANTITY

Info
To print out this document, please use the corresponding PDF file on the CD-ROM.

Requirement for using the electronic instructions for use

In order to open the electronic version of these operating instructions (PDF file) found on the CD-ROM, you must have Adobe Reader 7.0.5 or later (or the corresponding Adobe Acrobat version) installed on your PC.

Adobe Reader is available for nearly all operating systems. The newest version can be obtained free of charge by download from *www.adobe.de/products/acrobat/readstep2.html* 🕮 .

CD-ROM

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