

**VOELKER NURSING BED  
OPERATING INSTRUCTIONS  
MODELS 2080, 3010, 3080**



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## Foreword

Many congratulations for having chosen a Voelker nursing bed, and we would like to take this opportunity of thanking you for showing such confidence in our company and its products.

Before deciding to purchase, you received thorough advice which clearly convinced you of the many benefits of Voelker beds — benefits which in this configuration really are unique. For this reason, your choice was just sensible, but wise.

The fact that a Voelker nursing bed, despite all its technical features and practical advantages, does not look in the least like a piece of medical equipment undoubtedly made your choice all the easier.

These operating instructions inform you about the technical features of Voelker nursing beds and tell you how to use them to the benefit of residents, patients and carers.

We are sure that these instructions will quickly make you familiar with your new nursing bed and enable you to get maximum satisfaction from it.



Michael Hüppe  
Sales & Marketing Manager  
Völker GmbH

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# 1. Introductory remarks

You have purchased a Voelker nursing bed. This bed was developed and manufactured in accordance with all relevant German and European standards, and the current state of technical knowledge.

Voelker nursing beds meet all safety and functional requirements to the full. They have been inspected and tested in accordance with international standards and have been awarded the CE Safety Seal for medical products.

Please read the basic safety instructions in Chapter 2. Please also pay strict attention to the further instructions given on subsequent pages, especially with a view to possible warranty claims.

## 1.1. Key to symbols



Caution! **Adher to operating instructions!** Please read safety regulations!



Direct current



- Alternating current



Safety Category II device



Type B device according to DIN EN 60601-1

These operating instructions give users practical information on the safe and correct operation of the bed.

Anybody concerned with setting up, operating or maintaining the bed must have read both these operating instructions and the safety regulations.

To avoid operating errors and to ensure the trouble-free operation of our beds, this documentation must always be readily available to carers.

## 1.2. Copyright

All documentation is subject to copyright. These operating instructions may only be made available to third parties with the written permission of Voelker GmbH.

Unless expressly permitted by the copyright holder, the transfer and copying of documentation, either whole or in part, or its exploitation and/or divulgence are forbidden. Infringements are punishable in law and oblige transgressors to pay damages. We reserve the right to exercise all our rights in law to the full.

## 1.3. Warranty and liability

We accept liability for possible errors and omissions within the terms of the warranty set out in the main contract. All further claims are excluded. Claims for damages – from whatever legal ground they may be held to emanate – are expressly excluded.

We reserve the right to carry out alterations to the nursing beds dealt with in these operating instructions in accordance with future technical developments.

We accept no liability whatsoever for damage and/or disruption caused by the misuse of the bed or by ignorance of these operating instructions.

The textual and visual representations contained in these operating instructions **do not necessarily** conform in all cases to the products supplied or to possible spare parts orders. Drawings and illustrations are not to scale.

## 1.4. Disposal

At the end of its service life, the nursing bed (incl. accessories) must be disposed of without damage to the environment. Local regulations concerning waste disposal must be observed. The 9 V battery used (initial equipment) is free of cadmium and mercury.

## 2. Safety regulations

These regulations are to be read without fail and strictly adhered to!



### 2.1. Before putting bed into use

**The person responsible for nursing care** must be thoroughly familiar with these operating instructions **before the bed is put into service**.

**Before the bed is put into service** carers must be comprehensively instructed in its use (4. Hints for carers, p 15). Furthermore, all carers must be made thoroughly aware of potential dangers when using the bed, as described in these operating instructions.



### 2.2. Conditions of use

Voelker Model 2080/3010/3080 nursing beds are intended for the care of residents in rooms in nursing homes, in residential homes for the elderly and in suitable rooms in private residences. They may not, however, be used for transportation purposes. Any deviation from this use is expressly excluded from possible liability claims.

The nursing beds described herein are **not** explosion-resistant. They may **only** be used in environments in which there are no inflammable anaesthetics and/or cleaning agents (see professional association leaflet ZH 1/200).



### 2.3. MPG § 22 Section 1 (German law governing use of medical products)

Nursing beds may only be put into use, operated and used **a)** for their intended purpose, **b)** in accordance with the provisions of the medical products law (MPG) and its statutory instruments, **c)** with due regard to accepted technical practice and **d)** in accordance with safety and accident-prevention regulations. **On no account** may the bed be used in a faulty condition that could endanger residents, carers or third parties.

The bed may only be operated by those able to guarantee its correct operation by virtue of their qualifications, knowledge and/or experience.





## **2.4. Checking the safety and condition of bed**

It is essential that users check that the nursing bed is in good condition and absolutely safe before use. Functional testing procedures are not only to be carried out before first use, but also continuously during the entire service life of the bed. If necessary, the functional safety and correct operation of the bed must be checked daily or after each change of shift to ensure that its use does not put anybody at risk. To reduce maintenance to a necessary minimum, the bed should be cleaned, disinfected and tested after each period of use so that it can be back into service again without delay or risk. (see Chapter 7, Functional testing).

Should certain functions – for example, the back section or height adjustment – fail, or the main fuse blow, it could well become necessary to transfer the occupant to another nursing bed.



## **2.5. Height of bed**

### **Danger of falling out of bed**

In the case of unsupervised use, it is recommended to put the bed into its lowest position to minimise the danger of injury through the occupant falling out of bed. In other cases, it is advisable to adjust the height of the bed to fit the size of the occupant.



## **2.6. Central braking system**

### **Danger of falling**

Except when the bed is being moved, the four special castors should always be fully retracted. In this position the bed can be used as a secure and stable support without the danger of it rolling away and hence risking possible injury by falling.

The yellow key on the manual control unit is only needed to extend the castors, not to retract them.



## 2.7. Height adjustment

### Danger of clamping between floor and bed frame, and between mattress-frame sections and frame when lowering

When lowering the bed, ensure that no person, limbs, bedding and/or other objects are situated between the bed frame and the floor.

When lowering the mattress-frame, make sure that no arms, hands, legs or feet are protruding between the mattress-frame sections and the frame.

The adjustment of the optional Trendelenburg/Countertrendelenburg facility is dependent on clinical factors and may only be carried out on the instructions of physicians. In this case, proceed with special care.



## 2.8. Safety frames

### Danger of clamping

The following safety rules must be observed when using safety frames to protect physically frail or mentally confused care-receivers from falling out of bed:

1. The fitting of safety frames should be carried out only by carers. Ensure that the frames – or sections of them – are either completely raised **and** locked into position or are completely lowered.
2. Make sure the occupant of the bed is well clear of the safety frames during the electrical adjustment of mattress-frame sections. It is also important to ensure that no limbs are protruding through the safety frame bars.
3. When the safety frames are used with children or mentally confused occupants ensure that the manual control is out of reach or deactivated (optional).



## 2.9. Incorrect use

The incorrect use of the bed can endanger occupants and others. This includes, for example:

- using bed as a means of transport
- incorrect operation of electrical functions and uncontrolled positioning
- using bed for children under 12
- allowing care-receivers to operate bed without prior instruction
- simultaneous operation of electrical functions by different people
- holding keys depressed or constantly pressing different keys ("piano playing")
- connecting electrical devices to the bed other than those intended
- moving bed by pulling on power cable
- removing plugs from sockets by pulling on cable
- using bed on a sloping floor with a gradient greater than 10%
- moving bed with extended castors when it is not in lowest position
- placing heavy loads on horizontally extended safety frames (Model 3080)
- careless use of spiral cable on manual control unit, thus risking entanglement of bodily extremities, eg fingers, toes
- the simultaneous or random operation of keys that can lead to unintended movement of the mattress-frame



## 2.10. Electromagnetic and electrostatic interference

Devices and processes, eg cell phones, producing an electromagnetic field that could affect the electronic controls of the bed may not be used in the immediate vicinity of the bed.

Devices and processes producing a strong electrostatic field or leading to the electrostatic charging of the bed that could affect its electronic controls, for example the use of non-antistatic plastic sheeting, are not permitted in the immediate vicinity of the bed.



### 2.11. Cleaning and disinfection

The incorrect use of cleaning agents and disinfectants can be a source of danger. Protect the electrical components and manual control unit of your Voelker nursing bed from excessive moisture. Voelker nursing beds may not be cleaned in automatic washing appliances or with a high-pressure spray wand.



### 2.12. Service and maintenance

Voelker nursing beds need very little maintenance as only maintenance-free motors and electrical/electronic components are used. All moving parts of the lifting gear, compact drive and safety frames are permanently lubricated during manufacture. During normal use and cleaning, these parts never require relubrication. The manufacturer assumes, however, that nursing beds will be regularly inspected (once a year or before every change of occupant) and any damage such as loose screws or breakages will be dealt with at once. Please consult the maintenance manual of the relevant Voelker bed, which contains exploded drawings, spare part lists, wiring diagrams etc, for further information.

Replace the mattress-frame drive battery at least once every 2 years. Use only high-quality branded makes to ensure optimal performance.

For safety reason, we recommend battery replacement after every use of the fast release facility. Please note the battery may not be disposed of in domestic waste (see p 35).

Should the 9 V battery fail (bed functions no longer work), then press the green button on the power plug to reinstate all electrical bed functions. The battery must then be renewed to reinstate the fast release facility.

Völker GmbH accepts liability for the safety and correct functioning of its beds only when repairs are carried out by Voelker Service staff or by a person authorised by Voelker to carry out such work.

## **3. Definitions and technical description**

### **3.1. Definitions**

In the following text, "Voelker" means "Völker GmbH".

In the following text, "Voelker bed" and "Voelker nursing bed" mean Model 2080, 3010 or 3080 nursing beds, as the case may be.

In the following text, "occupant", "care-receiver", "person in need of care" and "resident", as the case may be, mean a person who is lying in or otherwise occupying the bed, or who is getting into or out of the bed.

"Due care" means that all activities at or with the bed must ensure the safety and freedom from harm of care-receivers, carers and third parties.

The operation of the bed is explained and described with the help of photos and drawings on the following pages.

Exceptionally important information is highlighted by the following symbol:



=    **Caution**

**This information must be read without fail and strictly adhered to.**

We reserved the express right to make changes to the nursing beds dealt with in these operating instructions in accordance with future technical developments and without further notice.

### 3.2. Brief technical description

- **Dimensions:** Exterior dimensions:

	2080	3010	3080
Length	204.5/224.5 cm	212.5/232.5 cm	204.5/224.5 cm
Width		98 – 102 cm	
Height			

Mattress-frame	90 x 200 cm
Mattress-frame	100 x 200 cm
Mattress-frame	90 x 220 cm
Mattress-frame	100 x 220 cm
Special versions	

Mattress-frame electrically driven  
from 39.5 - 80 cm  
or  
35.5 - 70 cm height adjustable

Net weight, bed: ca. 97 kg (according to model)

- Construction in accordance with the following technical specification, the basic principles of appliance safety and the German medical products law (MPG).
- Construction in home-like design with large, easy-care structural members in corrosion-free aluminium finished according to Voelker colour card.
- The nursing beds require little maintenance.
- Readily accessible arrangement of structural components.

- **Chassis:**

Light, enclosed aluminium chassis with two 24 V motors (not suitable for cleaning in automatic washing appliances). Lifting power 2500 N. Distortion-free construction.

- 35 mm swivel castors with Vulkolan tyres
- Streak-free on plastic flooring

- **Mattress-frame:**

4-section aluminium profile mattress-frame for easy cleaning and drying according to the recommendations of the German Professional Nursing Association (DBfK).

Individual, electrical setting of all mattress-frame positions by means of two separate, independently-operating motors.

With exception of Trendelenburg/Countertrendelenburg positioning, all functions can be individually set by care-receivers via manual control unit. The manual control unit, that can be conveniently attached to the side of the bed, has 7 (standard) or 8 (de luxe) functions that are easily identifiable by means of pictographs.

The back section is continuously adjustable to 76°.

Integrated mattress displacement mechanism automatically shifts back section 10 cm towards bedhead when it is being raised. This stops the occupant from sliding down the bed and concertinaing against the footboard.

The upper leg section can be set in bent-knee position electrically. Raised leg position can be set either manually or electrically.

- **Safety frames:**

Two (Model 2080) or four (Models 3010, 3080) safety frames. The safety frames do not project beyond the outer extremities of bed.

In the case of Models 3010 and 3080 the safety frames can also be used as a support when sitting up or leaving the bed.

- **Accessory fixing locations:**

Two fixing locations for grab-handle on bedhead. When fitted with spacer sleeves, these can also be used for fitting accessories.

- **Electrics and control:**

No "electric smog" because of mains supply cut-out.  
Maintenance-free motors.

Standard manual control unit for care-receivers with the functions:

back section	up/down	key colour:	turquoise
upper leg section	up/down	key colour:	turquoise
height adjustment	up/down	key colour:	blue
extend swivel castors		key colour:	yellow

De luxe manual control unit (optional) with additional function:

sloping position	up	key colour:	blue
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Models 2080/3010/3080 with carers' keyboard:

- Care-receiver's manual control unit can be deactivated by carers
- Additional automatic lifting function ("double-click")
- Trendelenburg/Countertrendelenburg positioning

This bed can be set in Trendelenburg/Countertrendelenburg position continuously and independently of height adjustment. The Trendelenburg/Countertrendelenburg position can be set up to 15° (head low and feet low positions).

- **Disinfection:**

The whole bed (incl. wooden parts) can be cleaned or disinfected with a damp cloth and commercial cleaning agents or wipe-down disinfectants.

Please observe the special instructions in Chapter 8 "Cleaning and disinfection".

- **Wooden superstructure:**

Headboard and footboard with solid beech cross-members, partly with rounded or flat-section side members. Corners and edges rounded off. Multi-layered veneered chipboard panels, upper edges with rounded off solid wooden edge band.

Model 2080 fitted with safety frames with solid wooden handrail on each side.

Models 3010 and 3080 fitted with two-section safety frames on each side. Raised headend safety frames provide secure support when sitting up or getting in or out of bed.

Headboards/footboards also available in solid wood (optional). Painted finishes in double-layer DD-coating.



## 4. Hints for carers

**This documentation contains all information necessary for the routine operation of Voelker nursing beds.**

Voelker accepts no liability whatsoever for damage, injury or accidents caused by the irresponsible, careless or incorrect operation or handling of Voelker nursing beds. The question of personal culpability is thereby fully irrelevant.

If required by the customer, a basic introduction to the operation of the bed can be provided by a member of Voelker staff or its representative.

Carers' participation in such training sessions must be certified on a special form with names, dates and signatures, confirmed by Voelker.



**All safety regulations** contained in this documentation — especially those in Chapter 2 — **must be adhered to!**

Only the strict observance of the good practice described in this documentation will ensure the safety of carers and care-receivers.

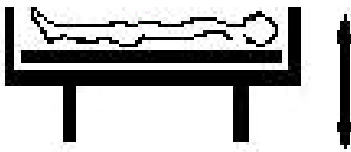


### **Fast release:**

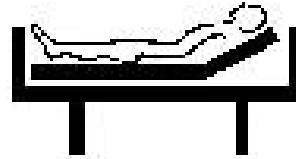
In the event of power failure, a 9 V battery enables the mattress-frame to be put into a level position via the manual control unit or the carers' keyboard (optional).

In order to guarantee optimal performance, the 9 V battery should be renewed after **each** fast release! Use only quality branded batteries to ensure optimal performance!

## 5. Overview of bed configurations



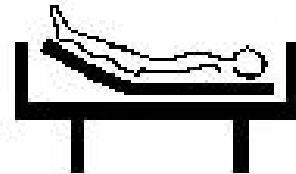
**HEIGHT ADJUSTMENT**



**BACK SECTION ADJUSTMENT**

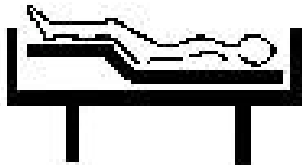


**UPPER LEG SECTION ADJUSTMENT**



**LOWER LEG SECTION**

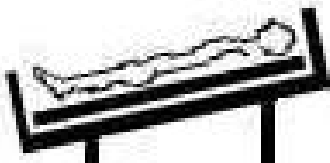
(manual)



**RAISED LEG POSITIONING**

(electrical or manual)

Only models with optional de luxe manual control unit:



**SLOPING POSITION**

Only models with carers' keyboard:



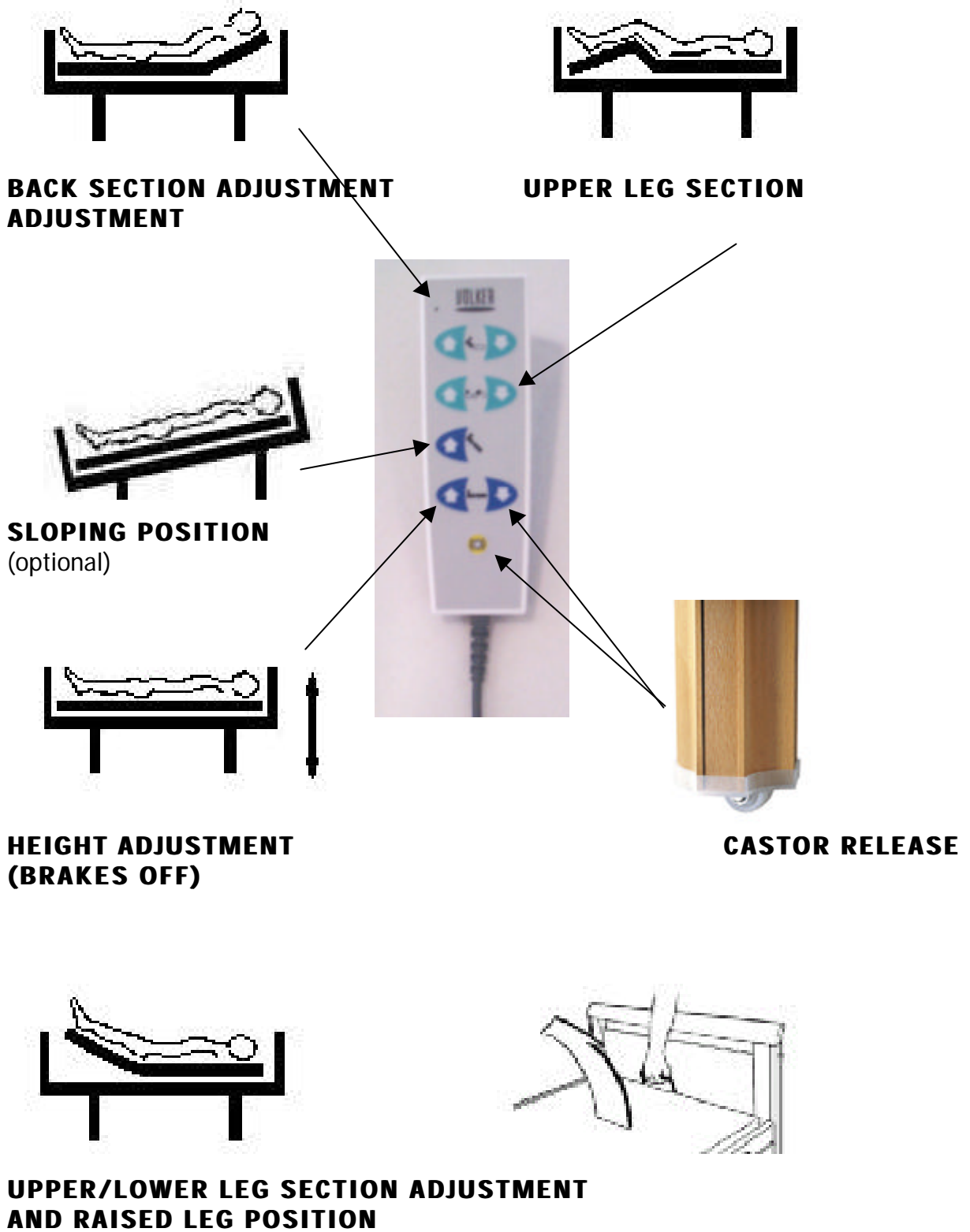
**TRENDELENBURG  
COUNTERTRENDELENBURG  
(HEAD LOW POSITION)  
POSITION)**



**(FEET LOW)**

## 6. Operational features

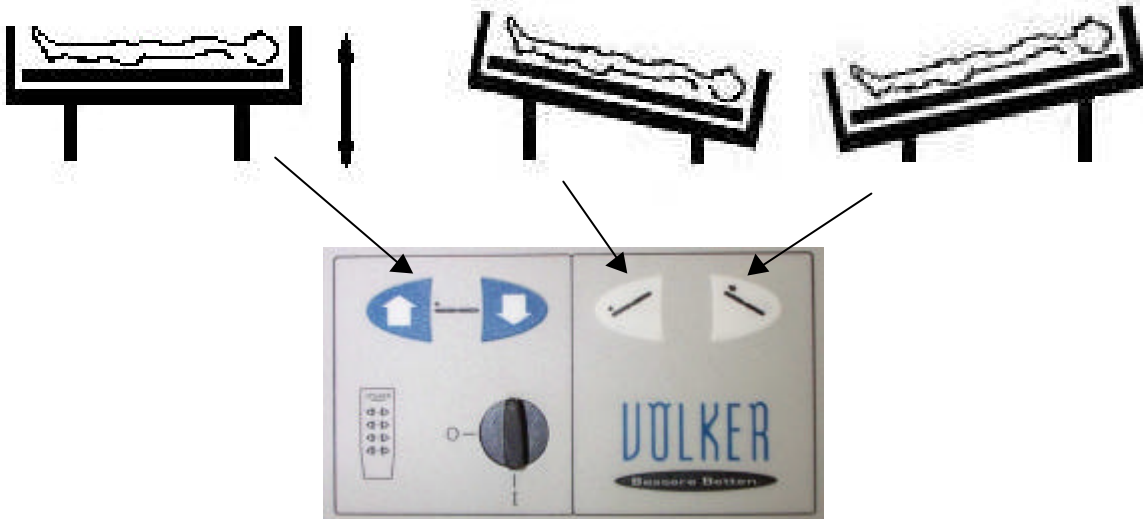
### 6.1. Overview of bed functions (2080, 3010, 3080 basic model)



Optional: Models 2080/3010/3080 with carers' keyboard

Height adjustment/  
Double click height adjustment

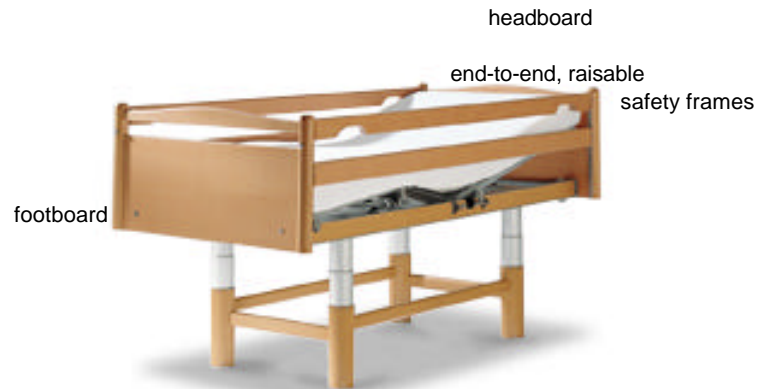
Trendelenburg/Countertrendelenburg



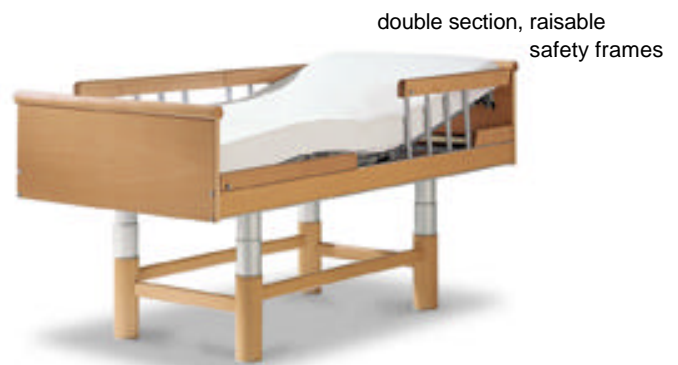
Rotary switch: deactivation of care-receiver's manual control unit

## 6.2. Overview of nursing beds, Models 2080/3010/3080

- Model 2080:



- Model 3010:



- Model 3080:

frame

double section, raisable,  
safety frames integrated in mattress-



## 6.3. Operation with manual control

### Standard manual control:

Back section

up

down

Upper leg section

up

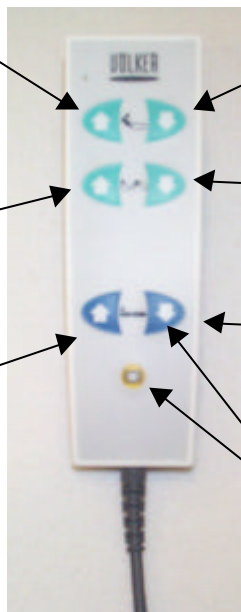
down

Height adjustment

up

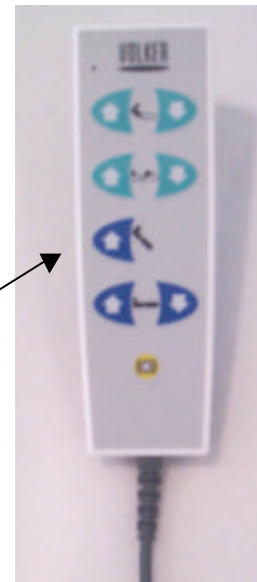
down

Castors extended  
(brakes off)



### De luxe manual control:

Sloping position



- **Back section up** – continuously raises back section to enable occupant to sit up in bed.
- **Back section down** – continuously lowers back section to enable occupant to lie down in bed.
- **Upper leg section up** – continuously raises upper leg section into bent-knee position.
- **Upper leg section down** – continuously lowers upper leg section until mattress-frame is flat again.
- **Height adjustment up** – raises whole mattress-frame to required level.
- **Height adjustment down** – lowers whole mattress-frame to required level. Height adjustment stops automatically at lowest level to avoid extending castors (releasing brakes) accidentally.
- **Extend castors** – Simultaneous pressing of both keys (see illustration manual control unit) fully lowers bed and castors extend.

- **Height adjustment up / Brakes** – Press this key to retract extended castors and hence apply brakes.

**Note:**

All the functions on the manual control unit have pictographs and directional arrows for easy identification.

To extend the castors (release brakes), the yellow key "Extend castors" and the key "Height adjustment down" must be pressed simultaneously.

The key "Height adjustment up" only operates the brakes when the castors are extended. Otherwise it serves solely to adjust the height of the whole mattress-frame.

**WARNING:**

The castors **must always be retracted** and hence the **brakes applied** when getting into or out of bed!

**IMPORTANT:**

Models with carers' keyboard:

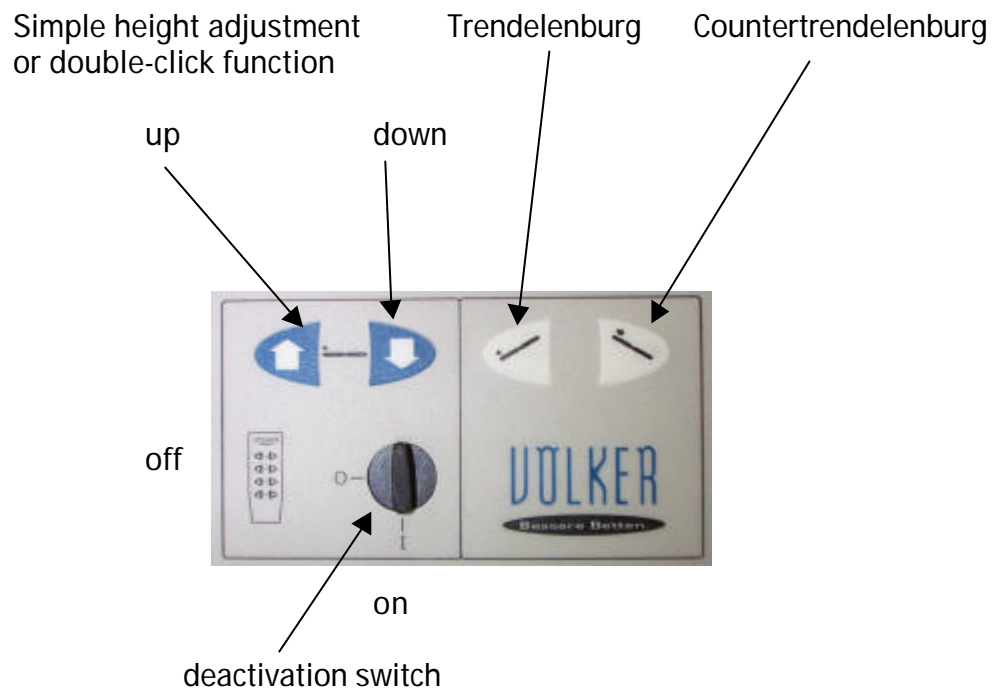
The carers' keyboard is fitted with a deactivation switch to stop the occupant from using prohibited functions.

Should none of the functions work via the manual control unit, then please check that it has not been deactivated at the carers' keyboard (see 6.4).

The manual control unit may only be deactivated in cases of real need resulting from a careful assessment of the care-receiver's mental and physical condition. If the bed is not equipped with a deactivation device, then in such cases the manual control unit should be placed out of the care-receiver's reach. A manual control unit holder for fitting to the footboard is available as an accessory.

**Note** that if the manual control unit is within the care-receiver's reach, detailed documentary **care records** must be kept (it is in any case essential to ensure that care-receivers, carers and/or third parties are not endangered in any way).

## 6.4. Operation with carers' keyboard (optional)





## 6.5. Putting the bed into use

### 6.5.1. Conditions of use

The bed is delivered by Voelker Customer Service ready for use, and you have already received some basic initial information about the individual functions. If, however, you have to put your bed into use yourself, or if it is to be put back into use after a longer period in storage, then please observe the following points.

The bed is only authorised for use in dry rooms (see Chapter 10). Mains power supply is required for the operation of the bed (see Chapter 6.5.2).

Move the bed only across firm surfaces. Do not attempt to push it over obstacles greater than 2 cm in height. The maximum gradient of the floor may not exceed 10°.

### 6.5.2. Mains power supply

The mains power supply must be 230 V/50 Hz

### 6.5.3. Putting bed in use for first time

- **Mechanical measures**

Connecting the manual control

The manual control unit is already fitted to the motor.

- **Electrical measures**

Brief description:

- connect bed to mains power supply, make sure that the mains power supply cord does not touch any moving parts of the bed.
- after connection, press the green button on the power plug for 1 second to charge the internal energy storage device



- carry out functional testing procedures (see Chapter I7, page 41).

**The bed is now ready for use.**

## 6.5.4. General operating instructions

### 6.5.4.1 Duty cycle

The maximum duty cycle of the electrical functions is given on the rating plate and on the technical data sheet (see Chapter 10.2, page 49) as ED (*Einsatzdauer* = duty cycle) 10%. This means that the electrical functions of the bed may only be used for maximum 2 minutes without interruption. After that, the functions may not be activated again for a minimum period of 18 minutes.

Functions may only be activated for a maximum of 5 times per minute.

### 6.5.5. Taking the bed out of use

The bed is taken out of use by disconnecting it from the power supply. To do this pull the plug out of the mains socket.

It is still possible to activate the fast release facility via the 9 V battery.

Should the bed be out of use for a longer period, then disconnect the 9 V battery from the motor.

9 V battery



(see also Chapter 6.13)



### 6.5.6. Putting the bed into use again

Returning the bed to use is carried out in the same way as putting it into use for the first time (see Chapter 6.5.3, page 23). In the case of an empty or previously disconnected battery, press the green button on the power plug.



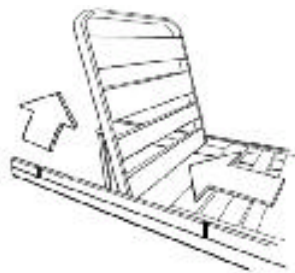
## 6.6. Adjusting the back section



- **To raise the back section** press the  key for back section adjustment on the manual control until it has reached the required position.
- **To lower the back section** press the en „  key for back section adjustment on the manual control until it has reached the required position.

The back section can only be raised to a maximum of 76°.

During raising, the back section is displaced a maximum of 100 mm towards the bedhead. This stops the occupant from sliding down the bed, hence increasing his or her comfort.





### Warning:

When lifting the back section with raised safety frames, make sure the occupant is not in contact with the frames, and that other people's limbs are not poking through the safety frame bars (see also Chapter 2.8 and 6.16.1).

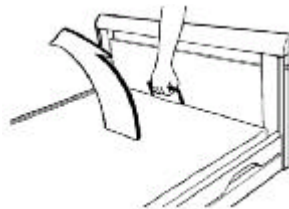
When raising the back section to its highest position ensure that the upper leg section is not in highest position as well. Otherwise the angle between these two sections will be less than 90 degrees.

## 6.7. Adjusting the upper leg section



- **Raising the upper leg section** press the  key for upper leg section adjustment on the manual control until it has reached the required position.
- **Lowering the upper leg section** press the  key for upper leg section adjustment on the manual control until it has reached the required position.

The upper leg section can only be raised to an angle of maximum 45°.



- **To raise the upper leg section manually**, grasp the handle at the foot of the bed, lift the leg section and allow it to snap into position at the required height.
- **To lower the upper leg section manually**, lift section with handle to end-stop and lower it into the horizontal.

### Note:

To avoid putting care-receivers into a physiologically unfavourable position, always raise the lower leg section after raising the upper leg section, and lower it before lowering the upper leg section.

**The lower leg section MAY NEVER BE RAISED alone!**

In cases of incorrect use, there is danger of clamping between mattress-frame and leg section tracking roller because of the downward pressure of the care-receiver's own weight.



### Warning:

When lifting the leg sections with raised safety frames, make sure the occupant is not in contact with the frames, and that other people's limbs are not poking through the safety frame bars (see also Chapter 2.8 and 6.16.1).

When raising the upper leg section to its highest position ensure that the back section is not in highest position as well. Otherwise the angle between these two sections will be less than 90 degrees.

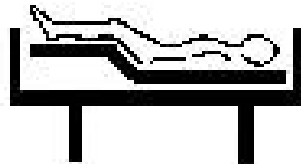
## 6.8. Electrical adjustment of lower leg section/raised leg position




Certain positions can be electrically set:

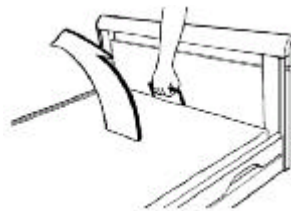
- Lift upper leg section out of horizontal to achieve bent-knee position.



- Lift lower leg section into moderate bent-knee position. Then lower it until there is an audible click from the locking mechanism. Finally lift again until lower leg section is in raised leg position.



1. Press  key for ca. 10 seconds.
  2. Press  key until there is an audible click.
  3. Press  key to move lower leg section into raised leg position.
- The manual adjustment of the lower leg section is possible in all positions.



Lift lower leg section into the required position manually.

Maximum position:

Upper leg section 45° + lower leg section horizontal = raised leg position.





### Warning:

In case of raised safety frames, follow instructions in Chapter 2.8 and 6.16.1!

In cases of manual operation, always lower the lower leg section before the upper leg section. This avoids putting care-receivers into a physiologically unfavourable position. To do this, use the handle to lift the lower leg section as far as end-stop and then let it return to the horizontal. The lock is released automatically.

### 6.9. Height adjustment of whole bed



- **Raising the whole mattress-frame** press  key for height adjustment on the manual switch until the bed has reached the required height.
- **Lowering the whole mattress-frame** press  key for height adjustment on the manual switch until the bed has reached the required height.



Height adjustment

**Note:**

Voelker nursing beds are equipped with exceptionally quiet-running telescope-type lifting gear that adds to the convenience of carers and the comfort care-receivers. The height of the mattress-frame can be continuously adjusted from 39.5 cm to 80 cm or from 35.5 cm to 70 cm.

In highest position, carers' back problems are relieved and communication with care-receivers is improved. The lowest position makes it easier to get into and out of bed.

Similarly, the height adjustment facility can be used as a lift. The care-receiver sits on the edge of the bed and then raises it sufficiently to be able to stand up without having to lift his or her own weight. The safety frames of Models 3010 and/or 3080 can be used as an additional support. (see Chapter 6.16.3).



**Warning:**

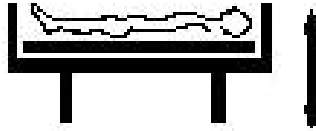
Before lowering bed, ensure that there are no persons, limbs or bedding between the mattress-frame and the floor, or between the mattress-frame and the chassis. The bed must be standing firmly (retracted castors) when getting into or out of it.





**Danger of falling**

To avoid the risk of occupants injuring themselves by falling, we recommend that the bed is fully lowered.

## 6.10. Height adjustment in case of models with carers' keyboard





In addition to adjusting bed height over the manual control unit, there is also the possibility of adjusting it over the carers' keyboard.

- **To raise the whole mattress-frame**, press  key for height adjustment on the carers' keyboard until the bed has reached the required height.
- **Automatic function:** A **double click** on the  key for height adjustment on the carers' keyboard puts the bed into the highest position.

The automatic function can be discontinued at any position by pressing **any key**.



**All automatic functions can be discontinued by pressing any key on either the manual control or the optional carers' keyboard!**

- **To lower the whole mattress-frame**, press  key for height adjustment on the carers' keyboard until the bed has reached the required height.
- **Automatic function:** A **double click** on the  key for height adjustment on the carers' keyboard puts the bed into the lowest position.

The automatic function can be discontinued at any position by pressing **any key**.




### **Warning:**

Follow the instructions given in Chapter 6.9!




In addition, carers should use the automatic function with exceptional concentration and care!

### 6.11. Central braking system



- **To apply the brakes** of a Voelker nursing bed, press the  key for height adjustment on the manual control unit. The castors retract into the chassis legs and the bed stands firmly on the four plastic floor-protection caps.



- **To make the bed mobile**, first put the bed into lowest position by pressing the  key for height adjustment. Press  key while holding  key depressed until the lifting mechanism cuts out automatically. The bed is now standing on its four swivel castors and can be easily moved.

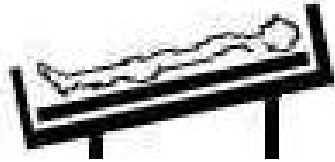


**Warning:**

The castors must always be retracted when getting into or out of bed!  
 The brakes should always be applied when the bed is in use except when bed is moved (see also Chapter 2.6).



## 6.12. Sloping position, optional de luxe manual control



First put the mattress-frame in recliner position by lifting the back section and the upper leg section.

**To put the bed into sloping position**, press the  key on the de luxe manual control.

## 6.13. Fast release facility

In the event of power failure, a 9 V battery enables the mattress-frame to be put into level position by normal use of the manual control unit.



Only use the fast release facility in exceptional circumstances. Replace the battery afterwards!



For safety reasons, we recommend that the battery is replaced after each use of the fast release facility! Only use quality branded makes to ensure optimal performance!



Replace battery on mattress-frame drive at least once every 2 years. Only use quality branded makes to ensure optimal performance! Please note that the battery may not be disposed of in domestic waste.



Should the 9 V battery fail (bed does not function at all), press green button on power plug to reinstate all electrical bed functions. Renew battery to reinstate fast release facility.

**6.14. Trendelenburg/Countertrendelenburg (models with carers' keyboard)**



**Trendelenburg/ Countertrendelenburg positioning is dependent on clinical factors and may only be used on the instructions of physicians!**

By using the carers' keyboard, the mattress-frame of Models 2080/3010/3080 can be put into the appropriate Trendelenburg/Countertrendelenburg position (head low/feet low) irrespective of the height of the bed.

- For the **Trendelenburg position (head low)**, press  key on the carers' keyboard until the bed has reached the required angle.
- For the **Countertrendelenburg position (feet low)**, press  key on the carers' keyboard until the bed has reached the required angle.

**To return to zero position**, press opposite function key until the mattress-frame is more or less parallel to the floor. If required, fine adjustment can be carried out over height adjustment facility (see below).

- If necessary, a perfectly horizontal plane can be achieved by using the height adjustment facility. This happens automatically when the bed is put into either the highest or the lowest position.



**Warning:**

Follow the instructions given in Chapter 6.9!

In addition, carers should use the functions with exceptional concentration and care!



Manual control unit

Trendelenburg positioning is only possible when the manual control unit has been deactivated.

**Caution: Only use Trendelenburg/Countertrendelenburg facility when bed brakes are applied!**

## 6.15. Fixing location for patient's grab-handle



- There is a fixing location for the bed occupant's grab-handle in each bed-frame corner-piece at the head of the bed.
- Push grab-handle pole into the required location until it snaps into position.



**Check that pole has gone fully home and there is a tight fit! Note that the safe working load of the patient's grab-handle amounts to max. 75 kg.**



**The occupant's grab-handle may not be used as an aid to getting into bed!  
It may never stick out beyond the outer limits of the bed and then be used as a lifting aid when getting out of, say, a wheelchair!**

**> Acute danger of falling! (see Chapter 9.1.)**

## 6.16. Use of safety frames

### 6.16.1. General warning concerning use of safety frames



**Warning:**

All persons whose duties include handling safety frames must read and follow the instructions below.

1. When adjusting mattress-frame positions or the safety frames it is **absolutely essential** to ensure that the occupant of the bed is not in contact with the safety frames and that no limbs are poking through the safety frame bars.
2. When the safety frames are used with children or frail and/or mentally confused occupants, ensure that the manual control unit is out of reach. If the manual control unit is installed within reach of care-receivers, then detailed documentary care records must be kept. (It is in all cases essential to ensure that care-receivers, carers and third parties are never endangered in any way.)
3. Protective covers providing additional protection against injury through contact with the safety frames are available as an accessory (Part-No. 2056 for 2080, Part-No. 3056 for 3010). It is recommended that protective covers are used with all occupants who are particularly at risk through contact with the frames. This **does not**, however, exonerate carers or care-receivers from using the bed with due care.
4. When the safety frames are in use, they must either be fully raised and locked into position or be fully lowered in end-stop position. They may never remain in a middle position – Danger of clamping!
5. The Model 2080 safety frames should always be raised or lowered one after the other by taking hold of the shaped grips on the top rails.  
The Model 3010 safety frames should always be raised or lowered by taking hold of the handrail in the middle.  
The Model 3080 safety frames should always be raised or lowered by using **both** hands to take hold of the handrail at **each** end.

### 6.16.2. Safety frames, Model 2080

As standard equipment, the 2080 nursing bed is fitted with one safety frame per side. Each frame can be used independently of the other.

- **To raise the safety frames** just take hold of the shaped grip and lift the frame first at the headend, then at the footend until it snaps audibly into position.
- **To lower the safety frames** take hold of the shaped grip, lift the frame slightly, press the safety lock button on the side and lower the frame with the hand. First lower the footend, then the headend.



- When stowing the safety frames or when they are not correctly locked into position, the care-receiver's/operator's own weight leads to risk of clamping between the safety frame bars, handrail and bed-frame! To avoid the risk of clamping, the safety frames should only be operated by trained specialist staff!
- Follow instructions given in Chapter 2.8 in case of raised safety frames!

For safety reasons, the frames cannot be released when subjected to downward- acting load from above.



Model 2080 safety frames offer four possible configurations:

1. **Frames completely lowered,**
2. **Frames completely raised,**
3. **Frame raised at headend, lowered at footend,**
4. **Frame lowered at headend, raised at headend.**

Although these four configurations are theoretically possible, in practice we recommend the use only of the first two!

1. With safety frames lowered, the bed is completely accessible. It looks like a normal bed and hence creates a pleasant sense of well-being.
2. Completely raised safety frames offer maximum protection against rolling out of bed.

3. With headend raised and footend lowered, the safety frames mark the outer limits of the bed while still giving the occupant the freedom to come and go at will. This setting is, however, not recommended except in special cases.
4. Voelker does not recommend the headend lowered and footend raised configuration at all.

### 6.16.3. Safety frames, Model 3010



Model 3010 safety frames offer three possible configurations:

- 1. Safety frames completely lowered,**
- 2. Head section raised and leg section lowered (support when leaving bed), and**
- 3. Safety frames completely raised.**

These three configurations make the Voelker 3010 nursing bed exceptionally flexible in use:

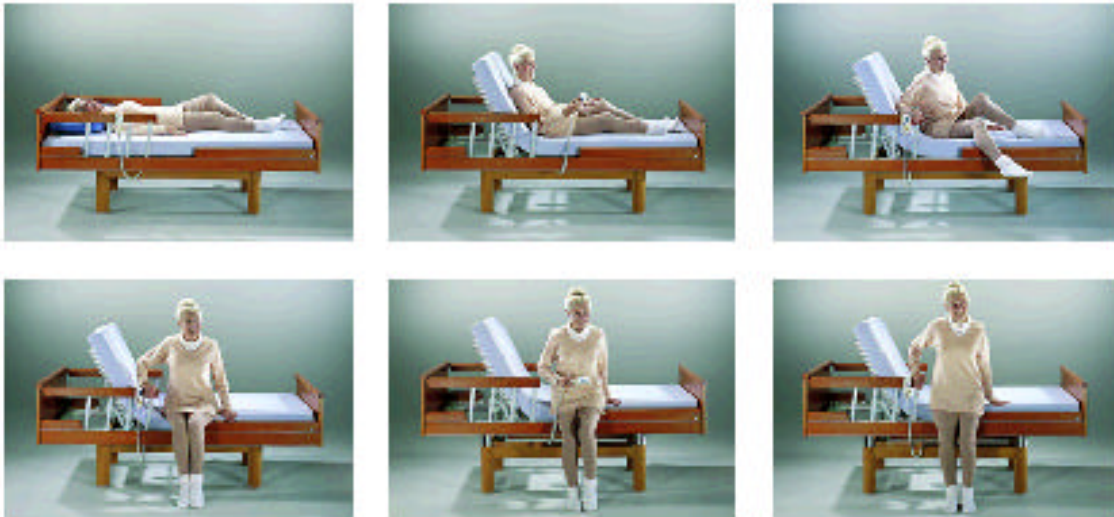
1. With safety frames lowered, the bed is completely accessible. It looks like a normal bed and hence creates a pleasant sense of well-being.
2. With head section raised and foot section lowered, the safety frames give occupants support when getting into or out of bed. They mark the outer limits of the bed while giving the occupant the freedom to come and go at will.



**Caution:** Danger of clamping when later raising foot section!

3. Completely raised, the safety frames offer maximum protection against rolling out of bed. As the two sections form a seamless unit, there is no risk whatsoever of clamping between the head and foot sections.

Using the safety frames as support when getting out of bed:



- **To raise the safety frames**, just take hold of the handrail and lift the frame until it snaps into the safety lock. (The spring-loaded safety lock button need not be pressed when raising the frame.) When raising both sections, be careful to raise first the head section, then the foot section.
- **To lower the safety frames**, lift slightly to relieve pressure on safety lock. Then press safety lock button and push the frame downwards against light resistance from the antivibration buffer. If both sections are raised, lower first the foot section, then the head section.



**Important:**

For safety reasons, it is not possible to press in the safety lock release buttons when the frames are under load from above. If you are unable to press in the release button, lift the section slightly to relieve downward pressure and then press in the button again.



6.16.4. Safety frames, Model 3080



The 3080 nursing bed is equipped with double-section, folding safety frames on each side. They are fully integrated into the mattress-frame and hence reposition automatically when the mattress-frame is being adjusted.

When not in use the frames are pushed out of sight beneath the mattress-frame. Carers have free access to the bed when fitting accessories, and there is also unrestricted floor clearance for lifting gear, even when the bed is fully lowered.

When raise, the frames provide:

- protection for the occupant of the bed
- support when getting into or out of the bed

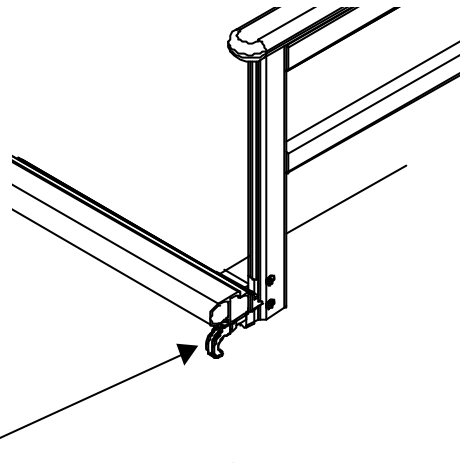


### Raising a safety frame section:

- Pull section horizontally out of its location to end-stop. Fold upwards until vertical and then press downwards about 1 cm. to activate safety lock.



### Lowering a safety frame section:



- pull out retaining catch at end of mattress-frame,
- lift safety frame to end-stop and then fold downwards until parallel to floor,
- push frame fully into its location beneath mattress-frame.

To protect occupant of bed, safety frames can be raised singly or together, as required. Raising all four sections affords maximum protection of the occupant.

Due to their exceptional stability, the frames can be used as a depository for bedding or as additional support for clinically desirable positioning, eg when carrying out physiotherapeutic treatment.

The frames also encourage autonomous mobility among care-receivers by providing secure support when sitting up and getting out of bed etc.

The safety frame sections can be used in three possible configurations per side:

1. Both sections completely lowered
2. Head section raised, foot section lowered (aid to autonomous mobility)
3. Both sections completely raised.

These three configurations make the Voelker 3080 nursing bed exceptionally flexible in use:

1. Completely lowered safety frames gives unrestricted access to the mattress-frame. The bed looks like a perfectly normal bed and hence contributes to a pleasant sense of well-being.
2. With head sections raised and foot sections lowered, the frames act as a support for occupants when getting into or out of bed. In this position, the frames give care-receivers a greater sense of security by marking the limits of the mattress-frame, while at the same time not restricting their freedom to come and go at will.
3. When all four sections are raised, occupants enjoy the maximum possible protection against falling or rolling out of bed.



**Caution:**

**Horizontally extended frames may not carry loads in excess of 15 kg (33 lbs)!**

## 6.17. Mains power supply cable

Take care not to damage the mains power supply cable when moving the bed. To do this pull the plug out of the mains socket, lay the mains cable over the bed head and put the plug securely between the mattress frame and bed head.



**Caution:**

**Check cable regularly for damage!**

**If cable is damaged, bed may not be used, or must be taken out of use at once!**

## 7. Functional testing

Carry out the following functional test to identify possible malfunctioning of the bed. This test ensures that you put a safe and operationally efficient bed into use. Possible risk to care-receivers and/or others is thereby reduced to a minimum.

The functional test should be carried out in the following circumstances:

1. When the bed is put into service for the first time.
2. When the bed is to be used by a new care-receiver.
3. When the bed is put back into service after a period in storage.
4. When the bed is put back into service after cleaning/disinfection.
5. At least once a year.

The test comprises the following procedures that **must** be carried out on **all** adjustment functions:

1. Back section adjustment
  - Max. angle 76°
2. Upper leg section adjustment
  - Max. angle 45°
3. Lower leg section adjustment
4. Height adjustment
5. Sloping position (models with de luxe manual control)
6. Extend and retract castors (brake function)
7. Check all visible components for damage, distortion, breakages and damaged cable.



**Replace complete Okimat if mains power supply cable is damaged!**

8. Deactivation of manual control unit on carers' keyboard (models with carers' keyboard)
9. Check lifting function and double-click function (models with carers' keyboard)
10. Check Trendelenburg/Countertrendelenburg function (models with carers' keyboard)
11. Press green button on mains plug for 1 second if 9 V battery is empty or disconnected in order to charge internal energy storage unit.
12. Safety locks on safety frames



### Warning:

Ensure that all functions are working properly. In the event of malfunctioning, the bed must be taken out of service at once and the defect corrected.

## 8. Cleaning and disinfection

### Wipe disinfection

The wipe disinfectants listed in the DGHM List of 01.07.1994 (Deutsche Gesellschaft für Hygiene und Mikrobiologie = "German Society for Hygiene and Microbiology") can be used in the concentrations recommended in the relevant manufacturer's instructions.

The use of solvents is **not** permitted.

**Do not use** abrasive cleaners, scouring pads or similar cleaning aids.

**Do not use** organic solvents such as halogenated/aromatic hydrocarbons and ketone.

Follow these instructions when using cleaning agents and/or disinfectants:

- Decontamination solutions in the prescribed concentrations may **not** exceed or fall below a pH-value of 6-8.
- They may **not** contain any corrosive or caustic substances.
- They may **not** contain substances that alter the characteristics of surface or the properties of plastic or synthetic materials.
- They may **not** affect the properties of lubricants.
- Water hardness may **not** exceed 0.9 mmol/l (to 5° d)  
(Fully desalinated water may **not** be used.)

Chloride	< 100 ppm
Silicate as SiO <sub>2</sub>	< 15 ppm
Iron	< 0.05 ppm
Manganese	< 0.01 ppm
Copper	< 0.05 ppm

**The following disinfectants and rinsing agents have been successfully tested by Voelker:**

Bed frames, Trolleys, Bedside cabinets, Theatre shoes, Utensils	Products	Function	Active ingredient	Concen- tration	Dosage
		VDV process			
mattresses	Weigosept disinfectants pray	alcoholic spray disinfectant	glyoxal, alcohol	100% 15 min. reaction time	dosage plant
beds bedside cabinets	neoform D plus	disinfection by wiping	QAV, glyoxal	0,5% 4 hours reaction time	dosage aid
	Weigosept DF		aldehyde, QAV	0,5% 4 hours reaction time	dosage aid
	neoquat 8		QAV	1% 4 hours reaction time	dosage aid

**DR. WEIGERT**

Chemische Fabrik Dr. Weigert (GmbH & Co.)

Mühlenhagen 85, 20539 Hamburg, FR Germany, Telephone 040/78960-0 . Fax 040/78960-120 . Telex 2 162 114

This information reflects the current state of our knowledge and experience. It does not exonerate users from carrying out their own tests and trials as conditions (eg water hardness) differ locally. No legally binding guarantee of any kind is granted or can be assumed.

We accept no liability for possible damage to surfaces arising from the use of unsuitable cleaning agents or disinfectants, from the use of incorrect concentrations or from the unsatisfactory care of the bed.

**Risk of electric shock, fire or breakdown**

Only clean and disinfect the bed after it has been switched off, ie when it has been disconnected from the mains power supply (pull plug out of socket).

Protect electrical components from water!

**Spray wands**

Cleaning and disinfection with spray wands is prohibited.

## 9. Accessories

### 9.1. Accessories for nursing beds

Voelker supplies an extensive range of easy-to-fit accessories to achieve the greatest possible flexibility. For further details of their use, please see the following description. You will find part numbers and illustrations in the overview of accessories.



#### Description of individual accessories:

**Sliding trays** are used as working surfaces and for serving care-receivers' food. When not in use they are normally hung on to the footboard. In use, they are placed across the raised safety frames, where they can be slid back and forth at will.

**The bed occupant's grab-handle** helps care-receivers to sit up or lie down in bed. It is easily fitted into drop-in fixing locations situated at each corner of the bed between the headboard and the mattress.



#### **Warning:**

Owing to the high risk of injury by tipping over, the grab-handle is **not** intended to lift occupants in and out of bed and it **may never** be used for this purpose.

**Safety frame protective covers** are softly padded, wipe-clean, pull-over covers for the safety frames that protect care-receivers from injury caused by coming into contact with the frames.

An **adapter sleeve** for the grab-handle fixing location enables it to accept a drip-feed stand at the head of the bed.

The **drip-feed stands** accept up to four drip-feed bottles. They are chromium-plated, height-adjustable and are snapped into an adapter sleeve at the head of the bed or into an adapter on the slide bar.

**Drip feed holder** with three hooks. This can be attached to the grab-handle pole to accept up to three drip-feed bottles.

The **bedding tray** is a pull-out tray fitted to the foot of the bed that can be used to hold bedding while the bed is being made up. When not in use, the tray is pushed out of sight beneath the bed.











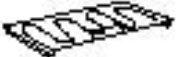


**Warning:**











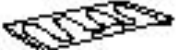
Don't sit or stand on the bedding tray!  
Maximum load: 12 kg (ca. 26 lbs).



**Zubehör und Bestellnummern für die Pflegebettserie 3010.**

- 3052** Schiebetabrett zur Auflage auf die Sicherheitsseitenteile, passend zum Völker 3010
- 3052 S** Schiebetabrett wie oben, passend für Völker Pflegebett 3010 S 
- 3052 FS** Schiebetabrett wie oben, passend für Völker Pflegebett 3010 FS
- 3053** Aufrichter  
 Edelstahl poliert, am Kopfende beidseitig einsteckbar, schwenkbar, Triangelgriff höhenverstellbar 
- 3054** Urinfaschenkorb zum Einhängen in T-Schiene (Adapter 3060) 
- 3055** Infusionshalter mit 3 Haken, aufsteckbar auf Aufrichter 
- 3056** Schutzüberzug für Seitenteile antibakterielle Schaumpolsterung mit Kunstlederbezug
- 3057** Infusionsständer mit 4 Haken, höhenverstellbar, verchromt, zum Einstecken in T-Schiene (Adapter 3060) 
- 3058** Einzel-Faschenkorb zum Einhängen in T-Schiene (Adapter 3060) 
- 3059** Doppel-Faschenkorb zum Einhängen in T-Schiene (Adapter 3060) 
- 3060** Adapter T-Schiene für Aufnahme Zubehör, Montage in der T-Schiene, über die gesamte Bettlänge in die gewünschte Position verstellbar. 
- 3061** Adapterhülse zum Einstecken in die Aufnahmevorrichtung des Aufrichters, Aufnahme des Infusionsständer 
- 3062** Universalhaken zum Einhängen in T-Schiene, Aufnahme für Urinbeutel etc. 
- 3063** Bettzeugablage fußseitig unter dem Bett, herausziehbar, mit Klappbügel 

**Zubehör und Bestellnummern für das Pflegebett 2080.**

- 2052** Schiebetabrett zur Auflage auf die Sicherheitsseitenteile, passend zum Völker 2080
- 2052 FS** Schiebetabrett wie oben, passend für Völker Pflegebett 2080 FS 
- 2056** Schutzüberzug für Seitenteile antibakterielle Schaumpolsterung mit Kunstlederbezug
- 3053** Aufrichter Edelstahl poliert, am Kopfende beidseitig einsteckbar, schwenkbar, Triangelgriff höhenverstellbar 
- 3054** Urinfaschenkorb zum Einhängen in T-Schiene (Adapter 3060) 
- 3055** Infusionshalter mit 3 Haken, aufsteckbar auf Aufrichter 
- 3057** Infusionsständer mit 4 Haken, höhenverstellbar, verchromt, zum Einstecken in T-Schiene (Adapter 3060) 
- 3058** Einzel-Faschenkorb zum Einhängen in T-Schiene (Adapter 3060) 
- 3059** Doppel-Faschenkorb zum Einhängen in T-Schiene (Adapter 3060) 
- 3060** Adapter T-Schiene für Aufnahme Zubehör, Montage in der T-Schiene, über die gesamte Bettlänge in die gewünschte Position verstellbar. 
- 3061** Adapterhülse zum Einstecken in die Aufnahmevorrichtung des Aufrichters, Aufnahme des Infusionsständer 
- 3062** Universalhaken zum Einhängen in T-Schiene, Aufnahme für Urinbeutel etc. 
- 2063** Bettzeugablage fußseitig unter dem Bett, herausziehbar, mit Klappbügel 

## 10. Technical specification

### 10.1. Technical data, Models 2080, 3010, 3080

	2080	3010	3080
Length	204.5/224.5 cm	212.5/232.5 cm	204.5/224.5 cm
Width		98 – 102 cm	
Height			
Height adjustment range	34.5 cm		40.5 cm
Top edge mattress-frame	35.5 - 70 cm		39.5 – 80 cm
Mattress-frame (4-sectional)		90 x 200 cm 100 x 200 cm 90 x 210 cm 100 x 210 cm Special versions	
Net weight		ca. 97 kg	
Safe working load		170 kg	
Swivel castors, 4		Type: K-100/2x1 Halver Rollen or Blickle Rollen	
Castor load (dynamic)		100 kg, Vulkolan tyres	
Mains voltage		AC 230 V	
Nominal capacity		350 W	
Nominal frequency		50 bis 60 Hz	
Transformer		150 VA	
Manual control unit fuse		Type: Polyswitch, fixed, 400 mA	
Mattress-frame motors fuse		Type: Polyswitch, fixed, 2,5 A	
Lifting gear motors fuse		Type: Polyswitch, fixed, each motor 3 A	
Battery		Type 9 V block battery (alkali-manganese, commercially available)	
Standard manual control unit		Type: Voelker	
De luxe manual control unit		Type: Voelker	
Carers' keyboard		Type: Voelker	
Linear drive for			
Back section, upper leg section		Type: Okimat 2+2 Okin	
Lifting gear motor		Type: 390.257 Bosch	
Temperature range in use		+10°C to +40°C	
Temperature range, transport/storage		-20°C to +60°C	
Humidity		30% to 75%	
Atmospheric pressure range		700hPa to 1060hPa	

## 10.2. Classification

Protection against electric shock	Safety category II or equipment with internal electrical power source
Protection type	IP X4
Degree of protection of working parts against electric shock	Typ B
Degree of protection against explosive materials and compounds	The bed is not explosion-protected and may not be used in environments in which there are inflammable anaesthetics or cleaning agents (see leaflet ZH 1/200 of professional association).
Duty cycle	ED 10% Operating time max. 2 min. Max. 5 switched operations per min.
MPG category	Class 1

## 10.3. Functions

Height adjustment	electric motor
Back section adjustment	electric motor; 76°
Upper leg section adjustment	electric motor; 45°
Lower leg section adjustment	manual
Raised leg positioning	electric motor/manual

## 10.4. Key to symbols



Moving part, Type B according to DIN EN 60601 - 1



Safety Category II, protectively insulated



Caution! – Note operating instructions.

## **11. Declaration of conformity**

**(according to Appendix VII EU Directive 93/42/EWG)**

The signatory

Völker Möbelproduktionsges. mbH  
Wullener Feld 79, 58454 Witten

confirms that the product(s) described below and in the form distributed by ourselves meet(s) the basic requirements of Appendix I of EU Directive 93/42/EWG.

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 product(s) is/are altered without the agreement of the manufacturer.

**Description of product(s):**  
**Nursing beds**

**Type/Article No:**  
**2080/3010/3080**

EU Directives:

Directive 93/42/EWG of 14.06.1993 concerning 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.

Witten, September 1999



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pp Michael Hüppe  
Sales & Marketing Manager