

# manual.



**MULTILINE NEXT DC. THERAPY COUCH FOR DIALYSIS AND CHEMOTHERAPY.**  
Instruction manual: 422 Dialysis Couch



# MULTILINE NEXT DC

Item No.: 4225502

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## Table of contents

<b>1</b>	<b>Introduction</b>	<b>5</b>
1.1	Validity	5
1.2	Manufacturer	5
1.3	Note on pictorial representations	5
1.4	Warranty and liability	5
1.5	Service manual	5
1.6	Type plate	6
<b>2</b>	<b>Safety</b>	<b>7</b>
2.1	Signal words	7
2.2	Device safety	7
2.2.1	Safety inspection	8
2.3	Personal safety	8
2.4	Intended use	9
2.4.1	Reasonably foreseeable misuse	9
<b>3</b>	<b>Commissioning</b>	<b>10</b>
3.1	Safety instructions for commissioning	10
3.2	Installation requirements	10
3.3	Scope of delivery	11
3.4	Packaging	12
3.5	Preparation	12
3.5.1	Removing the packaging	13
3.5.2	Preparation for assembly	14
3.5.3	Releasing the transport lock	15
3.5.4	Attaching the leg section drive	16
3.5.5	Electrical commissioning	17
3.5.6	Attaching the footrest	18
3.5.7	Attaching the seat upholstery	20
3.5.8	Pushing the couch off the transport pallet	23
3.5.9	Disposal of the packaging material	23
3.6	Requirements on the place of operation	24
3.7	Check before commissioning and reassignment	24
<b>4</b>	<b>Operation</b>	<b>25</b>
4.1	Safety instructions for operation	25
4.2	Structure	26
4.3	Hand control	27
4.3.1	Unlocking and locking the hand control	28
4.3.2	Basic position	29
4.3.3	Relax position	30
4.3.4	Bed position (flat position)	31
4.3.5	Shock position	32
4.4	Duty cycle	33
4.5	Battery mode	33
4.6	Foot switch	34
4.7	Equipotential bonding pin	34
4.8	LED reading lamp	35
4.9	Armrests	36
4.10	Footrest	38

4.11	Driving	39
4.12	Braking	40
4.12.1	Castors with central locking	40
4.12.2	Castors with central locking and directional control	41
4.12.3	Single-braked castors	43
4.13	Sitting down and standing up of the patients	44
4.14	Patient transportation	44
4.15	Infusion rod holder and infusion rod	45
<b>5</b>	<b>Accessories</b>	<b>46</b>
5.1	Premium material	46
5.2	Neck roll	46
5.3	Relax pillow	47
5.4	Neck roll / Relax pillow in premium material	47
5.5	Arm supports in premium material	47
5.6	LED reading lamp	48
5.7	Legrest upholstery protection cover	48
5.8	Footrest protection cover	49
5.9	Battery	49
5.10	Push handle with paper roll holder	50
5.11	Padded arm supports	50
5.12	Infusion rod holder	51
5.13	Infusion rod	51
5.14	Standard rails	52
5.15	Seat with pressure relief	52
5.16	Foot switch	53
5.17	Mains cable	53
<b>6</b>	<b>Cleaning and disinfection</b>	<b>54</b>
6.1	Cleaning	55
6.2	Disinfection	55
<b>7</b>	<b>Troubleshooting</b>	<b>56</b>
7.1	Initialisation of actuators	57
7.2	Control unit RESET	58
7.3	Troubleshooting table	59
<b>8</b>	<b>Decommissioning</b>	<b>61</b>
8.1	Service life	61
8.2	Storage and transportation	61
8.2.1	Battery	61
8.3	Check before recommissioning	62
8.4	Disposal	63
<b>9</b>	<b>Appendix</b>	<b>64</b>
9.1	Explanation of symbols	64
9.2	Ordering spare parts	64
9.3	Return delivery / repair order	64
9.4	Technical data	65
9.5	Proof of instruction	66
9.6	Glossary	68
9.7	Notes	69

## 1 Introduction

With this instruction manual (hereinafter also referred to as the "manual") we would like to provide the user and operator with useful information for safe and proper operation of the MULTILINE NEXT DC couch (hereinafter also referred to as the "couch").

This manual also describes functions or features that may not be included in your couch.

This manual contains information on the safe use of the couch according to its intended use (see 2.4 Intended use).

Observance of the instructions helps to

- avoid risks.
- reduce downtime.
- reduce ongoing operating costs.
- increase the reliability and service life of the couch.

We reserve the right to make technical changes without notice within the scope of further development of the couch described in this manual.

The original of this manual was written in German. All other languages are translations of this manual.

### 1.1 Validity

This manual applies only to the couch and accessories supplied by GREINER GmbH (also abbreviated to GREINER).

### 1.2 Manufacturer

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74385 Pleidelsheim / Germany  
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### 1.3 Note on pictorial representations

The photos / illustrations are general illustrations and may differ from the actual conditions or from the components actually used.

### 1.4 Warranty and liability

Our General Terms and Conditions (GTC) apply in the currently valid version at [www.greiner-gmbh.de](http://www.greiner-gmbh.de).

In the event of a complaint (damage, defects or other reasons for complaint), your authorised specialist distributor is the appropriate contact person. Please provide the data of the type plate (and possibly a photo) (see 1.6 Type plate).

The more accurate and better the data, the better and more targeted the remedy can be provided.

**NOTE** This couch is not approved for the North American market, especially the United States of America. The distribution and use of the couch in these markets, also through third parties, is prohibited by the manufacturer.

### 1.5 Service manual

A service manual can be provided on request. This supports the service technicians of the authorised specialist distributors or other qualified personnel commissioned by the operator in the maintenance or repair of the couch.

## 1.6 Type plate

The type plate of the couch is located (depending on the version) either at the rear of the plastic cover of the lower part or on the outside of the bearing (not shown).

It contains the following information (see also 9.4 Technical data, if necessary).
















Symbol	Meaning	Symbol	Meaning
	Manufacturer		Product name
<b>Cushion</b>	Cushion colour or type		Serial number
	CE marking		Warning
	Follow the instructions		Date of manufacture
<b>Customer</b>	Customer number or name		Safe working load
<b>V in:</b>	Input voltage/frequency		Alternating current
<b>I in max.</b>	Input current	<b>U out:</b>	Output voltage
<b>IPX4</b>	IP rating	<b>Op:</b>	Duty cycle
	Indoor application		Protection class I
	Thermal fuse element		Applied Part: Type B
	No domestic waste		Isolating transformer



Fig. 1 Type plate - plastic cover

Further type plates can be found on all electrical components.  
Type plates are documents that may not be altered or removed.  
Damaged or lost type plates must be replaced true to the original.

1. Type plate (example)

## 2 Safety

The main objective of the safety instructions is to prevent injury to persons.

In addition, observation of the safety instructions helps to avoid material damage.

As the operator you have purchased a MULTILINE NEXT DC couch from GREINER GmbH. As a result, you are also responsible for its proper and intended operation.

### 2.1 Signal words

In order to point out dangers, prohibitions and important information, the following signal words and symbols are used in this manual. These must be read and strictly observed.

**DANGER** This signal word indicates an **imminent danger** resulting in **serious injuries**, and in some cases **death**.



**WARNING** This signal word indicates a **potential imminent danger**, which can result in **serious injuries**, and in some cases **death**.



**CAUTION** This signal word indicates a **potential imminent danger**, which can result in **light to serious injuries**.



**NOTE** This signal word indicates a **potential imminent danger**, which can result in **damage to property and the environment**.



Indicates tips for use or other particularly important information when handling the couch.

### 2.2 Device safety

Greiner couches were built in accordance with the applicable national and international standards and regulations according to the current state of the art and tested by an independent body.

This couch meets the requirements for safety and functionality. It bears the CE mark, which documents compliance with the basic requirements for medical devices.

The couch described in this instruction was designed and manufactured in compliance with the EC Directive 93/42 EEC (MDD - Medical Device Directive) and meets its requirements. According to the Medical Devices Act (MPG), it is an active medical device of risk class I.

The validity of the declaration of conformity expires if changes are made to the couch by the customer or third parties, e.g. modifications of any kind, use of external accessories, changes to the software, removal of warning and information signs (no claim to completeness).

Due to the chosen robust, interference-proof design of the electrical adjustment devices, the couch is largely tolerant to EMC interference from other electrical equipment operated in the vicinity.

Despite comprehensive EMC testing, it is possible that other devices may be disturbed by the couch.

In such cases, either switch off the couch completely by disconnecting the mains plug or disconnect it from the mains, or, if necessary, keep a larger distance from the disturbed device and change the orientation to each other. If possible, do not use the same outlet.

This applies in particular to the simultaneous use of highly sensitive measuring instruments. Their measurement results may be influenced under certain circumstances.

The couch can be equipped with accessories on delivery (see 5 Accessories).

If necessary, observe the instruction manuals for the accessories. For further information, please contact your authorised specialist distributor.

All prohibition, warning and message symbols or instructions on the couch must be observed. The symbols and notes must always be legible and complete. Damaged or lost symbols or notes must be replaced true to the original.

The couch is mainly made of steel tubes or steel profiles. The surfaces are either powder-coated or coated with zinc or chrome.

All surfaces are harmless against skin contact.

### 2.2.1 Safety inspection

#### Legal foundations

Operators of electrically driven couches for medical use are, in accordance with

- EC Medical Device Directive 93/42 EEC (MDD)
- and the resulting national laws/regulations (e.g. in Germany)
- German Medical Device Operator Ordinance (MPBetreibV) § 4 (repair)
  - DGUV Information 203-071 (periodic inspections of mobile electrical work equipment).
  - DGUV Regulation 3 Accident Prevention Regulation (electrical systems and equipment).

obliged to maintain the safe condition of medical devices throughout the entire period of use. This also includes regular professional maintenance and regular safety checks.

In other countries, outside Germany or the EU, the applicable national regulations must be observed.

GREINER GmbH generally recommends an annual maintenance according to the maintenance table as well as a safety inspection with simultaneous electrical inspection according to IEC 62353 (see service manual).

### 2.3 Personal safety

To avoid errors and to ensure trouble-free operation of the couch, the safety instructions in this instruction manual must have been read and understood completely and must always be made available to the user at all times (in printed or electronic form).

Basic instruction for the user can be given by GREINER GmbH or its authorised specialist distributor at the request of the operator.

Participation in such a training will be certified in a special form with name, date and signature (see 9.5 Proof of instruction).

Patients must be instructed in the use of the couch before activating the hand control.

For the definition or delineation of the groups of persons in this Instruction manual see under 9.6 Glossary.

In other countries, outside Germany or the EU, the applicable national regulations and laws must be observed. In Germany, the provisions of the Medical Devices Act (MPG), the Medical Devices Operator Ordinance (MPBetreibV) and the relevant statutory regulations must be observed.

#### Notes to the operator

- This couch meets all requirements of the EC directive 93/42 EEC for medical devices. It is classified, designed and manufactured as an active class I medical device in accordance with the Medical Devices Act (MPG).
- Observe your obligations as operator according to the Medical Device Operator Ordinance (MPBetreibV) to ensure a permanently safe operation of this medical device without endangering patients, users and third parties.

#### Notes to the user

- In accordance with MPBetreibV, the user must ensure that the couch is functional and in proper condition before using it in medical areas and must observe the Instruction manual.
- The same applies to any accessories that have been attached to the couch.

#### Notes to the patients

- With each new assignment, the patient must be instructed in the important functions of the couch. Instruction is usually given by the user.



## 2.4 Intended use

The MULTILINE NEXT DC couch from GREINER GmbH is a medical couch for use by patients in health facilities such as hospitals, clinics, medical practices and dialysis centres. It is intended exclusively for use inside buildings and under normal environmental conditions.

The MULTILINE NEXT DC couch was specially developed for use in dialysis treatment, e.g. in a dialysis centre.

- The safe working load of the couch is 220 kg.
- The couch is used mainly as a place for sitting or lying while receiving a dialysis treatment.
- The couch allows the convenient and comfortable positioning of the patient during dialysis therapy. The user is supported in his or her work with regard to ergonomics and quality.
- As a treatment couch for sitting and lying treatments or examinations.
- The couch can be used for patient transport under certain conditions within buildings.
- The intended users are trained and instructed medical personnel of the relevant department (e.g.: nurses, carers, doctors, assistants, etc.).
- Installation and commissioning by technical personnel of the operator or authorised specialist distributors, if necessary.

### 2.4.1 Reasonably foreseeable misuse

Reasonably foreseeable misuse can lead to hazards.

Some examples of "reasonably foreseeable misuse" are given below.

(no claim to completeness)

- Use in the vicinity of high-frequency surgical units, MRI units or defibrillators.
- Use in an environment where flammable or explosive gases or vapours (e.g. anaesthetics) are to be expected.
- Use as a work chair.
- Use in the operating theatre.
- Use as operating chair or operating table.
- Use as a spare hospital bed or spare bed.
- Overloading of the couch above the specified safe working load.
- Operation of the couch by patients without prior instruction.
- Improper operation of electrical functions and uncontrolled positioning.
- Outdoor use.
- Use in wet areas, e.g. bathing establishments.
- Use as a climbing aid (ladder).
- Use as a children's toy, e.g. gymnastics or sports equipment.
- Use as a vehicle or for the transport of goods.
- Try to move the couch although the castors are in the braked position.
- Pull on cables to move the couch.
- Disconnect electrical connectors by pulling on the cable.
- Cleaning in washing facility.
- Cleaning with a spray lance of a high-pressure cleaner or water jet.

## 3 Commissioning

The chapter commissioning describes the preparation of the couch for use including a final check of the functional safety (see 3.7 Check before commissioning and reassignment).

**TIP** The use of specially trained and instructed service personnel during commissioning is neither necessary nor intended.

### 3.1 Safety instructions for commissioning

Before commissioning the couch, the user must be instructed in the handling of the couch using the instruction manual, having previously read it in detail. In addition, the potential dangers that may occur despite proper operation of the couch must be pointed out in detail.

#### Operator's obligation - instruction

- The operator must observe the respective valid national specifications and legal regulations.
- The operator must ensure that the users are instructed before using the couch.
- The instruction can be given either by an authorised person of an authorised specialist distributor or directly by the manufacturer.

**TIP** If the delegated person of the operator, e.g. the person responsible for medical devices, has been instructed by an authorised person of an authorised specialist distributor or by the manufacturer, we would like to point out that we authorise the person responsible for medical devices of the operator within the scope of the purpose for the instruction of the couch on the basis of training, experience and knowledge.

- The operator must ensure that the instruction manual has been read and understood completely by the users. The operator must disclose the place where the instruction manual is stored and make it accessible at all times.
- The operator must ensure that representative personnel also receive adequate instruction in the operation of the couch.
- The operator must ensure that the couch is operated exclusively by trained users.
- The operator must inform the users that the patients may only operate the couch after their instruction, if necessary only under supervision.

#### **TIP** Electrical testing before commissioning.

A further electrical inspection of the couch before the first commissioning is not necessary, as the couch has been tested for electrical safety in accordance with EN 60601 (test report in instruction manual) and has left our factory in perfect condition.

In other countries, outside Germany or the EU, the applicable national regulations and laws must be observed. Additional commissioning specifications of the operator must always be observed. In individual cases, a new electrical inspection must be carried out and documented in accordance with IEC 62353 (see service manual).

#### **DANGER** Danger of suffocation from packaging material.



Packaging material is not a toy and must be kept away from babies and small children. In particular, do not pull the plastic bags or sacks over your head or crawl into them.

### 3.2 Installation requirements

The couch is only approved for use in buildings and under normal ambient conditions, or for use in dry rooms (see 9.4 Technical data).

The following environmental conditions must be observed on site.

Operating temperature [C]:

+ 5  + 40

Air humidity [rH] (non-condensing):

20 % - 90 %

Air pressure [hPa]:

700 - 1060

Operation at estimated altitude [m]:

 ≤ 2000

## 3.3 Scope of delivery

### Configuration options

There are basically 3 different versions of the MULTILINE NEXT DC couches. They differ in the number of electrical adjustment options.

In addition, the type of brake system installed for the castors determines the principle variant.

The MULTILINE NEXT DC couch therefore has 8 configuration options.

The couch can be equipped with accessories (see 5 Accessories).

MULTI- LINE NEXT DC	Actuators					Castors		
	Back adjustment	Seat inclination	Leg section	Height adjustment	Footrest	Single-braked	Central locking	Central locking directional control
4223000	✓	✓	✓			✓		
4223100	✓	✓	✓				✓	
4224000	✓	✓	✓	✓		✓		
4224100	✓	✓	✓	✓			✓	
4224200	✓	✓	✓	✓				✓
4225000	✓	✓	✓	✓	✓	✓		
4225100	✓	✓	✓	✓	✓		✓	
4225200	✓	✓	✓	✓	✓			✓

## 3.4 Packaging

The MULTILINE NEXT DC couch is packed and shipped as shown below.

**TIP** Carry out a visual check of the outer packaging immediately after delivery and before unpacking. Make a written record of any major obvious damage directly on the carrier's delivery note [A] [B]. Later complaints are facilitated by the immediate creation of meaningful photos, if possible in the presence of the delivery driver.

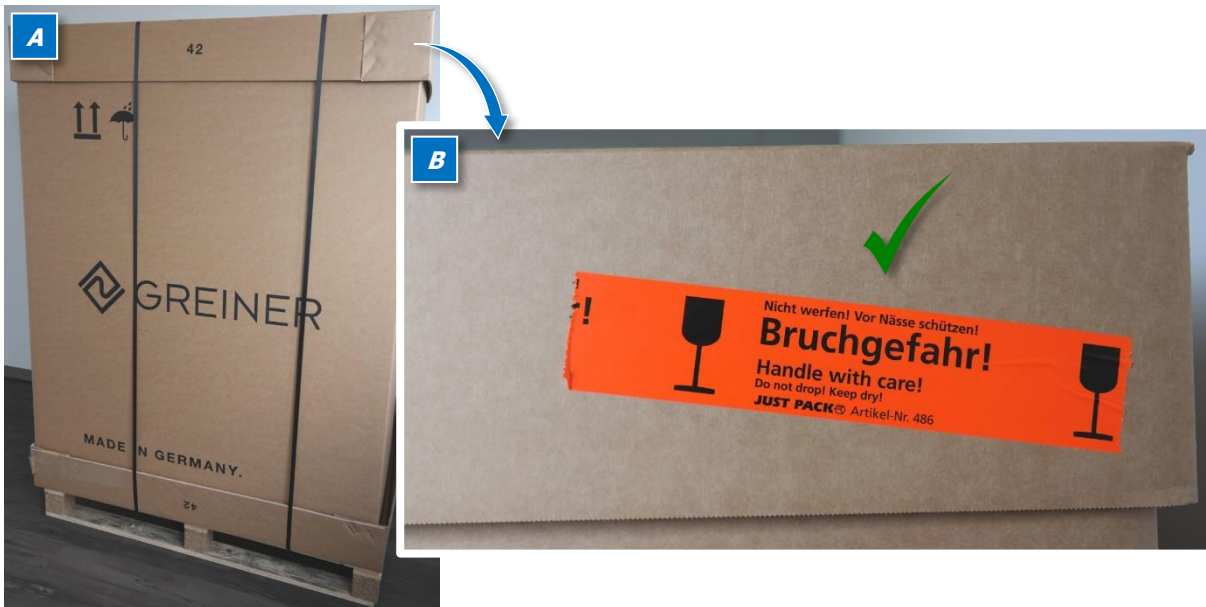


Fig. 2 Shipment packaging

## 3.5 Preparation

The preparation section describes and shows how to unpack the couch and make it ready for operation using the example of a fully equipped MULTILINE NEXT DC with 5 adjustment drives and central locking of the castors (4225100) [A] [B].

**NOTE** The procedure and sequence of the simple work steps must be strictly observed, otherwise personal injury may occur. The couch or parts of the couch will be severely damaged in any case if the following activities are not carried out correctly.



Fig. 3 Shipping position

Fig. 4 Operating position

### 3.5.1 Removing the packaging

#### Personnel requirements

- 1 User

#### Required tools and aids

- ✂ Scissors

#### Way of proceeding

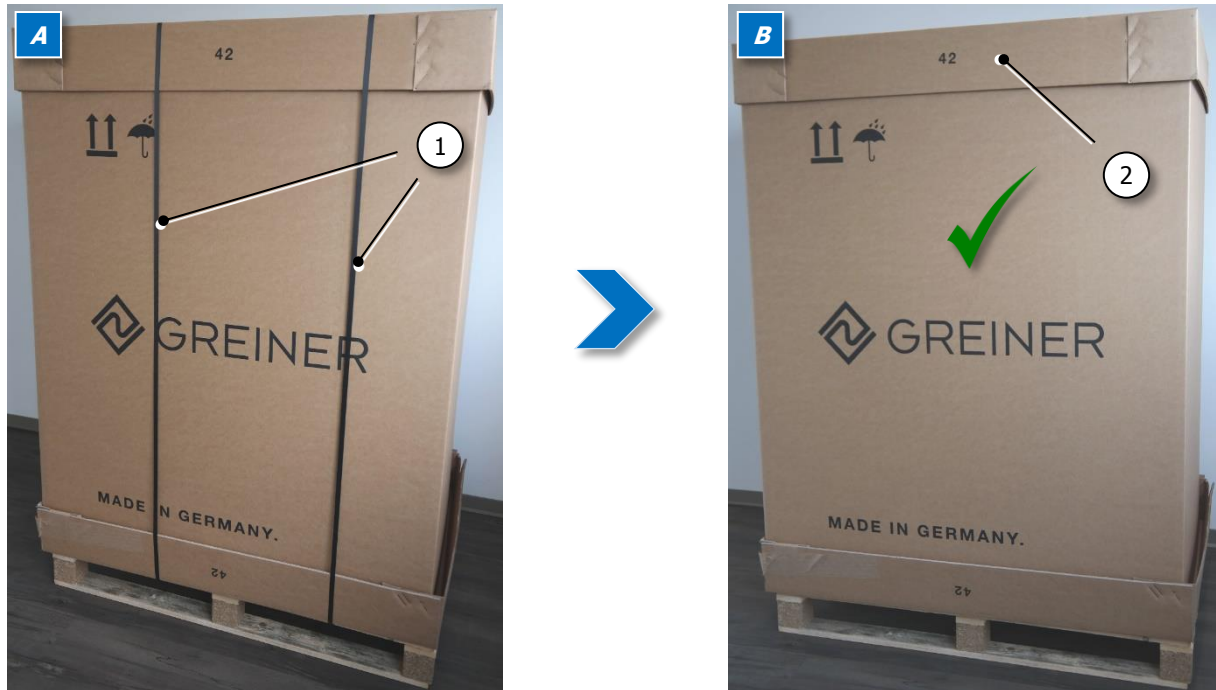


Fig. 5 Removing the tensioning straps

1. Use scissors to cut through the tensioning straps (1) and then remove them [A] [B].

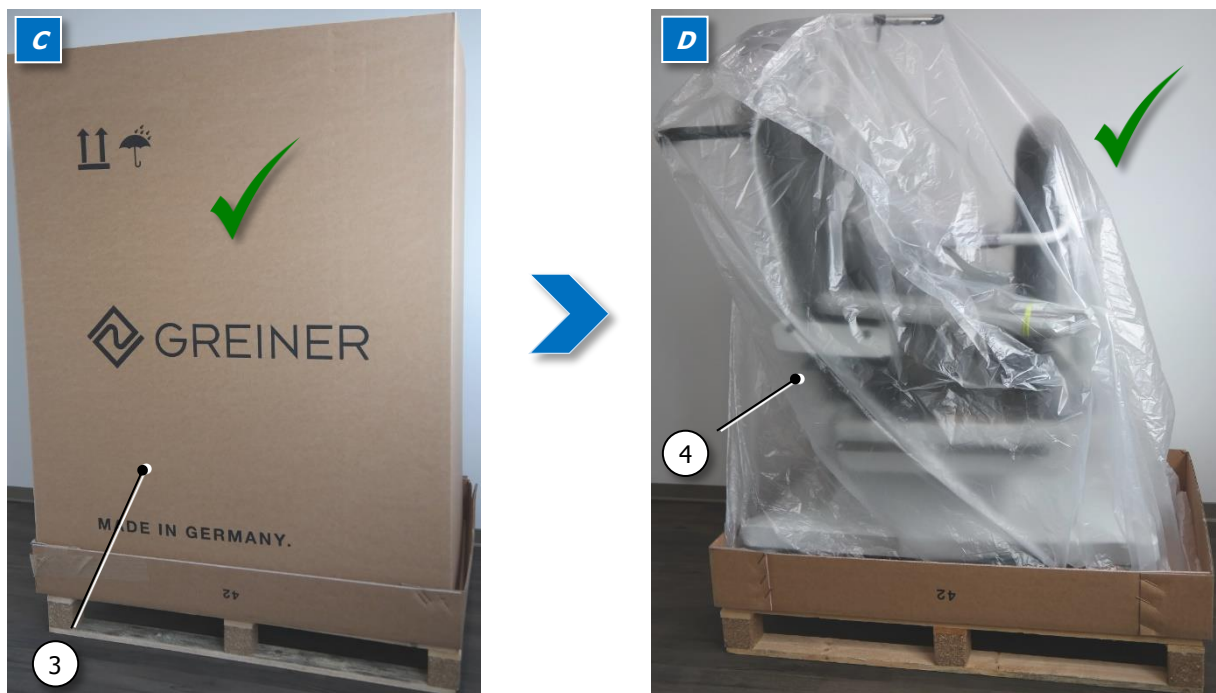


Fig. 6 Removing the packaging material

2. Remove the cardboard lid (2), the outer packaging (3) and the protective film (4) upwards [B] [C] [D].

#### NOTE

Do not cut the packaging with a knife or long blade.  
The upholstery material or other parts of the couch could be damaged.



## 3.5.2 Preparation for assembly

### Personnel requirements

- 1 User

### Required tools and aids

- ✂ Scissors

### Way of proceeding

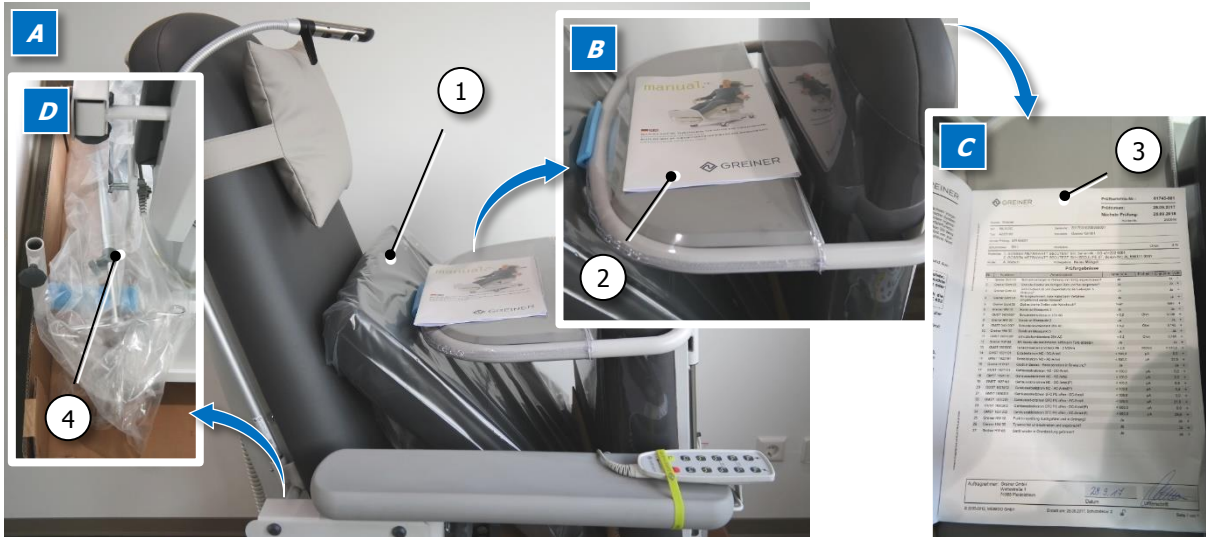


Fig. 7 Removing the seat upholstery, the manual and accessories

1. Remove the seat upholstery (1) and the manual (2) [A] [B].
2. Manual with electrical test (3) (test report) [C].
3. Remove the infusion rod (4) if necessary [D]

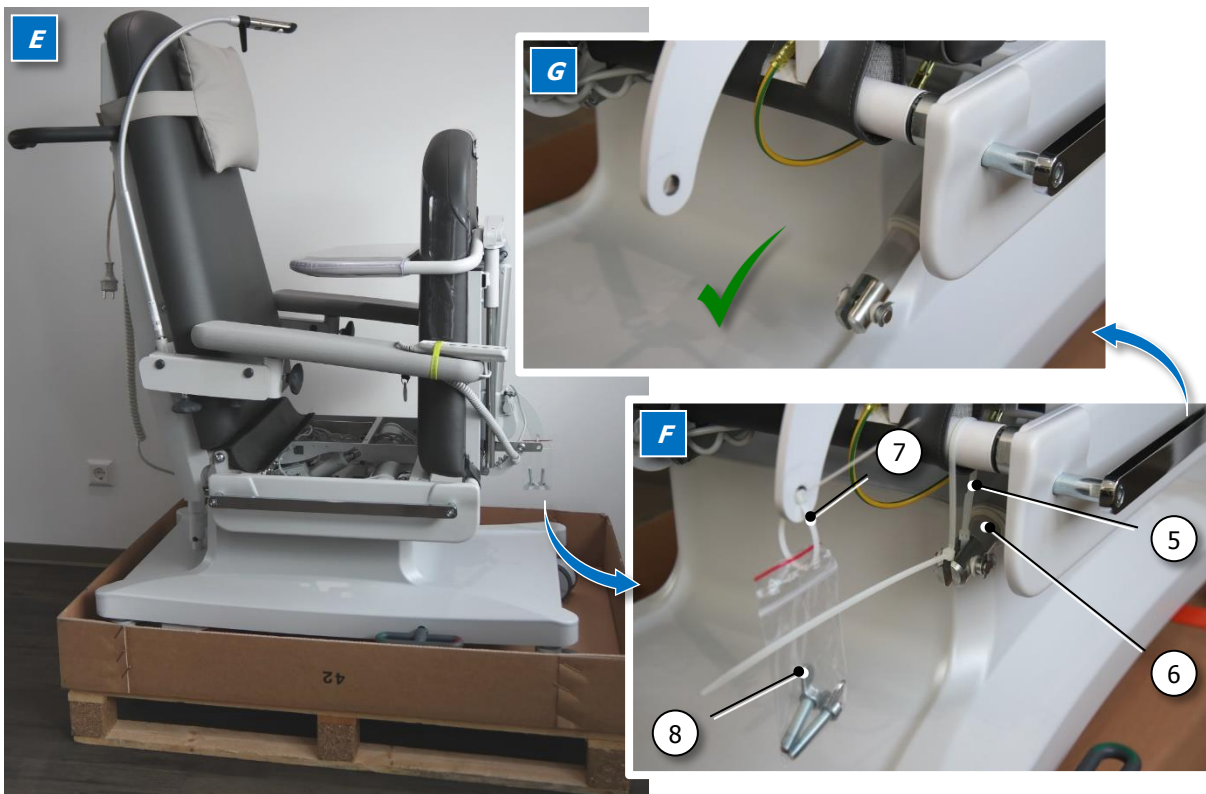


Fig. 8 Removing the cable ties / removing the wing screws

4. Cut through the cable tie (5) for securing the leg section drive (6) during transportation [F].
5. Cut through the cable tie (7) on the wing screws (8) for fastening the seat upholstery. Remove the wing screws [F]. Do not lose the wing screws, as both are needed later again [G].

### 3.5.3 Releasing the transport lock

#### Personnel requirements

- 1 User

#### Required tools and aids

- ✎ None

#### Way of proceeding

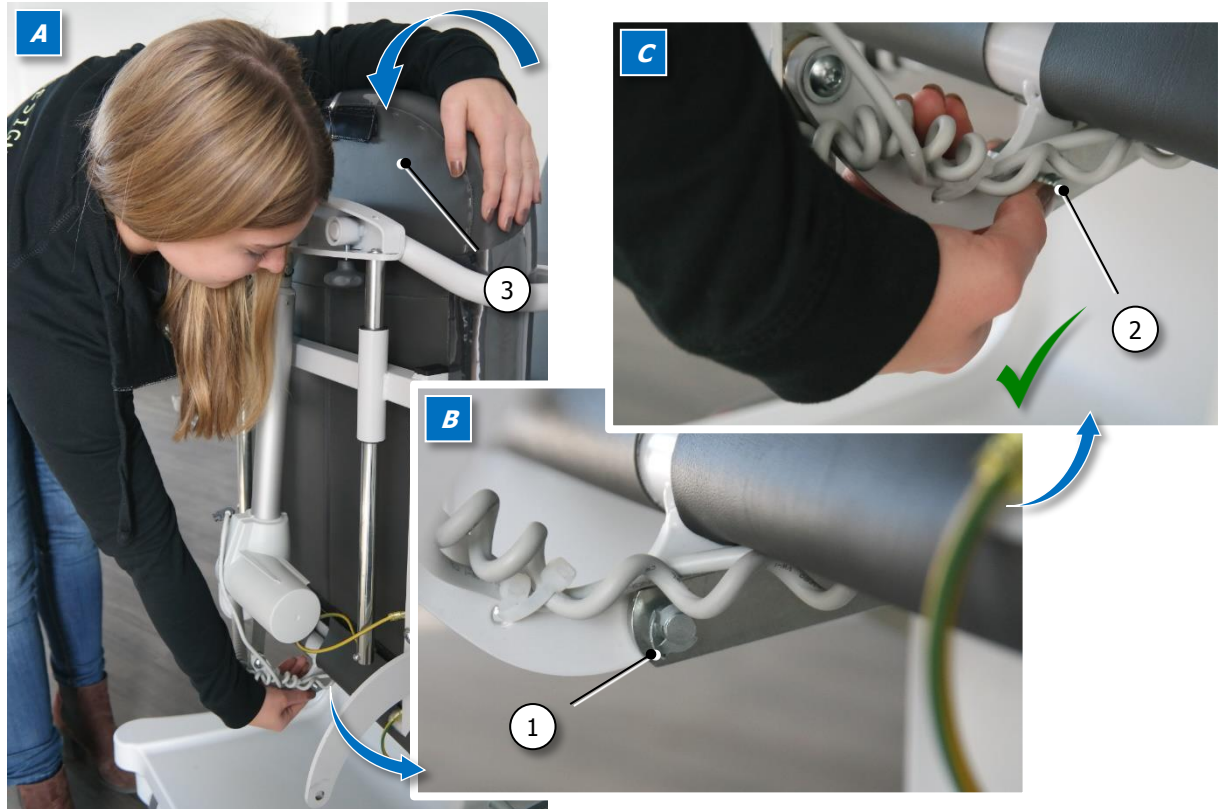


Fig. 9 Pulling out the axle of the transport lock

1. Remove the circlip (1) on the axle (2) of the transport lock [B] [C]. Do not lose the circlip and the axle, as both are needed later again.
2. Release the axle when pulling it out. To do this, move the leg section (3) slightly and hold it firmly [A].

#### **CAUTION** Risk of trapping and crushing.



Use your hand to guide the leg section when lowering. Hold the leg section while lowering and do not let it fall freely.

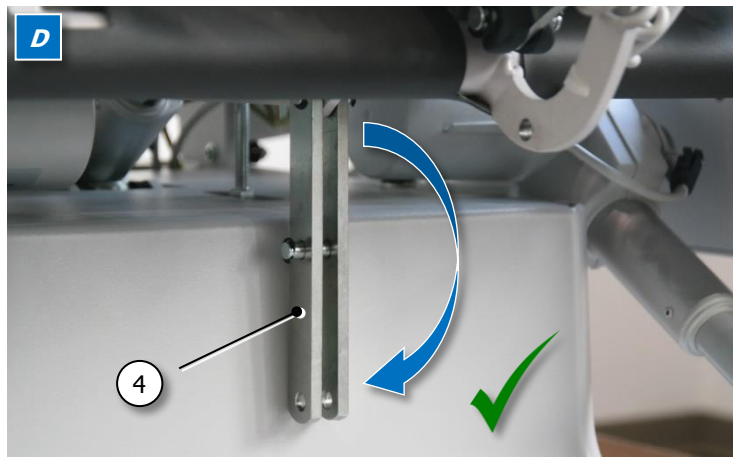


Fig. 10 Folding down the cross bar

3. Fold down the cross bar (4) vertically [D].

### 3.5.4 Attaching the leg section drive

#### Personnel requirements

- 1 User

#### Required tools and aids

- ☞ None

#### Way of proceeding

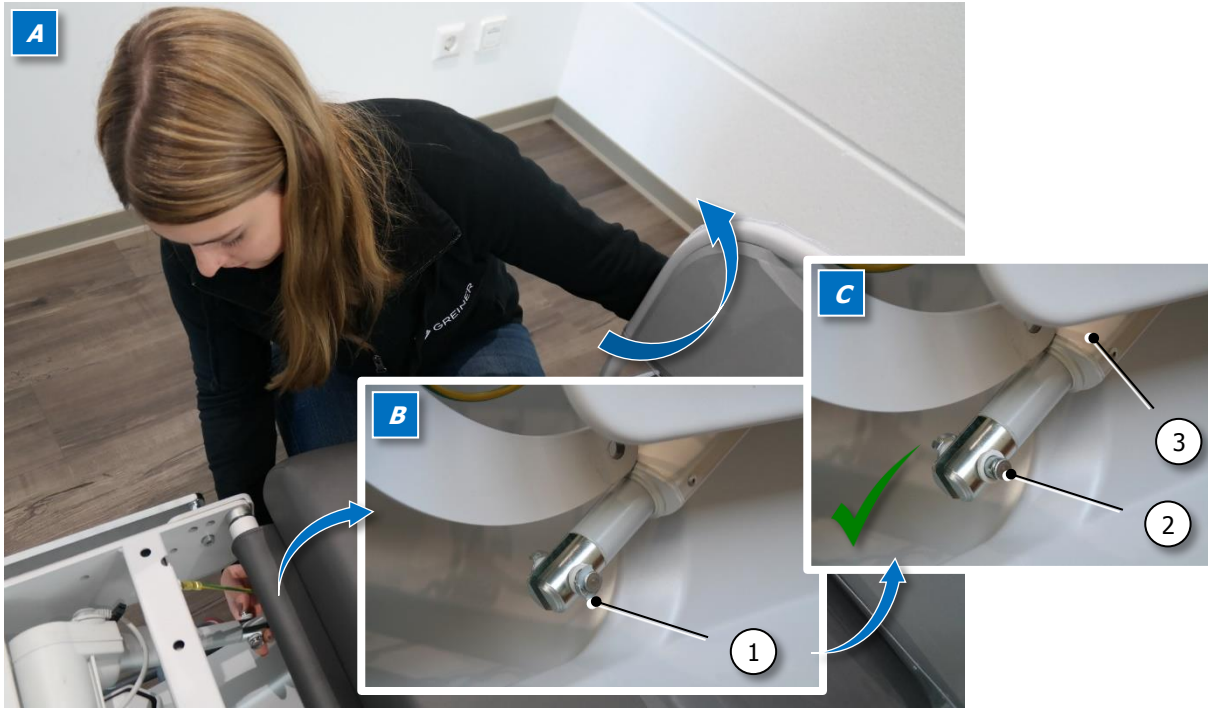


Fig. 11 Pulling out the axle on the leg section drive

1. Remove the circlip (1) on the axle (2) of the leg section drive (3) [A] [B] [C].

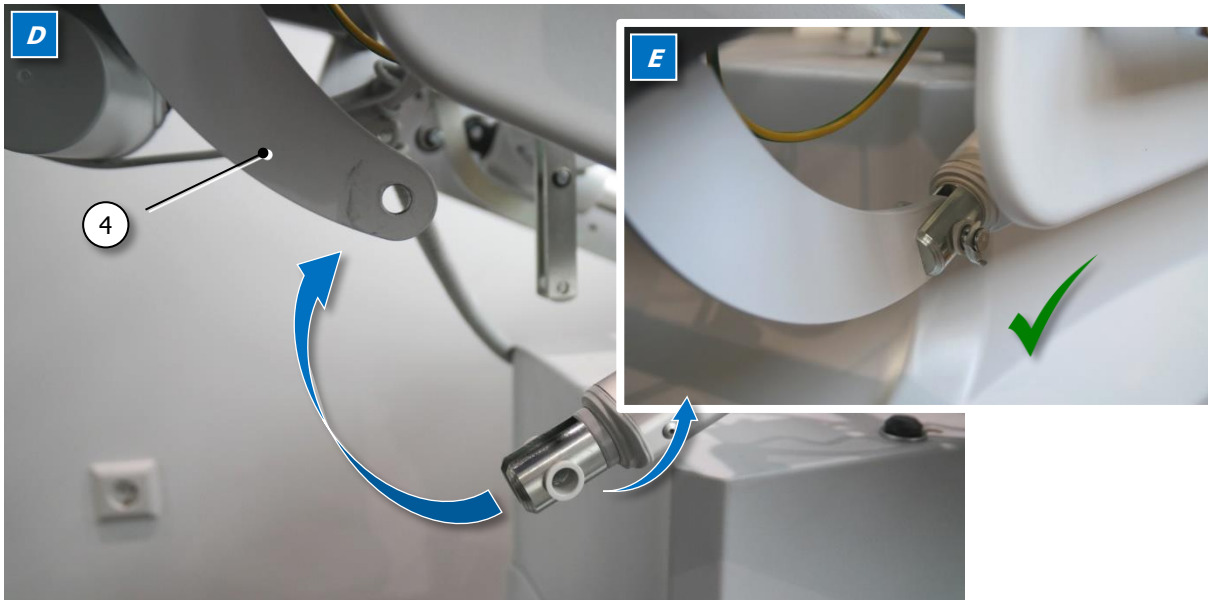


Fig. 12 Attaching the leg section drive

2. Join leg section (4) and leg section drive [D].
3. Insert the axle and reinstall the circlip.  
The circlips on the axles must re-engage correctly [E].

#### **CAUTION** Risk of trapping and crushing.



The axle may slip out and the leg section may then drop unexpectedly.



### 3.5.5 Electrical commissioning

#### Personnel requirements

- 1 User

#### Required tools and aids

- ☞ None

#### Operating statuses

- When the couch is connected to the mains and the hand control is disabled, the yellow operation control LED (1) lights up.
- When the couch is connected to the mains and the hand control is enabled with the magnetic key, the green operation control LED (2) lights up to indicate that the couch is ready for operation.

#### Way of proceeding

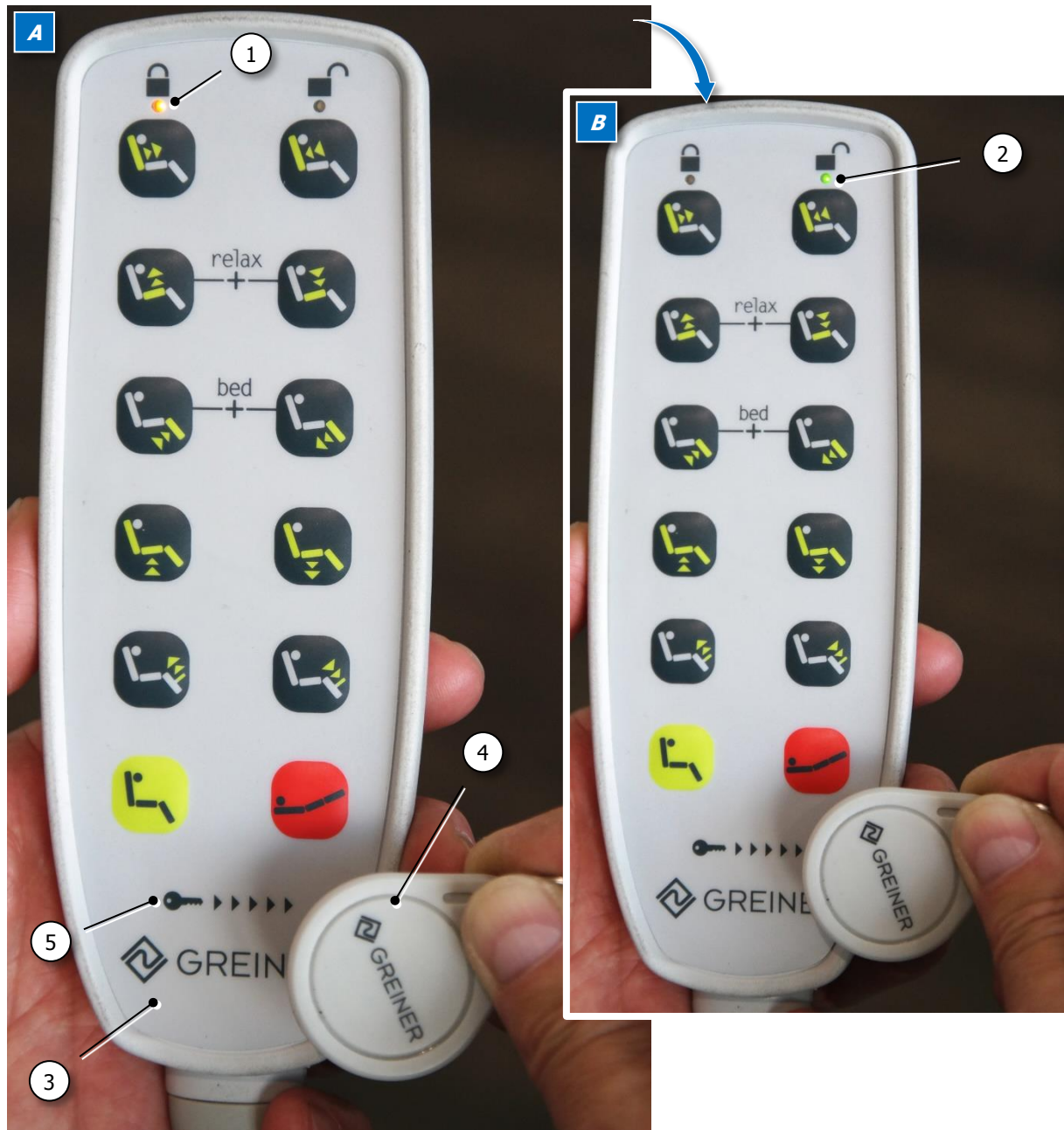


Fig. 13 Electrical commissioning

1. Insert the mains plug into a socket (without Fig.).

#### Unlocking the hand control

2. To unlock the hand control (3), swipe the magnetic key (4) over the key symbol (5) (see 4.3.1 Unlocking and locking the hand control) [A] [B].

## 3.5.6 Attaching the footrest

### Personnel requirements

- 1 User

### Required tools and aids

- ☞ None

### Prearrangement

**TIP** Bring the couch into the highest sitting position and the backrest into a flat position. Swivel the seat all the way up and the leg section all the way down (see 4.3 Hand control).

### Way of proceeding

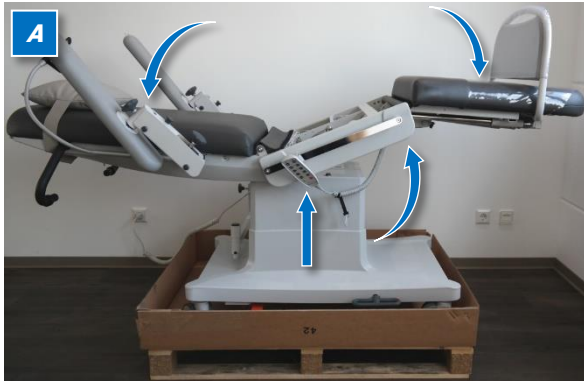


Fig. 14 Couch position for attaching the footrest

1. Bring the couch into the shown position [A].

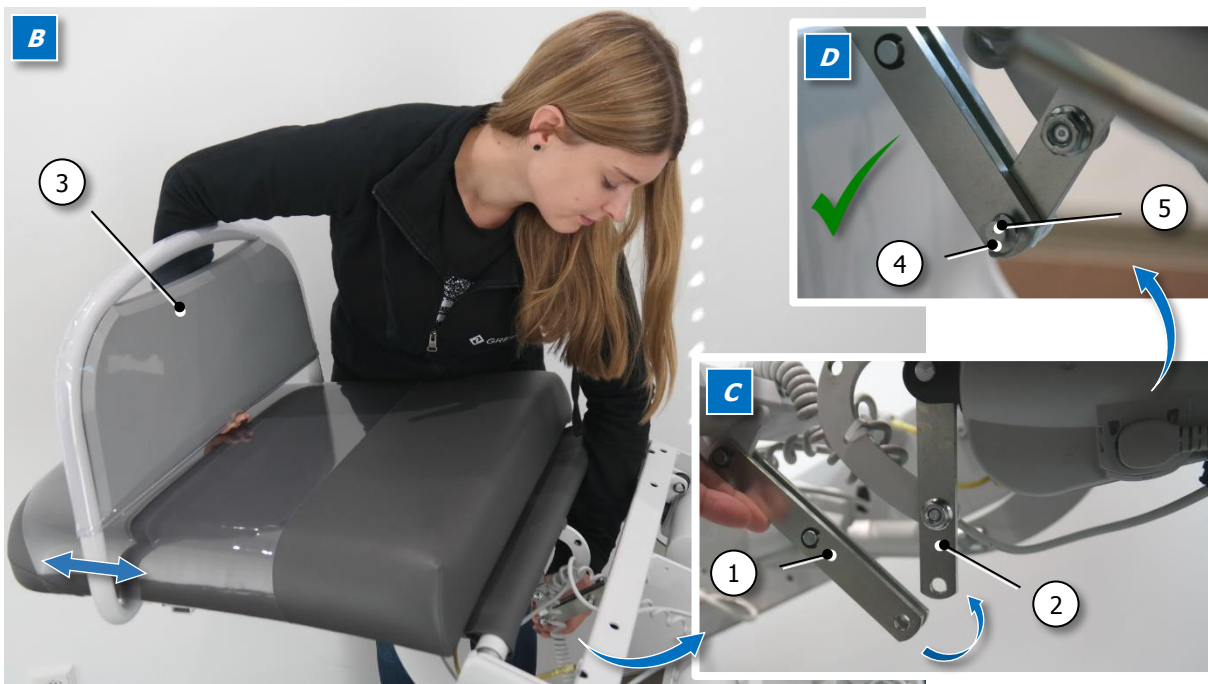


Fig. 15 Aligning the cross bar and the rocker lever

2. Position the cross bar (1) and the rocker lever (2) so that both can be connected to the axle [C]. Move the footrest (3) manually until the correct position is reached [B].

**NOTE** Ensure that the cables cannot be squeezed or jammed.

3. Insert the axle (4) and reinstall the circlip (5). The circlips on the axles must re-engage correctly [D].

**CAUTION Risk of trapping and crushing.**



The axle may slip out and the footrest may then drop unexpectedly.

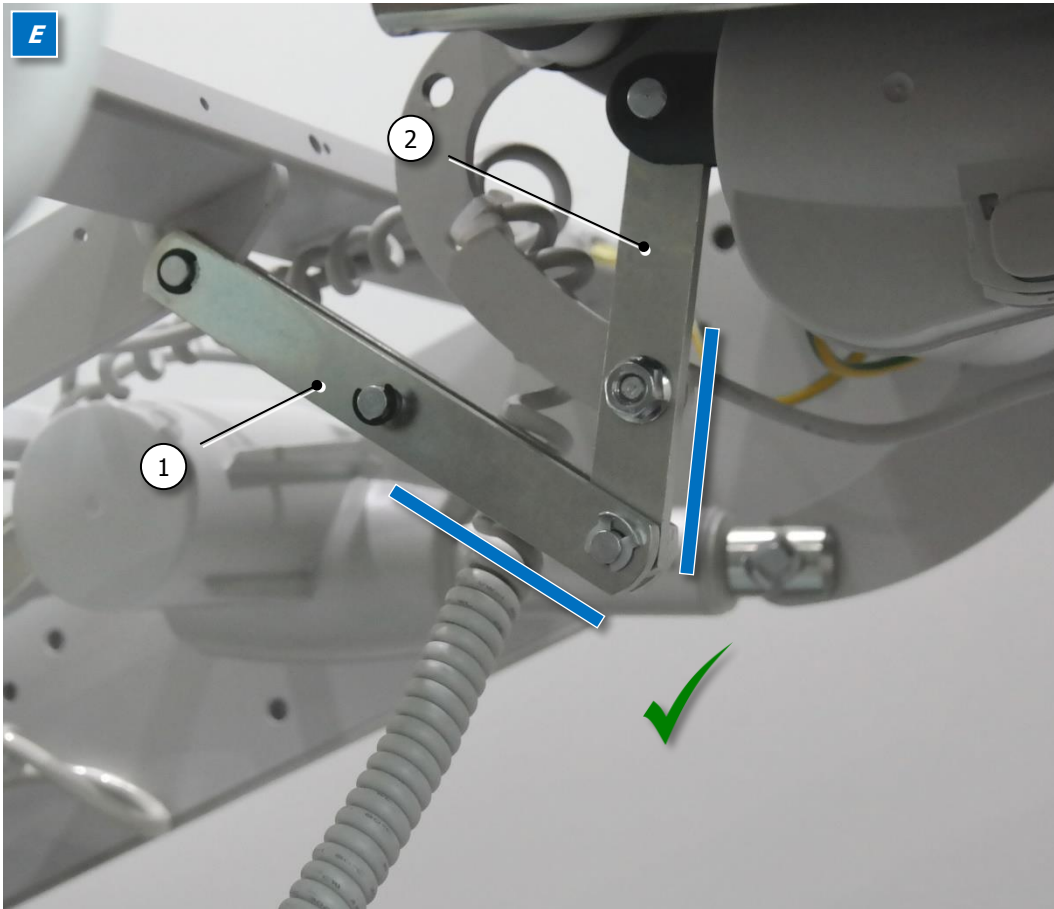


Fig. 16 Checking the position after assembly

4. Check the correct assembly of the cross bar (1) and the rocker lever (2). After assembly, both components must be arranged as shown [E].

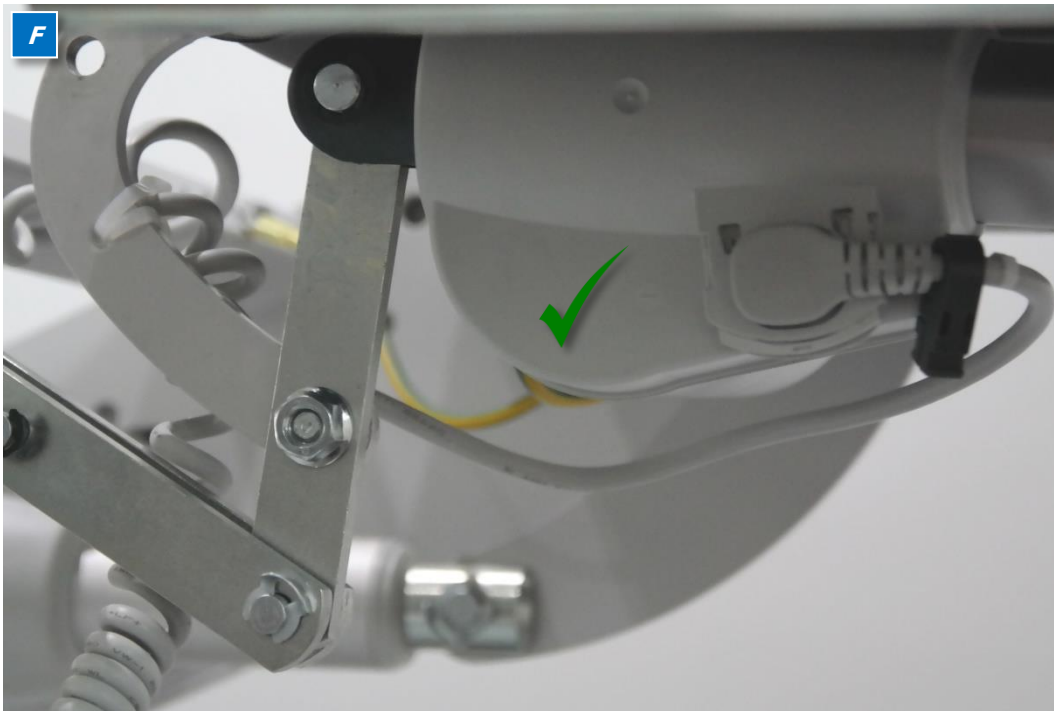


Fig. 17 Checking the laying of the cables

5. Checking the laying of the cables. The cables must not be trapped or crushed [F].

### 3.5.7 Attaching the seat upholstery

#### Personnel requirements

- 1 User

#### Required tools and aids

- ☞ None

#### Prearrangement

**TIP** Bring the couch into the highest sitting position and the backrest into a flat position. Swivel the seat all the way up and the leg section all the way down (see 4.3 Hand control). Swivel the armrests upwards and bring them into the widest position (see 4.9 Armrests).

#### Way of proceeding



Fig. 18 Couch position for attaching the seat upholstery

1. Bring the couch into the shown position [A].

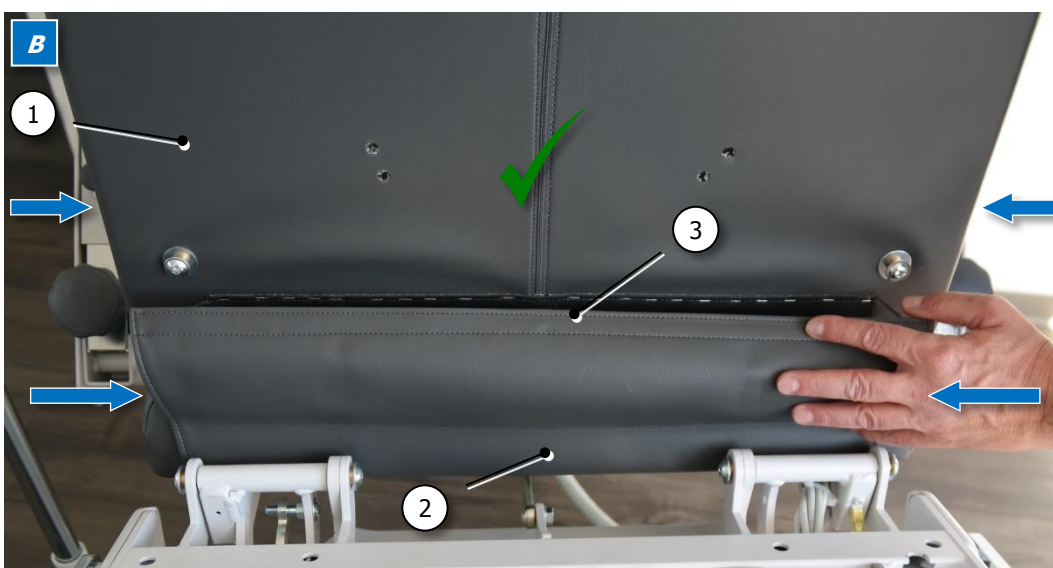


Fig. 19 Align the seat upholstery centrally and fasten it

2. Place seat (1) on backrest upholstery (2) and align centrally with the backrest upholstery [B].
3. Align the Velcro connection (3) between the seat and backrest upholstery and attach [B].



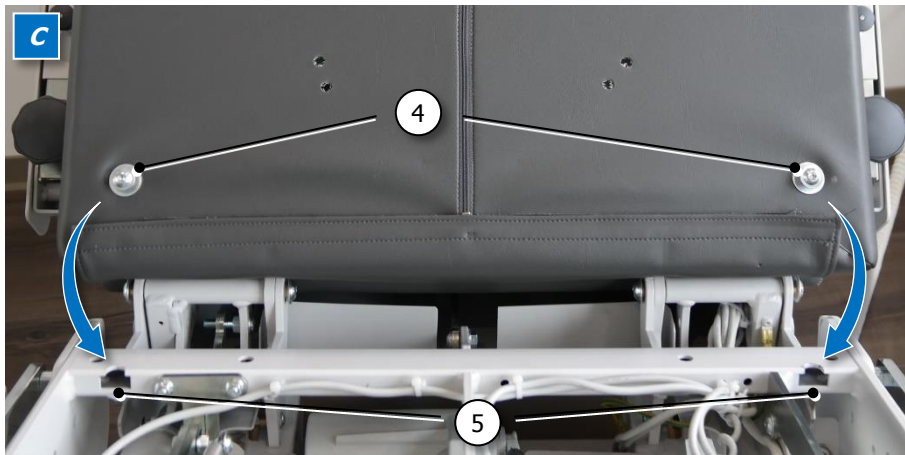


Fig. 20 Align the mounting bolts

4. Align the mounting bolts (4) with the recesses (5) [C].



Fig. 21 Hook in the seat upholstery

5. Slide the seat upholstery backwards to hook the mounting bolts into the recesses. Simultaneously press down the seat upholstery in the rear part [D].
6. Ensure correct fitting of the mounting bolts by lifting the seat upholstery [D].

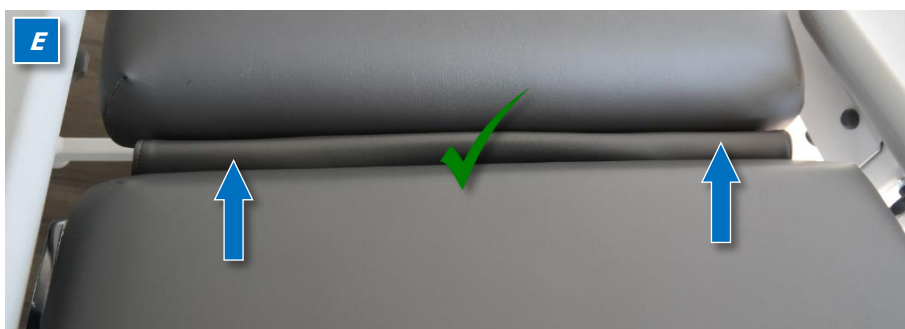


Fig. 22 Check the Velcro connection

7. Check that the Velcro connection is centred and wrinkle-free [E].

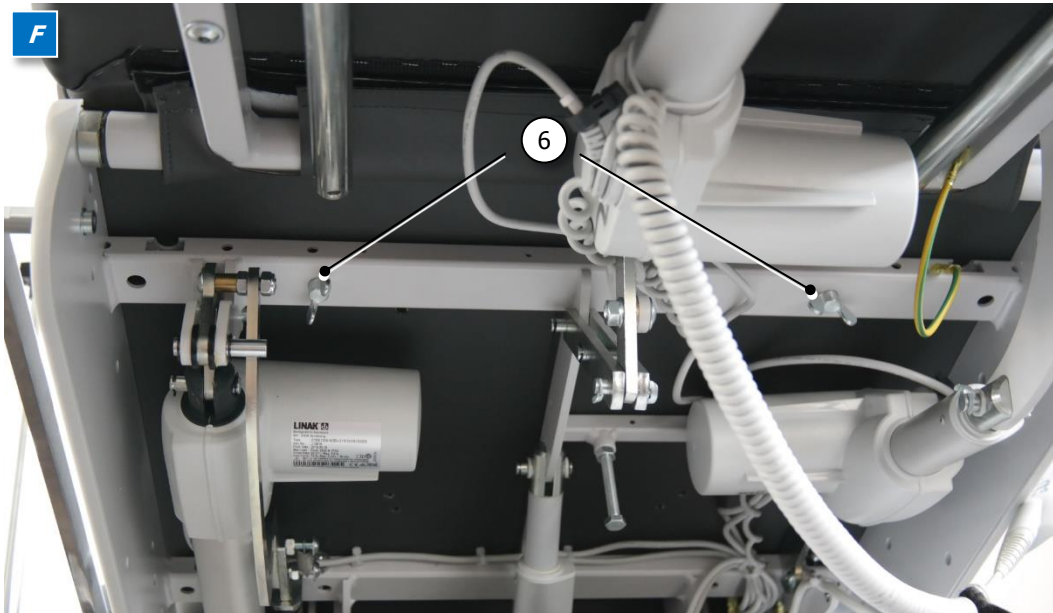


Fig. 23 Tighten the wing screws

8. Screw in and tighten the wing screws (6) [F].



Fig. 24 Check the seat upholstery assembly

9. Check correct assembly of the seat upholstery [G].
10. Bring the couch into the basic position (see 4.3.2 Basic position) [H].
11. Swivel armrests down and bring them into the narrowest position (see 4.9 Armrests) [H].
12. Lock the hand control and hang it on the brackets at the front end of the arm supports (see 4.3.1 Unlocking and locking the hand control) [H].

### 3.5.8 Pushing the couch off the transport pallet

#### Personnel requirements

- 1 User

#### Required tools and aids

- ✂ Cutter-knife

#### Way of proceeding

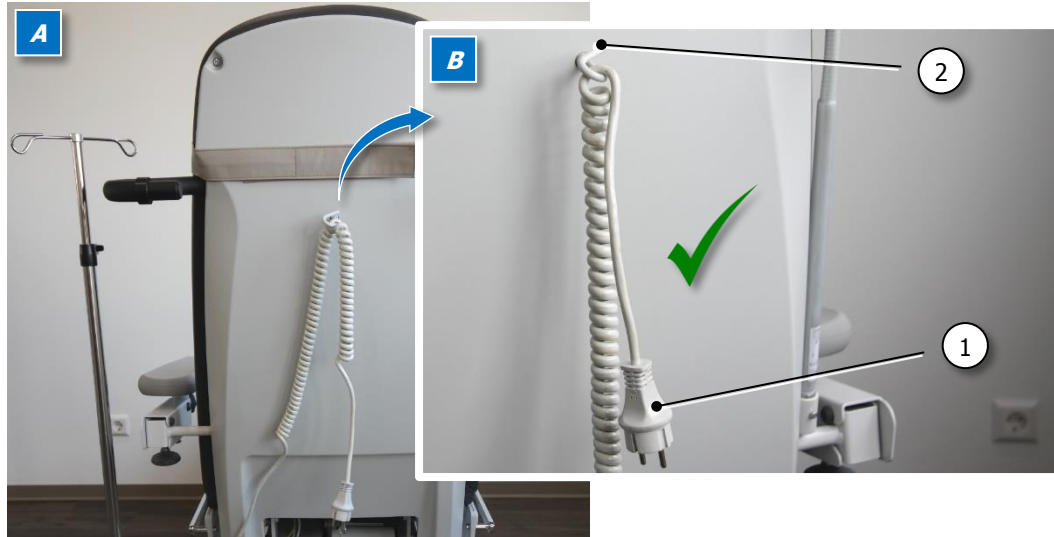


Fig. 25 Attaching the mains cable

1. Remove the mains plug (1) from the socket and attach it to the mains cable holder (2) [A] [B].

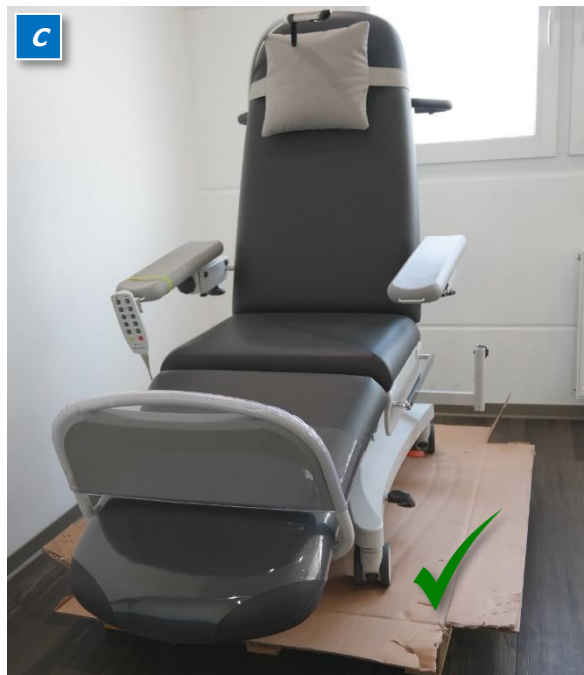


Fig. 26 Pushing the couch off the transport pallet

2. Cut and fold down the corners of the cardboard [C].
3. Release the brake (see 4.12 Braking). Carefully push the couch forward off the transport pallet. For this purpose, use aids, e.g. cardboard packaging, to make a ramp.
4. Carry out a functional check (see 3.7 Check before commissioning and reassignment).

### 3.5.9 Disposal of the packaging material

The packaging material must be separated according to substance groups and disposed of properly in accordance with national regulations. If you have any queries, please contact your operator, your local municipalities or waste disposal companies (see 8.4 Disposal).

### 3.6 Requirements on the place of operation

For the operation of the couch, an appropriate mains supply and, if applicable, an equipotential bonding connection is required at the place of use.

If this is available and the building's wiring permits it, the couch must always be connected to the equipotential bonding system (see 4.7 Equipotential bonding pin).

#### Battery

- TIP** Charge the battery for at least 24 hours before first use (see 4.5 Battery mode).  
The battery is then available for emergency operation without restriction.

### 3.7 Check before commissioning and reassignment

After the commissioning work has been completed, and before any occupation by a new patient, the couch must be cleaned and disinfected (see 6 Cleaning and disinfection).

#### **CAUTION** Risk of infection from contaminated couch.



The couch must be cleaned and then disinfected before the first use.  
This also applies before each use (occupation by a new patient).

A functional check of the couch must be carried out immediately after cleaning and disinfection and before use.

#### **WARNING** Risk of injury for patient, user and third parties.



The couch must be checked for functional safety after first commissioning and every occupation by a new patient.  
It must be ensured that the couch can be used as intended without endangering the patient, the user or third parties.

If the couch is put into operation for the first time or before any occupation by a new patient, the same functional check must be carried out as for recommissioning after storage (see 8.3 Check before recommissioning).

- ☞ General check of the overall condition of the couch for soiling, condition and damage, completeness and legibility of stickers, symbols and instructions, clean if necessary in accordance with the manufacturer's specifications or those of the operator and repair if necessary.
- ☞ Visually inspect the mains cable and plug, hand control, as well as all other electrical cables and connectors for breakage, proper installation (e.g. strain relief), clamping or friction points etc. and repair if necessary.
- ☞ Functional check of the electrical adjustment devices and the control system. All electric actuators must be operated once up to their end positions. Pay particular attention to changed operating behaviour, unusual noises, speed, smooth running, odours and increased temperature and repair if necessary.
- ☞ Carry out a functional check according to the installed brake system for the castors (locking, free-wheel) and repair if necessary.
- ☞ Any defects or damage found must be remedied immediately.  
The couch must not be used before the defects or damage have been remedied.

#### **WARNING** Risk of injury due to defective couch.



The couch must **not** be operated in a defective or faulty condition in which the couch could endanger patients, users or third parties.  
A defective or faulty couch must be clearly marked "**DEFECT**". The marking must be done in such a way that the defective condition is clearly identifiable for everyone.  
Inform the operator for intensive inspection during repair.



## 4 Operation

The chapter operation describes the functions of the couch and its performance features.

### Prerequisites for operation

The couch may only be operated and used in accordance with its intended use, the generally recognised rules of technology and the national occupational safety and accident prevention regulations valid at the place of use (see 2.4 Intended use).

In Germany, the provisions of the Medical Devices Act (MPG), the Medical Devices Operator Ordinance (MPBetreibV) and the relevant statutory regulations must be observed.

To ensure safe operation, the following points must be strictly observed.

- Before using the couch, the user must familiarise him- or herself with the contents of this manual and observe the safety instructions for the individual points of danger.
- The couch must be cleaned first and then disinfected (see 6 Cleaning and disinfection) before commissioning and before any further use (occupation by a new patient). A functional check must then be carried out afterwards (see 3.7 Check before commissioning and reassignment).
- The couch does not have an EMERGENCY STOP command device. Access to the mains plug must therefore be guaranteed at all times in order to allow the deactivation of the couch in an emergency situation by disconnecting the mains plug.
- Avoid mechanical stress on the mains cable or plug. Do not crush or trap the mains cable anywhere. Carry out an immediate visual check after each mechanical load on the mains cable or plug.
- Tighten all handwheels, clamping levers and clamping screws etc., including those on accessories, before use.
- Due to the widely differing stresses, operating conditions and frequencies at the place of use, the setting by the manufacturer of a central specification for the frequency of safety inspections does not make sense. In accordance with the Medical Device Operator Ordinance (MPBetreibV), the operator must specify the test period for the safety inspection on the basis of a risk assessment (see 2.2.1 Safety inspection).

### 4.1 Safety instructions for operation

When adjusting the couch, ensure that there are no limbs of the patient, user or other persons, especially children playing between the lower and upper sections, as well as between the back or armrest(s) or the leg section and the floor, which could be trapped and injured. Pets should generally be kept away from the couch and no other objects should be stored under the couch. Ensure that the couch does not get caught on walls or furniture.

#### **DANGER** Risk of injury due to unintentional movements of the couch.



The couch is not intended for unsupervised use by children or handicapped persons. In such situations, always ensure that the electrical adjustment functions are disabled as long as there is no trained user on site.  
Keep the magnetic key separate from the hand control at all times.  
(see 4.3.1 Unlocking and locking the hand control)

The couch may only be occupied by one person at a time.

The safe working load must not be exceeded and must be evenly distributed on the lying surface.

Do not sit or rest on the backrest upholstery, the legrest upholstery, the arm support or the footrest.

#### **CAUTION** Risk of falling or injury if lying position is set too high.



In order to avoid or reduce injuries caused by falling, we recommend (except when carrying out care measures on the patient) moving the couch to the lowest position. This generally applies when moving the couch (see 4.11 Driving) and in particular when transporting and sitting down and standing up of the patients (see 4.14 Patient transportation and 4.13 Sitting down and standing up of the patients).

When operating other devices on or near the couch, that are equipped with cables, air hoses or similar, make sure that these lines cannot get trapped in the moving parts of the couch or be damaged in any other way.

#### **WARNING** Risk of injury due to the use of unsuitable accessories.



Only original accessories from GREINER GmbH may be used.  
The attachment of accessories from other manufacturers (e.g. fixing belts etc.) lies within the responsibility and duty of care of the operator.

## 4.2 Structure

The structure of the couch is shown here using the example of a fully equipped MULTILINE NEXT DC with 5 adjustment drives and central locking of all 4 castors (4225100).



Fig. 27 Structure of the couch

- |   |   |
|---|---|
| 1. Footrest                                       | 11. Integral foam arm support                       |
| 2. Legrest upholstery                             | 12. Armrest   |
| 3. Hand control                                   | 13. Equipotential bonding pin (not shown)           |
| 4. Seat upholstery                                | 14. Standard rails (accessory)                      |
| 5. Backrest upholstery                            | 15. Infusion rod holder (accessory)                 |
| 6. Relax pillow (accessory)                       | 16. Foot switch - both sides (accessory)            |
| 7. LED reading lamp (accessory)                   | 17. Central locking - both sides                    |
| 8. Mains cable (not shown)                        | 18. Castor  |
| 9. Push handle with paper roll holder (accessory) | 19. Footrest protection cover (accessory)           |
| 10. Infusion rod (accessory)                      | 20. Legrest upholstery protection cover (accessory) |

## 4.3 Hand control

Depending on the electrical version, there are three different hand controls. The hand controls enable the user or patient to make continuous adjustments using electric drives.

Patients must be instructed in the functions of the hand control in any case.

When adjusting the couch, the patient's forearms must be in the normal position on the arm supports.

### General information on operating the hand control.

- The drives run as long as the buttons are pressed.
- Each adjustment stops if more than one button is pressed simultaneously.  
Except for the button combinations for Relax and Bed position (see 4.3.3 Relax position and 4.3.4 Bed position (flat position)).
- Always hang the hand control on the brackets at the front end of the arm supports. In this way, the patient cannot accidentally sit or lie down on the hand control and thus trigger unwanted movements of the couch.  
The spiral cable provides plenty of freedom for movement.

The yellow (1) and green LEDs (2) indicate the actual operating status (see 4.3.1 Unlocking and locking the hand control).

### Operation

☞ Backrest	up (3) - down (4)
☞ Seat inclination	up (5) - down (6)
☞ Leg section	up (7) - down (8)
☞ Seat height	up (9) - down (10)
☞ Footrest	retract (11) - extend (12)
☞ Basic position	(13)
☞ Shock position	(14)
☞ Relax	(5+6)
☞ Bed	(7+8)

Both the yellow and red buttons (13) + (14) for basic position and shock position (Trendelenburg position) and the button combinations for relax and bed position (flat position) are described separately (see 4.3.2 Basic position, 4.3.5 Shock position, 4.3.3 Relax position and 4.3.4 Bed position (flat position)).

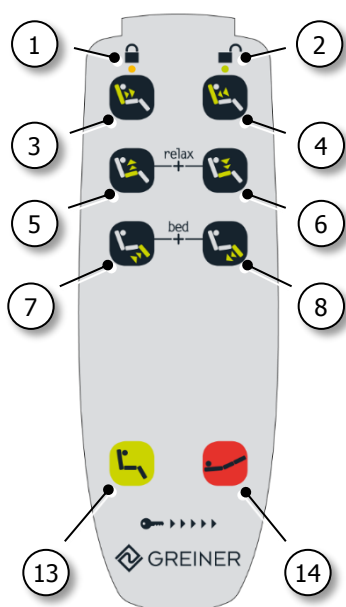


Fig. 28 Hand control (3 drives)

1. Yellow operation control LED (hand control locked)
2. Green operation control LED (hand control unlocked)
3. Backrest - up
4. Backrest - down
5. Seat inclination - up
6. Seat inclination - down

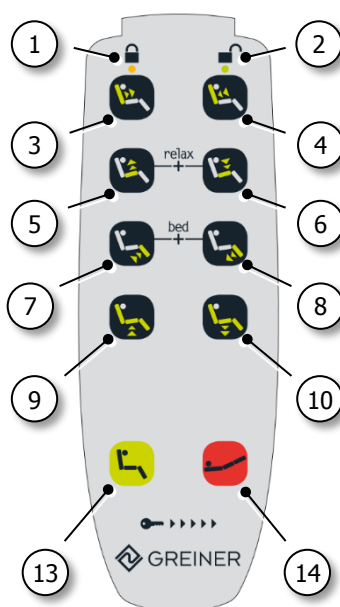


Fig. 29 Hand control (4 drives)

7. Leg section - up
8. Leg section - down
9. Seat height - up
10. Seat height - down
11. Footrest - retract
12. Footrest - extend
13. Basic position
14. Shock position (Trendelenburg position)

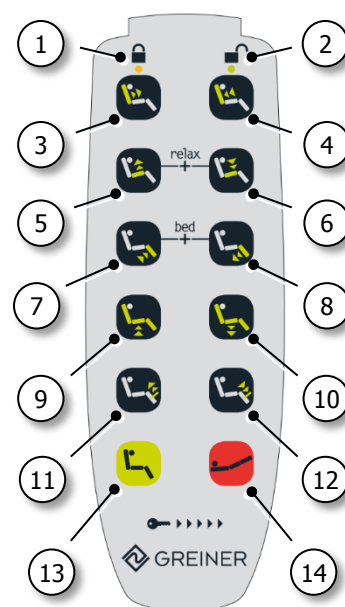


Fig. 30 Hand control (5 drives)

### 4.3.1 Unlocking and locking the hand control

The unlocking and locking of the hand control is shown here using the example of a MULTILINE NEXT DC with 5 adjustment drives (only 4225000/4225100).

Locking the hand control prevents the couch from moving accidentally or unintentionally.

**TIP** After disconnecting the mains plug and then plugging it back in, the couch remains in its previous operating status. This means, for example, that the hand control was locked before disconnecting the mains supply, so the hand control remains locked even after the mains supply has been restored.

The control unit remembers the current operating status, even without an existing battery for emergency operation (see 4.5 Battery mode).

If the battery is available and the mains supply is disconnected, the control unit changes to stand-by after 10 minutes. The corresponding operating control LED on the hand control turns off.

A couch in stand-by mode cannot be activated by the magnetic key. Press any button on the hand control to activate.

Now the couch can be unlocked or locked.

#### Operating statuses

- When the couch is connected to the mains and the hand control is disabled, the yellow operation control LED (1) lights up.
- When the couch is connected to the mains and the hand control is enabled with the magnetic key, the green operation control LED (2) lights up to indicate that the couch is ready for operation.

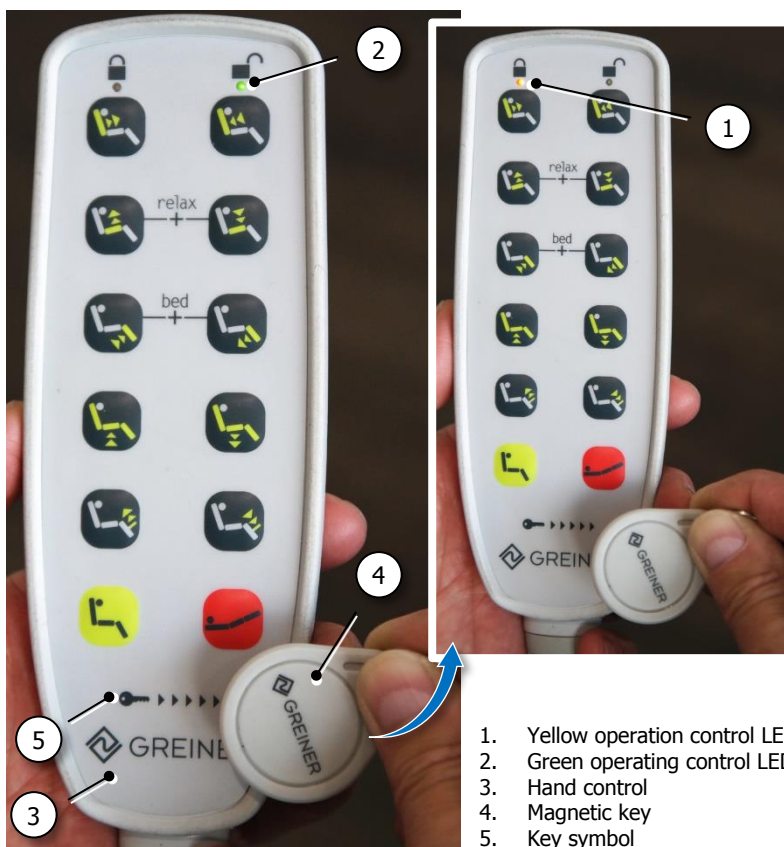


Fig. 31 Unlocking and locking the hand control

1. Yellow operation control LED (hand control locked)
2. Green operating control LED (hand control unlocked)
3. Hand control
4. Magnetic key
5. Key symbol

#### Unlocking the hand control

- ☞ To unlock the hand control (3), swipe the magnetic key (4) over the key symbol (5).

#### Locking the hand control

- ☞ To lock the hand control, swipe the magnetic key over the key symbol again.

**TIP** When the hand control is locked, any foot switch for moving to the shock position (Trendelenburg position) is also locked (see 4.6 Foot switch).

### 4.3.2 Basic position

If patients want to sit down on or get up from the couch, as well as before driving, the couch must be brought into the basic position by pressing the yellow button (13).

Pressing the button for basic position requires increased attention from the user, as different actuators are activated simultaneously. All lying surfaces (backrest, seat surface and leg section) move simultaneously to the basic position at maximum speed. Depending on the model, the seat height is also lowered completely.

- The backrest is fully upright.
- The seat surface is placed horizontally.
- The leg section is swivelled all the way down.
- The seat height may be lowered completely if required (not 4223000/4223100).

#### TIP

The electric actuator of the footrest (only 4225000/4225100) remains in the existing position.

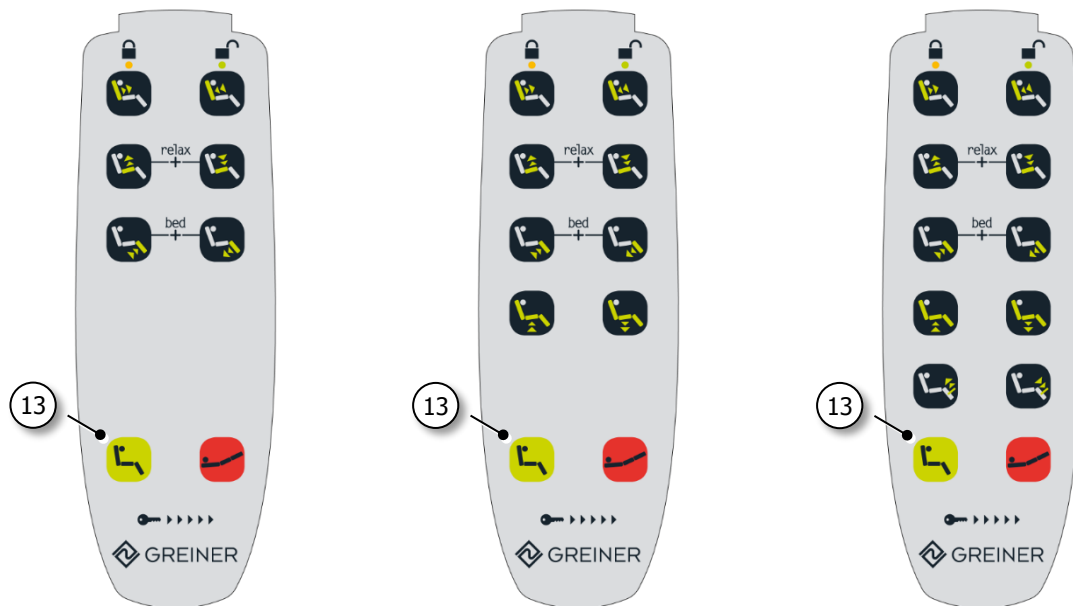


Fig. 32 Button for basic position

13. Basic position



Fig. 33 Basic position



### 4.3.3 Relax position

Pressing the two seat inclination adjustment buttons (15) simultaneously brings the couch in a comfortable reclining position for the patient.

Pressing the buttons for the relax position requires increased attention from the user, as different actuators are activated simultaneously. All lying surfaces (backrest, seat surface and leg section) move simultaneously to the fixed position at maximum speed.

- The backrest lowers slightly.
- The seat surface is slightly raised.
- The leg section swivels upwards by a predetermined amount.
- Careless handling can endanger the patient and third parties or lead to damage to objects or the couch.

#### TIP

The seat height (not 4223000/4223100) and the electric adjustment drive of the footrest (only 4225000/4225100), if present, remain in the existing position.

The position is permanently stored in the control unit and cannot be changed.

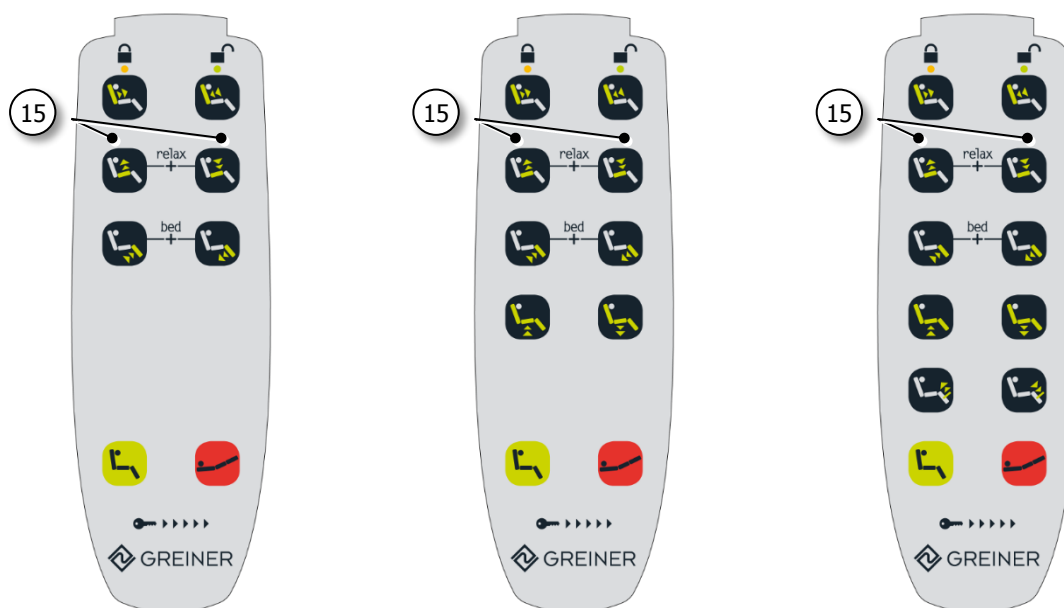


Fig. 34 Button combination for relax position

15. Relax position: seat inclination - up+down



Fig. 35 Relax position

#### 4.3.4 Bed position (flat position)

Pressing the two leg section adjustment buttons (16) simultaneously brings the couch into the bed position (flat position).

Pressing the buttons for the bed position requires increased attention from the user, as different actuators are activated simultaneously. All lying surfaces (backrest, seat surface and leg section) move simultaneously to the fixed position at maximum speed.

- The backrest is brought into a flat position.
- The seat surface is placed horizontally.
- The leg section is swivelled all the way up.
- Careless handling can endanger the patient and third parties or lead to damage to objects or the couch.

#### TIP

The seat height (not 4223000/4223100) and the electric adjustment drive of the footrest (only 4225000/4225100), if present, remain in the existing position.

The position is permanently stored in the control unit and cannot be changed.

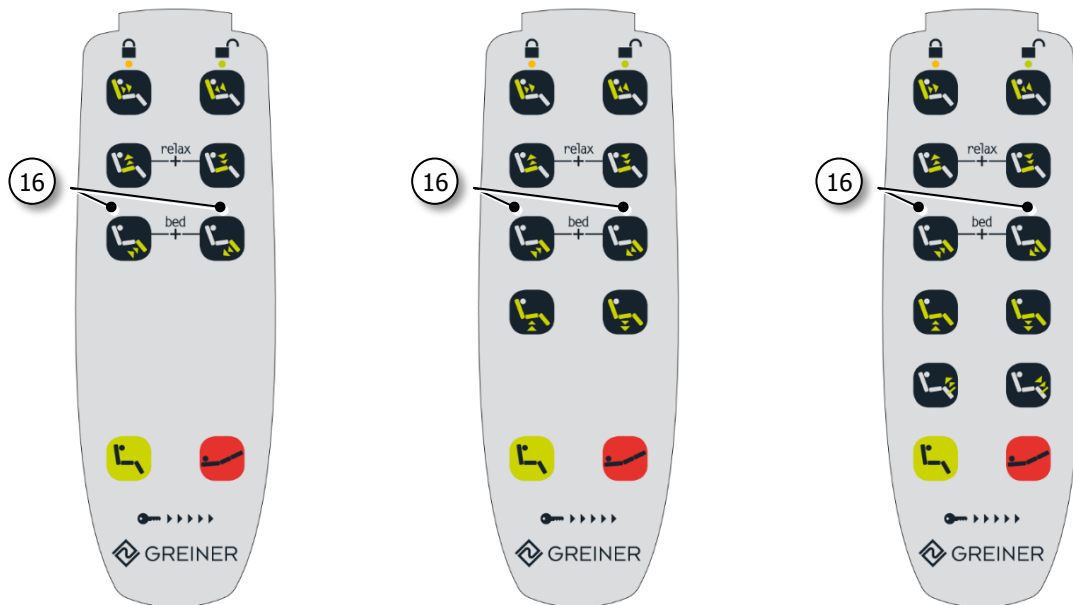


Fig. 36 Button combination for bed position (flat position)

16. Bed position (flat position): leg section - up+down



Fig. 37 Bed position (flat position)

### 4.3.5 Shock position

**WARNING** Risk of injury due to patient slipping off the couch.



This function is intended for medical emergencies only and not for daily use.

The patient position known as the shock position (Trendelenburg position), is also referred to by others as the low head position.

Pressing the button (14) for shock position or the foot switch, if present, requires maximum attention from the user, as different actuators are activated simultaneously. All lying surfaces (backrest, seat surface and leg section) move simultaneously, at maximum speed, in shock position.

- The backrest lowers to the head-down position.
- The seat surface and the leg section are swivelled all the way up.
- When pressing the button or the foot switch (Trendelenburg position), if present, make sure that the patient does not slip off the couch (see 4.6 Foot switch).
- Do not leave patients unattended while in the shock position (Trendelenburg position). The patient may lose consciousness.
- Careless handling can endanger the patient and third parties or lead to damage to objects or the couch.

**TIP**

The seat height (not 4223000/4223100) and the electric adjustment drive of the footrest (only 4225000/4225100), if present, remain in the existing position.

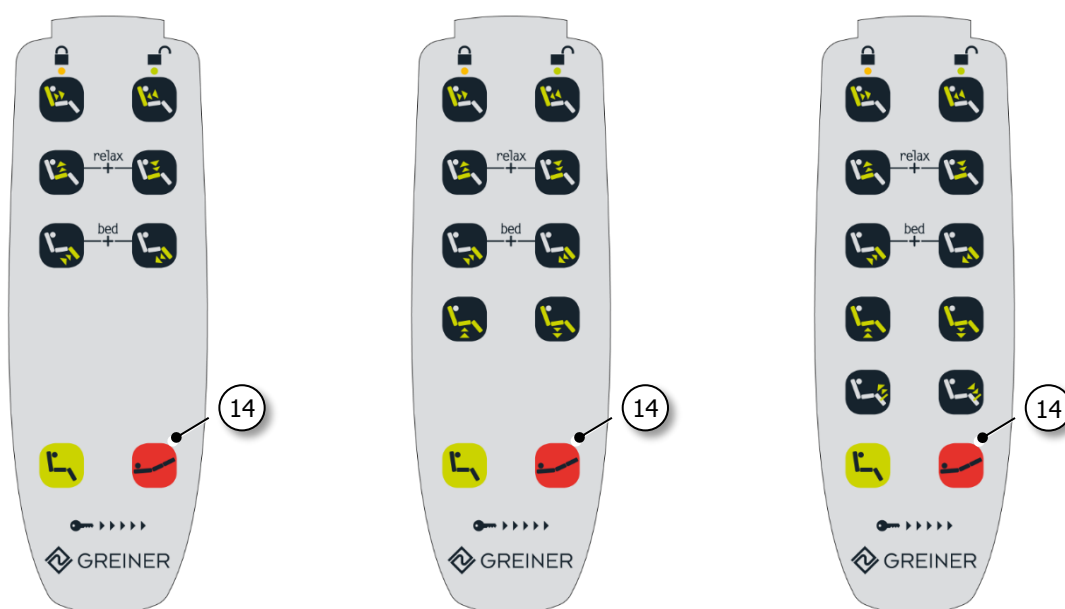


Fig. 38 Button for shock position (Trendelenburg position)

14. Shock position (Trendelenburg position)



Fig. 39 Shock position



### 4.4 Duty cycle

The maximum duty cycle of the electrical couch functions is indicated on the type plate and in the technical data (see 1.6 Type plate and 9.4 Technical data).

**NOTE** 10 % 2 min. / 18 min. means that each electrical adjustment may be operated continuously for a maximum of 2 minutes and then a pause of 18 minutes is required (overheating protection).

**TIP** The couch is equipped with a self-resetting thermal protection device, which prevents an overload of the control unit or the adjustment drives. The couch is automatically switched off in the event of overloading.  
If the maximum duty cycle of two minutes is exceeded several times or for an extended period of time, the electrical adjustment functions are temporarily unavailable.  
The couch has been adjusted again once it has cooled down sufficiently.

### 4.5 Battery mode

The couch can also be equipped with a battery (lead gel) for shock position (Trendelenburg position). This means that in the event of a mains failure or if the couch is disconnected from the mains, the patient can be quickly brought into the shock position independently of the mains supply.

The battery is not intended as a replacement for mains operation.

#### Notes on handling the battery

**TIP** Charge the battery for at least 24 hours before first use.  
The battery is then available for emergency operation without restriction.  
It is not possible to overcharge the battery.  
The couch can be adjusted during the charging process.

**NOTE** Proper handling increases the service life of the battery.  
Avoid deep discharge of the battery.  
Deeply discharged batteries can be damaged to such an extent that premature replacement is necessary.  
In order to guarantee the electrical functionality at all times or the longest battery life, the couch should be connected to the mains at all times.  
Fully charged batteries should not be stored for longer than 3 months without recharging. The battery must be fully charged or replaced with a fully charged battery every 3 months at the latest, otherwise it will be damaged due to self-discharge.  
The battery (accessory) in the control unit is a wearing part and must be replaced after 4 years at the latest, or even earlier, depending on the intensity of use.  
Frequent and fast discharges reduce the service life of the batteries.

The control unit distinguishes between three charging levels:

- Charge level high: > 20 V - Normal
- Charge level medium: 18-20 V - Alarm
- Charge level low: < 18 V - Critical

If the charge level falls to the medium voltage (18-20 V), a permanent alarm sounds as soon as any key of the hand control is pressed. The battery should be charged immediately to ensure the best possible service life.

When the charge level reaches the critical level (< 18 V), the control unit immediately deactivates all movements. If you still try to move the couch by pressing a button on the hand control, the battery can be deeply discharged.

There is a danger that the initiated movement cannot be finished or that the processor in the control unit can no longer detect the position of the drives. The longest life span is achieved when the battery is fully charged.

## 4.6 Foot switch

The couch can also be equipped with a foot switch (1).

Pressing the orange foot switch brings the couch directly into the shock position (Trendelenburg position) (see 4.3.5 Shock position).

### TIP

When the hand control is locked, the foot switch for moving to the shock position (Trendelenburg position) is also locked (see 4.3.1 Unlocking and locking the hand control).



Fig. 40 Foot switch

1. Foot switch

## 4.7 Equipotential bonding pin

The equipotential bonding cable connects the connection pin (1) on the couch to the connection on the wall strip. To do this, place the plug completely onto the corresponding connection pin against the noticeable resistance. To remove, simply disconnect the plug.

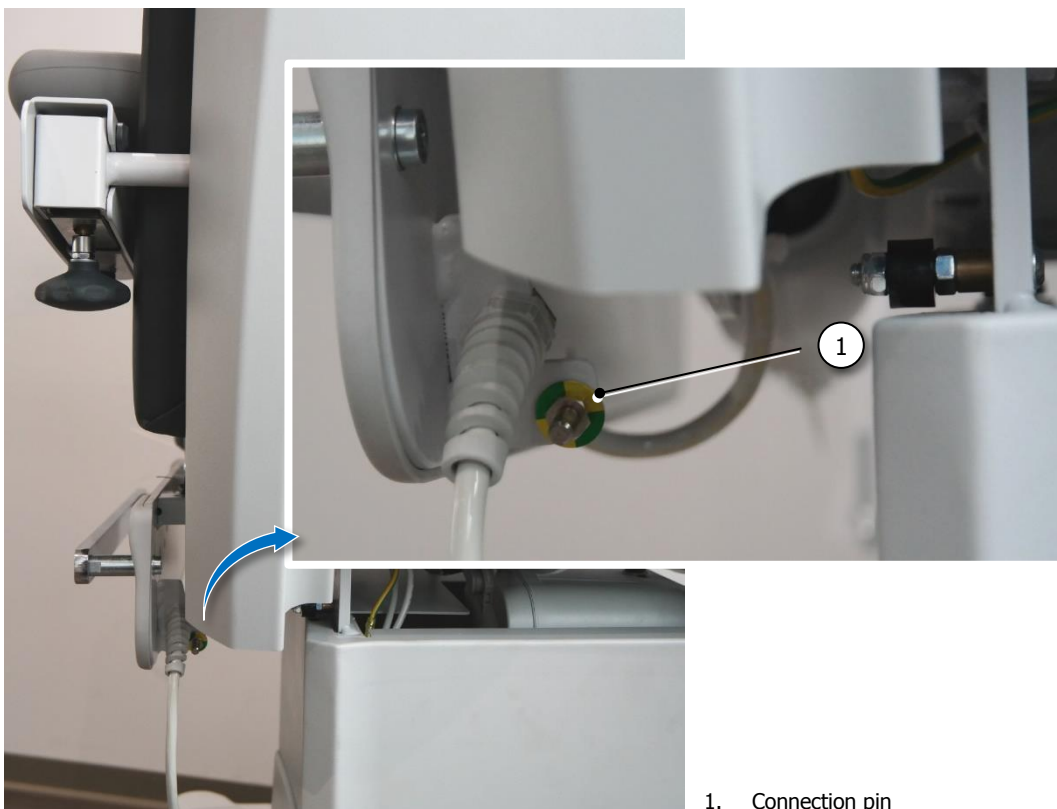


Fig. 41 Equipotential bonding pin

1. Connection pin

### 4.8 LED reading lamp

The couch can also be equipped with an LED reading lamp.

#### Switching on and off

Press the button (1) on the lamp head (2) to switch it on and off.

#### **CAUTION** Danger of glare / eye injuries from LED reading lamp.



Never look directly into the LED reading lamp and do not use the LED reading lamp to illuminate the eye area. The bright light can cause glare or eye injuries.



Fig. 42 LED reading lamp

**TIP** The LED reading lamp switches on automatically when the mains plug is inserted.

**NOTE** The LED reading lamp cannot be switched on in purely battery operation - deep discharge protection.

**NOTE** Despite comprehensive EMC testing, it is possible that the LED reading lamp may cause interference to other devices.  
In such cases, either switch off the LED reading lamp completely or, if necessary, maintain a greater distance from the disturbed device, or change the orientation of the devices to each other. If possible, do not use the same mains outlet.

**TIP** Before cleaning and disinfecting, switch off the LED reading lamp and then disconnect the mains plug - allow to cool sufficiently (see 6 Cleaning and disinfection).  
Use commercially available plastic cleaners to clean the electrical components.

## 4.9 Armrests

### Folding up and lowering

Guide the armrest (1) by hand until it reaches the end position (when folding up and lowering). Always hold the armrest when lowering and do not let it fall freely.

**TIP** The left and right armrests and their arm supports can be adjusted independently of each other.

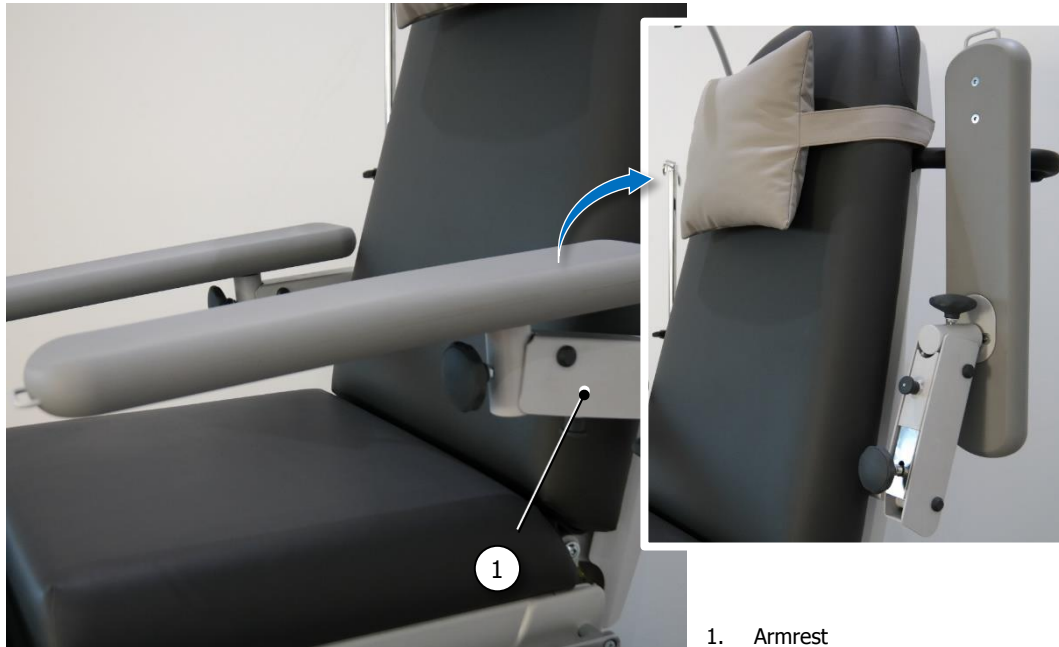


Fig. 43 Armrests - folding up and lowering

### Adjusting the width

The distance between the armrests (1) can be continuously adjusted. To do this, lift the whole armrest slightly. Now insert or pull out the armrest. Always hold the armrest when lowering and do not let it fall freely.

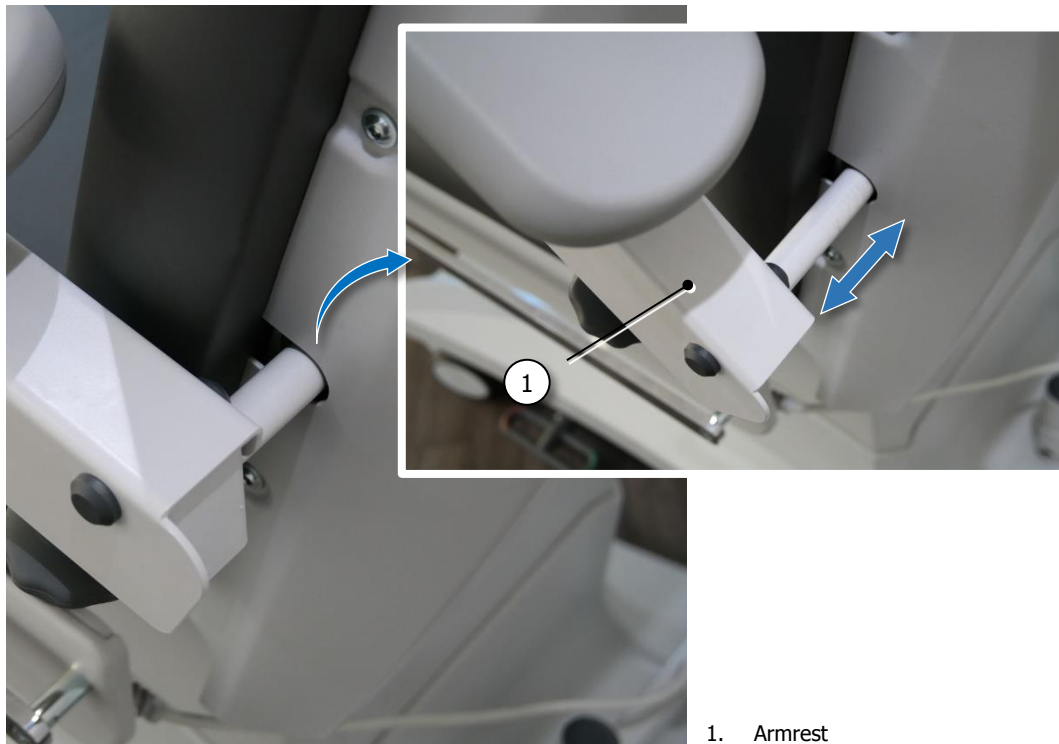


Fig. 44 Armrests - adjusting the width

### Adjusting the inclination

The inclination of the arm support (2) can be adjusted in 3 positions. To do this, disengage the locking pin (3) by pulling. Slightly raise the arm support to relieve the load on the locking pin. Now incline the arm support downwards and then lock it again with the locking pin. Always hold the arm support when inclining and do not let it fall freely.

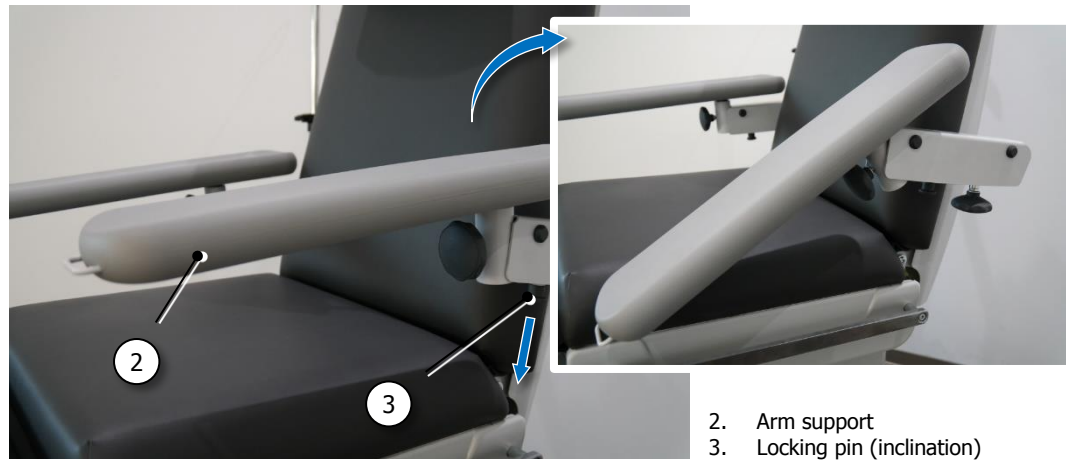


Fig. 45 Arm supports - adjusting the inclination

### Adjusting the height

The height of the armrest is continuously adjustable. To raise, turn the handwheel (4) clockwise and to lower, unscrew it counterclockwise.

**NOTE** Do not force the handwheel over the noticeable end position when in the highest position. When the lowest position is reached, there is no longer any noticeable resistance on the handwheel.

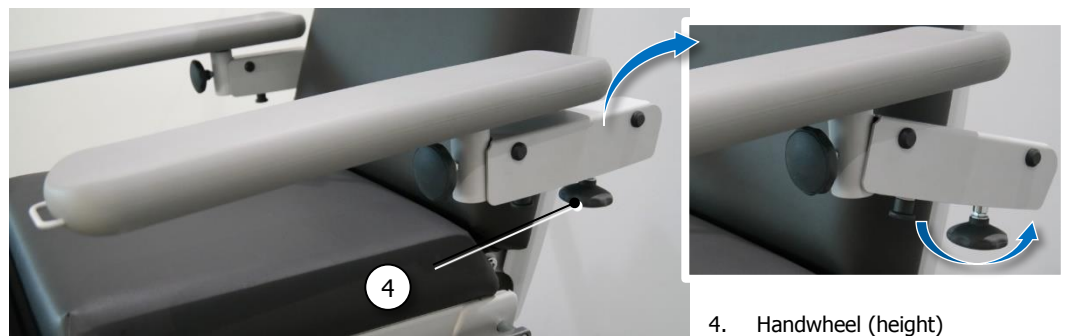


Fig. 46 Armrests - adjusting the height

### Swivelling

The arm support (2) can be swivelled inwards or outwards independently of the armrest. To do this, loosen the handwheel (5) and swivel the arm support inwards or outwards, then retighten the handwheel.

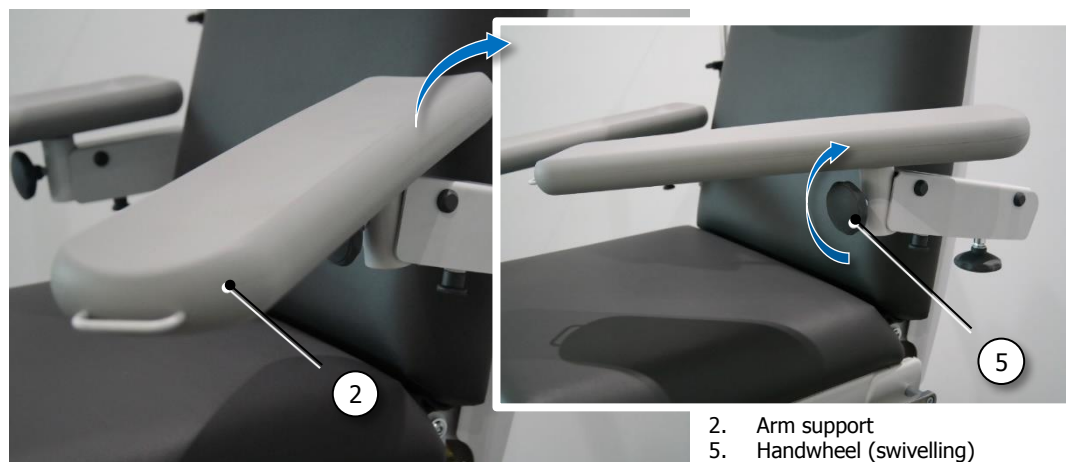


Fig. 47 Arm supports - swivelling



### 4.10 Footrest

#### Removing and attaching the footrest

The footrest (1) can be removed. To remove the footrest, it must first be fully extended (see 4.3 Hand control). Release the two handwheels (2) and then pull out the footrest upwards.

When reinstalling, make sure that the connecting bolts (3) are fully engaged in the counterpart. Now tighten the two handwheels firmly again.

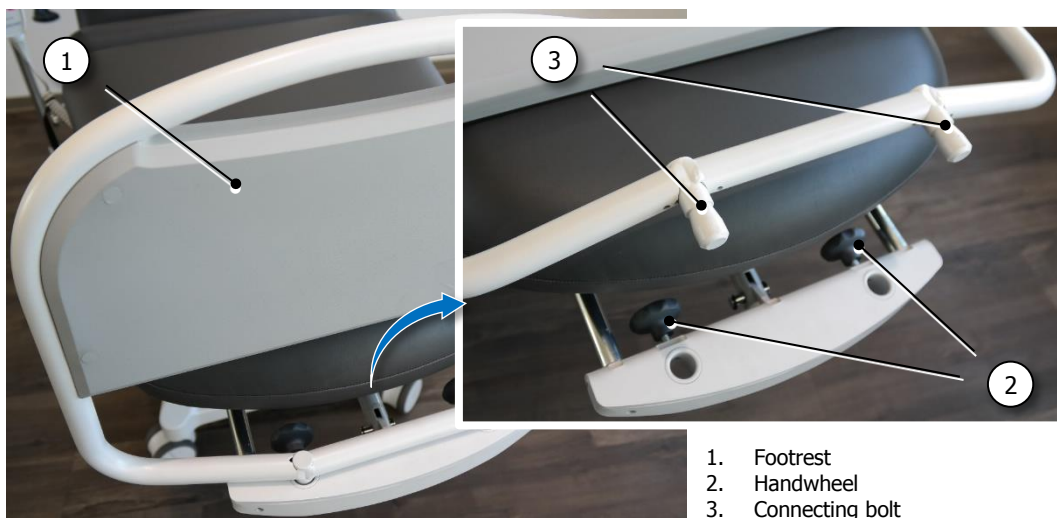


Fig. 48 Removing and attaching the footrest

#### TIP

In the version with 5 adjustment drives (only 4225000/4225100), the footrest is continuously electrically adjustable.

The footrest can be adjusted manually (4223000/4223100 or 4224000/4224100) in both the 3 and 4 actuator versions.

#### Manual footrest

The position of the footrest (1) is continuously adjustable. Press down the clamping lever (4) to release. Push in or pull out the footrest. When moving with the other hand, lift the footrest slightly to relieve the load on the guides. To fix them in place, pull the clamping lever upwards.

#### NOTE

Do not use force to tighten the clamping lever beyond the noticeable end position.

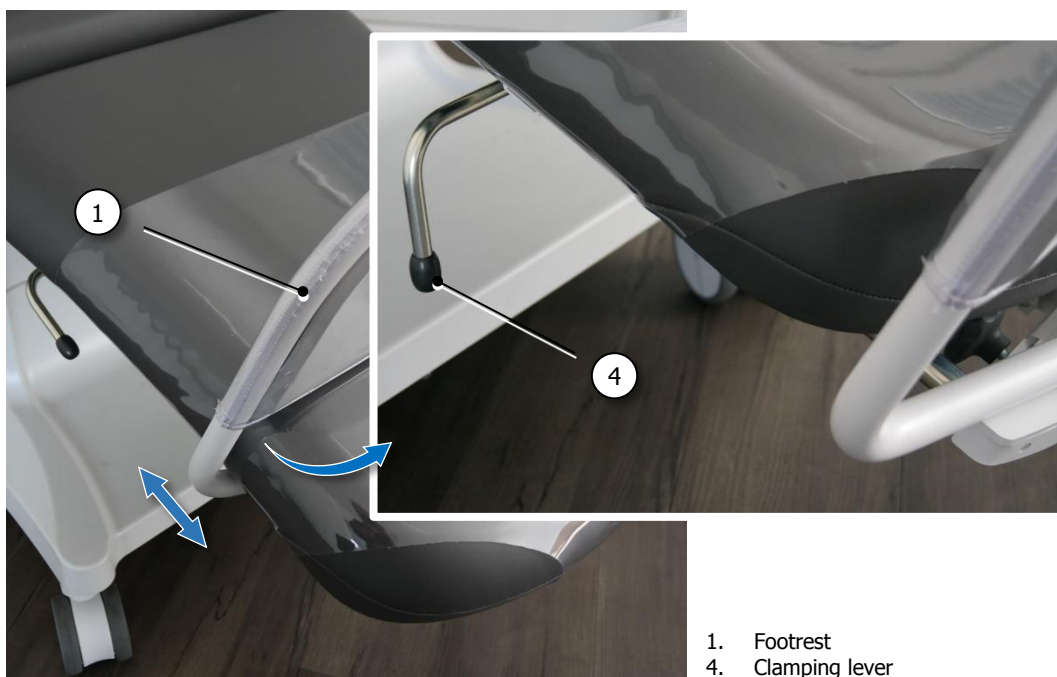


Fig. 49 Manual footrest

### 4.11 Driving

The couch may only be moved over a solid surface.

Before moving the couch, it must be brought into the basic position by pressing the yellow button (13) on the hand control (see 4.3.2 Basic position).

- Retract the footrest completely. Either by pressing the button (11) on the hand control (see 4.3 Hand control) or by pushing in manually (see 4.10 Footrest).
- Always hang the hand control on the brackets at the front end of the arm supports. The cable of the hand control must not touch or run over the floor, as it is not resistant to being run over. If necessary, the cable of the hand control must be wound up or hung up. Running over or crushing the hand control cable will result in damage which can lead to malfunctions.
- Disconnect the mains plug and hang it onto the mains cable holder (on the backrest).

#### **WARNING Risk of electric shock / fire and malfunction.**



Make sure that the mains cable cannot be overstretched, run over or otherwise damaged. The mains cable must be attached to the mains cable holder and must not touch or run over the floor, as it is not resistant to being run over. If necessary, the mains cable must be wound up or hung up. Running over or crushing the mains cable will result in damage which can lead to electrical hazards and malfunctions.

- The armrests must be pushed inwards in the narrowest position. Furthermore, the armrests must be folded down into the normal position and aligned parallel to the couch (see 4.9 Armrests).
- Do not use any existing infusion rod etc. as a push handle.
- Additional attached or suspended objects must not cause any danger to the user or third parties. Possible damage (e.g. to door frames etc.) must be avoided.
- Do not drive faster than walking speed and slow down when turning corners and curves.
- Drive carefully over obstacles on the ground, e.g. thresholds, and do not brake abruptly.
- The use of stairs is strictly prohibited.
- When driving on slopes or inclines, e.g. ramps, a second user must additionally secure the couch at the front due to its weight.

The couch is equipped with four lockable castors.

All castors must be braked at all times the couch is parked (see 4.12 Braking).



Fig. 50 Driving

## 4.12 Braking

Depending on the version, 3 different braking systems can be installed.  
The operation of the braking systems is different.

### 4.12.1 Castors with central locking

#### Braking

To brake the couch, step on the red side of one of the two pedals (1).  
When braked, both pedals are horizontal.  
All castors (2) are locked simultaneously.  
Make sure that the couch cannot move on its own.

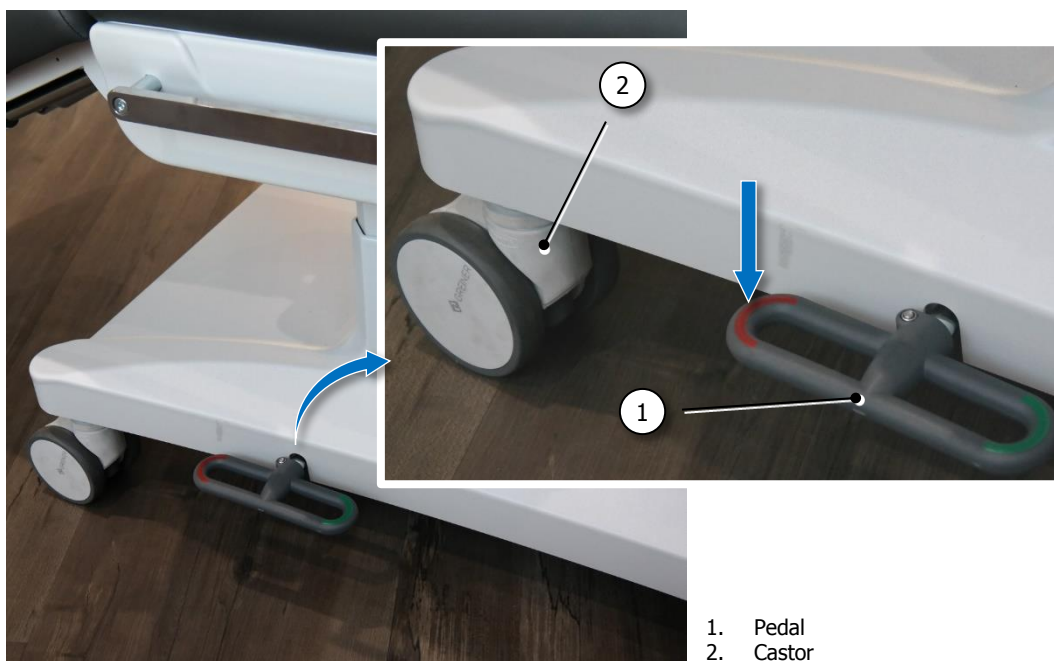


Fig. 51 Locking the castors with central locking

#### Driving

To release the brakes, step on the green side of one of the two pedals (1).  
In the driving position, the green side of both pedals points downwards.  
All castors (2) are released simultaneously.

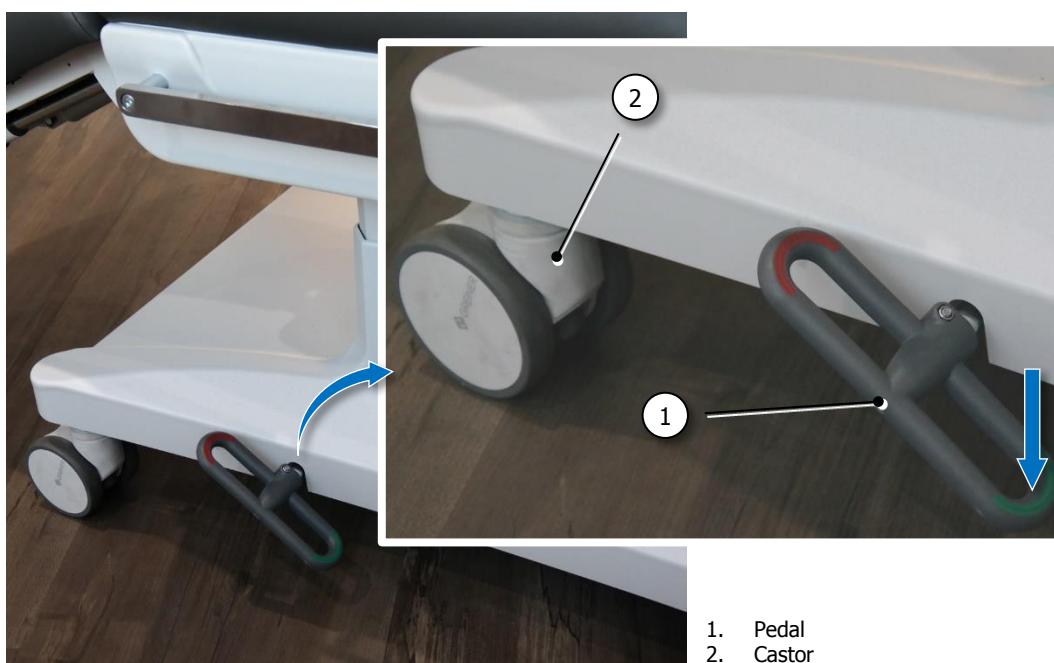


Fig. 52 Releasing the castors with central locking



### 4.12.2 Castors with central locking and directional control

In order to allow the couch to move smoothly, the right front castor (marked yellow) can be locked in the direction of travel. The electrical conductivity of the right front castor additionally prevents possible electrostatic charging of the couch.

#### Braking

To brake the couch, step down the red side of one of the two pedals (1) completely.

When braked, the red side of both pedals points downwards.

All castors (2+3) are locked simultaneously.

Make sure that the couch cannot move on its own.

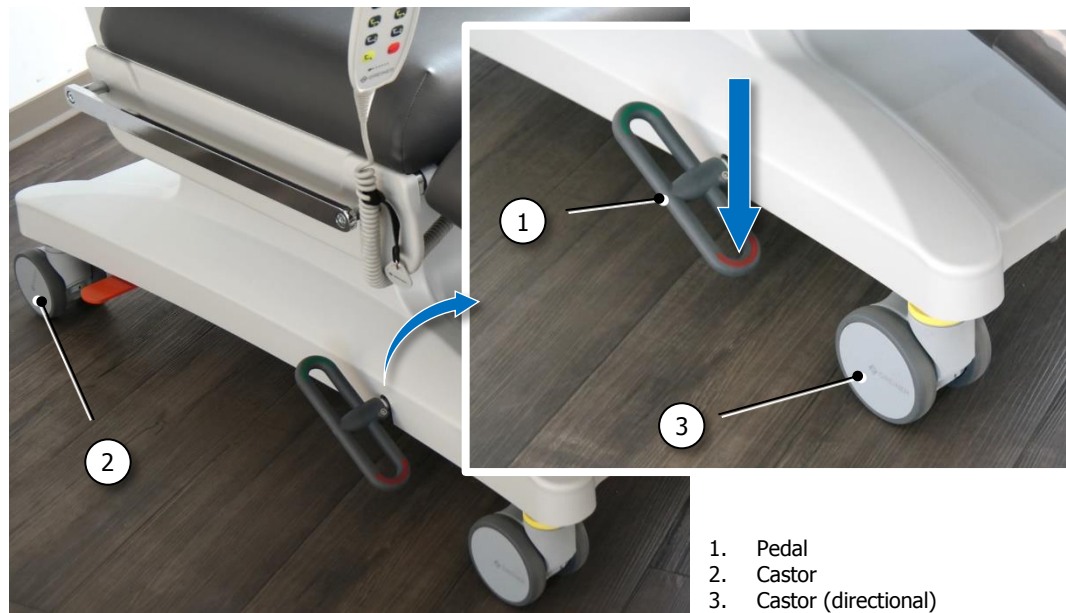


Fig. 53 Locking the castors with central locking and directional control

#### Manoeuvring

To release the brakes and bring the couch into the manoeuvring position, step on the green side of one of the two pedals (1).

In the manoeuvring position, both pedals are horizontal.

All castors (2+3) are released simultaneously.

#### TIP

In the manoeuvring position, all castors are completely free to move. This means that the couch can be manoeuvred in the tightest of spaces.

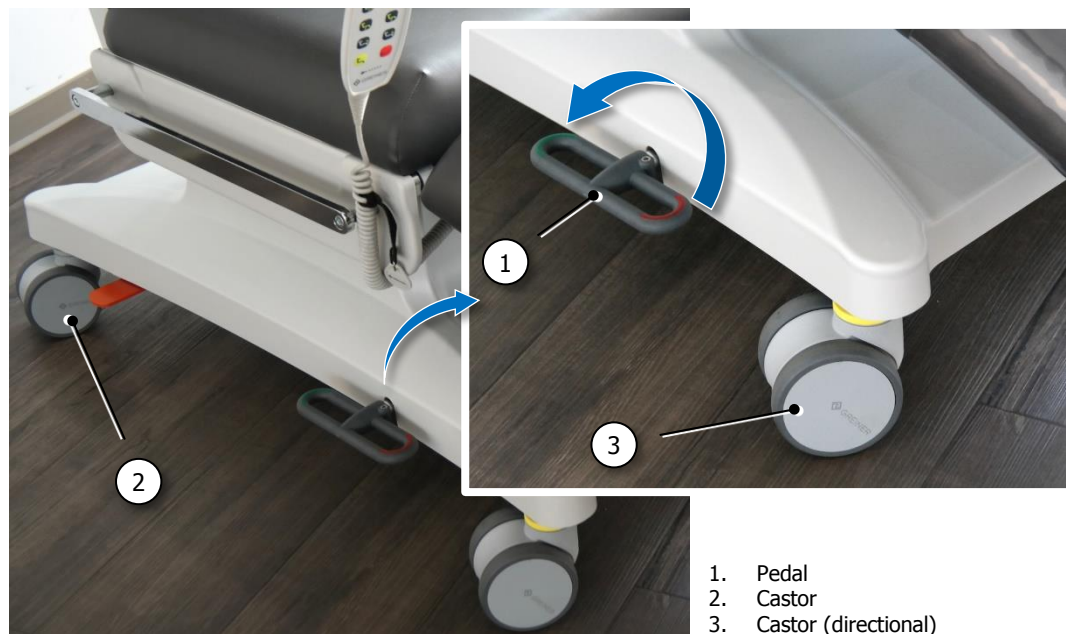


Fig. 54 Manoeuvring the couch with central locking and directional control

### Driving

To release the brakes and bring the couch into the driving position, step down the green side of one of the two pedals (1) completely.

In the driving position, the green side of both pedals points downwards.

All castors (2+3) are released simultaneously.

The right front castor (marked yellow) (3) can now be engaged in the direction of travel.

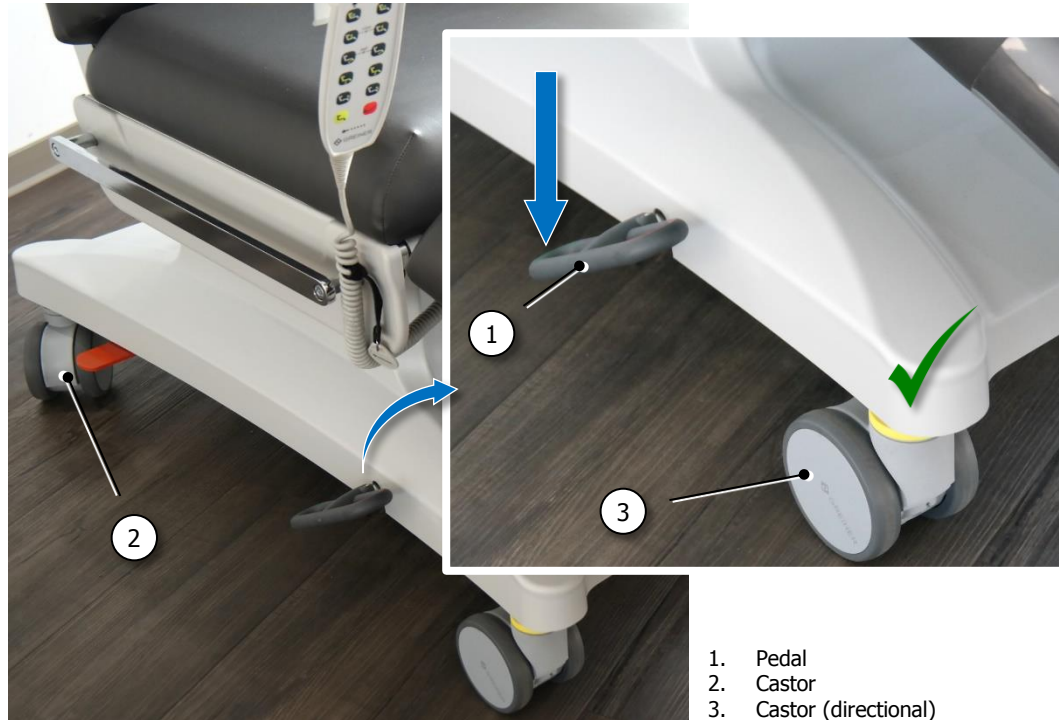


Fig. 55 Driving the couch with central locking and directional control - directional castor set correctly

### TIP

The right front castor can engage in two positions offset by 180°. A castor that is locked in the forward position starts to wobble when pushed, which makes you feel unpleasant and unsafe to drive.

To lock the right front castor correctly in the driving position, always push the couch forward a short distance first. Ensure that the directional castor is locked in the retracted position.

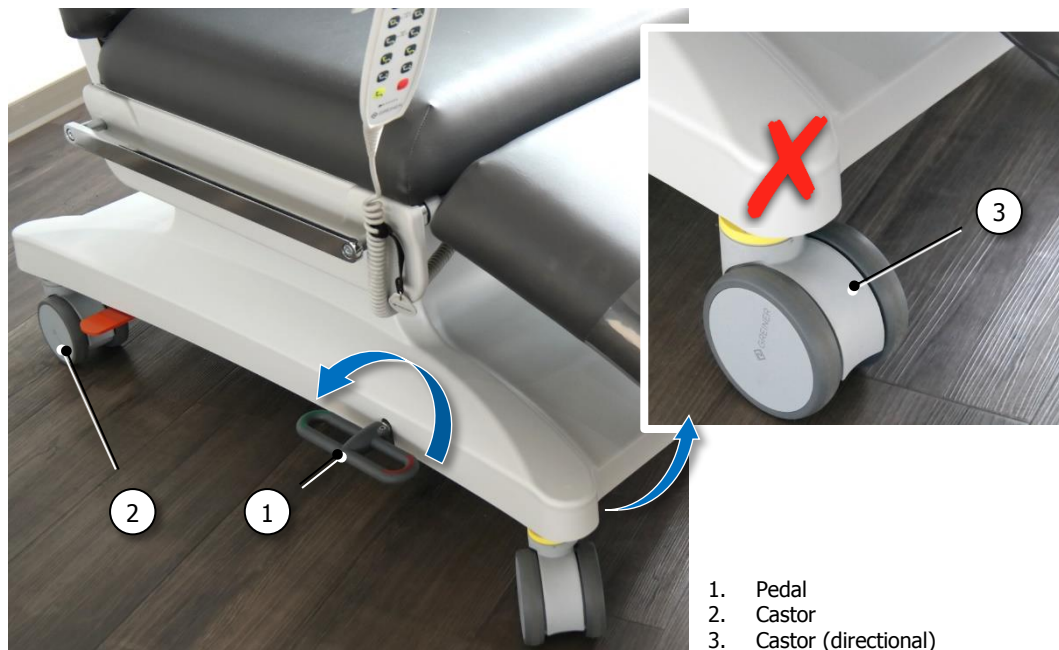


Fig. 56 Driving the couch with central locking and directional control - directional castor set incorrectly

### 4.12.3 Single-braked castors

#### Braking

Step on the locking pedals (1) on all 4 castors (2).  
All 4 castors must be braked at all times.

**CAUTION** Risk of falling or accident due to insufficiently braked couch.



If not all 4 castors are braked, the couch is insufficiently fixed. This applies in particular to slopes or inclines such as ramps.  
Make sure that the couch cannot move on its own.



Fig. 57 Locking the single-braked castors

#### Driving

To release the brakes, push all 4 locking levers at the upper end with the tip of your foot.

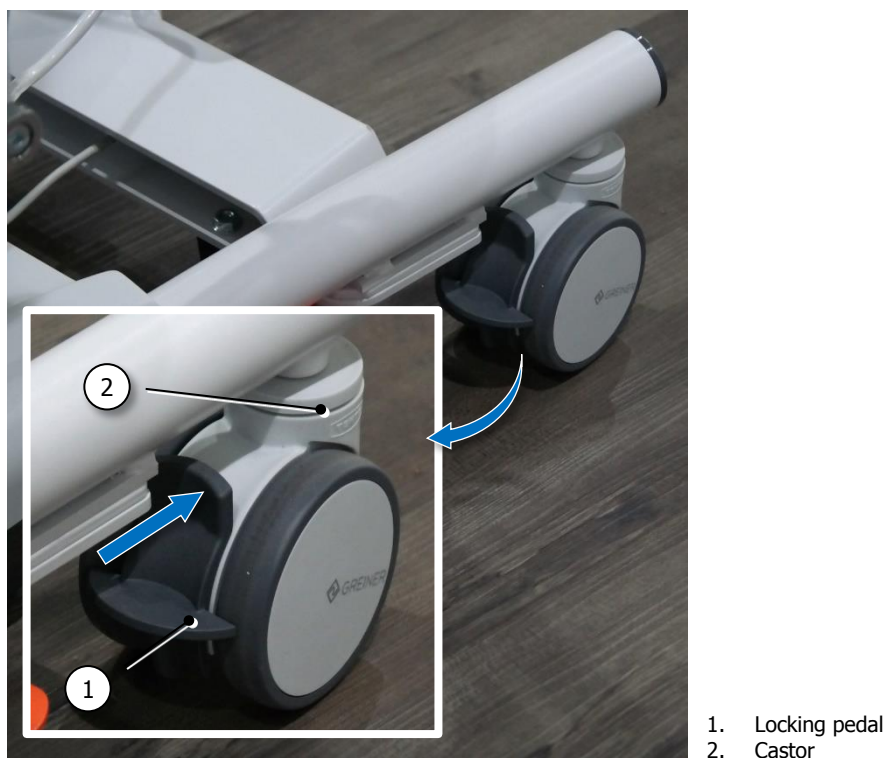


Fig. 58 Releasing the single-braked castors



### 4.13 Sitting down and standing up of the patients

If patients want to sit down on or stand up from the couch, it must first be brought into the basic position. Therefore press the yellow button (13) on the hand control (see 4.3.2 Basic position).

Locking the couch by activating the corresponding brake system.

When the patient sits down or stands up, all castors of the couch must be braked (see 4.12 Braking).

#### **CAUTION** Risk of falling or accident due to insufficiently braked couch.



If the couch is not being moved, the castors must be locked at all times, as the couch may be used by patients as a support when sitting down or standing up. Rolling the unbraked couch away can lead to serious falls. After activating the central locking or the 4 single braked castors, check whether the couch is actually fixed, i.e. the castors are sufficiently braked.

The couch may be in an unbraked position before each new use and must therefore be checked immediately for properly locked castors.

- Adjust the footrest as required or desired - this may depend on the size of the patient. Either by pressing the button (11) on the hand control (see 4.3 Hand control) or by pushing in manually (see 4.10 Footrest).
- Fold the armrest all the way up if patients want to sit down or stand up sideways (see 4.9 Armrests).
- Provide support as needed.

#### **CAUTION** Risk of falling or accident due to moving arm supports.



When patients get in or out from the front, they must not lean on the arm supports as they may suddenly swing sideways.



Fig. 59 Sitting down and standing up of the patients

### 4.14 Patient transportation

When transporting patients, proceed in principle in the same way as when moving the unoccupied couch (see 4.11 Driving). In addition, the following requirements must be observed.

#### **TIP**

The castors are essentially used only to move the couch when it is unoccupied.  
The couch can be used for patient transportation within buildings under certain conditions.

- The patient may only be transported in a seated position.
- The forearms of the patient lie in normal position on the arm supports.
- The patient's feet are on the footrest.
- Retract the footrest as fully as possible or adjust as required or desired - this may depend on the size of the patient. Either by pressing the button (11) on the hand control (see 4.3 Hand control) or by pushing in manually (see 4.10 Footrest).
- When driving on slopes or inclines, e.g. ramps, a second user must additionally secure the couch at the front due to its weight and for the safety of the patient.

### 4.15 Infusion rod holder and infusion rod

The couch can also be equipped with an infusion rod holder and an infusion rod.

#### Swivel the infusion rod holder

The infusion rod holder (1) or the infusion rod (2) can be simply swivelled from left to right or in the opposite direction. The infusion rod holder sensitively snaps into the relevant end position.

#### **CAUTION** Risk of trapping due to infusion rod.



Never leave the infusion rod holder in an intermediate position. When lowering the back, there is a risk of trapping between the infusion rod and the back cover.

The infusion rod will definitely be damaged. The infusion rod holder may also be bent and will have to be repaired.

Intermediate positions represent a danger and must therefore be avoided at all costs.

This also applies to couches that appear to be standing around unused. Patients and third parties have no way of detecting unsafe intermediate positions of the infusion rod holder and of assessing the resulting danger.

#### Inserting and adjusting the infusion rod

After inserting the infusion rod, tighten the handwheel (3) on the infusion rod holder. Make sure that the infusion rod has also been pushed into the infusion rod holder as far as it will go. The height of the infusion rod can be continuously adjusted. To do this, loosen the clamping screw (4) on the infusion rod. Hold the upper pull-out part of the infusion rod while doing this. Adjust the height as desired or required. Retighten the clamping screw.

**NOTE** Do not use the infusion rod as a push handle - risk of damage (see 4.11 Driving).

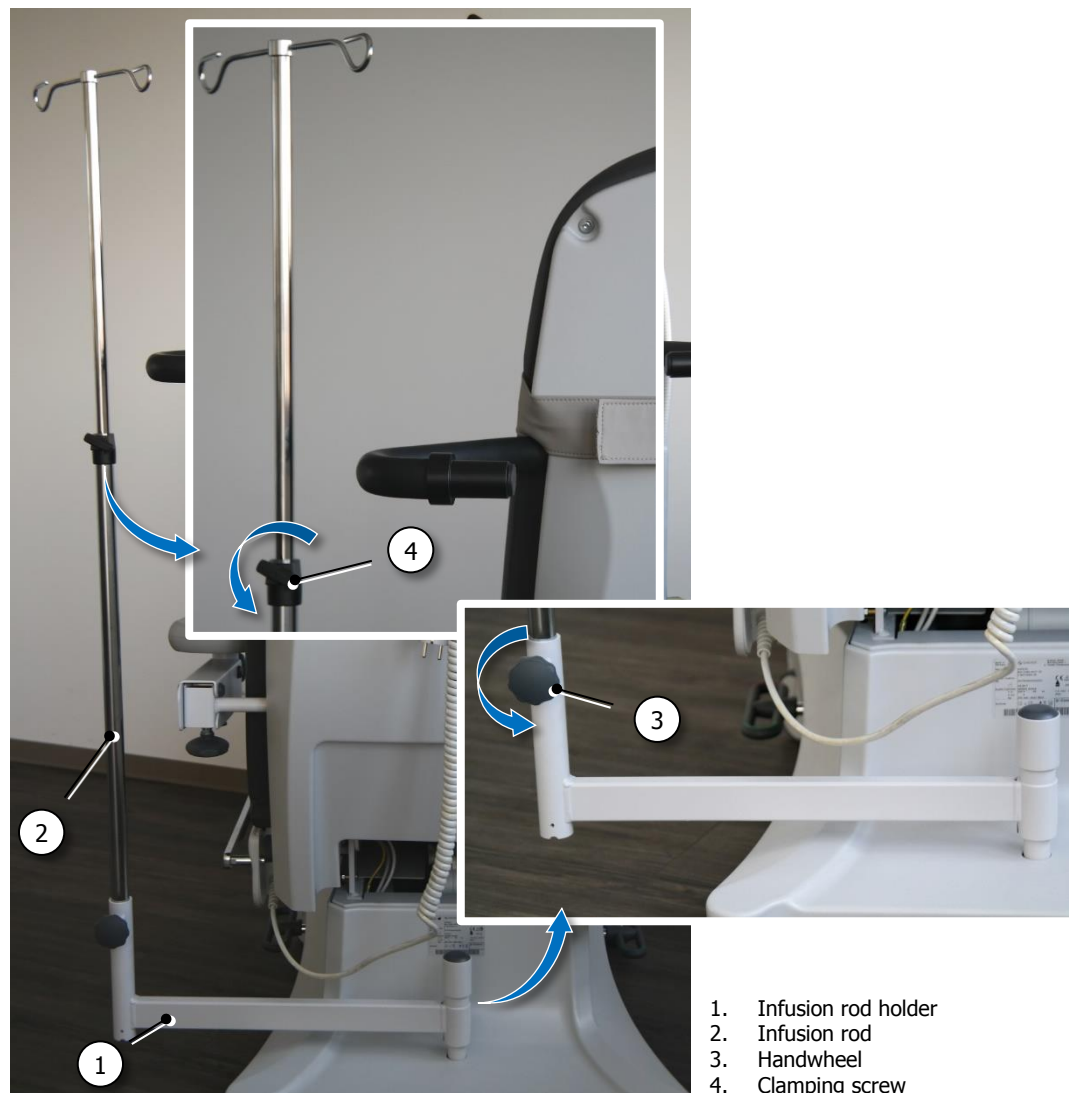


Fig. 60 Infusion rod holder and infusion rod

1. Infusion rod holder
2. Infusion rod
3. Handwheel
4. Clamping screw



### 5 Accessories

Every MULTILINE NEXT DC couch can be equipped with accessories.

**TIP** Depending on the type of accessories, retrofitting (after initial delivery) can range from very simple to quite complex.

#### 5.1 Premium material

The premium upholstery cover material (PREMIUM 422) allows even greater customisation of the couch. Different colour combinations create highlights and give expression to creativity.



**TIP** The innovative "premium" line sets new standards with its super soft, yet extremely hard-wearing surface. The "premium." upholstery cover material is currently available in 12 different colours.

Fig. 61 Premium material

#### 5.2 Neck roll

The couch can be ordered with a neck roll (4222600) to support the cervical spine.



**TIP** Of course, a neck roll, in the appropriate cover material and the desired colour, can be re-ordered at any time.

Fig. 62 Neck roll

### 5.3 Relax pillow

The couch can be ordered with a relax pillow (4222610) for soft positioning of the head.



Fig. 63 Relax pillow

#### TIP

Of course, a relax pillow, in the appropriate cover material and the desired colour, can be re-ordered at any time.

### 5.4 Neck roll / Relax pillow in premium material

The neck roll or the relax pillow can also be ordered in premium material (PREMIUM KP) (see 5.1 Premium material).

#### TIP

The neck roll and the relax pillow feel more comfortable and valuable in direct skin contact. They are also available in combination with compact cover material on the large surfaces for backrest, seat and legrest upholstery.

### 5.5 Arm supports in premium material

The padded arm supports can also be ordered in premium material (PREMIUM AP) (see 5.1 Premium material). Not for integral foam arm supports.

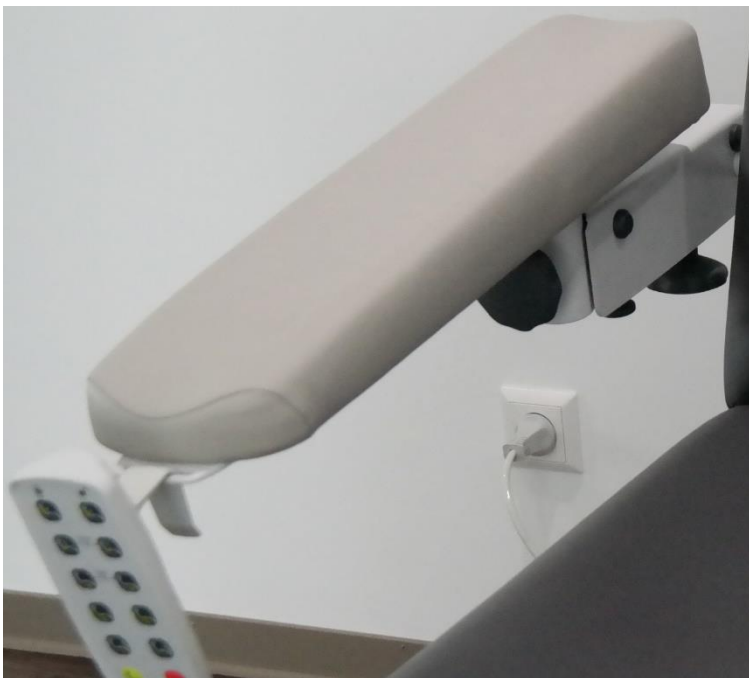


Fig. 64 Arm supports in premium material

#### TIP

The padded arm supports feel more comfortable and valuable in direct skin contact.

They are also available in combination with compact cover material on the large surfaces for backrest, seat and legrest upholstery.

### 5.6 LED reading lamp

For handling the LED reading lamp (4222100) (see 4.8 LED reading lamp).



Fig. 65 LED reading lamp

#### TIP

The LED reading lamp enables glare-free illumination of the patient's direct field of vision.

The position need only be adjusted once and the ergonomic gooseneck holds it safely and reliably.

No other lighting equipment is required.  
No tripping hazards due to additional mains cables etc. - safety issue.

### 5.7 Legrest upholstery protection cover

The legrest upholstery cover (4221100) protects against soiling and damage. The robust, transparent design of the plastic film ensures a long service life.



Fig. 66 Legrest upholstery protection cover

#### TIP

The protection cover is attached to the back of the legrest upholstery using Velcro fasteners. This allows the protection cover to be attached and removed quickly and user-friendly - easy handling during cleaning.

### 5.8 Footrest protection cover

The protection cover (4221200) covers the footrest completely and protects it from soiling and damage. The robust, transparent design of the plastic film ensures a long service life.



Fig. 67 Footrest protection cover

#### TIP

The protection cover is simply pulled over the footrest. This allows the protection cover to be attached and removed quickly and user-friendly - easy handling during cleaning.

### 5.9 Battery

For information on handling the battery for shock position (Trendelenburg position) (4221300) (see 4.5 Battery mode).

The additional battery built into the control unit for shock position (Trendelenburg position) enables the user to bring the patient reliably and quickly into shock position, even if there is no mains connection.

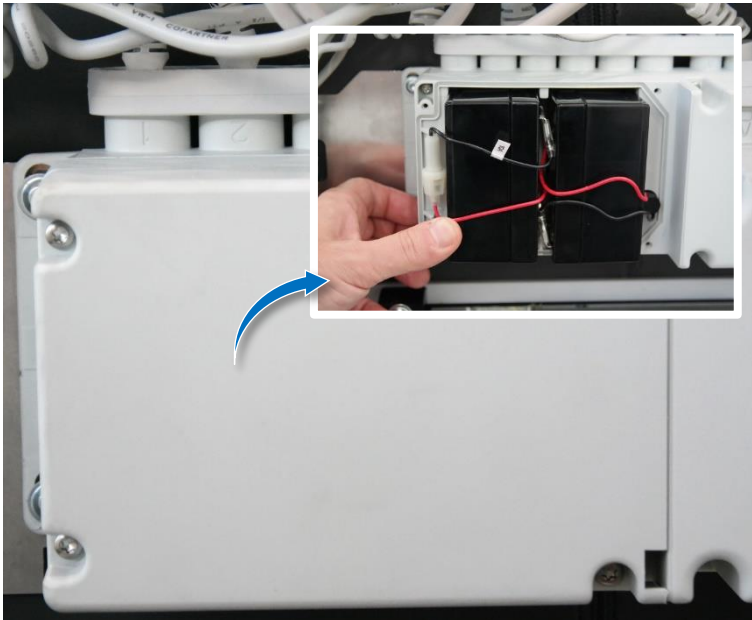


Fig. 68 Battery

#### TIP

The battery for the shock position (Trendelenburg position) gives the user the secure feeling of having control over the situation and being able to act at all times, even in the event of unforeseeable events - safety aspect.

### 5.10 Push handle with paper roll holder

The ergonomically shaped push handle (4221400) enables the user to manoeuvre the couch safely and precisely. A non-slip coating provides the user with safety in her or his daily work (see 4.11 Driving and 4.14 Patient transportation).



Fig. 69 Push handle with paper roll holder

#### TIP

The push handle also serves as a paper roll holder (roll width 55 cm). This makes it very easy to replace the paper cover when changing patients - saving time.

### 5.11 Padded arm supports

The couch is supplied with integral foam arm supports as standard. However, padded arm supports (4221520) can also be ordered instead of integral foam arm supports (see 4.9 Armrests).



Fig. 70 Padded arm supports

#### TIP

Of course, padded arm supports, in the appropriate cover material and the desired colour, can be re-ordered at any time.



### 5.12 Infusion rod holder

For handling the infusion rod holder (4221800) (see 4.15 Infusion rod holder and infusion rod).



Fig. 71 Infusion rod holder

### 5.13 Infusion rod

For handling the infusion rod (4221900) (see 4.15 Infusion rod holder and infusion rod).



Fig. 72 Infusion rod

### 5.14 Standard rails

The pair of standard rails on the seat (4222200) enables the quick and safe attachment of accessories from other manufacturers. The highly stable and extra-long design provides safety and a wide variety of positioning options.

- NOTE** Observe the safety aspects when moving the electric actuators. Take particular care to check for possible trapping points, both on the patient, first and foremost, and with regard to the couch itself.
- Tearing off or trapping cables and hoses of the accessories attached to the standard rail can lead to considerable risks for patients, users and third parties (see 4.3 Hand control, 4.11 Driving and 4.14 Patient transportation).



Fig. 73 Standard rails

#### TIP

When manoeuvring the couch, pay attention to excess width, protruding components, additional mains cables for accessories, etc.

### 5.15 Seat with pressure relief

The combination of pressure-relieving springs in the seat upholstery (4222400) with "premium." cover material (PREMIUM 422) provides unrivalled comfort, even during treatment lasting several hours.

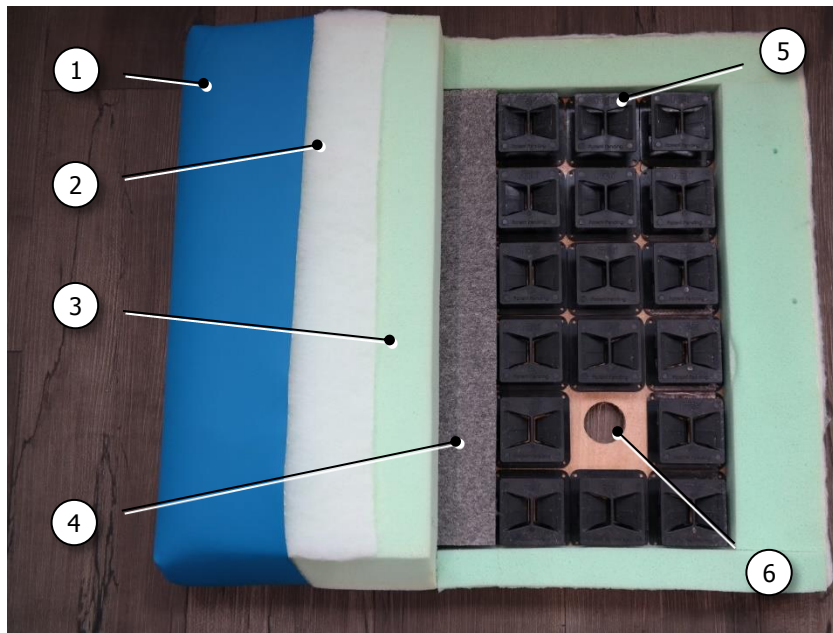


Fig. 74 Seat upholstery with pressure-relieving springs

#### TIP

The seat with pressure-relieving springs is only available with premium material (PREMIUM 422) (see 5.1 Premium material).

- |                              |                                    |
|------------------------------|------------------------------------|
| 1. "premium." cover material | 4. Felt cover                      |
| 2. Wadding                   | 5. Single spring element           |
| 3. Cut foam                  | 6. Ventilation opening in the wood |

### 5.16 Foot switch

For handling the foot switch (4222500) (see 4.6 Foot switch).

Pressing the orange foot switch brings the couch directly into the shock position (Trendelenburg position) (see 4.3.5 Shock position).



Fig. 75 Foot switch

#### TIP

Using the foot switch means that the user has both hands free right from the start for important, possibly life-saving, measures on the patient - saving time. In an emergency, every second counts.

### 5.17 Mains cable

The couch is supplied with an EU mains cable as standard. However, a mains cable for Switzerland (CH - 4222700) can also be ordered instead of an EU mains cable.

#### NOTE

Never replace the mains cable yourself. The service of your authorised specialist distributor will be pleased to take care of this.

Work on live components should be carried out by qualified experts - safety aspect.

See "4.3.2 Replacing the mains cable" in the service manual in any case.

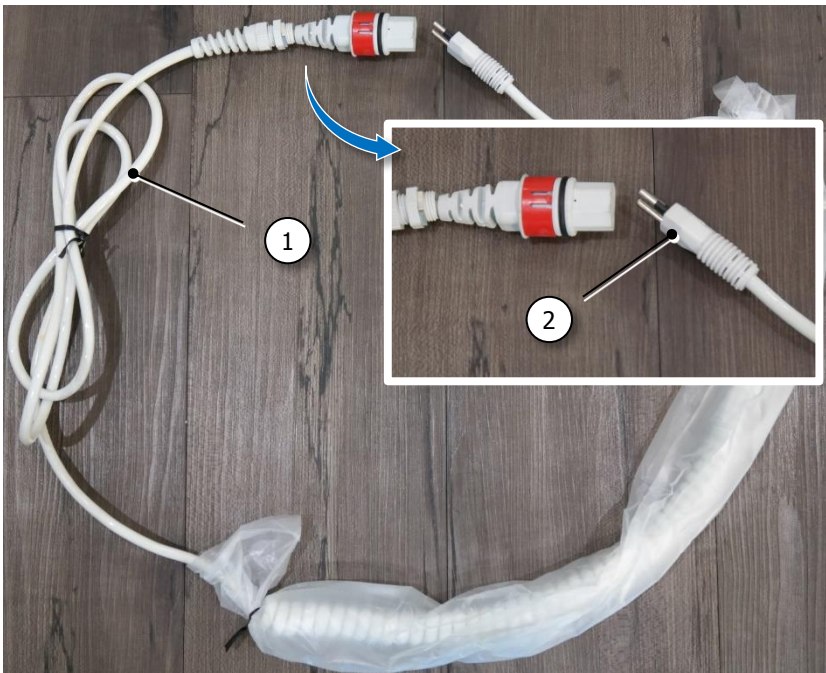


Fig. 76 Mains cable CH

1. Mains cable CH
2. Mains plug CH

#### TIP

The range of possible variants is constantly being expanded. Just ask.

### 6 Cleaning and disinfection

This chapter describes all regular cleaning and disinfection activities.

To ensure that the couch is always functional and usable, it should be cleaned and disinfected as soon as possible after each use so that it can be used again immediately. Improper cleaning or disinfection may cause hazards.

**WARNING Risk of electric shock / fire and malfunction.**



The couch must always be disconnected from the mains supply by unplugging the mains plug before performing any maintenance work.

Before recommissioning, ensure that no residual moisture remains on the electrical contacts by drying or blowing off the mains plug.

None of the electrical components may have external damage.

Failure to observe these instructions may result in the penetration of cleaning agents or disinfectants, resulting in malfunctions or damage.

**DANGER Risk of electric shock / fire as well as functional failure due to penetration of liquids.**



If liquids are suspected to have penetrated electrical components, immediately unplug the mains plug or do not reconnect it.

Take the couch out of operation immediately and clearly mark it with "**DEFECT**".

Inform the operator for intensive inspection during repair.

**NOTE** The information contained in the instructions of the manufacturer of the relevant detergent or disinfectant must be strictly observed.

The dilution ratio recommended by the manufacturers in the respective instructions must be observed. The specified concentrations must not be exceeded or undershot.

Failure to observe these instructions may result in material damage or personal injury.

**TIP** Before the extensive use of cleaning agents and disinfectants, we always recommend testing the surface compatibility on a non-visible area.

As a rule, the solutions should be freshly prepared.

**TIP** Do not use a brush and high pressure to clean or disinfect type plates, stickers, symbols and notes.

Readability must always be guaranteed and compatibility tested over a small area if necessary.

- Cleaning and disinfecting agents must not contain any corrosive or corrosive components.
- They must not contain substances that alter the surface structure or the adhesive properties of the materials.
- The lubricants used on the couch must not be attacked.
- The pH value of the water must not exceed or fall below 6-8.
- The total water hardness of 0.9 mmol/l (corresponding to 5°dH) must not be exceeded.

**TIP** The information in the VAH list (German Association for Applied Hygiene), as well as the information provided by us, do not exempt the user from carrying out her or his own tests and trials, as the conditions (e.g. water hardness) can vary greatly from place to place. A legally binding assurance of certain characteristics cannot be derived from this.

**NOTE** The use of unsuitable cleaning agents and disinfectants, the wrong mixing ratio and insufficient care of the couch can cause damage to the surface coating for which GREINER GmbH is not liable.

**TIP** Ensure that no liquid residues remain on the metallic parts of the couch after cleaning and disinfection (avoid droplet formation on edges). Otherwise corrosion cannot be excluded in these areas in the long term.

**TIP** To avoid degreasing of the piston rods, all electric actuators should be moved to the smallest stroke position before cleaning or disinfection.

Dry-running piston rods should be greased thinly with industrial Vaseline.

### 6.1 Cleaning

Cleaning and subsequent disinfection must be carried out at regular intervals.

The following times are usually to be observed.

- If required.
- After each patient change.
- In accordance with the guidelines of the operator's hygiene plan.

Depending on the degree of soiling, we recommend cleaning the couch with a damp cloth (microfiber cloth or similar). Oil, grease, sweat, urine and blood must be removed immediately. Use a warm, mild soapy water. A soft hand brush can also be used for stubborn dirt or stains. Do not use excessive amounts of water to clean the couch.

**NOTE** The upholstery materials must be protected from the effects of intense heat and cleaned regularly. Take care that the upholstery are not soaked.  
Do not use organic solvents (e.g. petrol, benzene, turpentine, toluene, xylene or acetone etc.), chlorides, polishes, chemical cleaning agents or wax polishes to clean the upholstery. Do not use agents containing oil, grease or alcohol.  
The upholstery materials are not resistant to dry cleaning.  
Under no circumstances should scouring sponges or cleaning agents containing abrasive particles, abrasives or other blunting substances be used to clean the steel parts.

For cleaning the plastic parts also use a warm, mild soapy water or, if necessary, commercially available plastic cleaner.

Use commercially available plastic cleaners to clean the electrical components.

**NOTE** The couch may not be cleaned in washing facilities, by means of spray lances of a high-pressure cleaner or water jet.

### 6.2 Disinfection

For wipe and spray disinfection, the disinfectants listed in the VAH list (German Association for Applied Hygiene) can be used in their intended concentration.

The dilution ratio recommended by the manufacturers in the respective instructions must be observed.

**NOTE** The concentrations indicated in the VAH list should not be exceeded or undershot. Under no circumstances may the user add cleaning agents such as soap or detergents to a disinfectant at his own discretion.  
Do not allow the disinfectant to penetrate into the upholstery beyond the prescribed contact time. Disinfectants are aggressive and can change the surface.

**DANGER** **Fire and explosion hazard due to wiping / spraying disinfection containing alcohol.**

There is a fire and explosion hazard when wiping or spraying disinfectants containing alcohol are used over large areas.



The chapter troubleshooting contains information about possible malfunctions that can be corrected by the user.

**TIP**

The use of specially trained and instructed service personnel is neither necessary nor intended for troubleshooting.

**Safety Instructions for troubleshooting****DANGER**

**Fatal risk of electric shock.**



Under no circumstances may the user attempt to rectify faults in electrical components him or herself.

**General troubleshooting tips****TIP**

Before each troubleshooting check whether the couch is connected to the mains (mains plug in a live socket).

**Voltage test for everyone.**

At the appropriate mains outlet, perform a simple test with another functioning electrical device.

Device works when switched on - mains voltage present.

Device does not function when switched on - no mains voltage present.

When the couch is connected to the mains and the hand control is enabled with the magnetic key, the green operation control LED (2) lights up to indicate that the couch is ready for operation (see 4.3.1 Unlocking and locking the hand control).

## 7.1 Initialisation of actuators

If a signal sounds when the buttons on the hand control (see 4.3 Hand control) are pressed to adjust the backrest, seat inclination or leg section, the control unit does not know the current position of the corresponding actuator.

In this case, you must move the affected actuator completely to the end position indicated below. Do not press any other keys until the process is complete.

Carry out the initialization as follows.

- ☞ Raise the backrest completely (3).
- ☞ Swivel the seat all the way down (6).
- ☞ Swivel the leg section all the way down (8).

The signal tone stops and the current position of the corresponding actuator is reinitialized. The actuator is ready for operation again.

**TIP** First bring the couch completely into the shock position (Trendelenburg position) (14) (see 4.3.5 Shock position). Immediately afterwards, move the couch completely to the basic position (13) (see 4.3.2 Basic position) - safely initialises any faulty actuator(s). This procedure is only recommended for an unoccupied couch.

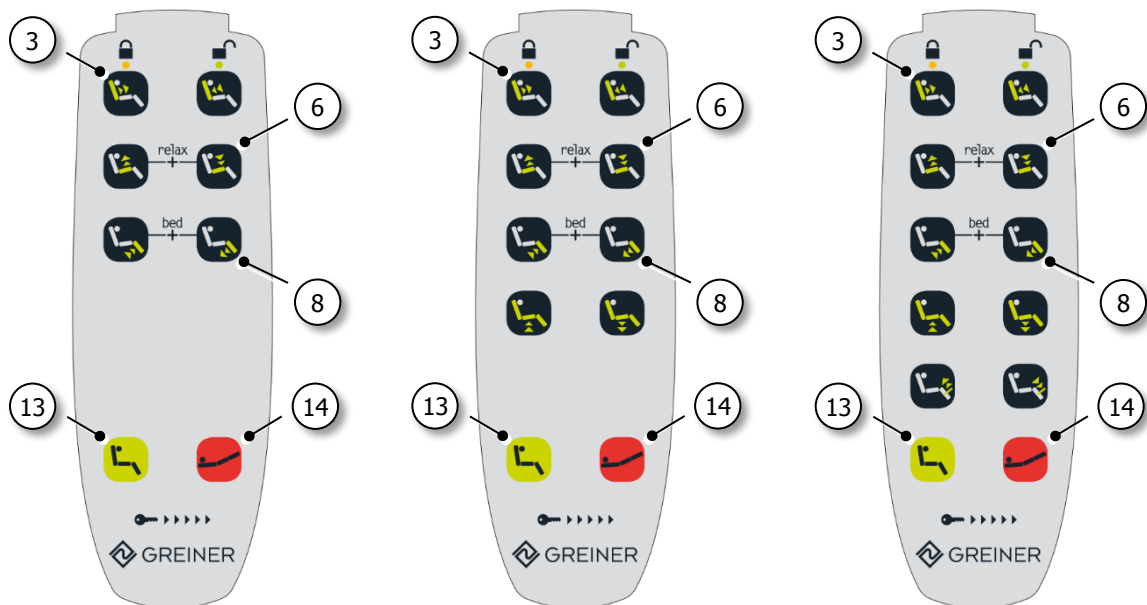


Fig. 77 Initialisation of actuators

- 3. Backrest - up
- 6. Seat inclination - down
- 8. Leg section - down
- 13. Basic position
- 14. Shock position (Trendelenburg position)

## 7.2 Control unit RESET

Fluctuations in the mains voltage or similar can lead to the control unit of the couch no longer reacting to the activation of any buttons on the hand control (see 4.3 Hand control) and a pulsing signal tone being heard. In this case, the control unit must be "RESET".

Carry out the control unit RESET as follows.

- ☞ Press and hold the two top buttons (3) and (4) simultaneously.  
After a short time, a pulsating signal tone sounds.
- ☞ Continue to press and hold the two buttons until the sound stops.

A "RESET" has been carried out on the control unit and the couch is ready for operation again.

**TIP** In some cases, the actuators may have to be reinitialised after a "RESET" of the control unit (see 7.1 Initialisation of actuators).

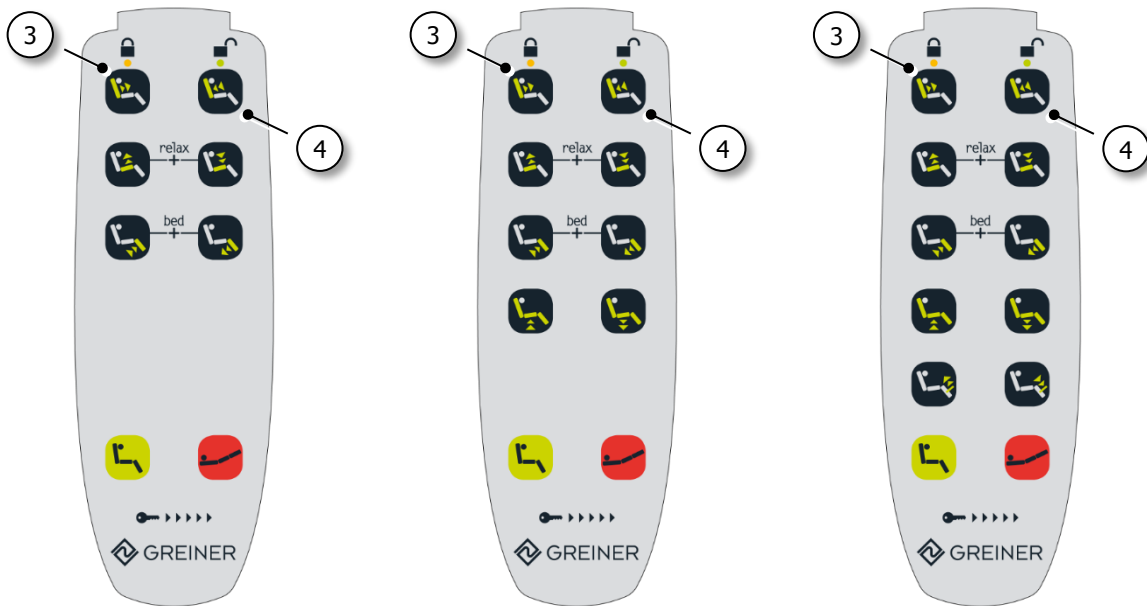


Fig. 78 Control unit RESET

- 15. Backrest - up
- 16. Backrest - down

## 7.3 Troubleshooting table

The following table provides assistance in remedying malfunctions.

Electrical malfunction		
Problem	Possible causes	Solution
Couch completely without electrical function.	<ul style="list-style-type: none"> <li>Mains cable not plugged in.</li> <li>Socket without mains voltage.</li> <li>Mains plug not plugged in properly.</li> <li>Defective hand control, mains cable or control unit.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Plug in the mains cable. The green or yellow operating control LED on the hand control must light up. (see 4.3 Hand control)</li> <li>☞ Check socket and fuse box.</li> <li>☞ Check the plug connection of the mains plug.</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ If necessary, replace the hand control, mains cable or control unit.</li> </ul>
The green power indicator LED on the control unit does not light up. (may only be carried out by service personnel, as the backrest cover must be removed)	<ul style="list-style-type: none"> <li>Socket without mains voltage.</li> <li>Mains cable or plug defective.</li> <li>Defective control unit.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Use an intact mains socket.</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ If necessary, replace the mains cable or control unit.</li> </ul>
Hand control without function.	<ul style="list-style-type: none"> <li>Hand control locked.</li> <li>Defective hand control.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Unlock the hand control. (see 4.3.1 Unlocking and locking the hand control)</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ If necessary, replace the hand control.</li> </ul>
Foot switch without function.	<ul style="list-style-type: none"> <li>Hand control locked. (the corresponding function of the foot switch is also locked)</li> <li>Defective foot switch.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Unlock the hand control. (see 4.3.1 Unlocking and locking the hand control)</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ If necessary, replace foot switch.</li> </ul>
Despite a proper mains supply, operation is not possible.	<ul style="list-style-type: none"> <li>Control unit has switched off due to overheating.</li> <li>Defective control unit.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Max. duty cycle: Op: 2 / 18 min note (see 4.4 Duty cycle)</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ If necessary, replace the control unit.</li> </ul>
Actuator only starts briefly, then stops.	<ul style="list-style-type: none"> <li>Actuator overloaded.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Remove overload.</li> <li>☞ Retest.</li> </ul>
An acoustic signal sounds when the actuators for the backrest, seat inclination or leg section are activated.	<ul style="list-style-type: none"> <li>The control unit does not have the current position of the corresponding actuator.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Recalibrate the actuator(s). (see 7.1 Initialisation of actuators)</li> </ul>

Electrical malfunction		
Problem	Possible causes	Solution
The control unit does not respond and a pulsing signal tone sounds when any button on the hand control is pressed.	<ul style="list-style-type: none"> <li>Fluctuations in the mains voltage etc. lead to a total failure of the unit.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out a "RESET" of the control unit. (see 7.2 Control unit RESET)</li> </ul>
Battery operation not possible.	<ul style="list-style-type: none"> <li>Battery discharged.</li> <li>No battery was ever, or is not currently, installed.</li> </ul>	<ul style="list-style-type: none"> <li>Connect the couch to the mains for at least 24 hours. (see 4.5 Battery mode)</li> <li>Inform the operator for intensive inspection during repair.</li> <li>If necessary, install a battery.</li> </ul>
Battery operation with alarm tone only.	<ul style="list-style-type: none"> <li>Battery capacity exhausted or medium charge level reached.</li> </ul>	<ul style="list-style-type: none"> <li>Connect to the mains as soon as possible to charge the battery. (see 4.5 Battery mode).</li> </ul>
Battery operation with sufficient charge is only possible for a short time.	<ul style="list-style-type: none"> <li>Battery life limit reached.</li> </ul>	<ul style="list-style-type: none"> <li>Inform the operator for intensive inspection during repair.</li> <li>If necessary, replace the battery.</li> </ul>
Potential equalisation does not function properly.	<ul style="list-style-type: none"> <li>Equipotential bonding pin damaged or not present.</li> </ul>	<ul style="list-style-type: none"> <li>Inform the operator for intensive inspection during repair.</li> <li>If necessary, replace the equipotential bonding pin.</li> </ul>
The LED reading lamp cannot be switched on. (the connection cable may only be checked by service personnel, as the backrest cover must be removed)	<ul style="list-style-type: none"> <li>Defective LED reading lamp.</li> <li>Connection cable of the LED reading lamp plugged out or defective.</li> </ul>	<ul style="list-style-type: none"> <li>Inform the operator for intensive inspection during repair.</li> <li>If necessary, plug in the connection cable or replace the LED reading lamp.</li> </ul>

Mechanical malfunction		
Problem	Possible causes	Solution
Central locking of the 4 castors does not function properly.	<ul style="list-style-type: none"> <li>Defective castor(s).</li> <li>Brake linkage bent or defective.</li> </ul>	<ul style="list-style-type: none"> <li>Inform the operator for intensive inspection during repair.</li> <li>If necessary, replace the castor(s).</li> </ul>
Single-braked castor(s) do(s) not function(s) properly.	<ul style="list-style-type: none"> <li>Defective castor(s).</li> </ul>	<ul style="list-style-type: none"> <li>Inform the operator for intensive inspection during repair.</li> <li>If necessary, replace the castor(s).</li> </ul>



### 8 Decommissioning

#### 8.1 Service life

Provided that the intended use, safety inspections and necessary maintenance measures are observed, the service life of the MULTILINE NEXT DC couch is approx. 7 to 10 years, depending on stress, operating conditions and frequency.

#### 8.2 Storage and transportation

**NOTE** The MULTILINE NEXT DC couch should only be moved (see 4.3.2 Basic position and 4.11 Driving) and carefully stored (see 4.12 Braking) in basic position.

**TIP** The couch must be cleaned and disinfected before storage (see 6 Cleaning and disinfection). Store the couch in a dry, well-ventilated room, protected from dirt. Furthermore, the couch should preferably be protected from direct sunlight or UV radiation, if necessary by a light-proof foil.

The following environmental conditions must be observed at the storage location or during transportation.

Storage or transportation temperature [C]:



Air humidity [rH] (non-condensing):

20 % - 90 %

Air pressure [hPa]:

700 - 1060

Storage at an estimated altitude [m]:



##### 8.2.1 Battery

**NOTE** Fully charged batteries should not be stored for longer than 3 months without recharging. The battery must be fully charged every 3 months at the latest, otherwise it will be damaged due to self-discharge (see 4.5 Battery mode).

### 8.3 Check before recommissioning

The couch must be cleaned and disinfected before being put back into operation (see 6 Cleaning and disinfection).

**CAUTION Risk of infection from contaminated couch.**



After storage, the couch must be cleaned and disinfected before being put back into operation.

A functional check of the couch must be carried out immediately after cleaning and disinfection and before use (occupation by a new patient).

**WARNING Risk of injury for patient, user and third parties.**



The couch must be checked for functional safety once recommissioning is complete. It must be ensured that the couch can be used as intended without endangering the patient, the user or third parties.

If the couch is recommissioned after storage, the same functional check must be carried out as for the check before commissioning (see 3.7 Check before commissioning and reassignment).

- ☞ General check of the overall condition of the couch for soiling, condition and damage, completeness and legibility of stickers, symbols and instructions, clean if necessary in accordance with the manufacturer's specifications or those of the operator and repair if necessary.
- ☞ Visually inspect the mains cable and plug, hand control, as well as all other electrical cables and connectors for breakage, proper installation (e.g. strain relief), clamping or friction points etc. and repair if necessary.
- ☞ Functional check of the electrical adjustment devices and the control system. All electric actuators must be operated once up to their end positions. Pay particular attention to changed operating behaviour, unusual noises, speed, smooth running, odours and increased temperature and repair if necessary.
- ☞ Carry out a functional check according to the installed brake system for the castors (locking, free-wheel) and repair if necessary.
- ☞ Any defects or damage found must be remedied immediately.  
The couch must not be used before the defects or damage have been remedied.

**WARNING Risk of injury due to defective couch.**



The couch must **not** be operated in a defective or faulty condition in which the couch could endanger patients, users or third parties.

A defective or faulty couch must be clearly marked "**DEFECT**". The marking must be done in such a way that the defective condition is clearly identifiable for everyone.

Inform the operator for intensive inspection during repair.

## 8.4 Disposal

During the construction of the couch, care was taken to ensure that, wherever possible, no composites were used. This design concept allows a high degree of recycling once the couch has reached the end of its service life. Country-specific disposal regulations must be observed!

### General disposal instructions

#### **CAUTION** Risk of infection from contaminated couch.



The operator must ensure that all components to be disposed of are not infectious or contaminated.

In the event of scrapping, dispose of metal and plastic parts separately and properly.

If you have any queries, please contact your local municipality, local waste disposal company or our service (see 1.2 Manufacturer).

### Disposal of electrical parts



#### **Labelling of electrical and electronic equipment in accordance with Directive 2002/96/EC (WEEE) and the German Electrical and Electronic Equipment Act (ElektroG)**

The symbol on the product indicates that it must not be disposed of as normal household waste.



- This couch is classified as a commercially used electrical appliance in accordance with WEEE Directive 2002/96/EC (WEEE) and the German Electrical and Electronic Equipment Act (ElektroG).
- The electrical components used are free of prohibited harmful substances in accordance with the RoHS Directive.
- Replaced electrical components (manual switches, actuators, control units, etc.) must be treated like electrical waste in accordance with the WEEE Directive and disposed of properly.
- GREINER GmbH, or its authorised specialist distributors, shall take back the delivered couch after termination of use at the customer's expense and dispose of the goods in accordance with statutory regulations. The customer undertakes to make the device available to GREINER GmbH in a proper condition (cleaned and disinfected) (see 9.3 Return delivery / repair order).

The device is identified by its GREINER serial number and type plate. The customer is responsible for proving that the product was produced by GREINER. For further information, please refer to our General Terms and Conditions at [www.greiner-gmbh.de](http://www.greiner-gmbh.de).

### Disposal of batteries (if available)



- Batteries that are no longer usable must be disposed of properly in accordance with the Battery Ordinance and should never be disposed of with household waste.
- If you have any queries on waste disposal, please contact your local municipality, local waste disposal company or our service (see 1.2 Manufacturer).

### Disposal of gas springs/hydraulic units (if available)

Gas springs and hydraulic units are mainly made of metal and can be recycled after the oil contained within them has been drained.

Gas springs must be depressurised in accordance with the manufacturer's instructions before disposal or draining of the oil. These details are available on request from the corresponding gas spring manufacturer (see type plate or manufacturer label). For the correct procedure for the disposal (recycling) of Stabilus gas springs, see [www.stabilus.com](http://www.stabilus.com).

#### **CAUTION** Danger of injury to the eyes or face, risk of injury due to trapping



Due to the high internal pressure, suitable measures for personal protection must be taken before degassing (eye and face protection, covering the degassing opening, etc.).

When the gas springs are removed, there is a risk of trapping when the release mechanism is activated by sudden movement of the piston rod.























#### **Environmental protection**

- Before disposal, the oil must be drained and disposed of properly.

## 9 Appendix

### 9.1 Explanation of symbols

The following symbols are used in this manual, on the couch and its components or parts.

Symbol	Meaning	Symbol	Meaning
	TÜV approval mark		QM system test mark
	Follow the instructions		Safety information
	Environmental protection		RoHS label
	No domestic waste		Electrical scrap
	Manufacturer		Date of manufacture
	Product name		Serial number
	Warning		Applied Part: Type B
	Safe working load		Indoor application
	Protection class I		Alternating current
	Thermal fuse element		Isolating transformer

### 9.2 Ordering spare parts

If required, a spare parts list can be provided on request (see 1.2 Manufacturer).

**NOTE** To ensure functional reliability and to maintain warranty claims, only original spare parts from GREINER GmbH may be used.

### 9.3 Return delivery / repair order

Returns of medical devices, whether used or unused, may have come into contact with infectious agents or hazardous substances and are therefore generally regarded as "contaminated returns". This applies until the sender can prove that they are not infectious or contaminated.

Medical devices must be sent in their packaging only. Ensure that a "Declaration of Hygiene Status" is attached to the outside of the packaging. The accompanying documents must show that the medical device has been properly disinfected.

Medical devices must be disinfected before repair. The operator or client is responsible for execution and credible proof.

For further information, please refer to our General Terms and Conditions at [www.greiner-gmbh.de](http://www.greiner-gmbh.de).

#### **CAUTION** Risk of infection from contaminated couch.



For all returns or repair orders, the sender or operator must ensure that the corresponding medical devices are neither infectious nor contaminated.

## 9.4 Technical data

### Dimensions and weights

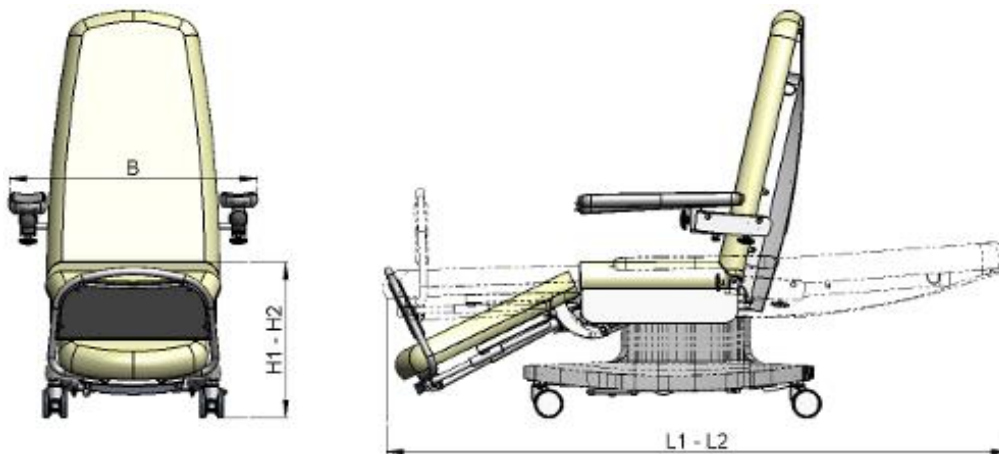


Fig. 79 Dimensions

Width B:	80 cm
Length in basic position L1:	110 cm
Length in bed position L2:	192 cm
Lying surface width:	60 cm
Length of lying surface:	220 cm
Entrance height H1:	54 cm
Height adjustment H2:	21 cm (54 - 75 cm)
Backrest inclination:	-5° - 78°
Seat inclination:	0° - 22°
Inclination of leg section:	-25° - 0°
Castor:	10 cm
Empty weight of couch depending on model:	105 - 110 kg
Safe working load:	220 kg

### Electrical data

Protection class I:



Application Part Type B (special protection against electric shock):



Protection type:

IPX4

### Control unit [CB16]

Bus version:

OpenBus™

Number of channels depending on version:

3 - 5

Mains connection [U in]:

230 V AC, 50/60 Hz

Current consumption [I in]:

max. 2 A

Total current [I out]:

max. 8 A

Current per channel [I out]:

5.5 - 8 A

Op = duty cycle <sup>1)</sup>:

10 % max. 2 min / 18 min

Thermal fuse element:



Isolating transformer:



### Actuators

Rated voltage [U in]:

24 V DC

Current consumption [I in] depending on version:

3.8 - 7 A

### Battery (shock position)

Battery voltage (battery set - series connection):

24 V DC

Battery capacity:

1.3 Ah

Version / type:

battery set / lead gel

<sup>1)</sup> Duty cycle 10 % max. 2 minutes continuous use followed by 18 minutes not in use.  
Failure to do so may result in a malfunction.



## 9.5 Proof of instruction

Form for proof of instruction **MULTILINE NEXT DC**

Fig. 80 Proof of instruction MULTILINE NEXT DC

**Type of instruction**

- ☐ Initial instruction
- ☐ Repeated instruction


**Instruction by**

- ☐ Manufacturer
- ☐ Authorised person of the authorised specialist distributor
- ☐ Authorised representative of the operator
- ☐ Other \_\_\_\_\_

**Instruction for**

- ☐ User
- ☐ Authorised representative of the operator
- ☐ Authorised person of the authorised specialist distributor
- ☐ Service personnel of the operator
- ☐ Service personnel of the authorised specialist distributor

**Device data** (see 1.6 Type plate)

<b>Manufacturer</b> 	<b>GREINER GmbH</b> Wettestraße 1 74385 Pleidelsheim / Germany	<b>Product name</b> <div style="border: 1px solid black; padding: 2px; display: inline-block;">REF</div>	<b>MULTILINE NEXT DC</b>
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## Form for proof of instruction MULTILINE NEXT DC

The following points, which are particularly relevant, must be clearly emphasized during the instruction.

- ⚠ The maximum safe working load is 220 kg.
- ⚠ Do not sit or rest on backrest upholstery, legrest upholstery, arm support or footrest - danger of tipping over. This must be expressly pointed out to patients.
- ⚠ Immediately after parking (with or without a patient) the couch must always be fixed in place - risk of accident due to sudden rolling away when sitting down or standing up and when leaning against it.
- ⚠ Always lock the hand control when the couch is unattended - risk of injury by jamming limbs. This is particularly relevant in corridors and unoccupied rooms - playing children.
- ⚠ Patients may sit down or stand up only when the couch is in the basic position - risk of accident.
- ⚠ When transporting patients or driving, follow the procedure in accordance with the instruction manual.
- ⚠ Secure the mains and hand control cables against being run over - risk of electric shock / damage.
- ⚠ When making electrical adjustments, always pay attention to the immediate danger area - danger of jamming. A sufficient distance to furniture, walls, window ledges etc. must be maintained - risk of damage.
- ⚠ Only activate the hand control for patients after detailed instruction - critically assess the suitability of the patient.  
Never unlock the hand control for children or handicapped persons without surveillance.
- ⚠ Do not leave patients in shock position (Trendelenburg position) or head down position without surveillance - risk of loss of consciousness and/or slipping out of the couch.
- ⚠ The mains plug must always be accessible - EMERGENCY STOP.
- ⚠ Use potential equalization - danger of deviating or even wrong measured values when using electronic medical devices on patients despite electromagnetic compatibility (EMC).
- ⚠ Not for use in potentially explosive areas - danger of explosion. The control unit and the drives of the couch are not explosion-proof. The battery may release gases which, together with other gases, may form explosive mixtures.
- ⚠ Do not clean in washing facilities or with a high pressure cleaner - risk of electric shock / damage. Electrical components are splash-proof only.
- ⚠ Maintenance periods or deadlines for safety inspections by the operator must be observed.  
Never continue to use a defective couch. The couch must be clearly marked as "DEFECT". Inform the operator of any need for repairs.

### Instructor

The instructor confirms with his or her signature that the corresponding participants have been instructed by him or her in the use of the medical device in accordance with the instruction manual.

Last name		First name	
Company / Department			
Date / Place:		Stamp / Signature:	

### Participant

The participant confirms with his or her signature that the content of the instruction has been understood.

Last name		First name	
Company / Department			
		Signature	
Last name		First name	
Company / Department			
		Signature	
Last name		First name	
Company / Department			
		Signature	
Last name		First name	
Company / Department			
		Signature	

## 9.6 Glossary

The following groups of persons and terms are defined in this glossary.

### **Operator**

Under the German Medical Device Operator Ordinance (also abbreviated as MPBetreibV), the operator of a medical device is any natural or legal person who is responsible for the operation of the health facility in which the medical device is operated or used by its employees.

An operator (e.g. hospital, dialysis centre, hospital, hospital management, medical practice, company doctor etc.) can be the legal owner of the MULTILINE NEXT DC couch, as well as have actual control over it. The operator is responsible for the safe operation of this medical device.

### **User**

Under the MPBetreibV, the user is the person who uses a medical device on the patient.

Users (e.g. medical specialists, nurses, doctors, assistants, nursing staff, caregivers etc.) are persons who are authorised by their training, experience or instruction to operate the couch independently or to carry out their work with it, or who have been instructed in the handling of the couch. Furthermore, they can recognise and avoid possible dangers and assess the clinical condition of the patient.

### **Patient**

A patient is a person who is ill, in need of care or handicapped and who is placed on this couch.

### **Service personnel**

Service personnel (e.g. service technicians, specially trained employees of a service support point, customer service employees of GREINER GmbH etc.) are persons who are authorised to carry out maintenance or repair work beyond that performed by the user. They are entitled to carry out the necessary maintenance or repair work on their own responsibility on the basis of their training, experience or through further instruction. They can identify and avoid any hazards that may occur during maintenance or repair work.

### **Healthcare facility**

Under the MPBetreibV a health facility is any facility, body or institution, including rehabilitation and care facilities, in which medical devices are professionally operated or used by medical personnel, persons in the nursing profession or other authorised persons.











## we design quality.

Agreeably health-promoting seating has motivated us since 1922. For decades we have been making high-quality, technically sophisticated couches with- in the medbest range. Our innovative devices for ex- amination, dialysis, oncology, blood sampling, care and transport are all made in Germany. Our quality commitment is verified by an independently audi- ted quality assurance system: GREINER is certified under DIN EN ISO 9001 and 13485.



Test mark for  
quality management system



Test mark for  
product certification



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