

# manual



Phoenix IV. UNIVERSAL EXAMINATION AND TREATMENT CHAIR.  
Instruction Manual- PMNL 175 Rev. 0

api  
anthony products, inc.

## **Phoenix IV**

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## 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 Phoenix IV examination and treatment chair (hereinafter also referred to as the "chair").

This manual contains information on the safe use of the chair 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 chair.

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

## 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 Phoenix IV chair from JEDMED. 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**.

**TIP** Indicates tips for use or other particularly important information when handling the chair.

### 2.2 Device safety

JEDMED chairs were built in accordance with the applicable national and international standards and regulations according to the current state of the art.

This chair meets the requirements for safety and functionality.

Due to the chosen robust, interference-proof design of the electrical adjustment devices, the chair 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 chair.

In such cases, either switch off the chair 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 chair 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 chair 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 chair is mainly made of 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 chairs for medical use are 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.

JEDMED generally recommends an annual maintenance as well as a safety inspection with simultaneous electrical inspection.

### 2.3 Personal safety

To avoid errors and to ensure trouble-free operation of the chair, 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 JEDMED or its authorised specialist distributor at the request of the operator.

For the definition or delineation of the groups of persons in this Instruction manual see under 9.5 Glossary.

#### Notes to the operator

- Observe your obligations as operator to ensure a permanently safe operation of this medical device without endangering patients, users and third parties.
- If a patient or user is seriously injured or even killed while using the chair, the operator must report the incident in writing to the national competent authorities.

#### Notes to the user

- The user must ensure that the chair 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 chair.

#### NOTE

Should any serious incidents occur in connection with the chair, such as serious injuries or even death, inform the responsible authorities in your country!

## 2.4 Intended use

The Phoenix IV chair from JEDMED is a medical chair for use by patients in health facilities such as hospitals, clinics, medical practices, dentists (prophylaxis) and company doctors. It is intended exclusively for use inside buildings and under normal environmental conditions.

The universal Phoenix IV chair has been specially developed for sitting and lying treatments and examinations.

- The maximum patient weight of the chair is 485 lbs..
- As a treatment chair for sitting and lying treatments or examinations.
- The chair allows the convenient and comfortable positioning of the patient before, during and after treatment or examination. The user is supported in his or her work with regard to ergonomics and quality.
- 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.
- Overloading of the chair above the specified maximum patient weight.
- Use in the operating theatre.
- Use as operating chair or operating table.
- Use as a work chair.
- Use as a spare hospital bed or spare bed.
- Operation of the chair by patients.
- 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.
- Pull on cables to move the chair.
- 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 chair for use including a final check of the functional safety (see 3.4 Check before commissioning and reassignment).



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 chair, the user must be instructed in the handling of the chair using the instruction manual.

#### Operator's obligation - instruction

- The operator must ensure that the users are instructed before using the chair.
- The operator must ensure that the instruction manual has been read and understood completely by the users. The operator must make the instruction manual accessible at all times.
- The operator must ensure that representative personnel also receive adequate instruction in the operation of the chair.
- The operator must ensure that the chair is operated exclusively by trained users.



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

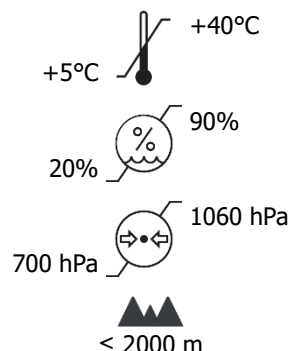
The following environmental conditions must be observed on site.

Operating temperature [C]:

Air humidity [rH] (non-condensing):

Air pressure [hPa]:

Operation at estimated altitude [m]:



### 3.3 Requirements on the place of operation

For the operation of the chair, an appropriate mains supply is required at the place of use.

### 3.4 Check before commissioning and reassignment

After the commissioning work has been completed, and before any occupation by a new patient, the chair must be cleaned and disinfected.

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



The chair 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 chair must be carried out immediately after cleaning and disinfection and before use.

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



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

If the chair 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 chair 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, foot switch, 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 (if available).
- ☞ 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 (if available).
- ☞ Carry out a functional check according to the installed turning lock (locking, freewheel) and repair if necessary.
- ☞ Carry out a functional check according to the used headrest and repair if necessary.
- ☞ Carry out a functional check of the rolling device of the mobile base part and repair if necessary.
- ☞ Any defects or damage found must be remedied immediately.  
The chair must not be used before the defects or damage have been remedied.

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



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

A defective or faulty chair 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 chair and its performance features.

### Prerequisites for operation

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

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

- Before using the chair, 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 chair must be cleaned first and then disinfected before commissioning and before any further use (occupation by a new patient). A functional check must then be carried out afterwards (see 3.4 Check before commissioning and reassignment).
- The chair 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 chair 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.

### 4.1 Safety instructions for operation

When adjusting the chair, 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 or the leg section and the floor, which could be trapped and injured. Pets should generally be kept away from the chair and no other objects should be stored under the chair. **Ensure that the chair does not get caught on walls or furniture.**

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



The chair is not intended for unsupervised use by children or handicapped persons.

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

The maximum patient weight must not be exceeded and must be evenly distributed on the seating surface.

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

#### **CAUTION** Risk of falling or injury if seating 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 chair to the lowest position. This generally applies when maneuvering the chair (see 4.13 Maneuvering) and in particular when sitting down and standing up of the patients (see 4.14 Sitting down and standing up of the patients).

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

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



Only original accessories from JEDMED 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 Phoenix IV is shown below.



Fig. 1 Structure of the Phoenix IV

## 4.3 Basic position

If patients want to sit down on or get up from the chair, as well as before maneuvering, the chair must be brought into the basic position. The electrical movements can all be done by pressing the home-button (1) at the hand control.

- Move the seat height all the way down (see 4.8 Hand control operations).
- Raise the backrest completely (see 4.8 Hand control operations).
- Swivel the arm supports downwards (see 4.7 Armrests).
- Lock the upper part (see 4.10 Fixing the upper part).
- Fold in the foot support completely (see 4.12 Foot support (foldable)).
- Retract the rolling device on the mobile base part (see 4.13 Maneuvering).



Fig. 2 Basic position

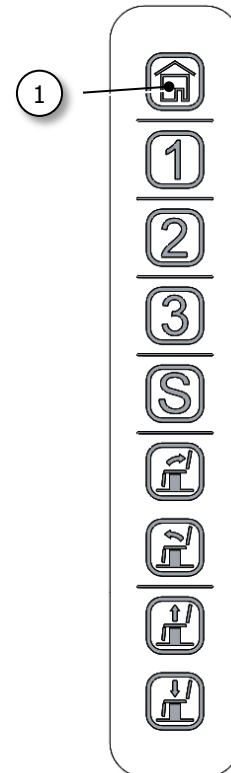


Fig. 3 Hand control

## 4.4 Flat position

For treatment, patients can be brought completely into a flat position, regardless of the seat height.

- The seat height remains unchanged (see 4.8 Hand control operations).
- Lower the backrest to a flat position (see 4.8 Hand control operations).
- Swivel the arm supports downwards (see 4.7 Armrests).



Fig. 4 Flat position

## 4.5 Activating / deactivating the operating lock

Activating the operating lock prevents the chair from moving accidentally or unintentionally.

**TIP** After disconnecting the mains plug and then plugging it back in, the chair remains in its previous operating status. This means, for example, that the operating lock was activated before disconnecting the mains supply, so the operating lock remains activated even after the mains supply has been restored. The control unit remembers the current operating status.

### Activating / deactivating the operating lock

1. To activate /deactivate the operating lock, press and hold the two buttons to adjust the seat height (2) and (3) of the hand control (1) or the two outer buttons (5) and (6) of the optional foot switch (4) simultaneously for approx. 5 seconds.
2. A short beep signals the activation of the operating lock.

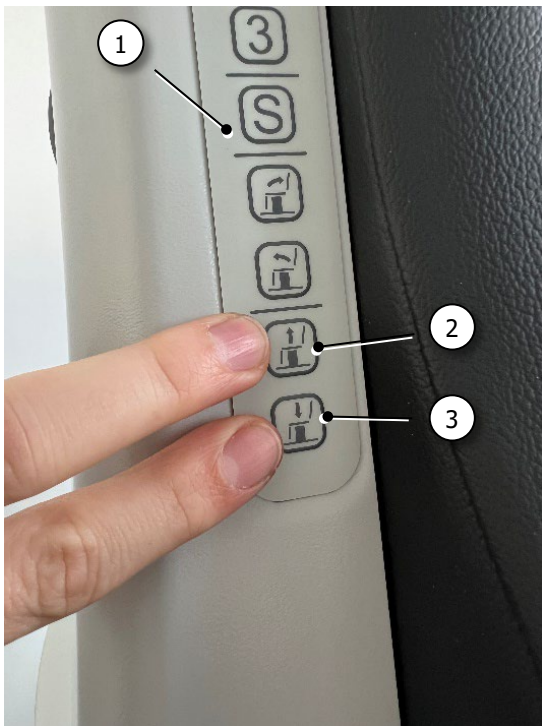


Fig. 5 Activating / deactivating the operating lock at the hand control

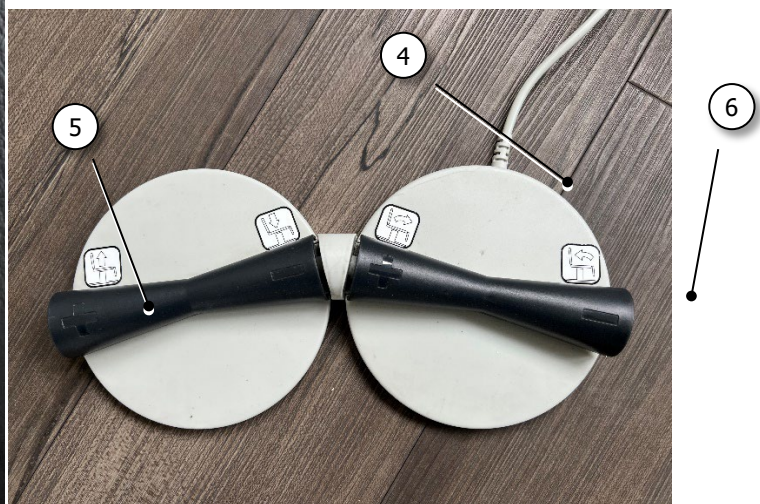


Fig. 6 Activating / deactivating the operating lock at the foot switch

## 4.6 Duty cycle

The maximum duty cycle of the electrical functions is indicated on the type plate and in the technical data (see 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 chair is equipped with a self-resetting thermal protection device, which prevents an overload of the control unit or the adjustment drives. The chair 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 chair has been adjusted again once it has cooled down sufficiently.



## 4.7 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. The arm supports are made of integral foam.

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



Fig. 7 Armrests

## 4.8 Hand control operations

### Overview Hand control

- Automation functions can be stopped by pressing any button.
- Each adjustment stops if more than one button is pressed simultaneously.

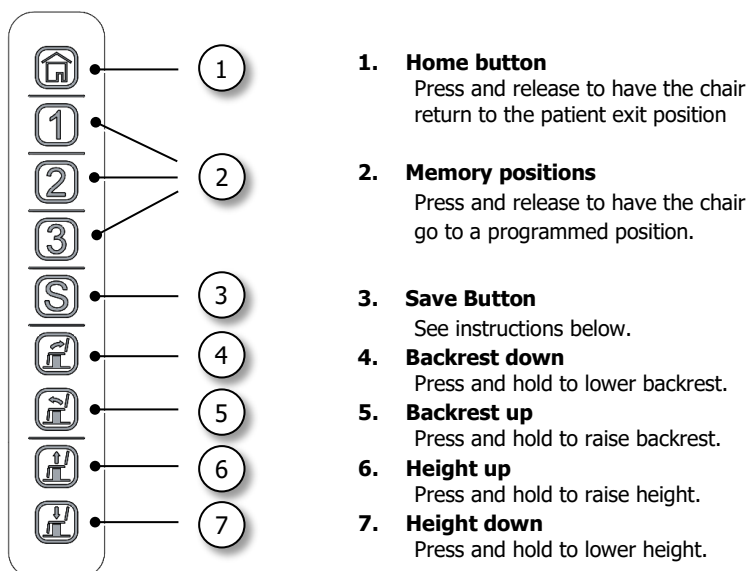


Fig. 8 Hand control

### Save Button – Program a position into memory

- Position the chair in the desired position.
- Press the **Save** button. (3)
- Press Memory Position 1, 2 or 3 (2) within 2 seconds. A BEEP confirms the storage.
- Repeat procedure to override a previous position.

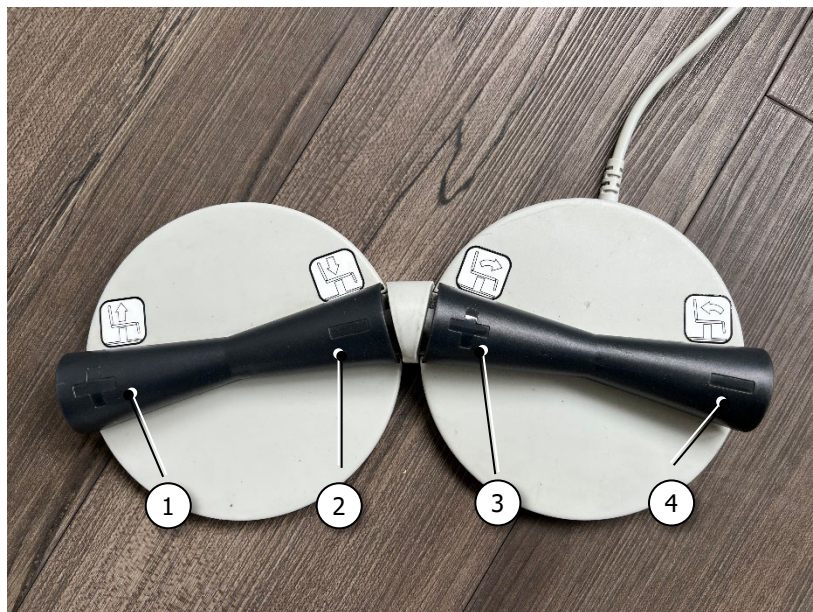
**DANGER** Risk of injury due to automation functions of the chair.



Always ensure that there are no obstructions under or around the chair before activating any automation functions.

## 4.9 Foot control operations (optional)

### Overview Foot Control



1. **Height up**  
Press and hold to raise height.
2. **Height down**  
Press and hold to lower height.
3. **Backrest up**  
Press and hold to raise backrest.
4. **Backrest down**  
Press and hold to lower backrest.

Fig. 9 Foot control operations

## 4.10 Fixing the upper part

To release the turning movement of the upper part (1) of the chair, the clamping lever (2) must be pressed down. The upper part of the chair is fixed again by fully pulling the clamping lever upwards.



Fig. 10 Fixing the upper part

1. Upper part of the chair
2. Clamping lever

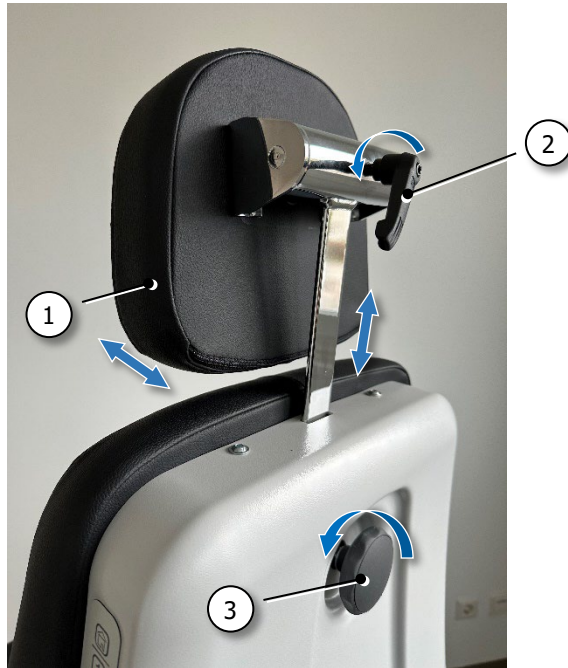
## 4.11 Headrests

### Headrest Standard - adjusting the inclination

The inclination of the headrest upholstery (1) is continuously adjustable. Loosen the clamping lever (2) and adjust the upholstery as desired, then retighten the clamping lever.

### Headrest Standard - adjusting the height

The height of the entire headrest is continuously adjustable. Loosen the handwheel (3) and pull out or push in the headrest, then retighten the handwheel.



#### TIP

The position of the clamping lever can be changed by pulling it out. After releasing, the clamping lever engages again automatically.

1. Headrest upholstery
2. Clamping lever (inclination)
3. Handwheel (height)

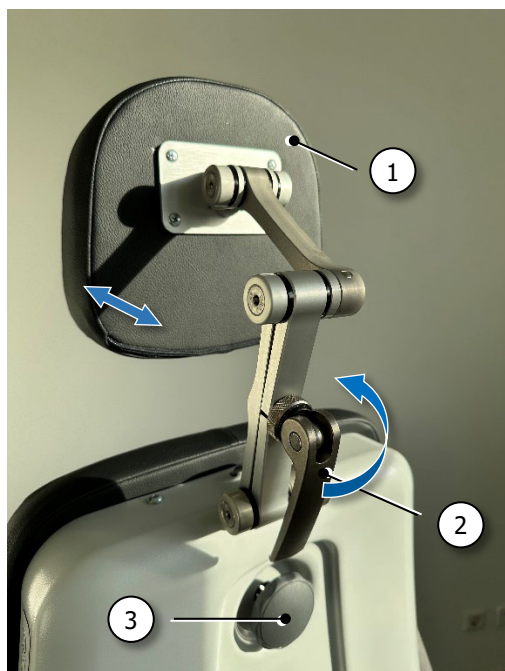
Fig. 11 Headrests - headrest Standard

### Headrest with Vario-double joint - adjusting the inclination

The inclination of the headrest upholstery (1) is continuously adjustable. Loosen the clamping lever (2) and adjust the upholstery as desired, then retighten the clamping lever.

### Headrest with Vario-double joint - positioning

The Vario-double joint allows the headrest upholstery to be positioned continuously, very flexibly and quickly. To do this, release the clamping lever (2) and adjust the upholstery as desired. Then retighten the clamping lever.



#### TIP

Push the headrest bracket fully in and tighten it with the handwheel (3).

1. Headrest upholstery
2. Clamping lever (positioning)
3. Handwheel

Fig. 12 Headrests - headrest with Vario-double joint



## 4.12 Foot support (foldable)

### Folding out and in

The foot support (1) can be folded out by pushing the foot-handler (4) or pulling the leather strap (5) and in by pressing it towards the calf board (2). It is used for safe positioning of the patient's feet during treatment.

#### **CAUTION** Risk of falling or tripping when foot support is folded out.



The foot support must be folded in when the patient sits down or stands up. This is the only way to ensure that the patients can approach the chair as close as possible with their heels. This gives handicapped patients in particular a feeling of safety when sitting down or standing up. The mechanics of the foot support cannot withstand the loads when sitting down and standing up of the patients (see 4.14 Sitting down and standing up of the patients).

### Footrest synchronous with step plate (foldable)

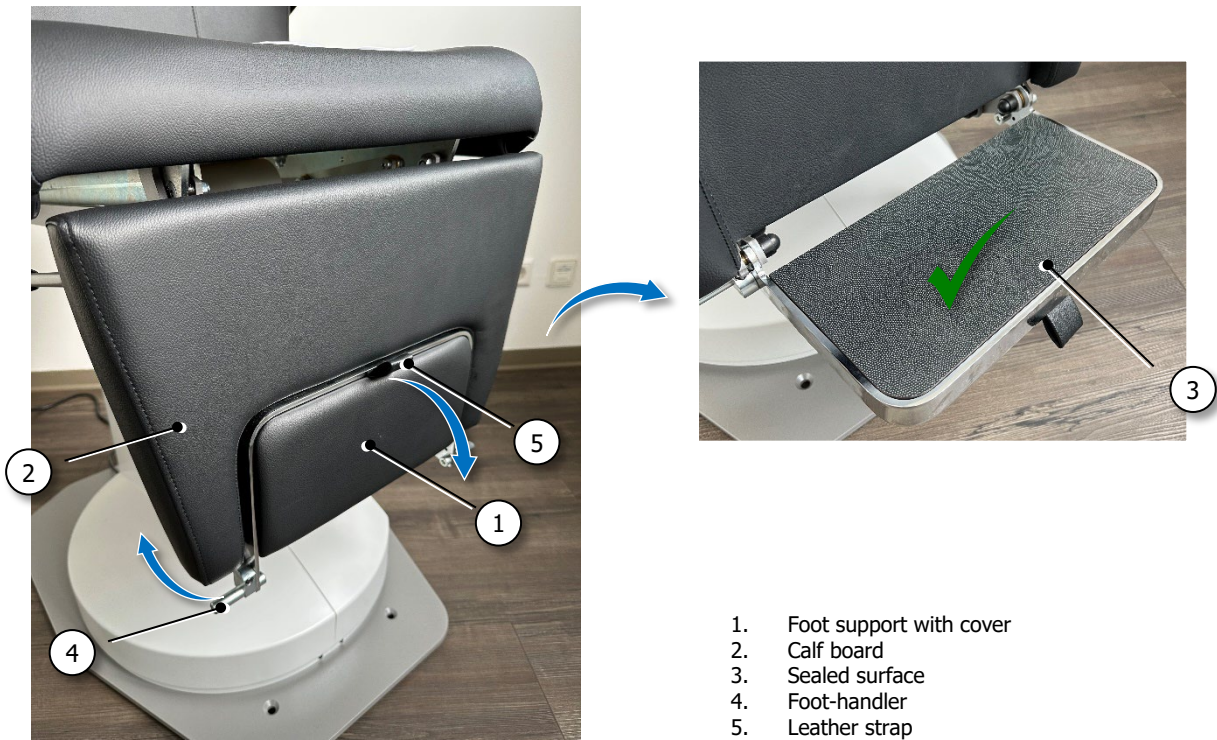



Fig. 13 Footrest synchronous with step plate (foldable) - folding out and in



## 4.13 Maneuvering

The rolling device is only used for maneuvering (no transportation over longer distances) the unoccupied chair e.g. for cleaning the floor etc. and never for patient transportation.

### **CAUTION** Risk of falling or accident through extended rolling device.

-  Ensure that the chair cannot move on its own.  
Do not move the chair while a patient is still on it.


The chair may only be moved over a solid surface.

**NOTE** The mechanics of the rolling device cannot withstand the loads when extending and maneuvering with a patient.

Before moving the chair, it must be brought into the basic position (see 4.3 Basic position).

- Always place the foot switch on the seat upholstery. The cable of the foot switch must not touch or run over the floor, as it is not resistant to being run over.  
If necessary, the cable of the foot switch must be wound up or hung up.  
Running over or crushing the foot switch cable will result in damage which can lead to malfunctions.
- Disconnect the mains plug and place it always together with the mains cable on the seat upholstery.

### **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 placed on the seat upholstery 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 folded down into the normal position (see 4.7 Armrests).
- When driving on slopes or inclines, e.g. ramps, a second user must additionally secure the chair at the front due to its weight.

The chair is equipped with four extendable castors.

The rolling device must be retracted every time the chair is parked in order to fix the chair to the floor.

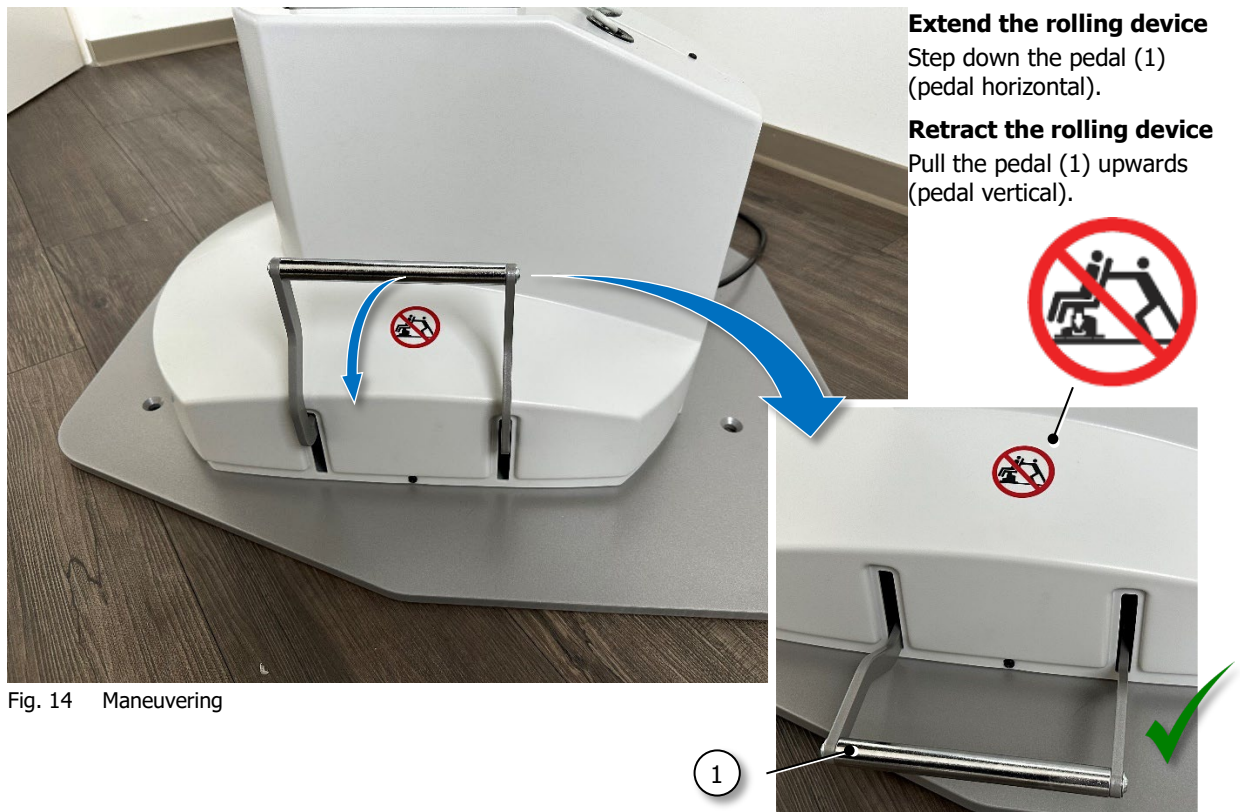


Fig. 14 Maneuvering

## 4.14 Sitting down and standing up of the patients

Make sure that the patient sits centrally on the seat surface. The patient must not sit on the armrest, backrest or leg rest. Do not allow the patient to stand on the foot support with full weight.

If patients want to sit down on or stand up from the chair, it must first be brought into the basic position (see 4.3 Basic position).

According to the built-in turning lock, the upper part of the chair must be locked (see 4.10 Fixing the upper part).

**CAUTION Risk of falling or accident due to insufficiently braked upper part of the chair.**



The upper part of the chair must be locked when the patient sits down or stands up at all times, as this is the only way to prevent the upper part of the chair from turning unintentionally when sitting down or standing up. Turning the unbraked upper part of the chair can lead to serious falls.

When the patient sits down or stands up, the castors of the rolling device (mobile base part only) may have to be retracted in order to fix the chair to the floor (see 4.13 Maneuvering).

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



If the chair is not being moved, the castors of the rolling device must be retracted at all times, as the chair may be used by patients as a support when sitting down or standing up. Rolling the unbraked chair away can lead to serious falls.

**CAUTION Risk of falling or tripping when foot support is folded out.**



The foot support must be folded in when the patient sits down or stands up.

This is the only way to ensure that the patients can approach the chair as close as possible with their heels. This gives handicapped patients in particular a feeling of safety when sitting down or standing up. The mechanics of the foot support cannot withstand the loads when sitting down and standing up of the patients.

- Fold the armrest all the way up if patients want to sit down or stand up sideways (see 4.7 Armrests).
- Provide support as needed.

## 5 Accessories

### 5.1 Headrest Standard

The chair can be ordered with a headrest standard. For handling the headrest standard (see 4.11 Headrest).



Fig. 15 Headrest Standard

### 5.2 Headrest with Vario-double joint

The chair can be ordered with a headrest with Vario-double joint. For handling the headrest with Vario-double joint (see 4.11 Headrest).



### 5.3 Quick Assist

The Quick Assist ensures the use of exchangeable upholstery. The Quick Assist can only be used on the Vario-double joint.



Fig. 16 Quick Assist (quick coupling)

## 5.4 Exchangeable upholstery – Full calotte

The exchangeable upholstery Full-calotte in combination with the Quick Assist enables the quick and easy exchange of upholstery on the Vario-double joint.



Fig. 17 Exchangeable upholstery - Full-calotte

### TIP

Of course, an exchangeable upholstery Full-calotte can be re-ordered at any time.

## 5.5 Exchangeable upholstery - Half-calotte

The exchangeable upholstery Half-calotte in combination with the Quick Assist enables the quick and easy exchange of upholstery on the Vario-double joint.



Fig. 18 Exchangeable upholstery - Half-calotte

### TIP

Of course, an exchangeable upholstery Half-calotte can be re-ordered at any time.

## 5.6 Foot-switch

The foot-switch is an additional control unit for the electrical functions. It can be used to move the height or the back by pressing it with the foot.



Fig. 19 Foot-switch



## 6 Cleaning and disinfection

This chapter describes all regular cleaning and disinfection activities.

To ensure that the chair 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 chair 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 chair 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 chair 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.

### **NOTE**

The use of unsuitable cleaning agents and disinfectants, the wrong mixing ratio and insufficient care of the chair can cause damage to the surface coating for which JEDMED is not liable.

### **TIP**

Ensure that no liquid residues remain on the metallic parts of the chair 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.

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

## 6.2 Disinfection

For disinfection, use products registered in the EPA as Hospital Disinfectant in their intended concentration.

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

**NOTE** 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.

## 7 Troubleshooting

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 (electrical versions only)

**DANGER Fatal risk of electric shock.**



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

In the event of a defect, the chair must be disconnected from the mains. Mark the chair as defective and separate it. A new use may only take place after prior, proper repair by specialist personnel.

### General troubleshooting tips

**TIP** Before each troubleshooting check whether the chair 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.

A chair connected to the mains with deactivated operating lock is ready for operation and can be moved by pressing buttons (see 4.5 Activating / deactivating the operating lock).

### 7.1 Control unit RESET

**TIP Checking the operating lock.**

If the Phoenix IV chair can no longer be operated, check the activation of the operating lock first (see 4.5 Activating / deactivating the operating lock).

Fluctuations in the mains voltage or similar can cause the chair to stop functioning and a signal tone being heard. In this case, carry out a "RESET" of the control unit.

#### Way of proceeding

1. Press and hold the two buttons of the hand control (1) to lower the backrest and seat height ((2) and (3)) simultaneously, or if available the two inner buttons of the foot switch (4) ((5) and (6)). After a short time, a pulsating signal tone will be heard.
2. Continue to press and hold the two buttons until the sound stops.

A "RESET" has been carried out - the chair is ready for operation again.

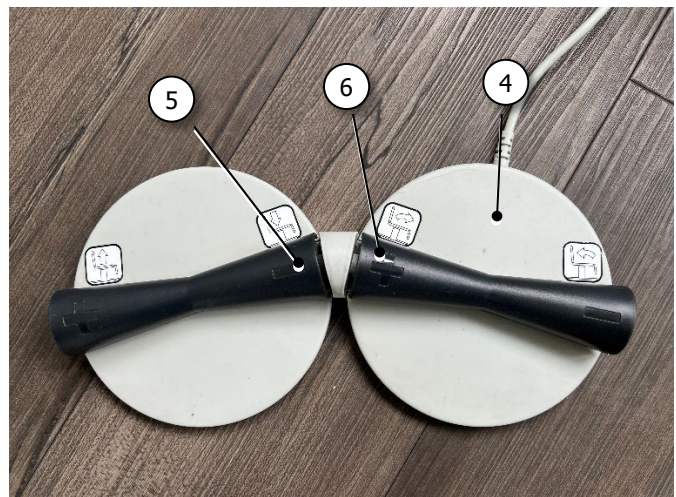
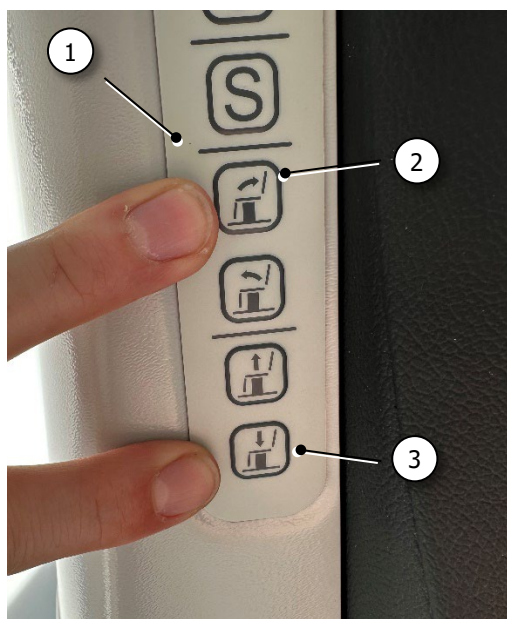


Fig. 20 Carrying out a RESET at the hand control or foot switch (optional)

## 7.2 Troubleshooting table

Electrical malfunction		
Problem	Possible causes	Solution
Chair 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 foot switch, hand control, mains cable or control unit.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Check the plug connection of the mains plug.</li> <li>☞ Check socket and fuse box.</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ Replace the foot switch, 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; base part 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>☞ Replace the mains cable or control unit.</li> </ul>
Hand control or/and foot switch without function.	<ul style="list-style-type: none"> <li>Operating lock activated.</li> <li>Defective hand control or/and foot switch.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Deactivating the operating lock. (see 4.5 Activating / deactivating the operating lock)</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ Replace foot switch or/and hand control.</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 4.6 Duty cycle)</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ 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>
The control unit does not respond and a pulsing signal tone sounds when any button 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 7.1 Control unit RESET)</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>☞ Replace the equipotential bonding pin.</li> </ul>
Mechanical malfunction		
Problem	Possible causes	Solution
Turning lock of the upper part does not function properly.	<ul style="list-style-type: none"> <li>Braking device incorrectly adjusted.</li> <li>Brake linkage bent or defective.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Let the braking device be adjusted.</li> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ Replace the braking device or/and the brake linkage.</li> </ul>
Rolling device of the mobile base part does not function properly.	<ul style="list-style-type: none"> <li>Rolling device bent or defective.</li> <li>Defective castor(s).</li> </ul>	<ul style="list-style-type: none"> <li>☞ Inform the operator for intensive inspection during repair.</li> <li>☞ Replace the rolling device or/and 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 Phoenix IV chair is approx. 7 to 10 years, depending on stress, operating conditions and frequency.

### 8.2 Storage and transportation

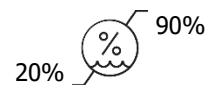
**TIP** The chair must be cleaned and disinfected before storage (see 6 Cleaning and disinfection).  
Store the chair in a dry, well-ventilated room, protected from dirt.  
Furthermore, the chair should preferably be protected from direct sunlight or UV radiation.

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

Storage or transportation temperature [C]:



Air humidity [rH] (non-condensing):



Air pressure [hPa]:



Storage at an estimated altitude [m]:



### 8.3 Check before recommissioning

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



After storage, the chair must be cleaned and disinfected before being put back into operation (see 6 Cleaning and disinfection).

A functional check of the chair must be carried out before use (occupation by a new patient).

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



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

If the chair is recommissioned after storage, the same functional check must be carried out as for the check before commissioning (see 3.4 Check before commissioning and reassignment).

- ☞ General check of the overall condition of the chair 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, foot switch, 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 of the turning lock (locking, freewheel) and repair if necessary.
- ☞ Carry out a functional check according to the used headrest and repair if necessary.
- ☞ Carry out a functional check of the rolling device of the mobile base part and repair if necessary.
- ☞ Any defects or damage found must be remedied immediately.  
The chair must not be used before the defects or damage have been remedied.

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



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















A defective or faulty chair 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.

## 9 Appendix

### 9.1 Explanation of symbols

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

Symbol	Meaning	Symbol	Meaning
	Follow the instructions		Safety information
	Environmental protection		RoHS label
	No domestic waste		Electrical scrap
	Manufacturer		Date of manufacture
	Product name		Serial number
	Indoor application		Applied Part: Type B
	Protection class I		Maximum patient weight

### 9.2 Ordering spare parts

If required, a spare parts list can be provided on request.

**NOTE** To ensure functional reliability and to maintain warranty claims, only original spare parts from JEDMED 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.

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



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

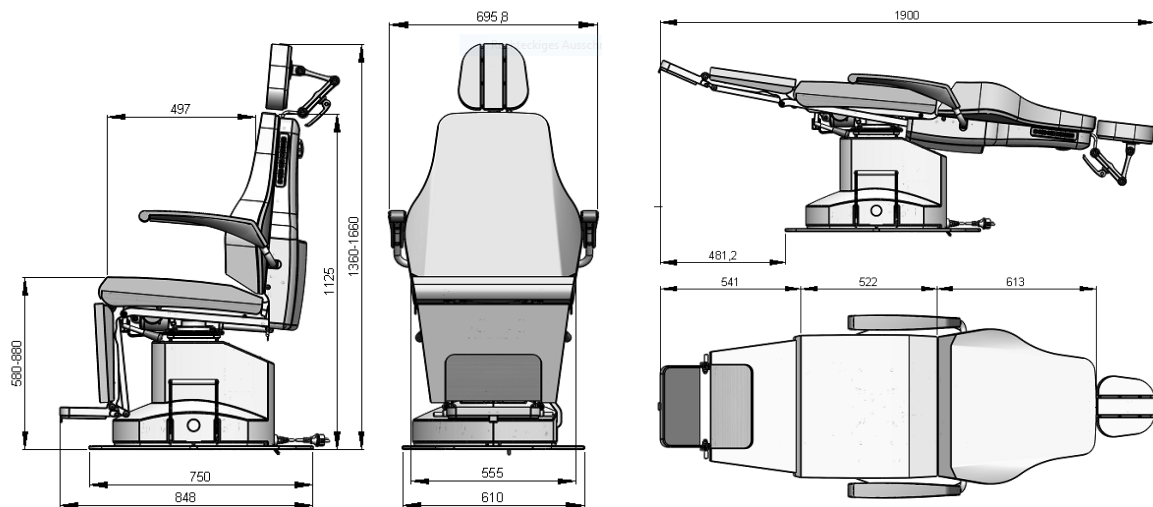


Abb. 21 Dimension

Seat width:	55 cm / 21 in
Seat depth:	49 cm / 19 in
Overall depth in basic position depending on the model:	75 cm / 29 in
Overall width:	70 cm / 27 in
Length of the lying surface in flat position with the legrest:	190 - 205 cm / 75 - 81 in
Entrance height (electrically operated version):	58 cm / 23 in
Height adjustment:	30 cm (58 - 88 cm) / 12 in (23 - 35 in)
Swivel range:	approx. 330°
Empty weight of the chair depending on the model (electrically operated version):	approx. 90 - 109 kg / 200 - 240 lbs
Maximum patient weight:	220 kg / 485 lbs

### Electrical data

Protection class I:



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



Protection type:

IPX4

### Control unit [CO71]

Bus version:

OpenBus™

Number of channels depending on version:

2

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

Isolating transformer:



Thermal fuse element:



### Actuators

Rated voltage [U in]:

24 V DC

Current consumption [I in] depending on version:

3.9 - 7 A

<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 Glossary

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

### **Operator**

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 Phoenix IV chair, as well as have actual control over it. The operator is responsible for the safe operation of this medical device.

### **User**

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 chair independently or to carry out their work with it, or who have been instructed in the handling of the chair. 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 chair.

### **Service personnel**

Service personnel (e.g. service technicians, specially trained employees of a service support point, customer service employees of JEDMED 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**

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.

## 10 Notes







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