

# User guide

*Operator chair Carl*

*Carl "Foot" 120-00102-00 and Carl "Heel" 120-00102-01*



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## 1. Operator chair Carl

Thank you for choosing a Rini Operator chair.

The operator chair offers the highest level of comfort, ergonomic design and efficiency for daily patient work. Our chair has been designed to optimise on outstanding ergonomics, quality and durability for surgeons and similar professionals.

The chair is delivered with Rini's unique safety armrests “Rilis” which makes it possible to adjust the required position, with high precision. By safety reasons are the armrests requiring a two-handed-movement to be adjusted. They are easily adjusted in height and angle. The plate is able to slide and rotate, can manage heavy loads.

The backrests load angle at the Carl chairs are self correcting. Angle at seat and backrest can be adjusted simultaneously with a simple hand grip. The stable wheel base in Rini's design is a robust construction based on a rigid H-stand with four large wheels, accurate electrical height adjustments and a foot brake. All vouch for a safe workplace with long durability

The operator chairs are specially designed for micro surgery and developed in cooperation with operators and surgeons in Sweden and international.

Rini is constantly improving existing products and developing new ones. Consequently, we value the professional user's point of view; so don't hesitate to let us know your opinion about any of our product lines.

## 2. Important - Before use



**To ensure patient safety and the life of the product, it is important to observe the following instructions before use. Please read this manual carefully and understand how to use the product before you start.**

**Before you unpack the product, check the packaging:**

- Make sure that the packaging has not been damaged during transport. Report any damage immediately to the transport company and your local Rini representative.

**Remove the packaging:**

- Lift the parts out of the packaging
  - 1 pc base
  - 1 pc seat
  - 1 pc backrest
  - 2 pc armrests



**Warning! Be careful when lifting the chair off the pallet. The chair is heavy and may cause injury. Avoid bumping it. This can cause material damage.**

- Remove all the packing material such as plastic, tape, etc. from the chair.



**Warning! Do not use sharp tools when removing the packaging material. This can cause damage.**

- Make sure that the delivery includes all ordered parts. Contact your Rini sales representative if you find any discrepancies.

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**Before using the product, please check the following:**

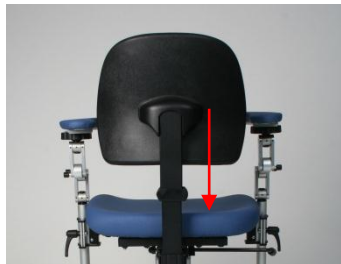
- The product has not been damaged in transport.
- All cables are connected and the chair installed as described in this manual.
- The battery is fully charged (see chapter 4.7)

**Please contact your local Rini sales representative if you have any concerns.**

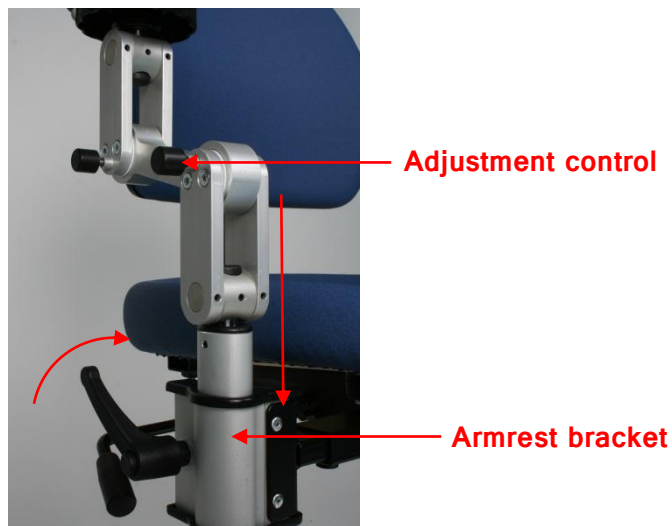
### 3. Installation

When you get the operator chair delivered, it is not ready to be used. It has to be mounted accordingly to this manual or according to agreement with your Rini distributor.

- The column is mounted at the wheel base and all cables are already connected
- Place the seat at the cone, which is located at the top of the column



- Put the back at the seat



- Put the armrest into the armrest bracket and tighten. NOTE! The adjustment controls shall point out from the chair.



**Before use, for the highest security of personal and equipment:  
Read this manual or gain required education from Rini.**

## 4. Function and use



- ① **Adjustable armrests**
- ② **Rechargeable battery**
- ③ **Foot brake**
- ④ **Height adjustment controls**

Aside from the battery charger, no other accessories are available for or can be used with the Operator chair 120-00102-00/-01.

**See chapter 7 for technical specification.**

## 4.1 Product identification label

The label is placed at the stand under the seat.



## Label description



The warning sign is used when there is a risk of severe danger to the patient, personnel or the system.



Type B equipment, as per EN 60601-1, Degree of protection against electric shock.

### SWL

Safe Work Load, the chair should not be used by people exceeding the label specified weight

### Mode of operation

The electrical height adjustment shall only be used totally 3 minutes within each 1 hour.

### Standard EN 60601-2-46

The product is made for the operating theatres environments.

## 4.2 Wheels and stand

The stand is designed as a robust, H-shaped construction to guarantee high stability and long-term durability. The chair is equipped with four large wheels for mobility. The rear wheels are lockable by a foot controlled brake.

## 4.3 Lift stand and lifting device

The lifting device is a battery-powered motor unit consisting of a motor, a control unit and a battery pack. Foot controls are used to adjust the height of the chair.

### 4.3.1 Adjusting the height of the chair – “Carl Foot”

The height of the Operator chair Carl Foot can be adjusted by pushing the foot control buttons on the stand above each front wheel.



When seated in the chair, push the left button to move the seat position up and the right button to move it down. If both buttons are pushed simultaneously, there will be no movement.

The standard seat height range of the 120-00102-00/-01 chair is 500-800mm or 19,7-31,5in. Other ranges are available.



#### 4.3.2 Adjusting the height of the chair – “Carl Heel”

The height of the Operator chair Carl Heel can be adjusted by pushing with the heel at the control buttons, which are located at the base between the front wheels.



When seated in the chair, push with the heel backwards at the left button to move the seat position up and the right button to move it down. If both buttons are pushed simultaneously, there will be no movement.

The standard seat height range of the 120-00102-00/-01 chair is 500-800mm or 19,7-31,5in. Other ranges are available.



**The chair should not be used by people exceeding a weight of 110kg or 243lbs.**

#### 4.3.3 Adjusting the seating position

The chair is equipped with a one-hand grip adjustment for seat and backrest positions.



The adjusting handle is situated just below the seat on the right-hand side of the chair. The adjustment should be done whilst seated in the chair. Turn the handle in a counter-clockwise direction to release the seat and back rest. Adjust the seat and back rest to a comfortable position, before tightening the handle by turning it clockwise.



The backrest height adjustment-locking clip is placed on the backrest bar. Adjust the backrest by pressing the locking clip to the right. The backrest can now be adjusted by hand to a suitable position. The backrest locks to its current position when the locking clip is released.

#### 4.4 Multi-functional Safety Armrests

The unique Rini safety armrests, which are a feature of Rinis Operating Chairs, have multiple height positions in order to accommodate an optimal ergonomic working position.

The armrests have five different adjustment functions.



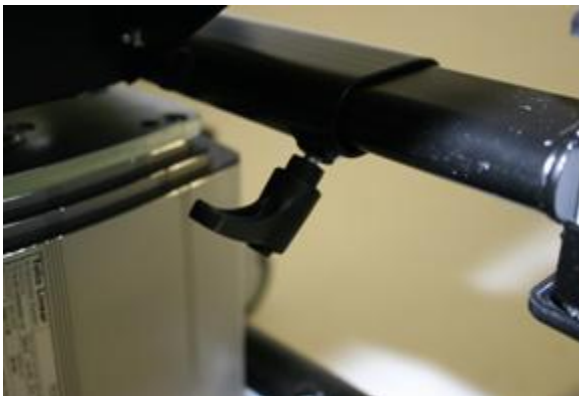
- The armrest is equipped with a rail, making it possible to slide the armrest back and forth in any direction. Loosen the black locking wheel to enable the arm plate to slide back and forth. Tighten when correct position is set. It can also rotate around the black locking wheel, allowing maximum flexibility and ergonomic relief. It facilitates when the operator is about to sit or rise from the chair, and simultaneously maintain sterile hands.



By pushing buttons the armrest can be adjusted to an optimal working position. To release the armrest, you need a two-handed grip: one hand to move the armrest plate up and down, while simultaneously pushing one of the buttons with the other hand. Then move the armrest to the desired position or angle and release the button.



Use the locking handle to set the appropriate armrest height.



The width between the armrests can be set using the handles under the seat.



- There are two handles on each side under the seat. Normally the armrests are set in front handle.



**The armrest should not be loaded by a weight exceeding 20kg or 44lbs.**

#### 4.5 Foot brake

The foot brake is situated on the right-hand side of chair.



Activate the foot brake by pressing down on the pedal. Release the brake by pulling up the pedal with your foot.

#### 4.6 Important - Before and during surgery

This chapter describes the order in which the 120-00102-00/-01 Operator chair should be adjusted to achieve the best level of efficiency and ergonomic use of the chair.

1. Whilst seated in the chair, adjust the height of the chair to achieve a 90° angle of the legs. The feet shall have the whole sole against the ground during the adjustment. (See image at next page).
2. Adjust the seat and backrest to a comfortable position.
3. If necessary, fine-tune the height of the seat.
4. Adjust the armrests to a comfortable surgical position.

5. Move the chair against the operating table to achieve optimal access to the patient and foot pedals.
6. If necessary, fine-tune the position of the armrests to achieve a satisfactory surgical position.
7. Lock the wheels using the foot brake.
8. Adjust the height of the operating table to achieve optimal access to the patient.



**Always activate the foot brake in order to avoid unintentional movement of the chair.**

#### 4.7 Charging the battery

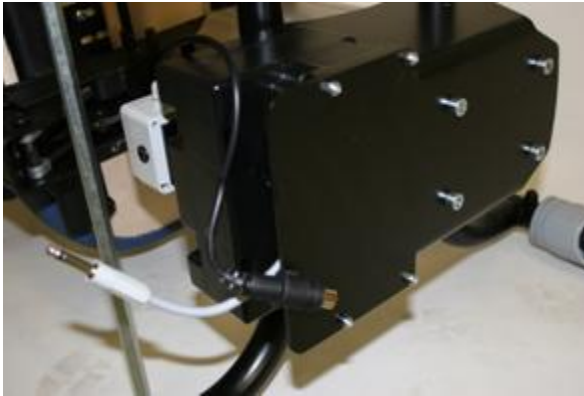
The battery comes fully charged. The charging socket is located on the top of the control box at the rear of the chair. A fully charged battery will operate the chair for approximately five days during normal working conditions.



To guarantee the battery is fully charged, it should be allowed to charge for 12 hours. When the battery has reached full capacity, charging automatically turn to trickle charge to avoid overcharging.

## 4.8 Replacing the batteries

The batteries are mounted inside the control box at the rear of the chair. To replace the batteries, unplug the control box connectors and remove the four screws. These can be reached underneath the chair.



1. Unplug the connectors.
2. Carefully place the chair on its side.
3. Remove the four screws holding the control box.



4. Use a small screwdriver to open the cover.



5. Open the cover by hand.



6. Remove the batteries and unplug the connectors. Insert the new batteries and reconnect them accordingly.



**Batteries exposed to impact must be checked by your distributor or Rini.**

#### 4.8.1 Maintenance of the batteries

Batteries have a limited lifecycle and have to be replaced after approximately four years of use under good operating conditions.

Frequent and heavy discharges will reduce the batteries' lifecycle. For optimum performance, the batteries should be charged weekly, and must be charged at least every third month to avoid damage from self-discharge.

New batteries can be ordered from your local distributor or Rini. Please make sure that the new battery pack is fully charged before use.



**Used batteries are recycled as car batteries.**

## 5. Cleaning and maintenance

No part of the equipment is normally in contact with the patient and the armrests are draped during surgery.

### Recommended disinfectants

Part	Product	Other information
<b>Seating and other parts of art leather or nylon.</b>	Virkon (including most disinfectants <b>without</b> alcohol).	1% concentration. (Disinfectants containing alcohol cannot be used due possible to dehydration of the leather.)
<b>Foot control and other electronic parts.</b>	Noedischer Dekonta CCOTRADE RW (Including most disinfectants).	1-3% concentration 0,5% concentration

### Recommended cleaning agents

Part	Product	Other information
Padding, wheels and frame	Water and soap	Use damp cloth
Parts of metal and lacquered surfaces		
Electronic parts, hand control, control box and battery.	Water	Use damp cloth
Battery charger	Water	Use damp cloth

## 5.1 Maintenance and service

### Periodic maintenance

Monthly	
Hinges and joints	Use non-corrosive, standard instrument spray.
Armrest locking system	Use non-corrosive, standard lubrication spray.

### Accessories

Please contact your local distributor or Rini for information about accessories available for your equipment.

### Spare parts

Please contact your local distributor or Rini for information on spare parts available for your equipment.

### Repairs

The equipment should only be repaired by Rini or a Rini authorised service centre or engineer. Systems to be repaired under warranty must be sent to an authorised Rini service centre.



**Warning! Any unauthorised repairs or modifications to the equipment may result in equipment malfunction. Furthermore, this will render the warranty null and void.**

## 6. Safety

The Operator chair must only be used in accordance with its intended purpose as described in this manual. Incorrect use or deviation from the safety instructions could lead to damage of the equipment and/or personal injury. This manual should always be available near the Operator chair.

Please observe the warning labels on the equipment.

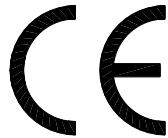


## 6.1 Warning and other labels



The warning sign is used when there is a risk of severe danger to the patient, personnel or the system.

## 6.2 Statement of CE conformity



The Operator chair 120-00102-00/-01 conforms to CE according to MDD 93/42 EEG.

Approved according to standard EN 60601-2-46 and EN 60601-1.

## 7. Technical specifications

<b>Dimensions</b>	<b>w x h (mm)</b>
<b>Back support</b>	350 x 300
<b>Seat</b>	460 x 420
<b>Armrests</b>	130 x 360
<b>Total width</b>	530mm excluding brake pedal
<b>Total length</b>	580mm excluding brake pedal
<b>Seat height</b>	500-800mm
<b>Weight</b>	370 N (37kg/12lbs)
<b>Maximal load</b>	1200 N (120kg/265lbs )
<b>Safe working load</b>	1100 kN (110kg/243lbs)
<b>Battery</b>	24 V, 2.9 Ah chargeable-lead accumulator charging time 12 hours
<b>Battery charger</b>	Input: 100-240 V, 250 mA Output: 24 V, max 12 VA IP 40
<b>Working Environment</b>	
<b>Temperature range</b>	+5°C to +40 °C
<b>Relative air damp</b>	20% to 90% at 30°C
<b>Atmospheric pressure</b>	700 to 1060 hPa

### Transport and storage

<b>Environment transport</b>	
<b>Temperature</b>	-10°C to +50°C
<b>Relative humidity</b>	20% to 90% at 30°C
<b>Air pressure</b>	700 to 1060 hPa
<b>Environment storage</b>	
<b>Temperature</b>	-10°C to +50°C
<b>Relative humidity</b>	20% to 90% at 30°C
<b>Air pressure</b>	700 to 1060 hPa

## 7.1 Disposal and recycling

Rini Operator chairs are manufactured using environmentally friendly materials, mainly stainless steel, aluminium, PVC and plastics. Rini recommends that the equipment is demounted as far as possible for recycling purposes.

### Battery



The battery contains lead and must be disposed of as a car battery in accordance with local legislation.

### Electronic parts and cables



Electronic parts and cables are to be disposed of as electronic waste in accordance with local legislation.

## 8. Guarantee

In accordance with Rini's general terms and conditions, the warranty on the equipment is one year from date of purchase.



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