

User manual

2015-03-10

CuroCell® Neo CX13 CuroCell® Neo CX19

Alternating pressure mattress

Item number user manual: 95-001297







Contents

Important safety precautions	3
Introduction	4
Product description	5
Assembly/Installation	8
Start-up	9
Cleaning and reconditioning	11
Storage	12
Maintenance	13
Troubleshooting	14
Technical description	15
Spare parts	17
Options and accessories	18
Warranty	19
Other information	19

IMPORTANT SAFETY PRECAUTIONS

Read all instructions prior to use

WARNING! To minimise the risk of fire, electric shocks or bodily injury:

- 1 The product must only be used for its intended purpose as described in this manual. The product may not be combined, assembled or repaired with other parts (e.g. pump and mattress), accessories or spare parts other than those described in this manual or other documentation from Care of Sweden.
- 2 Do not use the pump in wet rooms or where there is a risk of the pump coming into contact with water or another liquid. Never handle a pump that has come into contact with water/liquid. Pull the plug out of the electrical socket immediately and send the product to an authorised service technician for servicing.
- 3 DO NOT USE in the vicinity of or in contact with fire sources/hot surfaces, such as fire, burning cigarettes or hot lamps. Although the product has undergone fire testing, it could become damaged if it comes into contact with fire sources.
- 4 Position and use the product in a manner that prevents it from becoming trapped or damaged. NOTE: Be particularly aware of trapping damage when using bed rails.
- 5 Never use the product if the pump power cord or plug is defective, the pump casing is damaged or it is not functioning properly. Contact a service technician for examination and repair.
- 6 Regularly check product functionality through a hand check (see section 4.4). Also check that the comfort setting is correct as indicated in the table on the pump.
- 7 Continual monitoring is required when the product is used for individuals needing special supervision, such as children.
- 8 The mattress are protected with a hygiene cover; Please try to avoid the simultaneous use of multiple hygiene covers with this mattress. Because of the risk that the vapour permeability can be destroyed.
- 9 The hygiene cover does not allow liquid or air to penetrate, but is vapour permeable. Make sure that the patient is positioned correctly to avoid the risk of suffocation.
- 10 Prevent damage to the hygiene cover from sharp objects.
- 11 If the covers are supplied with handles on the long sides theses handles are only to be used for lifting and moving the mattress itself. All other use will be at your own responsibility and is not covered by the product warranty.

1. Introduction

CuroCell® air mattresses operate according to the alternating pressure principle, a technique that is well proven and been used for a long time. Alternating pressure is when the pressure regularly alternates between the mattress cells to replicate body movement. Variable pressure cycles are set up where there is little or no pressure. This is optimal for skin improvement or to prevent skin damage.



Always read the user manual prior to use.

1.1 General information

This system is a medical device with CE-marking in accordance with MDD 93/42/EEC. According to statutory regulations made by the authorities regarding medical devices, the manufacturer is required to report all accidents or incidents involving their products. We would be very grateful for all information involving accidents or incidents relating to our products, by reporting them immediately to us here at Care of Sweden. The system has been tested and approved according to the following standards: IEC 600601-1, IEC 60601-1-2, SS-EN ISO 12182, SS-EN ISO 14971, SS-EN ISO 10993, EN 597-1, EN 597-2, EN 14126.

1.2 Intended use

CuroCell® Neo CX is an alternating pressure mattress that can be used in all kinds of health care environments, to prevent pressure ulcers, as well as treatment up to and including category 4⁽¹⁾ pressure ulcers. It is available in two versions, as an overlay (CuroCell® Neo CX13) or as a mattress replacement (CuroCell® Neo CX19). The mattress is meant for use for persons of a recommended minimum length of 120 cm. The recommended user weight is up to 160 kg.

The mattress should only be used lying in the lengthwise direction on the mattress with the feet at the end marked with the feet symbol.



We recommend that position changes are made regularly. The time interval must be evaluated by the responsibel personnel, depending on the patient's status diagnosis and general condition.

The mattress must always be cleaned between patients.

NOTE!

- For certain patients, such as amputees, are the recommended minimum weight not valid. These users may however have other requirements as the entire mattress is not being loaded. Please refer to sections 4.2 and 4.3 for operating control.
- When used together with positioning pillows, read the user's manual carefully to ensure correct positioning of the patient.
- If you are using this product with an evacuation sheet, it is the user's responsibility to
 ensure that it is safe to use for evacuation.
- Be careful when using bed rails or other protection on the bed so that the mattress does not become trapped or damaged.
- The mattress must not be lifted with a person lying on it or used for any other type of transport other than a possible evacuation using an evacuation sheet.
- This mattress is unsuitable for use during x-ray examinations because of the risk of blurred images or artefacts that may lead to diagnostic errors.

(1) National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Emily Haesler (Ed.). Cambridge Media: Osborne Park, Western Australia; 2014.

1.3 Other information

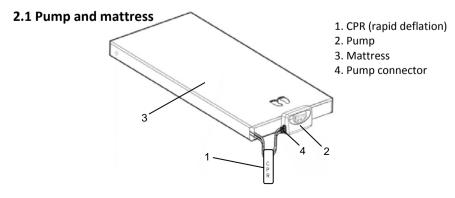
Action plan Pressure ulcers

To achieve the best possible result for this product it is recommended that a well-planned and well-structured working environment be used. In our guideline "Action plan" you will find examples which can be applied and put into practice when using our products.

Mattress guide

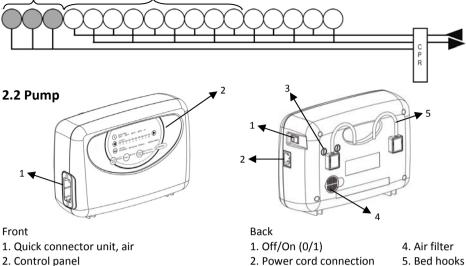
This practical guide gives you as a care giver, help in choosing the correct mattress from the Care of Swedens range. CuroCell® Neo CX13/CX19 are mattresses in function group C. This information can be found on our website www.careofsweden.com or you can order a copy from our Customer services by sending your details to info@careofsweden.se.

2. Product description



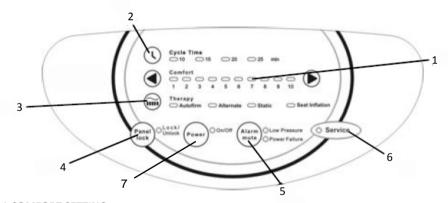
Tubing system

3 static head cells. If the product is fitted with ventilated cells, they are located here (9 cells).



3. Fuses (2 pcs)

2.3 Pump functions - control panel



1 COMFORT SETTING

Suitable air pressure is set with the comfort dial (1-8). Guidelines based on user weight is given in the table on the pump. NOTE! In all uses where the head end of the bed is raised, the pressure must be increased at least one (1) step.

2 CYCLE TIME

There are four selectable cycle times. Press the button to select cycle time.

3 PROGRAM (THERAPY)

Change the mode by pressing the button, the chosen mode is indicated by the green light. The modes' order is: Autofirm, Alternate, Static, Alternate - seat inflation, Static - seat inflation.

A. Autofirm

Autofirm is used to fill the mattress completely with air for firm support. The pump always starts in this mode. When the correct pressure is reached, it changes automatically to the previous setting or to the presetting outlined below.

Presetting features for Autofirm process

- 1. Program (Therapy): Select the required program.
- 2. Comfort setting: Set the required air pressure (1-10).
- 3. Cycle time: Select from 10, 15, 20 or 25 minutes.

Note: The preset Cycle Time, Comfort Level and Therapy mode will be illuminated to indicate the settings during the Autofirm process. (Autofirm LED is also illuminated.) After mattress is inflated, Autofirm LED will be turned off automatically.

B. Alternate

In this mode, the pressure alternates between the cells and there are four different cycle times to choose from.

C. Static

When" Static" is chosen, the alternating process is terminated and the pressure between the cells evens out. The function can be used in association with patient care, repositioning/transferring in and out of bed. The function is turned off by pressing the button again, or it will automatically go back to alternating mode after 20 minutes.

D. Seat inflation

This mode gives extra support when sitting up and can be set for both alternating and static mode.

4 PANEL LOCK

Press down the Panel lock button for about 2 seconds to lock or unlock the panel.

5 ALARM MUTE

Press the ALARM MUTE button to temporary turn off the alarm. Should the situation not be resolved within 5 minutes, the alarm will be activated again. Please refer to section 8 to troubleshoot any problems with the alarm.

A. Power failure alarm

During a power failure, both the sound and light alarm will go on. Turn it off by pressing the ALARM MUTE button.

B. Low pressure alarm

When the low pressure light is on, the pressure in the mattress is below normal. Both the light and sound alarm will activate. The alarm will sound until the ALARM MUTE button is pressed. If the problem remains, see chapter 8 for trouble shooting.

6 SERVICE

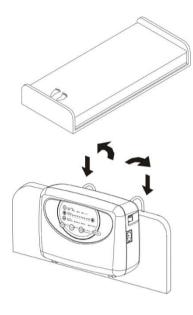
This light indicates a technical failure in the pump. First check that the air filter is clean and that the pump is not covered by anything (such as a pillow or a blanket). If the problem remains, please contact the manufacturer or your local dealer for further information.

7 POWER

Power on/off.

3. Assembly/Installation

When unpacking the mattress, check that none of the parts are damaged. In the event of damage, contact the manufacturer or your local dealer before using the product.



 Place the mattress on top of an existing mattress and fasten it with the elastic bands around the underlying mattress. If the mattress has a built- in foam pad (CuroCell® Neo CX19) it can be placed directly on the bed frame. Fix the mattress to the bed frame using the bands on the cover.

Note!

- Make the bed with sheets for added comfort.
- Check that the CPR valve is closed.
- Check the cells and snaps to make sure that they have been attached correctly.
- 2. Hang the pump at the foot end of the bed or place it on a flat, steady surface.

Route the power cord so that there is no risk of it causing someone to trip, being run over by the bed wheels or getting crushed when the bed is raised or lowered.

If a cable holder is used (optional): open the snaps, position the power cord in the pocket and close the snaps.



Connect the tubes from the mattress to the side of the pump. There is an audible "click" sound when the connectors are properly attached.



 Check that the power switch at the side of the pump is set to 0 (off). Connect the plug to an approved electrical socket (220-240 V).

4. Operation



Note! Always read the user manual prior to use.

4.1 Start-up

- Set the power switch on the side of the pump to 1 (On) and start the pump by pressing the power button on the front panel.
- Air starts to inflate the mattress. It takes at least 20 minutes until the mattress is inflated.

Note! The pump always starts in the Autofirm mode.

- If necessary the patient can lie on the mattress even when not inflated, in this case, the underlay will carry the load. When using a mattress with an air underlay this must be inflated.
- 4. The light for 'Low pressure' is lit until the mattress has reached the set pressure. When the light goes out, the system changes mode (to previous settings) and the mattress are ready to be used.

4.2 Program selection

There are four different programs. Please refer to section 2.3 for more details. As a standard setting, we recommend an alternating mode and a 10 minute cycle time.

4.3 Comfort setting

The air pressure in the mattress can be adjusted according to the patient's desire for comfort. Always consult the prescriber or other authorised personnel for the appropriate setting.

	kg	•-	kg	•4
	0-30	1	80-90	6
Ī	40	2	100-110	7
Ī	50	3	120-130	8
	60	4	140-150	9
	70	5	150-160	10

Note! The pump always starts in the Autofirm mode. When the mattress has reached the required pressure, the pump is set automatically to the previously used setting or to the settings made in the Autofirm program. Please refer to section 2.3 for more details.

The mattress is now ready for use.

NOTE!

- We recommend the Seat inflation mode for all situations where the head of the bed is raised.
- When only parts of the mattress are under load, e.g. if the patient is an amputee, the pressure should be increased 1 or 2 levels.
- Always check the set pressure with a "hand check", see 4.4 for more information.
- Recommended user weight: up to 160 kg.

4.4 Hand check, checking the pressure setting

Hand check is used to ensure that the mattress is properly inflated. This should be done regularly, once per shift, after changing the position in the bed or changing the comfort settings.

Open the cover. Place a flat hand under the air cells directly underneath the user's pelvic region and make sure that the user does not lay directly on the underlying mattress. There should be about 1-2 fingers margin.



If you can feel the user's body resting on your hand you need to increase the comfort settings to next highest step. Wait 10 minutes and perform a new hand check.

4.5 Alarm

When the pressure drops to an abnormally low level, the Low Pressure diode lights up together with an audio alarm. Please refer to section 8 for troubleshooting. The alarm is deactivated by pressing the ALARM MUTE button on the pump's control panel. If the problem is not resolved within 5 minutes, the alarm will start again. The diode remains on until the pressure level is remedied and reset.

The pump is also fitted with a Power Failure alarm. An alarm sounds and flashes when the pump is disconnected from the electric power. Turn off the alarm by pressing the 'ALARM MUTE' button.

WARNING

If the air pressure remains low, check the mattress and tubes for damage. Repair if necessary or contact the manufacturer or your local dealer for help.

4.6 CPR

In case of an emergency where CPR (cardiopulmonary resuscitation) is necessary: Rapidly pull the CPR band on the tubes between the pump and the mattress. Remove the tube connections on the side of the pump, for even faster deflation.

NOTE! Make sure that the CPR connector is properly connected after use.



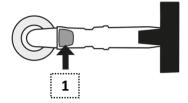
4.7 Transport function

If the patient must be moved in the bed, the tubes can be connected together (detached from the pump) and the mattress put in "transport mode". This mode should only be used for short periods of time.



4.8 Heel function (with check valves, option)

This feature allows pressure relief of the heels. Disconnect the air cell which is directly under the heel. This air cell will then be emptied for air. Press the bottom (1) and disconnect the plug. Let the cell remain in its place in the mattress. The air cell is activated by assembling the connection again.







5 Cleaning and reconditioning

It is important to follow the instructions below before using the product for another user. Consult the hygiene responsible or the supplier for help and instructions when unsure.

5.1 Cleaning

PUMP

WARNING!

Do not open the pump housing – risk of electric shock. Service and maintenance must be performed by authorised technicians. Do not get the pump wet or submerge it in any liquid.



Wipe off the pump with a damp cloth and mild cleaning solution for this purpose, such as: alcohol with or without tensides, Isopropanol 70 %, oxidating solutions or Chlorine max 1 %. If using a different agent, choose one that does not affect the plastic of the pump housing.

MATTRESS COVER



Covers can be wiped off with a mild cleaning solution for this purpose such as: alcohol with or without tensides, Isopropanol 70 %, oxidating solutions or Chlorine max 1 %.









Multi-layer covers should be divided before washing. Wash with like colors.



Chlorine and phenol-based cleaners could have a negative impact on the PU surface and should be avoided. If chlorine is used, we recommend a mixture of max 1 %.

INNER COVER AND DISTANCE FABRIC (accessories)



Clean the affected area with a mild cleaning solution for this purpose such as: alcohol with or without tensides, Isopropanol 70 %, oxidating solutions or chlorine max 1 %.

5.2 Reconditioning

PUMP

See section 5.1 for instructions.

MATTRESS

- 1. Disconnect the tubes and let the air out, also open the CPR valve.
- 2. Remove the cover. See instructions in chapter 5.1 for cleaning covers. If the product is equipped with a foam core this should be removed and cleaned separately.
- 3. Move the mattress to a clean area, which is suitable for cleaning.
- 4. Wipe off and disinfect the cells, all tubes and the CPR valve with a mild cleaning solution for this purpose such as: alcohol with or without tensides, Isopropranol 70 %, oxidating solutions or Chlorine max 1 %.
- Wipe off and disinfect all the work surfaces with an alcohol-based cleaning agent intended for this purpose.
- 6. Put the mattress together. If cells for any reason have loosened from the tubes, these must be replaced according to drawing in chapter 2.1.

NOTE!

Check the hygiene cover each time the product is cleaned. If damaged, it must be replaced or repaired. Also check the pump, tube connectors and power cord during cleaning. Damaged parts must be replaced or repaired.

6. Storage

The mattress and pump are best stored in the product bag (optional extra). Handle the packed product with care. Do not put anything heavy on top of it.

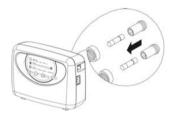
7. Maintenance

7.1 General

- 1. Check the power cord and plug for damage and scratches.
- Check that the mattress cover is intact and that the cover and air cells are correctly assembled.
- 3. Check that the air flow alternates between each outlet on the side of the pump.
- 4. Check for damaged or pinched tubes and connectors.

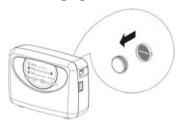
Contact the manufacturer or your local dealer for spare parts.

7.2 Changing fuses



- 1. Pull the plug out of the electrical socket before replacing fuses.
- 2. Remove the cover from the fuses with a screwdriver. Pull out the fuse holder.
- 3. Fit a new fuse of the same type (T1AL, 250 V) and screw the protective cover back in place. There are two fuses.

7.3 Changing the air filter



- 1. Unscrew the round safety plate on the back of the pump.
- 2. Lean the pump backwards in order for the filter to fall out from the holder.
- 3. Place the new filter in the filter holder and replace the safety plate.

If the pump is used in a dirty environment, the filter should be checked regularly.

8. Troubleshooting

Problem	Solution
Pump does not start	Check that the power cord is connected to the power socket. Check the fuses.
Alarm is on (mattress looses air)	Check that the quick connectors to air tubes on the pump side of the pump are properly connected.
	Check that the CPR valve is closed.
	Open the mattress and check for leaks from air cells or tubes.
	Check that all tube connectors are properly fitted and connected.
No air in head cells	When the mattress is inflated, the 3 static head cells are filled last.
Patient is bottoming ("falls through")	The comfort setting may be set incorrectly. Increase the pressure and wait a few minutes. Do a Hand check.
	Check the mattress as described in the section "Alarm is on" above. Read more in sections 4.3 and 4.4.
	Check that the CPR valve is closed.
Mattress moves around	Check that the air mattress is secured to the underlying mattress with the elastic bands.
Some cells have less air	This is normal, as air flow alternates between the cells for a set cycle period, depending on the designated cycle period (one cycle varies from 10 to 25 minutes depending on the setting used).
Pump is noisy, vibrations are felt	Check how the pump is hung on the bed. Resonance can occur in parts of the bed. Remove the pump and listen whether this makes a difference. Can be resolved by putting the pump on a flat steady surface or by placing a towel between the pump and bed.

If your questions are not answered by the above information, please contact Care of Sweden or your local dealer for further assistance.

9. Technical description

9.1 Technical specification

PUMP		SPECIFICATION
Model		CuroCell VARI
Voltage		240 V, 50-60 Hz
Power consumption		0.07 A
Type of fuse		T1AL, 250 V
Cycle periods		Variable, 10, 15, 20 or 25 min
Dimension (LxWxH)		29.1 x 20 x 11.7 cm
Weight		2.2 kg
Surroundings	Temperature	Operation: 10°C ~ 40°C
		Storage: -15°C ~ 50°C
		Shipping: -15°C ~ 70°C
	Humidity	Operation: 10% ~ 90% non-condensing
		Storage: 10% ~ 90% non-condensing
Classification		Class II, Typ BF, IP41
MATTRESS		SPECIFICATION
Model		CuroCell® Neo CX13/CX19
Dimension (WxLxH)		80/85/90/105/120 cm x 200/210 x 13/19 cm
Weight		8.5 kg (80x200 cm)

NOTE: Care of Sweden retains the right to modify the product specification at any time.

WARNING!

Follow operating and maintenance instructions carefully to prevent injury, as well as damage to the product or other equipment.

9.2 Labelling

The mattress is labelled with product name, production date, article number, size, care and wash instructions, EAN-bar code, as well as space for own labelling.

The product also displays which side is up/down and head/foot.

9.3 Symbol Definitions



Article No



Manufacturer





Foot placement



Read the user manual



Group of function



CE marked acc. to MDD 93/42/EEC



Recycling



Not in domestic refuse, follow recycling instructions



Recommended user weight



Patient information category



Directly on bed base



Place on top of existing mattress



Recommended user weight when using Evac function



Counteract shear force



Heel function





Machine wash at 70 °C



Machine wash at 95 °C



Chlorine



Tumble dry



Do not tumble dry



Drip dry





Do not dry clean



Wipe off



Class II equipment (Double Insulated)



Type BF





The mattress should only be used lying in the lengthwise direction on the mattress

10. Spare parts

CuroCell® Neo CX13

Size	Cover Olivia	Inner cover CuroCell
80x200 cm	295-080200	CC-928510
80x210 cm	295-080210	CC-928511
85x200 cm	295-085200	CC-928512
85x210 cm	295-085210	CC-928513
90x200 cm	295-090200	CC-928514
90x210 cm	295-090210	CC-928515
105x200 cm	295-105200	CC-928516
105x210 cm	295-105210	CC-928517
120x200 cm	295-120200	CC-928518
120x210 cm	295-120210	CC-928519

CuroCell® Neo CX19 – Cover grey

Size	Top part Olivia	Bottom part CuroCell	Inner cover
80x200 cm	CC-906010	CC-905610	CC-928610
85x200 cm	CC-906012	CC-905612	CC-928612
90x200 cm	CC-906014	CC-905614	CC-928614

CuroCell® Neo CX19 - Cover Steel

Size	Top part Steel	Bottom part CuroCell
85x200 cm	CC-925553	CC-905612
90x200 cm	CC-925555	CC-905614

Art. no.	Description	Size
CC-901001	Air cell, PU	80x13 cm
CC-901002	Air cell, PU	85x13 cm
CC-901003	Air cell, PU	90x13 cm
CC-901004	Air cell, PU	105x13 cm
CC-901005	Air cell, PU	120x13 cm

CC-8217 Fuse (set of 2)
CC-8202 Filter, disposable

If other spare parts are needed, please contact Care of Sweden or your local dealer for further assistance.

11. Options and accessories

11.1 Optionals

Comfort fabric (only CuroCell® Neo CX19)

For patients who are sensitive for the fluctations in the mattress a padded inner cover can be placed over the air cells to increase comfort.

Heel section

Options available to relieve sensitive heels. Emptying the air cell with release valve.

NOTE! These options are only available with new orders.

Sturdy transport bag

Transport and storage bag.

Ventilated cells (Low-Air-Loss)

Micro-ventilation in 9 of the cells.

Covers

With welded seams.

Lf (low friction) top part

Top part with increased sliding function, can be used for example heavy, immobile patients.

Cable holder

NOTE! This option is only available with new orders.

11.2 Accessories

Art. no.	Product info
CC-900220	Heel function with release valve (4 cells)
CC-900222	Heel function with release valve (3 cells)
58-900902	Sturdy transport bag

11.3 Other accessories

To ensure the best level of comfort, we recommend use of accessories from Care of Sweden since our products are designed to work well together. Please contact Care of Sweden or your local dealer for accessories or more information on our products.

12. Warranty

12.1 Scope

This CuroCell® system is covered by a 2-year warranty for manufacturing defects. The warranty does not apply to normal wear and tear or product impairment or damage stemming from negligence or improper handling/care.

12.2 Service and repairs

This CuroCell® mattress is a medical device, in accordance with MDD 93/42/EEC, that is used as an aid in preventing and treating pressure ulcers. For this reason, we recommend that the pump be regularly serviced and inspected to maintain functionality and performance. Like other technical devices, a pump that is properly cared for works better and lasts longer.

Service and maintenance must always be performed by Care of Sweden or one of its authorised technicians. Only use spare parts that have been approved by Care of Sweden. Use of non-approved spare parts invalidate the warranty.

A warranty claim must be submitted to Care of Sweden before the product is returned.

Please contact Care of Sweden or your local dealer if you have questions regarding warranty and service.

12.3 Life expectance

This product's expected life is estimated to be 5 years.

13. Other information

13.1 Disassembly and recycling

Except for certain parts of the pumps, energy recovery is possible for almost all material in CuroCell® products through incineration in waste incineration facilities.

Pump:

A used CuroCell® pump must not be disassembled. It must instead be taken to a recycling centre and sorted as electronic waste.

Mattress:

A used CuroCell® mattress must be taken to a recycling centre and sorted as combustible waste.

For more information, please contact Care of Sweden or your local dealer.

13.2 Returns and complaints

Complaints are to be reported to the supplier. Return of a product shall follow the supplier's instructions and can only be done after the complaint has been reported. Damages due to the transportation should be reported to the transportation agent.



s care of sweden

Supporting Life

Contact:

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