Resuscitation Cabinet

Operators Manual

Viamed

15 Station Road, Cross Hills, Keighley,
West Yorkshire, BD20 7DT
Tel: +44 (0) 1535 634542
Fax +44 (0) 1535 635582
Web: www.viamed.co.uk
Email: info@viamed.co.uk

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Introduction

Thank you for purchasing a Viamed Resuscitation Cabinet, if maintained correctly this unit should give many years of trouble free service.

This Manual contains instructions for the operation and maintenance to be carried out by the operator. Viamed is not liable for the proper functioning of any part of this product if it is not operated according to the instructions, if the maintenance recommendations in this Manual are not followed or if repairs are carried out using non-approved components.

Calibration and repairs should be performed only by trained personnel. Maintenance documents are obtainable through your local dealer or direct from Viamed.

The personnel who work with this equipment should read this Manual carefully and should fully understand all instructions contained therein. The Manual should be kept so that it can be easily inspected; it is advisable to store it in an easily accessible place. If you do not understand any function or part of this manual please contact Viamed or a Viamed distributor in order to obtain further information or clarification.

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NUFER MEDICAL

ING. Nufer AG, Schürmattstrasse 6, CH-3073 Gümligen
Telefon : 031 958 66 66 FAX : 031 951 46 73

ADRESSEN UNSERER TECHNISCHEN VERKAUFSBÜROS

Hauptbüro

Ing. Nufer AG
Schürmattstrasse 6
3073 Gümligen

Tel. 031 / 958 66 66
Fax 031 / 951 46 73

Büro Westschweiz

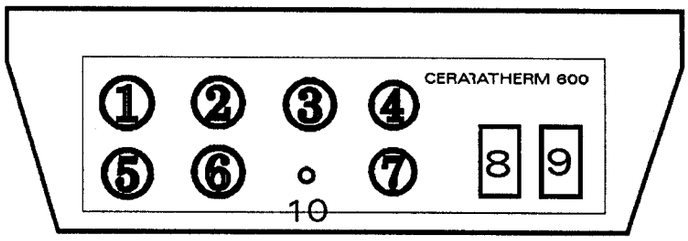
Herrn Jelle Hartmann
Le Crêt
1098 Epesses

Tel. 021 / 799 27 65
Fax 021 / 799 27 65

4.5 Controllers, displays and connections

This part describes the controllers, displays and connections of the Ceratherm 600-2 thermal radiator.

Front



Rear

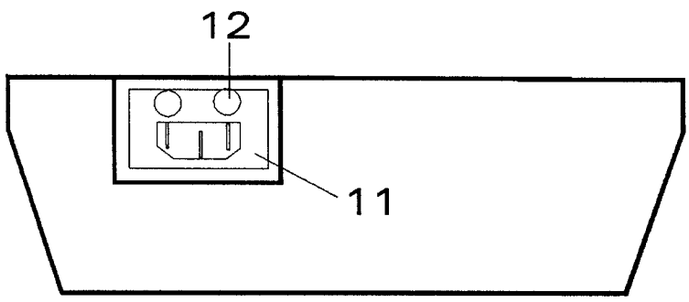


Table B

Part no.	Designation	Function
1-4	LED yellow	Display of selected output setting
5+6	Forward/reverse button	Button for selecting output setting
7	Alarm button	Display and reset button for alarm
8	Lighting switch	Switching on halogen lamp
9	Main switch	Switching unit on and off
10	LED heating monitor	Display indicating that heating active
11	Unit supply socket	Socket for 220-240V / 50Hz connection
12	Fuses	Main fuse 2 x 3,15 Ampère
5 / 6 /7	Buttons	These buttons are used together for programming the individual output settings

Alarm monitoring

When the unit is switched on, a time interval begins which after 15 minutes triggers an audible alarm and a visual alarm in the form of a flashing LED.

The alarm is cancelled with the red button, causing the red LED to extinguish and the audible signal to stop. The alarm flashing generator is deactivated. If the alarm is not cancelled within 8 seconds, the heating output set is reduced to a preset value (20%) (safety setting). The audible signal stops and the flashing red LED lights continuously.

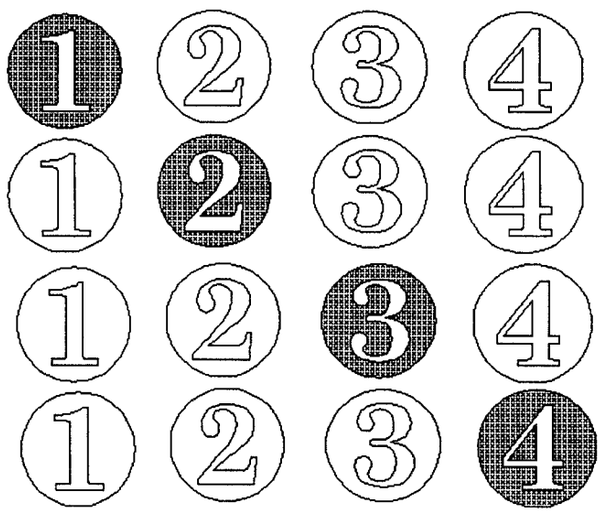
WARNING!
The child must not be left unattended on the bed with the radiator switched on.

Level 1 = 25%

Level 2 = 50%

Level 3 = 75%

Level 4 = 99%

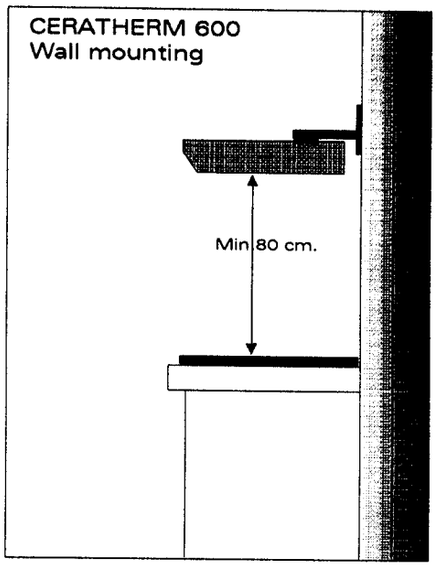


The various power levels can be used as follows:

Level 1	is used for keeping the support surface warm and for continuous operation
Level 2	is for normal operation on changing and examination area
Level 3	provides additional warmth for resuscitation, for the labour room or for the operating theatre
Level 4	is for increased heat requirement in the operating theatre, during anaesthesia or for adults

WARNING

The distance between the surface on which the patient lies and the lower edge of the radiator must not be less than 80cm. If this instruction is not observed, prolonged exposure to heat radiation may cause burns.



Mounting possibilities

Wall mounting with fixed holder
Wall mounting with movable arm
Ceiling stand with rotatable extension arm
Wall stand with pivotable extension arm
Special version

4.3 Start-up

1. Switch main heater switch to ON. The ceramic heating element is now switched on.

2. Using the adjusting knob, set the desired heating power to level 1-4. The particular setting is displayed on the four LED bars. After about 5-10 minutes, the support surface has been preheated.

3. Set main switch LIGHT to ON. The non-dazzling halogen lamp is used for illuminating the treatmentarea

4.4 Setting the heating power

The heating output can be set in accordance with actual requirements using the four-step regulation. The factory adjustment corresponds to the following local settings:

The heating output of the individual steps 1-4 can be individually adjusted for special applications, e.g.:

Level 1= 20% Level 2= 40% Level 3= 60% Level 4= 80%

4. Operating Instructions

4.0 Structure and use

The radiator is intended for warming baby changing tables and for maintaining the body temperature of infants. The built-in ceramic radiator has very good radiation properties and generates invisible infrared radiation in the region of 3 micro/M. This radiation spectrum is very readily absorbed by the skin, and the child's skin colour is not altered.

4.1 General description

The Ceratherm 600-2 unit has 4 output settings which can be set individually (20-99%). These output settings are indicated by the yellow LED's (1-4), in which only one can be active during operation. (*The numbers in ( ) are shown in Table B on Page 7.*) The choice of output setting is made by pressing the reverse button (5) or the forward button (6). The heater LED (10) indicates when heating is active. When the unit is switched on, a time interval starts, which after 15 minutes triggers an audible alarm for about 5 seconds and a visual flashing LED alarm (red LED 7). 8 seconds later, a reduction in output to a preset value takes place (safety setting), until this is cancelled with button (7), whereupon the time interval is started again. The cancellation also deactivates the flashing alarm.
Switch (8) switches the halogen lamp lighting on and off, while switch (9) switches the entire system on and off.

4.2 Wall mounting

After removing the packaging, compare the instrument data on the type plate with the available connection data. Electrical connection is via a 220V AC 50/60 Hz mains socket and a 6A connected load.

The wall holder (fixed or movable) must be fastened in solid masonry (chalky sandstone, brickwork or concrete) with suitable wall plungs and screws.

Mount the radiator in such a way that there is a distance of at least 80cm and not more than 100cm between the surface on which the patient lies and the lower edge of the radiator.

3. General

3.0 Introduction

This Manual contains instructions for the erection, use and maintenance by the operator . Nufer Medical is not liable for the proper functioning of the heat radiator if it is not operated according to the instructions, if the maintenance recommendations in this Manual are not followed or if repairs are carried out using non-approved components.

Calibration and repairs should be performed only by trained personnel. Maintenance documents are obtainable through your local dealer or from Nufer Medical.

The personnel who work with this heat radiator should read this Manual carefully and should fully understand all instructions contained therein. The Manual should be kept so that it can be easily inspected; it is advisable to store it in an easily accessible place. If you do not understand something, contact a Nufer Medical agent in order to obtain further information.

3.1 Technical data

The technical data of the Ceratherm heat radiant are shown in Table A. All technical data may be changed without prior notice.

Table A

Current requirement	220-240 V AC 50/60 Hz 630W
Protection class	I
Degreee of protection	B IP 20
Test provision	IEC 601-2 TUV / CE
Size	Width 21cm Length 55cm Height 90cm
Weight	4,9kg heat radiator
Trolley	Width 61cm Lenght 82cm Height 10cm
Upright tube	170 / 195 max. Height
Height adjustment	25cm
Swivelarm	45°

2. Definitions and Symbols

Note, Important, Caution and Warning

Note: The ramark „Note“ is used in the text to indicate procedures or conditions which might otherwise be overlooked or incorrectly understood. A note may also be used to clarify apparently contradictory or confusing situations.

Important: Similar to Note, but used when greater emphasis is necessary.

Caution: The remark „Caution“ is used to draw attention to a procedure which must be followed exactly in order to avoid damaging or destroying the instrument.

Warning: The remark „Warning“ is used in the text to draw attention to dangerous situations in connection with the operation, cleaning or maintenance of the instrument if there is a possibility of injury or danger of death to the operator or to the patient.

Attention: consult accompanying documents.

Danger! High Voltage!

Attention Hot surface

AC POWER

Type B equipment with an F-type isolated (floating) applied part.

Power ON

Power OFF

1. Precautions

The heat radiator must not be used in rooms where there is a risk of explosion, i.e. in the immediate vicinity of anaestheticgases.

The distance between the surface at which the patient lies and the lower edge of the radiator must not be less than 80cm. If this instruction is not followed, prolonged exposure to the heat radiation may cause burns.

Contact with the protective grating and the reflector should be avoided:
„Danger of burns“

The protective grating on the upper side of the radiator must always be free in order to ensure adequate removal of heat. Do not place sheets or flammable materials on the protective grating.
„Danger of fire“

If the underlay is changed, for example by the use of dark sheets, heating cushions, etc., the support surface may reach excessively high temperatures and thus influence the body temperature of the infant or patient.

After the radiator has been switched on, an acoustic and visual alarm is given after 15 minutes. This can be reset for a further 15 minutes with the red button.

The infant or patient must never be left unattended under the operating heat radiator.

When using the heat radiator over incubators, care must be taken to ensure that there is sufficient space between the lower edge of the radiator and heat-sensitivematerial, such as perspex or acrylic glass. The distance must not be less than 50cm. Set the heating power to max. level 3.

If the radiator housing is removed, there is a danger of an electric shock. Maintenance and service work must be carried out only by trained personnel.

Cabinet

The cabinet has been designed to conceal the internal products when closed and then provide easy access when open.

Excessive weight should not be applied to the drop down front platform.

It is strongly recommended the while in use the patient should be under close observation at all times.

Suction Controller

The Oxylitre S700 series suction controllers are designed specifically for Medical use.
It is available in high Suction-High Flow or Low Suction-High Flow models with either direct or remote (rail or "V"male) fittings.
The Suction Controllers comply to ISO 10079-3 1992, BS7259 Pt 2 1993.

Vacuum Source Connector

The S700 series suction controller is available with either a British Standard (BS5682) probe or a 9/16unf L/H fitting. The 9/16 unf L/H connection can be attached to various types of remote fittings i.e. Rail or "V" male mounted, with remote hose assemblies

Patient Inlet Connection

The inlet connection is an integral part of a detachable filter cartridge, which is infact a Disposable Hydrophobic Filtration Unit.

This filtration unit has been designed to prevent the ingress of fluids in to the controller and the pipeline system. (it is a multi-fit unit, designed to fit other manufacturers suction products).

Once the filter has been used for patient therapy or if wetted, for any reason, it must be changed. The unit has been designed so that a chemical coating on the filter membrane will prevent fluid passing through it, and may restrict the flow of suction once wetted.

Vacuum Gauge

The controller is fitted with a easy to read, dual scale colour coded gauge
Scale Readings:
High Suction 0 to 760mmHg (0 to 100kpa)
Low Suction 0 to 200mmHg (0 to 25kpa)

Safety Valve:

The units are fitted with an internal safety valve system. This will protect the suction controller from being damaged in the event of the unit being connected to a positive pressure source.

Suction Control and Safety:

To Increase/Decrease Suction

The control knob is graduated from a positive "OFF" to a maximum "MAX" vacuum position, within a approximatley two thirds rotation of the control knob. This has a safety aspect of gaining instant suction at a controlled level of all emergency situations.

A further safety feature is that the vacuum source can be turned off immediately by turning the control knob to the OFF position. This will automatically drain off all the remaining suction source from the suction tubing and receiver jar.

Also unlike some units with the ON/OFF flag/switch system, when the controller is turned ON to the gradients, the suction will increase as slowly or as quickly as the user requires, and not at the point where it was last set, as with the flag type.

Maintenance

A medical suction controller forms part of an essential life supporting system. All suction controllers must be treated with care and serviced on a regular basis (ie Preventative Maintenance) to ensure the units reliability and quality conformance for the purpose that it is intended for.

For service enquiries and information please contact Viamed to arrange a quotation etc.

NEVER USE FAULTY EQUIPMENT
Preventative maintenance ensures safety for the patient and user.

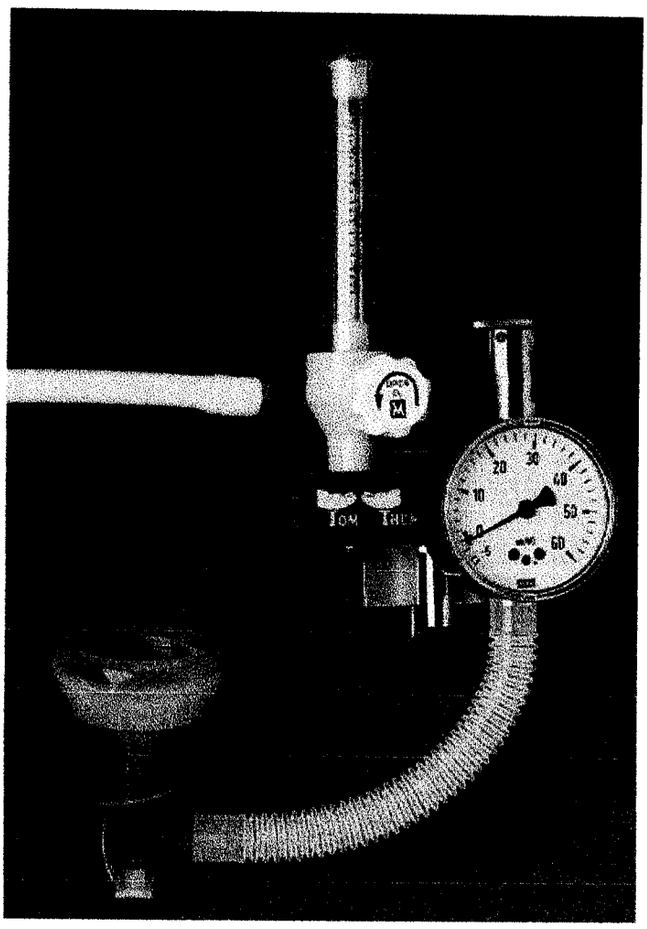
Replacement Filters

Ref: S750 per box of 30 units.

Timer Model (NS 22G Seconds Timer)

1. Press the red button (stop).
2. Ensure that the time is fully wound by using the key provided for this purpose at the back of the case.
3. Bring both hands to the 60 position by pressing the black button (zero fly back).
4. The timer is now ready for use.
5. To start the timer press the green button; to stop the timer press the red button; for zero fly back press the black button.
6. It is recommended that the zero fly back button (black) should only be pressed if the red button (stop) is pressed beforehand. When the green button (start) is pressed, the zero fly back button (black) should not be used.
7. Special "Stop and Goon" feature:
   the timer can be stopped and restarted at any reading to give a cumulative timing. The timer should be fully wound once each day.

Tom Thumb Instructions for use



Tom Thumb User Sheet

Instructions

Disconnect Tom Thumb from all inlet & outlet Hoses & tubes

1. Check that the pressure gauge reads Zero If it does not then Tom Thumb needs servicing
2. Attach Flowmeter inlet to the hospital oxygen supply
3. Set flowmeter to read 4-6 L/Minute
4. Adjust blow off valve to mininum (fully counter clockwise)
5. Connect Patient tubing (INT 6181) to Tom Thumb but NOT THE PATIENT
6. Occlude mask and open port of T piece --- adjust blow off valve until you reach the required pressure
7. **Tom Thumb is now ready for use**

Care of the Tom Thumb

Cleaning
Wipe over the unit with a damp cloth.
Do Not let moisture or foreign matter into either of the blow off valves

General Care
The Tom Thumb has been designed to give a lifetime of service if used correctly. However the gauge will be damaged if the unit is subjected to severe mechanical shock or if the unit is dropped.Tom Thumb should be checked for accuracy every 12 months minimum or when ever the pointer reads outside the black band at zero flow

Choosing a location
The rail bracket on the Tom Thumb is designed to fit most medical rails. However a problem may arise if the rail is mounted very close to a wall or the side of an incubator particularly if the gauge is mounted on the top or end pieces of the Tom Thumb.
A spacer kit Pt No. 9901-22 is available upon request

Service Contracts Resuscitation Unit

Instruments returned to Viamed:
All instruments should be returned to Viamed in good working order
Units not in good working order may incur extra charges

Instruments serviced on site:
All units to be serviced should be available and in good working order for the engineer
Units not in good working order may incur extra charges

Travel
Travel will be charged at the current rate per hour.

Tom Thumb
Check the unit mechanically
Complete a full function test
Complete a full calibration test and make adjustments if found necessary
Incorporate any upgrades found suitable
Any minor parts used will be included in the price
"O" rings will be replaced when necessary or every 2 years
Any minor parts will be included in the price

Radiant warmer Ceratherm 600
Check the unit mechanically
Check the electrical specification
Complete a full functional check
Complete a full specification test
Complete a safety check to BS5754 and provide certification
Incorporate any upgrades found suitable

Cabinet and accessories
Check all parts mechanically
Check specifications where necessary

Timer
Requires no service

Suction Unit
Check the unit mechanically
Check the electrical specification
Complete a full functional check
Complete a full specification test
Complete a safety check to BS5754 and provide certification
Incorporate any upgrades found suitable

Multiple units which are all available on one visit are subject to a discount on the service price:

5 or more units 10%
10 or more units 25%

Warranty

All parts of this resuscitation cabinet are hereby guaranteed for a period of 12 months from the date of purchase. The best materials and workmanship have been employed throughout every stage of manufacture and every part is thoroughly tested before despatch. This warranty covers any defect in material and manufacture but excludes damage caused by accident, misuse or neglect. Should any component develop a defect within this period it will be repaired or replaced at our option. In the event of a complaint regarding this product purchased outside the UK please contact your local distributor

The service under this guarantee does not affect your statutory rights against your supplier if any component is faulty.