

Operator's Manual
CS520 Tube Sealer with Handle

Qseal[®]·air



Every effort has been made to ensure that the information in this document is correct, but we make no guarantee to this effect and would appreciate any observations regarding the contents of this document. We may make improvements and alterations to the instrument and these changes will be incorporated in new issues of this publication when practicable.

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Warnings and Cautions

The general safety information in the manual is for operating personnel. Specific notes, cautions and warnings are found throughout the manual where applicable. Please read the Operator's manual carefully before use.

- Note!** Identifies conditions that should be noted carefully.
- Caution!** Identifies conditions that could result in damage to the equipment.
- Warning!** Identifies conditions that could result in personal injury or loss of life.

Warning! Qseal-air must be used in compliance with all specifications and operational procedures listed in this manual.

Warning! When in use, Qseal-air must be used under the control of trained personnel.

Warning! Follow the operating instructions while operating Qseal-air.

Warning! Cables and accessories, others than those specified, may result in increased emission or decreased immunity of the equipment or system. Only accessories designed for use with Qseal-air should be used.

Warning! The equipment or system should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.

Warning! If any of the components of Qseal-air are exposed to blood, they must be cleaned with an appropriate disinfectant solution.

Warning! The instrument must always be connected to a grounded outlet and with appropriate alternating current mains source, 100-130 or 230 V ~.

Warning! RF energy during seal procedure and movement of electrode.

Warning! Qseal-air is not intended for use in an oxygen rich environment.

Warning! Any serious incident that has occurred in relation to the device, should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

Warning! Qseal-air is not intended to be used with flammable anaesthetics and not intended for use in conjunction with flammable agents.

Caution! ELECTROMAGNETIC INTERFERENCE REGULATIONS

This equipment fulfils EN 60601-1-2:2007 Standards (Electromagnetic Compatibility). Nevertheless this equipment uses radio-frequency (RF) energy to generate heat while the tube is being sealed and can affect other Medical Electrical Equipment. *See table 1 for guidance.* If installation and use is not performed in accordance with this operator manual, it could cause interference with radio, television and instrument communications.

1. Scope

This chapter contains a description and specifications of the Qseal-air, a Tube sealer with handle from Conroy Medical AB.

1.1 Introduction

Qseal-air is a fully automatic system for sealing PVC tubes, especially for tubes in blood pack systems. Following the sealing procedure the tube is easily pulled apart, due to the distinct sealing pattern, with no damage to the blood inside the tubes.

The intended clinical benefit of Qseal-air is safe sealing of tubes and bags. Intact seals minimize the risk for contamination and discards of blood component and provide safety for the user and patient.

The Main unit is connected by the Coaxial cable to the Hand unit, where the sealing takes place when the Seal button is pressed. Different types or sizes of tubes can be used and the necessary sealing time is self-adjustable to fit the tubes that are being used.

Qseal-air works with radio frequency (RF) energy to generate heat for sealing. Users are requested to be cautious of potential electrical shocks or hazards while handling this sealer. Always turn the power switch off before disconnecting cables or cleaning.

1.2 Performance and Specifications

The table below lists the physical specifications.

Parameter	Value/ Description
REF CS520:	Qseal-air, a complete sealing system, which includes Main unit, Hand unit, Coaxial cable, Power cord and Operator's manual.

Type of PVC tube:	Different types and sizes of tubes up to 6.2 mm outer diameter can be sealed due to a sophisticated sensing system, which automatically adapts sealing time.														
Sealing capacity:	Max. 480 seals/hour with PVC tubes up to 6.2 mm (0.2") outer diameter at 20 °C (68 °F)														
Sealing time:	1-2 sec., max 5 sec. depending on tubing.														
Intended purpose:	Intended for sealing tubes and bags in blood component sets. Qseal-air is intended to be used by trained medical professionals.														
Input Power:	100-130 / 230 V ~ - 50/60 Hz auto range sense														
Consumption:	395 VA														
Power cord:	Three wire (10 A), 2.5 meter (8.2 ft) long cable with female plug, (supplied with European plug as standard).														
Fuses:	2 x 2 AH - 250 V - type T														
RF Output:	150 W max. / 50 Ω / 40.680 MHz														
Pump output:	2 bar max./1.9 liter per minute														
Size and weight:	<table> <tr> <td>Main unit:</td> <td>W: 160 mm (6.3")</td> </tr> <tr> <td></td> <td>H: 70 mm (2.8")</td> </tr> <tr> <td></td> <td>D: 260 mm (10")</td> </tr> <tr> <td></td> <td>2.40 kg (5.3 lbs)</td> </tr> <tr> <td>Hand unit:</td> <td>L: 210 mm (8")</td> </tr> <tr> <td></td> <td>Ø: 28 mm (1")</td> </tr> <tr> <td></td> <td>0.22 kg (0.48 lbs)</td> </tr> </table>	Main unit:	W: 160 mm (6.3")		H: 70 mm (2.8")		D: 260 mm (10")		2.40 kg (5.3 lbs)	Hand unit:	L: 210 mm (8")		Ø: 28 mm (1")		0.22 kg (0.48 lbs)
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	2.40 kg (5.3 lbs)														
Hand unit:	L: 210 mm (8")														
	Ø: 28 mm (1")														
	0.22 kg (0.48 lbs)														

Temperature:	Operating: +5 - 35°C (41 - 95°F) Storage: - 20 - 70°C (- 4 - 158°F)
Humidity:	Operating: 10 - 90% Rh (non condensing) Storage: 10 - 90% Rh (non condensing)
Altitude:	Operating: maximum 3000 meters (9842 feet)
In compliance with:	- EN 60601-1: 2006, General Requirements for basic safety and essential performance. - EN 60601-1-2: 2007, Collateral standards for Electromagnetic Compatibility.
Electrical safety:	Class I The Qseal-air is used in the same environment as medical equipment (hospitals and blood banks). It must be used by highly qualified personnel.
Manufacturer according to MDR:	Conroy Medical AB Haesthagsvaegen 14A, SE-194 52 Upplands Vaesby, SWEDEN

Table 1:

Guidance and Manufacturer's Declaration – Electromagnetic Emission		
The CS520 Qseal-air Bench Top Sealer is intended for use in the electromagnetic environment specified below. The customer or the user of the CS520 Qseal-air should assure that it is used in such an environment.		
Emission Test	Compliance	Electromagnetic Environment - Guidance
RF emission CISPR 11	Group2	The CS520 Qseal-air must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF emission CISPR 11	Class A	The CS520 Qseal-air is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emission IEC 61000-3-2	Not applicable	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Not applicable	

Table 2:

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
The CS520 Qseal-air is intended for use in the electromagnetic environment specified below. The customer or the user of the Qseal-air should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance	Electromagnetic Environment - Guidance
Electrostatic discharge (ESD)	± 6kV contact	6kV	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
IEC 61000-4-2	± 8kV air	8kV	
Electrical fast transient/burst	± 2kV for power supply lines	2kV	Mains power quality should be that of a typical commercial or hospital environment.
IEC 61000-4-4	± 1kV for input/output lines	Not applicable	
Surge	± 1kV line(s) to line(s)	1kV	Mains power quality should be that of a typical commercial or hospital environment.
IEC 61000-4-5	± 2kV line(s) to earth	2kV	
Voltage dips, short interruptions and voltage variations on power supply input lines	< 5% U_T (> 95% dip in U_T) for 0.5 cycle	< 5% U_T (> 95% dip in U_T) for 0.5 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the CS520 Qseal-air requires continued operation during power mains interruption, it is recommended that the CS520 Qseal-air be powered from an uninterruptible power supply or battery.
IEC 61000-4-11	40% U_T (60% dip in U_T) for 5 cycles	40% U_T (60% dip in U_T) for 5 cycles	
	70% U_T (30% dip in U_T) for 25 cycles	70% U_T (30% dip in U_T) for 25 cycles	
	< 5% U_T (> 95% dip in U_T) for 5 sec	< 5% U_T (> 95% dip in U_T) for 5 sec	
Power frequency (50/60 Hz) magnetic field	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
IEC 61000-4-8			
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

Table 4:


Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
The CS520 Qseal-air is intended for use in the electromagnetic environment specified below. The customer or the user of the Qseal-air should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 V	Portable and mobile RF communications equipment should be used no closer to any part of the CS520 Qseal-air including cables than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.17 \sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.17 \sqrt{P}$ 80 MHz to 800 MHz $d = 2.33 \sqrt{P}$ 800 MHz to 2.5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following  symbol:
NOTE 1 At 80MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the CS520 Qseal-air is used exceeds the applicable RF compliance level above, it should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the CS520 Qseal-air.			
^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

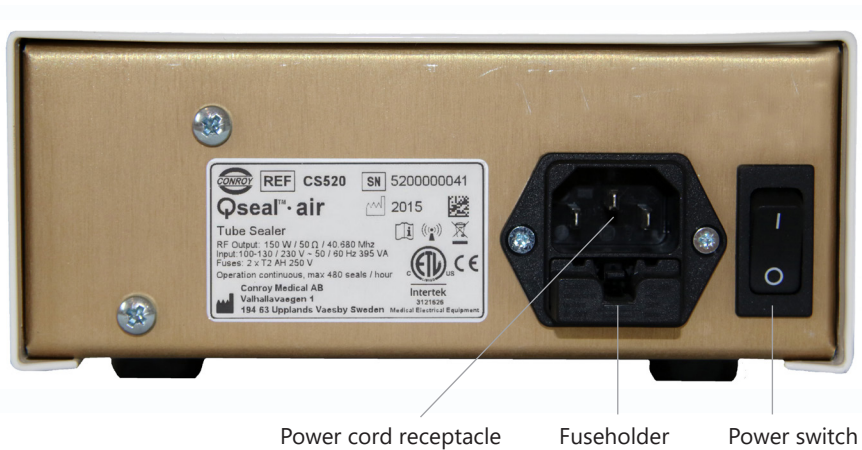
Table 6:

Recommended separation distance between portable and mobile RF communications equipment and the CS529 Qseal-air			
The CS520 Qseal-air is intended for use in the electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the CS520 Qseal-air can help prevent electro-magnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the CS520 Qseal-air as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.17 \sqrt{P}$	80 MHz to 800 MHz $d = 1.17 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.33 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.2	1.2	2.3
10	3.7	3.7	7.4
100	11.7	11.7	23.3
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer			
NOTE 1 At 80MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Front view



Rear view



1.3 Qseal-air parts and spare parts

1.3.1 Qseal-air, REF CS520

Qseal-air comprises the parts listed below:



Description	Main unit	Hand unit	Coaxial Cable, 2.3 m	Power cord, 2.5 m
Part No.	52000000	52100000	52180100	820 981 00

Order separate power cord for:

Description	USA	UK	Australia
REF	8 7901 1252	8 7901 1253	8 7901 1254

List of all cables and maximum lengths of cables, transducers and other accessories with which the manufacturer claims compliance (cables, accessories used other than those listed may impact emission/immunity):

Part	Reference	Specification
Power cord	8 7901 1251	Three-wire (10A), 2.5 m long, female plug
Fuse	8 5500 2502	2 x T2 AH 250V

1.3.2 Qseal-air spare parts (user interchangeable parts)



Description	Hand unit	Coaxial Cable, 2.3 m	Power cord, 2.5 m	Fuse SPT2AH
REF	952100001	952180100	8 7901 1251	8 5500 2502 (pack of 10)

1.4 Symbols/Markings Description

On instrument and labels:



This marking reflects compliance with the Council Directive 93/42/EEC on Medical Devices.



This marking reflects compliance with EN 60601-1 and national standards for USA (ANSI/AAMI ES60601-1:2005) and Canadian (CSA C22.2 No. 60601-1) markets.



Symbol for "CATALOGUE NUMBER".



Symbol for "CAUTION".



Symbol for "CONSULT OPERATOR MANUAL".



Symbol for "SERIAL NUMBER".



Symbol for "MEDICAL DEVICE".



Symbol for "MANUFACTURER".



Symbol for "DATE OF MANUFACTURE".



Symbol for "CONSULT USER MANUAL".



Symbol for "ATMOSPHERIC PRESSURE limitation".



Storage conditions - Symbol for "TEMPERATURE limit".



Storage conditions - Symbol for "RELATIVE HUMIDITY limitations".



Symbol for "NON-IONIZING RADIATION".



Symbol (WEEE 2002/96/EC) - Do not dispose Product as municipal waste. Collect Product separately. Use collection and return systems available to you. Product brought to EU market after August 13th, 2005.



2 LED lights: Green when the power is on, Flashing red when an error occurs (sealing is not possible).



1 LED light: Yellow when RF-energy is being applied.



Symbol for "HANDLE WITH CARE / FRAGILE".



Symbol for "KEEP DRY".

2. Installation

This chapter involves unpacking, temperature requirements and installation of the instrument.

2.1 Unpacking and Inspection

1. Visually inspect the cardboard box for damage. Report any damage immediately.
2. Lift the instrument out of the cardboard box and place it on a flat surface.

The instrument is shipped in one cardboard box that includes:

- 1 Main unit
- 1 Hand unit complete
- 1 Coaxial cable
- 1 Power cord
- 1 Operator's manual

3. The above list is subject to change, refer to the packing list for accurate description of contents.
If any parts are missing or if the parts are damaged, report it immediately.
4. Please keep all shipping and packaging materials, as they may be required for later transportation, at least during the warranty time.

2.2 Environmental Requirements

To keep the instrument operating at its best, please observe the following:

- The instrument should be placed on a flat surface free from dust, solvents and acidic vapor.
- Use the instrument in an area free from vibration and with a room temperature of 5 - 35°C (41 - 95°F), and relative humidity 10% - 90%.
- Handle the components with care in a clean environment.

2.3 Installation Procedure

Preparing the sealer for use

1. Connect the coaxial cable to the connector on the Hand unit, and the other end to the front of the Main unit until a “click”-sound is heard.
2. Insert the power cord into the power entry module on the back panel of the Main unit.
3. Plug the power cord into an alternating current outlet.
4. Check that the indicator LED lights up green when the power switch is turned on. If the LED does not light up check that the power cord is properly connected and not damaged.
5. Perform a test seal on an empty or water filled tube to ensure proper operation.

Note! The instrument has an automatic auto range sensor, which means that it changes automatically to the correct main voltage 115 or 230 V ~.

Caution! Ensure that all cables are connected before turning the power on.

3. Functional Description


This chapter describes how Qseal-air works, where the connectors and the indications are placed on the unit and their functions.

The indication for use of Qseal-air is a need for seal and separation of tubing or bags in blood component sets during blood and plasma donation or other blood component preparation.

The target population is determined by the intention of the blood components as determined by the trained medical professionals operating the device. The use of Qseal-air does not limit the initial target population or intended use of the blood components.

3.1 Description of Sealing

The tube to be sealed is placed in the slot of the Hand unit, between the electrodes. When the user presses the button marked "SEAL", the sealing procedure will commence automatically.

The  LED on the front of the Main unit lights yellow and the Pressure pump starts. The pressure from the pump is transferred to the Hand unit to compress the tube. When the tube is pressed together, the radio-frequency (RF)-generator starts. The energy is transferred from the sealing electrodes to the tube, which melts to a sterilized welding pattern.

A built-in lamp in the Hand unit lights during the sealing. The intelligent sense control board in the Main unit detects, controls and adjusts the sealing activity which gives the best sealing quality for the type of tubes that are being used.

3.2 Description of Equipment

The Sealer equipment consists of one Main- and one Hand-unit. The Coaxial cable is used to connect both units. Below is a short description of each component.

The **Coaxial cable** is a special shielded coaxial cable, which transfers the RF-energy, the control signal and the air pressure, between the Main- and the Hand-unit.

The **Hand unit** consists of a tube with cable-connection, Air cylinder, Seal button and indication light which shows orange during sealing. In the front of the tube there is a slot where the fast electrode is placed. The electrode is designed to give a reliable seal with a very thin seal pattern in the middle so that it is easy to divide the tube into two pieces.

The **Main unit** consists of the following modules:

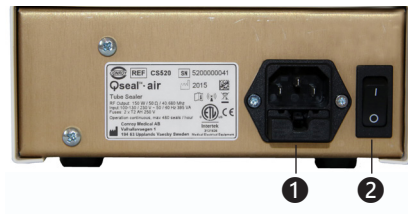
- Power entry module with holder for fuses, mains filter and separate On/Off-switch.
- The Power supply module consists of circuit board with alternating current/direct current converter and protectors.
- The RF-generator module, which generates the energy for the sealing and also includes the control module, which senses the sealing activity and controls the sealing operation.
- The Pressure pump module, which gives necessary pressure for the moving electrode.
- The Solenoid valve module, which controls the flow pressure direction.

Rear view functions of Main unit (see the picture below).

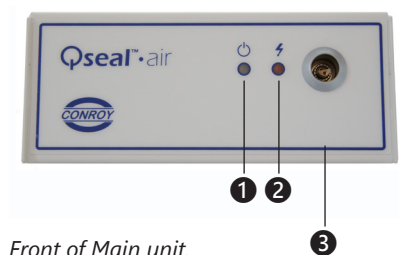
- 1 Power cord receptacle with fuse holder; for connecting the Power cord.
- 2 Power switch; turns the equipment power on and off.

Front view functions of Main unit, with two LED's and one Connector (see the picture below).

- 1 2 coloured LED lights, green when the unit is powered on, and will be flashing red when an error occurs, showing the user that sealing is not possible.
- 2 Yellow "Seal"- LED, lights during sealing when energy is being applied.
- 3 Connector for the special coaxial cable.



Rear of Main unit.



Front of Main unit.


4. Operating Instructions

This chapter describes the use of the instrument.

Warning! RF energy during seal procedure and movement of electrode.

Caution! Inspect all parts of the instrument for defects before use. Check sealing pattern if hand unit is dropped.

4.1 Preparation before Use

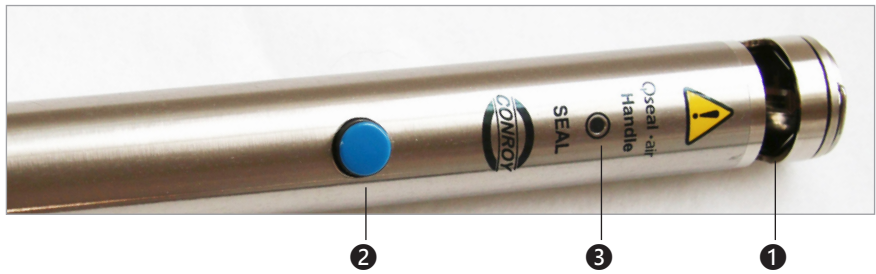
1. Place the instrument on a flat surface near the working place. Ensure that it is placed so the front of the unit is visible during seal procedure. Ensure also that the appliance inlet of the unit is accessible so that the unit can be easily disconnected from the mains supply.
2. Connect the cables according to chapter 2.3 "Installation procedure".
3. Check that the  indicator LED lights up green when the power switch is turned on.

4.2 How to Seal Tubes

Caution! Do not allow hand unit to come in contact with donor.

Note! The tube must be dry on the outside.

1. Put the tube to be sealed down to the bottom of the slot **1** of the Hand unit.
2. Check that the tube is placed between the electrodes in the slot.
3. Push and hold down button **2**, the lamp **3** lights up.
The sealing time is normally 1 to 2 seconds.



Note! 4. When the light is turned off, release the Seal button ②.

5. Lift the sealed tube from the slot ① of the Hand unit.

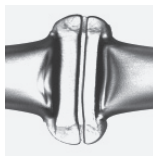
6. The centre of the sealed pattern is very thin and pulling both sides will divide the tube into two pieces.

Note! If the user releases the seal button at any time, the sealing stops and the light turns off. Do not pull the tube during sealing.

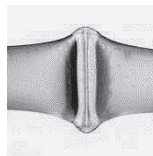
Caution! If you should make two or more seals, they should not be within 1 cm (1/2") of each other, otherwise the resulting pressure in the tube may cause microscopic cracks and holes in the seals.

Caution! In case of sealer malfunction (intermittent operation, poor seal quality, the sealing time seems too long or too short) contact your local Conroy Medical representative for assistance.

Caution! Periodically check the pattern of the sealing visually (see picture below).



Good sealing pattern



Bad sealing pattern

4.3 If the Sealer Doesn't Start

The Sealer has several safety functions. Before sealing, these functions control and identify whether it is possible to seal the tube. The table below covers the common probable causes for problems and suggests some recommended actions.

Probable cause	Recommended action
Wet tube	Dry the tube and try again
Tiny arcs between the electrodes	Dry the electrodes and try again
Wet or dirty electrodes	Clean and dry the electrodes

If the sealer still doesn't start, see chapter 6 for further information.

The Power supply board is specially designed with low switching losses and has protection for over voltage, thermal shutdown, and is also current limiting.

5. Cleaning

This chapter gives information on the cleaning (procedure, frequency) of the Main and Hand units.

The Sealer requires minimal maintenance for efficient operation.

Follow the cleaning procedure below.

Warning! For your own safety always turn off the power switch and disconnect the Power cord.

Warning! Blood and blood products must be treated as potentially infectious at all times. In the event of blood spillages, appropriate protective clothing should be worn during cleanup procedures.

After removing residual biological material, surfaces which have been in contact with blood or components must be disinfected using a chemical agent considered to be "sterilizing" (isopropanol 70%,...). Alternatively, a freshly prepared solution of diluted sodium hypochlorite (household bleach) may be used to disinfect surfaces which will not be harmed by the solution. Diluted solutions of 1 part bleach to 10 parts water may be used.

Regardless of the "sterilant" or disinfection solution used, remember to remove any residue to ensure that surfaces of the equipment are not subject to corrosion or discoloration. Discard all materials in contact with blood according to institutional policies regarding disposal of biohazardous materials.

Caution! Do not disinfect or sterilize any part of the Sealer through autoclave, or with ethylene oxide gas. To do so will render the Sealer unusable and invalidate the warranty.

Do not use chemical or abrasive cleaners such as acetone, ammonia or similar.

Do not use sharp edged tools for cleaning, which could damage the finish of the units.

Caution! Do not allow liquid to flow into the electronic part of the machine.

5.1 Main unit

Cleaning may be required as a result of spilled drops of blood or once per week.

If spillage occurs, the unit must immediately be removed from service and cleaned completely before resuming use.

Use a soft lint-free tissue, moistened with a mild detergent to clean the outside of the Main unit.

5.2 Hand Unit

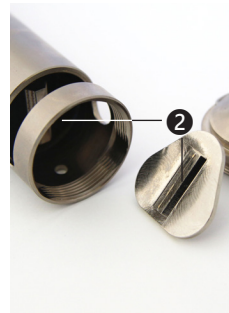
Clean once per week or more frequently, as required, if spillage of blood occurs.

For cleaning the electrodes you should loosen the front side of the handle, by gently turning the holder ring anti-clockwise **1**. Pull out and remove the fast electrode. Clean the tube and both electrodes with a soft lintfree tissue moistened with mild detergent. Dry carefully and ensure that the electrodes are completely dry to prevent sparks. To clean the piston shaft, use a dry cotton swab.



Note! After cleaning inspect the electrode for damage.

Assemble the parts in reverse order. Mount the electrode ensuring that it is positioned so as to be parallel with the moving electrode **2**. Turn the holder-ring fully clockwise and ensure that the cover is well tightened.









Note! We recommend some sealing tests before resuming use, ensure that the electrode moves smoothly in the hand unit.

Caution! Do not dip the units in liquid, as they are not waterproof. Intruding liquid will cause malfunction, tiny arcs and reduce the lifetime use.

6. Troubleshooting

Maintenance performed by the user is limited to changing Main- or hand unit, cable, and fuse replacement. The following information covers common problems and offers suggested solutions.

6.1 Main Unit

Problem	Probable cause	Recommended action
 LED doesn't light up green.	No voltage.	Check power supply.
	Fuse blown.	Check and replace, see Section 6.3 Parts Replacement.
	Other cause.	Contact your local C.M. representative.
 LED lights up green, but when the seal button is pressed the  LED doesn't light.	No connection.	Check coaxial cable connection.
	Hand unit defective.	Change Hand unit.
	Other cause.	Contact your local C.M. representative.
 LED flashes red.  LED does not light or does not light at the same time as the Seal lamp of the Hand Unit.	The Main unit is too hot.	Turn the power switch off and wait about 10 minutes, and then try again. If still flashing, contact your local C.M. representative.
	Main unit defective.	Contact your local C.M. representative.
 LED lights when seal switch is released.	Seal switch is broken.	Contact your local C.M. representative.

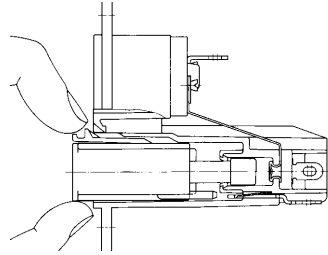
6.2 Hand Unit

Problem	Probable cause	Recommended action
The sealing doesn't start.	Wet or dirty electrodes	Dry/clean the electrodes, see chapter 5.2
	No "click" when you press the SEAL-button	Change Hand unit.
	No connection	Check coaxial cable connections.
	Coaxial cable broken	Change coaxial cable.
	Other cause	Contact your local C.M. representative.
Incomplete sealing	Low air pressure	Check Coaxial cable connection.
	Other cause	Contact your local C.M. representative.
Intermittent sealing	Coaxial cable broken.	Change coaxial cable or contact your local C.M. representative.
Seal lamp lights after seal switch has been released	Seal switch is broken.	Contact your local C.M. representative.
Seal lamp doesn't light	Hand unit inoperative.	Contact your local C.M. representative.
	Coaxial cable broken.	Contact your local C.M. representative.
Seal lamp flickers	Coaxial cable broken.	Change coaxial cable or contact your local C.M. representative.
Seal lamp doesn't light but electrode moves	Main unit inoperative.	Contact your local C.M. representative.

6.3 Parts Replacement

Fuse replacement

- Turn the power switch off and disconnect the power cord.
- The fuse is located in the power cord receptacle.
- Push down the center tap on the fuse holder and pull it out.
- Replace the fuse and assemble the parts in reverse order.



Caution! Only replace fuse with the same type and rating, according to the specification label on the rear of the unit.

Note! Always check why the fuse blows.
Is the Main unit hot or does it smell "burnt"?
If the fuse blows again, send the unit for service.

Power cord replacement

- Turn the power switch off and disconnect the power cord.
- Replace the power cord with the same or an equivalent model (see Section 1.3).

Coaxial cable replacement

1. Turn off the power switch and disconnect the Coaxial cable from the main unit and hand unit.
2. Replace the coaxial cable with the same type or an equivalent model (see chapter 1.3).

7. Warranty and Service

Information on the warranty and the service provided by Conroy Medical is listed below:

7.1 Warranty

Conroy Medical guarantees that the equipment shall be free from defects in material and workmanship when delivered to the original purchaser. Conroy Medical's sole obligation shall be limited to repair or replacement, at Conroy Medical's option and expense, of the defective part or unit for a period of two (2) years following the date of initial delivery to original purchaser.

The warranty extends only to the original purchaser and is not assignable or transferable, and shall not apply to auxiliary equipment, or disposable accessories.

Conroy Medical guarantees that the equipment is fit for the purposes and indications described in the labelling when used in accordance with the directions for use. Unless the equipment is used in accordance with such instructions, this warranty is void and of no effect. No other expressed or implied warranty exists, including any warranty of merchantability or appropriateness for a particular purpose. Conroy Medical's sole obligation and original purchaser's exclusive remedy for breach of warranty shall be limited to repair or replacement at Conroy Medical's option. Conroy Medical shall not be liable for proximate, incidental or consequential damages. Modifications, alterations, recalibrations or abuse, and service by other than a Conroy Medical authorized representative will void the warranty.

7.2 Service

Service under warranty period

While under Conroy Medical warranty, the instrument must not be opened by unauthorized personnel.

Contact your local Sales Office or approved repair vendor for service and repair information for all Qseal-air instruments.

Shipping costs for all units returned to Conroy Medical or Conroy Medical's authorized representative shall be paid by the original purchaser. The unit must be packed in its original box or in another box that will provide adequate protection during shipment. To ensure prompt return, a Conroy Medical representative must be notified before shipping any unit for repair.

When contacting Conroy Medical representative, please be prepared to provide part number and serial number of the unit. A service request number will be issued and should accompany all communications. A brief written description of the problem should be attached to the instrument when it is returned for service.

Conroy Medical will not be responsible for unauthorized returns or for units damaged in shipment due to improper packing.

Service after warranty period

After Conroy Medical warranty period, the Qseal-air will continue to be serviced by Conroy Medical.

If servicing of the device is performed by the original purchaser's technical department, Conroy Medical will make available on request the service manual including non-confidential information (component part lists, descriptions, calibration instructions), periodic preventive maintenance guide, and any other non-confidential information which will assist the user's appropriately qualified technical personnel to repair those parts of equipment which are designated by Conroy Medical as repairable.

Preventive Inspection and Maintenance

At least once a year, the Qseal-air must be fully inspected:

- either by the qualified service organization of the original purchaser,
- or by Conroy Medical or Conroy Medical's authorized representative.

Interchangeable Parts Replacement (Maintenance performed by user)

Maintenance is limited to changing Main or Hand unit, Coaxial cable, power cord and fuse replacement. The information in chapter 6 (Troubleshooting) covers common problems and offers suggested solutions.

7.3 Product Disposal

Product Disposal

For Qseal-air disposal (and accessories) at the end of the calculated life cycle of 7 years, please ensure the following:

- Do not dispose Qseal-air as unsorted municipal waste.
- Collect the Qseal-air separately.
- Use the collection and return systems available to you.

For more information on return, recovery or recycling of Qseal-air, please contact your local Conroy Medical Sales Office.

8. Local Sale Office



EU DECLARATION OF CONFORMITY

Legal Manufacturer:	Conroy Medical AB
Legal Manufacturer Address:	Haesthagsvaegen 14A SE-194 52 Upplands Vaesby Sweden
SRN (Single Registration Number):	SE – MF – 000027430
Basic UDI-DI:	735011599102AD
Name of the Device:	Qseal-air
Product Code:	CS520
Intended purpose:	Intended for sealing tubes and bags in blood component sets.
Classification and Rule:	Class I, according to Rule 1 in Annex VIII of Regulation (EU) 2017/745
Main standard:	IEC 60601-1:2005 + AMD1:2012 + AMD2:2020



We hereby declare that the medical device specified above meet the provision of the Regulation (EU) MDR 2017/745 for medical device and Directive 2011/65/EU (RoHS).

This declaration is supported by the quality system approval to ISO 13485 issued by Intertek IMNB.

This declaration of conformity is issued under the sole responsibility of Conroy Medical AB.

Upplands Vaesby, 2024-10-07

Place and date

A handwritten signature in black ink, appearing to read 'Nicklas Lundman', written over a horizontal line.

Nicklas Lundman, CEO



Operator's Manual
CS520 Tube Sealer with Handle



<https://conroymedical.com>