SSCOR Quickdraw

Model 2403 Series

SSCOR

Clearing The Airway Is Our #1 Priority

Operating Instructions & Maintenance Manual

SSCOR INC.
2125 N. Madera Rd. Unit C
Simi Valley, CA 93065 USA
Tel 1+818-504-4054
www.sscor.com
shop.sscor.com
Email: marketing@sscor.com
techsupport@sscor.com

ISO 13485:2016 CERTIFICATION
Intertek

Caution Notice

1. Federal law restricts this device to the sale, distribution, and use by, or on the order of a physician, emergency medical technician, or other medical practitioner. For use by medical personnel trained in suctioning techniques and in the use of medical suction equipment.
2. SSCOR suction units are not designed or intended for use in extended procedures that require prolonged high vacuum/low airflow applications, as is the case in wound drainage or endoscopic use or in any other procedure that produces high vacuum levels within an occluded system for an extended period of time. Turn the suction unit off when it is not in use.
3. This manual is restricted to the discussion of the use and maintenance of this device. It does not attempt to discuss professional techniques in suctioning procedures.
4. Operator should be thoroughly familiar with these operating instructions before this device is used.
5. Do not use in the presence of flammable agents or anesthetics.
6. Do not use the batteries after the “Use By” date on the battery label.
7. Do not store batteries in the SSCOR Quickdraw Suction device if it is not expected to be used for several months.
8. Keep battery contact surfaces and battery compartment contacts clean by rubbing them with a rough cloth each time you replace batteries.
9. Make sure you insert batteries into your device properly, with the + (plus) and – (minus) terminals aligned correctly. Always install batteries per the labeling on the battery holder.
10. Store batteries in a dry place at normal room temperature. Extreme temperatures reduce battery performance.
11. Any battery may leak harmful chemicals which may damage skin, clothing, or the inside of the battery holder. To avoid risk of injury, do not let any material leaked from a battery come in contact with eyes or skin. If batteries leak, replace the battery holder.
12. Any battery may rupture or explode if put in a fire or otherwise exposed to excessive heat. To avoid risk of injury, do not expose batteries to excessive heat, or moisture.
13. Use only AAA alkaline batteries from a reputable manufacturer.
14. Do not use different brands or chemistries of batteries in the same battery holder.
15. Do not use Lithium batteries in the battery holder.
16. When replacing batteries, always replace the whole set.
17. Batteries will not recharge when installed in the suction device.
18. Follow battery manufacturer’s instructions as to proper handling, storage and disposal of batteries.
19. When using the SSCOR Quickdraw Suction Device, ensure that the canister is in an upright position.
20. This device is not intended for suctioning neonates (newborn child), for Pediatric and Adult use only.
21. Do not use in MRI Environments

All SSCOR suction devices have been 100% tested to meet the specifications cited in this manual.

Table of Contents

General Description

The SSCOR Quickdraw is a non-sterile hand-held 12V DC battery powered portable suction device to be used by professional personnel trained in Emergency Care techniques of constant suctioning to clear the airway by removing bodily fluids and particulate matter. Suction power can be regulated when full power may be considered harmful to the patient. The SSCOR Quickdraw is transportable in a road ambulance, or in a fixed or rotary winged aircraft.

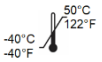
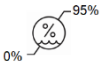
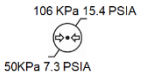
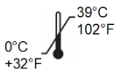
A fully charged alkaline battery will power the unit continuously for 180 minutes (±10%). After running for 180 minutes (±10%) the unit will run at reduced power and the red battery condition LED will light indicating it is time to replace the battery. When the red LED begins to blink, only a few minutes run time remain. Install a new battery in the Quickdraw. The battery is a single use battery and is intended to be discarded once it has been discharged. Dispose of the battery according to local / regional / national requirements for the disposal of electronic waste. Battery condition is automatically monitored and indicated by an indicator light on the side of the chassis.

The 80615 10xAAA Battery Holder with fresh alkaline batteries at full capacity and voltage will power the Model 2403 Series Quickdraw suction device continuously for approximately 60 to 100 minutes depending on the level of battery capacity, battery voltage, and the brand of battery. As the battery capacity begins to decline, the red battery condition LED will light indicating it is time to replace the batteries in the battery holder. When the red LED begins to blink, immediately install fresh batteries into the battery holder.

Warranty

SSCOR warrants that each new product is free from defects in material and workmanship under normal use and service for a period of one year from date of purchase. This warranty gives you specific legal rights and you may also have other rights that vary from jurisdiction to jurisdiction. For countries where minimum warranty terms are determined by statute, the warranty term is the longer of the statutory period or the term listed above. Batteries, disposable items including collection canisters, patient tubing and catheters are excluded from this warranty. See the SSCOR Warranty for terms and conditions, available on www.sscor.com.

Description of Symbols

SYMBOL	LOCATION	MEANING
	Side of chassis	Low Battery
	On/Off Switch	Push On / Push Off
	Single Use Non-Sterile Canister	Direction of flow
	Single Use Non-Sterile Canister	Single Use Only
	Serialized Label	Attention—Consult Accompanying Documents
	Serialized Label	Separate collection for electronic equipment
	Serialized Label	Type BF Equipment
	Shipping Carton	Manufacturer
	Shipping Carton	Date of Manufacture
	Shipping Carton	Transport Storage Range
	Shipping Carton	Humidity
	Shipping Carton	Atmospheric Pressure
	Serialized Label	Operating Temperature Range
IP44	Serialized Label	The degree of protection provided by the chassis according to IP44
	Side of Chassis	Suction

Operating Instructions

Operation of Unit for Portable Use:

Make sure the canister is in the operating position before turning the unit on (2). A fully charged alkaline battery will power the unit continuously for 180 minutes (±10%). After running for 180 minutes (±10%) the unit will run at reduced power and the red battery condition LED (1) will light indicating it is time to replace the battery. When the red LED begins to blink, only a few minutes run time remain. The PC Board will automatically turn the device off when there is not enough power to effectively run the device. Install a new battery in the Quickdraw for continued use. The battery is a single use battery and is intended to be discarded once it has been discharged. Dispose of the battery according to local / regional / national requirements for the disposal of electronic waste. Battery condition is automatically monitored and indicated by an indicator light on the side of the chassis.

The 80615 10xAAA Battery Holder (batteries not supplied) with fresh alkaline batteries at full capacity and voltage will power the Model 2403 Series Quickdraw suction device continuously for approximately 60 to 100 minutes depending on the level of battery capacity, battery voltage, and the brand of battery. As the battery capacity begins to decline, the red battery condition LED will light indicating it is time to replace the batteries in the battery holder. When the red LED begins to blink, immediately install fresh batteries into the battery holder.

Two Position Regulator

If full power (-500+mmHg) is not required, the units low setting (-100 to -80 mmHg) is available by removing the regulator vent cap from the regulator vent (3). Be sure to replace the cap on the vent when full power is required or to dispose of the canister.

Canister Automatic Shut-Off:

When the hydrophobic filter comes into contact with fluids, it will occlude the system and the unit will not suction. When the canister capacity limit of 300cc/ml is exceeded or when a canister containing liquid is held upside down or vertically with the catheter pointed upward, the airflow will be shut off when liquids contact the hydrophobic filter (4).

WARNING: ONCE THE FILTER COMES INTO CONTACT WITH FLUIDS, THE UNIT WILL NOT SUCTION UNTIL A NEW CANISTER IS INSTALLED. CHANGE CANISTER IMMEDIATELY AFTER MOISTURE SHUTS DOWN THE UNIT. Replacement canisters may be purchased at shop.sscor.com.

Operating Instructions Continued

Canister Disposal After Use: The canister is for single use only. Replace the cap to the tip of the catheter (5) while the pump is still running to trap fluids before they spill. Dispose of the canister according to local / regional / national requirements for the disposal of hazardous waste. Install a new non-sterile single use canister on the unit.

Canister Installation and Storage: Slide the canister into the front rails of the chassis until the canister is locked in place:

Storing Canisters on the Chassis for Space Saving Portability:
Reverse the position of the canister and slide the body of the canister into the rails and the catheter tip through the retention ring. Push the canister toward the chassis until the canister latch on top of the unit snaps into the detent on the canister. To release the canister, pull the canister latch up and slide the body of the canister out.
WARNING: Periodic checking or replacement of the alkaline batteries is required. If for any reason poor battery quality is suspected, perform a battery test as described below:

BATTERY TEST: Run the following test whenever poor battery quality is suspected. Turn the Quickdraw on and run the unit for 30 seconds. Observe the battery condition indicator LED (2). If it lights red, it is time to replace the battery (SSCOR part # 80613-100) or install 10 fresh AAA batteries into the SSCOR 80615 10xAAA Battery Holder. Dispose of the battery according to local / regional / national requirements for the disposal of electronic waste.

Environmental Conditions	
Operating Temperature Range:	0 °C (+32 °F) – +40 °C (+104 °F)
Operating Relative Humidity:	0 - 93% (non condensing)
Operating Atmospheric Pressure:	8.9 Psi (62 kPA) – 15.4 Psi (106 kPA)
Operating Altitude:	<2000m
Storage & Transport Temperature:	-40 °C (-40 °F) – +50 °C (+122 °F)
Storage & Transport Relative Humidity:	0 - 95% (non condensing)
Storage & Transport Atmospheric Pressure:	7.3 Psi (50 kPA) – 15.4 Psi (106 kPA)
Transient Operating Temperature Range:	-20 °C (-4 °F) – +50 °C (+122 °F)
Transient Humidity Range:	15% - 93% (non condensing)
Time to warm from minimum storage temperature to operating temperature: 30 minutes	
Time to cool from maximum storage temperature to operating temperature: 30 minutes	

General Specifications

CHARACTERISTICS	SPECIFICATIONS
Size	12-1/2"L x 4"H x 4"W (32cm L x 11cm H x 11cm W)
Weight	2.6 lbs (1.18 kg)
Vacuum Pump	12V DC, 0.7 A. Exceeds 500mmHg. Lower levels of negative pressure will be observed at altitude.
Regulator	Reduces vacuum from -500+mmHg (High Vacuum / Low Flow) to approximately -85mmHg (Low Vacuum / Low Flow). Typically -70mmHg to -100mmHg but the range can be larger due to conditions such as variances in battery charge and condition.
Battery	Alkaline battery replacement part #80613-100 10xAAA SSCOR Battery Holder part # 80615-100 (Batteries not supplied). FOR USE WITH THE MODEL 2403 SERIES ONLY. Please read page 6 for battery care suggestions
Collection Canister (13)	300cc/ml capacity. Non Sterile, Single Use Model 2480: Standard replacement Quickdraw canister (shown on page 6) Model 2488: Barbed Quickdraw canister (shown on front cover)
Patient tubing (Type BF Applied Part)	Patient Connecting tubing 9/32"ID x 36"L (7.1mm ID x 91.44 cm L) SSCOR part #43203
SSCOR Suction Catheter (Type BF Applied Part)	SSCOR SDC Catheter SSCOR part # 200-00002 Or SSCOR HI-D Catheter SSCOR part # 44241

Trouble Shooting

For replacement parts and accessories, please visit shop.sscor.com

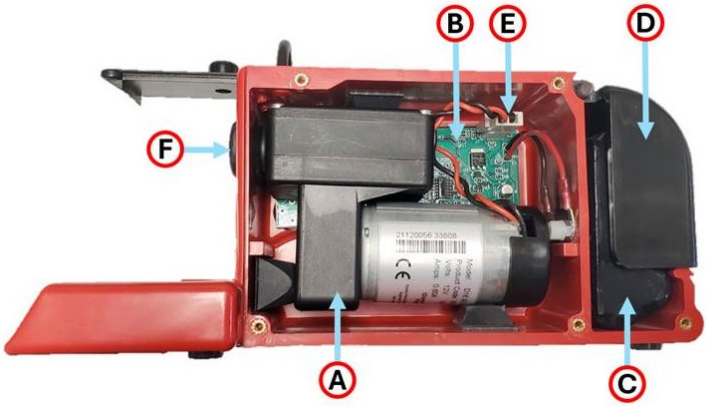
PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Does not function when switch is turned on (DC Power)	Battery discharged Molex connections disconnected Damaged PC Board	Install a new battery Open unit and re-connect Molex connections Replace PC Board
Battery Condition indicator lights not lit	Damaged PC Board	Replace PC Board
No suction when pump is running	Canister not secure to chassis Regulator vent is open Tip cover is on the catheter Fluids have shut down the filter in the canister	Latch canister to chassis Replace cap on vent Remove tip cover from catheter Replace canister

Patient Tubing Slips off Catheter or Canister	Tubing not secured to the catheter or canister	Ensure that patient tubing is secured to the catheter and canister

Internal Access

WARNING DO NOT ATTEMPT TO SERVICE THIS EQUIPMENT IF YOU ARE NOT A BIOMEDICAL TECHNICIAN. NO MODIFICATION OF THE EQUIPMENT IS ALLOWED. UNAUTHORIZED SERVICE ATTEMPTS, OPENING OR TAMPERING WITH THE COMPONENTS OF THE SSCOR QUICKDRAW CAN DAMAGE OR DISABLE THE DEVICE, AND WILL VOID THE WARRANTY.

Remove the five 4-40 screws using a Phillips head screwdriver and lift off the chassis



(A) Vacuum Pump: Do not attempt to service
(B) PC Board (behind the pump) – Electrical Circuits; Do not attempt to service.
(C) Battery - 12V DC nominal voltage
(D) Battery door
(E) Pump connection to PC Board
(F) Vacuum Barb and O-Ring

To Replace Battery:

1. Open battery door and remove the depleted battery
2. Install a new battery as shown.
3. Make sure the contacts on the battery mate to the terminals on the chassis.
4. Close the battery door and turn the unit on to verify performance.

Maintenance

Observe the following maintenance routine to ensure readiness at any time:
1. Test the SSCOR aspirator at regular intervals; See page 6.
2. Make sure the SSCOR aspirator is always clean and ready for use.
Note: No part requires lubrication and lubricants should not be used.

Sanitation: As soon as possible after use, the single use disposable canister, patient tubing and catheter should be discarded according to local / regional / national requirements for the disposal of hazardous waste materials. Clean using a mild detergent and if necessary, disinfect with a mild disinfectant such as 10 to 1 bleach and rinse using clear water to remove any residue. NOTE: The hydrophobic filter in the canister helps to ensure that no moisture or particulate matter reaches the inside of the device. In the unlikely event that bodily fluids reach the pump mechanism, the device must be disposed of in the biohazardous waste. Do not reuse any single use disposable parts; do not submerge the device into any liquid, this will void the warranty and cause the device to malfunction.

Disinfection: Use personal protective equipment such as gloves, a smock, and face and eye protection when handling units that are suspected to be contaminated.

Caution: Disconnect the unit from any power source prior to cleaning the unit. When cleaning the interior of the chassis, disconnect the battery from the PC Board to prevent damaging the PC Board.

Part	Cleaning and Disinfecting
Collection Canister	Disposable item, re-use not permitted. Use new canister for each patient.
Patient Tubing	Disposable item, re-use not permitted. Use new patient tubing for each patient.
SSCOR Suction Catheter	Disposable item, re-use not permitted. Use new SSCOR Suction Catheter for each patient.
Vacuum Pump	Wipe with damp cloth or disinfectant wipe. Sterilization not permitted. Vacuum pump should be replaced if contaminated
PC Board	Sterilization not permitted. PC Board should be replaced if contaminated
Plastic Chassis	Wipe with damp cloth or disinfectant wipe. Sterilization not permitted.

Disinfect the unit using a mild surface disinfectant, such as a 10:1 mixture of water and bleach. The unit is designed to suction contaminated fluids, which should be removed from the system immediately after use. In the unlikely event that fluids may have reached the vacuum pump, your engineering department will have to open the unit to check the condition of the pump. When cleaning the interior of the chassis, disconnect the battery from the PC Board to prevent damaging the PC Board. The only foreseeable way fluids may reach the vacuum pump is that the filter in the canister has been compromised or bypassed. If the PC Board appears defective, return the unit to the factory for repair. Do not attempt to repair the PC Board. If the vacuum pump appears defective, return the unit to the factory for repair. Do not attempt to repair the vacuum pump. For technical assistance, +1 (818) 504-4054. For replacement parts and accessories, please visit shop.sscor.com.

WARNING: To avoid any contaminants reaching the interior of the device, always remove the canister per the instructions in the sanitation section. Only use SSCOR, Inc. canisters affixed with hydrophobic filters.