

USER'S MANUAL

GENERAL ASPIRATOR

20-5000-00 (110V)

20-5001-00 (220V)



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WELLS
JOHNSON

GENERAL DESCRIPTION

The General Aspirator is a high-powered suction system which uses one oil-less piston vacuum pump that is designed to pull a vacuum on any closed container or any open process system.

When the system is connected, the air flow will come from the tip of the cannula (or any other instrument) and follow through the tubing, the collection canister/liner, overflow trap, filter, and finally the pumps. Once product is applied to the end of the cannula, the vacuum pumps will evacuate the air from the lines, creating a vacuum pulling product in the same direction as was the air flow. Product reaching the collection canister/liner starts to collect and normal suction continues until the cannula is exposed to air again.

Vacuum and Volume controls are marked on the aspirator, and can be adjusted by turning the corresponding knobs.

SPECIFICATIONS

Item number	20-5000-00 (110V) 20-5001-00 (220V)
Weight	36 lbs.
Dimensions	14.5"H x 9"D x 15"W
Configuration	Mobile
Vacuum Range	0-29+ inches Hg/0-737 mm Hg
Flow Rate	2.0 cubic feet per minute/56.64 l/min
Gauge Unit	Inches Hg/kilopascals
Regulating Valve	Yes
Overflow protection	auto cutoff and in-line filter
Sound level	48+/- 3db @ 6 ft.
Pump Type	Piston
Number of pumps	1
Horsepower	1/3 hp
Housing Construction	Satin-Buffered, Clear Anodized Aluminum

CHECK LIST

Carefully unpack the General Aspirator. Check that the following accessories are included in the package and were received in good condition.

- General Aspirator
- Collection Canister (Baxter™, Sorenson™, or Quick Fit™)
- Canister Holder
- Disposable, Single-Use Canister Liners- specific to Canister (10 each)
- Power Cord
- Disposable, Sterile, Single-Use Suction Tubing (10 each)
- Foot Switch
- Bacterial Filters (2 each)
- Overflow Trap Assembly
- User's Manual

Note: You will receive either 1 or 2 canisters, depending on which collection system you ordered.

Baxter™ System.....1 Canister

Sorenson™ System2 Canisters

Quick Fit™ System.....1 Canister

Call Customer Service Immediately to report any damaged or missing items: 800-528-1597

COMPONENT DESCRIPTION

Circuit Breaker:

To protect the equipment and reduce shock hazard, a re-settable circuit breaker is installed in each aspirator. If there is a voltage surge or the pump motor overheats, the circuit breaker will pop out. To reset, turn the unit off, push the button back in and turn the unit back on.

If the unit fails to start, it may require a cool-down period or technical repairs.

Warning: Do not let technicians by-pass the circuit breaker.

Footswitch:

The General Aspirator **REQUIRES** the use of the footswitch for operation. The footswitch plugs into the back of the unit and allows for the unit to be powered ON or powered OFF during use.

Control Valves:

1. Vacuum Control

Operate Vacuum Control by turning pointer between **High** and **Low** by turning the knob counter-clockwise. The vacuum gauge on the panel will indicate a pressure change.

****Note: The General Aspirator system has been calibrated at 2,500 feet above sea level to 26+ in. Hg. For each additional increase of 1,000', the vacuum should drop by 1" Hg. And conversely, for each additional decrease of 1,000', the vacuum should increase 1"Hg.****

2. Volume Control

Operate the Volume Control knob by rotating the pointer clockwise from HIGH to LOW. The result will be a decrease in the volume of airflow. This is only noticeable during use.

****Note: Do not position both the Vacuum and Volume Control valves in the LOW position at the same time, as there will be no noticeable suction.****

3. Overflow Trap

The Overflow Trap is designed to catch aspirated material which has by-passed, or overflowed, from the main collection canister. The fluid entering the trap will cause the ball inside the plastic jar to float up into the bell shaped tube, which will cause the vacuum to stop.

****Note: The plastic ball acts as a safety mechanism only. There is NO GUARANTEE that the ball will completely stop the power of the unit.****

If there is a problem with the overflow, please check the following:

1. The liner may be collapsing, causing material to overflow into the trap.
2. The collection system may be full.
3. The collection system may not be set up properly.

NO ASPIRATED MATERIAL SHOULD BE ENTERING THE OVERFLOW TRAP AT ANYTIME.

Read the trouble shooting section of this material for instructions to correct an overflow situation.

SAFETY INFORMATION

Precautions:

- Read all instructions carefully before operating equipment.
- Motors are thermally protected and will automatically restart when protector resets
- Current leakage tests are performed and are certified within the AAMI maximum 300uA limit for medical devices

Cautions:

- Avoid ingesting aspirated material into the pumps. Severe damage can occur to the pumping system upon contact with aspirated material.
- Federal Law restricts this device to sale by or on the order of a physician

Warnings:

- Always disconnect the power supply to the General Aspirator before servicing.
- Safety checks should be scheduled according to purchaser's policies.
- Additional warnings and power requirements, which are part of the labeling, are located on the side of the unit.

SET-UP PROCEDURE

1. Carefully remove the General Aspirator from shipping carton. Be sure to save the box and packing material for convenient maintenance return if necessary.
2. Read all instruction carefully before operating unit.
3. After you have removed the General Aspirator, open the accessory box and locate the power cord and footswitch. Plug the male end of the footswitch cord into the flush mounted receptacle on the back of the unit and twist into place. **A footswitch is required to power the unit.** Then, plug the power cord into the receptacle on the back of the unit and to an appropriate power source.
4. Turn the Power Switch ON and activate the footswitch by pressing it down. Once pressed, it will remain on until pressed again.
5. To test the unit, place a finger over the main suction hose coming directly out of the top of the unit. Note the reading of the vacuum gauge. Keep in mind that vacuum changes according to elevation. After checking the vacuum, turn the unit off.
6. Place the Overflow Trap between the 4 small metal pegs on the control panel of the unit. The arrow on the top of the overflow trap should point toward the vacuum gauge (right side of unit).
7. Connect the HEPA Filter to one end of the Overflow Trap using the 6" silicon tube. Connect the other end of the HEPA Filter to the main suction hose coming from the machine.
Note: Change the HEPA Filter after 10 procedures or every 24hrs of use.
8. Locate the Collection System. Determine if the system is a Baxter™, Sorenson™ or Quick Fit™ canister system, then read the applicable instructions included in this manual to set up the collection system.

Set up the collection system as described.

At this point, the following accessories should already be connected:

- Power cord and foot switch
- Vacuum gauge – to quick connect
- Bacterial filter – connected to the main suction hose and the 6" silicone tubing which is connected to the overflow trap
- Canister – placed in the canister holder with liner intact

The unit is now ready for operation.

BAXTER™ CANISTER SYSTEM SET-UP & OPERATION

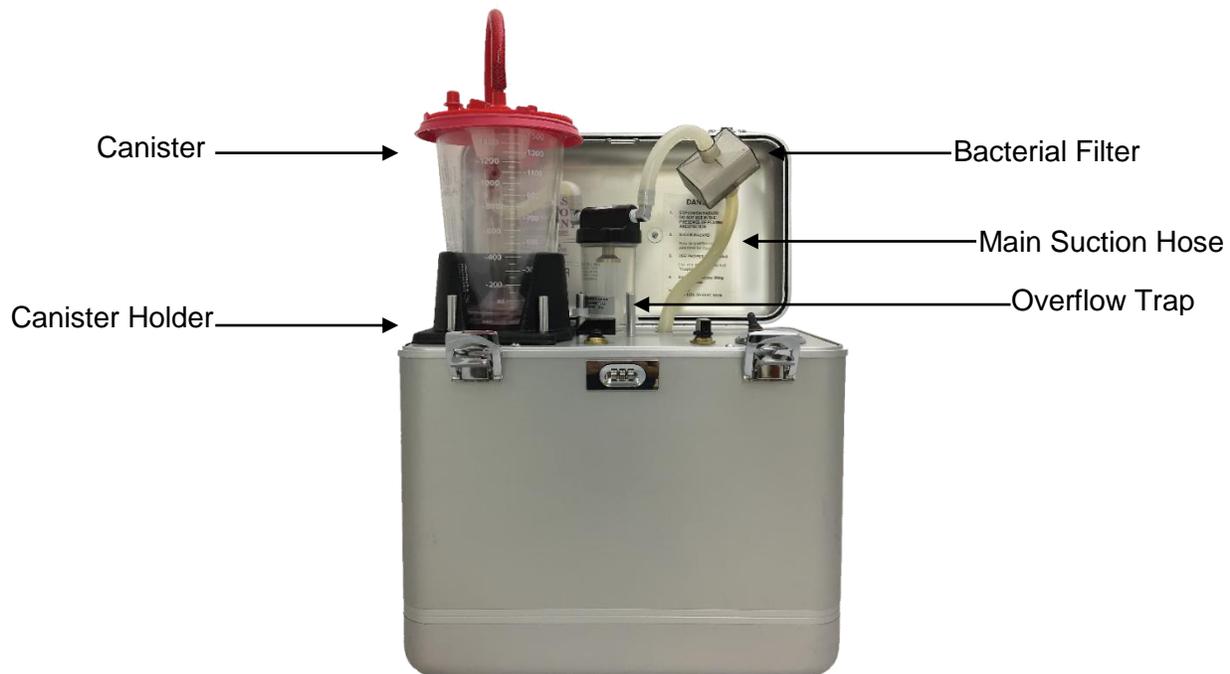
1. Place canister inside black canister holder on top of the unit.
2. Snap the red liner lid onto the liner. Then insert into the hard canister.
Warning: Baxter™ liners and lids are single-use and not intended to be re-used under any circumstances to prevent cross-contamination
3. Plug the red hose coming from canister into the top port of the liner lid marked **Vacuum**.
4. Attach the 9" piece of silicone tubing from the overflow trap to the red spout on the back side of the canister. This spout is point downward.
5. Connect the sterile aspiration tubing to either the ORTHO port or PATIENT port located on the liner lid. The ORTHO port is larger in diameter to facilitate larger tubing diameters while the PATIENT port is smaller to facilitate smaller tubing diameter options.
Warning: Aspiration tubing is sterile, single-use and not intended to be re-used/sterilized under any circumstances to prevent cross-contamination
6. Make sure that all unused ports on the liner lid are capped with the provided caps.

THE CANISTER SYSTEM IS NOW READY FOR OPERATION.

Caution: Aspirated material should not enter the overflow trap at any time.

If an overflow situation occurs, perform the following:

1. Turn OFF power immediately
2. Check the connection between accessories to make the unit was set-up correctly.
3. Check for a crack in the canister.
4. Check the vacuum and volume settings (should be on high)



Baxter™

A collapsing liner bag or Aspirated material going into the overflow trap does not mean that something is wrong with the unit.

An overflow situation indicates there is an interference with the liner bag vacuum.

SORENSEN™ CANISTER SYSTEM SET-UP & OPERATION

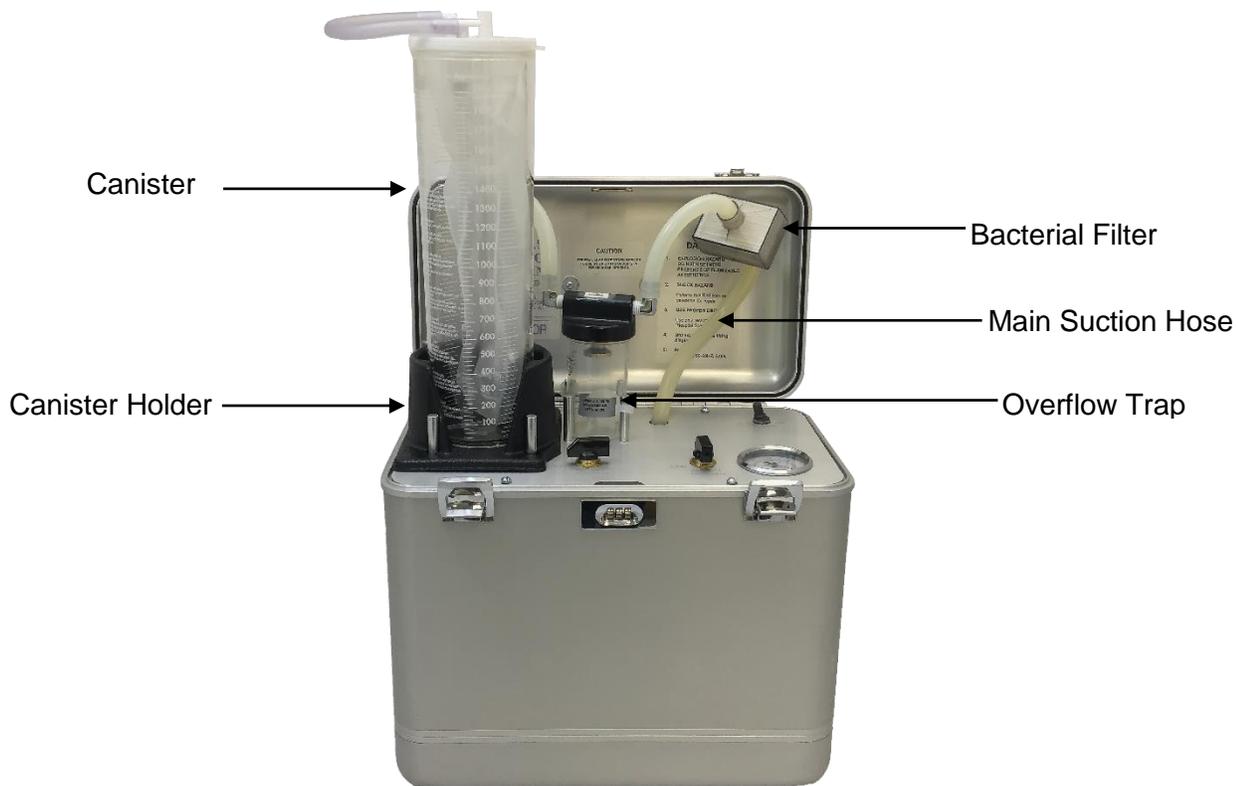
1. Place canister inside black canister holder on top of unit
2. Insert a Sorenson™ liner into the canister and press down to secure.
Warning: Sorenson™ liners are single-use and not intended to be re-used under any circumstances to prevent cross-contamination
3. Connect the hose coming from the liner lid to the upward pointing spout on back of canister.
4. Connect the 12" piece of silicone tubing coming from the overflow trap to the downward facing spout on back of canister.
5. Connect the sterile aspiration tubing the **Patient** port on the canister lid.
Warning: Aspiration tubing is sterile, single-use and not intended to be re-used/sterilized under any circumstances

THE CANISTER SYSTEM IS NOW READY FOR OPERATION.

Caution: Aspirated material should not enter the overflow trap at any time.

If an overflow situation occurs, perform the following:

1. Turn OFF power immediately
2. Check the connections between accessories to make sure the unit was set-up correctly.
3. Check for a crack in the canister.
4. Check the vacuum and volume settings (should be on high).



Sorenson™

A collapsing liner bag or Aspirated material going into the overflow trap does not mean that something is wrong with the unit.

An overflow situation indicates there is an interference with the liner bag vacuum.

QUICK-FIT™ CANISTER SYSTEM SET-UP & OPERATION

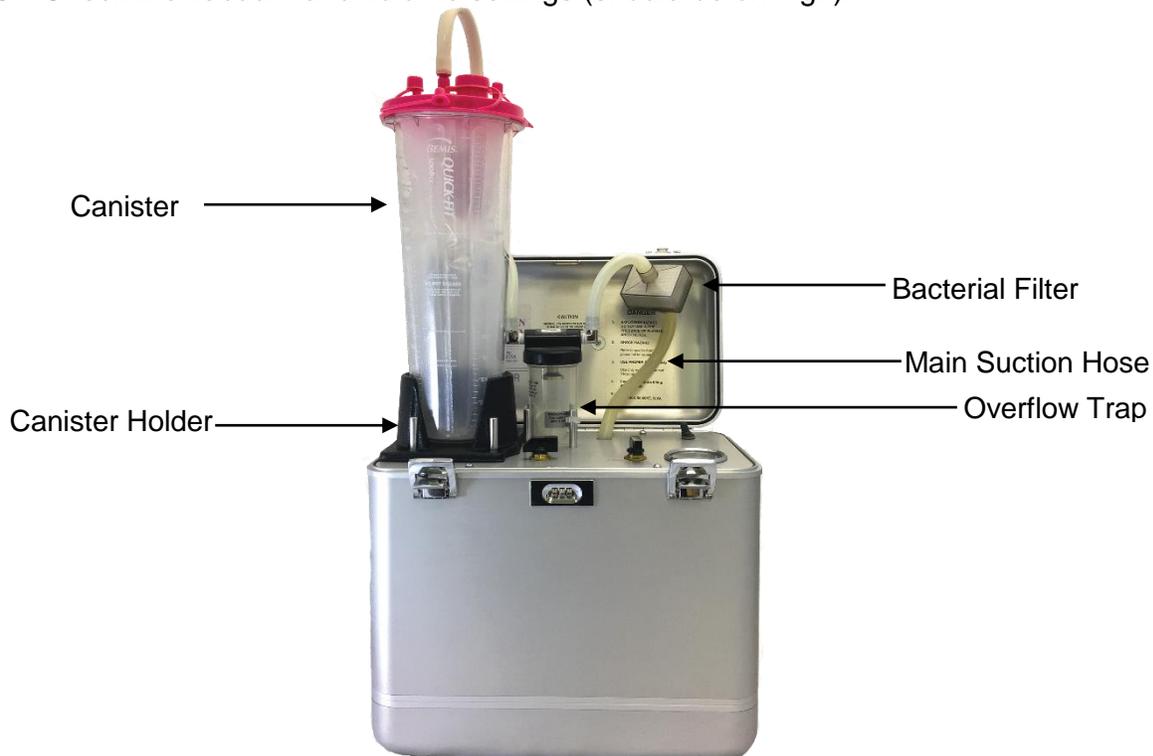
1. Place canister inside black canister holder on top of unit.
2. Insert a Quick-Fit™ Liner into the canister and press down to secure.
Warning: Quick-Fit™ liners are single-use and not intended to be re-used under circumstances to prevent cross-contamination.
3. Connect the hose coming from the bracket on the back side of the canister to the elevated port on the lid.
4. Connect the 12" piece of silicone tubing from the overflow trap to the spout located on the underside of the bracket on the back of the canister.
5. Connect the sterile aspiration tubing to either the TANDEM port or PATIENT port located on the liner lid. The PATIENT port is larger in diameter to facilitate larger tubing diameters while the TANDEM port is smaller to facilitate smaller tubing diameter options.
Warning: Aspiration tubing is sterile, single-use and not intended to be re-used/sterilized under any circumstances to prevent cross-contamination

THE CANISTER SYSTEM IS NOW READY FOR OPERATION.

Caution: Aspirated material should not enter the overflow trap at any time.

If an overflow situation occurs, perform the following:

5. Turn OFF power immediately
6. Check the connections between accessories to make sure the unit was set-up correctly.
7. Check for a crack in the canister.
8. Check the vacuum and volume settings (should be on high).



Quick Fit™

A collapsing liner bag or Aspirated material going into the overflow trap does not mean that something is wrong with the unit.

An overflow situation indicates there is an interference with the liner bag vacuum.

MAINTENANCE

- All Aspirators are thoroughly checked by the Quality Assurance Department before being released for shipping. Inspect the unit upon receipt to insure the equipment was not damaged during shipping. The vacuum power should also be checked.
- Do not lubricate pumps. The oil-less components are sealed and packed with optimum level of lubricant, requiring no lubrication.
- Do not let liquid or aspirated material enter the pumping system.
- The muffler (Part No. 16-5073) should be changed after approximately 80 hours of operation, or whenever the white filter inside the muffler becomes dark brown.
- No scheduled maintenance is recommended. Follow the procedures established by your engineering department.
- Warnings are part of the labeling and are indicated on the General Aspirator. The serial number is stamped on a small metal tag, located on the back of the Aspirator. Record the serial number.
- In-services on new equipment can be provided by telephone with either your sales representative, or our technical support staff. If additional information is needed, call Customer Service or Technical Support at 800-528-1597.
- Change HEPA Filter after 10 procedures or 24hours of use.

PARTS LIST

<u>ITEM</u>	<u>PART NO.</u>
General Aspirator (110V)	20-5000-00
General Aspirator (220V)	20-5001-00
Power Cord (AC 110V)	20-5100-00
Power Cord (AC 220V)	20-5101-00
Vacuum Pump (1/3hp, piston, hi-flo, 1 each)	18-5057-01
Internal Tubing Kit	17-5003-00
Mufflers (1 each)	16-5073-00
Footswitch (Single)	20-5102-00
HEPA Filters (case of 10)	20-5201-00
Overflow Trap Complete Assembly	17-5100-00
Overflow Trap 6" Silicone Tubing	17-5101-00
Overflow Trap 9" Silicone Tubing	17-5106-00
Overflow Trap Ball	16-5107-00
Baxter™ Holder	20-5159-01
Baxter™ Canister 1500cc	20-5153-00
Baxter™ Disposable, Single-Use Liners 1500cc	20-5154-00
Standard Tubing, 9ft., sterile, single-use	24-5103-00
Flex B Tubing, 12ft., sterile, single-use	24-5102-02
Sorenson™ Holder	20-5159-00
Sorenson™ Canister 1900cc	20-5157-00
Sorenson™ Disposable, Single-Use Liners 1900cc	20-5158-00
MB Tubing, 9ft., sterile, single-use	24-5104-00
Flex A Tubing, 12 ft., sterile, single-use	24-5102-01
Quickfit™ Holder	20-5159-03
Quickfit™ Canister 3000cc	20-5156-00
Quickfit™ Disposable, Single-Use Liners 3000cc	20-5155-00
MB Ultra Limp, 9 ft., sterile, single-use	24-5104-00
Flex A Tubing, 12ft., sterile, single-use	24-5102-01

TROUBLESHOOTING

No Suction

1. Turn vacuum and volume control knobs to High. If one or both knobs are on Low, there will be no noticeable suction.
2. Check for a collapsing liner.
3. Remove bacterial filter and place a finger over the main suction hose. If there is no suction, turn the unit off, remove finger from hose, wait a moment, then turn the unit on again.

Note: Before starting any suction procedure, let the unit go to full vacuum when switched on. During operation, if the unit is momentarily turned off, let the vacuum gauge indicator return to “0” before restarting the machine. All the air must clear from the vacuum lines before all the pumps will start again. Failure to follow this procedure can result in the loss of vacuum.

Overflow Situation

1. Monitor the collection system for fluid level. Do not overflow.
2. A collapsing liner can cause the aspirated material to overflow into the overflow trap.
3. Check for a crack in the canister. This can cause the liner to collapse, resulting in an overflow situation. A collapsing liner bag does not mean that there is something wrong with the unit.

****Note: With proper operation and monitoring, at no time during any procedure, should an overflow situation occur.****

Broken Canister

1. Do not use a damaged canister. A damaged canister will cause the liner bag to collapse, causing the aspirated material to overflow into the overflow trap.

WARNING

Ingesting aspirated material into the pumping system can severely damage the pumps and void the warranty. If material is going into the overflow trap, check the collection system immediately to see if the liner bag is collapsing or is too full. If further assistance is needed, call technical support at 800-528-1597.

Refer to the collection system section and instructions for proper set up.

WARRANTY

- One (1) year on parts and labor from the date of shipment.
- Unauthorized handling of the General Aspirator will void warranty of the unit.
- Any aspirated material found to have been ingested into the pumping system will void the warranty.
- Retain the custom-made packing box with foam for returns.
- All returns require prior authorization from the Wells Johnson Quality Assurance Department.
- For questions about the warranty, call the Quality Assurance Dept: 800-528-1597

**For technical assistance call
Customer Service or Technical Support:**

520-298-6069

800-528-1597

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