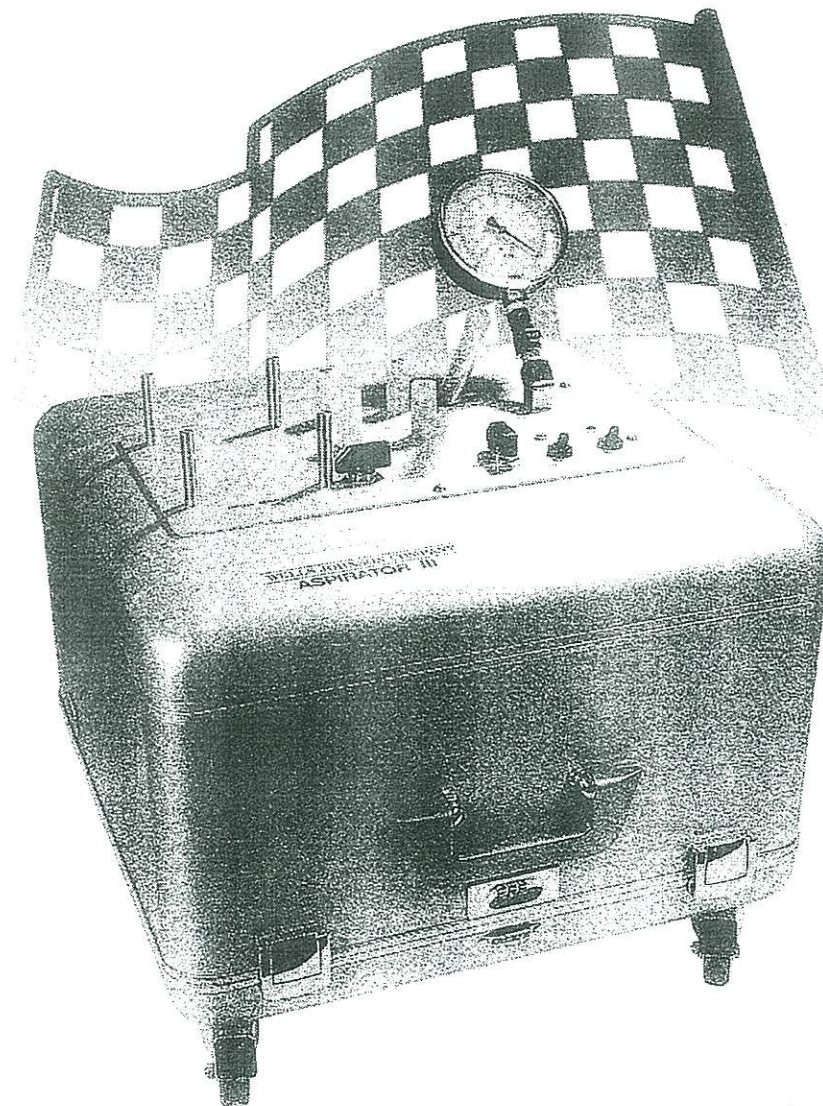


# Aspirator III

20-5008-00 (110V)  
20-5009-00 (220V)

USER'S MANUAL



WELLS JOHNSON 

## TABLE OF CONTENTS

General Description	1
Checklist	2
Component Description	3
Vacuum Pumps	3
Circuit Breaker	3
Control Valves	4
Foot Switch	4
Overflow Trap	5
Safety Information	6
Set-up and Operation	7
Trouble Shooting	8
Baxter™ Canister System	9
Sorenson™ Canister System	10
Maintenance	11
Parts List	12

### WARRANTY

- One (5) year on parts and labor from the date of shipment.
- Unauthorized handling of the Aspirator III 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 Department: 800-528-1597.

For technical assistance call

Customer Service or Technical Support:

800-528-1597

**WELLS**

JOHNSON  
COMPANY

8000 S. KOLB RD. • TUCSON, AZ 85706

## GENERAL DESCRIPTION

The Aspirator III is a high-powered suction system with three (3) oil-less piston vacuum pumps. The system is designed to pull a vacuum on any closed container or any open process system. Vacuum is accomplished by mounting the vacuum pumps in series.

When the system is connected, the air flow will be from the tip of the cannula through the tubing, collection system, overflow trap, bacterial filter and finally to the pumps. Once material is applied to the end of the cannula, the vacuum pumps evacuate the air from the lines, creating a vacuum pulling aspirated material in the same direction as the air flow. Aspirated material continues to the collection system under normal suction until the cannula is exposed to air again.

## SPECIFICATIONS

Item number	20-5008-00 (110V) 20-5009-00 (220V)
Weight	73 lbs.
Dimensions	17-1/2" x 18-1/2" x 18-3/4"
Maximum vacuum	29+ inches of Hg
Maximum flow rate	8.5 cubic feet per minute
Sound level	54+- 3db
Pump type	2 cylinder piston
Number of pumps	3
Horsepower	1 hp

## CHECKLIST

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

- Aspirator III
- Canister Holder
- Vacuum Gauge
- Power Cord
- Foot Switch
- 1-box Sterile, Disposable Tubing (10 per box)
- 2-Bacterial Filters
- 1-Overflow Trap with one 9" and one 6" silicone tube
- 1-box of Disposable Canister Liners (10 per box)
- User's Manual

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

**Baxter™ System ..... 1 Canister**  
**Sorenson™ System .... 2 Canisters**

**Call Customer Service immediately  
to report any damaged or missing items:**

**800-528-1597**



## COMPONENT DESCRIPTION

### Vacuum Pumps

The Aspirator III uses three (3) 1/3 hp piston pumps

- Oil-less, non-lubricated piston and cylinder
- Permanently lubricated ball bearings
- Stainless steel valves
- Light weight aluminum components
- Long-life, high performance piston seals
- Twin fan cooling system
- UL recognized motors
- Thermal protected
- Balanced for low vibration operation
- Capacitor

### Circuit Breaker

To protect the equipment and reduce shock hazard, a resettable circuit breaker is installed on the **right side**, near the power cord outlet. If there is a voltage surge or the pump motor overheats, the circuit breaker will pop out. To reset, turn the Aspirator III off, push in the circuit breaker button, and turn the Aspirator III on. ~~If the unit fails to start~~, the Aspirator III may require a cool-down period or technical repairs.

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

### Control Valves

#### Vacuum Control

Operate Vacuum Control by turning pointer between High and Low (pressure is reduced). The vacuum gauge on the panel will indicate a pressure change.

**Note:** The Aspirator III 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.

#### Volume Control

Operate the Volume Control by turning pointer between High and Low (reducing the amount or volume of flow). Air flow is decreased.

**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.

### Foot Switch

The Aspirator III can be operated with or without a foot switch.

#### ◦ OPERATION WITH FOOT SWITCH

Plug the foot switch cord into the unit. Turn the Foot Switch and Power switches to the On position. Press the pedal and the Aspirator III will start. Press the pedal again to stop the power of the unit.

#### ◦ OPERATION WITHOUT FOOT SWITCH

Turn the Power toggle switch to the On position, leaving the toggle for the Foot Switch Off.

**Note:** The Power switch must be in the On position before the unit will start.

## 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 safely 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 ANY TIME.**

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

## SAFETY INFORMATION

- Read all instructions carefully before operating equipment.
- Avoid ingesting aspirated material into the pumps. Severe damage can occur to the pumping system upon contact with aspirated material.
- Always disconnect the power supply to the Aspirator III before servicing.
- 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.
- 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 right side of the Aspirator III.
- **Caution: Federal law restricts this device to sale by or on the order of a physician.**



## SET-UP AND OPERATION

1. Carefully remove the Aspirator III from the shipping carton. Be sure to save the box and packing material for convenient maintenance returns.
2. Read all instructions carefully before operating the unit.
3. After you have removed the Aspirator III, open the accessory box and locate the power cord and foot switch. Plug the foot switch into the Aspirator III. Plug the power cord into the Aspirator III, then into the power outlet.
4. Locate the vacuum gauge and connect the item to the quick-connect lock on top of the Aspirator III.
5. Turn the Power switch and the Foot Switch ON.
6. To test the unit, place a finger over the main suction hose coming directly out of the top of the Aspirator III. Note the reading of the vacuum gauge. Keep in mind that vacuum changes according to elevation. After checking the vacuum, turn the Aspirator III off.

### NEXT:

7. Place the Overflow Trap between the 4 small metal pegs on the top panel of the Aspirator III. The arrow on the top of the overflow trap should point toward the vacuum gauge.

8. Connect the Bacterial Filter to one end of the Overflow Trap using the 6" silicone tube. Connect the other end of the Bacterial Filter to the main suction hose.

**Note: The Bacterial Filter is bi-directional, therefore the item can be placed in line either way.**

9. Locate the Collection System. Determine if the system is a Baxter™ or Sorenson™ canister system, then read the applicable instructions included in this manual to set up the collection system.

### NEXT:

**Set up the collection system as described.**

At this point, the following accessories should now 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.**

## TROUBLE SHOOTING

### 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 Aspirator III go to full vacuum when switched on. During operation, if the Aspirator III 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 Aspirator III.

**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.



## BAXTER™ CANISTER SYSTEM SET-UP & OPERATION

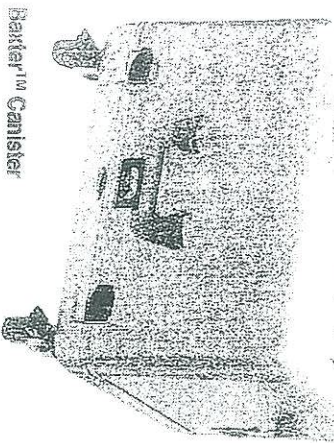
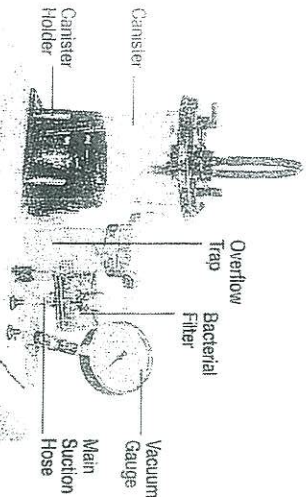
1. Place canister on top panel of Aspirator III.
2. Snap the red liner lid onto a soft-shell liner. Insert liner inside the hard-shell canister.
3. Plug the red hose on the canister into the top of the liner lid on the port marked Vacuum.
4. Attach the 9" piece of silicone tubing from the overflow trap to the red spout on the side of the canister.
5. The sterile aspiration tubing will connect to the port labeled: Patient.

THE CANISTER SYSTEM IS NOW READY FOR OPERATION.

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

If an overflow situation occurs, please do the following:

1. Turn off the 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).



Baxter™ Canister

A collapsing liner bag or aspirated material going into the overflow trap does not mean that something is wrong with the Aspirator III. An overflow situation indicates there is an interference with the liner bag vacuum.

## SORENSEN™ CANISTER SYSTEM SET-UP & OPERATION

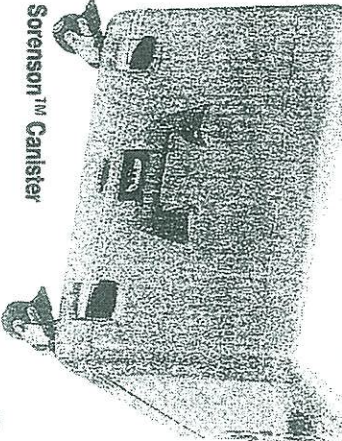
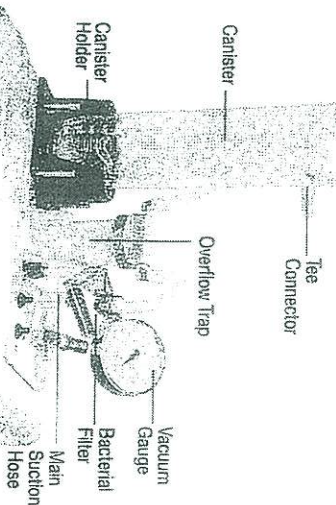
1. Place canister on top panel of the Aspirator III inside canister holder between 4 large metal prongs.
2. Insert a Sorenson™ liner into the canister and secure the lid.
3. Connect the piece of tubing that is connected to the liner lid to one end of the Tee connector.
4. Connect the 9" piece of silicone tubing from the overflow trap to the other end of the Tee connector.
5. The sterile aspiration tubing will connect to the liner lid on the port labeled: Patient.

THE CANISTER SYSTEM IS NOW READY FOR OPERATION.

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

If an overflow situation occurs, please do the following:

1. Turn off the 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™ Canister

A collapsing liner bag or aspirated material going into the overflow trap does not mean that something is wrong with the Aspirator III. 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 mufflers (Part No. 16-5073) should be changed after approximately 80 hours of operation, or whenever the white filter inside the muffler becomes black.
- No scheduled maintenance is recommended. Follow the procedures established by your engineering department.
- Warnings are part of the labeling and are indicated on the Aspirator III. The serial number is stamped on a small metal tag, located on the left side of the Aspirator III. Record the serial number.
- Inservices 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.

## PARTS LIST

ITEM	PART NO.
Aspirator III (110V)	20-5008
Aspirator III (220V)	20-5009
Power Cord	18-5100
Foot Switch (single)	18-5102
Vacuum Gauge	17-5010
Bacterial Filter (case of 10)	20-5201
Overflow Trap (plastic) with 6" and 9" silicone tubing	17-5100
Overflow Ball	16-5107
6" Silicone Tubing	17-5101
9" Silicone Tubing	17-5107
Baxter™ Canister	20-5153
Baxter™ Disposable Soft-Shell Liners	20-5154
Sorenson™ Canister	20-5157
Sorenson™ Disposable Soft-Shell Liners	20-5158
Canister Holder	
Baxter™	
Sorenson™	20-5159-B
Standard Tubing, 9 ft., sterile (for Baxter™ System)	20-5159-A
MB Tubing, 9 ft., sterile (for Sorenson™ System)	24-5103
Premium Tubing, 8 ft., sterile (for Sorenson™ System)	24-5104
Soft-Flexible Tubing, 10 ft., sterile Baxter™	24-5100
Sorenson™	24-5102-B
Vacuum Pumps	24-5102-A
1/3 hp. piston, hi-flow (2 ea.)	17-5060
Vacuum Pump	
1/3 hp. piston, hi-vac (1 ea.)	17-5061
Muffler (MIN) (3 per unit)	16-5073
Tubing (internal PVC)	Misc