

SUCTION MACHINE



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SAFETY PRECAUTIONS: READ BEFORE USE

Before utilizing this product, it is essential to carefully review all safety guidelines and instructions. Pay special attention to the recurring statements used throughout this manual, along with their significance. You will also find additional safety instructions in other sections, which may resemble the following or pertain to specific operations.

- **Danger:** Signifies a potential hazard situation or unsafe practice that, if not avoided, could lead to death or severe personal injury.
- **Warning:** Indicates a potential hazard situation or unsafe practice that, if not avoided, may result in death or serious personal injury.
- **Caution:** Points out a potential hazard or unsafe practice that, if not avoided, may result in minor or moderate personal injury.
- **Notice:** Warns of a potential hazard or unsafe practice that, if not avoided, may result in product or property damage.
- **Info:** Offers application recommendations and other useful information to ensure optimal product usage.

! DANGER ! - Reducing Electrocution Risk:

1. Do not use this product while bathing.
2. Avoid placing or storing the product where it could fall into a tub or sink.
3. Refrain from submerging this product in water or any other liquid.
4. In case the product falls into water, immediately unplug it.

⚠ WARNING – Reducing Risk of Burns, Electrocution, Fire, or Personal Injury:

1. Provide close supervision when using this product with children or individuals requiring extra care.
2. Utilize this product strictly for its intended purpose as described in this guide.
3. Never operate this product if:
 - a. The power cord or plug is damaged.
 - b. It is not functioning properly.
 - c. It has been dropped, damaged, or submerged in water.Return the product to a provider for examination and repair.
5. Keep the power cord away from heated surfaces.
6. Avoid using this product while drowsy or asleep.
7. This device is designed for use by a single individual to prevent infection; do not share it.

8. To minimize the risk of electrical shock or personal injury, refrain from disassembling this unit. Disassembly or improper repair attempts can result in electrical shock hazards. Only qualified technicians should service this aspirator. Contact your provider for service.

 WARNING - Continued:

8. Unauthorized modification or the use of non-Rhythm replacement parts can alter the structure of the aspirator, void the warranty, and create hazardous conditions leading to serious personal injury.
9. Cancer and reproductive harm prop 65 warnings.
10. Rhythm Healthcare explicitly disclaims responsibility for personal injury or property damage resulting from non-compliance with federal, state, or local laws or ordinances.

Unpacking: For your safety, inspect all components for shipping damage. If damage is detected, refrain from using this product and contact your provider for further guidance.

Setup - Medical Applications:

1. Ensure that all procedures are conducted in strict accordance with the protocols established by licensed medical authorities.
2. Verify the compatibility of attachments or accessories with the supplied tubing before use to ensure a proper fit.

AC Power Source: The Rhythm SM100 operates on AC voltage (115V AC, 60Hz). Always use the correct power source for connecting to adaptable wall power. Before use, verify that the voltage and current indicated on the unit's specification label match the available power.

Electrical Compressor: Frequent shutdown of the motor by the overload protector may indicate low voltage. Suspect low voltage if:

1. The motor fails to reach full power or speed.
2. Other motor-operated appliances exhibit malfunction. Avoid overloading the circuit with too many motor-operated appliances.

Info - Aspirator Compressor Motor: The aspirator's compressor motor includes a thermal overload protector. If the motor overheats, the protector will shut it off. In such cases, turn the unit OFF and allow the motor to cool for approximately 5 minutes. Restart the aspirator. If it fails to start, wait an additional 5 minutes before attempting to restart. If the issue persists, inspect the aspirator fuse (and replace if necessary). If the unit still does not restart, contact your provider immediately.

⚠ WARNING - Proper Operation for Safety: To prevent physical harm, it is essential to operate this product correctly. Improper use can result in personal injury or tissue damage. This product should only be used under the guidance of a physician or another qualified healthcare professional.

1. Get acquainted with this unit, as depicted below.
2. Place it securely on a level table and apply firm downward pressure to ensure the suction feet hold the unit firmly in position.
3. Confirm that the ON/OFF switch is in the OFF position.

Notice: Do not attempt to start the unit when it's cold; allow it to reach room temperature first.

Figure 1 Parts Diagram



Parts/Components

1. Connect both sections of tubing: a. Attach one end of tubing A to the top of the collection bottle connector and the other end to the bacteria HEPA filter, as illustrated in Figure 1. b. Connect one end of tubing B to the open end of the bacteria HEPA filter and the other end to the vacuum gauge, as shown in Figure 1.
2. Connect the section to the top of the collection bottle at the outlet labeled "patient," as demonstrated in Figure 1. Ensure that all connections are secure and free of leaks before use.

Please review the setup warnings below before proceeding.

Setup Warnings:

1. The device is furnished with a three-prong (grounding) plug to safeguard against potential shock hazards. Only plug it into a properly grounded three-prong wall receptacle. If you encounter a two-prong wall receptacle, engage a licensed professional to replace it with a properly grounded three-prong receptacle, following the national electrical code. Do not alter the plug in any way.
2. If you must use an extension cord, employ a three-conductor cord with an equivalent or higher electrical rating as the aspirator cord. It should include proper grounding, be correctly wired, in good electrical condition, and kept as short as possible.
3. Position all cords in a manner that prevents them from being stepped on, tripped over, or exposed to potential damage or stress.

Operation:

⚠ WARNING: Prior to use, carefully read the safety guidelines in the subsequent operations section. Always unplug the aspirator when it's not in use. Ensure that you have followed all instructions in the previous setup section before proceeding.

Figure 2



On/Off switch.
Pictured in Fig 2:
Unit is in OFF
position.

Figure 3



Figure 4



1. Confirm that the ON/OFF switch is in the OFF position. Located on the unit's side (Figure 2). Plug the aspirator into a properly grounded power outlet.
2. Set the ON/OFF switch to the "I" (ON) position (Figure 2); this will activate the unit.

3. Adjust the vacuum level from 0 to 560 mmHg by turning the vacuum adjust knob clockwise to increase vacuum and counterclockwise to decrease vacuum (Figure 3). To precisely read the gauge and set the desired vacuum level, refer to the vacuum gauge. Block the patient end of the hose or cap off the collection bottle and allow the gauge to stabilize.
4. Properly position the suction tubing for the patient and commence suction (Figure 4).
5. When the liquid in the collection bottle reaches a safe full level (800cc), the float shut-off mechanism will automatically activate, halting suction.
6. Turn the ON/OFF switch to the OFF position to shut down the suction motor.
7. Once the motor has completely stopped, empty the liquid from the collection bottle. Refer to the cleaning instructions provided below for guidance on cleaning the collection bottle.
8. Turn the ON/OFF switch to the ON position to restart the aspirator.

Notice: If the unit experiences a significant drop, it's important to verify the accuracy of the gauge. Inspect the float shut-off mechanism to ensure it still functions correctly when the liquid in the collection bottle reaches a safe full level.

Notice: Always transport the unit with the vacuum adjust not fully rotated clockwise to mitigate potential damage in case of a drop.

Notice: When the automatic float shut-off is activated, promptly empty the contents of the collection bottle to prevent further suction that could damage the vacuum pump.

Notice: If fluid is aspirated back into the unit, contact your provider for a thorough inspection, as the vacuum pump may have sustained damage.

Cleaning and Maintenance: Cleaning Instructions

Cleaning the Collection Bottle:

1. Turn off the aspirator, allow the vacuum to drop, and then disconnect the AC power source.
2. While the collection bottle is still in the holder, remove the collection bottle lid. The bottle can now be taken out of the holder for emptying.

Info: Empty the collection bottle immediately after each use. Clean the collection bottle after each use using one of the following three methods:

1. Wash it in hot water and a mild detergent solution, rinse with clean, hot tap water, then wash it in a solution of one part vinegar to three parts hot water. Rinse again with hot tap water and allow it to air dry.
2. Clean with rubbing alcohol and let it air dry.
3. Wash using a commercial (bacterial-germicidal) disinfectant; follow the disinfectant manufacturer's recommended instructions and dilution rates carefully.

Cleaning the Aspirator and Collection Bottle Lid:

1. Disconnect the aspirator from all external power sources.
2. Wipe down the aspirator housing and collection bottle lid with a clean cloth and a commercial (bacterial-germicidal) disinfectant.

Notice: Do not submerge the unit in water, as this will cause severe damage to the vacuum pump.

Cleaning the Tubing:

1. Disconnect the tubing from the unit.
2. Thoroughly rinse the tubing after each use by running hot tap water through it, followed by a solution of one part vinegar to three parts hot water.
3. Rinse with hot tap water and allow it to air dry.
4. Keep the outer surface of the tubing clean by wiping it with a clean, damp cloth.

 **Warning:** Properly handle the waste in the collection bottle, as it could pose a risk of respiratory infection. The operator must wear gloves and a medical-grade mask before cleaning the collection bottle, tubing, or handling the waste and/or accessories.

Maintenance: Inspect the suction tubing and collection bottle for any signs of leaks, cracks, etc., before each use. If any issues are found, discontinue using the aspirator immediately and contact your provider.

Danger: There is an electric shock hazard. Do not attempt to open or remove the suction cabinet. If service is required, contact your authorized distributor from rhythm health care.

Changing the Bacteria HEPA filter:

1. Replace the bacteria HEPA filter when either of the following two conditions occurs: a. The filter is dirty, and the aspirator has lost suction, or b. There is liquid in the filter assembly due to prolonged use or overflow. In case of overflow, replace the filter immediately.
2. Remove the filter by disconnecting it from the tubing connected to the vacuum gauge and the tubing connected to the collection bottle lid assembly.
3. Replace it with a new Rhythm bacteria HEPA filter and connect it to the tubing as previously positioned. Additional filters can be obtained from your provider.

Notice: Neglecting to use or replace the filter as needed can lead to damage to the aspirator.

 **Warning:** Only use Rhythm filters; do not substitute any other material for the bacteria HEPA filter. An improper substitution may result in contamination or reduced performance. Also, replace the fuse. (Fig 1)

1. Use only the same type and size of fuse to replace the broken one.
2. Fuse specifications: miniature glass fuse, 5x20mm, fast blow (quick acting), F2A/250V.

 **Warning:** When this unit or its accessories reach the end of their useful lives (depending on usage conditions), the residue in the collection bottle, tubing, and filter could cause respiratory infections. Properly dispose of the collection bottle, tubing, and filter in accordance with medical waste disposal regulations.

TROUBLESHOOTING

⚠ WARNING: The aspirator contains no user serviceable parts. If you believe your unit is not working properly, before you contact your provider for service, take a few moments to check for these possible causes:

PROBLEM	ACTION
Unit does not turn on	1. Check power source and connection 2. Ensure that the wall outlet is live 3. Check power cord for damage
Motor runs but no suction	1. verify tubing connection security 2. check for leaks or tubing kinks 3. ensure that float shut off is not activated 4. check for bottle leak and cracks
Low suction	1. use vacuum adjust knob to increase suction level 2. check system for leaks 3. adjust vacuum adjust knob and release
Motor overheats and motor overload protector shuts off motor	1. turn on/ off switch two off, allow motor to cool for approximately 5 minutes, then restart aspirator 2. inspect fuse and replace if necessary 3. if unit does still not start up, contact your authorized distributor
Blown fuse	Replace fuse with same size and type (Miniature Glass Fuse, 5 x 20mm, fast blow quick acting, F2A/250v)



RHYTHM HEALTHCARE
Clearwater, FL 33762

Email: contactus@rhythmhc.com
Website: www.rhythmhc.com
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