

heavy duty suction device
bomba de succión de uso pesado
pompe aspiratrice robuste

USER'S MANUAL
MANUAL DEL USUARIO
GUIDE DE L'UTILISATEUR
Item # 18600



driveTM

www.drivemedical.com

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CAUTION

Federal law restricts this device to sale by or on order of a physician, or any other practitioner licensed by the law of the State in which he practices to use or order the use of this device.



NOTE

Check ALL parts for shipping damage. If shipping damage is noted, DO NOT use. Contact medical equipment provider for further instruction.

safety information

1. SAFETY INFORMATION

When using electrical products, especially when children are present, basic safety precautions should always be followed. Read all instructions before using.

Important information is highlighted by these terms:

DANGER

Urgent safety information for hazards that will cause serious injury or death.

WARNING

Important safety information for hazards that might cause serious injury.

CAUTION

Information for preventing damage to the product.

NOTE

Information to which you should pay special attention.

read all user's manual before using.

save user's manual

DANGER

To reduce the risk of electrocution:

1. Do not use while bathing.
2. Do not place or store product where it can fall or be pulled into a tub or sink.
3. Do not place in or drop into water or other liquid.
4. Do not reach for a product that has fallen into water. Unplug immediately.

WARNING

To reduce the risk of burns, electrocution, fire or injury to persons:

1. Close supervision is necessary when this product is used by, on, or near children or invalids.
2. Use this product only for its intended use as described in this guide.
3. Never operate this product if:
 - a. It has a damaged power cord or plug.
 - b. It is not working properly.
 - c. It has been dropped or damaged.
 - d. It has been dropped into water.
4. Return the product to an authorized Drive medical equipment service center for examination and repair.
5. Keep the power cord away from heated surfaces.
6. Never use while drowsy or asleep.

safety information

SPECIFIC WARNINGS

TO REDUCE THE RISK OF ELECTRICAL SHOCK OR INJURY TO PERSONS, DO NOT DISASSEMBLE THIS UNIT. DISASSEMBLY OR ATTEMPTED REPAIRS IF ACCOMPLISHED INCORRECTLY CAN CREATE ELECTRICAL SHOCK HAZARD. ONLY QUALIFIED TECHNICIANS SHOULD PERFORM SERVICING OF THIS SUCTION UNIT.

DANGER

The Heavy Duty Suction Pump is a vacuum suction device designed for the collection of nonflammable fluid materials in medical applications only. Improper use during medical applications can cause injury or death.

For all medical applications:

1. All suctioning should be done in strict accordance with appropriate procedures that have been established by a licensed medical authority.
2. Some attachments or accessories may not fit the tubing supplied. All attachments or accessories should be checked prior to use to assure proper fit.

2. AC POWER SOURCE

CAUTION

Item # 18600 is used with a power supply allowing operation on AC voltage (115 VAC, 60 Hz). However the correct power source must be used to connect to adaptable wall power.

3. ELECTRICAL

Compressor

If the overload protector shuts off the motor frequently, you may have a low voltage situation.

Low voltage can also be suspected when:

1. The motor does not get up to full power or speed.
2. Other motor operated appliances fail to operate properly. Too many motor operated appliances on same circuit.

NOTE

The motor of this compressor has a thermal overload protector. If the motor overheats, the overload protector will shut off the motor. If this occurs, turn the ON/OFF switch to the OFF position and allow the motor to cool (approximately 5 minutes). Restart compressor. If the compressor fails to start, wait an additional 5 minutes before attempting to restart. If this fails, inspect the fuses on your suction unit. If the unit still does not restart, call your medical equipment provider immediately.

safety information

WARNING

Proper operation of this product is necessary to avoid physical harm. Improper use can cause personal injury and/or tissue damage. This product should not be used unless the operator has been instructed by a physician or other qualified health care professional.

1. Familiarize yourself with this unit.
2. Place unit on table and push down hard so that suction feet hold unit firmly in place.
3. Before plugging power cord into electrical outlet, check if the ON/OFF switch is in the OFF position.

NOTE

Before attempting to start a cold unit, let the unit reach room temperature in a heated area.

introduction

Your Heavy Duty Suction Pump is a professional medical suctioning device that produces a maximum vacuum of 560 mmHg. The unit is equipped with an 800cc collection bottle and has been designed for convenient and reliable usages.

Features:

- New anti-bacteria filter design helps prevent contamination.
- High quality vacuum regulator and anti-vibration vacuum gauge setting.
- Oil-less, permanent lubrication.
- Collection bottle with overflow protection.
- Superior performance and high reliability for continuous operation design.
- Easy carry and easy cleaning.

Following the recommended operating and maintenance procedures outlined in this user's manual will maximize the life of this product. Refer to the diagrams on page 6.

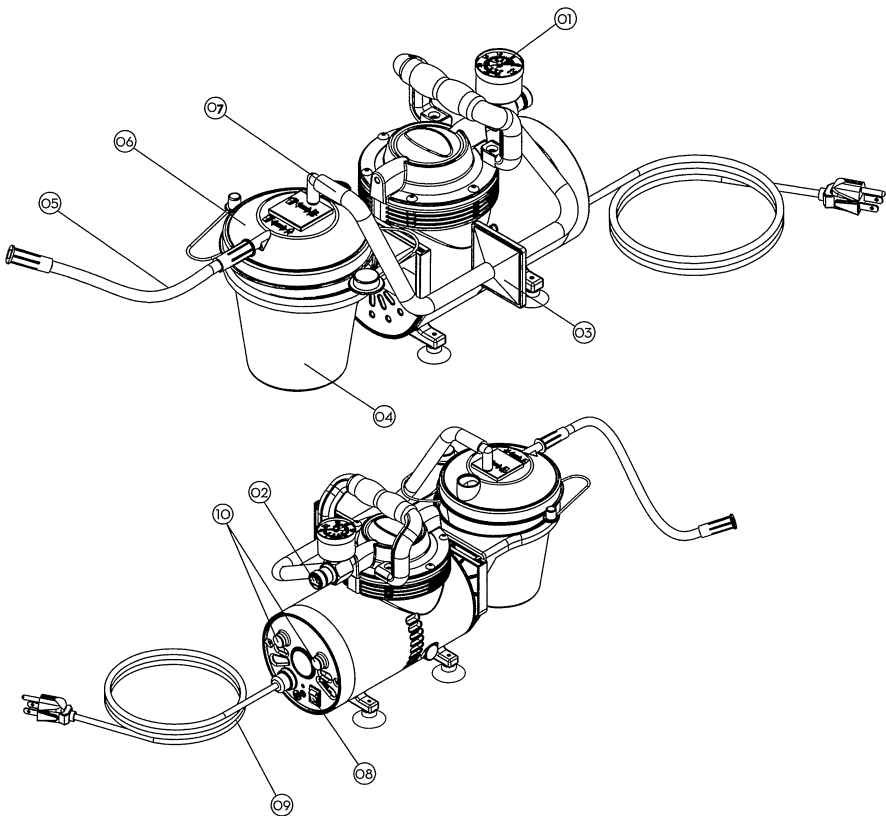
NOTE

This unit complies with electromagnetic compatibility standards as defined in the attached declaration of conformity.

illustration of important parts

Item # 18600

- | | |
|----------------------------|----------------------|
| 1. Vacuum Gauge | 6. Cover |
| 2. Vacuum Adjust Knob | 7. Connection Tubing |
| 3. Bacteria Filter | 8. Power Switch |
| 4. 800cc Collection Bottle | 9. Power Cord |
| 5. Patient Tubing | 10. Fuse |



set up & operation

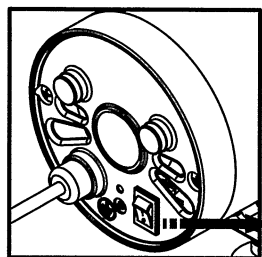
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1. Connect either end of the connecting tubing (item# 9) to the top of collection bottle connector then connect the other end to the bacteria filter.
2. The patient tubing should be connected to collection bottle at the outlet labeled (patient). Please assure that all connections are secure and without leaks before using.

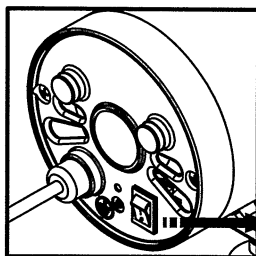
7. HOW TO OPERATE YOUR HEAVY DUTY SUCTION PUMP

1. Before use, check the specification label on the side of the suction unit to ensure that the voltage and current indicated on the unit correspond with the voltage and current available. Make sure the power switch located on the side of the unit is in the "Off" position before connecting the unit to a power source.
2. Switch the power switch to "I" position (on), the unit start running.

1. Off position

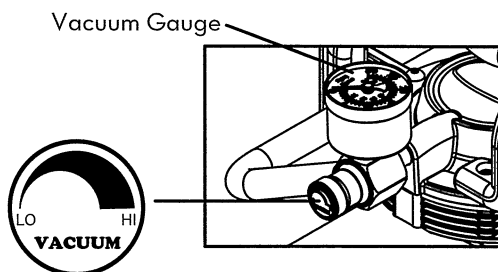


"Off" position



"On" position

3. Adjust the vacuum level from 0 to 560 mmHg (0 to 56 cmHg) by turning the vacuum adjust knob (clockwise to increase vacuum and counter-clockwise to decrease vacuum). Referring to the vacuum gauge while setting the desired level of vacuum. To accurately read the gauge, block the patient end of the hose or cap off the collection bottle and allow the gauge to reach a stable vacuum reading.



Vacuum Adjust Knob

set up & operation

4. Place the patient tubing to the appropriate position of patient and start to suck sputum.
5. When the sputum reaches the safe full level of collection bottle (800cc), the suctioning will stop sucking automatically (float shut-off).
6. Switch the power switch to "O" position (off), shut off the suction motor.
7. Remove the sputum from collection bottle after the motor stops turning completely. (Please refer to the section "CLEAN INSTRUCTIONS" on page 9 for the directions of how to clean the collection bottle).
8. Turn on the unit and start to run the suction unit again.

NOTE

1. If the unit sustains a severe drop, validity of the gauge must be checked. Inspect if the float shut-off is still functioning properly when the liquid in the collection bottle reaches the safe full level.
2. Always transport unit with vacuum adjust knob rotated fully clockwise in case unit is dropped.

CAUTION

1. When automatic float shut-off is activated, contents of the collection bottles should be emptied. Further suctioning could cause damage to the vacuum pump.
2. Should fluid be aspirated back into the unit, send your suction to an authorized service center for a detailed inspection as the vacuum pump may have been damaged.

cleaning

Clean Collection Bottle:

1. Turn off the suction unit and allow vacuum to drop, then disconnect AC power source.
2. With the collection bottle still in the holder, remove the collection bottle lid. The bottle can now be taken out of the holder to be emptied.

NOTE

Collection bottle should be emptied after each use.

3. Collection bottle should be thoroughly cleaned after each use by one of the following three methods:
 - a. Wash in a hot water/dishwashing detergent solution and rinse with clean, hot tap water. Then wash in one part vinegar to three parts hot water solution. Rinse with hot tap water and air dry.
 - b. Wash with rubbing alcohol and air dry
 - c. Wash with a commercial (bacterial-germicidal) disinfectant, follow disinfectant manufacturer's recommended instructions and dilution rates carefully.

cleaning & maintenance

Clean Suction Unit and Collection Bottle Lid:

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

CAUTION

Do not submerge in water as this will result in severe damage to the vacuum pump.

Clean Tubing:

1. Disconnect the tubing from the unit.
2. Tubing should be rinsed thoroughly after every 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 air dry.
4. Keep the outer surface of the tubing clean by wiping with a clean, damp cloth.

WARNING

The waste in collection bottle may cause respiratory infection which must be handled according to medical waste disposing regulation. Operator must wear gloves and medical class mask before cleaning the collection bottle, tubing and handle the wasting unit and/or accessories.

MAINTENANCE

Inspect suction tubing and collection bottle for leaks, cracks, etc. before each use.

DANGER

Electric shock hazard

Do not attempt to open or remove the suction cabinet. If a service is required, return your suction to an authorized service center. Opening or tampering with the unit will void warranty.

Bacteria Filter Change:

1. Bacteria filter should be replaced as needed. If overflow occurs, change the filter immediately.
2. Remove filter by disconnecting it from tubing connected to pressure adjusting valve and tubing connected to collection bottle lid assembly.
3. Replace with a new Drive bacteria filter and connect to above two tubing. Additional filters can be purchased from an authorized dealer.

maintenance

NOTE

Use only Drive filters. Do not substitute any other material for this bacteria filter. Improper substitution may lead to contamination or poor performance;

Fuse Change:

1. Use only the same type of fuse to replace the broken fuse.
2. Fuse specification: Miniature Glass Fuse 5x20mm, Fast Blow (Quick Acting), F2A/250V.

WARNING

When this unit or accessories reach the end of their useful lives (depends on using conditions), residues in collection bottle, tubing and filter may cause respiratory infection. Dump the wasting collection bottle, tubing and filter into a specific waste bin labeled with medical waste.

troubleshooting

Your Heavy Duty Suction Pump contains no user-serviceable parts. If you believe your unit is not working properly, **BEFORE YOU RETURN IT TO THE MEDICAL EQUIPMENT PROVIDER WHERE YOU PURCHASED IT**, please take a few moments to check for these possible causes:

PROBLEM	ACTION
Unit does not turn on	<ol style="list-style-type: none"> 1. Check power source and connection 2. Ensure that the wall outlet is live 3. Check power cord is not damage
Motor runs, no vacuum	<ol style="list-style-type: none"> 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 leaks and cracks
Low Vacuum	<ol style="list-style-type: none"> 1. Use vacuum adjust knob to increase vacuum level 2. Check system for leaks 3. Rotate vacuum adjust knob counter clockwise and release

specifications/classifications

Dimensions	(L) 375 x (W) 175 x (H) 250 mm (14.8 x 6.8 x 9.8 in)
Weight.	4.68 kg (10.3 lb)
Maximum Vacuum	560 +/- 3% mmHg (56 cmHg +/- 3%)
Flow Range	> 40 LPM
Sound Level	< 58 dBA
Electrical Requirements	AC 115 V 60Hz
Power Consumption	70 watts
Bacteria Filter pore size	0.45 microns
Collection Bottle Capacity	800cc (ml)
Operating Temperture	32° ~ 104° F (0° ~ 40°C)
Operating Humidity	95% RH
Operating Atmospheric Pressure	10.2 ~15.4 psi (70 ~106 kpa)
Storage Temperture	14° ~ 158° F (-10° ~ 70°C)
Storage Humidity	0 ~ 95%
Storage Atmospheric Pressure	7.3 ~15.4 psi (50 ~106 kpa)
Fuse Specification	Miniature Glass Fuse 5x20mm, Fast Blow (Quick Acting), F2A/250 V
Equipment Classifications	With respect to protection from electric shock Class I

warranty

Your Drive branded product is warrantied to be free of defects in materials and workmanship for two years from the date of purchase for the original consumer purchaser.

This device was built to exacting standards and carefully inspected prior to shipment. This Two Year Limited Warranty is an expression of our confidence in the materials and workmanship of our products and our assurance to the consumer of years of dependable service.

This warranty does not cover device failure due to owner misuse or negligence, or normal wear and tear. The warranty does not extend to non-durable components, such as rubber accessories, casters, and grips, which are subject to normal wear and need periodic replacement.

If you have a question about your Drive device or this warranty, please contact an authorized Drive dealer.

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