

This equipment has been manufactured using the highest quality components and techniques. In the unlikely event it should need service, see warranty information and procedures below. For questions call Customer Service 9:00 AM to 5:00 PM EST Mon. - Fri. : (207) 637-3668

#### WARRANTY :

Lightning Enterprises warrants this product to be free from defects in workmanship and material under normal use and conditions for a period of 1 year from the date of purchase, except any tubings, Hand Wand, Filter, storage clips, and Syringe tips which are covered under warranty for 30 days. Should service be required by reason of any defect or malfunction during the warranty period, Lightning Enterprises will repair, or at its discretion, replace this product, with proof of purchase, without charge (except for a \$5.00 charge for shipping and handling).

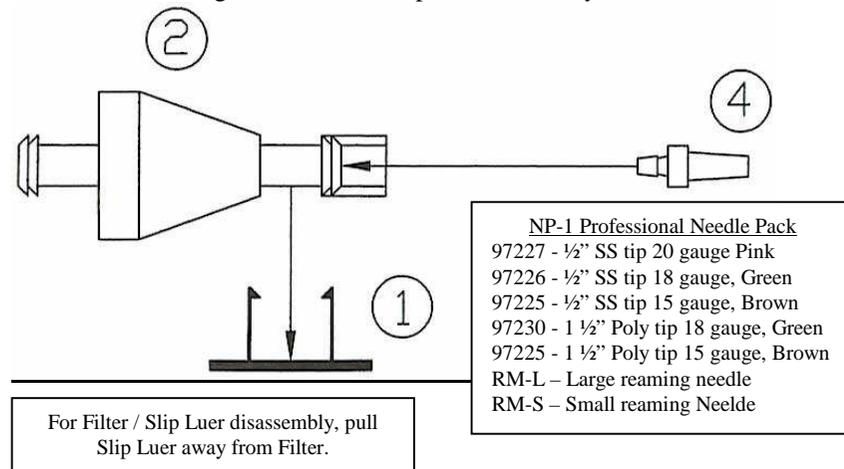
When returning this product use the following procedure:

- 1) Pack the unit in a well padded, heavy corrugated box intended for shipping.
- 2) Enclose a photocopy of your receipt, credit card statement, or other proof of date of purchase.
- 3a) WARRANTY REPAIRS: Enclose a check for \$5.00 payable to Lightning Enterprises.
- 3b) OUT OF WARRANTY REPAIRS: Enclose a check for \$5.00 for shipping and handling payable to Lightning Enterprises. A written estimate will be provided for repair approval.
- 4) Send the unit to:

Lightning Enterprises  
18 Harlan Drive  
Limington, ME 04049

Please Note: This warranty is only valid in the USA. Any applicable implied warranties are also limited to 1 Year and Lightning Enterprises will not be liable for consequential damages. Some states do not allow limitations on implied warranties or exclusions of consequential damages, so these restrictions may not apply to you.. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Figure 1 – Filter / Slip Luer Assembly



M1047 Rev. AC

# Lightning Vac-2

## Hearing Aid Cleaning System

From: Lightning Enterprises

### Operation Manual

Congratulations on your choice of the **Lightning Vac 2** Cleaning System by Lightning Enterprises. Designed for restoring hearing aids by extracting ear wax and other damaging debris from the sound port, this unit is built to meet the rugged demands of commercial use, and is also an excellent maintenance tool for the consumer who wants a professional product. We are proud to offer the **Lightning Vac 2** system to you and are confident you will be delighted with its' ability to extend the natural life of your hearing instruments.

Lightning Enterprises  
18 Harlan Drive  
Limington, ME 04049  
Tel/Fax: (207) 637-3668  
email: [custservice@lightning-enterprises.com](mailto:custservice@lightning-enterprises.com)

Visit Our Web Site  
[www.lightning-enterprises.com](http://www.lightning-enterprises.com)

#### READ ALL CAUTIONS AND WARNINGS BEFORE USING THIS PRODUCT

#### WARNING!

To reduce the risk of electrocution...

1. Do not leave this product unattended when plugged in.
2. Always unplug this product immediately after use and store in a cool dry place.
3. Do not use this product in or near water, or where the danger exists of the unit falling or being pulled into water.
4. Do not reach for this unit if it has fallen into liquid. Unplug immediately.
5. Never operate this product in the rain or in a wet area.

#### FAILURE TO OBSERVE SAFETY PRECAUTIONS COULD RESULT IN SEVERE BODILY INJURY OR DEATH IN EXTREME CASES.

#### CAUTION! To reduce risk of electric shock...

1. Do not disassemble vacuum pump. Disassembly or attempted repairs if accomplished incorrectly can create electrical shock hazard and will void any warranty.
2. Use only the DC wall transformer supplied with this unit. Only plug DC transformer into an appropriate wall outlet.
3. Keep power cord away from heat and away from places where it can be stepped on or pinched.
4. Never block any air openings (inlets) of this product or place on a soft surface where openings may be blocked. Keep all openings free of lint, dirt, or other foreign objects.

5. Never use this product while drowsy or sleeping.
6. Never insert fingers or other objects into pump openings.
7. Do not operate this product where oxygen is being administered.
8. This unit may be thermally protected and may automatically restart when motor resets. Always disconnect power source before servicing.
9. Safety glasses or goggles are suggested when operating this equipment.
10. Do not use any tool or attachment without first determining maximum air pressure for that tool or attachment.
11. Never point any air nozzle or attachment toward any person or any part of the body.

**DANGER!** To reduce the risk of explosion or fire...

1. Do not use this product in or near explosive atmospheres or where aerosol (spray) products are being used.
2. Do not pump anything except atmospheric air.
3. Do not pump combustible liquids or vapors with this product or use in or near an area where flammable or explosive liquids or vapors may exist.
4. Do not use this product near flames.

**CAUTION!** To prevent injury...

1. Close supervision is necessary when this product is used near children or invalids. Do not allow children to operate this unit.
2. Do not operate this product if it has a damaged or frayed power cord or plug, if it is not working properly, if it has been dropped or damaged, or if it has fallen into water. Return this product for service and examination / repair.

**INSTALLATION:**

1. Carefully remove all components from packing box, and check parts list to ensure all parts are included.
2. Locate a stable flat area on which to place the Lightning Vac 2.
3. Connect one end of supplied vacuum tubing to Lightning Vac 2 VAC hose barb, and the other end to the open end of the Filter / Slip Luer Assembly.
4. Attach the desired needle tip by pushing on over the tapered end of the Slip Luer.
5. If using the blower port , attach open end of Compressor Tubing to AIR hose barb.
6. Ensure pump power switch is in the "OFF" position. Plug AC Adapter into the back of Lightning Vac 2 and into an appropriate wall outlet.
7. Lightning Vac 2 is supplied with a clip to conveniently store the Filter / Slip Luer Assembly in a desired location, either on Lightning Vac 2 or somewhere nearby. The clip is supplied with a double sided adhesive for attaching the clip.

**WARNING:** Once attached, the double sided tape should be considered permanent. Do not attach to a surface where this would not be desirable.

**Lightning Vac 2 Operation:**

**Note:** Lightning Vac 2 should be used in conjunction with the hearing aid manufacturers' maintenance instructions. For maximum effectiveness, follow the manufacturers maintenance instructions prior to using Lightning Vac 2.

1. Turn Lightning Vac 2 power switch to the "ON" or up position.
2. If the hearing instrument is equipped with a wax blocking device, open this device to expose the sound outlet port. Gently insert the tip into the desired location to remove any debris. Pay particular attention to the sound outlet port as this is the primary location for ear wax to accumulate. This procedure should only take a few seconds. Repeat if necessary.  
**USE CAUTION** when operating Lightning Vac 2. Do not use excessive force to avoid damaging internal hearing instrument components.
3. If using the blower port, care should be taken not to blow air directly into the sound outlet port as internal damage to the hearing aid may result.
4. When finished, turn Lightning Vac 2 power switch "OFF" or down and store the Filter / Slip Luer Assembly.

**Lightning Vac 2 Maintenance:**

Lightning Vac 2 contains an oil-less diaphragm, which means no routine maintenance is required. This pump is designed for trouble-free use and should give you years of worry-free service. If you do experience a problem that cannot be remedied, please refer to the Warranty section.

**Unclogging Needle Tips**

Occasionally, you may find needle tips on this unit may become clogged with debris, resulting in diminished performance. Unclogging a needle tip may be easily performed by the following methods:

- Option 1. Using a supplied Reaming Needle, turn the pump on and insert the Reaming Needle into the end of the needle tip to dislodge the debris.
- Option 2. Turn pump OFF and attach Compressor Tubing to the AIR hose barb. Insert needle tip to be cleared into the luer lock end of the Compressor Tubing. Hold a tissue over the end of the needle tip to prevent air-borne debris, and turn pump ON. Turn pump OFF after needle tip has been cleared.

<b>Parts List:</b>		
<i>Refer to Figure 1</i>	<i>Part Number:</i>	<i>Figure 1 Number</i>
Lightning Vac 2 unit	10D1125	-
AC Adapter	STA-4815	-
Filter	N-02357	2
Slip Luer Fitting	MTLS220-1	4
Needle Pack (5 tips)	NP-1	See Figure 1
Hand Wand clip	1224-1	1
Vacuum 13" Tubing	LV-T	-
Compressor Tubing with luer	LV-CT	-
Lightning Vac Manual	M1047	-