

# OPERATING INSTRUCTIONS

## **UltraVac+** Vacuum/Drying Chamber



Hearing Instrument Restoration System

**MedRx**<sup>®</sup>

[www.medrx-usa.com](http://www.medrx-usa.com)

Thank you for choosing the MedRx *UltraVac+*. We feel we have designed a product that best fits the needs of today's professional hearing health care provider. The MedRx *UltraVac+* greatly enhances the level of service you can provide to your patients in today's competitive market.

As with all of our products, MedRx is pleased to provide the top notch service and support that you have come to expect. Our associates constantly strive to see that every effort is put forth in satisfying your needs and requests. I can assure you we will not waiver from this objective as we move into the future. We are aware of what has made us one of our industry's leading equipment suppliers: *QUALITY, VALUE, SUPPORT AND SERVICE.*

Please accept my sincere thanks for your confidence in MedRx products and service.

A handwritten signature in black ink, appearing to read "Ron", with a large, sweeping flourish above the name.

Ron Buck,  
President



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## CONTROLS AND COMPONENTS

Your *UltraVac+* System Includes:

- *UltraVac+* Base Unit
- Pressure Wand with Hose
- Vacuum Wand with Hose and Filter
- Drying Chamber Cup
- 6 Vacuum Wand Tips
- Operator Instruction Manual
- Cleaning Tool Kit

*See back cover for details*

The cord attachment and fuse are located on the rear panel of the unit. The front panel of the *UltraVac+* is divided into two sections: Pressure Wand and Vacuum/Drying Chamber. The operation of each section is explained in detail in the appropriate section of this manual.

➤ **Caution:** This product is designed for use on hearing aids.  
**DO NOT USE ON THE HUMAN EAR.**

➤ **Caution:** To avoid the risk of electrical shock or serious injury do not remove the white cover of this equipment. Service should be performed by factory trained and authorized personnel.

## BASIC OPERATION

The *UltraVac+* was designed to give dispensers and technicians a functional tool for repairing, restoring and maintaining hearing aids. It is easy to use which makes it ideal for those who may be just getting started and powerful enough for the demands of the most experienced technician. The display panel indicates the vacuum level of the Drying Chamber and time remaining during use. The functions and applications for this product are:

**Vacuum Wand** - Used to extract ear wax and debris from receiver tubes, microphone tubes, vents and battery compartments.

**Pressure Function** - Used to blow air through the pressure wand and to clear clogged cleaning tips.

**Drying Chamber** - Displaces moisture trapped within a hearing aid.

The system is powered by the switch on the back of the unit. The operation of each function is explained later in this manual. We recommend the system be turned off when not in use for extended periods of time (especially overnight).

The function switch on the front panel is labeled to easily indicate which feature is being used. The Drying Chamber and Vacuum Wand cannot be used simultaneously. By turning on one of these functions, the other will automatically be turned off.

## RECOMMENDED PROCEDURE

We recommend you follow the restoration steps listed below to get the maximum benefit from the *UltraVac+*.

**Hearing Instrument Evaluation** - It is good practice to examine the instrument for obvious defects and discuss with your patient any concerns they have with the operation of the aid. Counsel patient on what you will be doing to improve or correct the problem. If possible, test the condition of the battery and if it is weak or dead, replace it. If the aid is dead (or damaged), have the patient acknowledge this before proceeding.

**Remove Visible Wax** - Using the cleaning tool kit provided with the *UltraVac+*, clean any large, visible accumulation of cerumen from the instrument.

**Drying Chamber** - Place it in the Drying chamber to displace and evacuate moisture vapor from within the aid.

**Vacuum Wand** - Use the Vacuum Wand to remove wax and debris from the receiver tube, microphone inlet and battery compartment. It is a good practice to do this even if you do not see any debris. Many of the component failures in an aid are caused by accumulation of micro-particles of debris.

**Pressure Function** - Use this function to clear obstructed vacuum needle tips and to blow debris from vent tracks and battery compartments.

## DRYING CHAMBER

To use the **Drying Chamber**, place the hearing aid (including earmold if BTE) on the pad and cover it with the vacuum cup. You can place two ITE's or one BTE with mold in the chamber at a time. Put the WAND/CHAMBER switch to the **CHAMBER** setting. Press the **START** switch. Press firmly on the vacuum cup to ensure a good seal. The approximate vacuum level in the chamber will be indicated on the display panel.

As the pump runs, it displaces moisture vapor from inside the hearing aid. Make sure the chamber cup is centered on the pad. Again, it may be necessary to apply light pressure on the top of the cup to attain a proper vacuum. This is very important for the DRYING CHAMBER to work properly. A CHECK VACUUM message will appear if a proper seal is not attained.

The pump will automatically turn off at the end of the cycle. A message "TOGGLE TO VENT" will appear on the display. Move the WAND/CHAMBER switch to the WAND position to release the vacuum. Remove the hearing aid(s) from the chamber upon completion.

The cycle can be ended prior to the 4 minute timer by pressing the STOP switch. Then, the chamber can be vented as described above, or the re-started, with the time remaining on the display.

Moving the WAND/CHAMBER switch to the WAND position during chamber operation will vent the chamber and turn the pump off. Press START to resume wand operation.

## CHANGE DRYING CHAMBER FILTER

When significant discoloration is visible, change the Drying Chamber Filter. Using tweezers grab and pull filter to remove. Place two or three dots of Elmer's All Purpose Glue on the edge of new filter. Use tweezers to insert the glued filter. NOTE: Too much glue will clog the fabric.

## VACUUM WAND

To activate the **Vacuum Wand**, press the WAND/CHAMBER switch to the WAND setting, press the START switch. The unit will now provide a continuous suction to the Vacuum Wand. Use the wand to vacuum ear wax and debris from the receiver tube, microphone inlet, vent and battery compartment of the aid. If the

drying chamber was in use when moving the switch to the WAND setting, it will be necessary to press START again to restart the pump. Choose the appropriate vacuum tip which will allow you to insert it into tube openings, vents and compartments. Care should be taken so the tubes or components are not pushed in or dislodged. Press the STOP switch when finished.

**DO NOT OPERATE THE VACUUM WAND WITHOUT THE FILTER ASSEMBLY.**

## **PRESSURE WAND**

The Pressure Wand is active at the same time as the Vacuum wand. Press START to turn the pump on and press STOP when finished. If a tip on the vacuum wand is clogged, move it to the Pressure Wand and turn the pump on. If the vacuum tip cannot be cleared using the pressure function, turn the unit off and remove the tip from the wand. A specially designed tool (marked with red) for cleaning vacuum tips is included in the enclosed tool kit.

The wand assembly can be removed from the coupling on the base unit by pushing in the retaining ring and gently pulling on the tubing. To reinstall, simply insert the tubing back into the coupler.

## **CARE AND MAINTENANCE**

The *UltraVac+* has been engineered to provide years of trouble-free service. There are no field serviceable components inside the cabinet.

**Changing the Filter** - The particulate filter has been located on the Vacuum Wand for ease of service. It should be replaced when significant amounts of debris are visible. To replace the filter, grip the end cap of the filter and rotate it to the left, then pull. Change the filter element and rubber O-ring with a new one. Replace the end cap and rotate it to the right. **The filter must be in place for the Vacuum Wand to operate properly.** You **must** use the same type of filter and O-ring or the performance of the vacuum will be affected.

Should condensation develop in the particulate filter of Vacuum Wand tube, run the system for 10 minutes to remove.



**Cleaning** - To keep your *UltraVac+* looking brand new, wipe the cabinet and control panel with a soft cloth. Stubborn stains may be removed by using a cloth moistened with water and mild detergent. Do not allow debris or fluid to enter the Drying Chamber air inlet port.

**Cleaning the Wand** - Unscrew the white luer and the Orange adapter from the filter body. Use cotton tipped applicators to remove wax and debris from inside the wand body. If using water or alcohol to flush the body, ensure inside is dry. Screw the white luer back on.

### **Recommended Procedures for Cleaning & Disinfection of *UltraVac+* tips**

Contaminated *UltraVac+* cleaning tips should be clearly identified and kept separate from clean tips. The contaminated tips should be wiped clean using either of the acceptable cleaning agents (see below). Cleaning removes soil and body materials (e.g. blood, organic soils) and must occur as an integral first step before re-use.

1. Gather all equipment, cleaning solutions and materials required to clean the patient care devices.
2. **WASH** hands and put on gloves prior to cleaning the devices. Personal protective equipment should be changed if torn or soiled. **Use protective eyewear during the cleaning procedure.**
3. Visible or gross soil present and/or blood or body fluid spills must be removed prior to cleaning.
4. Clean all surfaces of the patient care equipment or devices. To ensure that cross contamination does not occur use clean cloths or sealed Alcohol swabs for each device to be cleaned. If using an open bucket system, ensure that solutions do not become contaminated **(NO DOUBLE DIPPING)**. Allow surfaces to remain wet for 30 seconds to achieve the 30-second Broad-Spectrum Sanitizing claim.
5. Connect the tips to a 20cc or larger syringe and flush with the chosen cleaning solution a minimum of five (5) times (at least 100 ml total), thereby cleaning the interior of the tips. Immerse the flushed tips in a container of cleaning solution for 20 minutes, then allow to dry after blowing out any retained solution with air. To disinfect other surfaces,

reapply the cleaning solution and allow surfaces to remain wet for five (5) minutes to achieve the Bactericidal, General Virucide, Fungicidal and Tuberculocidal claim.

6. Soiled rags should be placed in a bag for laundering. Disposable cloths should be disposed as regular waste in garbage bags.
7. Remove and discard gloves, **WASH** hands.

### **Wand, Hose and Filter Cleaning**

1. Every week, remove the Hose and Wand assembly from the UltraVac+ and unscrew the Luer fitting and black hose barb from the wand. A 5/16" end-wrench is needed for the hose barb. Clean the wand interior with long cotton tip applicators and alcohol. Clean the exterior with Alcohol Swabs. Immerse the hose in a bath of alcohol for 10 to 20 minutes, lowering one end first to remove all the air from the hose. The drying cup and chamber bottom may be cleaned with Alcohol Swabs. After air drying, run the system for 10 minutes and one drying chamber cycle to remove any residual alcohol. The drying chamber filter is located in the center of the black rubber chamber base.
2. We usually recommend changing the two filters when visible discoloration and particles are present. Alternatively, changing them every month will be a good schedule.

### **Acceptable Cleaning Agents**

1. Isopropyl Alcohol – 70% by volume (preferred)
2. Hydrogen Peroxide (HP) disinfectant – 3%

### **Precautions for Transport**

When transporting the *UltraVac+*, use the system's original packing case or similar packaging. Care must be taken to protect it from shock and mishandling.

# TROUBLESHOOTING GUIDE

<b>SYMPTOM</b>	<b>REMEDY</b>
Won't come on.	<ul style="list-style-type: none"><li>-Check fuse located on rear panel.</li><li>-Call for service.</li></ul>
Vacuum Wand not working.	<ul style="list-style-type: none"><li>-Check that the Drying Chamber switch is in the Vacuum Wand setting.</li><li>-Check to make sure hose is connected properly in panel.</li><li>-Check to make sure filter is properly attached and not blocked.</li><li>-Check to make sure tips on either hose are not blocked, use the pressure function to clear tip.</li><li>-Call for service.</li></ul>
Drying Chamber not working.	<ul style="list-style-type: none"><li>-Ensure that the switch is in the CHAMBER position.</li><li>-Check to make sure vacuum cup does not leak around pad or has any cracks.</li><li>-Call for service. 888-392-1234</li></ul>

➔ **Caution:** To avoid the risk of electrical shock or serious injury do not remove the white cover of this equipment. Service should be performed by factory trained and authorized personnel.

# LIMITED WARRANTY

MedRx, Inc warrants this product to be free from defects in material and workmanship for one year from the time of purchase. If this system fails to perform as specified during this period, the purchaser is responsible for calling MedRx at (888) 392-1234 or (727) 584-9600. The company's representative will advise the owner to either return specific components or the entire system to:

**MedRx, Inc.  
1200 Starkey Road #105  
Largo, FL 33771 USA**

MedRx will repair or replace any defective devices, fully test the system and/or components and ship the system promptly back to the owner. There is no cost for the repair or return shipping, provided the system is one year old or less and has not been misused, abused or damaged. Such damage includes, but is not limited to, dropping, exposure to excessive heat greater than 100°F and water/liquid damage.

Repair or replacement of the system as provided under this warranty is the sole and exclusive remedy of the purchaser. MedRx shall not be liable for any consequential or incidental damages or for breach of any express or implied warranty. Except to the extent of applicable law, any implied warranty, merchantability or fitness of this product is limited to the duration of this warranty.

MedRx will, at its discretion, service and repair out of warranty products at the purchaser's request, charging for parts and labor as necessary.

The limited warranty is deemed void if software or hardware is installed on this product which is not pre-approved by MedRx, Inc. Approved software includes NOAH™ and HIMSA approved hearing aid manufacturer programming modules for fitting hearing aids.

MedRx, Inc is not responsible for problems resulting from installation of unapproved software or hardware. In the event of unapproved software or hardware installed on the system causing a conflict, MedRx will service the product for a fee to be determined at the time of service.

Any extension of this warranty past the initial one-year warranty is subject to the following (where applicable).

1. A \$300 deductible per repair.
2. Extended warranty does not include cables, connectors or peripherals.
3. Extended warranty of the Video Otoscope covers optics only.

# SPECIFICATIONS

Power Requirements	100-240 VAC, 50-60 Hz
Power Consumption	<100 watts
Fuse 110 Volt	1.25 amp SB 5x20mm
220 Volt	2.50 amp SB 5x20mm
Operating Temperature	0° to 50° C (32° to 120° F)
Weight	Approx. 8.5 lbs. <5 kg
Dimensions (approx.)	10.5" (w) x 6.25" (h) x 12" (d) 26.6cm(w) x 16cm(h) x 30.4cm(d)
Vacuum Tips	#14, #15, 2-#18 and 2-#20 gauge w/SafetyLok attachment
Drying Chamber Cycle Time	4 minutes with auto shut-off
Vacuum/Pressure Wand	Continuous use

# The UltraVac+ System Includes

UltraVac+ Base Unit

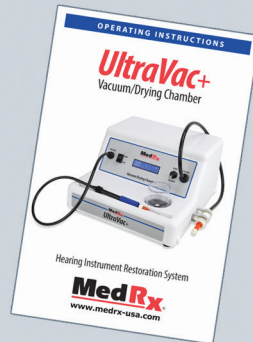
Pressure Wand  
with Hose



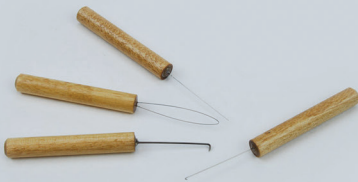
Vacuum Wand  
with Hose & Filter



6 Vacuum Wand Tips & Drying  
Chamber Filter



Instruction Manual



Cleaning Tool Kit



Drying Chamber