

MedRx

ULTRA VAC **with** **Pulse Power Vacuum Wand**



Hearing Aid Restoration System

Operating Instructions

Thank you for choosing the MedRx *Ultra Vac* with our patented *PULSE POWER* feature. We feel we have designed a product that best fits the needs of today's professional hearing health care provider. The MedRx *Ultra Vac* 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 loop at the end.

Ron Buck,
President

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CONTROLS AND COMPONENTS

Your *Ultra Vac* System Includes:

- *Ultra Vac* Base Unit
- Vacuum Wand with Hose
- 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 *Ultra Vac* is divided into two sections. Vacuum/Pressure Wand and 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 *Ultra Vac* 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. A vacuum gauge has been mounted on the front panel to indicate the vacuum pressure of the Drying Chamber during use. The functions and applications for this product are:

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

Pulse Power - This feature dramatically improves the performance of the Vacuum Wand for attacking deep or stubborn debris accumulations.

Pressure Function - Used to blow air through the vacuum wand and to clear clogged cleaning tips

Drying Chamber - Displaces moisture trapped within a hearing aid.

The system is turned on by pressing the function switches on the front control panel. 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 switches on the front panel are labeled to easily indicate which feature is being used. To maximize performance, 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 *Ultra Vac*.

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 *Ultra Vac*, 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. For deep or stubborn accumulation, use *PULSE POWER* mode for improved vacuum wand performance.

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. Press the VACUUM/OFF/PRESSURE switch to the VACUUM setting. Press the VACUUM WAND/DRYING CHAMBER switch to the **DRYING CHAMBER** setting. The internal four minute timer will be set and the pump will immediately start. *If the pump does not start*, cycle the VACUUM WAND/DRYING CHAMBER switch one time to reset the timer. Press firmly on the vacuum cup to assure a good seal, which will be indicated by the panel mounted vacuum gauge.

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.

The pump will automatically turn off and the vacuum will be released from the chamber at the end of the cycle. Remove the hearing aid(s) from the chamber upon completion.

Do not attempt to use the VACUUM WAND while the DRYING CHAMBER is in use. If you turn the VACUUM WAND on, it will automatically turn the DRYING CHAMBER off.

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 WITH PULSE POWER

To activate the **Vacuum Wand**, press the VACUUM/OFF/PRESSURE switch to the VACUUM setting, press the *PULSE POWER/CONSTANT* switch to the CONSTANT setting and press the VACUUM WAND/DRYING CHAMBER switch to the **VACUUM WAND** setting. 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. Be sure the Drying Chamber is not in use before turning on the Vacuum Wand as it will automatically turn the Chamber off.

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.

For deeply embedded accumulations of debris, switch the *PULSE POWER/CONSTANT* switch to **PULSE POWER**. In this mode, the system will steadily pulse the suction at the tip of the wand creating additional vacuum pressure.

PRESSURE WAND

Press the VACUUM/OFF/PRESSURE switch to the **PRESSURE** setting and the VACUUM WAND/DRYING CHAMBER switch the VACUUM WAND setting to activate the pressure function. Use this mode to clear a plugged vacuum tip or if you want to use the wand to blow air. 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 *Ultra Vac* 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 front panel for ease of service. It should be replaced when significant amounts of debris are visible in it. To replace the filter, disconnect it from the mount by pushing the clear cover up and rotating it to the left, then pull down. Change the filter element and rubber O-ring with a new one. Replace the cover by pushing the clear cover up and rotating 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 *Ultra Vac* 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 black barb adapter from the wand 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 and the black barb adapter to the appropriate ends.

Recommended Procedures for Cleaning and 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 Ultra Vac 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 *Ultra Vac*, use the systems original packing case or similar packaging. Care must be taken to protect it from shock and mishandling.

TROUBLESHOOTING GUIDE

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

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 warrants this product to be free from defects in material and workmanship for two years from the time of purchase. If this system fails to perform as specified during this period, the purchaser is responsible for calling MedRx at +49 30 70 71 46 43. The company's representative will advise the owner to either return specific components or the entire system to:

MAICO Diagnostics GmbH
MedRx International TCS
Sickingenstr. 70-71
10553 Berlin
Germany

MAICO 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 two years 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 37,78° C 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.

MAICO 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.

MAICO 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.

SPECIFICATIONS

Power Requirements	100 VAC, 50-60 Hz 110-120 VAC, 50-60 Hz 220-240 VAC, 50-60 Hz
Power Consumption	<100 watts
Fuse	1.25 amp SB 5x20mm 2.50 amp SB 5x20mm
Operating Temperature	0° to 50° C (32° to 120° F)
Weight	Approx. 8.5 lbs.
Dimensions (approx.)	10.5" (w) x 6.25" (h) x 12" (d)
Particulate Filter	134SA
Vacuum Tips	#14, #15, 2-#18 and 2-#20 gauge w/SafetyLok attachment
Drying Chamber Cycle Time	4 minutes with auto shut-off & auto pressure release
Vacuum/Pressure Wand	Continuous use

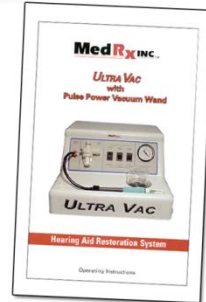
The UltraVac System Includes:



UltraVac
Base Unit

Vacuum Wand
with Hose

Operator
Instruction Manual



6 Vacuum Wand Tips &
Drying Chamber Filter



Cleaning Tool Kit



Drying Chamber



Power Cord