



Professional Hearing Care System






INTRODUCTION

The Redux Pro Hearing Care System is a self-contained vacuum dryer, which can also be referred to as an Ultra-Efficient Evaporator (UEE). The Pro provides a guaranteed-dry solution for hearables, hearing aids, and cochlear implants in as little as a few minutes. The Pro removes 100% of moisture in hearables using one of two user-selectable modes: hearables with rechargeable batteries (which uses a temperature setpoint of 99°F) or hearables with non-rechargeable batteries (which uses a temperature setpoint of 115°F). While drying, the Pro displays the length of dry time and the total quantized amount of moisture removed in microliters (μL).

SYMBOLS USED IN THIS DOCUMENT

 **CAUTION:** Hot surface

 **CAUTION:** Refer to the text that follows for more information about this feature

 **CAUTION:** Possibility of electric shock

SPECIFICATIONS

Electrical

Power Supply Input: 100-240 VAC single phase

Dryer Input: 12VDC, 18 W

Moisture & Drying Time Calculation

Removal: 0.5 μL – 150 μL

Drying Time: 4-30 minutes (4-8 minutes typical)

The Pro will achieve its rated accuracy for moisture removal reporting when used in an indoor, office environment and within the recommended operating temperature and relative humidity ranges.

Redux® Pro
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Environmental

The Pro is intended only for dry, clean, indoor use.

Operating Temperature Range:	15°C - 29°C (60°F - 85°F)
Operating Relative Humidity Range:	20 % - 80 %
Storage Temperature for Unit:	0°C - 70°C (32 °F - 160°F)
Storage Relative Humidity:	0 % - 90 %
Altitude:	Operating: ≤3048 m (≤10,000 ft) Storage: ≤15240 m (≤50,000 ft)
Pollution Degree:	2 (as defined by IEC 61010-1 Ed:3)

General

Weight:	0.9 kg (2 lbs)
Overall Width:	112 mm (4.4 inch)
Overall Depth:	127 mm (5 inch)
Overall Height:	120 mm (4.7 inch)
Enclosure Material:	Polycarbonate
Noise Level:	70dBA (maximum) @ 3 feet. 62dBA typical.

Communications

USB: Internal Redux Use Only





OPERATING NOTES

The following paragraphs are intended to familiarize the user with the Pro. The user should read these paragraphs before attempting to operate the dryer.

Dryer Limitations

The Pro dryer is constructed of highly durable plastic and is suitable for drying hearing aids, earbuds, and cochlear implants. The Pro dryer does NOT charge batteries and is NOT capable of charging batteries of devices in any way.

When using the dryer, observe the following precautions to prevent damage to the dryer:

1. Do not pour or dispense any water into the chamber.
2. Do not put any part of the dryer or power supply in water or any other liquid.



CAUTION: To avoid electrical shock, do not use this dryer in an area where there is running water, a risk of accidental dropping in water, or outdoors where the dryer could be subjected to rain.



CAUTION: Long-term exposure of the Pro to extremely high humidity or corrosive environments can lead to deterioration of the control electronics. If the equipment is used in a manner that are outside of the specifications in this document, the protection provided by the equipment may be impaired.

3. Do not attempt to disassemble or service the Pro.

For questions or concerns regarding the operation of this dryer or technical assistance, contact Redux support:

E-mail: support@redux.com

Call: 1-844-REDUX-IT (733-8948)

Redux

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Operation

The Pro can be used straight out of the box with almost no additional setup.

1. Connect the Redux-supplied power block cord into the back of the dryer. Connect the power block into a wall outlet. The Pro will power on automatically.



CAUTION: Only use the Class II power supply provided with the dryer. Use of another power supply could possibly cause damage to the dryer.

2. Access the chamber by lifting up and out on the latch on the front of the machine. The lid will open and pivot to the rear of the machine.
3. Place the aid(s) in the vacuum chamber. They will rest on a grayish pad. This thermal pad will help conduct a gentle heat into the aid(s).
4. Close the lid; the latch will make a slight snap sound which allows the chamber to stay closed.



CAUTION: Ensure there is nothing in or on the chamber seal that will prevent the dryer from achieving full vacuum. Do not put anything in the chamber that will hit the domed top of the chamber as this will prevent a seal on the vacuum chamber.

5. Select the type of battery used in the aids to be treated: Rechargeable or Non-Rechargeable. This allows the Pro to use the appropriate amount of heat depending on the type of aid consistent with most manufacturer's guidelines for maximum temperature.
6. Select the blue start arrow to initiate the drying process.
7. The vacuum pump will start, and the dryer will run until the aid(s) are 100% dry. Note the time elapsed and moisture removed on the screen.
8. Remove the aid(s) from the chamber and test the aid(s) function.
9. If desired, the Pro can be unplugged when not in use for long periods of time.

When troubleshooting a potential issue with your Pro, Redux Customer Service may ask you to reset your machine. The Reset button is small and round and can be found on the rear of the machine, in between the power cord and the USB port. The tip of a pen can be used to lightly press the Reset button. The Reset button will cause the Pro to reboot and return to the Home screen.



Moisture Removal Sources of Error

To detect moisture removal, the dryer runs cyclically with each cycle allowing ambient air to enter the vacuum chamber. This air is naturally laden with humidity from the surrounding environment; this ambient humidity is factored into the moisture calculation. This “background” humidity will cause slight errors in moisture removed that is reported. In addition, all plastics absorb water. The moisture removed calculation considers this effect on plastics. ***For the 100%-dry-modes, it is important to understand that regardless of any moisture removal measurement error that might occur, the Pro will have removed absolutely all moisture from the aid(s) by the end of the cycle.***

Measuring Technique

Here are some suggestions for improving the accuracy of your Pro’s moisture removed measurements:

1. Start the day by running the dryer without any hearables in the chamber. This will reduce measurement error caused by any ambient moisture that has been absorbed into the dryer’s chamber. Following this initial dry, any subsequent empty chamber dry will result in $< 0.5 \mu\text{L}$ removed.
2. If possible, dry one hearing aid at a time. This allows the user to discern if one hearing aid (right vs. left) is inundated with more moisture during normal wear. It also allows for faster diagnosis of a problematic pair of aids.
3. Use of the dryer in environments with 30% relative humidity or above will result in best accuracy.



GENERAL MAINTANENCE

Cleaning

1. The Pro thermal pad should be periodically wiped down with a 70% (or greater) concentration of isopropyl alcohol (IPA).
 - a. Never spray or pour any liquid directly into the chamber or onto the thermal pad.
 - b. Unplug the dryer unit for cleaning.
 - c. Dampen a soft cloth with IPA or use a disposable IPA wipe. Then gently wipe any debris or contaminants from the thermal pad.
 - d. If the thermal pad is missing or damaged enough to expose the green surface underneath, discontinue use. Contact Redux support.
2. The outside of the Pro can be cleaned with a clean dry cloth.
3. The display screen can be cleaned in a manner similar to that of a mobile phone or tablet screen.
 - a. Never pour liquids directly onto the screen.
 - b. Never use sharp objects to clean the screen.
 - c. Never use excessive force to clean or operate the screen.
 - d. Never use abrasive cleaners or solvents to clean the screen
 - e. Unplug the unit (to prevent any screen buttons from being pressed during cleaning).
 - f. Use a mist spray bottle of screen cleaner to lightly dampen a clean microfiber cloth.
 - g. Gently wipe the screen with the damp cloth.
 - h. Wipe the screen with a clean and dry microfiber cloth.

Note: For Terms and Conditions of the Limited Warranty, please refer to our website.