



Instruction Manual for the Revolutionary Science POLY PRO BATH SERIES

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NOTE: This manual contains important information, safeguards and operating instructions for the operation of the REVOLUTIONARY SCIENCE Poly Pro Bath Series by Alternative Pioneering Research & Development, Inc. (APR&D, Inc.)

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INTRODUCTION

Thank you for purchasing the Revolutionary Science Poly Pro Bath. We are confident that when used correctly, our water bath will provide years of reliable service in your lab or classroom. We have made every effort to use high quality, durable parts to deliver the performance expected of instruments costing significantly more.

Please let us know what you think of our products, positive or negative, so we can continue to enhance and improve our products in the future.

Sincerely yours,

REVOLUTIONARY SCIENCE

Note To The User:

This product may have updated features not yet mentioned in the product manual.

---PLEASE READ BEFORE OPERATING THE PRODUCT--

To maximize the use of this Poly Pro Bath, please complete this short list before using the product:

- Examine carton and packaging for possible damage caused during shipping. If damage is present contact carrier at once.
- 2. Fill out the checklist (page 9 of instruction manual).
- 3. Carefully read this instruction manual.
- 4. Visit the product registration webpage provided on pg. 8 by scanning the QR code or entering the URL manually and complete the registration online.

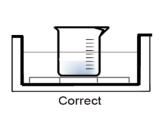
Rev. 03-2023



RECOMMENDED SAFEGUARDS

CAUTION: Chamber contains hot water and steam during and after operation. Hot water may drip from the cover during removal and can cause scalding.

- 1. Never attempt to move the Poly Pro Bath when water in chamber is hot, doing so could cause severe burns. Wait until water in chamber is cool to the touch.
- 2. Never attempt to disassemble or modify the product.
- 3. Never operate bath when chambers are dry. Operating the bath with not enough water (less than 1 inch) will cause the low water detection alarm to sound.
- 4. <u>Use only distilled or deionized water</u>. Never fill the bath with beads, soil, sand or other material.
- 5. Keep clear covers in place when operating bath 60°C and above.
- 6. Do not operate on wet surfaces.
- 7. Make sure the power cord is clear of hot surfaces and other hazards.
- 8. Do not use around flammables, combustible materials, or explosives.
- 9. Keep vents clear from other equipment and avoid setting unit on soft surfaces. This will allow for effective air flow.
- 10. Do not heat any substances that may release fumes considered to be toxic.
- 11. Plug into power cord into a grounded electrical outlet outputting the appropriate voltage.
- 12. Like all heating and cooling equipment their efficiency depends upon the external or ambient conditions. If the room temperature is too low, the bath may not reach high set points of 80 °C or above.





CAUTION:

•Do not place beakers or other flat bottomed devices directly on the bottom of the bath. Doing so may cause damage to the bath liner. Place beakers and flasks on racks that allow for a sufficient amount of water ventilation underneath.

•Bath must be filled with water. Do not substitute water with glass or metal beads.



Recommended Room and Storage Conditions:

- Do not store your water bath in direct sunlight, or in dusty or poorly ventilated areas.
- Do not store in a cold or moist room for periods of time.
- · Never immerse your water bath in water.

OPERATING INSTRUCTIONS

(1) PLACEMENT:

Place unit on a stable, hard surface away from the edge of the counter and moving equipment.

(2) CONNECTING THE POWER:

Plug the power cord to your water bath into a grounded electrical outlet of the appropriate voltage. The RS-PB-100 requires 170 watts and the RS-PB-200 requires 340 watts. Almost any circuit should suffice. Make sure the cord is routed safely away from mechanical hazards and hot surfaces. Avoid routing the cord where others may trip on it or snag it.

(3) TO OPERATE THE WATER BATH:

To turn the water bath off, the device must be unplugged from power. The default display is the actual chamber temperature. To increase water temperature, press and hold the arrow button pointed up for 2+ seconds. To decrease water temperature, press and hold the arrow button pointed down for 2+ seconds. To display the current set temperature, press either button.

(4) LOW WATER DETECTION SYSTEM:

An alarm will sound and display will read 'Lo' if the water level is too low (less than 1 inch deep). Simply add more water until the alarm stops. This alarm can be overridden by pressing and holding the up button until the alarm turns off.

Note: Use caution when overriding this safety feature!

(5) UNDER AND OVER TEMPERATURE ALARM:

If the temperature reading is more than 1.5 °C out of tolerance, the alarm will sound and temperature reading will flash. Note: It is likely that your water bath will sound this alarm when it is powered on. To override this alarm, press the top button once.



CARE AND MAINTENANCE

Your water bath should be cleaned periodically to ensure optimal performance, cleanliness, and to eliminate contamination. Clean your REVOLUTIONARY SCIENCE Poly Pro Bath only when it is not plugged in. Scrape residue from the chamber walls. Follow through with a cloth soaked in water and a mild detergent, wipe the inside and outside of the unit. Then let air dry or wipe with a dry cloth.

USER CALIBRATION INSTRUCTIONS

NOTE: This device was not calibrated in our factory. Initial and regular calibration is the responsibility of the user.

Setup:

Set temperature on Poly Pro Bath and insert thermocouple or thermometer. Place cover and check accuracy of temperature one hour later. If temperature is off by more than 0.5°C, record Poly Pro Bath display reading and thermometer reading and calibrate accordingly, following these three simple steps:

- 1. Press up and down buttons simultaneously. Display should read 'CAL.'
- 2. Then press up arrow if you desire to increase display reading or down arrow if you wish to decrease display reading.
- 3. Then wait for three seconds for the display to return to the temperature reading.

NOTE: Poly Pro Bath will maintain adjusted calibration if it is turned off or restarted. Calibration may be adjusted anytime.

Celsius / Fahrenheit toggle:

To switch the reading between Celsius and Fahrenheit, press and hold the top button. While holding the top button, press the down or up buttons to toggle between F and C.

Note: Fahrenheit readings have a whole number resolution, while Celsius readings have a decimal resolution.



Poly Pro Specifications (Single Chamber)

Model No.: RS-PB-100

Capacity: 5.5L

Precision: Temperature uniformity ±0.4°C*
Display: 3 digits, 0.1°C resolution Digital
Controller: microcomputer 110-240VAC, 50-60

Power Requirements: Hz, 170W, 1.5 A 6 lb.

Net Weight:

Outside Dimensions:

Outside Dimensions: 40cm wide x 25cm deep x 17cm tall

15.7" wide x 9.8" deep x 6.7" tall
Inside Dimensions: 32cm wide x 17cm deep x 13.3 cm tall,

12.6" wide x 6.75" deep x 5.25"
Temperature Range: tall Ambient to 90.0°C* 2 year,

Warranty: repair or replacement

Dual Poly Pro Specifications (Dual Chamber)

Model No.:
Capacity:

RS-PB-200

Precision: 5.5L per chamber

Display: Temperature uniformity ±0.4°C*

Controller: 3 digits, 0.1°C resolution Digital

Controller: 3 algits, 0.1°C resolution Digital Power Requirements: microcomputer 110-240VAC, 50-

Net Weight: 60 Hz, 340W, 3 A lb.

45cm wide x 53cm deep x 29 cm tall

Inside Dimensions: 18" wide x 21" deep x 12" tall 33cm wide x 28cm deep x 13 cm tall,

Temperature Range: 13" wide x 11" deep x 5" Warranty: tall Ambient to 80° C* 2

year, repair or replacement

*Measured @ 37°C under controlled laboratory conditions.

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REGISTRATION

For your future reference and to expedite answers to your questions, please complete the following information:

Date ______

Purchased: ______

Serial Number: ______

Model Number: ______

Purchased From:

FULL TWO YEAR WARRANTY

The REVOLUTIONARY SCIENCE RS-PB-100 and 200 is warranted to be free from defects of material or workmanship under normal use for a period of two years from date of purchase. If your bath proves to be defective within this warranty period, Revolutionary Science will repair or replace your unit at our option. This warranty will be void if malfunction is caused by accident, misuse, or negligence, including tampering, abuse, or damage in transit. This warranty excludes any relief for incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights; you may also have other rights, which may vary from state to state. Your bath comes with several built in safety features. Any attempt to interfere with the operation of these features makes this warranty null and void.

To validate this warranty, be sure to complete and return the Warranty Registration Card, found on page 8.

LIMITATION OF LIABILITY

IN NO EVENT WILL SELLER BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, EXEMPLARY, SPECIAL, OR INCIDENTAL DAMAGES, INCLUDING ANY LOST PROFITS, ARISING FROM OR RELATING TO THE SERVICES EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SELLER'S TOTAL CUMULATIVE LIABILITY IN CONNECTION WITH THE SERVICES, WHETHER IN CONTRACT OR TORT OR OTHERWISE, WILL NOT EXCEED THE FEES PAID FOR THE SERVICES. ONE OR MORE CLAIMS WILL NOT ENLARGE THIS LIMIT.

CONTACT US

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E-mail: support@revsci.com Web site: www.revsci.com



WARRANTY REGISTRATION

Please visit the registration webpage by scanning the QR code or entering it in manually to register your Revolutionary Science Poly Pro Water Bath.



https://www.revsci.com/pages/product-registration-and-feedback



CHECKLIST

Before packaging material is discarded please make sure all parts are accounted for
Clear cover(s)
Poly Pro Bath
Black mesh (for beakers, bottles and flasks)
Notes, Service Record, etc.



TROUBLESHOOTING

Please visit the Revolutionary Science troubleshooting webpage by scanning the QR code or entering it in manually to view instructional videos covering potential Poly Pro Bath issues and their solutions.



https://www.revsci.com/pages/troubleshooting



TROUBLESHOOTING

Symptom	Cause	Action
Temperature on the display is higher than the actual	Polypro Bath may be in need of calibration	See calibrations instructions in the manual
Temperature on the display is lower than the actual	Polypro Bath may be in need of calibration	See calibrations instructions in the manual
Display screen does not turn on	Power button must be pressed or power cord may be disconnected	Inspect power button and repress. Insert power cord
	Calibration may be out of range	Press and hold the up and down buttons, reset calibration
Display reads 'Lo' and alarm sounds	Insufficient water Insufficient water sensor failure	Fill with at least one gallon of water. If alarm does not stop, contact Revolutionary Science. This alarm can be overridden by pressing and holding the up button until the alarm turns off. Note: Use caution when overriding this safety feature!
Unit does not turn off when the top button is pressed	The button was not held down long enough	When powering down the unit, push and hold the top button for about five seconds
Water does not get warm or hot after an hour	Possible calibration offset	Correct calibration. If problem persists, contact Revolutionary Science
Takes too long to reach the set point temperature	Cover may not be on	Place cover over the chamber. The Poly Pro Bath is not a rapid heat water bath. It may take a several hours to reach high temperatures of 80°C or higher. Set point temperature can be more rapidly achieved by filling the chamber with warm or hot tap water and keep cover in place.

If symptoms persist, please contact Revolutionary Science
Support Center at support@revsci.com or call (800) 775-7942.





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