

Operating Instructions

Bio-Rad Laboratories Temperature-Controlled Water Bath

1660504 and 1660524

For Technical Service Call Your Local Bio-Rad Office,
Or in the U.S., call 1-800-4BIORAD (1-800-424-6723)



1. Specifications

Bio-Rad's Temperature-Controlled Water Bath is a general purpose 6-liter water bath capable of heating liquids and accurately maintaining temperatures up to 100C.

Temperature range:	Ambient to 100C
Controls:	Analog – hydraulic
Chamber size w x d x h:	13 x 6.7 x 6.9 in/32 x 17 x 17.5 cm
Capacity:	6 liters
Unit size w x d x h:	14 x 11 x 13 in/36 x 27.5 x 32 cm
Unit weight:	17 lbs/7.7 kg
Accessories included:	Stainless gabled lid, thermometer clip
Electrical:	115V, 50/60Hz, 4.8 amps 230V, 50/60Hz, 2.4 amps

2. Unpacking

Carefully inspect the unit and accessories thoroughly upon receipt for any damage that may have occurred during the shipping.. Severe damage to the packaging container may indicate damage to the unit. If you suspect damage to the unit, immediately file a claim with the carrier in accordance with their instructions before contacting Bio-Rad Laboratories.. Also verify that all accessories are included and that the unit is in working order before discarding any shipping packaging.

The Water Bath is supplied with the following accessories:

- Stainless gabled lid
- Thermometer
- Thermometer clip
- Power cord (two cords included with 1660524)

3. Installation



Your satisfaction and safety require a complete understanding of this unit. Read the instructions thoroughly and be sure all operators are given adequate training before attempting to put the unit in use. This equipment must be used only for its intended application; any alterations or modifications will void your warranty and may cause injury.

Local city, county, or other ordinances may govern the use of this equipment. If you have any questions about local requirements, please contact the appropriate local agency. Installation may be performed by the end user.

3.1 Power Source

Check the data plate for voltage, cycle, wattage and ampere requirements. If matched to your power source, plug the power cord into a grounded outlet. Voltage should not vary more than 10% from the data plate rating.

3.2 Location

In selecting a location, consider all conditions which might affect performance, such as heat from radiators, autoclaves, etc. Avoid direct sun, fast-moving air currents, heating/cooling ducts and high traffic areas. Allow a minimum of 5cm between the unit and walls or partitions which might obstruct free airflow.

3.3 Lifting/Handling

This unit when full may be heavy for some people and care should be taken to use appropriate lifting devices that are sufficiently rated for these loads. Units should only be lifted from their bottom surfaces. Handles and knobs are not adequate for lifting or stabilization. The unit should be completely restrained

from tipping during lifting or transport. All parts such as covers, thermometer and line cord should be removed during transfer to prevent shifting and damage.

3.4 Cleaning Before First Use (Refer to Section 5)

This unit was cleaned at the factory, but not sterilized. It is recommended that you clean the bath with a disinfectant that is suitable for your application.

DO NOT USE chlorine-based bleaches or abrasives as this can discolor the stainless steel tank. **DO NOT USE** spray cleaners that might leak through openings and cracks and get on electrical parts or that may contain solvents that will harm the coatings.

4. Controls Overview

4.1 Power Switch (Front Panel)

The main power switch is on the front panel and controls all power to the unit. The switch will light when the unit is energized.

4.2 Temperature Controller (Front Panel)

This control knob is marked TEMPERATURE. It controls the water bath operating temperature on a scale of 1 to 10.

4.3 Heating Lamp (Front Panel)

This light is ON when unit is heating. When the unit has reached the set point temperature the light will be on only when the unit is calling for heat to maintain temperature.

5. Operation

WARNING: This bath is not intended for use as an acid bath. Use as an acid bath will cause



severe damage to bath components. Do not use deionized water, tap water or chemicals. **USE DISTILLED WATER ONLY.** If tank boils dry while containing plasticware, the plastic will melt. If you intend to use test tube racks, remember that wire racks or plastic coated racks may wear and expose metal which can cause damage. The use of test tube racks made entirely of plastic is highly recommended

5.1 Place the unit on a level surface and plug the unit into a properly grounded electrical outlet of appropriate voltage.

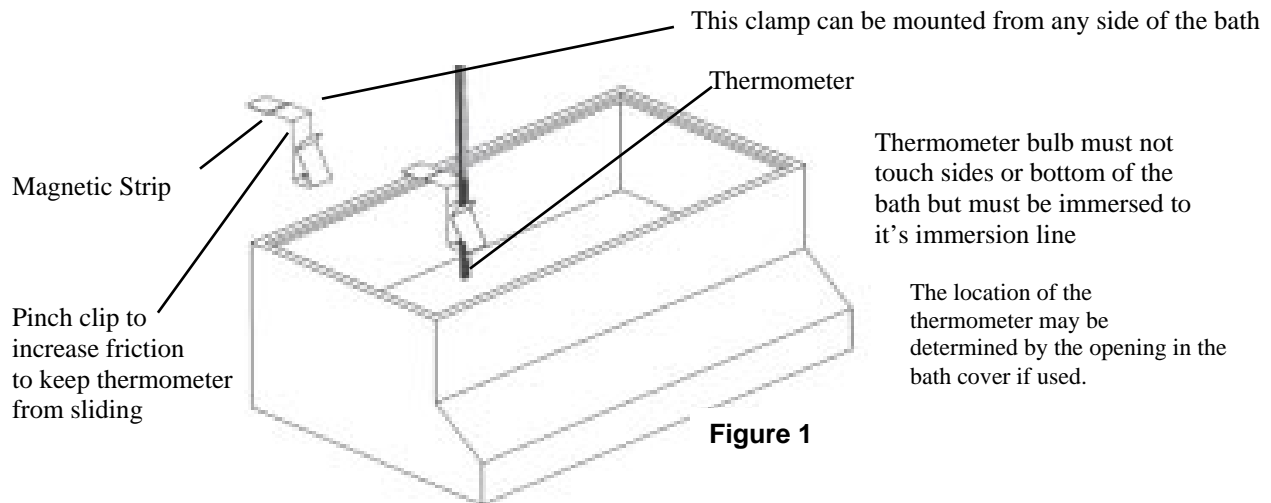
5.2 Fill the bath to your required depth **with DISTILLED WATER ONLY. DO NOT USE** tap water. **DO NOT USE** deionized water. Note that normal depth is two-thirds full, but depth **must** be at least two inches

5.3 Place user supplied thermometer in desired position. (A clip is provided for holding the thermometer).

See Figure 1

5.5 Push the power switch to the ON position. The switch will light.

5.6 Set Temperature Controller to 10. When the thermometer reaches the desired operating temperature turn the control down until the heating light turns off. Wait for the temperature to stabilize and adjust controller as necessary until desired operating temperature is obtained.



NOTE: The heating element of this bath does not contact the tank bottom, thus will not burn out if the tank is allowed to run dry. However, a tank going dry may strain interior surfaces so this should not be allowed to occur.

6. Cleaning and Maintenance



Prior to any cleaning or servicing on this unit, disconnect power cord from the unit.

6.1 Cleaning

Heavy water bath use causes soiling. Clean the bath with mild soap and water solution, rinse with clean water and wipe dry with soft cloth. Stainless steel does not rust, but foreign materials in the tank may rust or leave rust spots. If corrosion is seen, scrub out the stains with a mild abrasive, never steel wool.

Failure to do this can damage the stainless steel components.



WARNING: Never clean the unit with alcohol or flammable cleaners with the unit connected to the wall outlet. Always disconnect the unit before cleaning and assure that all volatile or flammable cleaners are evaporated and dry before plugging unit back in.

7. Troubleshooting and Service

If the unit fails to operate, check that the unit is plugged into a working outlet. Check that the unit is switched on and that the temperature controller is turned up. Finally, check the fuses.

If the problem persists, contact Bio-Rad's technical support team at 1-800-424-6723. Please have your purchase order number and the serial number available when you call.