

Human Immunology Center Core Laboratory

David H. Smith Center for Vaccine Biology and Immunology

Aab Institute of Biomedical Sciences

STANDARD OPERATING PROCEDURE: Operation and Maintenance of the VWR Model 1200 Water Bath

Date: 01/03/07

Author: Shelley Secor-Socha

Approval: Dr. Sally Quataert

1. Purpose/Scope:

The purpose of this procedure is to outline the operation, maintenance and calibration of the Model 1200 Series Water Bath from VWR located in the Human Immunology Core Laboratory (HIC).

2. General Policy:

The HIC will adhere to the specific guidelines recommended by VWR for the use and maintenance of the water bath. The specific policy will be outline below for use and care of the water bath. This will also include the proper documentation indicating that the maintenance recommended has been completed and also tracking of any issues or problems with the water bath on the maintenance log worksheet. The water bath will be monitored for temperature and adjusted as appropriate to maintain specified calibration for each procedure where the equipment is used.

3. Specific Policy**3.1. Installation of the Water Bath**

3.1.1. Reference the operation manual for the specific installation procedure of the water bath.

3.1.1.1. Do not place it in direct sunlight and avoid high traffic areas, heating/cooling ducts and instruments that generate heat like ovens or autoclaves. The unit should be a minimum of 5 cm away from obstructions.

3.1.1.2. Calibration of the digital display.

3.1.1.2.1. Allow the water bath to stabilize.

3.1.1.2.2. Place an Enviro-safe thermometer in water bath in the clip provided.

3.1.1.2.3. Allow the thermometer to stabilize and remain at a constant temperature for at least 1 hour.

3.1.1.2.4. Compare the thermometer temperature to that on the digital display.

3.1.1.2.5. To change the display, place into calibrate mode by pressing the UP/DOWN arrow pads simultaneously until the 2 outside decimal

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places begin to flash. The display can now be changed by using either the UP or DOWN arrow pad until the temperature is in sync on the display with the thermometer. Allow the water bath to stabilize and repeat to verify display is correct.

3.2. Operation of the Incubator**3.2.1. Reference the manual for specific operation procedures.****3.2.1.1. Changing the main temperature set point.**

- 3.2.1.1.1. Press the UP or DOWN arrow pad one time.
- 3.2.1.1.2. The display will blink and show the current set point.
- 3.2.1.1.3. Use the UP or DOWN arrows to change the set point. If the arrows are not pressed for 5 seconds the display will stop blinking and the water bath temperature will be displayed.
- 3.2.1.1.4. Allow 2 hours for the water bath to stabilize after changing the temperature.

3.2.1.2. Setting the Over Temperature Safety Thermostat.

- 3.2.1.2.1. The thermostat should be turned to the maximum position when changing the water bath temperature.
- 3.2.1.2.2. After 2 hours, the water bath temperature should be stable after changing the set point. Turn the thermostat counter clockwise until the OTP light turns on.
- 3.2.1.2.3. Turn the thermostat clockwise just until the light turns off. Then turn it clockwise 2 of the smallest divisions on the scale past the point when the light went out. This should be approximately 1°C above the main temperature point.

3.2.1.3. Verify the temperature before use to meet procedural requirements for the material being placed in the water bath.**3.2.1.4. Verify proper maintenance has been performed as documented on the maintenance log worksheet located above the water bath.**

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3.2.1.5. Never allow the tank of the water bath to go dry.

3.2.1.6. Never lift the water bath by the handles. Lift unit from the bottom surface.

3.3. Maintenance of the Incubator

3.3.1. Daily

3.3.1.1. Record the temperature daily from the display visible on the front of the water bath and record on the maintenance log worksheet.

3.3.2. Weekly

3.3.2.1. Verify there is at least 1 inch of water within the tank of the water bath. Fill with distilled water if necessary. Add 7 drops of Clear Bath Algaecide to for every 1.3 liters of water added.

3.3.2.2. Verify the temperature of the unit with an Enviro-safe thermometer that is located in the back of the water bath and record the value on the maintenance log worksheet.

3.3.3. Monthly

3.3.3.1. Unplug the water bath from the electrical outlet. Empty the water bath and spray interior with vesphene. Wipe down with paper towels. Repeat with 70% EtOH. Add distilled water so the water line is 3 inches above the bottom of the water bath, add 7 drops of Clear Bath Algaecide to for every 1.3 liters of water added. Record completed on the maintenance log worksheet.

Reference:

Installation and Operation Manual for the Model 1200 Series Water Bath located in the equipment file in the HIC laboratory

Attachments:

Maintenance Log Worksheet

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Revision History

Version	Change	Impact	Justification	Change Date:
Legacy	No sign off	New/HIC startup		12/20/04
HIC-4-0003	New	Daily record of temperature	Control document management system	01/03/07