



## Digital Water Bath

### Item: 470230-584 Instruction Manual

Wards's 2L water bath is a micro-processor controlled - thermostatic water bath primarily used for petroleum, biochemical and scientific research. The instrument is designed for accurate temperature control between ambient +5°C up to 99.9°C.

#### **I. Product Specifications:**

**Capacity:** 2L

**Temperature Range:** Ambient +5°C to 99.9°C.

**Temperature Accuracy:** +/-0.2°C (37°C)    **Temperature Uniformity:** +/-0.2°C (37°C)

**Dimensions (Internal):** wxdxh 14 x 15.2 x 10.1 cm (5.5 x 6 x 4")

**Dimensions (External):** wxdxh 16.5 x 20.3 x 15.2 cm (6.5 x 8 x 6")

**Weight:** 2 kg (4.5 lbs)    **Electrical:** 100-120VAC or 220-240VAC, 50/60Hz, 8A/5A

**Operating Environment:** 10°C to 30°C 70%RH    **Warranty:** 2 year

#### **II. Product Set-Up:**

Place the water bath on a clean, level and stable surface. Make sure that the power switch is in the OFF position. Plug the power cord into the back of the unit, then plug the electrical cord into a properly grounded outlet of the correct voltage (shown on the serial number label). Prior to powering up the instrument, fill the tank with water (at least 50%). **WARNING:** Before heating, ALWAYS ensure that the water tank is at least 50% full.

#### **III. Product Operation:**

Once the tank is filled with liquid, power on the instrument (power switch is located on the back of the instrument). The display will indicate the current bath temperature

To set the desired temperature, press the "up" or "down" arrow buttons until the desired temperature is reached. The display will flash four times and then save the set temperature. The bath will begin to heat to the desired temperature. While heating, the display will flash every second until the desired temperature is reached.

**WARNING:** NEVER touch the inner chamber of the bath when in use.

#### **IV. Recalibration:**

If adjustment to the temperature calibration is required, this can be accomplished by following the steps below:

- Set the bath to desired calibration temperature and allow the bath to stabilize for 45 minutes.
- Use a calibrated thermocouple to measure the actual temperature of the bath and compare to the display temperature. Make note of any difference.
- Press the "up" and "down" arrow keys at the same time. The display will briefly flash and display a factory set offset number.
- Use the arrow keys to adjust the offset number to account for the difference of the measured temperature and the display. The factory set offset number may not be zero. The offset number should be adjusted up or down to account for the difference between the measured temperature and the displayed temperature. (Ex. When there is +2°C difference between measured temperature and display temperature, and the offset number is factory set to +1°C, the user should adjust the offset to read +3°C)
- The display will flash four times and save the new offset number.

#### **V. Care and Maintenance:**

No routine maintenance is required other than to keep the unit clean. Cleaning can be done with a damp cloth. Avoid the use of solvents as they may attack the product housing.