# **Instruction Manual Mini Digital Dry Bath**

# Models D0100 and D0100-230V



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#### 1.0 General Specifications

Temperature range Ambient +5° to 100℃

Temp. increments  $0.1^{\circ}$ C Temp. uniformity  $\leq 0.2^{\circ}$ C Temp. accuracy  $\leq 0.2^{\circ}$ C

Timer 0 -19h:59m or continuous
Block Anodized Aluminum
Block capacity 12x 1.5mL tubes

Dimensions (WxDxH) 5.5 x 4.8 x 2.4 in./14 x 12 x 6 cm

Weight 3 lb/1.3 kg

Electrical 120V or 230V~, 50/60 Hz

Electrical requirements:

100-240V, 50/60Hz, 0.7A - 30W Max

# 2.0 Safety Precautions:

- Do not use this product in an explosive environment
- Do not use in the presence of flammable or combustible material
- Do not heat substances that react violently when heated
- Do not touch area around block or block well when unit is hot.
- Do not spill liquids into the well area or into the unit
- Connect unit only to a properly grounded outlet

### Caution: HOT Surfaces that can burn or cause injury.

Use of this product in any manner not specified by the manufacturer or modification of the product may cause injury and/or may void the warranty.

#### 3.0 Installation

Upon unpacking Mini Digital Dry Bath, inspect for damages. Shipping damage is the responsibility of the carrier. Inspect that the following are present:

AccuBlock™ Mini with AccuRack™

Users manual

Switching Power Adapter

Line cord

Select a location that is dry and not subject to drafts or moving air from heating or air conditioning vents, or air blown by other equipment. Place the unit on a flat, preferably non-flammable surface. Allow sufficient room around the unit for access and cooling. Six inches minimum on all sides is suggested. Plug the unit into a properly grounded outlet. Using the lifter, insert the block(s) into the well. The unit is now ready for use.

#### 4.0 Controls

**LCD Display** (Block Temperature, Set Temperature, Timer)

Heat LED (Heater Function)

Main Power Switch Turns entire unit on and off.

**START/STOP Switch** Begins and ends the heating process

**Mode Switch** Toggles the LCD display between Temperature and Timer Settings

Up Switch Used to increment the set temperature.

Down Switch Used to decrement the set temperature.

# 5.0 Operation

- 1. Turn the unit on using the Main Power rocker switch on the rear of the unit.
- 2. The LCD will display a self test and the LED will turn on.

- 3. After two seconds the unit will enter normal operation and display the current temperature of the block.
- 4. Press the Up or Down switches to set the block to the desired temperature. The display will change to the current temperature set point. The temperature is set in 0.1 degree C increments. Holding the Up or Down key for more the eight seconds will increase or decrease the set point rapidly. The display will automatically return to current temperature four seconds after the switch is released. Note, the temperature may not be adjusted with the unit actively heating the block.
- 5. The temperature setting will be stored in memory when the display returns to the current block temperature. This setting will be retained if the power is turned off. Note the display must return to current temperature before the power is turned off or the new set temperature will NOT be saved.
- 6. Press the START/STOP to begin the temperature control. The "^" will be displayed on the LCD when the unit is in active temperature control.
- 7. The LED will turn on and off with the heating element.
- 8. The LED will be off when the unit is turned off and when the heater is not actively heating the block.
- 9. The maximum set temperature is 101C.
- 10. The Mode switch will scroll through current temperature, the elapsed time from the press of the START button, LCD off and countdown timer.

#### Heating & Countdown Timer

- 1. Turn the unit on using the Main Power rocker switch.
- 2. Press the Up or Down switches to set the block to the desired temperature. Holding the Up or Down key for more the eight seconds will increase or decrease the set point rapidly. The display will automatically return to current temperature four seconds after the switch is released. Note, the temperature may not be adjusted with the unit running.
- 3. Press the Mode button until "1:00" is displayed. This is the default Count Down timer setting. The maximum time is setting is 19:59.
- 4. Press the up or down key to set the desired count down time.
- 5. Press Start/Stop button to begin heating.
- 6. The LCD will alternate between actual temperature and time remaining.
- 7. When time runs out the LCD will alternate between the current temperature and "---". The beeper will sound when "---" is displayed.
- 8. Heating will NOT turn off when time expires.
- 9. To cannel the countdown timer press the Mode key one time to advance to the standard temperature only read out.

## 6.0 Calibration

- Press and hold the Start/Stop then simultaneously powering up the unit with the ON/OFF switch.
- 2. Release the Start/Stop button when the LCD displays "---".
- 3. The will beep 4 times and the display will show the calibration set point and the ":" will flash rapidly.
- 4. Press the UP or Down keys to set the desired temperature at which you want to calibrate the unit.
- 5. Press the Start/Stop to begin calibration. The "^" will be displayed on the LCD when the unit is in active temperature control.

6. Allow 10 – 40 minutes for the unit to heat up and reach equilibrium. A high temperature calibration set point will require more time.

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- 8. After the unit has equalized the LCD will flash "---"and the current temperature.
- 9. Read the thermometer (or sensor meter) and use the UP and Down keys to adjust the display to the thermometer or sensor reading.
- 10. Press the Start/Stop key to save the new settings.
- 11. Press the Start/Stop key again. The unit will adjust to the operating temperature with the new calibration factor. Allow sufficient time for the unit to re-equilibrate and then compare the thermometer or sensor reading to the calibrated display. They should closely match (2+/- 0.2 C). If not, repeat calibration procedure.

# 7.0 Troubleshooting Guide / Service (Labnet Service 1-888-LABNET-1)

Problem Explanation / Solution

Display / LEDs do not light up

- 1. Check power cord & outlet.
- 2. Check ON / OFF switch.
- 3. Check for Light on Power Adapter.
- 4. Call service.

#### Unit not heating

- 1. Is set point below room temp?
- 2. Is Heating LED turning Off and On?
- 3. Press "Start/Stop" key.
- 4. Is the "A" displayed on the LCD?
- 5. Call service.

Block or Sample temp not same as display temp.

- 1. Is unit in heating mode?
- 2. Is unit sitting in draft?
- 3. Check accuracy of thermometer.
- 4. Is reference thermometer making good contact?
- 5. Follow calibration procedure

# 8.0 Cleaning and Maintenance

Make sure that the dry bath and block are cool and the power cord is disconnected before performing any cleaning or maintenance. Repair or maintenance should only be performed by an authorized service technician.

The dry bath may be cleaned with a moist cloth containing a mild soap solution. Do not immerse the dry bath in water or any liquid.

Spills: In the event liquid is accidentally spilled into the block area, disconnect the plug from the outlet and turn the unit upside down to minimize liquid contact with the internal components. Allow the unit to dry. Have qualified service technician clean the unit and replace any damaged parts.

