DRAINING THE BATH

Disconnect the power from the calibration bath before draining or have an empty container with suitable volume (5L) to hand screw the threaded adaptor into the mouth of the tap and connect the rubber hosing if needed to control the flow towards a container. Open the tap fully with a 90° turn and allow the bath to empty.

Once the flow has lessened, twist the handle 90° back, flat with the bath to close. The tap and the threaded tap/ hose can then be disconnected.

Using a paper towel, dry the remnants of fluid from inside. The bath can now be filled with a different contact fluid or safely set aside for storage.

SAFETY

⚠ If using Silicone oil, do not fill to the lip of the bath in one go. The effects of thermal expansion will cause the volume of oil to expand as the temperature rises and will cause the bath to overfill, creating a slip and burn hazard. For this reason we do not recommend leaving the bath unattended when using Silicone oil.

⚠ It is recommended the user monitors the depth of the liquid and adjusts accordingly to ensure this does not occur. An approximate guide for filling is to fill 3L of oil then heat to the appropriate temperature before topping up and allowing for further expansion of the new oil.

⚠ Only test within the front 130mm³ of the bath, keeping objects free from the back of the bath where the circulation pump is located.

THERE ARE NO USER SERVICEABLE PARTS INSIDE.

GUARANTEE - This instrument carries a one-year guarantee against defects in either components or workmanship. During this period, products that prove to be defective will, at the discretion of ETI, be either repaired or replaced without charge. The product guarantee does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification. Full details of liability are available within ETI's Terms & Conditions of Sale at etiltd.com/terms. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

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822-950/20.01.21

CALIBRATION BATH

User Manual

Product Code
822-950

CONTENTS

- Calibration bath
- UK mains lead (with 13A rated fuse)
- Bath lid cover
- Bath operation manual
- Threaded drain connector
- 5/8” ID Rubber tubing

On receipt of your calibration bath ensure it is checked for any noticeable damage before powering on and that the plug has the appropriate fuse before plugging into an AC outlet.

The calibration bath offers an affordable temperature environment to test factory reference equipment with a user-friendly LED display and with minimal setup required.

SPECIFICATION

Range	25 to 95 °C
Resolution	0.1 °C/ °F
Accuracy	±1 °C (+25 to 70 °C) *
Bath Capacity	5 litres
Pump Flow/Speed	0 to 20 litres per minute
Bath Stability	±0.1 °C over a 45 minute period
Bath Uniformity	±0.1 °C When measured from centre to any corner
Power	230 volt AC (±10%) 1.5A
Internal Dimensions	130 x 130 x 260 mm
External Dimensions	318 x 380 x 445 mm
Weight	12000 grams

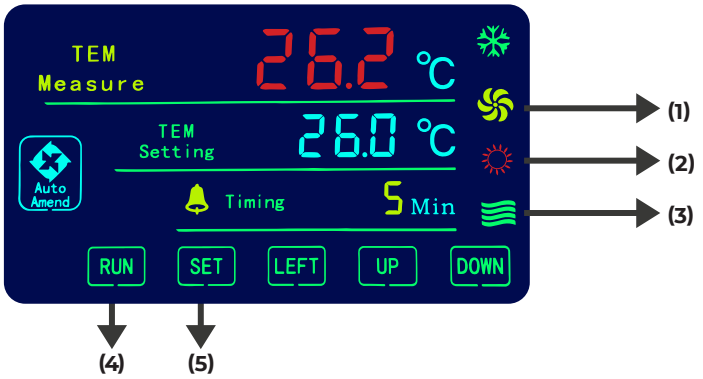
*It is possible to achieve a higher level of accuracy, better than ±0.2 °C if the calibration bath is used in conjunction with a certified Reference Thermometer

FILLING THE BATH

Ensure the internal bath surfaces are clear and that the drain outlet is closed before filling with your chosen contact fluid. Fill to between 30mm and 10mm under the lip of the bath (4L)

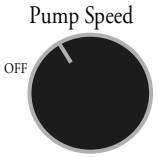
Temperature range 25 °C – 60 °C use Distilled water.
Temperature range 60 °C – 80 °C use 15% Glycerine water solution.
Temperature range 80 °C – 95 °C use Silicone oil.

OPERATION



FUNCTIONS

Indicates the circulating pump is powered when the ‘RUN’ button has been pressed for 2 seconds. When the calibration bath is set to standby and not on ‘RUN’ the LED should not be lit.
The pump speed is user set via the control dial on the back of the instrument.



Indicates the heater circuit is powered when the ‘RUN’ button has been pressed for 2 seconds.

Indicates the fluid level is lower than 30 mm recommended for operation.

RUN Pressing the ‘RUN’ button for 2 seconds turns the heater and pump control on allowing the microcontroller to achieve the set point and inducing a short repeated beep. If already running, holding the button for 2 seconds will turn the heater and pump off signalling another beep.

SET Pressing the ‘SET’ button allows the user to navigate the display.

On pressing ‘SET’ the user can press ‘UP/DOWN’ to select either the timing function or temperature set point. Pressing ‘SET’ again enters the menu allowing the user to change the values up and down and moving through the values right to left using the ‘LEFT’ key. Once the correct setting has been entered press ‘SET’ again to come out of the menu.

- Temperature set point values can be set from 25 °C – 95 °C.
- Timing function values can be set from 0 – 9999.
- A time value of ‘0’ indicates the unit is always on.

Selecting a value other than 0 will set a time in minutes before the calibration bath defaults to standby, signalled by a loud repeated beep and displaying ‘END’ on the touch screen.