Trouble shooting

1. Power is switched on but the power indicator does not light up

Possible causes	Actions to take
No power input	Check the power source
Loose plug	Insert the plug into the socket securely
Device is powered and running but the power indicator does not light up	Replace the power switch
Power wire broke or loose connection	Replace the power wire(s)
Tripped fuse	Check the fuse and replace it if needed

2. Heating indicator of the water bath does not light up after the calibration temperature is set

Possible causes	Actions to take
Water temperature is higher than the set temperature	Cool down the water in the bath
Defective heating indicator	Contact Rossmax for service
Defective temperature controller	Contact Rossmax for service
Set temperature is too low	Set temperature should be at least 5°C higher than operating temperature

3. Heating indicator of water bath lights up, whereas the water temperature remains low

Possible causes	Actions to take
Defective heater circuit	Contact Rossmax for service
Defective temperature controller	Contact Rossmax for service

4. Water temperature continues to rise and exceed the set temperature

Possible causes	Actions to take
Defective temperature controller	Contact Rossmax for service

5. Large fluctuation in water temperature

Possible causes	Actions to take
Water temperature is not stable yet	Wait for temperature to stabilize
Set temperature is too close to ambient temperature	Lower the ambient temperature
Defective temperature controller	Contact Rossmax for service
Defective water heater	Contact Rossmax for service

6. Power and power indicator are both on, whereas the water circulating pump does not start

Possible causes	Actions to take
Foreign object clogs inside the pump	Remove the foreign object
Loose screw used to secure the propeller	Tighten the screw
Defective motor	Contact Rossmax for service

7. Noise generated by the stirrer motor

Possible causes	Actions to take
Bearing ball oxidation	Replace bearing
Bearing aging	Replace bearing

WARNING: The symbol on this product means that it's an electronic product and following the European directive 2012/19/EU the electronic products have to be disposed on your local recycling centre for safe treatment.

ISO 13485 CE

QBM_IB_ThermoCal_ 220240V_EN_ver2111

Manufacturer: Rossmax Swiss GmbH,
Widnauerstrasse 1, CH-9435 Heerbrugg, Switzerland

rossmax

Professional Testing Device

for Thermometer

Model: **ThermoCal**

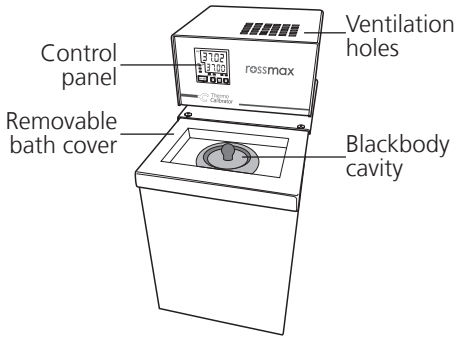
Instruction Manual

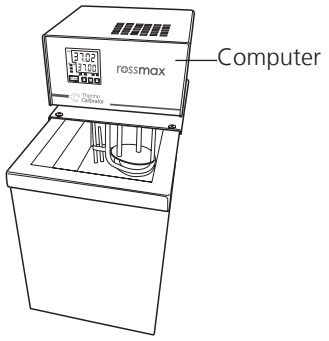
www.rossmax.com

Introduction

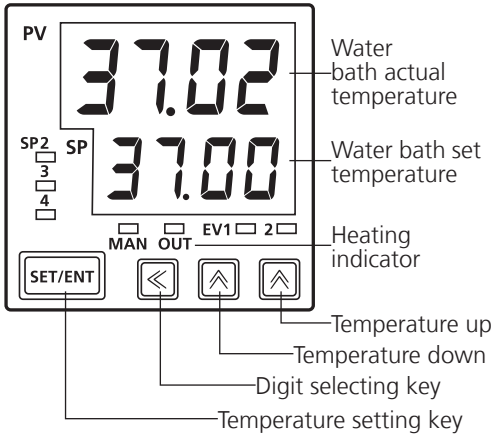
Accuracy is always the biggest concern of a thermometer user. Rossmax ThermoCal is a portable and convenient device that allows the user to easily check the accuracy of a thermometer in just a few seconds. The innovative design of the adjustable blackbody cavity applies to all three types of Rossmax thermometer products - pen type, ear and temple thermometer.

Parts name/location

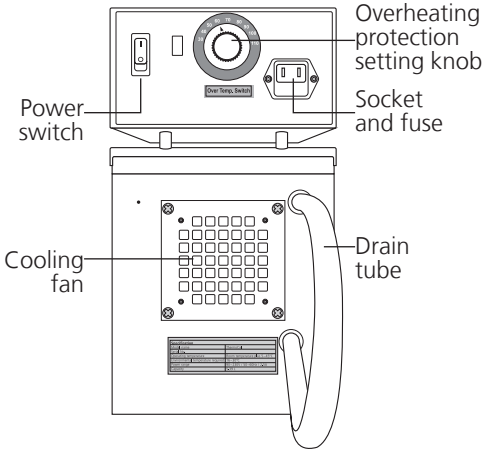




Control panel



Back view



Instructions for installation

1. Install the device on a solid surface.
2. Make sure the power is off before plugging in the device.
3. Keep the device away from the environment with direct sunlight, high temperature, high humidity or severe change in temperature.
4. Make sure the AC power and its grounding plug are properly connected.
5. Do not use power extension cords.
6. Use pure water or distilled water only for the water bath to avoid contamination or water heater breakdown.
7. Pay attention to the water level to avoid overspill.
8. The water bath is to remain 90% full at all times to reach water temperature stability.

Operation procedures

1. Check the accuracy

Step 1: Check water level of the bath.
Step 2: Turn on the device.
Step 3: Select a testing temperature on the control panel (default at 37°C).
Step 4: Wait for the water to reach the desired temperature.
Step 5: Choose the blackbody cavity corresponding to the thermometer types.
Step 6: Set the thermometer into the calibration mode.
Step 7: Insert the probe/tip into the cavity.
Step 8: Start the measurement.
Step 9: Thermometer will beep when the measurement is completed.
Step 10: Compare the reading given by the thermometer to the calibration temperature. The acceptable allowance is within ±0.2°C.

2. Drain the water bath

Step 1: Make sure the device is off.
Step 2: Remove the tube from the upper end.
Step 3: Empty the water bath by lowering the upper end of the tube.
Step 4: Plug the tube back in after the draining is completed.

Cautions and maintenance

1. Make sure the device, AC power and its grounding plug, is plugged in properly.
2. Change water periodically, once a month is suggested.
3. Use pure water or distilled water only for the water bath. Other water sources might increase the chance of calcium carbonate formation on the outside of the water heater.
4. Make sure there is enough water in the water bath every time before using the device. Please constantly pay attention to the water level and hygiene when/if the device runs for over 6 hours or the water temperature exceeds 40°C.
5. Keep the device away from physical impact.
6. Unplug the device and empty the water bath if the device is going to be inactive for a long time.
7. Unplug the device before moving it or draining the water bath.
8. Clean the water bath with a 3M scrub sponge if any signs of iron oxidization appear.
9. Pay attention to the water temperature to avoid scald.

Specifications

Power source		AC 220-240V 50/60 Hz
Power of water heater		255W
Testing temperature		Ambient temperature + 5°C to maximum 45°C
Ambient temperature		16 ~ 30°C
Stability of water bath temperature		± 0.02°C
Diameter of blackbody cavity	Pen type	15 mm
	Ear	12.5 mm
	Temple	55 mm
Capacity		5.39 Liters
Weight		9.69 kgs
Dimension		180(W) x 350(H) x 320(D) mm