

User Manual  
**TN450**  
Tissue Flotation Bath



**Read Prior to Operation!**  
Always keep this manual near the unit!

WP47673  
06.02.15



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# 1 | General Summary

The **TN450 Tissue Flotation Bath** is used for heating a tissue ribbon before placing it on a slide for reading. Its small size and light weight make it a practical instrument for pathology labs, hospitals, medical schools and scientific research institutions.

## Features:

- Digital screen with indicator lights.
  - Controller/microprocessor.
  - Four bright LED lights located around the glass bowl.
  - Advanced heating components, superior thermal conduction performance, homogeneous heating, energy savings, and reliable quality.
  - Integrated heating block ensures immediate, uniform and controlled heating.
  - Real time display of all settings.
  - Memory function and recovery function.
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# 2 | Installation

- The instrument should be installed with a grounding socket.
- A three-line grounded power source is required.

## Safe Handling

- When transporting the package, handle with care, avoid getting wet, and keep in upright position.
  - If the outer package is damaged seriously, do **NOT** open and immediately contact Tanner Scientific® at 888.708.5233, and the transportation carrier.
  - Unpack the carton and remove all components.
  - Place unit on a stable platform within the lab.
  - **DO NOT PUT THE INSTRUMENT NEAR ANY EXPLOSIVE OR FLAMMABLE MATERIALS.**
  - Water bath should be stored in a clean and ventilated room in which humidity is less than 80%.
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### 3 | Safety

- Keep equipment clear of any flammable chemicals and avoid high heat areas.
  - Avoid prolonged contact with the LCD screen as it can crack and not function correctly.
  - When the instrument is on, do **NOT** touch any heated area with your hand.
  - Turn off the main switch and pull out the power socket before changing a fuse.
  - Never place an empty, dry glass bowl in the bath when the heaters are on. The bowl will become very hot and could cause burns when touched.
  - If equipment remains unused for a long time, pull out the power socket and install the dust cover to extend the life of the instrument.
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### 4 | Technical Parameters

**Temperature Setting Range:** 0-55°C

**Temperature Tolerance:** +1°C

**Working Voltage:** AC110V, 60Hz

**Power:** 400 VA

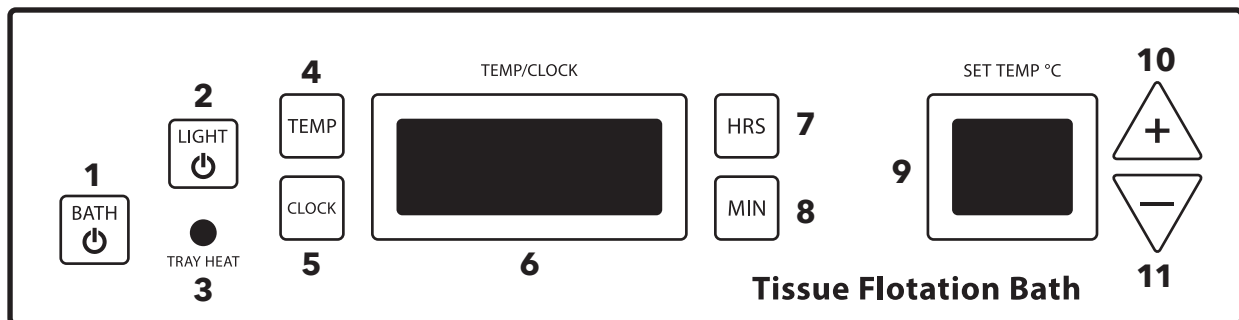
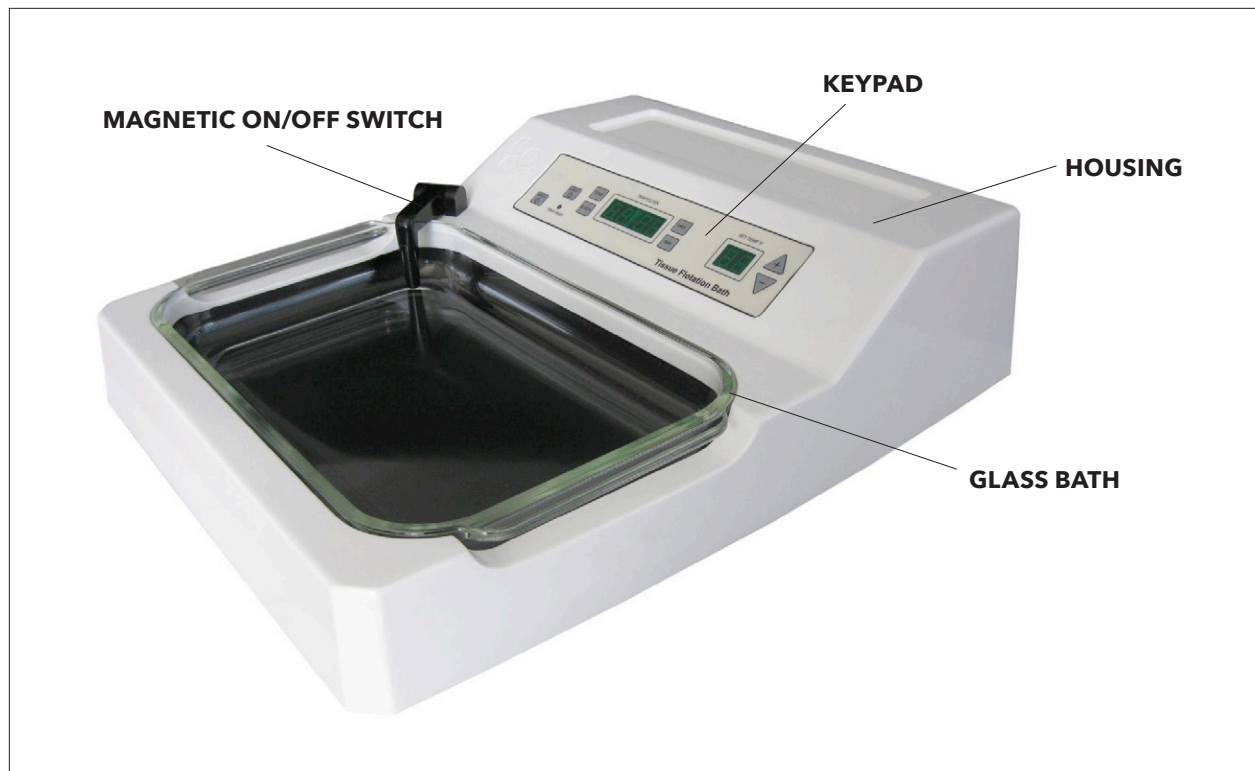
**Fuse:** F6A L 250AC

**Dimensions for Glass Bowl:** 13.8" × 8.7" × 1.8"

**Overall Dimensions:** 16.2" × 20.1" × 5.9"

**Weight:** 21lbs

## 5 | Equipment Overview



1 - Bath On/Off Key

2 - Light On/Off Key

3 - Heating Indicator

4 - Actual Temperature Key

5 - Current Time Key

6 - Actual Temperature/Current Time Screen

7 - Hours

8 - Minutes

9 - Set Temperature Screen

10 - Set Temperature Increase

11 - Set Temperature Decrease

- 1) **BATH:** Press this key and the **TRAY HEAT** indicator will illuminate. The unit will then begin to heat. Press button again to turn the **TRAY HEAT** indicator off. The unit will then stop heating. When the magnetic on/off switch is removed from the water, the **TRAY HEAT** indicator should go off, and the unit should stop heating. The **TRAY HEAT** indicator will be off if the actual temperature reaches the setting temperature.
  - 2) **LIGHT:** Press to turn on the four LED lights.
  - 3) **TRAY HEAT Light:** If the machine is heating, this light remains on. Otherwise, it is off.
  - 4) **TEMP:** Press to check the actual temperature.
  - 5) **CLOCK:** Press to check current time.
  - 6) **TEMP/CLOCK Screen:** Displays the actual temperature and current time.
  - 7) **HRS:** Press to set hours from 0 to 24.
  - 8) **MIN:** Press to set minutes from 0 to 59.
  - 9) **SET TEMP Screen:** Displays the setting temperature.
  - 10) **(+) Key:** Press to increase the setting temperature.
  - 11) **(-) Key:** Press to decrease the setting temperature.
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## 6 | Operation

### Starting up the Machine

- Use the power cord supplied with the instrument. The cord must be connected with a grounding socket.
- Before you connect the main electrical source, please ensure that the power switch is in the **(O) OFF** position.
- Insert one end into the instrument's power plug first, and then insert the other end into the power plug in the lab's electrical socket.

### Using the Waterbath

- 1) Fill the glass dish the appropriate amount of water.
- 2) Properly place the dish into the flotation bath.
- 3) Place the magnetic probe into the bath.
- 4) Turn on the heaters by pressing the **BATH** button on the key pad.
- 5) Allow waterbath to reach preset temperature before use.
- 6) After use, ensure heaters are turned off using the **BATH** button on the key pad.
- 7) Empty water from the dish, clean with mild soap and water, then dry.

## 7 | Cleaning & Maintenance

### Cleaning

- Before you clean the equipment, turn off the power switch and pull out the power socket.
- Only home use cleaning substances may be used for cleaning the instrument. Acetone and benzene will damage the paint on the surface of the instrument.
- Use damp cloth to clean the equipment.
- Equipment should be cleaned daily.

### Maintenance

- **Changing the Fuse:** Keep the model and the specifications of the new fuse the same. (Refer to the Technical Parameters).

## 8 | Troubleshooting

Waterbath		
PROBLEMS	CAUSES	ELIMINATION
+ No response when trying to turn on.	+ Power line is not connected. + Switch isn't turned on. + Fuse is not connected well or may be burned out.	+ Connect power line, turn on again. + Press the switch and ensure that the indicator light is on. + Check fuse, replace if necessary.
+ <b>TRAY HEAT</b> indicator is off when working.	+ Magnetic On/Off switch may be dislocated.	+ Adjust the position of Magnetic On/Off switch
+ <b>TRAY HEAT</b> indicator is on but does <b>NOT</b> heat.	+ Heater is damaged. + Temperature sensor is <b>NOT</b> functioning. + Temperature sensor may be damaged.	+ Contact technical support at <b>888.708.5233</b> .



## 9 | Warranty & Service

Tanner Scientific® warrants this product for a period of one year from the date of purchase, provided that the customer complies with the rules of this manual. Extended warranties are available. Contact Tanner Scientific® at 888.708.5233 for more information. Tanner Scientific® will not be responsible for the damage and other problems caused by abuse and misuse of the instrument.

### **Service Information**

If you require any service or parts during the warranty period, please contact **Tanner Scientific® at 888.708.5233** or the sales agent who sold you the unit. Prior to calling, please have the instrument model and serial number ready.

### **Amendment**

Tanner Scientific® reserves the right to change the technical parameters of any model for improving the function of our instruments.

### **Quality Guarantee**

- Tanner Scientific® will ensure that every instrument sold has been strictly examined to ensure it meets our stringent quality and technical standards.
- Service terms are only provided for those who regularly use the instrument and operate the instrument according to its instructions.

### **Disposal of Unwanted Instruments**

Discarding the instrument and its parts should be done according to current laws and regulations.





## Information

The information, notes, and figures that appear in this user manual represent the present state of knowledge as we comprehend it. Due to continuous improvements in technology and manufacturing technique, specific and manufacturing procedures may change.

For inaccurate statements, drawings, and technical illustrations in this user manual we exclude liability as far as permissible. No liability is accepted for any monetary loss or consequential damage caused by or related to compliance with statements or other information in this user manual. Tanner Scientific® will update the manual as needed according to the latest technological developments.

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Statements, drawings, illustrations and other information regarding contents or technical details of the present user manual are not to be considered as warranted characteristics of our products. These are determined only by the contract provisions agreed between us and our customers.

Refer to the name plate on the back of the unit for the serial number and manufacturing date of this instrument.

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