

# BriskHeat®



## **TSO Series** **Portable Bulb and Capillary** **Temperature Controller**

### Instruction Manual



Read and understand this material before operating or servicing this temperature controller. Failure to understand how to safely operate this controller could result in an accident causing serious injury or death. This controller should only be operated by qualified personnel.

**TABLE OF CONTENTS**

Introduction..... 2  
 Safety Alert Symbol..... 2  
 Important Safety Instructions..... 3  
 Specifications..... 4  
 Product Drawings and Dimensions..... 5  
 Installation / Operation Instructions..... 6  
 Troubleshooting Guide..... 7  
 Warranty..... BACK



**SAFETY ALERT SYMBOL**

The symbol above is used to call your attention to instructions concerning your personal safety. It points out important safety precautions. It means **“ATTENTION! Become Alert! Your Personal Safety is involved!”** Read the message that follows and be alert to the possibility of personal injury or death.



Immediate hazards which WILL result in severe personal injury or death



Hazards or unsafe practices which COULD result in severe personal injury or death



Hazards or unsafe practices which COULD result in minor personal injury or property damage.

**SAVE THESE INSTRUCTIONS!**

Additional copies of this manual are available upon request.

**IMPORTANT SAFETY INSTRUCTIONS**



**! DANGER**

A person who has not read and understood all installation instructions is not qualified to install this product.

**! DANGER**

- Do not immerse controller in liquid.
- Keep volatile or combustible material away from controller when in use.
- Use controller only in approved locations.
- Keep sharp metal objects away from controller.

Failure to observe these warnings may result in electric shock, risk of fire, and personal injury.

**! WARNING**

**End User Must Comply to the Following:**

- Only qualified personnel are allowed to connect electrical wiring.
- All electrical wiring must follow local electrical codes and highly recommend following NEC Article 427.
- Final installation / wiring is to be inspected by the authority who has jurisdiction in the area that the heater and temperature controller is installed.
- The end-user is responsible for providing a suitable disconnecting device.
- The end-user is responsible for providing suitable electrical protection device. It is highly recommended that a ground fault circuit breaker is used.

Failure to observe these warnings may result in personal injury or damage to the controller.

**! CAUTION**

- Inspect all components before use.
- Do not use control and heater if any component is damaged.
- Do not repair damaged or faulty controller.
- Do not crush or apply severe physical stress on any component of controller, including cord assembly.
- Unplug controller when not in use.
- Unplug controller before fuse is changed.

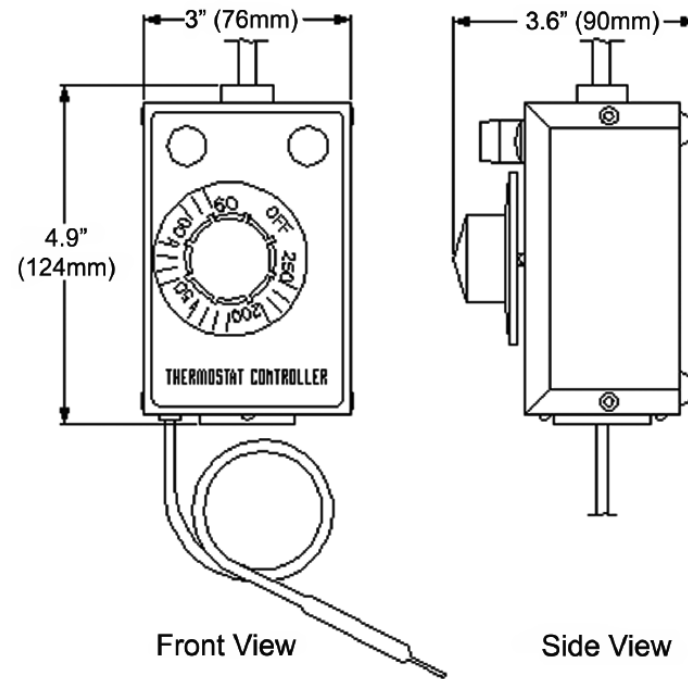
Failure to observe these warnings may result in personal injury or damage to the controller.

**SPECIFICATIONS**

- 120 or 240VAC
- Differential 6°F (3°C)
- Average accuracy ± 5°F (3°C)
- Units in °F
- Maximum controller exposure temperatures: -40 to 160°F (-40 to 71°C)
- Copper bulb and capillary, 4 feet (1.2m) long
- Input power cord 6 feet (1.8m) long with standard plug
  - 120VAC: NEMA 5-15
  - 240VAC: NEMA 6-15
- Output receptacle:
  - 120VAC: NEMA 5-15R
  - 240VAC: NEMA 6-15R

Part Number	Volts	Amps	Range
TS0991-250	120	15	60 to 250°F (16 to 121°C)
TS0991-550	120	15	150 to 550°F (66 to 288°C)
TS0992-250	240	15	60 to 250°F (16 to 121°C)
TS0992-550	240	15	150 to 550°F (66 to 288°C)

**PRODUCT DRAWINGS AND DIMENSIONS**



**Bulb Dimensions**

Part Number	Diameter		Length	
	Inches	mm	Inches	mm
TS099X-XXX	3/8	10	4	102

## INSTALLATION / OPERATION INSTRUCTIONS

### **WARNING**

Read and understand the entire manual before operating this controller.

**VOLTAGE:  
120VAC; 240VAC**

#### **Step 1:**

Apply heating product to the heated surface ensuring 100% surface contact with surface to be heated.

#### **Step 2:**

Position and attach bulb temperature sensor directly on top of the heater or touching the edge of the heater while also contacting the surface being heated. Temperature sensing bulb must be in close proximity of heater for accurate temperature control and to prevent over heating. Use appropriate temperature rated adhesive tape to attach bulb. If unsure what tape is appropriately rated or questions concerning your application please contact BriskHeat factory directly at **1-800-848-7673, 614-294-3376, or [bhtsales1@briskheat.com](mailto:bhtsales1@briskheat.com)**.

#### **Step 3:**

Plug heater into the controller's output receptacle.

#### **Step 4:**

Plug the controller into an approved power source using the Input power cord.

#### **Step 5:**

Rotate controller knob from the "OFF" position to the desired temperature setting.

## TROUBLESHOOTING GUIDE

Please read this guide prior to contacting BriskHeat®. This guide is designed to answer the most commonly asked questions. If you are unable to identify the problem or need additional assistance, please contact your local distributor / representative or us at **1-800-848-7673, 614-294-3376, or [bhtsales1@briskheat.com](mailto:bhtsales1@briskheat.com)**.

### **Controller does not function**

#### **1. Check fuse:**

Unplug the unit from its power source. Remove the fuse located under cap on front of controller and check its continuity. If the fuse is defective, replace it with an ABC 15 amp fuse. Fuses may be obtained from most electrical supply houses.

#### **2. Check power source:**

Using a voltmeter, test the power source and assure correct voltage is present.

## WARRANTY INFORMATION

BriskHeat® warrants to the original purchaser for the period of eighteen (18) months from date of shipment or twelve (12) months from date of installation, whichever comes first. Contact factory at 1-800-848-7673 (toll free, U.S. / Canada) or 614-294-3376 for complete details.

# BriskHeat®

BriskHeat® Corporation  
1055 Gibbard Ave  
Columbus, OH 43201  
Toll Free: 800-848-7673  
Phone: 614-294-3376  
Fax: 614-294-3807  
Email: [bhtsales1@briskheat.com](mailto:bhtsales1@briskheat.com)  
Web site: [www.briskheat.com](http://www.briskheat.com)