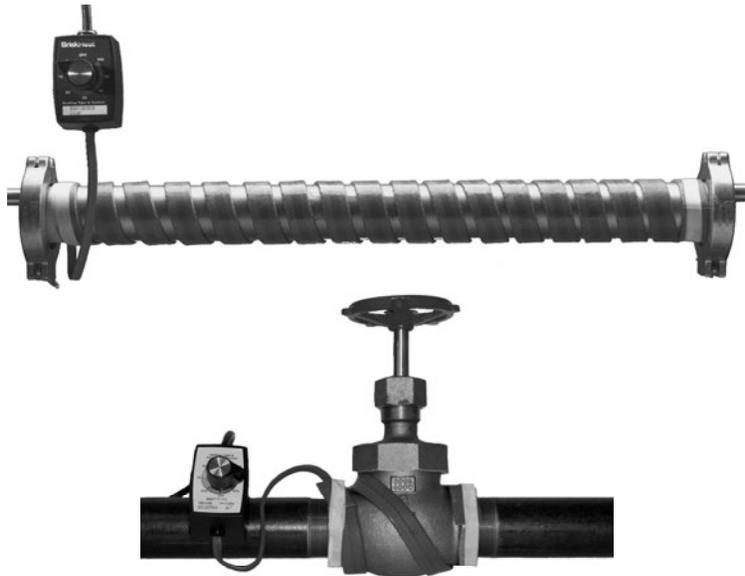


## Silicone Rubber Heating Tapes with Time Percentage Dial Control

Specially designed for Cole-Parmer and Davis Instruments



### Instruction Manual

	<p>You must read and understand this manual before installing, operating, or servicing this product. Failure to understand these instructions could result in an accident causing serious injury or death.</p>
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### INTRODUCTION

XtremeFLEX<sup>®</sup> BSAT heating tapes are designed for temporary, quick, and easy heating.

Wrap the flexible heating tape around your desired object and turn on the time percentage dial control to your preferred setting.

### FEATURES

Time Percentage Control:

A time percentage dial control varies the proportion (length) of time the heater is in the "on" or "off" heating mode. The heating application will determine the actual set point required. The controller does not use a temperature sensor and therefore satisfactory operation requires occasional supervision under changing load conditions.

### APPLICATIONS

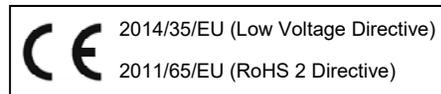
Intended Applications:

- General purpose heating for flat or curved surfaces

Prohibited Applications:

- Outdoor use
- Submerged in liquid
- Permanent installations
- Space heating

### APPROVALS



**IMPORTANT SAFETY INSTRUCTIONS**



**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 that **COULD** result in severe personal injury or death



Hazards or unsafe practices that **COULD** result in minor personal injury or property damage



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



- Do not immerse heater in liquid.
- Keep volatile or combustible material away from heater when in use.
- Do not use heater in hazardous locations
- Keep sharp metal objects away from heater.



- Only qualified personnel are allowed to connect electrical wiring.
- Disconnect all supply power at the source before making any power connections.
- All electrical wiring must follow local electrical codes.
- The end-user is responsible for providing a suitable electrical disconnect.
- The end-user is responsible for providing a suitable electrical protection device. It is highly recommended that a GFCI be used.



- Never handle the heater while it is in operation; always disconnect the heater from the power source and allow to cool prior to handling.
- Inspect product before use (see page 6).
- Do not use heater with torn or worn surfaces or other visual damage.
- Do not wrap the heater over itself
- Do not repair damaged or faulty heaters.
- Do not crush or apply severe physical stress on heater or cord assembly.
- Unplug heater when not in use.
- Fasten heater to device using approved methods only.
- If spillage of foreign matter onto heater occurs, disconnect from power source and clean after heater has been allowed to cool.
- Never operate a heater without an appropriate heat sink (device being heated is considered a heat sink).
- Make sure there is a uniform fit prior to energizing. If there are air gaps between surface to be heated and the heater, hot spots can occur and could result in damage due to overheating.

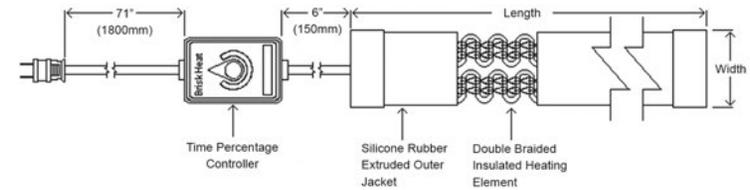
**SPECIFICATIONS**

**Operating Conditions:**

- Maximum Exposure Temperature: 450°F (232°C)
- Maximum Humidity: 95% RH

**Heater Characteristics:**

- Time Percentage Dial Controller
- Power Density: 6.0 watts/in<sup>2</sup> (0.009 watts/mm<sup>2</sup>)
- 120V Model with NEMA 1-15 Plug
- Moisture and Chemical Resistant
- 240V Model without plug
- Suitable for use on Electrically Conductive Surfaces



## INSTALLATION INSTRUCTIONS



Failure to follow these instructions could result in property damage, personal injury, or death.

### Requirements:

- The heated surface must be grounded or a conductive grounding screen must be placed between the surface and the heater.
- Electrical terminations must be completed by qualified persons.
- No special tools or protective equipment is needed to handle this product (specific applications or surfaces may require protective equipment).
- Installation temperature: 32°F (0°C) to 131°F (55°C).
- 3" (7.5cm) Clearance above the surface to be heated (for installation).
- Voltage and Frequency must be within +/-10% of the value specified on the product label.

### Instructions:

1. Inspect heater prior to each installation (see inspection procedure).
  2. Ensure that there is no combustible material within 12" (30cm) of the surface to be heated.
  3. Lay or wrap the heating tape such that the wide section is in contact with the surface to be heated. The heater should not be twisted or kinked and should make contact with the surface along its entire length. The heater should never cross over or overlap itself.
  4. Secure the heater using aluminum or fiberglass adhesive or a mechanical clamping device which will not cause damage to the heater.
  5. Turn the dial on the percentage controller to the off position.
  6. **For Heater with plug:**  
Plug the heater into the appropriate receptacle.
  - For Heater without plug:**  
You may attach an appropriate plug to this heater or hard-wire it. Disconnect electricity before terminating this heater. Terminate the black wire to line 1 and the white wire to line 2. The power connections must be adequately rated to support the voltage and current specified on the label attached to your heater.
7. If this heater is going to operate at greater than 149°F (65°C) then a warning label should be placed near the heater.

## OPERATING INSTRUCTIONS

1. It is recommended to use a temperature sensing device while operating this heater.
2. Slowly increase the dial on the percentage controller until the heater reaches the desired temperature / heat output.
3. During operation check the heater often to ensure proper temperature / heat output.
4. Turn the heater to the off position and unplug when not in use.



This heater is not equipped with a high temperature safety device and under certain conditions may be able to exceed its maximum rated temperature. Continuous supervision is required when approaching the temperature limit of this device. Do not use a heater that has exceeded its maximum temperature rating.

## MAINTENANCE INSTRUCTIONS



Anyone who reads and understands these instructions is qualified to maintain this heater.

### Maintenance:

- All maintenance should be performed after the heater has cooled to room temperature and with the electricity disconnected.
- This product should be inspected prior to being installed and at least every 3 months during use.
- Dirt, oil, grease or other foreign matter can be removed with a damp rag and mild household cleaners.
- Do not attempt to repair a damaged heater.

### Inspection:

- Inspection should be performed after the heater has cooled to room temperature and with the electricity disconnected.
- The time percentage controller should be free of any cracks and the dial should be securely attached.
- The heating element should be free of any cuts, cracks or punctures.
- The power leads should not have any visible breaks in their insulation.
- The heater should be free of any build-up of dirt, oil, grease or other foreign matter.

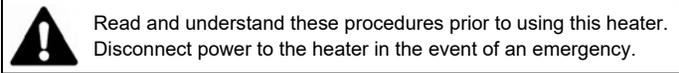
### Storage:

- This product should be stored at room temperature in an environment with less than 80% relative humidity.

### Disposal:

- This product does not contain any hazardous substances and may be discarded with domestic waste.

**EMERGENCY PROCEDURES**



**Electric Shock:**

- Do not touch the injured person while they are still in contact with the electrical current.
- Call your local emergency service if the injured person experiences: severe burns, confusion, difficulty breathing, heart rhythm problems, cardiac arrest, muscle pain and contractions, seizures or a loss of consciousness.

**Minor Burns:**

- Hold the burned area under cool running water for 10-15 minutes.
- Remove rings or other tight items from burned area.

**Major Burns:**

- Call your local emergency service.
- Protect the person from further harm.
- Remove rings or other tight items from burned area.
- Monitor breathing and perform CPR if necessary.

**Fire:**

- Call your local emergency service.
- If it is safe to do so, use a fire extinguisher to fight the fire, otherwise evacuate to a safe distance and wait for help to arrive.
- This heater is built from material that will not support a flame but could ignite nearby combustible material.

**TROUBLESHOOTING GUIDE**

Please read this guide prior to contacting Cole-Parmer<sup>®</sup>. 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 Cole-Parmer at: **1-800-323-4340**.

PROBLEM	SOLUTION(S)
Heater does not turn on.	Verify heater is connected to proper voltage. Verify controller is not in the "off" position.
Circuit breaker or GFCI is tripping.	Verify circuit breaker is rated for the current requirements marked on the heater's label. Inspect heater for damage (see inspection procedure). Inspect wiring terminations (qualified person only).

**WARRANTY INFORMATION**

BriskHeat warrants to the original purchaser of this product for the period of eighteen (18) months from date of shipment or twelve (12) months from date of installation, whichever comes first. BriskHeat's obligation and the exclusive remedy under this warranty shall be limited to the repair or replacement, at BriskHeat's option, of any parts of the product which may prove defective under prescribed use and service following BriskHeat's examination, is determined by BriskHeat to be defective. The complete details of the warranty can be found online at [www.briskheat.com](http://www.briskheat.com) or by contacting us at 1-800-848-7673 (toll free, U.S. / Canada) or 1-614-294-3376 (Worldwide).

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