

# BriskHeat<sup>®</sup> XtremeFLEX<sup>®</sup>

Silicone Rubber Heating Tapes with Time  
Percentage Dial Control



**(BSAT Series)**

Instruction Manual



Read and understand this material before operating or servicing these heating tapes. Failure to understand how to safely operate these heaters could result in an accident causing serious injury or death. These heaters should only be operated by qualified personnel.

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**INTRODUCTION**

XtremeFLEX® 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.

**WHAT IS A TIME PERCENTAGE DIAL 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.



**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.

**Agency Approvals**  
 73/23/EC (Low Voltage Directive)  
**Approvals valid only when** installed in accordance with all applicable instructions, codes, and regulations.

**⚠ DANGER**

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

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

**⚠ CAUTION**

- Never handle the heating tape while it is in operation; always disconnect the heating tape from the power source and allow to cool prior to handling.
- Inspect heating tape before use.
- Do not use heating tape with torn or worn surfaces.
- 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 burnouts due to overheating.

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

**⚠ WARNING**

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

- 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 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 heating tape 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.

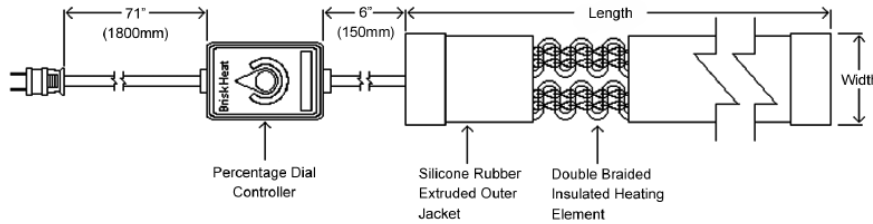
Failure to observe these warnings may result in personal injury or damage to the heater.

**SPECIFICATIONS**

**Operating conditions:**

Maximum Exposure Temperature: 450°F (232°C)

|   |                                       |
|---|---------------------------------------|
| Time Percentage Dial Controller   | 120 or 240VAC Models                  |
| Power density: 6.0 watts/in <sup>2</sup> (0.009 watts/mm <sup>2</sup> ) | Moisture and Chemical Resistance      |
| Suitable for Conductive Surfaces  | 120 VAC model includes NEMA 1-15 plug |



| Width in (mm) | Length in (mm) | Total Watts | Part Number 120VAC | Part Number 240VAC (No plug) |
|---------------|----------------|-------------|--------------------|------------------------------|
| 0.5 (13)      | 24.0 (610)     | 72          | BSAT051002         | BSAT052002                   |
| 0.5 (13)      | 48.0 (1220)    | 144         | BSAT051004         | BSAT052004                   |
| 0.5 (13)      | 72.0 (1830)    | 216         | BSAT051006         | BSAT052006                   |
| 0.5 (13)      | 96.0 (2440)    | 288         | BSAT051008         | BSAT052008                   |
| 0.5 (13)      | 120.0 (3050)   | 360         | BSAT051010         | BSAT052010                   |
| 1.0 (25)      | 24.0 (610)     | 144         | BSAT101002         | BSAT102002                   |
| 1.0 (25)      | 48.0 (1220)    | 288         | BSAT101004         | BSAT102004                   |
| 1.0 (25)      | 72.0 (1830)    | 432         | BSAT101006         | BSAT102006                   |
| 1.0 (25)      | 96.0 (2440)    | 576         | BSAT101008         | BSAT102008                   |
| 1.0 (25)      | 120.0 (3050)   | 720         | BSAT101010         | BSAT102010                   |
| 2.0 (51)      | 24.0 (610)     | 288         | BSAT201002         | BSAT202002                   |
| 2.0 (51)      | 48.0 (1220)    | 576         | BSAT201004         | BSAT202004                   |
| 2.0 (51)      | 72.0 (1830)    | 864         | BSAT201006         | BSAT202006                   |
| 2.0 (51)      | 96.0 (2440)    | 1152        | BSAT201008         | BSAT202008                   |
| 2.0 (51)      | 120.0 (3050)   | 1440        | BSAT201010         | BSAT202010                   |
| 3.0 (76)      | 24.0 (610)     | 432         | BSAT301002         | BSAT302002                   |
| 3.0 (76)      | 48.0 (1220)    | 864         | BSAT301004         | BSAT302004                   |
| 3.0 (76)      | 72.0 (1830)    | 1296        | BSAT301006         | BSAT302006                   |
| 3.0 (76)      | 96.0 (2440)    | 1440        | BSAT301008         | BSAT302008                   |
| 3.0 (76)      | 120.0 (3050)   | 1440/1800   | BSAT301010         | BSAT302010                   |

**OPERATING INSTRUCTIONS**

**⚠ WARNING**

Read and understand this entire manual before operating this electric heating tape.

**STEP 1**

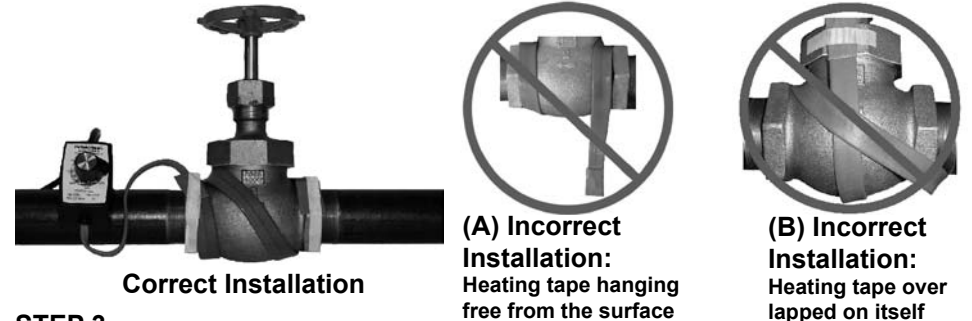
Remove heater from box. Visually inspect heater. Do not use if torn or damaged.

**STEP 2**

**Installing your heating tape:**

The flexible heating tape can be installed on both a flat and/or curved surface. For a flat surface, lay the heating tape onto the surface to be heated. For a curved surface, wrap the heating tape onto the surface to be heated. Attach the heating tape to the surface by using aluminum tape, fiberglass tape, or a mechanical clamping devices which will not cause damage to the heating tape.

- **The length of one entire side of the heating tape must be in full contact with the surface. Ensure the heating tape is not kinked, twisted, or any portion of the tape hanging free from the surface (A).**
- **Do not overlap heating tape on itself (B).**



**STEP 3**

**For 120VAC:** Plug power cord into appropriate outlet.  
**For 240VAC:** Terminate power cord to appropriate electrical power supply. The power cable consists of two color-coded conductors, black and white. The black wire should be connected to Line 1. The white wire should be connected to Line 2. The power connections must be adequately rated to electrically support the voltage and amperage of the heater. The identification label located on the power cord displays voltage and amperage requirements.

**STEP 4**

**Set time percentage dial control:**

Start with a low setting such as 10 and slowly raise it up until you reach your desired temperature. Regular monitoring of temperature obtained is strongly recommended. Use tape for short periods of time, especially at settings over 50. The XtremeFLEX® BSAT heating tape is designed for temporary applications.

**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 BriskHeat® distributor or contact us toll free (U.S. / Canada only) at 1-800-848-7673 or 614-294-3376 or [bhtsales1@briskheat.com](mailto:bhtsales1@briskheat.com).

| PROBLEM                     | SOLUTION(S)  |
|-----------------------------|--|
| Does not heat               | Verify heater is connected to proper voltage.<br><br>Check to see if there is a resistance reading (not an open circuit) in heater using an ohm meter. |
| Circuit breaker is tripping | Validate that the circuit breaker is capable of handling the amp requirement of heater.<br><br>Examine heater and cord for any damage.                 |

**WARRANTY INFORMATION**

The BriskHeat Corporation (hereinafter referred as (“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, that the products manufactured by BriskHeat: (A) conform to the description and specifications as set forth in BriskHeat’s current catalogue or in the quotation and drawings submitted by BriskHeat: and (B) are free from defects in materials and workmanship under prescribed use and service.

Remedy. 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 within eighteen (18) months from date of shipment or twelve (12) months from date of installation, whichever comes first, and which, following BriskHeat’s examination, is determined by BriskHeats to be defective under conditions described herein: provided, BriskHeat has, at its option, a representative of BriskHeat present at start-up. BriskHeat shall not be liable for any incidental, consequential or special damages arising from any breach of warranty, breach of contract, negligence, or any other legal theory, including but not limited to, loss of use of parts or equipment or any associated equipment, cost of capital, cost of any substitute equipment, facilities or services, overhead, downtime costs, or claims of customer of purchaser for such damages. This remedy does not include labor costs for installation or removal of the equipment or parts covered by this warranty, and BriskHeat shall not be responsible for such labor costs.

Limitation. This warranty shall not apply to any product or part thereof which has been subject to accident, negligence, alteration, damage during shipment, improper service, abuse, or misuse, including but not limited to use beyond rated capacity. BriskHeat makes no warranty whatsoever with respect to accessories or parts not supplied or manufactured by BriskHeat. BriskHeat’s obligation under this warranty shall be conditioned upon BriskHeat’s receiving written notice of any defect within fifteen (15) days after its discovery, and, at BriskHeat’s option, return of such equipment or parts prepaid to its factory at 1055 Gibbard Ave., Columbus, Ohio 43201.

Disclaimer. **BriskHeat MAKES NO WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, EXCEPT AS IS EXPRESSLY SET FORTH ABOVE. NO AGENT, EMPLOYEE OR REPRESENTATIVE OF BH THERMAL HAS ANY AUTHORITY TO BIND BriskHeat TO ANY AFFIRMATION, REPRESENTATION OR WARRANTY COVERING THE SALE OF ANY PRODUCT, AND UNLESS SUCH AFFIRMATION, REPRESENTATION OR WARRANTY MADE BY AN AGENT, EMPLOYEE OR RERESENTATIVE IS SPECIFICALLY ENDORSED IN WRITING BY BriskHeat, IT SHALL NOT BE ENFORCEABLE BY ANY BUYER. BriskHeat MAKES NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY AND NO EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE, EXCEPT AS IS EXPRESSLY SET FORTH ABOVE. BriskHeat SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES.**

This warranty allocates risk between the purchaser and BriskHeat as authorized by the Uniform Commercial Code and other applicable law.

# BriskHeat®

Sales • Engineering

“Heat and Control  
Specialists”



**GORDO SALES, INC.**

P.O. Box 1166 Layton, UT 84041  
Phone: 801-544-4236 Fax: 888-264-0740  
<http://www.gordosales.com>