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INTRODUCTION

BriskHeat[®] Full-Coverage Wet-Area Container Heaters provide a safe and efficient method of temperature control. For successful operation of these heaters, read and understand these instructions prior to use.

For additional information concerning this, or other BriskHeat products, please contact your local BriskHeat representative or contact us directly toll free at 1-800-848-7673 (U.S./Canada) or 1-614-294-3376 (worldwide).

APPLICATIONS

Intended Applications:

- Viscosity Control
- Freeze Protection
- Temperature Maintenance
- Melting of solids
- Heat-up contents to a required temperature
- Thermal Mixing

Prohibited Applications:

- Immersion
- Hazardous locations
- Containers of Volatile or Combustible Liquids or Gases



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.

APPROVALS

Approvals valid only when installed in accordance with all applicable instructions, codes, and regulations. Refer to product label for applicable approvals.

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Wet-Area Container Heaters Instruction Manual

For warming contents in IBC/Tote, Drum, Cylinder,
and custom containers



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.

Keep these instructions for future reference.

IMPORTANT SAFETY INSTRUCTIONS



⚠ DANGER

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

⚠ DANGER

- Do not immerse heater.
- Keep enclosure cover tight while circuits are energized.
- Use heater only in approved locations. This heater is not approved for use in hazardous area locations.
- Keep sharp metal objects away from heater.
- Do not use on items containing volatile or combustible liquids or gases.
- The End user is responsible for providing Pressure Relief Valves or other Over-Pressurization Devices to meet Safety and Agency Requirements.

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.
- 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 disconnecting device.
- Earth-fault equipment protection is required for each heater

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

⚠ CAUTION

- 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 heater before use. Do not use heater with torn or worn surfaces.
- Do not overlap the heating surface.
- If spillage of foreign matter other than water onto heater occurs, disconnect from power source and clean after heater is allowed to cool.
- Never operate a heater without an appropriate heat sink (device being heated is considered a heat sink).
- Fasten heater to device using approved methods only.
- Do not repair damaged or faulty heaters.
- Do not crush or apply severe physical stress on heater or cord assembly.
- Disconnect heater when not in use.
- Use specified sized heater with the specified sized container. Do not use for other applications.
- Do not operate heater above the specified temperatures listed below:
- Only use in areas subject to low risk of mechanical damage
- Keep Heater and Power Cord dry before and during installation

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

SPECIFICATIONS & FEATURES

- Suitable for use with vented metal, polyethylene, and polypropylene drums.
- Full coverage plug and play system.
- Moisture resistance Polyurethane coated fabric inner and outer layer.
- Adjustable On / Off Digital Controller.
- Operating Ambient Temperature Range: -40° to 140°F (-40°C to 60°C).
- Range of Usable Temperature values for containers:
 - **Vented Metal containers (Drums, Hoppers, etc)** -40°F to 212°F (-40°C to 100°C)
 - **Vented Polyethylene/Polypropylene containers (Drums, Totes, Etc)** -40°F to 160° F (-40°C to 71°C)
 - **Sealed Metal containers (Gas Cylinders, Pipes, etc)** -40°F to 130°F (-40°C to 54°C)
 - **Other Plastic containers (Sealed Pipes, etc)** -40°F to 100°F (-40°C to 37°C)
- Intended for use in ordinary wet or dry environments both indoor and outdoor locations
- Grounded heating element
- Available in up to 240 VAC Models
- Shipping contents include heater and manual.

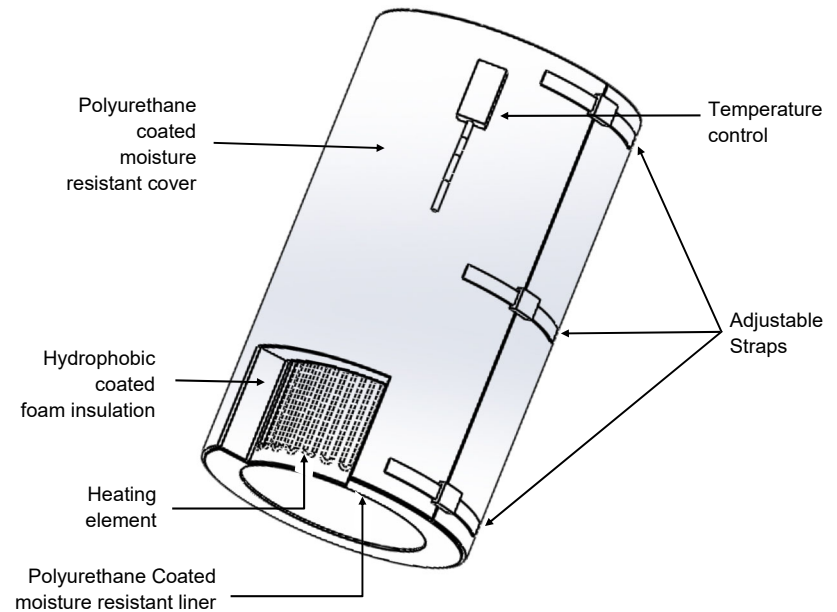


Figure 1: Container Heater General Construction Equipped with Straps

INSTALLATION / OPERATING INSTRUCTIONS

 WARNING
Read and understand this entire manual before operating this heater.

STEP 1

Remove heater from box. Visually inspect the heater assembly for rips, tears, punctures, and/or any visual damage. Do not use if damaged. If heater is damaged, please contact your local BriskHeat[®] representative or contact us directly at 1-800-848-7673 (toll free in U.S./Canada) or 1-614-294-3376 (Worldwide) for assistance.

STEP 2

The heater should be placed on a clean surface/container, free of oil, chemical, debris, sharp edges, etc. Heater should be wrapped around the cylinder, drum, or container. Fasten the closure and adjust so that the heater is tight and flat against the container with no sagging or bunching. See Figure 1 illustration. Cover the top of the container with optional insulating blanket cover (sold separately). Note: for heaters equipped with external sensors, mount the sensor in a vertical position with the cable at the bottom routed downward. Mount the sensor to a clean area on the outer surface of the container. Do not mount to the metal cage.

STEP 3

Install power cord with plug into appropriate electrical GFCI equipped outlet. If the heater is supplied with only a power cord continue with the wiring instructions below for power connection. The power cord consists of three color-coded conductors, black, white, and green/yellow. The black wire should be connected via a GFCI device to the incoming hot line. The white wire should be connected to the neutral or power return. The green/yellow wire should be connected to earth ground. 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. Follow all local electrical codes for proper electrical connections.

STEP 4

Adjust controller to desired setting (See PROGRAMMING DIGITAL TEMPERATURE CONTROLLER instructions).

Note: Depending on the ambient temperature and fill level of the container, portions may be exposed to temperatures up to 20% higher than the controller "OFF" setting. Therefore, it is recommended to set the heater "OFF" setting at least 20% below the maximum rated temperature of the container or contents, whatever the least.

PROGRAMMING DIGITAL TEMPERATURE CONTROLLER

The control panel display features a backlit LCD display and three buttons for set up and adjustment of the controller's settings.

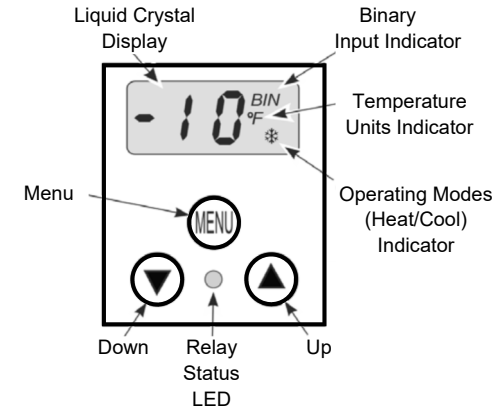


Figure 3: Control Front Panel with LCD and Three-Button User Interface

Note: The default setting for your temperature controller displays basic menu options only. The Basic menu allows you to quickly edit the **On** and **OFF** temperature values, and Anti-Short Cycle Delay (**ASd**) value.

Basic Parameter Code Definitions. Menu:

On: Lower limit, temperature at which the heater turns on.

OFF: Upper limit, temperature at which the heater turns off.

ASd: Anti-Short Cycle Delay. Minimum time output relay remains off before next cycle.

SF: Sensor Failure Mode, relay on/off state in the event of a sensor failure. Should be set to 0.

Note: During normal operation your heater will cycle between the **On** and **OFF** parameter values. For a tighter temperature tolerance, program the **On** and **OFF** parameter values closer together. It is recommended to program the on and off limits at least 5 degrees apart.


For basic programming and temperature setting instructions, follow these steps:

1. Press **MENU** to display the basic menu.
2. Press **▲** or **▼** to scroll through basic parameter options.
3. With **OFF** parameter displayed, press **MENU**.
4. Press **▲** or **▼** to select the upper limit temperature value desired.
5. Press **MENU** to save **OFF** value setting.
6. With **On** parameter displayed, press **MENU**.
7. Press **▲** or **▼** to select the lower limit temperature value desired.
8. Press **MENU** to save **On** value setting.

Note: If you do not press **MENU** to save a displayed value, the control reverts to the last saved value. After 30 seconds of inactivity, while in any screen, the control reverts to the Main screen.

For additional explanation of basic menu options and for programming instructions for advanced menu options contact BriskHeat factory at 1-800-848-7673 (toll free in US/Canada) or 1-614-294-3376 (worldwide) for assistance.

EMERGENCY PROCEDURES

 Read and understand these procedures prior to using this heater. Disconnect power to the heater in the event of an emergency.

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 extinguish 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.

MAINTENANCE INSTRUCTIONS

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

Maintenance:

- All maintenance should be performed after heater has cooled to room temperature and with the electricity disconnected.
- This product should be inspected prior to being installed and at least every 12 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 heater 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 indoors.

Disposal:

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

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**.

PROBLEM	SOLUTION(S)
Does not heat	<p>Verify heater is connected to proper voltage. The identification label located on the power cord displays the heater's voltage requirement.</p> <p>Verify temperature controller is properly programmed for heating operating mode by visually checking "operating Mode Indicator" on LCD display (see figure 1). Flame Icon = Heating Mode Snowflake Icon = Cooling Mode For heating mode of operation, OFF parameter must be programmed greater than On parameter.</p> <p>Check to see if there is a resistance reading (not an open circuit) in heater using an ohm meter.</p>
Circuit breaker is tripping	<p>Validate that the circuit breaker is capable of handling the amps requirement of heater. The identification label located on the power cord displays the heater's amperage requirement.</p> <p>Examine heater and cord for any damage.</p>
Does not fit	<p>Confirm that the heater provided was designed to fit around your specified container. If the heater was designed for a specific Cylinder, Drum, or Tote, please call 1-800-848-7673 or 614-294-3376 for further assistance.</p>
Something has lightly spilled on exterior or interior	<p>To remove spillage from heater surface with a clean cloth use any typical household cleaner, that does not contain any plastic dissolving type ingredients to clean the surface of the heater.</p>

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 or by contacting us at 1-800-848-7673 (toll free, U.S. / Canada) or 1-614-294-3376 (Worldwide).



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