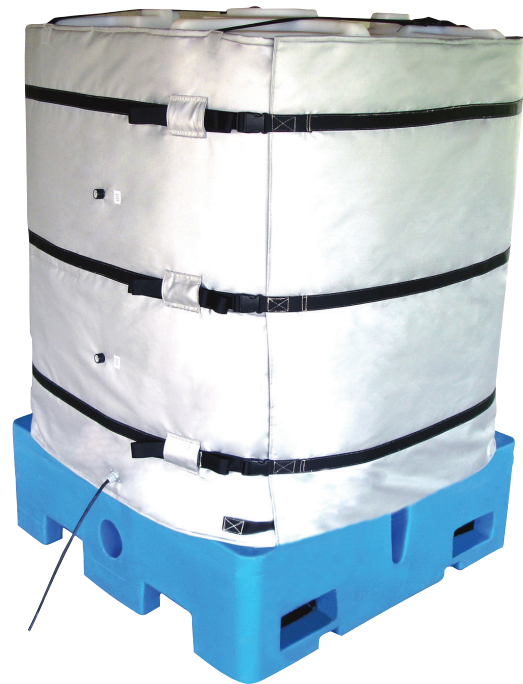


Ω OMEGA™ User's Guide



**Shop online at
*omega.com***

e-mail: info@omega.com
For latest product manuals:
www.omegamanual.info



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.

TOTE SERIES Wrap-Around Tote Tank Headers

TABLE OF CONTENTS

Introduction.....	2
Applications.....	2
Approvals.....	2
Important Safety Instructions.....	3
General Specifications.....	4
Installation / Operating Instructions.....	5
Emergency Procedures.....	7
Maintenance Instructions.....	8
Troubleshooting Guide.....	9
Contacting Omega.....	10
Warranty / Disclaimer Information.....	12
Return Requests / Inquiries.....	12

INTRODUCTION

Omega Warp-Around Tote Tank / IBC Heaters are designed for maintenance heating of caged, plastic, or metal tote tanks / IBCs. For successful operation of these heaters, read and understand these instructions prior to use.

APPLICATIONS

Intended Applications:

- Viscosity Control
- Freeze protection
- Temperature maintenance
- Melting of solids
- Heat-up tote tank / IBC contents to a required temperature
- Thermal mixing

Prohibited Applications:

- Immersion
- Hazardous locations
- Outdoor use
- Wet area use

APPROVALS



2014 / 35 / EU (Low voltage directive)
IEC 60519-1:2015, 60519-2:2006
2011 / 65 / EU (RoHS 2 directive)

Approvals valid only when installed in accordance with all applicable instructions, codes, and regulations.

* Refer to product label for applicable approvals.



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 or spray any component of the heater system with 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.
- Do not modify this product. Modification will void warranty.

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



- Inspect heater before use. Do not use heater with torn or worn surfaces.
- Do not repair damaged or faulty heater.
- Do not crush or apply severe physical stress on heater or cord assembly.
- Never operate a heater without a temperature control device.
- Unplug heater when not in use.
- Use heater for heating tote tanks / IBCs only. Use specific sized heater with same sized tote tank / IBC. Do not use for other applications.

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



End-User Must Comply to the Following:

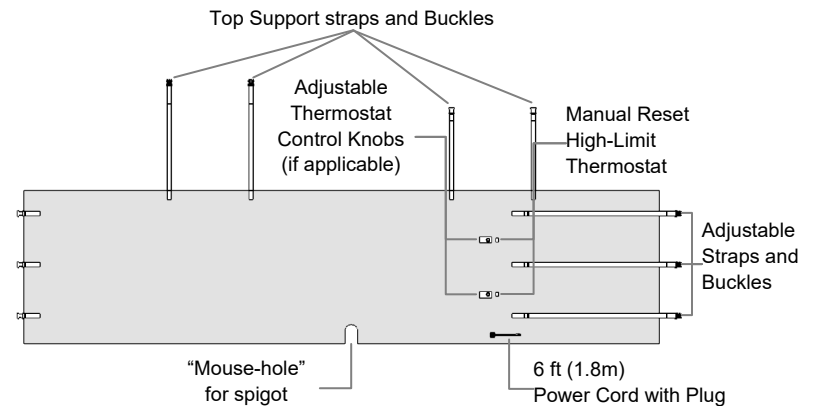
- Only qualified personnel are allowed to connect electrical wiring.
- All electrical wiring must follow local electrical codes.
- The person who performs the final installation / wiring must be qualified for this work.
- The end-user is responsible for providing a suitable disconnecting device.
- The end-user is responsible for providing suitable overprotection device. It is highly recommended that a ground fault circuit breaker be used.

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

- Full coverage system
- Two separate heat zones
- Silicone impregnated cloth inner and outer layer
- 1/4" (6mm) fiberglass insulation
- Patented grounded heating element
- Voltage: See identification label
- Total wattage: See identification label
- Adjustable thermostat: Up to 160°F (71°C)
- Built-in manual reset high-limit safety thermostat set at 195°F (91°C) for each heat zone
- Power cord 6 feet (1.8m) long with standard plug:
 - 120VAC = Standard 3-prong plug (NEMA 5-15)
 - 240VAC = Standard 3-prong plug (NEMA 6-15)
- Optional insulated top cover [reduces heat loss]
- Maximum humidity: 95%

TOTE Series: Units with Adjustable Straps and Buckles

- Fits any tote tank width from 40" x 40" (1016mm x 1016mm) to 48" x 48" (1219mm x 1219mm)



Requirements:

- 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 range: -60°F (-51°C) to 131°F (55°C).
- Clearance of 3" (7.5cm) required around vessel during installation.
- Voltage and frequency must be within +/- 10% of the value specified on the product label.
- The heater must be mounted to a grounded surface or a conducting grounded screen must be placed between the heater and the surface.

Surface Preparation:

Always install your heater on a clean even surface for optimum performance and extended service life. Debris and residue on the surface can not only damage your heater but may also reduce the effectiveness of the heater by reducing the heat transfer between the surface and the heater.

- Remove or avoid contact with sharp edges including rough corners, weld spatter, exposed bolts, etc.
- Remove or avoid contact with rust, stickers, or other coverings.
- Remove oil, moisture, gel and other liquids.

WARNING

Read and understand this entire manual before operating this heater.

The use of two individuals is highly recommended for this installation.

STEP 1

Remove heater from box. Visually inspect the heater and all components for rips, tears, punctures, and/or any visual damage. Do not use if damaged.

STEP 2

Heater should be placed on a clean and dry IBC/Tote that's free of oil, chemical, debris, etc. Locate "mouse-hole" on heater and loosely wrap heater around IBC/tote tank with mouse-hole positioned to accommodate the exit spigot. The heater must be positioned onto the IBC / TOTE Tank so that the adjustable thermostat control knobs are facing away from the IBC / TOTE Tank and the power cord exits the bottom of the heater. Secure the two top straps by fastening the quick-release plastic buckles. Overlap the side of the heater with the nylon straps secured closest to the edge on the outside, overlap any additional amount of the flap underneath. Secure and tighten the bottom, middle and top straps. All five straps should now be firmly tightened so the heater is tight against the IBC/tote tank with no sagging or bunching. Cover the top of the IBC/tote tank with optional insulation cover (TOTE-TOP).

STEP 3

Before connecting the heater to an electrical source, turn the adjustable dials on the heater in the counter clockwise direction until it stops (this is the off position).

STEP 4

Plug standard 3-prong plug to appropriate electrical power supply. The power connection 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.

Adjust temperature control knobs to desired settings on both top and bottom zones. Heater can be adjusted up to 160°F (71°C).

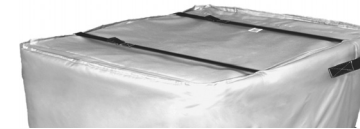
Note: Ambient conditions will affect the dial's position in which the heater begins to heat. In cooler temperature conditions the heater will begin to heat at a lower temperature position on the dial and in warmer temperature conditions the heater will begin to heat at a higher temperature position on the dial.

STEP 5 (Optional IBC/Tote Tank Insulator)

PN: TOTE-TOP

Universal Size: fits up to 48"x48" (1,200mm x 1,200mm)

Install optional IBC/Tote Tank Insulator by disconnecting the buckle of one of the two top straps and sliding the insulator underneath the remaining top strap. Reconnect the top strap buckle and tighten both straps if necessary. Depending on the size of your IBC/Tote Tank, tuck excess insulator between the IBC/Tote Tank and the heater (see Image).





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 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.



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 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 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 OMEGALUX™. 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 1-800-USA-HEAT

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>Unplug the heater, press both manual reset buttons and plug back in.</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 amp 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 tote tank / IBC.</p> <p>If the heater was designed for the specified tote tank / IBC, please call 1-800-USA-HEAT for further assistance.</p>
Something has lightly spilled on exterior or interior	<p>Apply any general household cleaner, that does not contain any silicone rubber dissolving type ingredients, with a clean cloth fabric.</p>



omega.com info@omega.com

Servicing North America:

**U.S.A.
Headquarters:**

Omega Engineering, Inc.
 Toll-Free: 1-800-826-6342 (USA & Canada only)
 Customer Service: 1-800-622-2378 (USA & Canada only)
 Engineering Service: 1-800-872-9436 (USA & Canada only)
 Tel: (203) 359-1660 Fax: (203) 359-7700
 e-mail: info@omega.com

For Other Locations Visit omega.com/worldwide

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2017 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

Where Do I Find Everything I Need for Process Measurement and Control? OMEGA...Of Course! Shop online at omega.com

TEMPERATURE

- Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- Wire: Thermocouple, RTD & Thermistor
- Calibrators & Ice Point References
- Recorders, Controllers & Process Monitors
- Infrared Pyrometers

PRESSURE, STRAIN AND FORCE

- Transducers & Strain Gages
- Load Cells & Pressure Gages
- Displacement Transducers
- Instrumentation & Accessories

FLOW/LEVEL

- Rotameters, Gas Mass Flowmeters & Flow Computers
- Air Velocity Indicators
- Turbine/Paddlewheel Systems
- Totalizers & Batch Controllers

pH/CONDUCTIVITY

- pH Electrodes, Testers & Accessories
- Benchtop/Laboratory Meters
- Controllers, Calibrators, Simulators & Pumps
- Industrial pH & Conductivity Equipment

DATA ACQUISITION

- Communications-Based Acquisition Systems
- Data Logging Systems
- Wireless Sensors, Transmitters, & Receivers
- Signal Conditioners
- Data Acquisition Software

HEATERS

- Heating Cable
- Cartridge & Strip Heaters
- Immersion & Band Heaters
- Flexible Heaters
- Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- Metering & Control Instrumentation
- Refractometers
- Pumps & Tubing
- Air, Soil & Water Monitors
- Industrial Water & Wastewater Treatment
- pH, Conductivity & Dissolved Oxygen Instruments