

1 YEAR
WARRANTY

MADE IN
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User's Guide

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HTWAT SERIES **Silicone Rubber Heating Tapes with** **Adjustable Thermostat Control**

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INTRODUCTION

HTWAT Silicone Rubber Heating Tapes with Adjustable Thermostat Control are designed for process temperature control, freeze protection, and supplemental heat. Wrap the flexible heating tape around the desired object you want to heat, set the temperature, and it will maintain heat at the set temperature.

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 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.

⚠ 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 a 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.

Agency Approvals



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

⚠ 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 the surface to be heated and the heater, hot spots can occur that could result in burnouts due to overheating.

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

Operating conditions:

Maximum Exposure Temperature: 450 F (232 C)

Adjustable Thermostat Control 50-425 F (10-218 C)	120 or 240VAC Models
Power Density: 6.0 watts/in ² (0.009 watts/mm ²)	Moisture and Chemical Resistant
Suitable for Electrically Conductive Surfaces	120VAC 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	HTWAT051002	HTWAT052002
0.5 (13)	48.0 (1220)	144	HTWAT051004	HTWAT052004
0.5 (13)	72.0 (1830)	216	HTWAT051006	HTWAT052006
0.5 (13)	96.0 (2440)	288	HTWAT051008	HTWAT052008
0.5 (13)	120.0 (3050)	360	HTWAT051010	HTWAT052010
1.0 (25)	24.0 (610)	144	HTWAT101002	HTWAT102002
1.0 (25)	48.0 (1220)	288	HTWAT101004	HTWAT102004
1.0 (25)	72.0 (1830)	432	HTWAT101006	HTWAT102006
1.0 (25)	96.0 (2440)	576	HTWAT101008	HTWAT102008
1.0 (25)	120.0 (3050)	720	HTWAT101010	HTWAT102010
2.0 (51)	24.0 (610)	288	HTWAT201002	HTWAT202002
2.0 (51)	48.0 (1220)	576	HTWAT201004	HTWAT202004
2.0 (51)	72.0 (1830)	864	HTWAT201006	HTWAT202006
2.0 (51)	96.0 (2440)	1152	HTWAT201008	HTWAT202008
2.0 (51)	120.0 (3050)	1440	HTWAT201010	HTWAT202010
3.0 (76)	24.0 (610)	432	HTWAT301002	HTWAT302002
3.0 (76)	48.0 (1220)	864	HTWAT301004	HTWAT302004
3.0 (76)	72.0 (1830)	1296	HTWAT301006	HTWAT302006
3.0 (76)	96.0 (2440)	1440	HTWAT301008	HTWAT302008
3.0 (76)	120.0 (3050)	1440/1800	HTWAT301010	HTWAT302010

⚠ 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 device which will not cause damage to the heating tape.

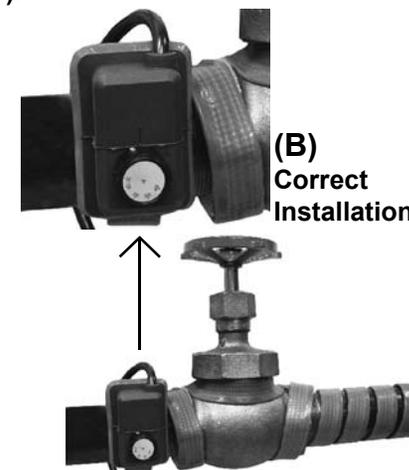
- The length of one entire side of the heating tape must be in full contact with the surface. Ensure the heating tape is not kinked, twisted, or any portion of the tape hanging free from the surface (A).
- Thermostat sensor must be in full contact with object to be heated. Sensor is located underneath temperature controller box (B).
- Do not overlap heating tape on itself (C).



(A)
Incorrect Installation:
Heating tape hanging free from the surface



(C)
Incorrect Installation:
Heating tape overlapped on itself



(B)
Correct Installation:

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

Adjust dial to desired setting between 50-425 F (10-218 C).

⚠ WARNING Temperature controller dial and enclosure will become very hot after use. Always unplug heater and allow to cool prior to handling.

TROUBLESHOOTING GUIDE

Please read this guide prior to contacting OMEGA. 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 us at 1-800-USA-HEAT.

PROBLEM	SOLUTION(S)
Does not heat	Verify heater is connected to proper voltage. 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. Examine heater and cord for any damage.

CONTACTING OMEGA



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It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.



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.

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