



## 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.



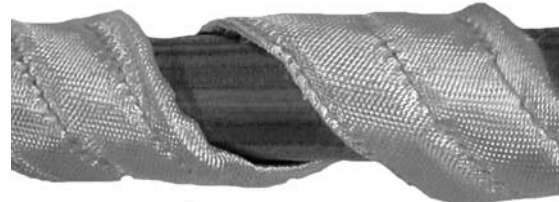
# User's Guide



Silicone Rubber - SRT



Insulated Fiberglass - FGS, FGH, FWH, and DHT



Insulated Samox - SST, STH, and SWH



Heating Cords - HTC

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Ω OMEGA

omega.com

e-mail: [info@omega.com](mailto:info@omega.com)

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[omegamanual.info](http://omegamanual.info)



# FGS, FGH, FWH, DHT, HTC, SST, STH, SWH, and SRT Series OMEGALUX™ Flexible Heating Tapes and Cords

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## INTRODUCTION

OMEGALUX™ Flexible Heating Tapes and Cords are constructed of high quality resistance wire and braided insulation and are designed to provide the user with long life and high performance. Heating tapes and cords are no different than any other piece of electrical or laboratory equipment; they are subject to damage as a result of abuse or misuse. By observing the following operational guidelines, your OMEGALUX™ Heating Tapes and Cords will provide years of trouble free operation.

## 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.

## CONTACTING OMEGA



OMEGAnet® Online Service  
omega.com

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### Servicing North America:

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**Canada:** 976 Bergar  
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Tel: (514) 856-6928 FAX: (514) 856-6886  
e-mail: info@omega.ca

### For immediate technical or application assistance:

**U.S.A. and Canada:** Sales Service: 1-800-826-6342 / 1-800-TC-OMEGA®  
Customer Service: 1-800-622-2378 / 1-800-622-BEST®  
Engineering Service: 1-800-872-9436 / 1-800-USA-WHEN®

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e-mail: sales@omega.co.uk

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.

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## 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. The identification label located on the power cord displays the heater's amperage requirement.  Examine heater and cord for any damage.

## 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 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.

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 the electrical wiring.
- 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 blanket 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 be used.

### **⚠ 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 operate heater without a temperature control device.
- Never connect heating tape to a controller's output without assembling the two separable plug halves (if applicable).
- Never use FGS or SST series tape on a conductive surface. A SRT, FGH, FWH, STH, or SWH series tape should be used only.
- Do not use heater with torn or worn surfaces.
- If spillage of foreign matter 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)
- Do not operate heater at temperatures above rated temperature value
- 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.
- Do not place plug close to heating surface.
- Unplug heater when not in use.

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

## SPECIFICATIONS

Type of Flexible Heating Tape	Maximum Exposure Temperature	Nominal Watts per Square Inch (mm)	Outer Sheath Material	Suitable for Conductive Surfaces	Dual Element
FGH Series: Heavy Insulated Heating Tape	900°F (482°C)	8.6 (0.013)	Fiberglass	Yes	No
FGS Series: Standard Insulated Heating Tape	900°F (482°C)	8.6 (0.013)	Fiberglass	No	No
FWH Series: Wide Heavy Insulated Heating Tape	900°F (482°C)	5.1 (0.008)	Fiberglass	Yes	No
HTC Series: Heating Cords	900°F (482°C)	1.8 (0.003)	Fiberglass	Yes	No
SRT Series: Silicone Rubber Heating Tape	450°F (232°C)	4.3 (0.007)	Silicone Rubber	Yes	No
SST Series: High Temperature Standard Insulated Heating Tape	1400°F (760°C)	13.1 (0.020)	SAMOX®	No	No
STH Series: High Temperature Heavy Insulated Heating Tape	1400°F (760°C)	13.1 (0.020)	SAMOX®	Yes	No
SWH Series: Wide High Temperature Heavy Insulated Heating Tape	1400°F (760°C)	7.7 (0.012)	SAMOX®	Yes	No
DHT Series: Dual Element Heavy Insulated Heating Tape	1400°F (760°C)	13.1 (0.020)	Fiberglass	Yes	Yes

## INSTALLATION

### ⚠ WARNING

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

#### STEP 1

Remove heater from box. Make visual inspection of 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 (A). The length of one entire side of the heating tape must be in full contact with the surface.



#### A.) Proper Installation

Ensure the heating tape is not kinked, twisted, or any portion of the tape hanging free from the surface (B). **Do not overlap heating tape on itself (C).** 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.



**B.) Incorrect Installation:**  
Heating tape hanging free from the surface



**C.) Incorrect Installation:**  
Heating tape overlapped on itself

#### STEP 3

#### Connecting your heating tape to a power supply:

1. Your heating tape **must** be connected to an external control device. The heater must not be operated without some form of temperature control.

**⚠ WARNING** Your heater is designed to operate at a specific voltage. Refer to the label on the heater for proper operating voltage and wattage information. Failure to operate the heater at the specified rating could result in overheating of the heating tape, the surface being heated or personal injury. Also note that too low of a supply of voltage will result in under heating.

All electrical connections must be made by qualified personnel and in accordance with all applicable codes and regulations.

2. Ensure the heater is protected by a properly sized circuit breaker or fuse.

3. Use of a ground fault circuit interrupter is highly recommended and maybe required.

4.(A) **If heating tape came with a plug:**  
Plug power cord into appropriate controller.

4.(B) **If heating tape did not come with a plug:**  
Two wires (same color) should be connected to the power source (or temperature control device) directly, through a junction box, or to a connector that is mated to a receptacle connected to the power source. Heating Tapes are non-polarized, allowing either wire to be connected to the neutral or hot.