

1 YEAR
WARRANTY

MADE IN
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User's Guide

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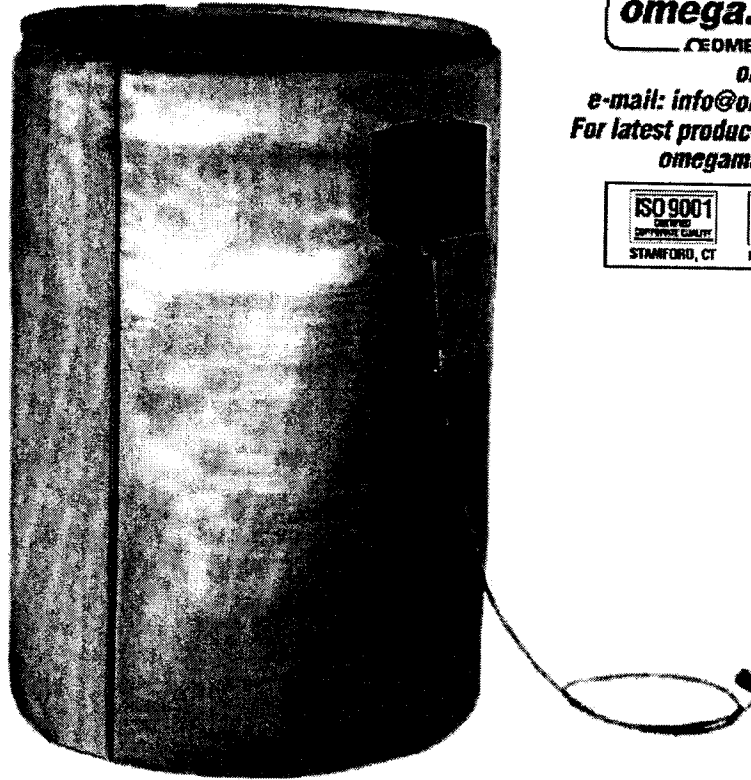
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FCDH SERIES **Full-Coverage Drum Heaters**



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.

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INTRODUCTION

FCDH Full-Coverage Drum Heaters provide a safe and efficient method of temperature and viscosity control. For successful operation of these heaters, read and understand these instructions prior to use.

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



WARNING
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.

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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 sharp metal objects away from heater.
- Keep volatile or combustible material away from heater when in use.
- Keep enclosure cover tight while circuits are alive.

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

⚠ CAUTION

- 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.
- Unplug heater when not in use.
- Use heater for heating drums only. Use specific sized heater with same sized drum. Do not use for other applications.

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

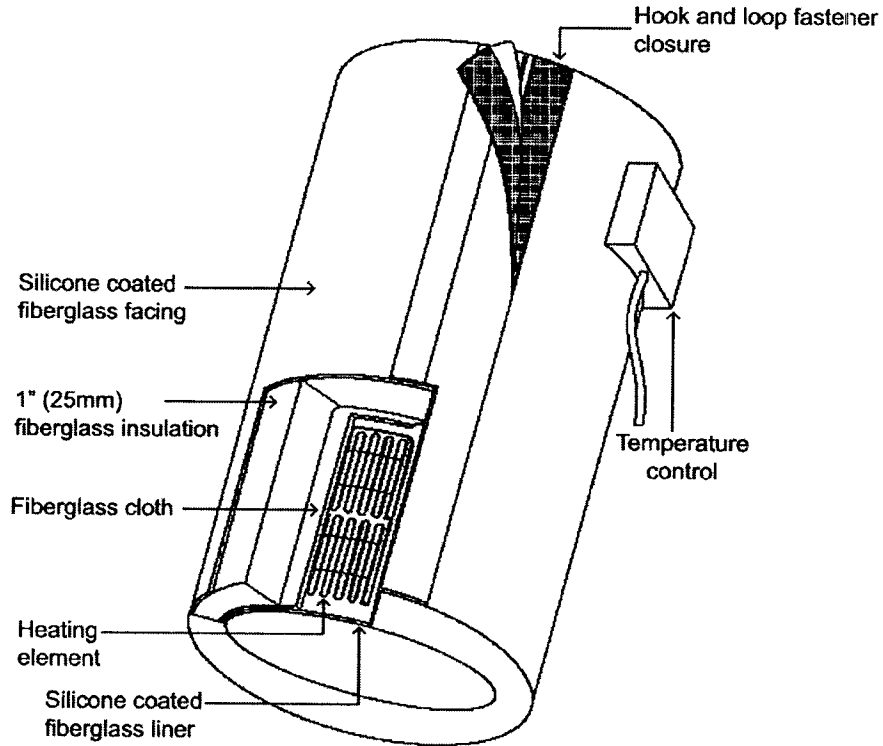
⚠ WARNING

End User Must Comply to the Following:

- Only qualified personnel are allowed to connect the electrical wiring.
- All electrical wiring must follow local electrical codes.
- Final installation/wiring is to be inspected by the authority who has jurisdiction in the area that the drum heater is installed.
- The end-user is responsible for providing a suitable disconnecting device.
- The end-user is responsible for providing suitable over-protection device. It is highly recommended that a ground fault circuit breaker be used.

GENERAL SPECIFICATIONS

Adjustable thermostat 50-425°F (10-218°C) for FGDH series 50-160°F (10-71°C) for FGPDH series	120 or 240 Volts Models
Power cord 6' (2m) long	Patented grounded heating element
450°F (232°C) maximum exposure temperature on heating surface	Dielectric strength over 2000 volts
Heated area for FCDH series is the lower third Heated area for FCPDH series is the lower two thirds	Indoor use only



INSTALLATION / OPERATION INSTRUCTIONS

⚠ WARNING

Read and understand this entire manual before operating this drum heater

**VOLTAGE:
120VAC; 240VAC**

STEP 1

Remove heater from box. Make visual inspection of heater. Do not use if torn or damaged.

STEP 2

Drum heater should be placed on a clean, dry surface. Open hook and loop closure (like VELCRO®) on heater and position around drum with adjustable thermostat in the upper third of the heater. Heater should be positioned on drum such that it is covering the drum from the floor to the top of the drum. Fasten hook and loop closure so heater is tight against the drum with no sagging or bundling. Cover top of drum with optional insulation cover. (sold separately, PN# FGDC55)

STEP 3 (see page 3 for electrical compliance)

For 120VAC model, plug standard 3-prong plug to appropriate electrical power supply. For 240VAC model, terminate power cord to appropriate electrical power supply. The power cable consists of three color-coded conductors, black, white, and green. The black wire should be connected to Line 1. The white wire should be connected to Line 2. The green 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 parameter programming instructions below). Drum heaters designed for metal drums (FGDH series) can be adjusted 50-450°F (10-232°C). Drum heaters designed for plastic drums (FGPDH series) can be adjusted 50-160°F (10-71°C).

PARAMETER PROGRAMMING

Set Point (SP) is the only parameter the user can access without code protection.

- Press SET. SP text will appear on the display.
- Press SET again. The real value is shown on the display.
- The value can be modified with the UP and DOWN arrows.
- Press SET to enter any new values.
- Press SET and DOWN at the same time to quit programming or wait one minute and the display will automatically exit programming mode.

STEP 4 Continued

BUZZER

In the event of alarm or error condition, the internal buzzer is activated. To silence the buzzer, press and hold the SET and Down keys for 2 seconds.

LED INDICATIONS

OUT This indicates that the heater is on.

DISPLAY MESSAGES

In normal operation, the sensor temperature will be shown on the display. In case of alarm or error, the following messages will be shown:

- Er = Memory Error
- -- = Short-Circuit Probe Error (Disconnects output).
- oo = Open Probe Error (Disconnects output).

CONTROLLER OPERATION:

Once the controller reaches set point, the heater will turn off and will not turn on again until the temperature falls 5°F below the set point.

The controller will alarm if the temperature at the sensor exceeds 15°F of the setpoint.

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. The identification label located on the power cord displays the heater's voltage requirement. 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.
Does not fit	Examine heater and cord for any damage. Confirm that the heater provided was designed to fit around your specified drum. If the heater was designed for the specified drum, please call 1-800-USA-HEAT for further assistance.
Something has lightly spilled on exterior or interior	Apply any general household cleaner, that does not contain any silicone rubber dissolving type ingredients, with a clean cloth fabric.

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