



Glo-Ray Food Warmer Installation and Operating Manual

**Models:
Standard
And
Portable**



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GENERAL

Hatco Infrared Food Warmers keep all foods at optimum serving temperatures without affecting quality. Glo-Ray warmers have prefocused heat that bathes the entire surface to provide an effective heat distribution and eliminate hot spots. Heating elements are guaranteed against breakage and burnout for two years.

Hatco Glo-Ray Food Warmers are available in either aluminum or stainless steel housings. Models range in length from 18 inches up to 12 feet.

All models are shipped pre-assembled ready for mounting and wiring, if not already provided with a cord and plug set. Models are available in either standard or high wattage.

This manual provides the installation and operation instructions for Glo-Ray standard and portable Food Warmers. We recommend all installation and operating instructions and safety precautions appearing in this manual be read prior to installation and operation.

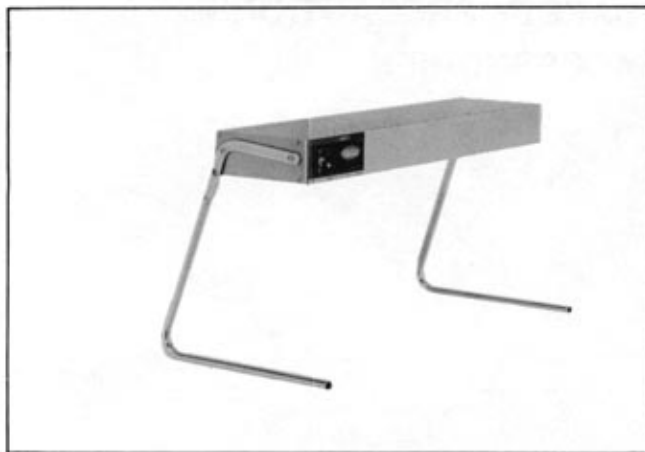


Figure 1. Standard Infrared Food Warmer — Model GRAH-36 With Optional C-Leg Stand

Safety precautions preceded in this manual by the words **WARNING** or **CAUTION** printed in bold face are important. Warning means there is the possibility of personal injury to yourself or others. Caution means there is the possibility of damage to the unit.

MODEL DESCRIPTION STANDARD FOOD WARMERS SEE FIGURE 1

Continuous housing infrared food warmers are available from 18 in. to 144 in. in extruded aluminum. Stainless steel housings available in six sizes from 24 in. up to 96 in. Glo-Ray Food Warmers can be installed side by side to create a warming area of any length or depth.



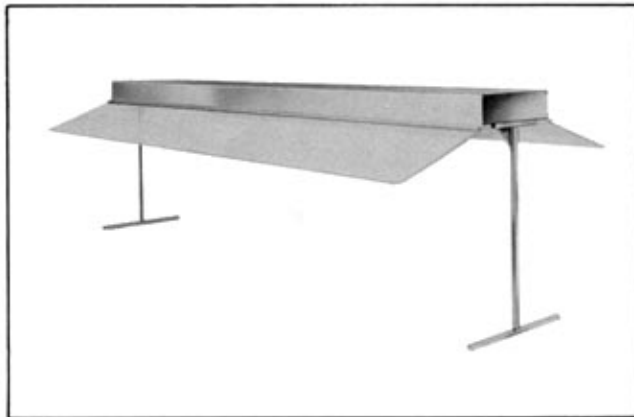
Figure 2. Portable Food Warmers — Model GR-FF & GR-FFB With Optional Stainless Steel Food Pan And Model GR-B With Optional Pan Rail

PORTABLE FOOD WARMERS SEE FIGURE 2

Portable Food Warmers are available with a thermo-controlled base or a specially designed stand to keep food pans off the work area. Food is easily accessible from three sides. Each Portable Food Warmer holds one standard 2 in. or 4 in. deep food pan. The Glo-Ray Portable Food Warmers are shipped factory pre-wired with 6 ft. cord and plug, ready for use. Incandescent display lights are available for models GR-FF and GR-FFB.

WARMERS WITH BREATH PROTECTOR SEE FIGURE 3

Hatco Glo-Ray Warmers with breath protectors are designed with a special aluminum housing for quick and simple protector installation. Models are offered in most lengths. Consult factory for specifications. Breath protectors are not available for retrofit.



**Figure 3. Warmers with Breath Protector—Model GRAP
With T-Leg Stand**

WARMERS WITH DISPLAY LIGHTS SEE FIGURE 4

Glo-Ray food warmers are available with incandescent display lights. These bulbs have a special coating that guards against injury and food contamination in the event of breakage. See page 10 for replacement instructions.



Figure 4. Warmer with Display Lights.

SPECIFICATIONS GLO-RAY INFRARED FOOD WARMERS

Glo-Ray Food Warmers operate on 115, 208 or 230 volts depending on order specifications.

High wattage models 120 in. through 144 in. are not available in **Dual** 115v.

| Stainless Steel | | | |
|------------------------|---------------------|--------------|-------------------------|
| Model | High Wattage | Model | Standard Wattage |
| GRH-24 | 500 | GR-24 | 350 |
| GRH-36 | 800 | GR-36 | 575 |
| GRH-48 | 1100 | GR-48 | 800 |
| GRH-60 | 1400 | GR-60 | 1050 |
| GRH-72 | 1750 | GR-72 | 1275 |
| GRH-96 | 2400 | GR-96 | 1725 |
| Aluminum | | | |
| Model | High Wattage | Model | Standard Wattage |
| GRAH-18 | 350 | GRA-18 | 250 |
| GRAH-24 | 500 | GRA-24 | 350 |
| GRAH-30 | 660 | GRA-30 | 450 |
| GRAH-36 | 800 | GRA-36 | 575 |
| GRAH-42 | 950 | GRA-42 | 675 |
| GRAH-48 | 1100 | GRA-48 | 800 |
| GRAH-54 | 1250 | GRA-54 | 925 |
| GRAH-60 | 1400 | GRA-60 | 1050 |
| GRAH-66 | 1560 | GRA-66 | 1160 |
| GRAH-72 | 1725 | GRA-72 | 1275 |
| GRAH-84 | 2050 | GRA-84 | 1500 |
| GRAH-96 | 2400 | GRA-96 | 1725 |
| GRAH-108* | 2500 | GRA-108* | 1850 |
| GRAH-120* | 2800 | GRA-120* | 2100 |
| GRAH-132* | 3120 | GRA-132* | 2320 |
| GRAH-144* | 3450 | GRA-144* | 2550 |

*Glo-Ray models 108 in. through 144 in. contain tandem elements individually controlled.

PORTABLE FOOD WARMERS

Portable Food Warmers operate on 115 volts.

| Model | Wattage |
|--------------|----------------|
| GR-FF | 500 |
| GR-FFL* | 620 |
| GR-FFB | 750 |
| GR-FFBL* | 870 |

*Models with "L" indicate light.

ELECTRICAL REQUIREMENTS

For proper installation to local electrical code consult a licensed electrical contractor.

CORD AND PLUG PROVIDED MODELS

Install an approved grounded receptacle to receive plug of models provided with supply cord and plug set.

CONDUIT CONNECTED MODELS

Install a supply wire not lighter than 10 gauge copper, rated 90°C. Hatco provides a 1/2 in. or 3/4 in. trade size knockout, usually opposite the switch; 6 in. long pigtail leads and a separate grounding terminal or screw in the wiring compartment; and UL recognized wire nuts for connecting supply wires. (Hatco does not supply wire nuts.)

CONTROL SWITCHES

When two or more Glo-Rays are mounted in a situation that the heat from one housing tends to raise the tempera-

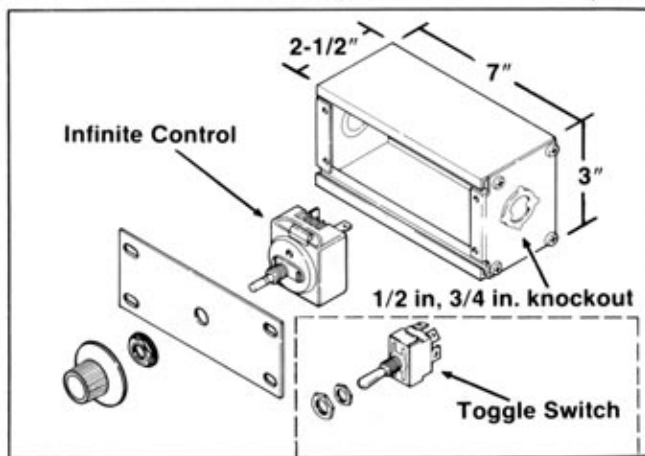


Figure 5. Remote Control Enclosure.

ture of another, the control switches should be installed in a suitable control box away from the heated zone. Glo-Rays ordered for multiple installation should not have switches built-in.

See Figure 5. A remote control enclosure is recommended with multiple installation of Glo-Rays. Standard length is 7 in. and will accommodate two infinite switches or 4 toggle switches.

LOCATION

It is necessary for safe and proper operation that the food warmer be mounted a reasonable distance from combustible wall and counter top surfaces.

When proper distances are maintained, hot foods will be held at ideal serving temperatures without cooking the foods beyond the point of excellence.

NOTE

Glo-Ray is not moisture proof — do not mount over steamtable unless control switch is in a remote location.

WARNING

Specified safe distances must be maintained between the Glo-Ray and combustible wall or wall type surfaces and wooden counters or counters that would discolor. If safe distances are not maintained, discoloration or combustion could occur.

STANDARD WATTAGE GLO-RAY

Locate standard wattage Glo-Rays so there is a minimum distance of 10 in. between the bottom of the Glo-Ray and wooden counters or counters that would discolor.

HIGH WATTAGE GLO-RAY

Locate high wattage Glo-Rays so there is a minimum distance of 13-1/2 in. between the bottom of the Glo-Ray and wooden counters or counters that would discolor.

CHAIN SUSPENDED OR WALL MOUNTED GLO-RAY

Locate a chain suspended, or wall bracket mounted Glo-

Ray so there is a minimum distance of 3 in. from a non-metallic wall or adjacent surface.

MOUNTING GENERAL

Glo-Rays are supplied with 2 mounting tabs at each end for chain mounting or mounting under a shelf or pass-through. See Figure 12.

C-Leg stands, T-Leg stands, wall brackets and tubular stands are available. C-Leg and T-Leg stands or wall brackets can be attached to any Glo-Ray as standard. A Glo-Ray is prepared for tubular stand mounting if requested when ordered. Use only recommended mounting methods and approved accessories with your Glo-Ray.

CHAIN SEE FIGURE 6

Chain supplied by Hatco is constructed of sufficient strength to securely hold the weight of the Glo-Ray when properly mounted.

Securely fasten the chain to the surface above the area the Glo-Ray will be located. Be sure chain is located so that the Glo-Ray will be suspended a safe and proper distance from wall or wall type surfaces, counters and food.

Loosen the screws securing the mounting tabs to the Glo-Ray end. Extend the tabs above the Glo-Ray as shown. Then tighten the mounting screws.

Use a short piece of chain to connect between tabs. Attach overhead chain to connecting chain to create a "Y" mount. Repeat for other end.

NOTE

Additional chain is required to mount from overhead to each tab.

WARNING

Chain must be of sufficient strength and securely fastened or the Glo-Ray Warmer could come loose, possibly causing personal injury or damage to the unit.

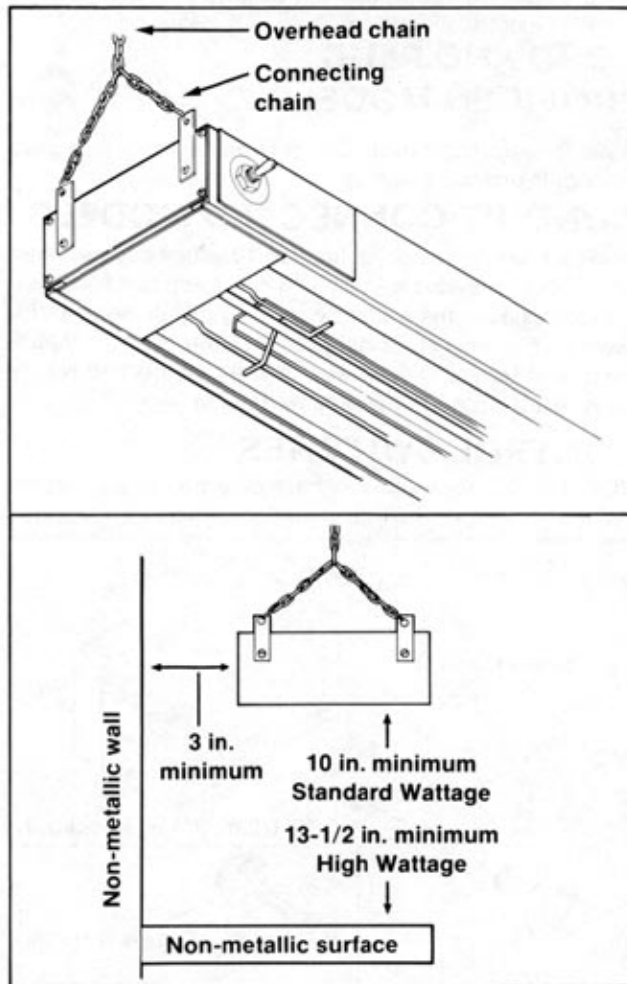


Figure 6. Chain Mounting

C-LEG STAND

SEE FIGURE 7

Position the Glo-Ray upside down on a flat surface. Remove the 2 screws as shown.

Align the C-Leg with the mounting holes.

Securely fasten the C-Leg to the end of the Glo-Ray with screws.

Repeat for other end.

TUBULAR STAND

SEE FIGURE 9

Tubular stand mounting permanently attaches the Glo-Ray to a counter top or serving table. All hook-up wiring may be concealed.

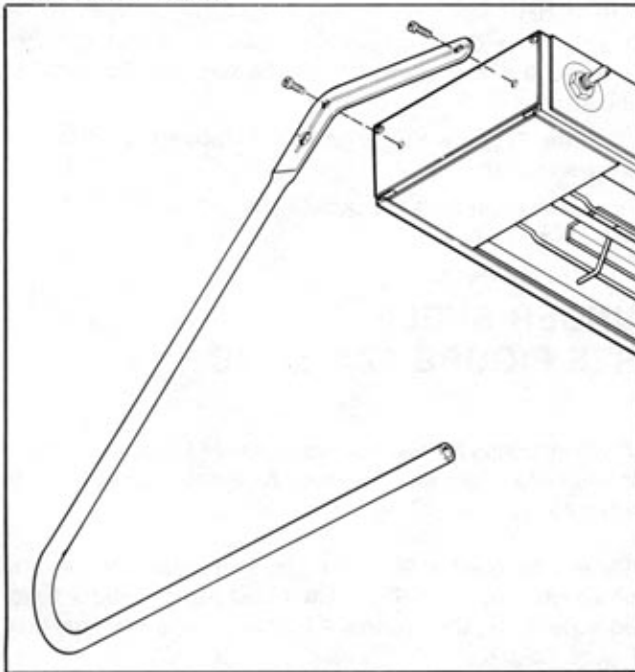


Figure 7. C-Leg Mounting

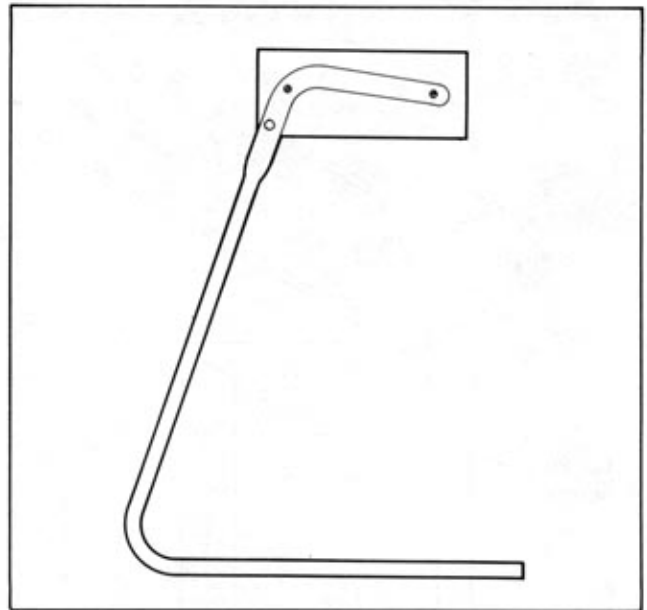


Figure 8. Sideview C-Leg with Glo-Ray

Tubular stands are available in adjustable heights from 10 in. to 14 in. or non-adjustable in heights from 10 in. to 16 in.

Use the hardware provided and secure the Glo-Ray upper flange to the legs.

Mount the legs to the counter top or serving table.

If hook-up wiring is to be concealed, a 3/4 in. diameter hole must be provided in the counter centered under the flange of the leg nearest electrical wiring.

TUBULAR STAND ADJUSTMENT SEE FIGURE 9

The Adjustable Tubular Stand mount may be raised or lowered. Locking screws are located on the side of each leg.

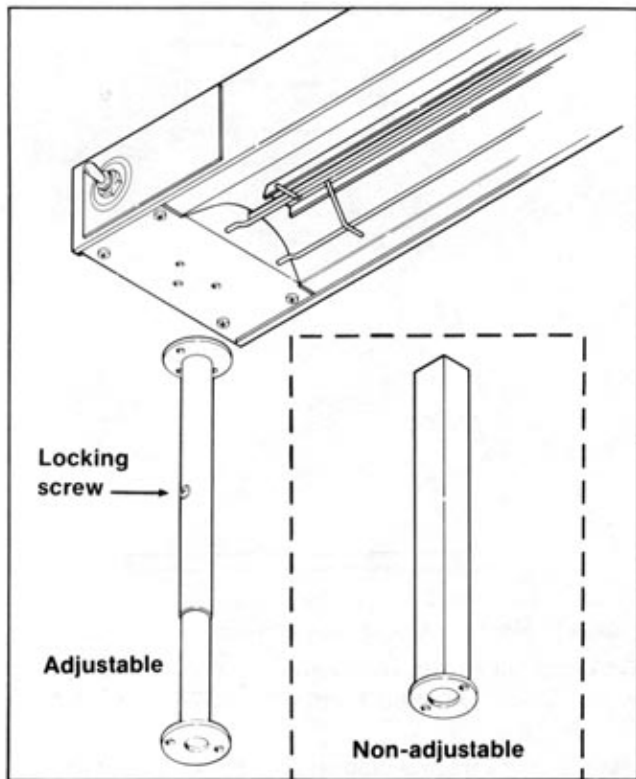


Figure 9. Tubular Stand Mounting

With an allen wrench, loosen both locking screws by turning one turn counterclockwise.

NOTE

Do not loosen the locking screws more than necessary.

Raise or lower the Glo-Ray to the desired height.

Tighten the locking screws.

T-LEG STAND

T-Leg stands mount either underneath the Glo-Ray or at the Glo-Ray ends.

End Mounting

See Figure 10

Position the Glo-Ray upside down on a flat surface. Remove the screw securing each mounting tab. Remove the tabs.

Align the T-Leg with the mounting holes as shown and secure the screws.

Repeat for other end.

Alternate T-Leg Mounting

See Figure 11

Position the Glo-Ray upside down on a flat surface. Remove the two screws from the Glo-Ray housing as shown.

Align the T-Leg with the underside mounting holes and secure with screws.

Secure the support bracket to the leg using the screw provided.

Repeat for other side.

UNDER SHELF

SEE FIGURE 12A & 12B

When mounting the Glo-Ray under a shelf keep any switches in the coolest possible location. **A remote control box is advised.**

If shelf has rolled or flanged edges that create an overturned trough, mount Glo-Ray below lowest part of rolled or flanged edge, using the optional adjustable angle brackets (see Figure 12A).

The standard Glo-Ray mounting tabs bend 90° for mounting, under a shelf without rolled or flanged edges (see Figure 12B).

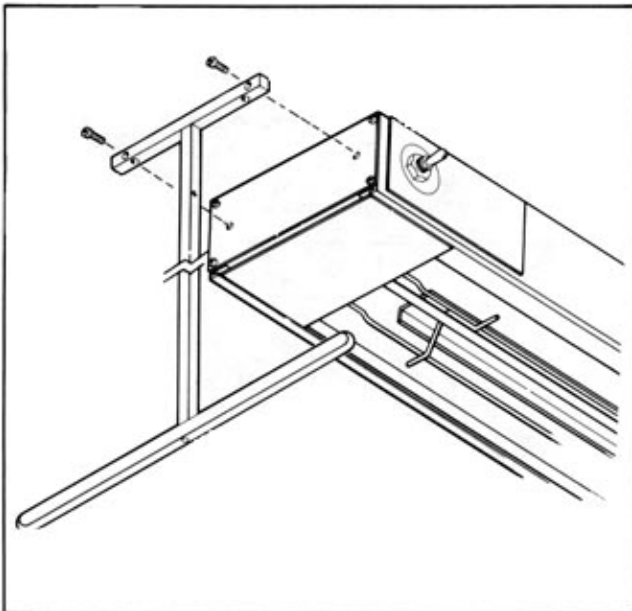


Figure 10. T-Leg End Mounting

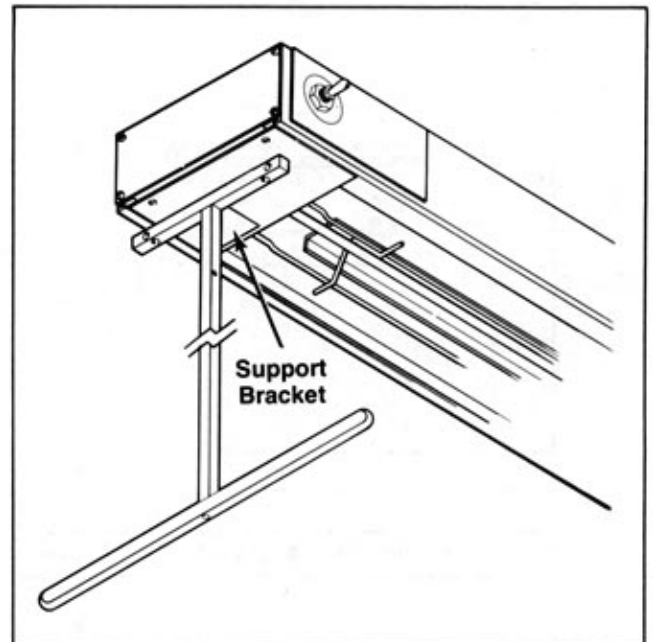
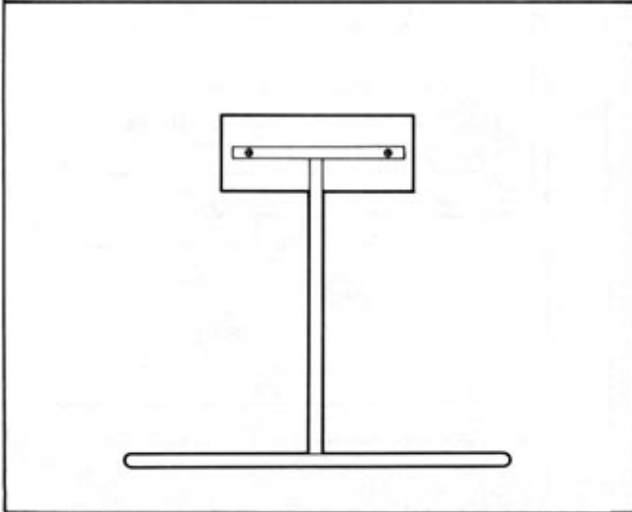
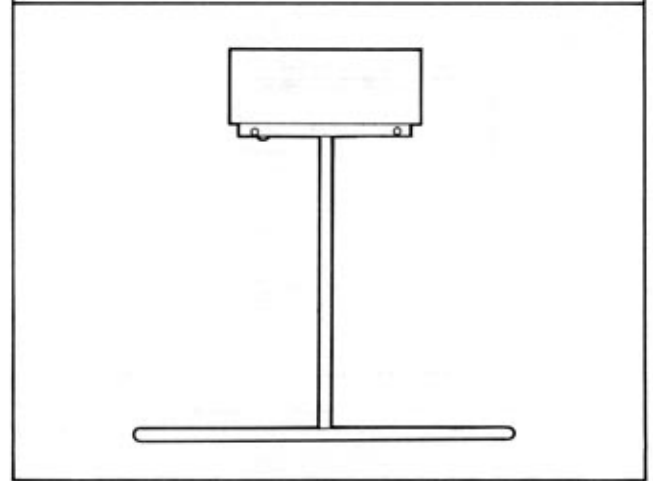


Figure 11. T-Leg Alternate Mounting



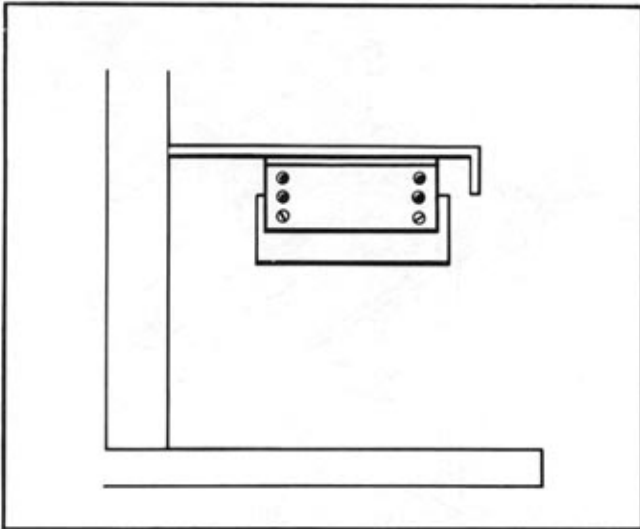


Figure 12A. Under Shelf Mounting With Angle Brackets

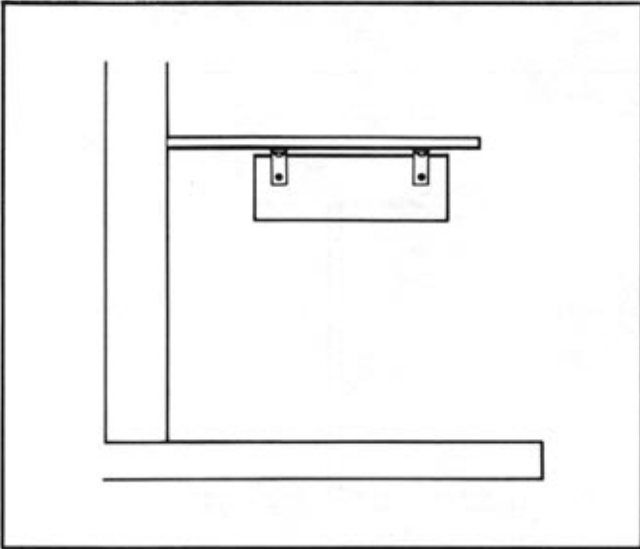


Figure 12B. Under Shelf Mounting With Tabs.

WALL BRACKET SEE FIGURE 13

Securely fasten a bracket to each end of the Glo-Ray. Be certain Glo-Ray is a safe and proper distance from the wall or wall type surfaces, counters and food as described under LOCATION. Securely fasten brackets to the wall.

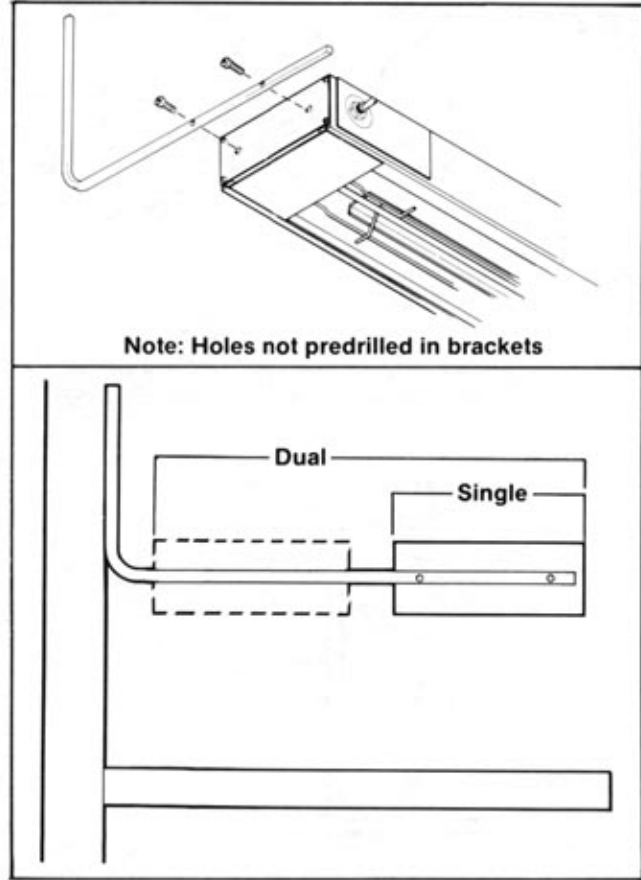


Figure 13. Wall Bracket Mounting

POST MOUNT SEE FIGURE 14

A Post Mount may be used with models 24 in. or less. The post provides swing-away Glo-Ray mounting.

The post permanently mounts to a counter top, fry station or serving table. A 1 in. diameter hole must be provided in the counter top to accept the threaded post end.

Secure the post to the counter with the washer and nut as shown. Wiring connections must be through the post mount.

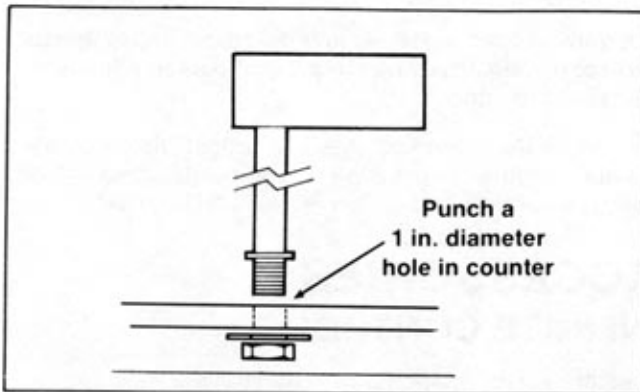


Figure 14. Post Mounting

DUAL MOUNTING SEE FIGURE 15

Glo-Ray Warmers can be mounted side-by-side, providing a space of not less than 3" is maintained between units.

Factory ordered dual models are shipped with either a 3" or 6" wide spacer, with or without lights. These dual mount

spacers are available for aluminum models only. Consult factory before installing warmers side-by-side without spacers.

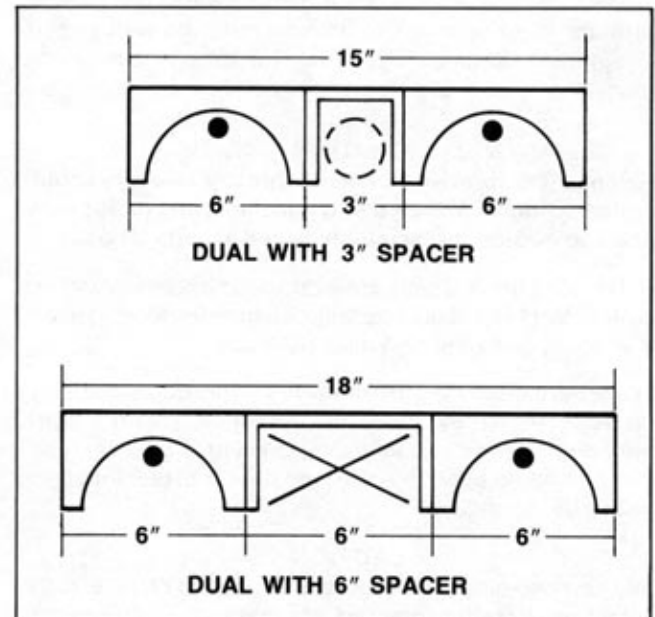


Figure 15. Dual Mounting

CAUTION

Installation of two or more warmers with less than 3 inches between housings could result in premature failure of component parts.

CLEANING

To preserve the finish of your Glo-Ray Food Warmer it is recommended that exterior surfaces be wiped daily with a damp cloth. Stubborn stains may be removed with a good aluminum or stainless steel cleaner or a non-abrasive cleanser.

CAUTION

Use only non-abrasive cleaners. Abrasive cleaners could scratch the finish of the Food Warmer marring its appearance and making it susceptible to soil accumulation.

Glo-Ray food holding pans are available in Thermo-alum. or stainless steel and should be removed from the food warmer for washing and sanitizing after each use.

Breath protectors may be removed for thorough cleaning and polishing. They should be wiped daily with a soft, damp cloth. If fine scratches are present, a good acrylic cleaner may be used to polish the breath protectors and remove the scratches.

CAUTION

Only soft cleaning cloths should be used to clean breath protectors. Breath protectors are made of shatter-proof acrylic and will scratch if proper care is not taken.

DISPLAY LIGHT BULB REPLACEMENT

The display light is an incandescent bulb which illuminates the warming area. This bulb has a special coating to guard against injury and food contamination in the event of breakage.

To replace a bulb, disconnect the power supply and wait until the unit has cooled. Display lamps have a threaded base. Unscrew the bulb from the unit and replace it with a

new specially coated incandescent bulb. Hatco Shatter-Resistant Bulbs meet NSF standards for food holding and display areas.

WARNING

Only bulbs which meet NSF standards, specifically designed for food holding areas must be used. Breakage of bulbs not specially coated could result in personal injury and/or food contamination.

SAFETY PRECAUTIONS

Do not add a decorative soffit to hide a pass-through mounted Glo-Ray.

Use only recommended mounting methods and materials and approved accessories to prevent personal injury or damage to the unit.

Be certain that specified safe and proper distances are maintained between the Glo-Ray and combustible wall or wall type surfaces and counters. See LOCATION.

ACCESSORIES INFINITE CONTROL

Available for installation on all Glo-Ray Warmers, infinite control allows the operator to manually adjust heat output from full wattage down to any desired level. **Remote installation is recommended.**

REMOTE CONTROL ENCLOSURE

The remote control enclosure accepts toggle switches, infinite controls and pilot lights.

It is ideal for installations where built-in control is not desirable or when Glo-Rays are tandem mounted (end to end) or dual mounted (side by side). Enclosure may be sized to accept multiple switches and pilot lights.

PILOT LIGHT

An optional red pilot light is available. The pilot light may be mounted on either side of the Food Warmer to provide instant visual check of the operation.

INCANDESCENT LIGHT

Glo-Ray Food Warmers with aluminum housing may be equipped with incandescent display lights to illuminate the warming area.

Shatterproof bulbs guard against injury and food contamination in the event of breakage. The display lighting meets NSF standards for food holding and display areas.

FOOD PANS

Standard stainless steel food holding pans are available in 2-1/2 in. or 4 in. depths.

WIRE TRIVET

Wire trivets prevent foods from touching the bottom of the food holding pan.

ADJUSTABLE LEGS

Sturdy 4 in. adjustable legs are available for Glo-Ray Buffet Warmers and heated shelf models.

WARRANTY INFORMATION

1. PRODUCT WARRANTY. Hatco warrants the products that it manufactures (the "Products") to be free from defects in materials and workmanship, under normal use and service, for a period of one (1) year from the date of purchase when installed and maintained in accordance with Hatco's written instructions. Buyer must establish the Product's purchase date by returning Hatco's Warranty Registration Card or by other means satisfactory to Hatco in its sole discretion.

Hatco warrants the following Product components to be free from defects in materials and workmanship from the date of purchase (subject to the foregoing conditions) for the period(s) of time and on the conditions listed below:

a) One (1) Year Parts and Labor PLUS One (1) Year Parts-Only Warranty:

Food Warmer Elements (metal sheathed)

b) One (1) Year Parts-Only Warranty for components not installed by Hatco:

Accessory Components (including but not limited to valves, gauges and remote switches)

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Without limiting the generality of the foregoing, SUCH WARRANTIES DO NOT COVER: Coated Incandescent light

bulbs, glass components or Product failure caused by liming or sediment buildup in tanks, Product misuse, tampering or misapplication, improper installation, application of improper voltage, or recalibration of thermostats or high limit switches.

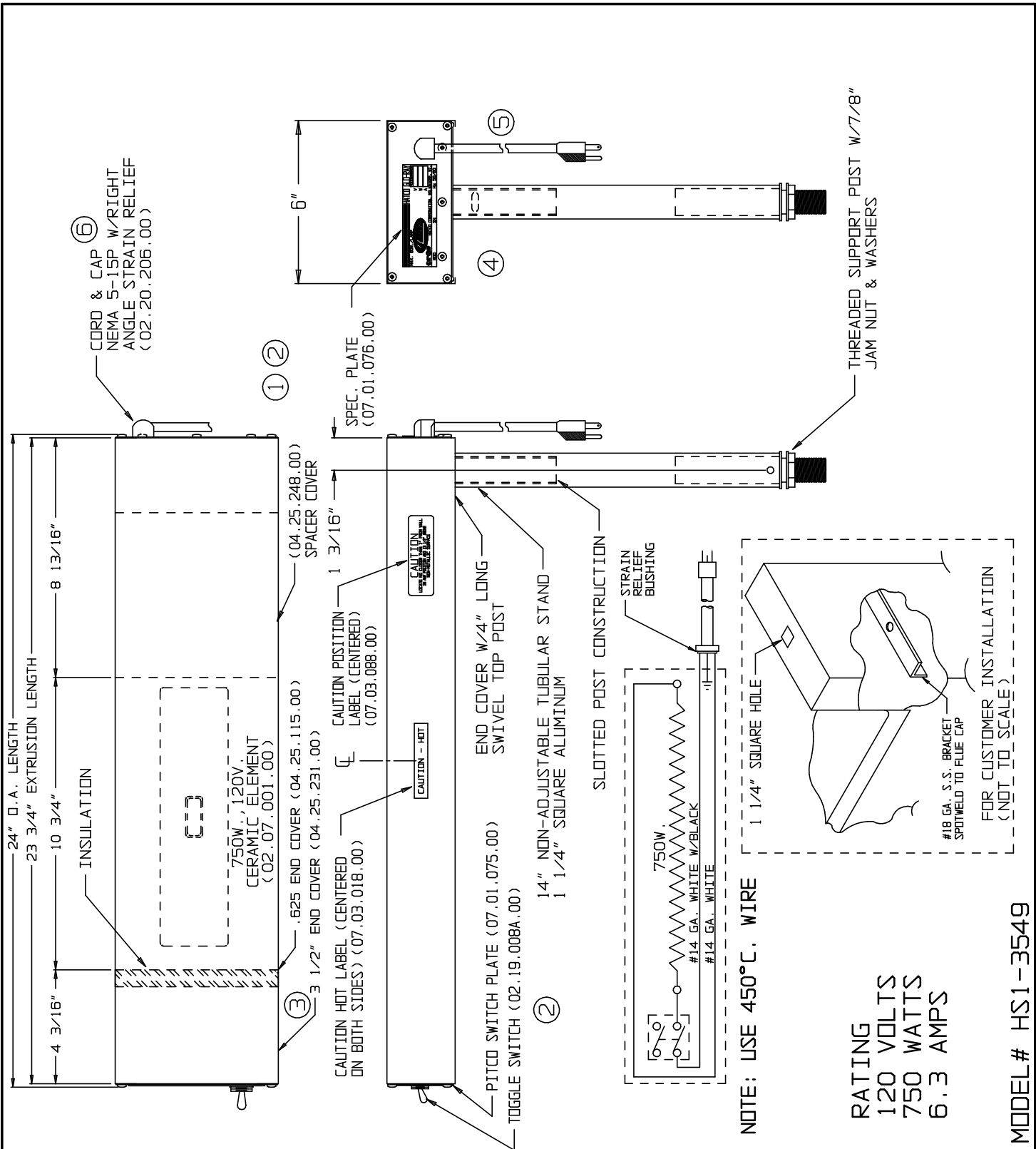
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NOTE: USE 450°C. WIRE

RATING
 120 VOLTS
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