



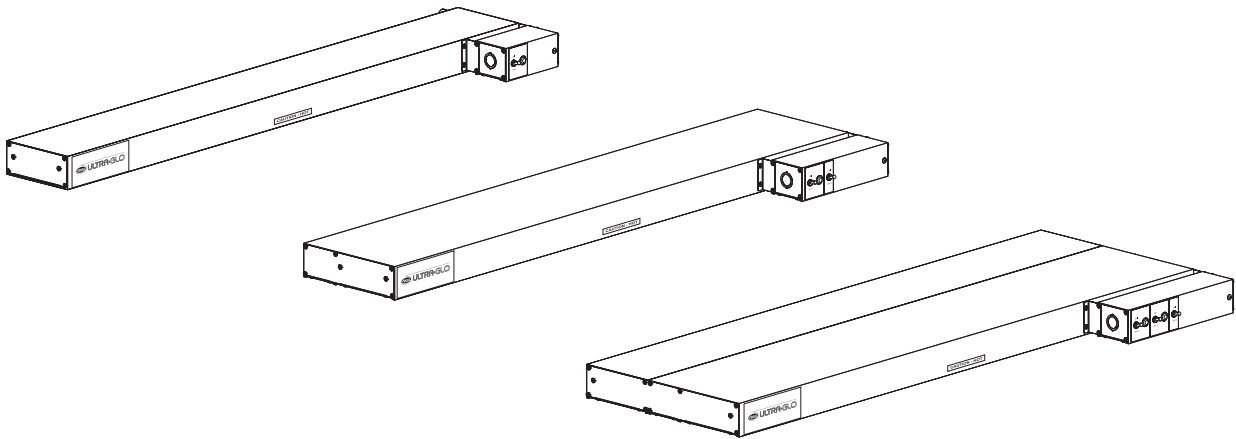
ULTRA-GLO®

Ceramic Infrared Strip Heaters

UGA, UGAL, UGAH, and UGAHL Series

Installation and Operating Manual

I&W #07.05.209.00



Do not operate this equipment unless you have read and understood the contents of this manual! Failure to follow the instructions contained in this manual may result in serious injury or death. This manual contains important safety information concerning the maintenance, use, and operation of this product. If you're unable to understand the contents of this manual, please bring it to the attention of your supervisor. Keep this manual in a safe location for future reference.



No opere este equipo al menos que haya leído y comprendido el contenido de este manual! Cualquier falla en el seguimiento de las instrucciones contenidas en este manual puede resultar en un serio lesión o muerte. Este manual contiene importante información sobre seguridad concerniente al mantenimiento, uso y operación de este producto. Si usted no puede entender el contenido de este manual por favor pregunte a su supervisor. Almacenar este manual en una localización segura para la referencia futura.

CONTENTS

Important Owner Information.....	i	Undershelf Mounting	14
Introduction	i	Permanent Surface Mount.....	15
Important Safety Information	1	Overhead Mounting	16
Model Designation	2	Electrical Wiring Hook-Up.....	16
Model Descriptions	2	Operation	17
Specifications	3	Maintenance	18
Electrical Rating Charts	3	General	18
Dimensions	11	Replacing Display Light Bulbs	18
Installation	12	Troubleshooting Guide.....	19
General	12	Options.....	20
Minimum Clearance Requirements	13	Hatco Limited Warranty.....	21
Recommended Mounting Heights	13	Authorized Parts Distributors	Back Cover
Assembly.....	14		

IMPORTANT OWNER INFORMATION

Record the model number, serial number (identification decal located on the underside of the unit), voltage, and purchase date of your strip heater in the spaces below. Please have this information available when calling Hatco for service assistance.

Model No. _____

Serial No. _____

Voltage _____

Date of Purchase _____

Business Hours: 8:00 a.m. to 5:00 p.m.
Central Standard Time
(Summer Hours: June to September –
8:00 a.m. to 5:00 p.m. C.S.T.
Monday through Thursday
8:00 a.m. to 2:30 p.m. C.S.T. Friday)

Telephone: (800) 558-0607; (414) 671-6350

Fax: (800) 690-2966 (Parts and Service)
(414) 671-3976 (International)



24 Hour 7 Day Parts and Service Assistance available in the United States and Canada by calling (800) 558-0607.

Additional information can be found by visiting our web site at www.hatcocorp.com.

INTRODUCTION

Hatco Ultra-Glo® Ceramic Strip Heaters ensure maximum food holding and minimize the risk of food-borne illness. Optimum safety and quality is the result of food held at the proper serving temperatures using Ultra Glo's pre-focused heat patterns. The pre-focused heat pattern prevents foods from being over-cooked in the middle and cooling off around the edges by concentrating higher temperatures to the outer edges of holding surfaces where heat loss is the greatest. Utilizing specially designed reflectors to direct the heat from the element, Ultra-Glo Ceramic Strip Heaters safely maintain peak serving temperatures longer without cooking the food beyond the point of excellence. The ceramic element heat output allows the units to be mounted at increased heights for improved working clearances.

Ultra-Glo Ceramic Strip Heaters are available from the factory with or without shatter-resistant display lights to illuminate the warming area. These bulbs have a special coating that guards against injury and food contamination in the event of breakage.

Ultra-Glo Ceramic Strip Heaters are a product of extensive research and field testing. The materials used were selected for maximum durability, attractive appearance, and optimum performance. Every unit is inspected and tested thoroughly prior to shipment.

This manual provides the installation, safety, and operating instructions for Ultra-Glo Ceramic Strip Heaters. Hatco recommends all installation, operating, and safety instructions appearing in this manual be read prior to installation or operation of the strip heaters.

Safety information that appears in this manual is identified by the following signal word panels:

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

IMPORTANT SAFETY INFORMATION



Read the following important safety information before using this equipment to avoid serious injury or death and to avoid damage to equipment or property.



WARNING

ELECTRIC SHOCK HAZARD:

- For hard-wired units, all electrical connections must be in accordance with local electrical codes and any other applicable codes. Connections should be made by a qualified, licensed electrician.
- Turn the power OFF at the fused disconnect switch/circuit breaker and allow the unit to cool before performing any maintenance or cleaning.
- DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.
- This unit is not “jet-proof” construction. Do not use jet-clean spray to clean this unit.
- Use only Genuine Hatco Replacement Parts when service is required. Failure to use Genuine Hatco Replacement Parts will void all warranties and may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn. Genuine Hatco Replacement Parts are specified to operate safely in the environments in which they are used. Some aftermarket or generic replacement parts do not have the characteristics that will allow them to operate safely in Hatco equipment.

FIRE HAZARD:

- Do not install Ultra-Glo ceramic strip heaters above or around combustible surfaces. Discoloration or combustion could occur. Ultra-Glo ceramic strip heaters must be installed in non-combustible surroundings only.
- Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

Use only light bulbs that meet or exceed National Sanitation Foundation (NSF) standards and are specifically designed for food holding areas. Breakage of light bulbs not specially coated could result in personal injury and/or food contamination.

This unit has no “user-serviceable” parts. If service is required on this unit, contact an Authorized Hatco Service Agent or contact the Hatco Service Department at 800-558-0607 or 414-671-6350; fax 800-690-2966; or International fax 414-671-3976.



CAUTION

BURN HAZARD: Some exterior surfaces on the unit will get hot. Use caution when touching these areas.

Standard and approved manufacturing oils may smoke up to 30 minutes during initial startup. This is a temporary condition. Operate unit without food product until smoke dissipates.

To ensure safe and proper operation, refer to the “Minimum Clearance Requirements” listed in the INSTALLATION section of this manual.

NOTICE

Installation of two or more separate units with less than 3” (76 mm) between housings may result in premature failure of component parts. Failure to provide proper spacing may result in heat damage to electrical components.

To prevent unit failure, do not add a decorative soffit to hide a pass-through mounted strip heater.

To prevent premature failure of components due to excessive heat, remote control enclosures must be installed outside the strip heater heat zone.

Heat damage to countertop material such as Corian® and similar products (other than stainless steel) is not covered under the Hatco warranty. Contact the manufacturer of the base material for temperature limits and application information before installing the unit.

Use non-abrasive cleaners only. Abrasive cleaners could scratch the finish of the unit, marring its appearance and making it susceptible to dirt accumulation.

MODEL DESIGNATION

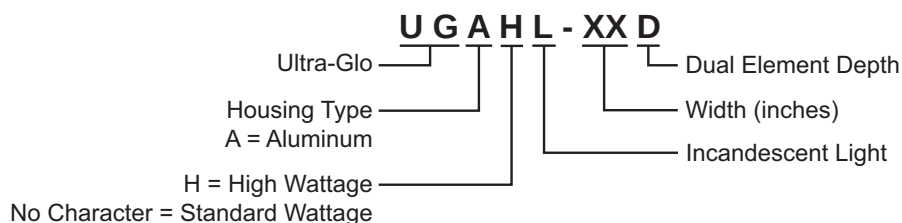


Figure 1. Model Designation

MODEL DESCRIPTIONS

Hatco Ultra-Glo® Ceramic Strip Heaters keep hot foods at optimum serving temperatures longer. Foods do not dry out or become discolored; even the most delicate dishes hold that “just-prepared” look. The Ultra-Glo pre-focused heat pattern directs heat from a ceramic element to bathe the entire holding surface. The ceramic element heat output allows the units to be mounted at increased heights for improved working clearances.

Ultra-Glo Ceramic Strip Heaters are constructed with aluminum housings in widths of 18" (457 mm) to 72" (1829 mm).

Dual models allow for side-by-side mounting of two heating elements to provide a deeper holding area (dual models are constructed with a standard 3" [76 mm] or optional 6" [152 mm] spacer between heating elements).

All Ultra-Glo Ceramic Strip Heaters have several mounting options and switch locations. Optional infinite control switches, electronic infinite control switches, remote control enclosures, incandescent lighting, and halogen lighting are available.

UGA-XX: Aluminum housing, single element depth

UGAH-XX: Aluminum housing, high wattage, single element depth

UGAL-XX: Aluminum housing, incandescent lights, single element depth

UGAHL-XX: Aluminum housing, high wattage, incandescent lights, single element depth

UGA-XXD: Aluminum housing, dual element depth

UGAH-XXD: Aluminum housing, high wattage, dual element depth

UGAL-XXD: Aluminum housing, incandescent lights, dual element depth

UGAHL-XXD: Aluminum housing, high wattage, incandescent lights, dual element depth

NOTE: Incandescent and halogen lights are not available for retrofit.

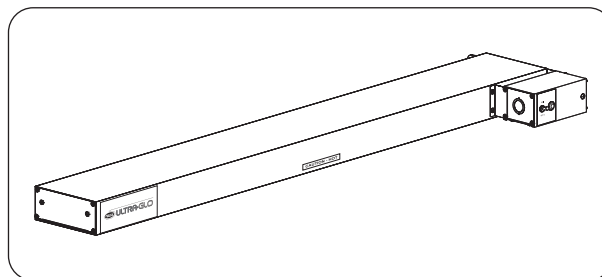


Figure 2. UGA-XX Model

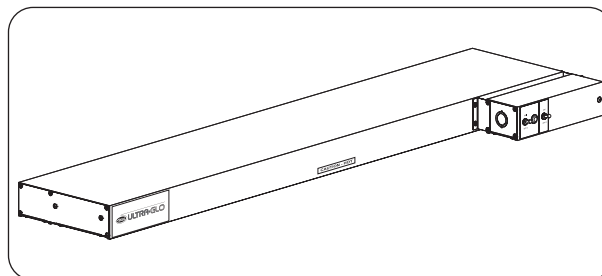


Figure 3. UGAL-XX Model

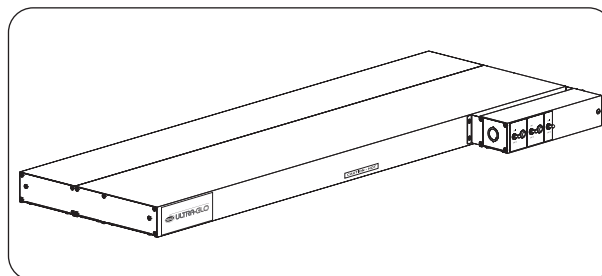


Figure 4. UGAL-XXD Model, 3" (76 mm) Spacer

SPECIFICATIONS

Electrical Rating Chart — UGA Models

Model UGA-18				Shipping Weight: 9 lbs. (4 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	120	500	4.2				
<u>208V Unit</u>							
Circuit 1	208	490	2.4				
<u>240V Unit</u>							
Circuit 1	240	500	2.1				
Model UGA-24				Shipping Weight: 10 lbs. (5 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	120	650	5.4				
<u>208V Unit</u>							
Circuit 1	208	675	3.2				
<u>240V Unit</u>							
Circuit 1	240	650	2.7				
Model UGA-30				Shipping Weight: 11 lbs. (5 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	120	900	7.5				
<u>208V Unit</u>							
Circuit 1	208	840	4.0				
<u>240V Unit</u>							
Circuit 1	240	900	3.8				
Model UGA-36				Shipping Weight: 12 lbs. (5 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	120	1000	8.3				
<u>208V Unit</u>							
Circuit 1	208	980	4.7				
<u>240V Unit</u>							
Circuit 1	240	1000	4.2				
Model UGA-42				Shipping Weight: 13 lbs. (6 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	120	1200	10.0				
<u>208V Unit</u>							
Circuit 1	208	1120	5.4				
<u>240V Unit</u>							
Circuit 1	240	1200	5.0				
Model UGA-48				Shipping Weight: 14 lbs. (6 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	120	1500	12.5				
<u>208V Unit</u>							
Circuit 1	208	1470	7.1				
<u>240V Unit</u>							
Circuit 1	240	1500	6.3				
Model UGA-54*				Shipping Weight: 16 lbs. (7 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	208	1470	7.1				
<u>240V Unit</u>							
Circuit 1	240	1500	6.3				
Model UGA-60*				Shipping Weight: 17 lbs. (8 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	208	1960	9.4				
<u>240V Unit</u>							
Circuit 1	240	2000	8.3				
Model UGA-66*				Shipping Weight: 19 lbs. (9 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	208	1960	9.4				
<u>240V Unit</u>							
Circuit 1	240	2000	8.3				
Model UGA-72*				Shipping Weight: 20 lbs. (9 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>				
Circuit 1	208	1960	9.4				
<u>240V Unit</u>							
Circuit 1	240	2000	8.3				

• Not available in 120 volts.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

SPECIFICATIONS

Electrical Rating Chart — UGAH Models

Model UGAH-18		Shipping Weight: 9 lbs. (4 kg)*	
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	650	5.4
<u>208V Unit</u>			
Circuit 1	208	675	3.2
<u>240V Unit</u>			
Circuit 1	240	650	2.7
Model UGAH-24		Shipping Weight: 10 lbs. (5 kg)*	
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	750	6.3
<u>208V Unit</u>			
Circuit 1	208	750	3.6
<u>240V Unit</u>			
Circuit 1	240	750	3.1
Model UGAH-30		Shipping Weight: 11 lbs. (5 kg)*	
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1125	9.4
<u>208V Unit</u>			
Circuit 1	208	1125	5.4
<u>240V Unit</u>			
Circuit 1	240	1125	4.7
Model UGAH-36		Shipping Weight: 12 lbs. (5 kg)*	
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1300	10.8
<u>208V Unit</u>			
Circuit 1	208	1350	6.5
<u>240V Unit</u>			
Circuit 1	240	1300	5.4
Model UGAH-42		Shipping Weight: 13 lbs. (6 kg)*	
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1500	12.5
<u>208V Unit</u>			
Circuit 1	208	1500	7.2
<u>240V Unit</u>			
Circuit 1	240	1500	6.3

Model UGAH-48*		Shipping Weight: 14 lbs. (6 kg)*	
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2025	9.7
<u>240V Unit</u>			
Circuit 1	240	1950	8.1
Model UGAH-54*		Shipping Weight: 16 lbs. (7 kg)*	
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2250	10.8
<u>240V Unit</u>			
Circuit 1	240	2250	9.4
Model UGAH-60*		Shipping Weight: 17 lbs. (8 kg)*	
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Model UGAH-66*		Shipping Weight: 19 lbs. (9 kg)*	
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Model UGAH-72*		Shipping Weight: 20 lbs. (9 kg)*	
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	3000	14.4
<u>240V Unit</u>			
Circuit 1	240	3000	12.5

• Not available in 120 volts.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

Electrical Rating Chart — UGAL Models

Model UGAL-18 Shipping Weight: 12 lbs. (5 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	560	4.7
<u>120/208V Unit</u>			
Circuit 1	120/208	550	2.9
<u>120/240V Unit</u>			
Circuit 1	120/240	560	2.6
<u>240V Unit</u>			
Circuit 1	240	560	2.3
Model UGAL-24 Shipping Weight: 13 lbs. (6 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	770	6.4
<u>120/208V Unit</u>			
Circuit 1	120/208	795	4.2
<u>120/240V Unit</u>			
Circuit 1	120/240	770	3.7
<u>240V Unit</u>			
Circuit 1	240	770	3.2
Model UGAL-30 Shipping Weight: 15 lbs. (7 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1020	8.5
<u>120/208V Unit</u>			
Circuit 1	120/208	960	5.0
<u>120/240V Unit</u>			
Circuit 1	120/240	1020	4.8
<u>240V Unit</u>			
Circuit 1	240	1020	4.3
Model UGAL-36 Shipping Weight: 17 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1180	9.8
<u>120/208V Unit</u>			
Circuit 1	120/208	1160	6.2
<u>120/240V Unit</u>			
Circuit 1	120/240	1180	5.7
<u>240V Unit</u>			
Circuit 1	240	1180	4.9
Model UGAL-42 Shipping Weight: 18 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1380	11.5
<u>120/208V Unit</u>			
Circuit 1	120/208	1300	6.9
<u>120/240V Unit</u>			
Circuit 1	120/240	1380	6.5
<u>240V Unit</u>			
Circuit 1	240	1380	5.8
Model UGAL-48 Shipping Weight: 20 lbs. (9 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1740	14.5
<u>120/208V Unit</u>			
Circuit 1	120/208	1710	9.1
<u>120/240V Unit</u>			
Circuit 1	120/240	1740	8.3
<u>240V Unit</u>			
Circuit 1	240	1740	7.3
Model UGAL-54* Shipping Weight: 22 lbs. (10 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	1710	9.1
<u>120/240V Unit</u>			
Circuit 1	120/240	1740	8.3
<u>240V Unit</u>			
Circuit 1	240	1740	7.3
Model UGAL-60* Shipping Weight: 23 lbs. (10 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2260	11.9
<u>120/240V Unit</u>			
Circuit 1	120/240	2300	10.8
<u>240V Unit</u>			
Circuit 1	240	2300	9.6
Model UGAL-66* Shipping Weight: 25 lbs. (11 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2260	11.9
<u>120/240V Unit</u>			
Circuit 1	120/240	2300	10.8
<u>240V Unit</u>			
Circuit 1	240	2300	9.6
Model UGAL-72* Shipping Weight: 27 lbs. (12 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2320	12.4
<u>120/240V Unit</u>			
Circuit 1	120/240	2360	11.3
<u>240V Unit</u>			
Circuit 1	240	2360	9.8

The shaded areas contain electrical information for **Export units only**.

- Not available in 120 volts.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

NOTE: UGAL models that have multiple voltages listed, such as 120/208 or 120/240, have multiple internal circuits. For example, a 120/208 volt unit utilizes 120 volts for the light circuit and 208 volts for the heat circuit(s). Consult the Electrical Diagram supplied with the unit for specific information.

SPECIFICATIONS

Electrical Rating Chart — UGAHL Models

Model UGAHL-18 Shipping Weight: 12 lbs. (5 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	710	5.9
<u>120/208V</u>			
Circuit 1	120/208	735	3.7
<u>120/240V Unit</u>			
Circuit 1	120/240	710	3.2
<u>240V Unit</u>			
Circuit 1	240	710	3.0
Model UGAHL-24 Shipping Weight: 13 lbs. (6 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	870	7.3
<u>120/208V Unit</u>			
Circuit 1	120/208	870	4.6
<u>120/240V Unit</u>			
Circuit 1	120/240	870	4.1
<u>240V Unit</u>			
Circuit 1	240	870	3.6
Model UGAHL-30 Shipping Weight: 15 lbs. (7 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1245	10.4
<u>120/208V Unit</u>			
Circuit 1	120/208	1245	6.4
<u>120/240V Unit</u>			
Circuit 1	120/240	1245	5.7
<u>240V Unit</u>			
Circuit 1	240	1245	5.2
Model UGAHL-36 Shipping Weight: 17 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1480	12.3
<u>120/208V Unit</u>			
Circuit 1	120/208	1530	8.0
<u>120/240V Unit</u>			
Circuit 1	120/240	1480	6.9
<u>240V Unit</u>			
Circuit 1	240	1480	6.2
Model UGAHL-42 Shipping Weight: 18 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1680	14.0
<u>120/208V Unit</u>			
Circuit 1	120/208	1680	8.7
<u>120/240V Unit</u>			
Circuit 1	120/240	1680	7.5
<u>240V Unit</u>			
Circuit 1	240	1680	7.0
Model UGAHL-48* Shipping Weight: 20 lbs. (9 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2265	11.7
<u>120/240V Unit</u>			
Circuit 1	120/240	2190	10.1
<u>240V Unit</u>			
Circuit 1	240	2190	9.1
Model UGAHL-54* Shipping Weight: 22 lbs. (10 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2490	12.8
<u>120/240V Unit</u>			
Circuit 1	120/240	2490	11.4
<u>240V Unit</u>			
Circuit 1	240	2490	10.4
Model UGAHL-60* Shipping Weight: 23 lbs. (10 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	3000	15.5
<u>120/240V Unit</u>			
Circuit 1	120/240	2900	13.3
<u>240V Unit</u>			
Circuit 1	240	2900	12.1
Model UGAHL-66* Shipping Weight: 25 lbs. (11 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	3000	15.5
<u>120/240V Unit</u>			
Circuit 1	120/240	2900	13.3
<u>240V Unit</u>			
Circuit 1	240	2900	12.1
Model UGAHL-72* Shipping Weight: 27 lbs. (12 kg)*			
<u>120/208V Unit†</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	3000	14.4
Circuit 2	120	360	3.0
<u>120/240V Unit</u>			
Circuit 1	120/240	3360	15.5
<u>240V Unit</u>			
Circuit 1	240	3360	14.1

The shaded areas contain electrical information for **Export units only**.

† Unit with multiple circuit connections. Each circuit may require a separate circuit breaker.

• Not available in 120 volts.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

NOTE: UGAHL models that have multiple voltages listed, such as 120/208 or 120/240, have multiple internal circuits. For example, a 120/208 volt unit utilizes 120 volts for the light circuit and 208 volts for the heat circuit(s). Consult the Electrical Diagram supplied with the unit for specific information.

SPECIFICATIONS

Electrical Rating Chart — UGA-XXD Models

Model UGA-18D Shipping Weight: 17 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1000	8.3
<u>208V Unit</u>			
Circuit 1	208	980	4.7
<u>240V Unit</u>			
Circuit 1	240	1000	4.2
Model UGA-24D Shipping Weight: 19 lbs. (9 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1300	10.8
<u>208V Unit</u>			
Circuit 1	208	1350	6.5
<u>240V Unit</u>			
Circuit 1	240	1350	5.4
Model UGA-30D Shipping Weight: 21 lbs. (10 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1500	12.5
<u>208V Unit</u>			
Circuit 1	208	1680	8.1
<u>240V Unit</u>			
Circuit 1	240	1800	7.5
Model UGA-36D* Shipping Weight: 24 lbs. (11 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Model UGA-42D*† Shipping Weight: 27 lbs. (12 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	840	4.0
Circuit 2	208	840	4.0
<u>240V Unit</u>			
Circuit 1	240	900	3.8
Circuit 2	240	900	3.8
Model UGA-48D*† Shipping Weight: 30 lbs. (14 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	208	980	4.7
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	1000	4.2
Model UGA-54D*† Shipping Weight: 33 lbs. (15 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	208	980	4.7
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	1000	4.2
Model UGA-60D*† Shipping Weight: 37 lbs. (17 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	208	1960	9.4
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	2000	8.3
Model UGA-66D*† Shipping Weight: 40 lbs. (18 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	208	1960	9.4
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	2000	8.3
Model UGA-72D*† Shipping Weight: 44 lbs. (20 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	208	1960	9.4
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	2000	8.3

† Unit with multiple circuit connections. Each circuit may require a separate circuit breaker.

• Not available in 120 volts.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

SPECIFICATIONS

Electrical Rating Chart — UGAH-XXD Models

Model UGAH-18D Shipping Weight: 17 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1300	10.8
<u>208V Unit</u>			
Circuit 1	208	1350	6.5
<u>240V Unit</u>			
Circuit 1	240	1300	5.4
Model UGAH-24D Shipping Weight: 19 lbs. (9 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1500	12.5
<u>208V Unit</u>			
Circuit 1	208	1500	7.2
<u>240V Unit</u>			
Circuit 1	240	1500	6.3
Model UGAH-30D* Shipping Weight: 21 lbs. (10 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2250	10.8
<u>240V Unit</u>			
Circuit 1	240	2250	9.4
Model UGAH-36D* Shipping Weight: 24 lbs. (11 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Model UGAH-42D*† Shipping Weight: 27 lbs. (12 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1500	7.2
Circuit 2	208	1500	7.2
<u>240V Unit</u>			
Circuit 1	240	1500	6.3
Circuit 2	240	1500	6.3
Model UGAH-48D*† Shipping Weight: 30 lbs. (14 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
Circuit 2	208	1350	6.5
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	240	1300	5.4
Model UGAH-54D*† Shipping Weight: 33 lbs. (15 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	3000	14.4
Circuit 2	208	1500	7.2
<u>240V Unit</u>			
Circuit 1	240	3000	12.5
Circuit 2	240	1500	6.3
Model UGAH-60D*† Shipping Weight: 37 lbs. (17 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
Circuit 2	208	2700	13.0
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	240	2600	10.8
Model UGAH-66D*† Shipping Weight: 40 lbs. (18 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
Circuit 2	208	2700	13.0
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	240	2600	10.8
Model UGAH-72D*† Shipping Weight: 44 lbs. (20 kg)*			
<u>208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	3000	14.4
Circuit 2	208	3000	14.4
<u>240V Unit</u>			
Circuit 1	240	3000	12.5
Circuit 2	240	3000	12.5

† Unit with multiple circuit connections. Each circuit may require a separate circuit breaker.

• Not available in 120 volts.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

SPECIFICATIONS

Electrical Rating Chart — UGAL-XXD Models

Model UGAL-18D Shipping Weight: 17 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1060	8.5
<u>120/208V Unit</u>			
Circuit 1	120/208	1040	5.2
<u>120/240V Unit</u>			
Circuit 1	120/240	1060	4.7
<u>240V Unit</u>			
Circuit 1	240	1060	4.4
Model UGAL-24D Shipping Weight: 19 lbs. (9 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1420	11.8
<u>120/208V Unit</u>			
Circuit 1	120/208	1470	7.5
<u>120/240V Unit</u>			
Circuit 1	120/240	1420	6.4
<u>240V Unit</u>			
Circuit 1	240	1420	5.9
Model UGAL-30D Shipping Weight: 21 lbs. (10 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1620	13.5
<u>120/208V Unit</u>			
Circuit 1	120/208	1800	9.1
<u>120/240V Unit</u>			
Circuit 1	120/240	1920	8.5
<u>240V Unit</u>			
Circuit 1	240	1920	8.0
Model UGAL-36D* Shipping Weight: 24 lbs. (11 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2140	10.9
<u>120/240V Unit</u>			
Circuit 1	120/240	2180	9.8
<u>240V Unit</u>			
Circuit 1	240	2180	9.1
Model UGAL-42D† Shipping Weight: 27 lbs. (12 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	840	4.0
Circuit 2	120/208	1020	5.5
<u>120/240V Unit</u>			
Circuit 1	240	900	3.8
Circuit 2	120/240	1080	5.3
<u>240V Unit</u>			
Circuit 1	240	1200	5.0
Circuit 2	240	1380	5.8
Model UGAL-48D*† Shipping Weight: 30 lbs. (14 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1470	7.1
Circuit 2	120/208	1710	9.1
<u>120/240V Unit</u>			
Circuit 1	240	1500	6.3
Circuit 2	120/240	1740	8.3
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	1240	5.2
Model UGAL-54D*† Shipping Weight: 33 lbs. (15 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1470	7.1
Circuit 2	120/208	1710	9.1
<u>120/240V Unit</u>			
Circuit 1	240	1500	6.3
Circuit 2	120/240	1740	8.3
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	1240	5.2
Model UGAL-60D*† Shipping Weight: 37 lbs. (17 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	120/208	2260	11.9
<u>120/240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	120/240	2300	10.8
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	2300	9.6
Model UGAL-66D*† Shipping Weight: 40 lbs. (18 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	120/208	2260	11.9
<u>120/240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	120/240	2300	10.8
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	2300	9.6
Model UGAL-72D*† Shipping Weight: 44 lbs. (20 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1960	9.4
Circuit 2	120/208	2320	12.4
<u>120/240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	120/240	2360	11.3
<u>240V Unit</u>			
Circuit 1	240	2000	8.3
Circuit 2	240	2360	9.8

• Not available in 120 volts.

† Unit with multiple circuit connections. Each circuit may require a separate circuit breaker.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

The shaded areas contain electrical information for **Export units only**.

NOTE: UGAL-XXD models that have multiple voltages listed, such as 120/208 or 120/240, have multiple internal circuits. For example a 120/208 volt unit utilizes 120 volts for light circuit and 208 volts for the heat circuit(s). Consult the Electrical Diagram supplied with the unit for specific information.

SPECIFICATIONS

Electrical Rating Chart — UGAHL-XXD Models

Model UGAHL-18D Shipping Weight: 17 lbs. (8 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1360	11.3
<u>120/208V Unit</u>			
Circuit 1	120/208	1410	7.0
<u>120/240V Unit</u>			
Circuit 1	120/240	1360	5.9
<u>240V Unit</u>			
Circuit 1	240	1360	5.7
Model UGAHL-24D Shipping Weight: 19 lbs. (9 kg)*			
<u>120V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120	1620	13.5
<u>120/208V Unit</u>			
Circuit 1	120/208	1620	8.2
<u>120/240V Unit</u>			
Circuit 1	120/240	1620	7.3
<u>240V Unit</u>			
Circuit 1	240	1620	6.8
Model UGAHL-30D* Shipping Weight: 21 lbs. (10 kg)*			
<u>120/208V Unit</u>			
Circuit 1	120/208	2370	11.8
<u>120/240V Unit</u>			
Circuit 1	120/240	2370	10.4
<u>240V Unit</u>			
Circuit 1	240	2370	9.9
Model UGAHL-36D* Shipping Weight: 24 lbs. (11 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	120/208	2880	14.5
<u>120/240V Unit</u>			
Circuit 1	120/240	2780	14.0
<u>240V Unit</u>			
Circuit 1	240	2780	11.6
Model UGAHL-42D*† Shipping Weight: 27 lbs. (12 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	1500	7.2
Circuit 2	120/208	1680	8.7
<u>120/240V Unit</u>			
Circuit 1	240	1500	6.3
Circuit 2	120/240	1680	7.8
<u>240V Unit</u>			
Circuit 1	240	1500	6.3
Circuit 2	240	1680	7.0

Model UGAHL-48D*† Shipping Weight: 30 lbs. (14 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2025	9.7
Circuit 2	120/208	2265	11.7
<u>120/240V Unit</u>			
Circuit 1	240	1950	8.1
Circuit 2	120/240	2190	10.1
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	240	1540	6.4
Model UGAHL-54D*† Shipping Weight: 33 lbs. (15 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2250	10.8
Circuit 2	120/208	2490	12.8
<u>120/240V Unit</u>			
Circuit 1	240	2250	9.4
Circuit 2	120/240	2490	11.4
<u>240V Unit</u>			
Circuit 2	240	3000	12.5
Circuit 1	240	1740	7.3
Model UGAHL-60D*† Shipping Weight: 37 lbs. (17 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
Circuit 2	120/208	3000	15.5
<u>120/240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	120/240	2900	13.3
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	240	2900	12.1
Model UGAHL-66D*† Shipping Weight: 40 lbs. (18 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	2700	13.0
Circuit 2	120/208	3000	15.5
<u>120/240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	120/240	2900	13.3
<u>240V Unit</u>			
Circuit 1	240	2600	10.8
Circuit 2	240	2900	12.1
Model UGAHL-72D*† Shipping Weight: 44 lbs. (20 kg)*			
<u>120/208V Unit</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
Circuit 1	208	3000	14.4
Circuit 2	208	3000	14.4
Circuit 3	120	360	3.0
<u>120/240V Unit</u>			
Circuit 1	240	3000	12.5
Circuit 2	120/240	3360	15.5
<u>240V Unit</u>			
Circuit 1	240	3000	12.5
Circuit 2	240	3360	14.0

- Not available in 120 volts.

† Unit with multiple circuit connections. Each circuit may require a separate circuit breaker.

* Add 2 – 8 lbs. (1 – 3 kg) to shipping weight depending on size of remote control enclosure.

The shaded areas contain electrical information for **Export units only**.

NOTE: UGAHL-XXD models that have multiple voltages listed, such as 120/208 or 120/240, have multiple internal circuits. For example a 120/208 volt unit utilizes 120 volts for light circuit and 208 volts for the heat circuit(s). Consult the Electrical Diagram supplied with the unit for specific information.

SPECIFICATIONS

Dimensions — UGA, UGAL, UGAH and UGAHL Models

Models	Width (A)	Depth (B)	Depth (C)	Height (D)
UGA and UGAH	18" – 72" (457 – 1829 mm)	6" (152 mm)	10-1/2" (267 mm)	2-1/2" (64 mm)
UGAL and UGAHL	18" – 72" (457 – 1829 mm)	9" (229 mm)	13-1/2" (356 mm)	2-1/2" (64 mm)

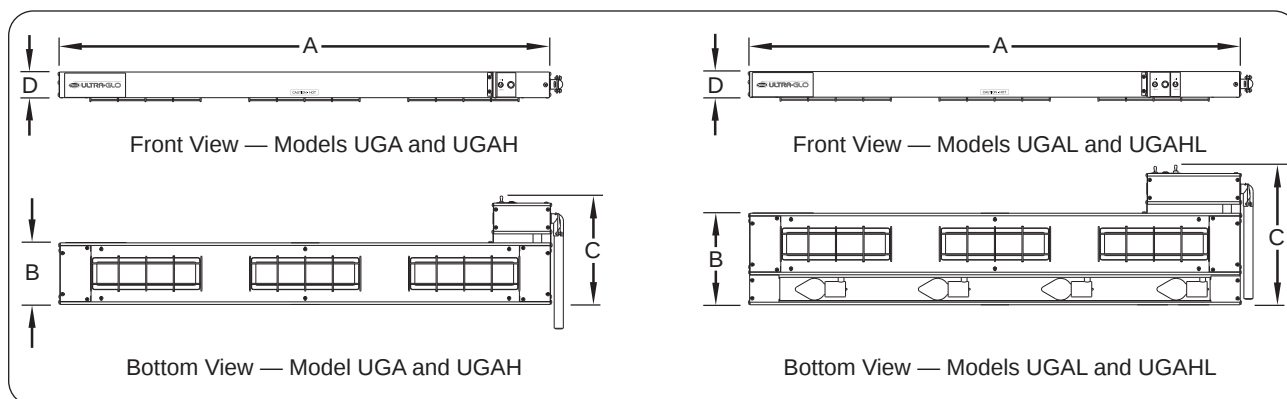


Figure 5. Dimensions — Single Depth Strip Heaters

Dimensions — UGA-XXD, UGAL-XXD, UGAH-XXD, and UGAHL-XXD Models

Models	Width (A)	Depth* (B)	Depth* (C)	Height (D)
UGA-XXD, UGAL-XXD, UGAH-XXD, and UGAHL-XXD	18" – 72" (457 – 1829 mm)	15" (381 mm)	19-1/2" (495 mm)	2-1/2" (64 mm)

* Dimension shown is standard with 3" (76 mm) spacer; when used with 6" (152 mm) spacer, add 3" (76 mm).

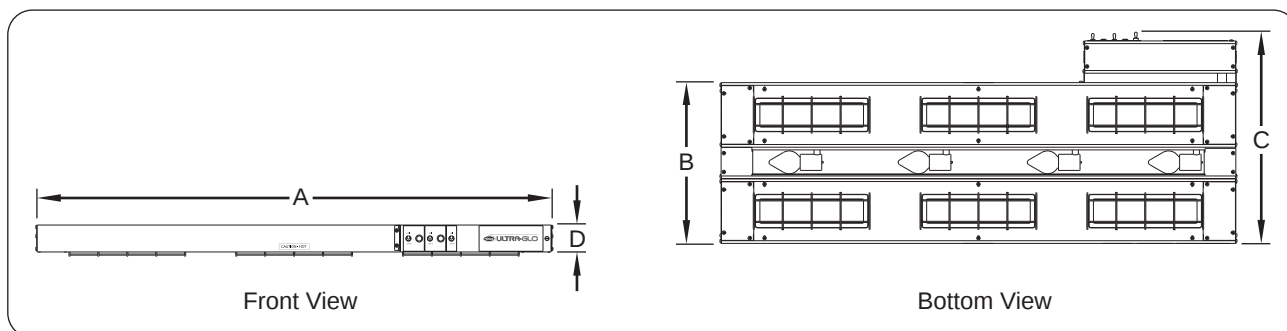


Figure 6. Dimensions — Dual Depth Strip Heaters

INSTALLATION

General

Use the information in this section to prepare for installation of the strip heater. Make sure to locate the specific information for the model of strip heater and type of installation.

WARNING

FIRE HAZARD: Do not install Ultra-Glo® strip heaters above or around combustible surfaces. Discoloration or combustion could occur. Ultra-Glo strip heaters must be installed in non-combustible surroundings only.

CAUTION

To ensure safe and proper operation, refer to the “Minimum Clearance Requirements” listed in the INSTALLATION section of this manual.

NOTICE

Heat damage to countertop material such as Corian® and similar products (other than stainless steel) is not covered under the Hatco warranty. Contact the manufacturer of the base material for temperature limits and application information before installing the unit.

To prevent unit failure from excessive heat, do not add a decorative soffit to hide a pass-through mounted strip heater.

NOTE: Contact the countertop manufacturer of the base material for application information and surface temperature limits before installing the unit.

1. Remove the unit from the shipping carton and remove all packing materials.
2. Remove the information packet.

NOTE: To prevent delay in obtaining warranty coverage, fill out and mail in the warranty card to Hatco.

NOTE: If unit is equipped with optional equipment, see the OPTIONS section near the back of this manual.

Dual Mounting

When mounting units side-by-side, a space not less than 3" (76 mm) must be maintained between units. Dual units ordered from the factory are shipped with a pre-assembled 3" (76 mm) or 6" (152 mm) spacer.

NOTICE

Installation of two or more separate units with less than 3" (76 mm) between housings may result in premature failure of component parts. Failure to provide proper spacing may result in heat damage to electrical components.

Under Shelf Mounting

When mounting a unit under a shelf, use adjustable angle brackets to assure proper spacing. Remote control enclosures are recommended to keep switches out of the heat zone and prevent premature failure.

Pass-Through

If pass-through area is 12" to 16" (305 to 406 mm) deep, a single unit can be used. For a 20" to 24" (508 to 610 mm) deep pass-through area, a dual unit is recommended. Installation of multiple units must have a minimum spacing of 3" (76 mm) between heaters.

Over Steam Table

When mounting over a steam table, a remote control enclosure must be installed.

INSTALLATION

Minimum Clearance Requirements

⚠ WARNING

FIRE HAZARD:

- Do not install Ultra-Glo strip heaters above or around combustible surfaces. Discoloration or combustion could occur. Ultra-Glo strip heaters must be installed in non-combustible surroundings only.

Models	(A)	(B)	(C)
UGA and UGAL	14" (356 mm)	3" (76 mm)	1" (25 mm)
UGAH and UGAHL	17" (432 mm)	3" (76 mm)	1" (25 mm)

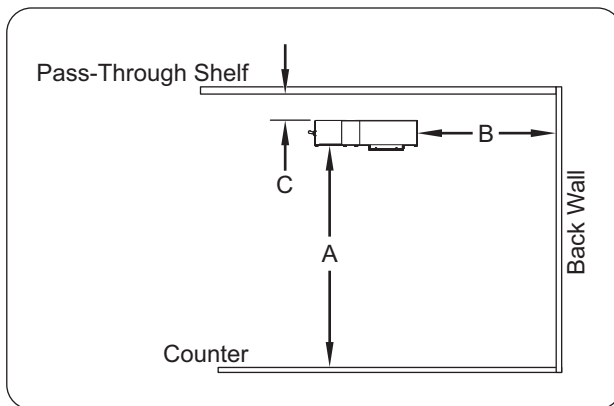


Figure 7. Clearance Requirements

Recommended Mounting Heights

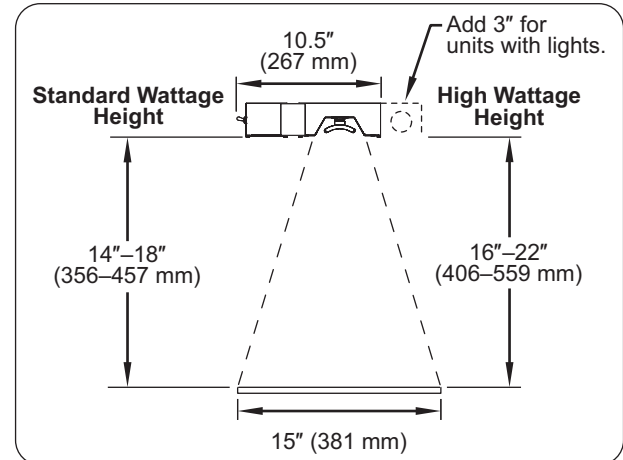


Figure 8. Recommended Mounting Height for all UGA single element depth models.

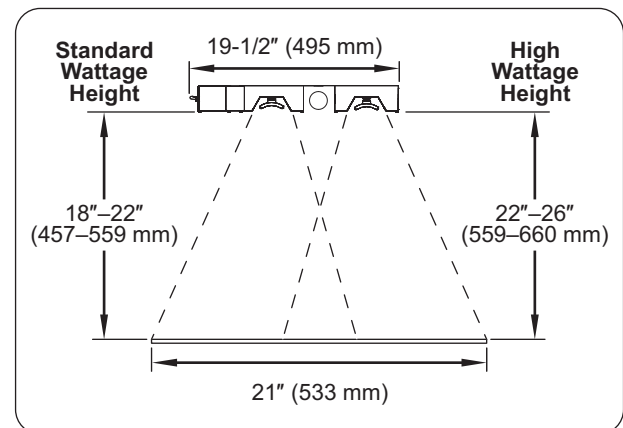


Figure 9. Recommended Mounting Height for all UGA dual element depth models with a 3" (76 mm) spacer.

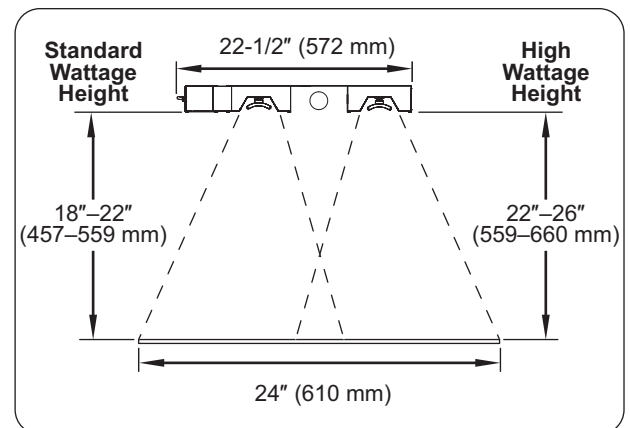


Figure 10. Recommended Mounting Height for all UGA dual element depth models with a 6" (152 mm) spacer.

INSTALLATION

Assembly

Ultra-Glo® Strip Heaters are shipped with most components pre-assembled. Dual units come with a required 3" (76 mm) or 6" (152 mm) spacer pre-assembled at the factory.

Optional mounting equipment and remote control enclosures must be installed on location.

Undershelf Mounting

Undershelf mounting permanently attaches the unit to the underside of a shelf. It can be mounted to a flat shelf or a shelf with rolled/flanged edges using the included adjustable angle brackets. A minimum gap of 1" (25 mm) is required between the unit and the underside of the shelf to prevent heat damage to the electrical system of the unit.

CAUTION

To ensure safe and proper operation, refer to the "Minimum Clearance Requirements" listed in the INSTALLATION section of this manual.

NOTE: When mounting the unit under a shelf, it is recommended to use a remote control enclosure.

If the shelf has a rolled or flanged edge, use the appropriate screw hole locations on the adjustable angle brackets to mount the unit below the lowest edge of the rolled or flanged shelf. The adjustable angle brackets can provide a 1" (25 mm), 1.5" (38 mm), or 2" (51 mm) gap between the unit and the underside of the shelf.

NOTICE

DO NOT conceal unit. Unit must be installed below the lowest edge of a rolled or flanged shelf. Failure to mount unit properly may result in premature failure of switches and void the product warranty.

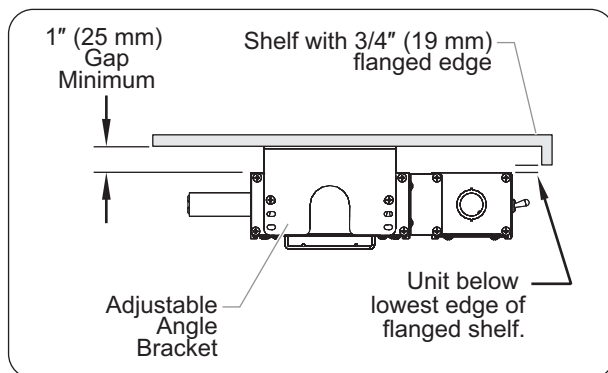


Figure 11. Flanged Shelf Installation

Adjustable Angle Bracket Mounting

1. Position the unit on a flat surface with the heating elements facing down.
2. Remove the two middle screws from each end of the unit.
3. Align the appropriate holes on an adjustable angle bracket with the middle screw holes on one end of the unit. Secure the angle bracket using the removed middle screws.
4. Repeat step 3 for the opposite end of the unit.

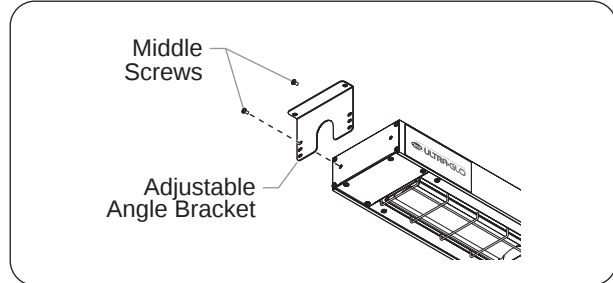


Figure 12. Adjustable Angle Bracket Installation

5. Fasten the angle brackets to the underside of the shelf using appropriate fasteners (not supplied by Hatco).

NOTE: Two pairs of brackets will be needed for dual units.

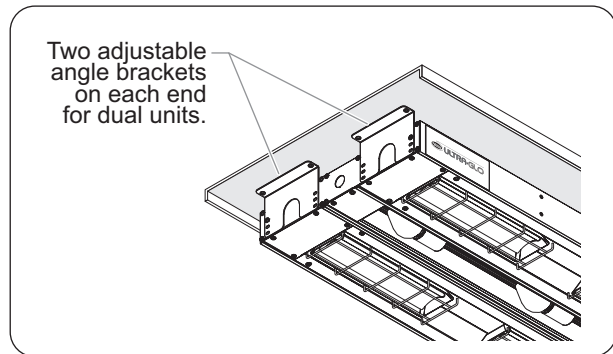


Figure 13. Dual Unit Mounting

INSTALLATION

Permanent Surface Mount

Tubular stand mounting permanently attaches the unit to a countertop or serving table. All wiring may be concealed within one of the tubular stands.

CAUTION

To ensure safe and proper operation, refer to the “Minimum Clearance Requirements” listed in the INSTALLATION section of this manual.

The aluminum, non adjustable tubular stands are available in one inch (25 mm) increments from 14”–24” (356–610 mm).

NOTE: Tubular stands are not field retrofittable.

NOTE: If wiring is to be concealed, a 1” (25 mm) diameter hole must be provided in the mounting surface centered under the stand containing the wiring conduit.

Distance from end of unit to center of conduit hole.
Needed for 1” diameter hole cutout in mounting surface.

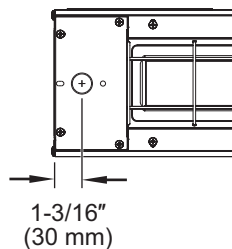


Figure 14. Countertop Conduit Hole Dimension

1. Position the unit upside-down on a flat surface.

NOTE: Units for this application are supplied with the conduit attached to one side of the unit. Conduit should not be removed.

2. If applicable, route the flexible conduit through the center of one of the stands (see Figure 15).
3. Pull the conduit-side stand up against the unit and secure the stand to the unit using the screws supplied.

4. Align the other stand with the mounting holes at the opposite end of the unit and secure the stand to the unit using the screws supplied.
5. If applicable, route the flexible conduit through the 1” diameter hole cut into the mounting surface.
6. Secure the stands to the mounting surface.

NOTE: Two pairs of stands will be needed for mounting dual units.

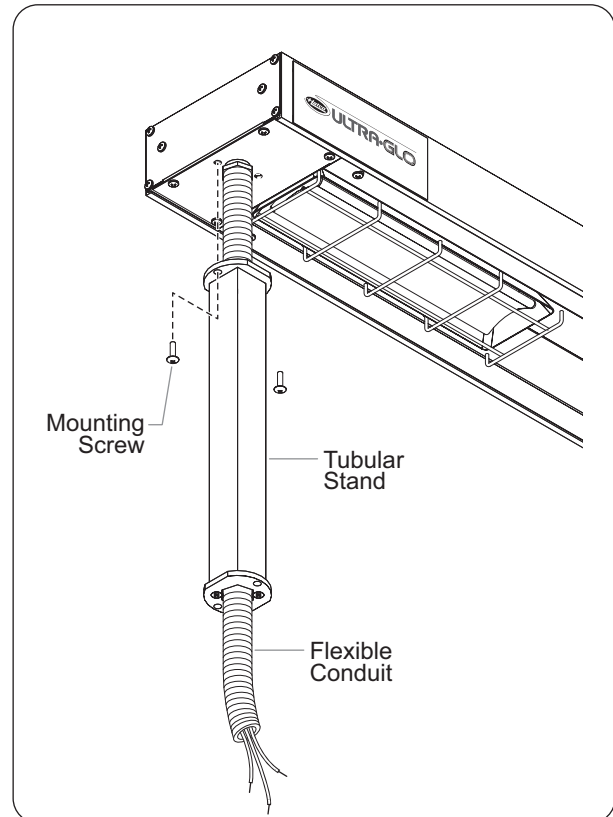


Figure 15. Tubular Stand Mounting

INSTALLATION

Overhead Mounting

Overhead hanger post mounting permanently attaches the unit to an overhead surface. All wiring may be concealed within one of the hanger posts.

⚠ WARNING

To ensure safe and proper operation, refer to the “Minimum Clearance Requirements” listed in the **INSTALLATION** section of this manual.

Hanger posts are available in aluminum non-adjustable lengths from 3”– 10” (76 – 254 mm).

NOTE: Hanger posts are not field retrofittable.

NOTE: If wiring is to be concealed, a 1” (25 mm) diameter hole must be provided in the mounting surface centered above the hanger post containing the wiring conduit.

1. Make sure the overhead mounting surface is secure and will allow the unit to be suspended at a level, safe, and proper distance from walls, counter, and food.
2. Position the unit on a flat surface with the heating elements facing down.

NOTE: Units for this application are supplied with the conduit attached to one side of the unit. Conduit should not be removed.

3. If applicable, route the flexible conduit through the center of one of the hanger posts (see Figure 16).
4. Pull the conduit-side hanger post down onto the unit and secure the post to the unit using the screws supplied.
5. Align the other hanger post with the mounting holes at the opposite end of the unit and secure the post to the unit using the screws supplied.
6. If applicable, route the flexible conduit through the 1” diameter hole cut into the mounting surface.
7. Carefully lift the unit and secure the hanger posts to the overhead mounting surface.

NOTE: Two pairs of hanger posts will be needed for mounting dual units.

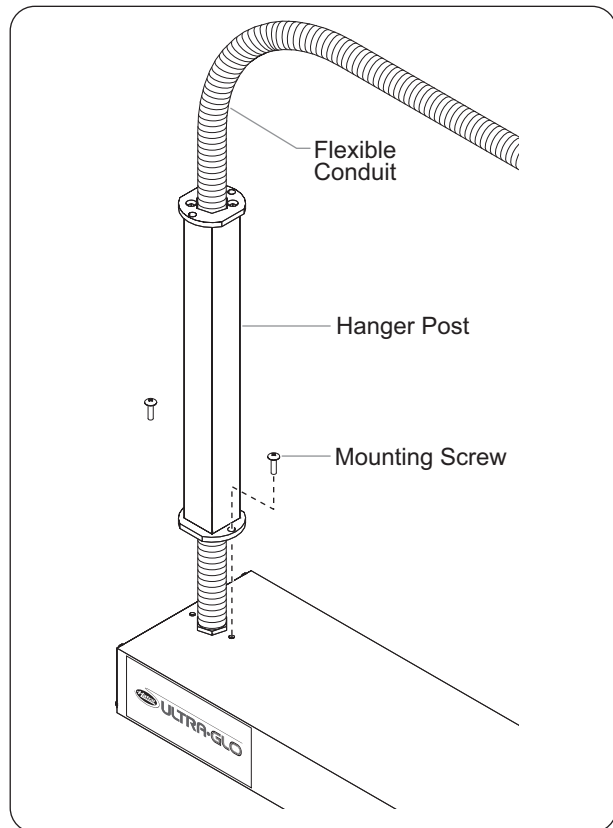


Figure 16. Hanger Post Mounting

Electrical Wiring Hook-Up

Refer to the **ELECTRICAL RATING CHARTS** for unit specific information.

⚠ WARNING

ELECTRIC SHOCK HAZARD: For hard-wired units, all electrical connections must be in accordance with local electrical codes and any other applicable codes. Connections should be made by a qualified, licensed electrician.

NOTE: If the unit being installed is not shown or listed in this manual, refer to the wiring diagram supplied with the unit and the installation information on the unit for further instructions.

INSTALLATION

Power Supply

Install supply wire and connectors suitable for at least 90°C (194°F).

- Use a minimum of No. 14 AWG copper wire for individual circuits up to 15 amps.
- Use a minimum of No. 12 AWG copper wire for individual circuits 15 to 20 amps.
- Use a minimum of No. 10 AWG copper wire for individual circuits 20 to 25 amps.

NOTE: Refer to the wiring diagram supplied with the unit and specifications label attached to the unit for specific electrical information.

Conduit Connection

Units supplied with a right angle fitting and flexible conduit attached have had all internal connections completed at the factory. Attach the proper power supply leads to the high temperature lead wires in the conduit.

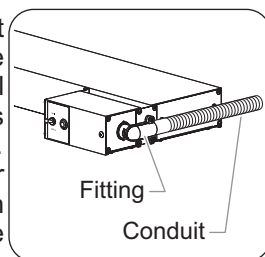


Figure 17. Conduit

NOTE: Refer to the wiring diagram supplied with the unit and specifications label attached to the unit for specific electrical information.

Remote Control Enclosures

Hatco Remote Control Enclosures (RMBs) include switches, wire leads, and/or indicator lights and are ready for installation. Proper use of RMBs require one RMB per strip heater.

NOTICE

To prevent premature failure of components due to excessive heat, remote control enclosures must be installed outside the strip heater heat zone.

Control Switches

When two or more units are mounted where the heat from one housing tends to raise the temperature of another, the control switches should be installed in a remote control enclosure. Units in a multiple installation should use remote control enclosures.

NOTE: Remote control enclosures are available in several sizes. All models are built in accordance with UL standards to accommodate switches, indicator lights, and wiring, ready for installation. See the OPTIONS section near the back of this manual.

OPERATION

General

Use the following information to operate the Ultra-Glo® Strip Heaters.

WARNING

Read all safety messages in the IMPORTANT SAFETY INFORMATION section before operating this equipment.

CAUTION

Standard and approved manufacturing oils may smoke up to 30 minutes during initial startup. This is a temporary condition. Operate unit without food product until smoke dissipates.

Heating Element(s)

Heating element(s) are controlled either by an ON/OFF toggle switch(es) or an optional infinite control(s). To turn each element on, move the ON/OFF toggle switch to the ON position or turn the infinite control to the desired setting. If the unit is equipped with an indicator light(s), the light(s) will illuminate when the element is turned on.

Allow 15-20 minutes to reach operating temperature.

CAUTION

BURN HAZARD: Some exterior surfaces on the unit will get hot. Use caution when touching these areas.

NOTE: Units with factory attached control boxes cannot be equipped with infinite switches.

Lights

On models equipped with display lights, move the light ON/OFF toggle switch to the ON position to turn on the lights.

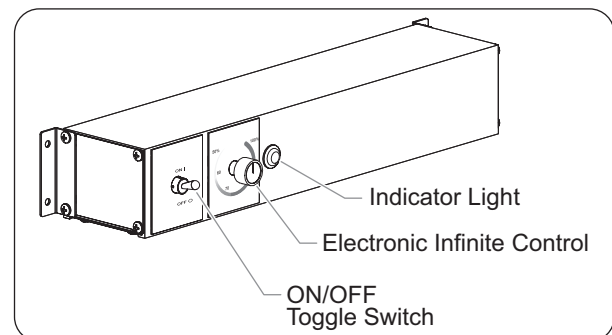


Figure 18. Controls

MAINTENANCE

General

Hatco Ultra-Glo® Strip Heaters are designed for maximum durability and performance with minimum maintenance.

WARNING

ELECTRIC SHOCK HAZARD:

- Unplug the power cord or turn the power OFF at the fused disconnect switch/circuit breaker and allow the unit to cool before performing any maintenance or cleaning.
- DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.

This unit has no “user-serviceable” parts. If service is required on this unit, contact an Authorized Hatco Service Agent or contact the Hatco Service Department at 800-558-0607 or 414-671-6350; fax 800-690-2966; or International fax 414-671-3976.

NOTICE

Use non-abrasive cleaners only. Abrasive cleaners could scratch the finish of the unit, marring its appearance and making it susceptible to dirt accumulation.

Cleaning

To preserve the finish of the strip heater, it is recommended that the surfaces be wiped daily with a clean, soft, damp cloth. Stubborn stains may be removed with a good stainless steel cleaner or a non-abrasive cleaner. Hard to reach areas should be cleaned with a small brush and mild soap.

Replacing Display Light Bulbs

WARNING

Use only light bulbs that meet or exceed National Sanitation Foundation (NSF) standards and are specifically designed for food holding areas. Breakage of light bulbs not specially coated could result in personal injury and/or food contamination.

The display light is either an incandescent bulb or halogen bulb that 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.

NOTE: Hatco shatter-resistant light bulbs meet NSF standards for food holding and display areas. For 120, 120/208, and 120/240 volt units use the following Hatco part numbers:

Incandescent Bulb = 02.30.043.00

Halogen Bulb = 02.30.081.00

For 240V export units use:

Incandescent Bulb = 02.30.058.00

WARNING

ELECTRIC SHOCK HAZARD: Use only Genuine Hatco Replacement Parts when service is required. Failure to use Genuine Hatco Replacement Parts will void all warranties and may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn. Genuine Hatco Replacement Parts are specified to operate safely in the environments in which they are used. Some aftermarket or generic replacement parts do not have the characteristics that will allow them to operate safely in Hatco equipment.

TROUBLESHOOTING GUIDE



WARNING

This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock or burn.



WARNING

ELECTRIC SHOCK HAZARD: Turn the power switch OFF, unplug the power cord, and allow the unit to cool before performing any maintenance or cleaning.

Symptom	Probable Cause	Corrective Action
Unit is turned "ON" but there is no heat.	No power to unit.	Check circuit breaker and reset as necessary.
	Switch is defective.	Contact Authorized Service Agent or Hatco for assistance.
	Wiring is open.	Contact Authorized Service Agent or Hatco for assistance.
	Heating element defective.	Contact Authorized Service Agent or Hatco for assistance.
Heat is inadequate.	Unit mounted too high above target area.	Lower unit, putting effective heat closer to target.
	Excessive air movement around strip heater target area.	Restrict or redirect air movement (air conditioning duct or exhaust fan) away from unit.
	Incorrect power supply (low).	Check power supply to unit, making sure it matches rating on the unit. If power supply is incorrect, change to match rating on unit.
Heat is excessive.	Unit mounted too close to target area.	Check to see that installation is within specifications for type/model. Increase mounting height if too close.
	Voltage supply too high.	Check power supply to unit, making sure it matches rating on unit. If power supply is incorrect, change to match rating.
Control switches burn-out rapidly.	Switches are mounted in the heat zone.	Check switch location per Hatco guidelines in the Installation and Operations Manual. Relocate switches to a cooler zone if installation is incorrect.
	Switches used are not Hatco supplied.	Genuine Hatco Parts are specified to operate safely and properly in the environment in which they are used. Contact Authorized Service Agent or Hatco to replace switches with Genuine Hatco Replacement Parts.

OPTIONS

Remote Control Enclosures

Hatco remote control enclosures (RMBs) come in various sizes and configurations for use with the strip heaters. RMBs locate controls away from the constant heat of the unit, increasing the life span of the controls. All models are built in accordance with UL standards to accommodate controls, indicator lights, and wiring.

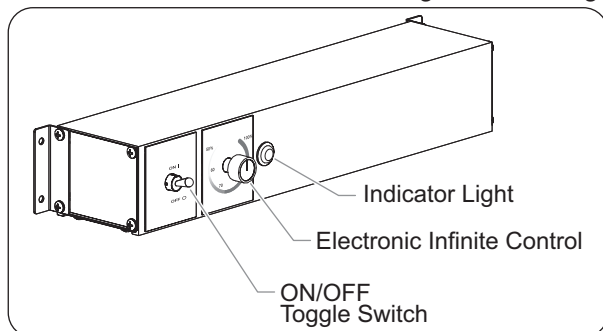
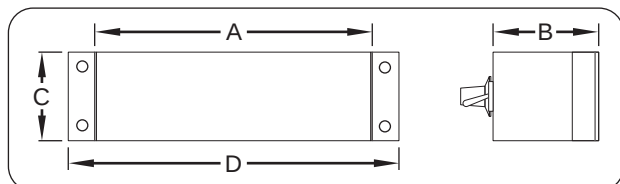


Figure 19. RMB (RMB-14 Series Shown)

NOTICE

To prevent premature failure of components due to excessive heat, remote control enclosures must be installed outside the strip heater heat zone.

NOTE: Proper use of remote control enclosures requires one RMB per strip heater.



Models	Width (A)	Depth (B)	Height (C)	Width (D)
RMB-3 Series	5-1/2" (140 mm)	3" (76 mm)	2-1/2" (64 mm)	7" (178 mm)
RMB-7 Series	9" (229 mm)	3" (76 mm)	2-1/2" (64 mm)	10-1/2" (267 mm)
RMB-14 Series	14" (356 mm)	3" (76 mm)	2-1/2" (64 mm)	15-1/2" (394 mm)
RMB-16 Series	16" (406 mm)	3" (76 mm)	2-1/2" (64 mm)	17-1/2" (445 mm)
RMB-20 Series	20" (508 mm)	3" (76 mm)	2-1/2" (64 mm)	21-1/2" (546 mm)
RMB-22 Series	22" (559 mm)	3" (76 mm)	2-1/2" (64 mm)	23-1/2" (597 mm)
RMB-24 Series	24" (610 mm)	3" (76 mm)	2-1/2" (64 mm)	25-1/2" (648 mm)

Figure 20. Dimensions — RMBs

Display Lights

Strip heaters may be equipped from the factory with incandescent display lights or halogen display lights to illuminate the warming area.

Hatco shatter-resistant bulbs guard against injury and food contamination in the event of breakage. The display lighting meets National Sanitation Foundation (NSF) standards for food holding and display areas.

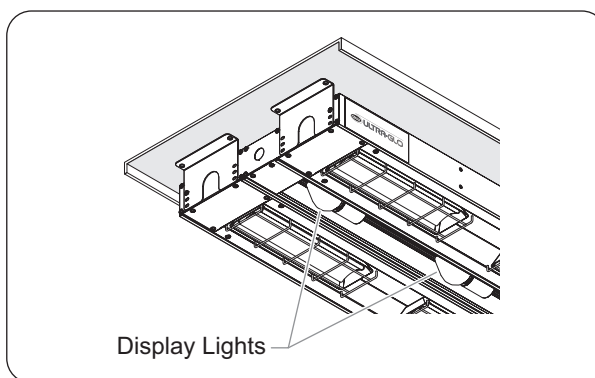


Figure 21. Display Lights

NOTE: Display lights cannot be retrofitted to units.

HATCO LIMITED WARRANTY

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 or 18 months from the date of shipment from Hatco. 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) Additional Year Parts-Only Warranty:**
Conveyor Toaster Elements (metal sheathed)
Drawer Warmer Elements (metal sheathed)
Drawer Warmer Drawer Rollers and Slides
Food Warmer Elements (metal sheathed)
Display Warmer Elements (metal sheathed air heating)
Holding Cabinet Elements (metal sheathed air heating)
Built-In Heated Well Elements
(metal sheathed)
- b) **One (1) Year Parts and Labor PLUS Four (4) Years Parts-Only Warranty on pro-rated terms that Hatco will explain at Buyer's request:**
3CS and FR Tanks
- c) **One (1) Year Parts and Labor PLUS Nine (9) Years Parts-Only Warranty on:**
Electric Booster Heater Tanks
Gas Booster Heater Tanks

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT INFRINGEMENT. Without limiting the generality of the foregoing, SUCH WARRANTIES DO NOT COVER: Coated incandescent light bulbs, fluorescent lights, decorative heat lamp bulbs, coated halogen light bulbs, halogen heat lamp bulbs, heated glass shelves, glass components, Product failure in booster tank, fin tube heat exchanger, or other water heating equipment caused by liming, sediment buildup, chemical attack or freezing, Product misuse, tampering or misapplication, improper installation, or application of improper voltage.

2. LIMITATION OF REMEDIES AND DAMAGES

Hatco's liability and Buyer's exclusive remedy hereunder will be limited solely, at Hatco's option, to repair or replacement by a Hatco-authorized service agency (other than where Buyer is located outside of the United States, Canada, United Kingdom or Australia in which case Hatco's liability and Buyer's exclusive remedy hereunder will be limited solely to replacement of part under warranty) with respect to any claim made within the applicable warranty period referred to above. Hatco reserves the right to accept or reject any such claim in whole or in part. Hatco will not accept the return of any Product without prior written approval from Hatco, and all such approved returns shall be made at Buyer's sole expense. HATCO WILL NOT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO LABOR COSTS OR LOST PROFITS RESULTING FROM THE USE OF OR INABILITY TO USE THE PRODUCTS OR FROM THE PRODUCTS BEING INCORPORATED IN OR BECOMING A COMPONENT OF ANY OTHER PRODUCT OR GOODS.

HATCO AUTHORIZED PARTS DISTRIBUTORS

ALABAMA

Jones McLeod Appl. Svc.
Birmingham 205-251-0159

ARIZONA

Auth. Comm. Food Equip.
Phoenix 602-234-2443

Byassee Equipment Co.
Phoenix 602-252-0402

CALIFORNIA

Industrial Electric
Commercial Parts & Service, Inc.
Huntington Beach 714-379-7100

Chapman Appl. Service
San Diego 619-298-7106

P & D Appliance
Commercial Parts & Service, Inc.
S. San Francisco 650-635-1900

COLORADO

Hawkins Commercial Appliance
Englewood 303-781-5548

FLORIDA

Whaley Foodservice Repair
Jacksonville 904-725-7800

Nass Service Co., Inc.
Orlando 407-425-2681

B.G.S.I.
Pompano Beach 954-971-0456

Comm. Appliance Service
Tampa 813-663-0313

GEORGIA

TWC Services
Smyrna 770-438-9797

Heritage Service Group
Norcross 866-388-9837

Southeastern Rest. Svc.
Norcross 770-446-6177

HAWAII

Burney's Comm. Service, Inc.
Honolulu 808-848-1466

Food Equip Parts & Service
Honolulu 808-847-4871

ILLINOIS

Parts Town
Lombard 708-865-7278

Eichenauer Elec. Service
Decatur 217-429-4229

Midwest Elec. Appl. Service
Elmhurst 630-279-8000

Cone's Repair Service
Moline 309-797-5323

INDIANA

GCS Service
Indianapolis 317-545-9655

IOWA

Electric Motor Service Co.
Davenport 319-323-1823

Goodwin Tucker Group
Des Moines 515-262-9308

KENTUCKY

Certified Service Center
Lexington 859-254-8854

Certified Service Center
Louisville 502-964-7007

LOUISIANA

Chandlers Parts & Service
Baton Rouge 225-272-6620

MARYLAND

Electric Motor Service
Baltimore 410-467-8080

GCS Service
Silver Spring 301-585-7550

MASSACHUSETTS

Ace Service Co., Inc.
Needham 781-449-4220

MICHIGAN

Commercial Kitchen Service
Bay City 517-893-4561

Bildons Appliance Service
Detroit 248-478-3320

Midwest Food Equip. Service
Grandville 616-261-2000

MINNESOTA

GCS Service
Minneapolis 800-822-2303

MISSOURI

General Parts
Kansas City 816-421-5400

Commercial Kitchen Services
St. Louis 314-890-0700

Kaemmerlen Parts & Service
St. Louis 314-535-2222

NEBRASKA

Anderson Electric
Omaha 402-341-1414

NEVADA

Burney's Commercial
Las Vegas 702-736-0006

Hi. Tech Commercial Service
N. Las Vegas 702-649-4616

NEW JERSEY

Jay Hill Repair
Fairfield 973-575-9145

Service Plus
Flanders 973-691-6300

NEW YORK

Acme American Repairs, Inc.
Brooklyn 718-456-6544

Alpro Service Co.
Brooklyn 718-386-2515

Appliance Installation
Buffalo 716-884-7425

Northern Parts Dist.
Plattsburgh 518-563-3200

J.B. Brady, Inc.
Syracuse 315-422-9271

NORTH CAROLINA

Authorized Appliance
Charlotte 704-377-4501

OHIO

Akron/Canton Comm. Svc. Inc.
Akron 330-753-6635

Certified Service Center
Cincinnati 513-772-6600

Commercial Parts and Service
Columbus 614-221-0057

Electrical Appl. Repair Service
Independence 216-459-8700

E. A. Wichman Co.
Toledo 419-385-9121

OKLAHOMA

Hagar Rest. Service, Inc.
Oklahoma City 405-235-2184

Krueger, Inc.
Oklahoma City 405-528-8883

OREGON

Ron's Service, Inc.
Portland 503-624-0890

PENNSYLVANIA

Elmer Schultz Services
Philadelphia 215-627-5401

FAST Comm. Appl. Service
Philadelphia 215-288-4800

Appliance Installation & Service
Pittsburgh 412-809-0244

K & D Service Co.
Harrisburg 717-236-9039

Electric Repair Co.
Reading 610-376-5444

RHODE ISLAND

Marshall Electric Co.
Providence 401-331-1163

SOUTH CAROLINA

Whaley Foodservice Repair
W. Columbia 803-791-4420

TENNESSEE

Camp Electric
Memphis 901-527-7543

TEXAS

GCS Service
Fort Worth 800-433-1804

Armstrong Repair Service
Houston 713-666-7100

Cooking Equipment Specialist
Mesquite 972-686-6666

Commercial Kitchen Repair Co.
San Antonio 210-735-2811

UTAH

La Monica's Rest. Equip. Service
Murray 801-263-3221

VIRGINIA

Daubers
Norfolk 757-855-4097

Daubers
Springfield 703-866-3600

WASHINGTON

3 Wire/Restaurant Appliance
Seattle 866-770-2022

WISCONSIN

A.S.C., Inc.
Madison 608-246-3160

A.S.C., Inc.
Milwaukee 414-543-6460

CANADA

ALBERTA

Key Food Equipment Service
Edmonton 780-438-1690

BRITISH COLUMBIA

Key Food Equipment Service
Vancouver 604-433-4484

Key Food Equipment Service
Victoria 250-920-4888

MANITOBA

Air Rite, Inc.
Winnipeg 204-895-2300

NEW BRUNSWICK

EMR Services, Ltd.
Moncton 506-855-4228

ONTARIO

R.G. Henderson Ltd.
Toronto 416-422-5580

Choquette CKS
Ottawa 613-739-8458

QUÉBEC

Choquette CKS
Montreal 514-722-2000

Choquette CKS
Québec City 418-681-3944

UNITED KINGDOM

Marren Group
Northants +44(0)1933 666233

HATCO CORPORATION
P.O. Box 340500
Milwaukee, WI 53234-0500 U.S.A.
(800) 558-0607 (414) 671-6350
Parts and Service Fax (800) 690-2966
International Fax (414) 671-3976
www.hatcocorp.com