



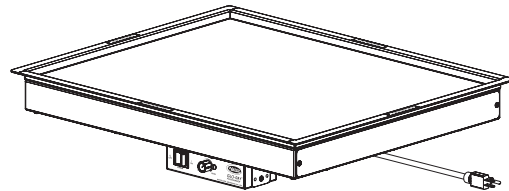
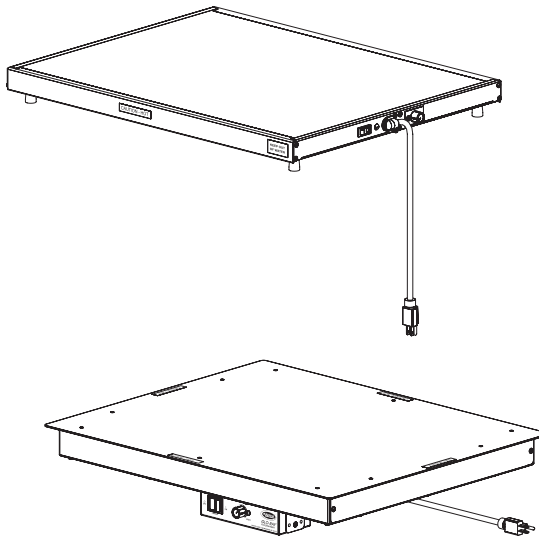
Register Online!
(see page 2)



Glo-Ray® Heated Shelf 保温板

GRS, GR SB, GR SBF Series/系列

Installation and Operating Manual 安装及操作手册



⚠ WARNING

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.

English = p 2

⚠ 警告

请在 真阅读并理解本手册的内容后再操作本设备！不按照本手册中的说明操作可能会导致严重的人身伤亡事故。本手册中包含了有关本产品维护、使用和操作的重要安全事项。如果您不理解本手册的内容，请将本手册交给主管人员，以提请注意。请将本手册妥善放置，以便参照。

中文 = 第 23 页

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IMPORTANT OWNER INFORMATION

Record the model number, serial number, voltage, and purchase date of the unit in the spaces below (specification label on bottom of GRS model, bottom of control box on GRSB and GRSBF models). Please have this information available when calling Hatco for service assistance.

Model No. _____

Serial No. _____

Voltage _____

Date of Purchase _____

Business Hours: 9:00 AM to 6:00 PM (Beijing Time)

Hours: Monday through Friday

Telephone: (0512) 6732-5091

E-mail: infocn@hatcocorp.com

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

Register your unit!

Completing online warranty registration will prevent delay in obtaining warranty coverage. Access the Hatco website at www.hatcocorp.com, select the *Support* pull-down menu, and click on "Warranty".

INTRODUCTION

Hatco Glo-Ray® Heated Shelves are designed to keep prepared foods hot in kitchen work areas, server pick-up stations, or customer serving points. Heated Shelves will keep all foods at optimum serving temperatures without affecting quality. These warmers have a thermostatically-controlled heated base to extend the holding times of most foods.

Glo-Ray Heated Shelves 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 the Glo-Ray Heated Shelf. Hatco recommends all installation, operating, and safety instructions appearing in this manual be read prior to installation or operation of the Glo-Ray Heated Shelf.

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.



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:

- Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install the proper voltage and size electrical receptacle.
- Turn OFF power switch, unplug power cord, and allow unit to cool before performing any cleaning, adjustments, or maintenance.
- DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.
- Unit is not weatherproof. Locate unit indoors where ambient air temperature is a minimum of 21°C (70°F).
- This unit is not “jet-proof” construction. Do not use jet-clean spray to clean this unit.
- Do not steam clean or use excessive water on unit.
- Do not pull unit by power cord.
- Discontinue use if power cord is frayed or worn.
- Do not attempt to repair or replace a damaged power cord. The cord must be replaced by Hatco, an Authorized Hatco Service Agent, or a person with similar qualifications.
- This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock or burn.
- Remote control enclosure must be mounted on vertical wall and installed in vertical position. Mounting remote control enclosure in horizontal position may result in collection of liquids and lead to electric shock.
- 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: Locate unit a minimum of 25 mm (1”) from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

Make sure food product has been heated to the proper food-safe temperature before placing on the unit. Failure to heat food product properly may result in serious health risks. This unit is for holding preheated food product only.

Make sure all operators have been instructed on the safe and proper use of the unit.

This unit is not intended for use by children or persons with reduced physical, sensory, or mental capabilities. Ensure proper supervision of children and keep them away from the unit.

⚠ WARNING

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 (0512) 6732-5091.

⚠ CAUTION

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

Locate unit at proper counter height in an area that is convenient for use. The location should be level to prevent unit or its contents from falling accidentally and strong enough to support the weight of unit and contents.

Do not operate built-in models without control box mounted properly as described in installation instructions.

Do not operate unit without installing supplied legs.

The National Sanitation Foundation (NSF) requires that units over 914 mm (36”) in width or weighing more than 36 kg (80 lbs.) either be sealed to or raised above installation surface. If unit cannot be sealed at the point of use, 102 mm (4”) legs are included to allow for proper cleaning access below unit.

NOTICE

Unit is designed and recommended for use in or on metallic countertops. Damage to any countertop material is not covered under the Hatco warranty. For other surfaces, verify with manufacturer that material is suitable for prolonged temperatures up to 93°C (200°F).

Do not modify wiring or cut thermostat capillary on control enclosure to increase remote mounting distance. Cutting thermostat capillary will cause unit to overheat and may damage unit as well as surrounding countertop.

Do not use excessive force when tightening mounting screws on built-in units. This may damage unit and/or countertop.

Do not lay unit on the side with the control panel. Damage to unit could occur.

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

Install remote mounted control enclosure outside of heat zone. Locating control enclosure inside heat zone will cause control(s) to overheat, malfunction, and fail.

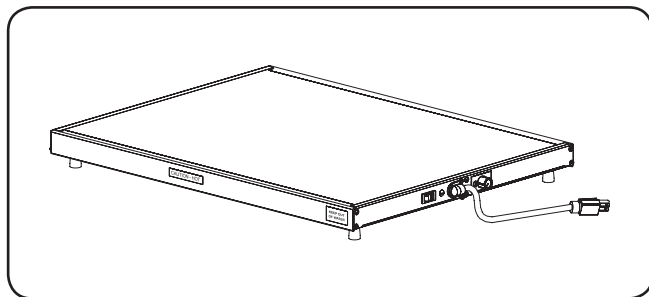
Do not slide pans across hardcoat surface, use rough-bottomed pans, or drop anything on hardcoat surface. Scratching may occur. Damage to hardcoat surface caused by misuse is not covered under warranty.

Do not locate unit in area with excessive air movement around unit. Avoid areas that may be subject to active air movements or currents (i.e., near exhaust fans/hoods, air conditioning ducts, and exterior doors).

GRS Model

The GRS Heated Shelf is ideal for pass-through areas, buffet lines, or as a heated work shelf. It features a Power On/Off rocker switch with indicator light, an adjustable thermostat control, and a 1829 mm (6') power cord with plug. Surface mounted, blanket-type foil elements distribute heat under the entire stainless steel or hardcoat aluminum surface.

All GRS models are shipped from the factory completely assembled (except legs) and ready for use.



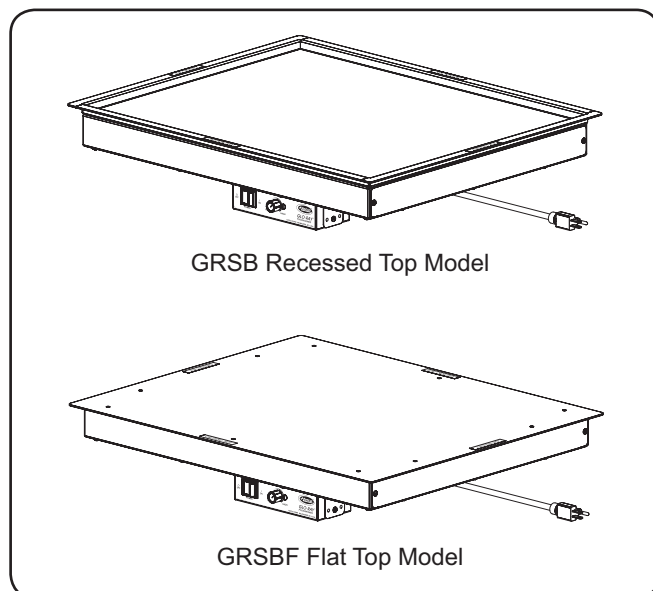
GRS Model

GRSB and GRSBF Models

The GRSB and GRSBF Built-In Heated Shelves have a hardcoat aluminum surface and a blanket-type foil element for uniform heat distribution. Ideal for server-to-customer pass-through areas, buffet/cafeteria lines, and other self-service areas. The GRSB model features a recessed top. The GRSBF model features a flat top.

A 914 mm (36") flexible conduit channels the power lines from the shelf to a control box. The control box comes with an illuminated POWER ON/OFF (I/O) rocker switch, an adjustable thermostat control, and mounting brackets. The attached control box can be mounted semi-remotely up to 914 mm (36") from the unit. A 6' (1829 mm) power cord and plug is attached to the control box.

The GRSB and GRSBF models have a 19 mm (3/4") flanged edge that allows the unit to drop into a countertop opening for recessed mounting. The shelves are easy to clean with a non-abrasive, damp cloth and/or non-abrasive cleaner. All GRSB and GRSBF models are shipped from the factory completely assembled and ready for installation.



GRSB Recessed Top Model

GRSBF Flat Top Model

GRSB and GRSBF Models

MODEL DESIGNATION

G R S B F - xx - F			
Glo-Ray®			Heated Depth
Heated Shelf			GRS Models
B = Built-In			I = 495 mm (19-1/2")
No Character = Free Standing			A = 152 mm (6")
F = Flat			B = 197 mm (7-3/4")
No Character = Recessed Top			C = 248 mm (9-3/4")
Model Width (inches)			D = 305 mm (12")
			E = 349 mm (13-3/4")
			F = 394 mm (15-1/2")
			G = 400 mm (15-3/4")
			H = 445 mm (17-1/2")
			J = 546 mm (21-1/2")
			K = 597 mm (23-1/2")
			L = 648 mm (25-1/2")
			GRSB Models
			F = 394 mm (15-1/2")
			I = 495 mm (19-1/2")
			O = 762 mm (30")
			GRSBF Models
			F = 432 mm (17")
			I = 533 mm (21")
			S = 648 mm (25-1/2")
			O = 800 mm (31-1/2")

Plug Configurations

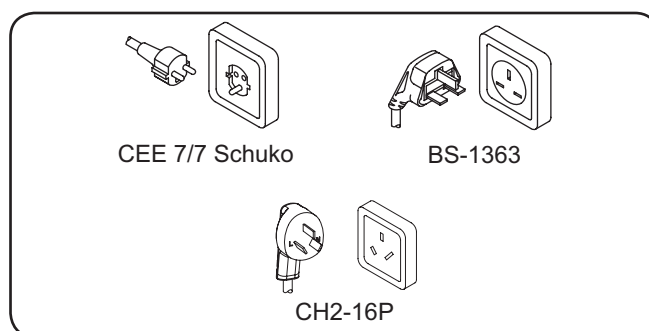
Units are supplied from the factory with an electrical cord and plug installed. Plugs are supplied according to the application.



WARNING

ELECTRIC SHOCK HAZARD: Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install the proper voltage and size electrical receptacle.

NOTE: The specification label is located on the bottom of GRS models and the bottom of the remote control box on GRSB and GRSBF models. See label for serial number and verification of unit electrical information.



Plug Configurations

NOTE: Receptacle not supplied by Hatco.

Dimensions — GRS Models

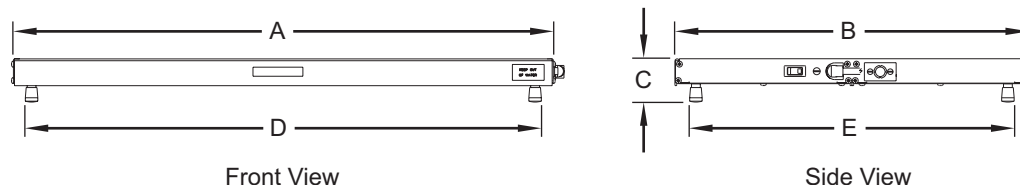
Model	Width (A)	Depth (B)	Height (C)	Footprint Width (D)	Footprint Depth (E)
GRS-18-I	457 mm (18")	495 mm (19-1/2")	61 mm (2-3/8") †	425 mm (16-3/4")	457 mm (18")
GRS-24-I	610 mm (24")	495 mm (19-1/2")	61 mm (2-3/8") †	578 mm (16-3/4")	457 mm (18")
GRS-30-I	762 mm (30")	495 mm (19-1/2")	61 mm (2-3/8") †	730 mm (16-3/4")	457 mm (18")
GRS-36-I	914 mm (36")	495 mm (19-1/2")	137 mm (5-3/8") *	883 mm (16-3/4")	457 mm (18")
GRS-42-I	1067 mm (42")	495 mm (19-1/2")	137 mm (5-3/8") *	1035 mm (16-3/4")	457 mm (18")
GRS-48-I	1219 mm (48")	495 mm (19-1/2")	137 mm (5-3/8") *	1187 mm (16-3/4")	457 mm (18")
GRS-54-I	1372 mm (54")	495 mm (19-1/2")	137 mm (5-3/8") *	1340 mm (16-3/4")	457 mm (18")
GRS-60-I	1524 mm (60")	495 mm (19-1/2")	137 mm (5-3/8") *	1492 mm (16-3/4")	457 mm (18")
GRS-66-I	1676 mm (66")	495 mm (19-1/2")	137 mm (5-3/8") *	1645 mm (16-3/4")	457 mm (18")
GRS-72-I	1829 mm (72")	495 mm (19-1/2")	137 mm (5-3/8") *	1797 mm (16-3/4")	457 mm (18")

† Height includes 1" (25 mm) legs.

* Height includes 4" (102 mm) legs.

NOTE: All models listed above are based on 19-1/2" (495 mm) depth (I). The additional depths available include:

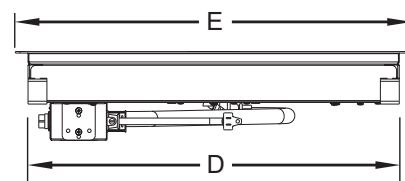
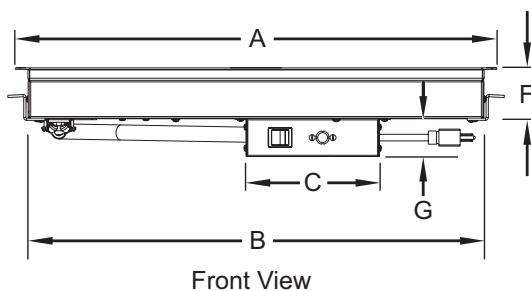
A = 152 mm (6") B = 197 mm (7-3/4") C = 248 mm (9-3/4") D = 305 mm (12")
 E = 349 mm (13-3/4") F = 394 mm (15-1/2") G = 400 mm (15-3/4") H = 445 mm (17-1/2")
 J = 546 mm (21-1/2") K = 597 mm (23-1/2") L = 648 mm (25-1/2")



GRS Model Dimensions

Dimensions — GRSB Models

Model	Overall Width (A)	Heated Width (B)	Control Box Width (C)	Heated Depth (D)	Overall Depth (E)	Height (F)	Control Box Height (G)
GRSB-24-F	648 mm (25-1/2")	610 mm (24")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-24-I				495 mm (19-1/2")	533 mm (21")		
GRSB-24-O				762 mm (30")	800 mm (31-1/2")		
GRSB-30-F	800 mm (31-1/2")	762 mm (30")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-30-I				495 mm (19-1/2")	533 mm (21")		
GRSB-30-O				762 mm (30")	800 mm (31-1/2")		
GRSB-36-F	953 mm (37-1/2")	914 mm (36")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-36-I				495 mm (19-1/2")	533 mm (21")		
GRSB-36-O				762 mm (30")	800 mm (31-1/2")		
GRSB-42-F	1105 mm (43-1/2")	1067 mm (42")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-42-I				495 mm (19-1/2")	533 mm (21")		
GRSB-42-O				762 mm (30")	800 mm (31-1/2")		
GRSB-48-F	1257 mm (49-1/2")	1219 mm (48")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-48-I				495 mm (19-1/2")	533 mm (21")		
GRSB-48-O				762 mm (30")	800 mm (31-1/2")		
GRSB-54-I	1410 mm (55-1/2")	1372 mm (54")	184 mm (7-1/4")	495 mm (19-1/2")	533 mm (21")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-60-F	1562 mm (61-1/2")	1524 mm (60")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-60-I				495 mm (19-1/2")	533 mm (21")		
GRSB-60-O				762 mm (30")	800 mm (31-1/2")		
GRSB-66-I	1715 mm (67-1/2")	1676 mm (66")	184 mm (7-1/4")	495 mm (19-1/2")	533 mm (21")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-72-F	1867 mm (73-1/2")	1829 mm (72")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-72-I				495 mm (19-1/2")	533 mm (21")		
GRSB-72-O				762 mm (30")	800 mm (31-1/2")		



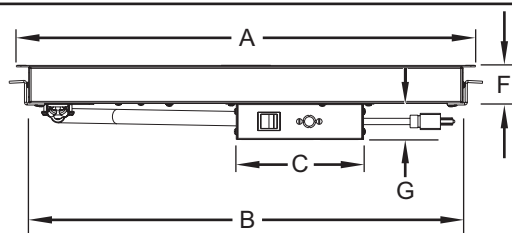
GRSB Model Dimensions

NOTICE

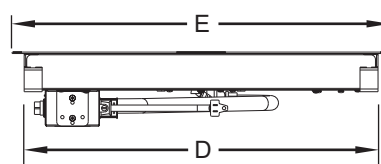
Refer to the **INSTALLATION** section of this manual for actual countertop cutout dimensions.

Dimensions — GRSBF Models

Model	Overall Width (A)	Width (B)	Control Box Width (C)	Depth (D)	Heated Depth (E)	Height (F)	Control Box Height (G)
GRSBF-24-F	648 mm (25-1/2")	612 mm (24-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-24-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-24-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-24-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-30-F	800 mm (31-1/2")	764 mm (30-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-30-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-30-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-30-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-36-F	953 mm (37-1/2")	917 mm (36-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-36-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-36-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-36-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-42-F	1105 mm (43-1/2")	1069 mm (42-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-42-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-42-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-42-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-48-F	1257 mm (49-1/2")	1222 mm (48-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-48-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-48-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-48-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-60-F	1562 mm (61-1/2")	1526 mm (60-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-60-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-60-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-60-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-72-F	1867 mm (73-1/2")	1831 mm (72-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-72-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-72-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-72-O				762 mm (30")	800 mm (31-1/2")		



Front View



Side View

GRSBF Model Dimensions

NOTICE

Refer to the **INSTALLATION** section of this manual for actual countertop cutout dimensions.

Electrical Rating Chart — Standard 19-1/2" Depth GRS Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRS-18-I	220–230	229–250	1.0–1.1	CH2-16P, CEE 7/7 Schuko	7 kg (16 lbs.)
	230–240	250–272	1.1	BS-1363	
GRS-24-I	220–230	320–350	1.5	CH2-16P, CEE 7/7 Schuko	9 kg (20 lbs.)
	230–240	350–381	1.5–1.6	BS-1363	
GRS-30-I	220–230	412–450	1.9–2.0	CH2-16P, CEE 7/7 Schuko	11 kg (25 lbs.)
	230–240	450–490	2.0	BS-1363	
GRS-36-I	220–230	503–550	2.3–2.4	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230–240	550–599	2.4–2.5	BS-1363	
GRS-42-I	220–230	549–600	2.5–2.6	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230–240	600–653	2.6–2.7	BS-1363	
GRS-48-I	220–230	640–700	2.9–3.0	CH2-16P, CEE 7/7 Schuko	16 kg (36 lbs.)
	230–240	700–762	3.0–3.2	BS-1363	
GRS-54-I	220–230	732–800	3.3–3.5	CH2-16P, CEE 7/7 Schuko	19 kg (42 lbs.)
	230–240	800–871	3.5–3.6	BS-1363	
GRS-60-I	220–230	823–900	3.7–3.9	CH2-16P, CEE 7/7 Schuko	20 kg (44 lbs.)
	230–240	900–980	3.9–4.1	BS-1363	
GRS-66-I	220–230	915–1000	4.2–4.3	CH2-16P, CEE 7/7 Schuko	23 kg (50 lbs.)
	230–240	1000–1089	4.3–4.5	BS-1363	
GRS-72-I	220–230	1006–1100	4.6–4.8	CH2-16P, CEE 7/7 Schuko	25 kg (56 lbs.)
	230–240	1100–1198	4.8–5.0	BS-1363	

Electrical Rating Chart — Standard GRSB Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSB-24-F	220–230	384–420	1.7–1.8	CH2-16P, CEE 7/7 Schuko	9 kg (20 lbs.)
	230–240	420–458	1.8–1.9	BS-1363	
GRSB-24-I	220–230	550–601	2.5–2.6	CH2-16P, CEE 7/7 Schuko	10 kg (22 lbs.)
	230–240	505–550	2.2–2.3	BS-1363	
GRSB-24-O	220–230	722–790	3.3–3.4	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230–240	790–860	3.4–3.6	BS-1363	
GRSB-30-F	220–230	462–505	2.1–2.2	CH2-16P, CEE 7/7 Schuko	10 kg (23 lbs.)
	230–240	505–550	2.2–2.3	BS-1363	
GRSB-30-I	220–230	665–727	3.0–3.2	CH2-16P, CEE 7/7 Schuko	11 kg (25 lbs.)
	230–240	661–665	2.7–2.8	BS-1363	
GRSB-30-O	220–230	916–1001	4.2–4.4	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230–240	904–985	3.9–4.1	BS-1363	
GRSB-36-F	220–230	540–590	2.5–2.6	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230–240	590–643	2.6–2.7	BS-1363	
GRSB-36-I	220–230	780–853	3.5–3.7	CH2-16P, CEE 7/7 Schuko	13 kg (29 lbs.)
	230–240	716–780	3.1–3.3	BS-1363	
GRSB-36-O	220–230	1110–1213	5.0–5.3	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230–240	1020–1110	4.4–4.6	BS-1363	

Electrical Rating Chart — Standard GRSB Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSB-42-F	220–230	627–685	2.9–3.0	CH2-16P, CEE 7/7 Schuko	13 kg (29 lbs.)
	230–240	685–746	3.0–3.1	BS-1363	
GRSB-42-I	220–230	885–967	4.0–4.2	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230–240	813–885	3.5–3.7	BS-1363	
GRSB-42-O	220–230	1236–1351	5.6–5.9	CH2-16P, CEE 7/7 Schuko	16 kg (35 lbs.)
	230–240	1198–1305	5.2–5.4	BS-1363	
GRSB-48-F	220–230	704–770	3.2–3.3	CH2-16P, CEE 7/7 Schuko	15 kg (33 lbs.)
	230–240	770–839	3.3–3.5	BS-1363	
GRSB-48-I	220–230	1000–1093	4.5–4.7	CH2-16P, CEE 7/7 Schuko	16 kg (36 lbs.)
	230–240	918–1000	4.0–4.2	BS-1363	
GRSB-48-O	220–230	1430–1562	6.5–6.8	CH2-16P, CEE 7/7 Schuko	18 kg (39 lbs.)
	230–240	1313–1430	5.7–6.0	BS-1363	
GRSB-54-I	220–230	1110–1213	5.0–5.3	CH2-16P, CEE 7/7 Schuko	20 kg (43 lbs.)
	230–240	1019–1110	4.4–4.6	BS-1363	
GRSB-60-F	220–230	869–950	4.0–4.1	CH2-16P, CEE 7/7 Schuko	20 kg (45 lbs.)
	230–240	950–1035	4.1–4.3	BS-1363	
GRSB-60-I	220–230	1220–1333	5.5–5.8	CH2-16P, CEE 7/7 Schuko	23 kg (50 lbs.)
	230–240	1120–1220	4.9–5.1	BS-1363	
GRSB-60-O	220–230	1750–1912	8.0–8.3	CH2-16P, CEE 7/7 Schuko	24 kg (54 lbs.)
	230–240	1607–1750	7.0–7.3	BS-1363	
GRSB-66-I	220–230	1330–1454	6.0–6.3	CH2-16P, CEE 7/7 Schuko	25 kg (54 lbs.)
	230–240	1221–1330	5.3–5.5	BS-1363	
GRSB-72-F	220–230	1034–1130	4.7–4.9	CH2-16P, CEE 7/7 Schuko	24 kg (52 lbs.)
	230–240	1130–1231	4.9–5.1	BS-1363	
GRSB-72-I	220–230	1440–1574	6.5–6.8	CH2-16P, CEE 7/7 Schuko	26 kg (58 lbs.)
	230–240	1322–1440	5.8–6.0	BS-1363	
GRSB-72-O	220–230	2070–2262	9.4–9.8	CH2-16P, CEE 7/7 Schuko	29 kg (64 lbs.)
	230–240	1901–2070	8.3–8.6	BS-1363	

Electrical Rating Chart — Standard GRSBF Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSBF-24-F	220–230	384–420	1.7–1.8	CH2-16P, CEE 7/7 Schuko	9 kg (20 lbs.)
	230–240	420–458	1.8–1.9	BS-1363	
GRSBF-24-I	220–230	550–601	2.5–2.6	CH2-16P, CEE 7/7 Schuko	10 kg (22 lbs.)
	230–240	505–550	2.2–2.3	BS-1363	
GRSBF-24-S	220–230	640–700	2.9–3.0	CH2-16P, CEE 7/7 Schuko	11 kg (24 lbs.)
	230–240	700–762	3.0–3.2	BS-1363	
GRSBF-24-O	220–230	722–790	3.3–3.4	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230–240	790–860	3.4–3.6	BS-1363	
GRSBF-30-F	220–230	462–505	2.1–2.2	CH2-16P, CEE 7/7 Schuko	10 kg (23 lbs.)
	230–240	505–550	2.2–2.3	BS-1363	
GRSBF-30-I	220–230	665–727	3.0–3.2	CH2-16P, CEE 7/7 Schuko	11 kg (25 lbs.)
	230–240	661–665	2.7–2.8	BS-1363	
GRSBF-30-S	220–230	755–825	3.4–3.6	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230–240	825–898	3.6–3.7	BS-1363	
GRSBF-30-O	220–230	916–1001	4.2–4.4	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230–240	904–985	3.9–4.1	BS-1363	
GRSBF-36-F	220–230	540–590	2.5–2.6	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230–240	590–643	2.6–2.7	BS-1363	
GRSBF-36-I	220–230	780–853	3.5–3.7	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230–240	716–780	3.1–3.3	BS-1363	
GRSBF-36-S	220–230	870–951	4.0–4.1	CH2-16P, CEE 7/7 Schuko	15 kg (31 lbs.)
	230–240	950–1034	4.1–4.3	BS-1363	
GRSBF-36-O	220–230	1110–1213	5.0–5.3	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230–240	1020–1110	4.4–4.6	BS-1363	
GRSBF-42-F	220–230	627–685	2.9–3.0	CH2-16P, CEE 7/7 Schuko	13 kg (29 lbs.)
	230–240	685–746	3.0–3.1	BS-1363	
GRSBF-42-I	220–230	885–967	4.0–4.2	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230–240	813–885	3.5–3.7	BS-1363	
GRSBF-42-S	220–230	1006–1100	4.6–4.8	CH2-16P, CEE 7/7 Schuko	15 kg (34 lbs.)
	230–240	1100–1198	4.8–5.0	BS-1363	
GRSBF-42-O	220–230	1236–1351	5.6–5.9	CH2-16P, CEE 7/7 Schuko	16 kg (35 lbs.)
	230–240	1198–1305	5.2–5.4	BS-1363	

Electrical Rating Chart — Standard GRSBF Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSBF-48-F	220–230	704–770	3.2–3.3	CH2-16P, CEE 7/7 Schuko	15 kg (33 lbs.)
	230–240	770–839	3.3–3.5	BS-1363	
GRSBF-48-I	220–230	1000–1093	4.5–4.7	CH2-16P, CEE 7/7 Schuko	16 kg (36 lbs.)
	230–240	918–1000	4.0–4.2	BS-1363	
GRSBF-48-S	220–230	1121–1225	5.1–5.3	CH2-16P, CEE 7/7 Schuko	17 kg (38 lbs.)
	230–240	1225–1334	5.3–5.6	BS-1363	
GRSBF-48-O	220–230	1430–1562	6.5–6.8	CH2-16P, CEE 7/7 Schuko	18 kg (39 lbs.)
	230–240	1313–1430	5.7–6.0	BS-1363	
GRSBF-60-F	220–230	869–950	4.0–4.1	CH2-16P, CEE 7/7 Schuko	20 kg (45 lbs.)
	230–240	950–1035	4.1–4.3	BS-1363	
GRSBF-60-I	220–230	1220–1333	5.5–5.8	CH2-16P, CEE 7/7 Schuko	23 kg (50 lbs.)
	230–240	1120–1220	4.9–5.1	BS-1363	
GRSBF-60-S	220–230	1372–1500	6.2–6.5	CH2-16P, CEE 7/7 Schuko	24 kg (53 lbs.)
	230–240	1501–1634	6.5–6.8	BS-1363	
GRSBF-60-O	220–230	1750–1912	8.0–8.3	CH2-16P, CEE 7/7 Schuko	25 kg (54 lbs.)
	230–240	1607–1750	7.0–7.3	BS-1363	
GRSBF-72-F	220–230	1034–1130	4.7–4.9	CH2-16P, CEE 7/7 Schuko	24 kg (52 lbs.)
	230–240	1130–1231	4.9–5.1	BS-1363	
GRSBF-72-I	220–230	1440–1574	6.5–6.8	CH2-16P, CEE 7/7 Schuko	26 kg (58 lbs.)
	230–240	1322–1440	5.8–6.0	BS-1363	
GRSBF-72-S	220–230	1602–1751	7.3–7.6	CH2-16P, CEE 7/7 Schuko	28 kg (62 lbs.)
	230–240	1750–1906	7.6–7.9	BS-1363	
GRSBF-72-O	220–230	2070–2262	9.4–9.8	CH2-16P, CEE 7/7 Schuko	29 kg (64 lbs.)
	230–240	1901–2070	8.3–8.6	BS-1363	

General

Use the following procedures to install the GRS, GRSB, and GRSBF units.

⚠ WARNING

FIRE HAZARD: Locate unit a minimum of 25 mm (1") from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

⚠ CAUTION

Locate unit at proper counter height in an area that is convenient for use. The location should be level to prevent unit or its contents from falling accidentally and strong enough to support the weight of unit and contents.

Do not operate built-in models without control box mounted properly as described in the installation instructions.

Do not operate unit without installing supplied legs.

The National Sanitation Foundation (NSF) requires that units over 914 mm (36") in width or weighing more than 36 kg (80 lbs.) either be sealed to or raised above the installation surface. If unit cannot be sealed at the point of use, 102 mm (4") legs are included to allow for proper cleaning access below unit.

NOTICE

Do not operate unit prior to installing legs. Damage to unit could occur.

GRS Models

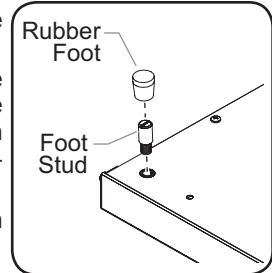
1. Remove the unit from the carton and place it upside down on the cardboard.

NOTE: To prevent delay in obtaining warranty coverage, complete online warranty registration. See the IMPORTANT OWNER INFORMATION section for details.

2. Install the 25 mm (1") legs to the unit.

- a. Thread a foot stud into the hole at each corner on the bottom of the unit. Tighten securely, but do not over-tighten.

- b. Slip a rubber foot over each foot stud.



NOTE: If 102 mm (4") legs are required, refer to the OPTIONS AND ACCESSORIES section in this manual for installation instructions.

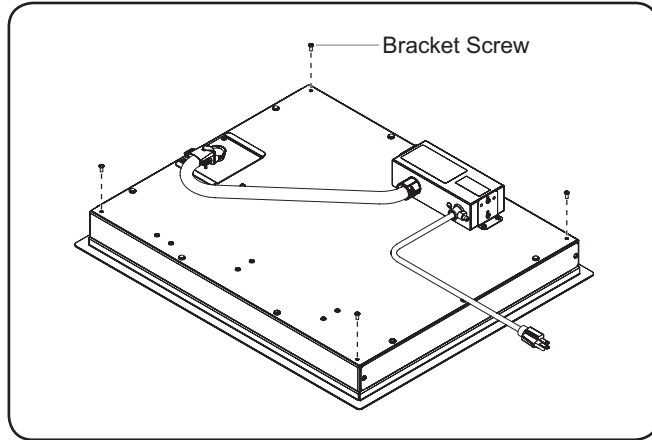
3. Turn unit upright, and place unit in the desired location.

- Locate the unit in an area where the ambient air temperature is constant and a minimum of 21°C (70°F). Avoid areas that may be subject to active air movements or currents (i.e., near exterior doors, exhaust fans/hoods, air conditioning ducts, etc...).
- Make sure the unit is at the proper counter height in an area convenient for use.
- Make sure the countertop is level and strong enough to support the weight of the unit and food product.
- Make sure all the feet on the bottom of the unit are positioned securely on the countertop.

GRSB and GRSBF Models

1. Remove the unit from the carton and place it upside down on the cardboard.

NOTE: To prevent delay in obtaining warranty coverage, complete online warranty registration. See the IMPORTANT OWNER INFORMATION section for details.



Underside of GRSB Models

2. Remove and save the bracket screws from the underside of the unit.

NOTE: The control box may be moved to the most convenient location on the underside of the unit. For semi-remote installations, leave the control box in place until the unit is placed into the countertop.

NOTICE

Unit is designed and recommended for use in or on metallic countertops. Damage to any countertop material is not covered under the Hatco warranty. For other surfaces, verify with manufacturer that material is suitable for prolonged temperatures up to 93°C (200°F).

3. Prepare countertop opening. Refer to the appropriate "Countertop Cutout" chart on the following pages for recommended countertop cutout dimensions.
4. Apply a bead of NSF-approved sealant between the countertop material and the mounting flange on the unit. The sealant must be rated for use at a minimum temperature of 121°C (250°F).
5. Place the unit into the countertop opening.
6. Assemble the Z-brackets to the underside of the unit using the four bracket screws removed earlier in this procedure (refer to the illustrations on the following pages).

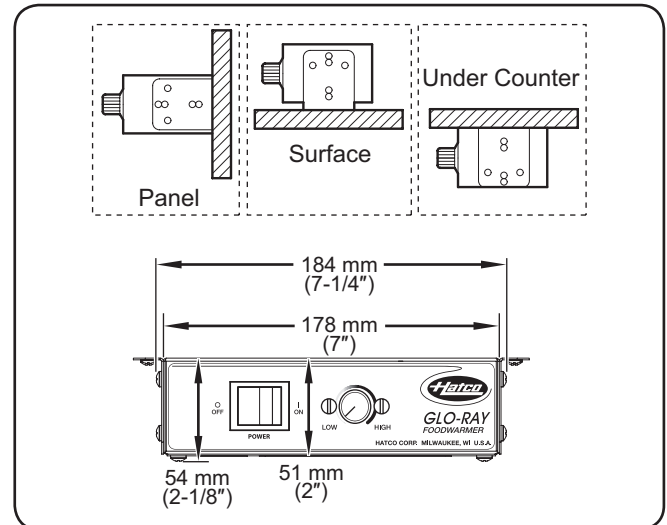
NOTE: Units 1524 mm (60") or longer require two additional Z-brackets to be installed midway along the front and rear of the unit.

7. Adjust the mounting screws on the Z-brackets until the top flange lies flat on the countertop.

NOTICE

Do not use excessive force when tightening mounting screws on built-in units. This may damage unit and/or countertop.

8. Remove any excess sealant.
9. If desired or necessary, the control box can be mounted in a semi-remote location.
 - a. Remove the control box from the bottom of the unit.
 - b. If necessary, remove the end brackets from the control box, rotate/reposition, and re-secure to the control box.
 - c. The control box can be panel, surface, under counter, or recess mounted.



Control Box Mounting Options

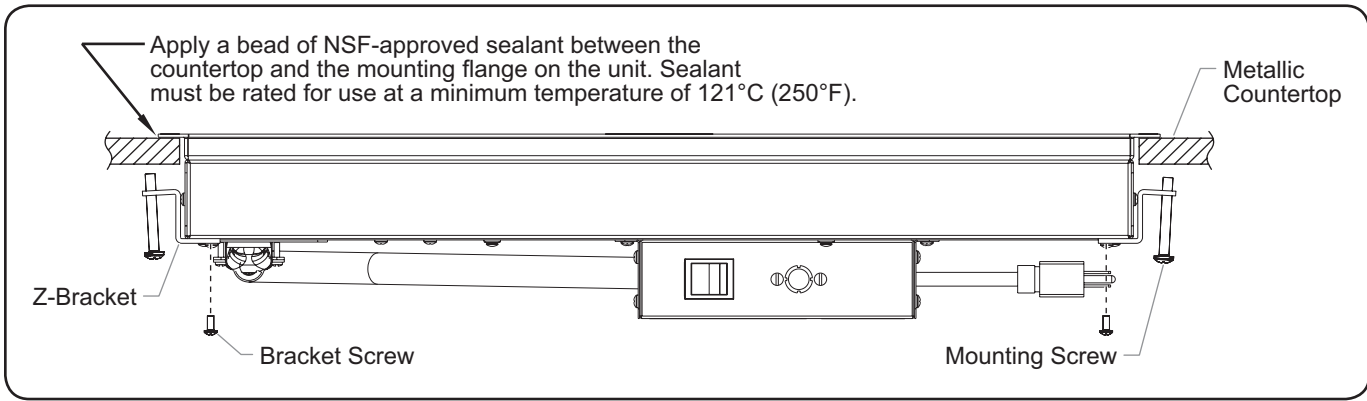
- d. The distance the control box can be mounted from the unit is determined by the 914 mm (36") conduit. Do not pull the conduit tight to increase the mounting distance. The conduit should have some slack after the control box is mounted.

NOTICE

Do not modify wiring or cut thermostat capillary on control enclosure to increase-remote mounting distance. Cutting thermostat capillary will cause unit to overheat and may damage unit as well as surrounding countertop.

10. Once all components are secured, proceed to the OPERATION section.

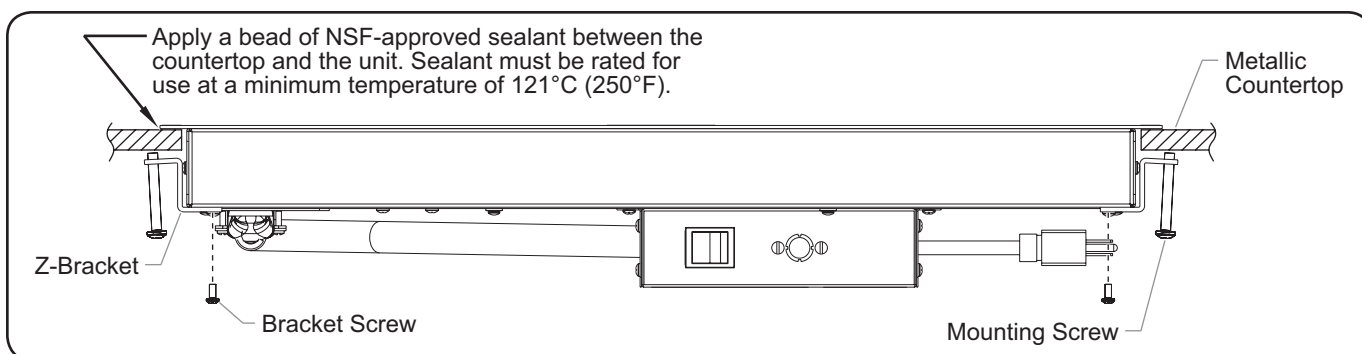
NOTE: A 1829 mm (6') cord is supplied with this unit; any excess cord should be routed neatly so it does not hang down.



GRSB Model Installation

Countertop Cutout — GRSB Models

Model	Minimum Width	Maximum Width	Minimum Depth	Maximum Depth
GRSB-24-F	622 mm (24-1/2")	629 mm (24-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-24-I			508 mm (20")	514 mm (20- 1/4")
GRSB-24-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-30-F	775 mm (30-1/2")	781 mm (30-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-30-I			508 mm (20")	514 mm (20-1/4")
GRSB-30-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-36-F	927 mm (36-1/2")	934 mm (36-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-36-I			508 mm (20")	514 mm (20-1/4")
GRSB-36-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-42-F	1080 mm (42-1/2")	1086 mm (42-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-42-I			508 mm (20")	514 mm (20-1/4")
GRSB-42-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-48-F	1232 mm (48-1/2")	1238 mm (48-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-48-I			508 mm (20")	514 mm (20-1/4")
GRSB-48-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-54-I	1384 mm (54-1/2")	1391 mm (54-3/4")	20" (508 mm)	20-1/4" (514 mm)
GRSB-60-F	1537 mm (60-1/2")	1543 mm (60-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-60-I			508 mm (20")	514 mm (20-1/4")
GRSB-60-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-66-F	1689 mm (66-1/2")	1696 mm (66-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-66-I			508 mm (20")	514 mm (20-1/4")
GRSB-72-F	1842 mm (72-1/2")	1848 mm (72-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-72-I			508 mm (20")	514 mm (20-1/4")
GRSB-72-O			775 mm (30-1/2")	781 mm (30-3/4")



GRSBF Model Installation

Countertop Cutout — GRSBF Models

Model	Minimum Width	Maximum Width	Minimum Depth	Maximum Depth
GRSBF-18-F	470 mm (18-1/2")	476 mm (18-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-24-F	622 mm (24-1/2")	629 mm (24-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-24-I			508 mm (20")	514 mm (20-1/4")
GRSBF-24-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-24-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-30-F	775 mm (30-1/2")	781 mm (30-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-30-I			508 mm (20")	514 mm (20-1/4")
GRSBF-30-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-30-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-36-F	927 mm (36-1/2")	934 mm (36-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-36-I			508 mm (20")	514 mm (20-1/4")
GRSBF-36-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-36-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-42-F	1080 mm (42-1/2")	1086 mm (42-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-42-I			508 mm (20")	514 mm (20-1/4")
GRSBF-42-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-42-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-48-F	1232 mm (48-1/2")	1238 mm (48-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-48-I			508 mm (20")	514 mm (20-1/4")
GRSBF-48-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-48-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-60-F	1537 mm (60-1/2")	1543 mm (60-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-60-I			508 mm (20")	514 mm (20-1/4")
GRSBF-60-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-60-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-72-F	1842 mm (72-1/2")	1848 mm (72-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-72-I			508 mm (20")	514 mm (20-1/4")
GRSBF-72-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-72-O			775 mm (30-1/2")	781 mm (30-3/4")

General

Use the following procedure to turn on and operate the GRS, GRSB, and GRSBF units.

⚠ WARNING

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

1. Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. Refer to the SPECIFICATIONS section in this manual for details.
2. Move the Power I/O (on/off) switch to the I (on) position.

⚠ CAUTION

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

3. Turn the thermostat control to the desired temperature setting.

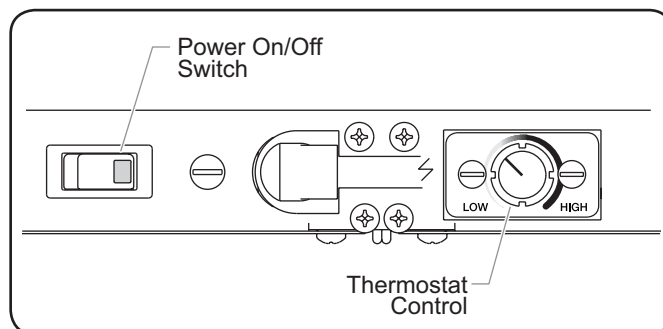
NOTE: Turning the thermostat control knob clockwise will increase the temperature setting. Turning the thermostat control knob counterclockwise will decrease the temperature setting.

4. Allow the unit 30 minutes to reach operating temperature

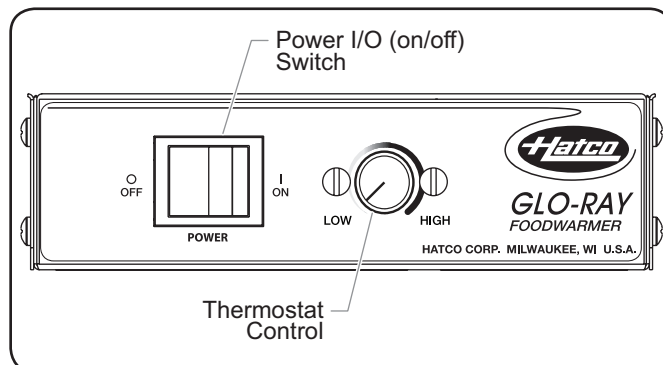
NOTICE

Do not slide pans across hardcoat surface, use rough-bottomed pans, or drop anything on hardcoat surface. Scratching may occur. Damage to hardcoat surface caused by misuse is not covered under warranty.

NOTE: Refer to the OPTIONS AND ACCESSORIES section for installation and operation information for GRSB and GRSBF units equipped with a flush-style remote mounted control enclosure.



Control Panel — GRS Model



Control Panel — GRSB and GRSBF Models

General

Hatco Glo-Ray Heated Shelf units are designed for maximum durability and performance with minimum maintenance.

WARNING

ELECTRIC SHOCK HAZARD:

- Turn OFF power switch, unplug power cord, and allow unit to cool before performing any cleaning, adjustments, or maintenance.
- 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.
- Do not steam clean or use excessive water on 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.

WARNING

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 (0512) 6732-5091.

Daily Cleaning

To preserve the finish of the Glo-Ray Heated Shelf, it is recommended that all surfaces be cleaned daily

NOTICE

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

1. Turn off the unit, unplug the power cord, and allow the unit to cool.
2. Remove and wash all food pans, if necessary.
3. Wipe down all metal surfaces with a non-abrasive, damp cloth. Stubborn stains may be removed with a good stainless steel or non-abrasive cleaner. Clean hard to reach areas using a small brush and mild soap.
4. Wipe dry all surfaces using a non-abrasive, dry cloth.

⚠ 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 OFF power switch, unplug power cord, and allow unit to cool before performing any cleaning, adjustments, or maintenance.

Symptom	Probable Cause	Corrective Action
Unit too hot.	Thermostat control set too high.	Adjust thermostat control to a lower setting.
	Thermostat control stuck in the "on" position.	Contact Authorized Service Agent or Hatco for assistance.
	Unit plugged into an incorrect power supply.	Verify with qualified personnel that power supply matches unit specification.
Unit not hot enough.	Thermostat control set too low.	Adjust thermostat control to a higher setting.
	Location of unit is susceptible to air currents (air conditioning ducts or exhaust fans).	Block air currents or relocate unit.
Unit not working at all.	Unit not plugged in.	Plug unit into proper power supply.
	Unit not turned on.	Move Power I/O switch to the I (on) position.
	Power I/O (on/off) switch is not functioning.	Contact Authorized Service Agent or Hatco for assistance.
	Heating element is burned out.	
	Thermostat control is defective.	

Troubleshooting Questions?

If you continue to have problems resolving an issue, please contact the nearest Authorized Hatco Service Agency or Hatco for assistance. To locate the nearest Service Agency, log onto the Hatco website at www.hatcocorp.com, select the *Support* pull-down menu, and click on "Find A Service Agent"; or contact the **Hatco Parts and Service Team** at:

Telephone: (0512) 6732-5091

e-mail: infocn@hatcocorp.com

102 mm (4") Adjustable Legs (GRS Models)

Use the following procedure to install 102 mm adjustable legs on a GRS model.

NOTE: 102 mm (4") legs are standard on models 914 mm (36") and wider.

⚠ CAUTION

The National Sanitation Foundation (NSF) requires that units over 914 mm (36") in width or weighing more than 36 kg (80 lbs.) either be sealed to or raised above installation surface. If unit cannot be sealed at the point of use, 102 mm (4") legs are included to allow for proper cleaning access below unit.

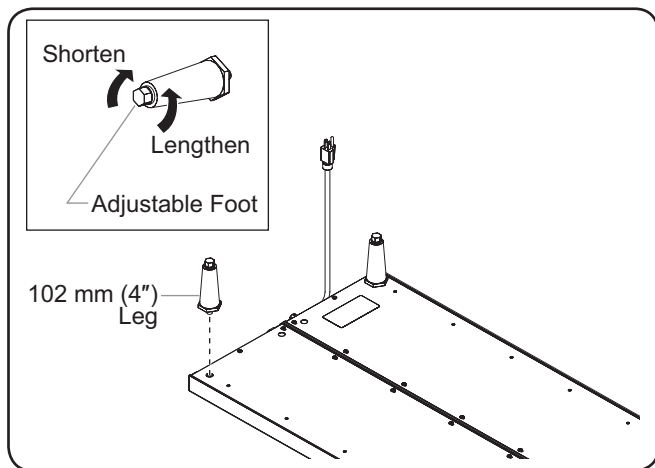
1. Turn off the unit, unplug the power cord, and allow the unit to cool.

NOTICE

Do not lay unit on the side with the control panel. Damage to unit could occur.

2. Carefully turn the unit upside down and lay the unit on a flat surface. Make sure to cover the surface with something to prevent scratching the unit.
3. At each corner, thread a 102 mm leg into the bottom of the unit. Hand-tighten until snug. Do not over-tighten.
4. Return the unit to the upright position.

NOTE: The feet on the 102 mm legs are adjustable for leveling the unit. Use a 14 mm (9/16") open-end wrench to make leveling adjustments once the unit is placed in its final position.



Leg Installation

Rubber Feet (GRS Models)

Rubber feet are available as accessories and are 10 mm (3/8") in height. Rubber feet allow the shelf to be closer to the countertop.

Remote Mounted Control Enclosures (GRSB and GRSBF models)

Two flush-style remote mounted control enclosures are available for the GRSB and GRSBF units — the mechanical Thermostat Control enclosure and the digital Indicating Temperature Control (ITC) enclosure. Both control enclosures are installed using the following procedure.

⚠ WARNING

ELECTRIC SHOCK HAZARD: Remote control enclosure must be mounted on vertical wall and installed in vertical position. Mounting remote control enclosure in horizontal position may result in collection of liquids and lead to electric shock.

NOTICE

Do not install remote mounted control enclosure within direct exposure to heat. Exposing the control enclosure to direct heat will cause the control(s) to overheat, malfunction, and fail.

Do not modify wiring or cut thermostat capillary on control enclosure to increase semi-remote mounting distance. Cutting thermostat capillary will cause unit to overheat and may damage unit as well as surrounding countertop.

NOTE: A qualified electrician is recommended for connecting the units to a power source.

1. Prepare cutout and pre-drill screw holes (see illustration below for dimensions).
2. Remove trim cover from control enclosure.
3. Position control enclosure into opening through the backside.
4. Secure control enclosure to surface using screws (not supplied).
5. Connect proper power source to the mounted remote control enclosure.
6. Reinstall the trim cover. Seal the trim cover to the mounting surface with silicone adhesive.

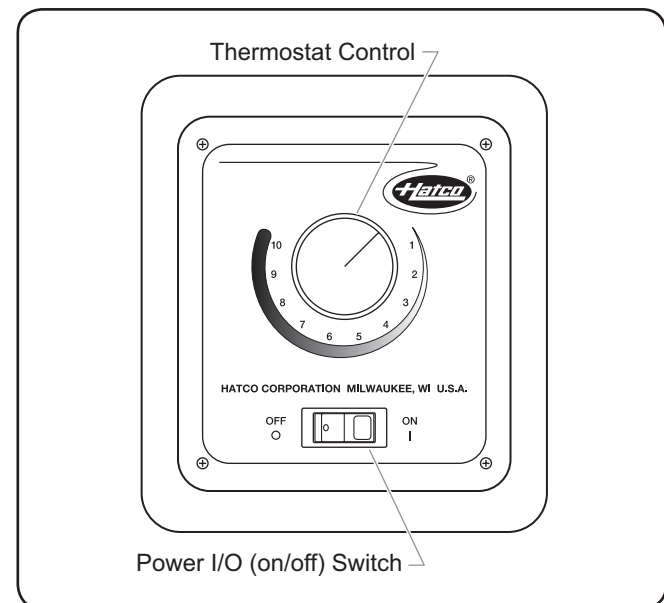
NOTE: Units are equipped with a 36" (914 mm) flexible conduit connecting the control enclosure to the unit. Optional conduit lengths of 6' (1829 mm) and 10' (3048 mm) are also available for digital temperature controller only.

Power I/O (on/off) Switch

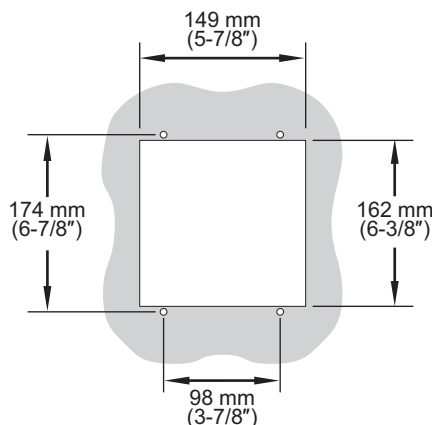
Both flush-style remote mounted control enclosures are equipped with a Power I/O (on/off) switch. Move the Power I/O (on/off) switch to the I (on) position to turn on the unit. The indicator light in the switch glows when the unit is on.

Changing the Setpoint Temperature — Mechanical Temperature Control

Turn the temperature control clockwise to increase the setpoint temperature. Turn the temperature control counterclockwise to decrease the setpoint temperature.



Mechanical Temperature Control

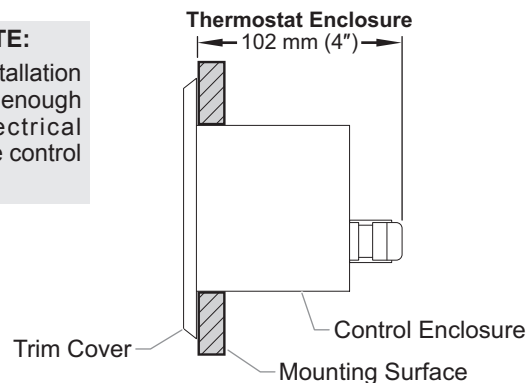


Front View of Cutout

IMPORTANT NOTE:

Make sure the installation location provides enough room for electrical connections to the control enclosure.

Digital Temperature Controller Enclosure 121 mm (4-3/4")



Side View of Installed Enclosure

Remote Mounted Control Enclosure Installation Dimensions

Changing the Setpoint Temperature — Digital Temperature Controller

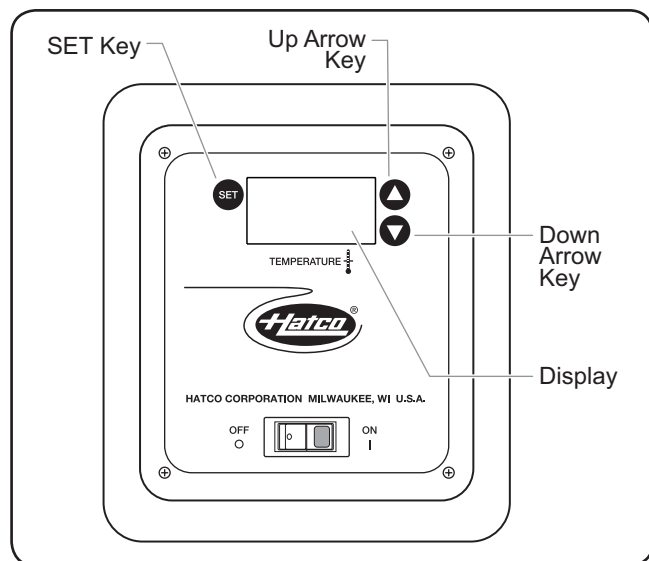
Units equipped with a digital temperature controller will heat up to the setpoint temperature automatically when they are turned on. Use the following procedure to change the setpoint temperature.

NOTE: The temperature shown on the display may be inaccurate when unit temperature is below 54°C (130°F).

If the programming sequence is interrupted before completing the last step, the changed values will not be accepted into memory.

1. Press the **SET** key three times. The current setpoint temperature will be shown on the TEMPERATURE display ("SP" will be displayed after the second press).
2. Press the **▲** key or **▼** key within 10 seconds to change the setpoint temperature.
3. Press the **SET** key to lock in the new setpoint temperature. The TEMPERATURE display will go blank for two seconds to show that the new setting has been accepted.

NOTE: After 10 seconds of inactivity during the programming process, the controller will exit programming mode automatically without saving any changes.



Digital Temperature Controller

Changing Fahrenheit and Celsius Setting — Digital Temperature Controller

Use the following procedure to change between Fahrenheit and Celsius on the display.

1. Press the **SET** key once. Either an "F" for Fahrenheit or "C" for Celsius will be displayed.
2. Press the **▲** key or **▼** key within 10 seconds to change between "F" (Fahrenheit) and "C" (Celsius).
3. Press the **SET** key three times to lock in the new setting. The TEMPERATURE display will go blank for two seconds to show that the new setting has been accepted.

NOTE: After 10 seconds of inactivity during the programming process, the controller will exit programming mode automatically without saving any changes.

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 registering the Product with Hatco 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) Two (2) Year Parts Warranty:

Conveyor Toaster Elements (metal sheathed)
Drawer Warmer Elements (metal sheathed)
Drawer Warmer Drawer Rollers and Slides
Strip Heater Elements (metal sheathed)
Display Warmer Elements (metal sheathed air heating)
Holding Cabinet Elements (metal sheathed air heating)
Heated Well Elements — HW and HWB Series
(metal sheathed)

b) Five (5) Year Parts Warranty:

3CS and FR Tanks

c) Ten (10) Year Parts Warranty:

Electric Booster Heater Tanks
Gas Booster Heater Tanks

d) Ninety (90) Day Parts Warranty:

Replacement Parts

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, heat lamp bulbs, coated halogen light bulbs, halogen heat lamp bulbs, xenon light bulbs, LED light tubes, glass components, and fuses; Product failure in booster tank, fin tube heat exchanger, or other water heating equipment caused by liming, sediment buildup, chemical attack, or freezing; or 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 to replacement of part or Product using, at Hatco's option, new or refurbished parts or Product by Hatco or a Hatco-authorized service agency 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. In the context of this Limited Warranty, "refurbished" means a part or Product that has been returned to its original specifications by Hatco or a Hatco-authorized service agency. 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.

SERVICE INFORMATION

The warranty on this Hatco unit is for one year from date of purchase or eighteen months from date of shipping from Hatco, whichever occurs first.

If you experience a problem with this unit during the warranty period, please do the following:

Contact Local Hatco Dealer

When contacting the Hatco dealer for service assistance, please supply the dealer with the following information to ensure prompt processing:

- Model of unit
- Serial number (located on unit)
- Specific problem with the unit
- Date of purchase
- Name of business
- Shipping address
- Contact name and phone number

The Hatco dealer will do the following:

- Provide replacement part(s) as required
- Submit warranty claim to Hatco for processing

Non-Warranty Problems

If you experience a non-warranty problem that requires assistance, please contact the nearest Authorized Hatco Service Agency.

To locate the nearest Service Agency:

- call Hatco at **(0512) 6732-5091**
- e-mail Hatco at **infocn@hatcocorp.com**



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使用者重要注意事项

请在下面空白处记录产品型号、序列号（规格标签位于设备底面）、电压和购买日期。当致电赫高寻求服务时，请提供这些信息。

型号 _____

序列号 _____

电压 _____

购买日期 _____

工作时间： 北京时间 上午 9:00 – 下午 6:00

电话： (0512) 6732-5091

E-mail: infocn@hatcocorp.com

查询更多信息请访问我们的网站: www.hatcocorp.com

简介

Hatco Glo-Ray 保温板适合在厨房工作区域、服务生取菜台或顾客就餐点保存预制的热食。保温板可以在不影响质量的情况下将所有食品保持在最佳就餐温度。这些保温汤池具有恒温控制的保温底座，从而延长大多数食物的保存时间。

Glo-Ray 保温板是经过广泛研究和现场测试诞生的产品。所用材料经久耐用，外型美观，性能优异。在装运前每个组件都进行了全面检测。

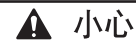
本手册提供 Glo-Ray 保温板的安装、安全和操作说明。建议您在安装和操作该设备前仔细阅读该手册。

本手册中的安全信息采用以下标志表示：



警告

“警告”表示有危险情况，如果不加以避免，则可能导致人身伤亡。



小心

“小心”表示有危险情况，如果不加以避免，则可能导致轻度或中度人身伤害。

注意

“注意”用于提示不会涉及人身伤害的操作。



使用本设备前，请仔细阅读下列重要安全事项，以免造成严重的人身伤亡及设备或财产的损坏。



警告

触电危险：

- 将设备插头妥善插入有接地的电气插座内，插入前请核对电压、规格和插头型式是否正确。如果插头和插座不匹配，请和有正式资格的电工联系，以确定 装电压和规格正确的电气插座。
- 在对设备进行维护、清洁或排除卡死故障前，请先拔下电源线，并使设备冷却。
- 请勿将设备浸入水中或浸湿。防止液体溅入设备。本设备不防水。严禁使用被水浸过或浸湿的设备。
- 本设备不防水。将设备置于环境气温最低 21°C (70°F)。
- 不得用蒸汽或使用过多的水清洁本设备。
- 本设备不具备“防喷淋”结构。请勿使用喷淋头清洁本设备。
- 当设备通电或尚未冷却时不要做清洁。
- 请勿用电源线拖拽本设备。
- 如果电源线磨损或者破损，请停止使用。
- 如果电源线出现磨损，不要试图自行维修或更换。电源线必须由 Hatco、Hatco 授权服务机构或具备类似资质的人员进行更换以免发生危害。
- 本设备必须由具备相应资质的人员进行维修。由不具备相应资质的人员维修可能导致触电或起火。
- 遥控控制盒必须安装在直墙上的垂直位置。遥控控制盒安装在水平位置可造成积液，导致触电。
- 维修时只能使用正宗的 Hatco 更换零部件。未使用正宗 Hatco 更换零部件会造成质保无效，并可能造成设备操作人员受到有害电压威胁，并引起触电或着火。正宗 Hatco 更换零部件可以保证使用环境下的安全生产。某些普通零部件不具备相关特性，从而无法在 Hatco 设备内安全使用。

火警：

- 确保设备所在位置与可燃性墙壁或材料至少有 51 mm (2") 安全距离。如果不保持安全距离，可能会导致褪色或燃烧。

确保在将食品放在设备上之前，食品已被加热到合适的食品安全温度。未能正确加热食品可能会导致严重的健康风险。本设备只用于存放预热食品。

确保所有操作人员都已了解如何安全和妥善地使用本设备。

儿童或具有身体、感觉或智力残障的人不宜使用本设备。请看护好儿童，并使其远离本设备。

本设备不含“用户维修”零部件。如需维修，请联系赫高授权服务机构或赫高服务部门，电话 (0512) 6732-5091。



小心

燃烧危险：本设备的某些外表面处温度较高。接触这些部位时请务必小心。

请将本设备置于台面高度适宜、且使用方便的位置。放置位置应水平，以防止本设备或其部件意外跌落，并有足够的强度支撑本设备及其部件的重量。

不要在没有按照安装说明中的描述正确安装控制箱的情况下操作嵌入式型号。

不要在没有安装提供的脚架情况下操作设备。

美国国家卫生基金会 (NSF) 要求对宽度超过 914 mm (36") 或重量超过 36 kg (80 lbs.) 的设备进行密封，或抬升到安装表面上方。如果不能在使用点密封设备，则应包括 102 mm (4") 脚架，以便允许在设备下方进行合适的清洁检修。

注意

设备适用于在金属工作台面中或金属工作台上使用，并且建议如此使用。任何工作台面材料的损坏都不在 Hatco 保修范围内。对于其他表面，请向制造商核实材料是否适合高达 93°C (200°F) 的长期温度。

不要修改控制盒上的接线或切断恒温器毛细管以增加遥控安装距离。切断恒温器毛细管会引起设备过热，并且可能损坏设备和周围的工作台面。

在拧紧嵌入式设备上的装配螺钉时，不要过度用力。这可能损坏设备和/或工作台面。

不要将设备放在具有控制面板的一侧。可能会损坏设备。

只允许使用非摩擦性清洁剂。摩擦性清洁剂可能会刮伤本设备的表面处理层，破坏其外观，并易使表面积尘。

在加热区域以外安装壁装遥控控制盒。将控制盒置于加热区域内将导致控制器过热、故障和失灵。

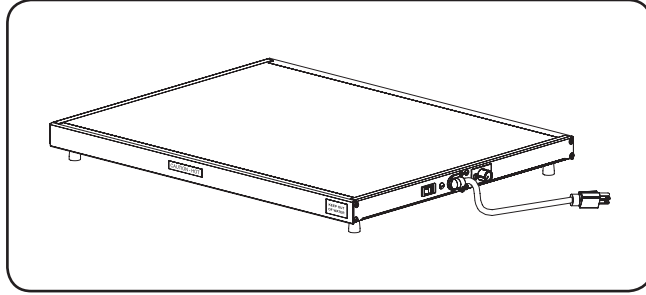
不要在硬涂层表面滑动食物盘、使用底部粗糙的食物盘或者让任何东西掉在硬涂层表面上。可能发生刮擦。使用不当造成的硬涂层表面损坏不在保修范围内。

请勿将设备置于气流过急的环境中。避免将设备置于空气流动或气流活跃的区域（即排气扇/排风罩、空调管和外门附近）。

GRS 型号

GRS 保温板非常适合传菜区域、自助餐线路或者作为一个保温工作架。它具有一个带指示灯的电源打开/关闭翘板开关、一个可调节的恒温控制器和一条带插头的 1829 mm (6') 电源线。表面安装、毡状铝箔元件在整个不锈钢或硬涂层铝表面下方散发热量。

所有 GRS 型号均从工厂发货，已经完整组装（脚架除外），可以随时使用。



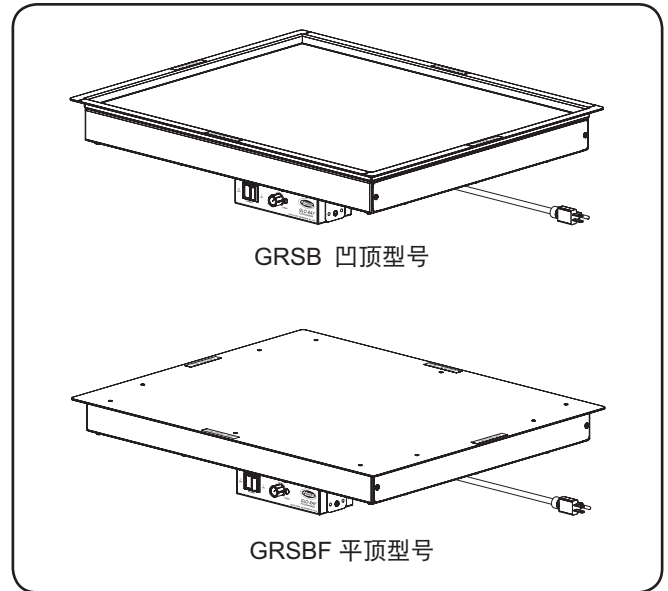
GRS 型号

GRSB 和 GRSBF 型号

GRSB 和 GRSBF 嵌入式保温板具有硬涂层铝表面和用于均匀散发热量的毡状铝箔元件。非常适合服务生向顾客传菜的区域、自助餐/咖啡线路和其他自助区域。GRSB 型号具有一个凹顶。GRSBF 型号具有一个平顶。

36" (914 mm) 柔性导管将电源线从保温板引至控制箱。控制箱配有照明电源打开/关闭 (I/O) 开关翘板开关、一个可调节的恒温控制器和安装支架。所附的控制箱可以半遥控安装，离设备最远 914 mm (36")。6' (1829 mm) 电线和插头连接到控制箱。

GRSB 和 GRSBF 型号有一个 19 mm (3/4") 法兰边缘，允许将设备放在工作台面开口中，以便进行凹入式安装。保温板易于使用非研磨的湿布和/或非研磨的清洁剂进行清洁。所有 GRSB 和 GRSBF 型号均从工厂发货，已经完整组装，可以随时安装。



GRSB 和 GRSBF 型号

型号命名

GRSBF-XX-F		
Glo-Ray®	保温板	保温深度
B = 嵌入式		GRS 型号
无字符 = 独立式		I = 495 mm (19-1/2")
F = 平顶		A = 152 mm (6")
无字符 = 凹顶		B = 197 mm (7-3/4")
型号宽度 (英寸)		C = 248 mm (9-3/4")
		D = 305 mm (12")
		E = 349 mm (13-3/4")
		F = 394 mm (15-1/2")
		G = 400 mm (15-3/4")
		H = 445 mm (17-1/2")
		J = 546 mm (21-1/2")
		K = 597 mm (23-1/2")
		L = 648 mm (25-1/2")
		GRSB 型号
		F = 394 mm (15-1/2")
		I = 495 mm (19-1/2")
		O = 762 mm (30")
		GRSBF 型号
		F = 432 mm (17")
		I = 533 mm (21")
		S = 648 mm (25-1/2")
		O = 800 mm (31-1/2")

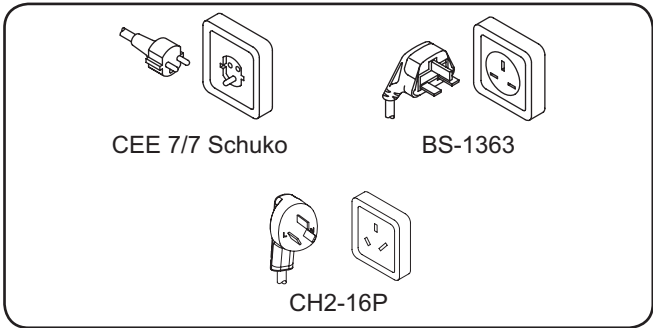
插头型式

设备出产时，随机配备电源线和插头。插头根据实际使用情况配备。



触电危险： 将设备插入电压、尺寸及插头配置均正确且妥当接地的电气插座中。 如果插头和插座不匹配，请联系合格的技术人员确定并安装正确电压和尺寸的电气插座。

注意： 规格标签位于 GRS 型号的底部，GRSB 和 GRSBF 型号的规格标签位于遥控控制箱的底部。 请查看标签，以获取序列号并核实设备的电气信息。



插头配置

注意： Hatco 不提供插座。 所有设备都必须连接到专用电路。

尺寸 — GRS 型号

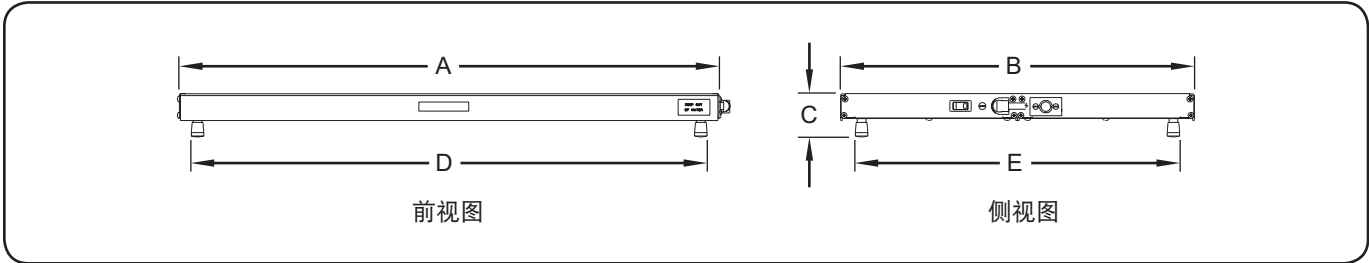
型号	宽度 (A)	深度 (B)	高度 (C)	占地宽度 (D)	占地深度 (E)
GRS-18-I	457 mm (18")	495 mm (19-1/2")	61 mm (2-3/8") †	425 mm (16-3/4")	457 mm (18")
GRS-24-I	610 mm (24")	495 mm (19-1/2")	61 mm (2-3/8") †	578 mm (16-3/4")	457 mm (18")
GRS-30-I	762 mm (30")	495 mm (19-1/2")	61 mm (2-3/8") †	730 mm (16-3/4")	457 mm (18")
GRS-36-I	914 mm (36")	495 mm (19-1/2")	137 mm (5-3/8") *	883 mm (16-3/4")	457 mm (18")
GRS-42-I	1067 mm (42")	495 mm (19-1/2")	137 mm (5-3/8") *	1035 mm (16-3/4")	457 mm (18")
GRS-48-I	1219 mm (48")	495 mm (19-1/2")	137 mm (5-3/8") *	1187 mm (16-3/4")	457 mm (18")
GRS-54-I	1372 mm (54")	495 mm (19-1/2")	137 mm (5-3/8") *	1340 mm (16-3/4")	457 mm (18")
GRS-60-I	1524 mm (60")	495 mm (19-1/2")	137 mm (5-3/8") *	1492 mm (16-3/4")	457 mm (18")
GRS-66-I	1676 mm (66")	495 mm (19-1/2")	137 mm (5-3/8") *	1645 mm (16-3/4")	457 mm (18")
GRS-72-I	1829 mm (72")	495 mm (19-1/2")	137 mm (5-3/8") *	1797 mm (16-3/4")	457 mm (18")

† 高度包括 1" (25 mm) 脚架。

* 高度包括 4" (102 mm) 脚架。

注意： 上面列出的所有型号均基于 19-1/2" (495 mm) 深度 (I)。 其他可用深度包括：

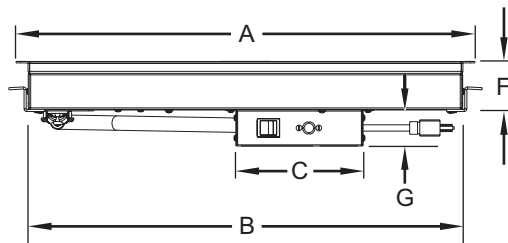
A = 152 mm (6")	B = 197 mm (7-3/4")	C = 248 mm (9-3/4")	D = 305 mm (12")
E = 349 mm (13-3/4")	F = 394 mm (15-1/2")	G = 400 mm (15-3/4")	H = 445 mm (17-1/2")
J = 546 mm (21-1/2")	K = 597 mm (23-1/2")	L = 648 mm (25-1/2")	



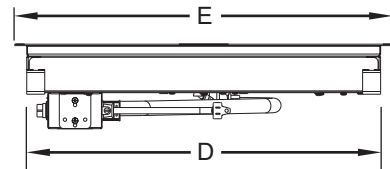
GRS 型号尺寸

尺寸 — GRSB 型号

型号	整体宽度 (A)	保温宽度 (B)	控制箱宽度 (C)	保温深度 (D)	整体深度 (E)	高度 (F)	控制箱高度 (G)
GRSB-24-F	648 mm (25-1/2")	610 mm (24")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-24-I				495 mm (19-1/2")	533 mm (21")		
GRSB-24-O				762 mm (30")	800 mm (31-1/2")		
GRSB-30-F	800 mm (31-1/2")	762 mm (30")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-30-I				495 mm (19-1/2")	533 mm (21")		
GRSB-30-O				762 mm (30")	800 mm (31-1/2")		
GRSB-36-F	953 mm (37-1/2")	914 mm (36")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-36-I				495 mm (19-1/2")	533 mm (21")		
GRSB-36-O				762 mm (30")	800 mm (31-1/2")		
GRSB-42-F	1105 mm (43-1/2")	1067 mm (42")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-42-I				495 mm (19-1/2")	533 mm (21")		
GRSB-42-O				762 mm (30")	800 mm (31-1/2")		
GRSB-48-F	1257 mm (49-1/2")	1219 mm (48")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-48-I				495 mm (19-1/2")	533 mm (21")		
GRSB-48-O				762 mm (30")	800 mm (31-1/2")		
GRSB-54-I	1410 mm (55-1/2")	1372 mm (54")	184 mm (7-1/4")	495 mm (19-1/2")	533 mm (21")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-60-F	1562 mm (61-1/2")	1524 mm (60")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-60-I				495 mm (19-1/2")	533 mm (21")		
GRSB-60-O				762 mm (30")	800 mm (31-1/2")		
GRSB-66-I	1715 mm (67-1/2")	1676 mm (66")	184 mm (7-1/4")	495 mm (19-1/2")	533 mm (21")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-72-F	1867 mm (73-1/2")	1829 mm (72")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	73 mm (2-7/8")	54 mm (2-1/8")
GRSB-72-I				495 mm (19-1/2")	533 mm (21")		
GRSB-72-O				762 mm (30")	800 mm (31-1/2")		



前视图



侧视图

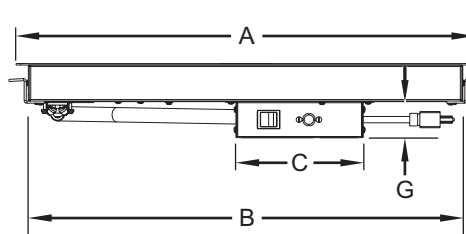
GRSB 型号尺寸

注意

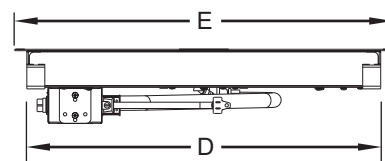
请参阅 本手册的 安装部分获取实际工作台面开口尺寸。

尺寸 — GRSBF 型号

型号	整体宽度 (A)	保温宽度 (B)	控制箱宽度 (C)	保温深度 (D)	整体深度 (E)	高度 (F)	控制箱高度 (G)
GRSBF-24-F	648 mm (25-1/2")	612 mm (24-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-24-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-24-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-24-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-30-F	800 mm (31-1/2")	764 mm (30-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-30-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-30-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-30-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-36-F	953 mm (37-1/2")	917 mm (36-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-36-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-36-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-36-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-42-F	1105 mm (43-1/2")	1069 mm (42-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-42-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-42-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-42-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-48-F	1257 mm (49-1/2")	1222 mm (48-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-48-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-48-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-48-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-60-F	1562 mm (61-1/2")	1526 mm (60-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-60-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-60-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-60-O				762 mm (30")	800 mm (31-1/2")		
GRSBF-72-F	1867 mm (73-1/2")	1831 mm (72-3/32")	184 mm (7-1/4")	394 mm (15-1/2")	432 mm (17")	57 mm (2-1/4")	54 mm (2-1/8")
GRSBF-72-I				495 mm (19-1/2")	533 mm (21")		
GRSBF-72-S				610 mm (24")	648 mm (25-1/2")		
GRSBF-72-O				762 mm (30")	800 mm (31-1/2")		



前视图



侧视图

GRSBF 型号尺寸

注意

请参阅 本手册的 安装部分获取实际工作台面开口尺寸。

电气参数表 — 标准 19-1/2" 深度 GRS 型号

型号	电压	功率	电流	插头型式	出厂重量
GRS-18-I	220-230	229-250	1.0-1.1	CH2-16P, CEE 7/7 Schuko	7 kg (16 lbs.)
	230-240	250-272	1.1	BS-1363	
GRS-24-I	220-230	320-350	1.5	CH2-16P, CEE 7/7 Schuko	9 kg (20 lbs.)
	230-240	350-381	1.5-1.6	BS-1363	
GRS-30-I	220-230	412-450	1.9-2.0	CH2-16P, CEE 7/7 Schuko	11 kg (25 lbs.)
	230-240	450-490	2.0	BS-1363	
GRS-36-I	220-230	503-550	2.3-2.4	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230-240	550-599	2.4-2.5	BS-1363	
GRS-42-I	220-230	549-600	2.5-2.6	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230-240	600-653	2.6-2.7	BS-1363	
GRS-48-I	220-230	640-700	2.9-3.0	CH2-16P, CEE 7/7 Schuko	16 kg (36 lbs.)
	230-240	700-762	3.0-3.2	BS-1363	
GRS-54-I	220-230	732-800	3.3-3.5	CH2-16P, CEE 7/7 Schuko	19 kg (42 lbs.)
	230-240	800-871	3.5-3.6	BS-1363	
GRS-60-I	220-230	823-900	3.7-3.9	CH2-16P, CEE 7/7 Schuko	20 kg (44 lbs.)
	230-240	900-980	3.9-4.1	BS-1363	
GRS-66-I	220-230	915-1000	4.2-4.3	CH2-16P, CEE 7/7 Schuko	23 kg (50 lbs.)
	230-240	1000-1089	4.3-4.5	BS-1363	
GRS-72-I	220-230	1006-1100	4.6-4.8	CH2-16P, CEE 7/7 Schuko	25 kg (56 lbs.)
	230-240	1100-1198	4.8-5.0	BS-1363	

电气参数表 — 标准 GRSB 型号

型号	电压	功率	电流	插头型式	出厂重量
GRSB-24-F	220-230	384-420	1.7-1.8	CH2-16P, CEE 7/7 Schuko	9 kg (20 lbs.)
	230-240	420-458	1.8-1.9	BS-1363	
GRSB-24-I	220-230	550-601	2.5-2.6	CH2-16P, CEE 7/7 Schuko	10 kg (22 lbs.)
	230-240	505-550	2.2-2.3	BS-1363	
GRSB-24-O	220-230	722-790	3.3-3.4	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230-240	790-860	3.4-3.6	BS-1363	
GRSB-30-F	220-230	462-505	2.1-2.2	CH2-16P, CEE 7/7 Schuko	10 kg (23 lbs.)
	230-240	505-550	2.2-2.3	BS-1363	
GRSB-30-I	220-230	665-727	3.0-3.2	CH2-16P, CEE 7/7 Schuko	11 kg (25 lbs.)
	230-240	661-665	2.7-2.8	BS-1363	
GRSB-30-O	220-230	916-1001	4.2-4.4	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230-240	904-985	3.9-4.1	BS-1363	
GRSB-36-F	220-230	540-590	2.5-2.6	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230-240	590-643	2.6-2.7	BS-1363	
GRSB-36-I	220-230	780-853	3.5-3.7	CH2-16P, CEE 7/7 Schuko	13 kg (29 lbs.)
	230-240	716-780	3.1-3.3	BS-1363	
GRSB-36-O	220-230	1110-1213	5.0-5.3	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230-240	1020-1110	4.4-4.6	BS-1363	

电气参数表 — 标准 GRSB 型号

型号	电压	功率	电流	插头型式	出厂重量
GRSB-42-F	220–230	627–685	2.9–3.0	CH2-16P, CEE 7/7 Schuko	13 kg (29 lbs.)
	230–240	685–746	3.0–3.1	BS-1363	
GRSB-42-I	220–230	885–967	4.0–4.2	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230–240	813–885	3.5–3.7	BS-1363	
GRSB-42-O	220–230	1236–1351	5.6–5.9	CH2-16P, CEE 7/7 Schuko	16 kg (35 lbs.)
	230–240	1198–1305	5.2–5.4	BS-1363	
GRSB-48-F	220–230	704–770	3.2–3.3	CH2-16P, CEE 7/7 Schuko	15 kg (33 lbs.)
	230–240	770–839	3.3–3.5	BS-1363	
GRSB-48-I	220–230	1000–1093	4.5–4.7	CH2-16P, CEE 7/7 Schuko	16 kg (36 lbs.)
	230–240	918–1000	4.0–4.2	BS-1363	
GRSB-48-O	220–230	1430–1562	6.5–6.8	CH2-16P, CEE 7/7 Schuko	18 kg (39 lbs.)
	230–240	1313–1430	5.7–6.0	BS-1363	
GRSB-54-I	220–230	1110–1213	5.0–5.3	CH2-16P, CEE 7/7 Schuko	20 kg (43 lbs.)
	230–240	1019–1110	4.4–4.6	BS-1363	
GRSB-60-F	220–230	869–950	4.0–4.1	CH2-16P, CEE 7/7 Schuko	20 kg (45 lbs.)
	230–240	950–1035	4.1–4.3	BS-1363	
GRSB-60-I	220–230	1220–1333	5.5–5.8	CH2-16P, CEE 7/7 Schuko	23 kg (50 lbs.)
	230–240	1120–1220	4.9–5.1	BS-1363	
GRSB-60-O	220–230	1750–1912	8.0–8.3	CH2-16P, CEE 7/7 Schuko	24 kg (54 lbs.)
	230–240	1607–1750	7.0–7.3	BS-1363	
GRSB-66-I	220–230	1330–1454	6.0–6.3	CH2-16P, CEE 7/7 Schuko	25 kg (54 lbs.)
	230–240	1221–1330	5.3–5.5	BS-1363	
GRSB-72-F	220–230	1034–1130	4.7–4.9	CH2-16P, CEE 7/7 Schuko	24 kg (52 lbs.)
	230–240	1130–1231	4.9–5.1	BS-1363	
GRSB-72-I	220–230	1440–1574	6.5–6.8	CH2-16P, CEE 7/7 Schuko	26 kg (58 lbs.)
	230–240	1322–1440	5.8–6.0	BS-1363	
GRSB-72-O	220–230	2070–2262	9.4–9.8	CH2-16P, CEE 7/7 Schuko	29 kg (64 lbs.)
	230–240	1901–2070	8.3–8.6	BS-1363	

电气参数表 — 标准 GRSBF 型号

型号	电压	功率	电流	插头型式	出厂重量
GRSBF-24-F	220-230	384-420	1.7-1.8	CH2-16P, CEE 7/7 Schuko	9 kg (20 lbs.)
	230-240	420-458	1.8-1.9	BS-1363	
GRSBF-24-I	220-230	550-601	2.5-2.6	CH2-16P, CEE 7/7 Schuko	10 kg (22 lbs.)
	230-240	505-550	2.2-2.3	BS-1363	
GRSBF-24-S	220-230	640-700	2.9-3.0	CH2-16P, CEE 7/7 Schuko	11 kg (24 lbs.)
	230-240	700-762	3.0-3.2	BS-1363	
GRSBF-24-O	220-230	722-790	3.3-3.4	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230-240	790-860	3.4-3.6	BS-1363	
GRSBF-30-F	220-230	462-505	2.1-2.2	CH2-16P, CEE 7/7 Schuko	10 kg (23 lbs.)
	230-240	505-550	2.2-2.3	BS-1363	
GRSBF-30-I	220-230	665-727	3.0-3.2	CH2-16P, CEE 7/7 Schuko	11 kg (25 lbs.)
	230-240	661-665	2.7-2.8	BS-1363	
GRSBF-30-S	220-230	755-825	3.4-3.6	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230-240	825-898	3.6-3.7	BS-1363	
GRSBF-30-O	220-230	916-1001	4.2-4.4	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230-240	904-985	3.9-4.1	BS-1363	
GRSBF-36-F	220-230	540-590	2.5-2.6	CH2-16P, CEE 7/7 Schuko	12 kg (26 lbs.)
	230-240	590-643	2.6-2.7	BS-1363	
GRSBF-36-I	220-230	780-853	3.5-3.7	CH2-16P, CEE 7/7 Schuko	13 kg (28 lbs.)
	230-240	716-780	3.1-3.3	BS-1363	
GRSBF-36-S	220-230	870-951	4.0-4.1	CH2-16P, CEE 7/7 Schuko	15 kg (31 lbs.)
	230-240	950-1034	4.1-4.3	BS-1363	
GRSBF-36-O	220-230	1110-1213	5.0-5.3	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230-240	1020-1110	4.4-4.6	BS-1363	
GRSBF-42-F	220-230	627-685	2.9-3.0	CH2-16P, CEE 7/7 Schuko	13 kg (29 lbs.)
	230-240	685-746	3.0-3.1	BS-1363	
GRSBF-42-I	220-230	885-967	4.0-4.2	CH2-16P, CEE 7/7 Schuko	15 kg (32 lbs.)
	230-240	813-885	3.5-3.7	BS-1363	
GRSBF-42-S	220-230	1006-1100	4.6-4.8	CH2-16P, CEE 7/7 Schuko	15 kg (34 lbs.)
	230-240	1100-1198	4.8-5.0	BS-1363	
GRSBF-42-O	220-230	1236-1351	5.6-5.9	CH2-16P, CEE 7/7 Schuko	16 kg (35 lbs.)
	230-240	1198-1305	5.2-5.4	BS-1363	

电气参数表 — 标准 GRSBF 型号

型号	电压	功率	电流	插头型式	出厂重量
GRSBF-48-F	220–230	704–770	3.2–3.3	CH2-16P, CEE 7/7 Schuko	15 kg (33 lbs.)
	230–240	770–839	3.3–3.5	BS-1363	
GRSBF-48-I	220–230	1000–1093	4.5–4.7	CH2-16P, CEE 7/7 Schuko	16 kg (36 lbs.)
	230–240	918–1000	4.0–4.2	BS-1363	
GRSBF-48-S	220–230	1121–1225	5.1–5.3	CH2-16P, CEE 7/7 Schuko	17 kg (38 lbs.)
	230–240	1225–1334	5.3–5.6	BS-1363	
GRSBF-48-O	220–230	1430–1562	6.5–6.8	CH2-16P, CEE 7/7 Schuko	18 kg (39 lbs.)
	230–240	1313–1430	5.7–6.0	BS-1363	
GRSBF-60-F	220–230	869–950	4.0–4.1	CH2-16P, CEE 7/7 Schuko	20 kg (45 lbs.)
	230–240	950–1035	4.1–4.3	BS-1363	
GRSBF-60-I	220–230	1220–1333	5.5–5.8	CH2-16P, CEE 7/7 Schuko	23 kg (50 lbs.)
	230–240	1120–1220	4.9–5.1	BS-1363	
GRSBF-60-S	220–230	1372–1500	6.2–6.5	CH2-16P, CEE 7/7 Schuko	24 kg (53 lbs.)
	230–240	1501–1634	6.5–6.8	BS-1363	
GRSBF-60-O	220–230	1750–1912	8.0–8.3	CH2-16P, CEE 7/7 Schuko	25 kg (54 lbs.)
	230–240	1607–1750	7.0–7.3	BS-1363	
GRSBF-72-F	220–230	1034–1130	4.7–4.9	CH2-16P, CEE 7/7 Schuko	24 kg (52 lbs.)
	230–240	1130–1231	4.9–5.1	BS-1363	
GRSBF-72-I	220–230	1440–1574	6.5–6.8	CH2-16P, CEE 7/7 Schuko	26 kg (58 lbs.)
	230–240	1322–1440	5.8–6.0	BS-1363	
GRSBF-72-S	220–230	1602–1751	7.3–7.6	CH2-16P, CEE 7/7 Schuko	28 kg (62 lbs.)
	230–240	1750–1906	7.6–7.9	BS-1363	
GRSBF-72-O	220–230	2070–2262	9.4–9.8	CH2-16P, CEE 7/7 Schuko	29 kg (64 lbs.)
	230–240	1901–2070	8.3–8.6	BS-1363	

总则

请使用以下程序安装 GRS, GRSB 和 GRSBF 设备。

警告

火灾危险： 设备所在位置与可燃性墙壁或材料至少有 25 mm (1") 安全距离。如果不保持安全距离，可能会导致褪色或燃烧。

小心

将设备置于便于使用的区域，并使其处于适宜的台面高度。放置位置应保持水平，以防设备或承装物意外跌落，还应有足够的强度，以承受设备和承装物的重量。

不要在没有按照安装说明中的描述正确安装控制箱的情况下操作嵌入式型号。

不要在没有安装提供的脚架情况下操作设备。

美国国家卫生基金会 (NSF) 要求对宽度超过 914 mm (36") 或重量超过 36 kg (80 lbs.) 的设备进行密封，或抬升到安装表面上方。如果不能在使用点密封设备，则应包括 102 mm (4") 脚架，以便允许在设备下方进行合适的清洁检修。

注意

不要在安装脚架之前操作设备。可能会损坏设备。

GRS 型号

1. 从纸箱取出设备，然后倒置放在硬纸板上。

注意：为防止延误保修，请完成在线保修登记。请参阅“物主重要信息”部分了解详细信息。

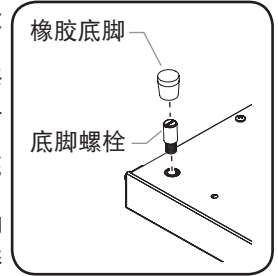
2. 将 25 mm (1") 脚架安装到设备。

- 将底脚螺栓旋入设备底部每个角的孔中。牢固拧紧，但不要过度拧紧。
- 滑动每个底脚螺栓上的橡胶底脚。

注意：如果需要 102 mm (4") 脚架，请参阅本手册的“选件及附件”部分获取安装说明。

3. 将设备竖直转动，然后放在所需位置。

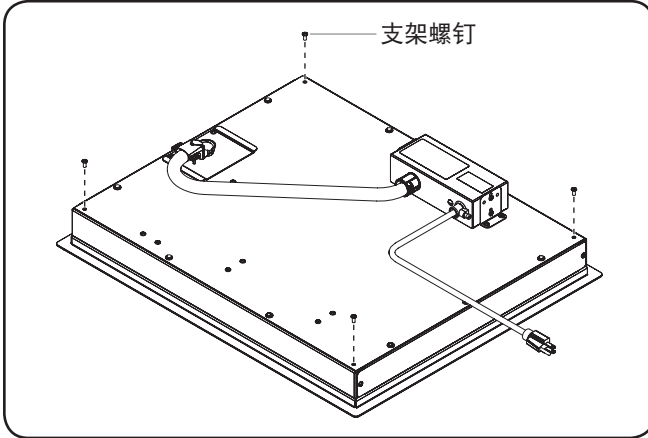
- 将设备置于环境气温恒定的地方，最低温度为 70° F (21° C)。避免将设备置于空气流动或气流活跃的区域（即外门附近、排气扇/排风罩、空调管等）。
- 确保设备工作台高度合适，方便使用。
- 确保工作台面呈水平状态，且足够结实，能够承受本设备和存放食品的重量。
- 确保设备底部的所有基座均稳妥置于工作台上。



GRSB 和 GRSBF 型号

1. 从纸箱取出设备，然后倒置放在硬纸板上。

注意：为防止延误保修，请完成在线保修登记。请参阅“物主重要信息”部分了解详细信息。



GRSB 型号的下方

2. 从设备的下方卸下支架螺钉并妥善保存。

注意：控制箱可以移到设备下方最方便的位置。对于半遥控安装，保持控制箱处于就位，直到设备被放在工作台上。

注意

设备适用于在金属工作台面中或金属工作台上使用，并且建议如此使用。任何工作台面材料的损坏都不在 Hatco 保修范围内。对于其他表面，请向制造商核实材料是否适合高达 93°C (200°F) 的长期温度。

3. 准备工作台面开口。有关建议的台面开口尺寸，请参阅以下网页上的相应“工作台面开口”图表。
4. 在设备的工作台面材料和安装法兰之间涂上一滴 NSF 批准的密封胶。密封胶的额定使用最低温度必须是 121°C (250°F)。
5. 将设备放在工作台面开口中。
6. 使用先前在本程序中卸下的四颗支架螺钉，将 Z 型支架组装到设备的下方（请参阅以下页面上的示意图）。

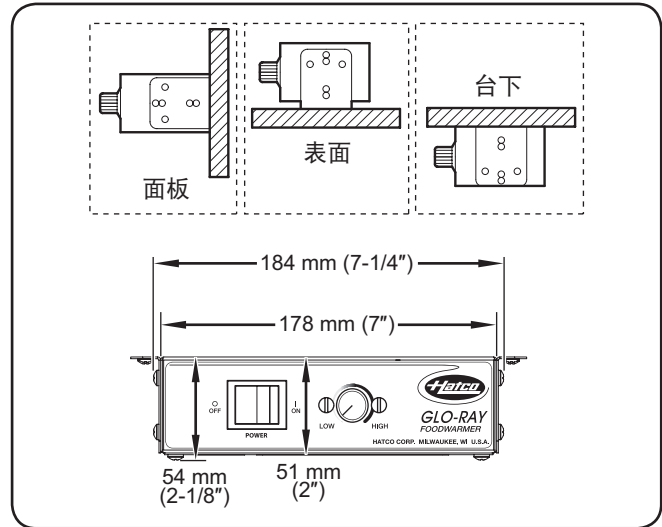
注意：1524 mm (60") 或更长的设备需要沿设备前后在中间安装另外两个 Z 型支架。

7. 调整 Z 型支架上的装配螺钉，直到顶部法兰平放在工作台上。

注意

在拧紧嵌入式设备上的装配螺钉时，不要过度用力。这可能损坏设备和/或工作台面。

8. 清除任何多余的密封胶。
9. 如果需要或者必要，控制箱可以安装在半遥控位置。
 - a. 从设备的底部取下控制箱。
 - b. 如有必要，从控制箱卸下端架，旋转/重新定位，然后重新固定到控制箱。
 - c. 控制箱可以安装在面板、表面、台下或凹处。



控制箱安装选项

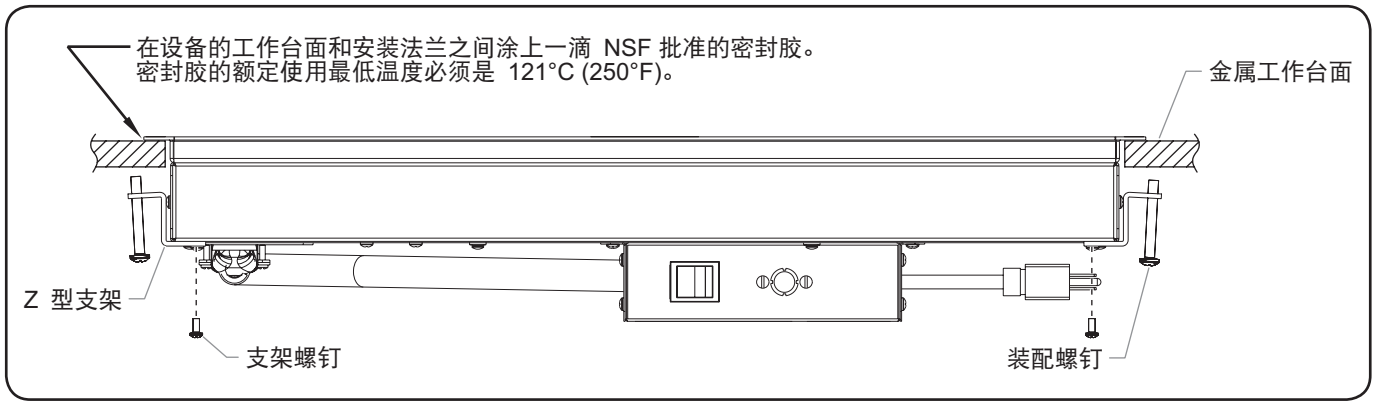
- d. 控制箱安装位置与设备的距离取决于 914 mm (36") 导管。不要拉紧导管以增加安装距离。在安装控制箱后，导管应该有些松弛。

注意

不要修改控制盒上的接线或切断恒温器毛细管以增加遥控安装距离。切断恒温器毛细管会引起设备过热，并且可能损坏设备和周围的工作台面。

固定所有组件之后，继续“操作”部分。

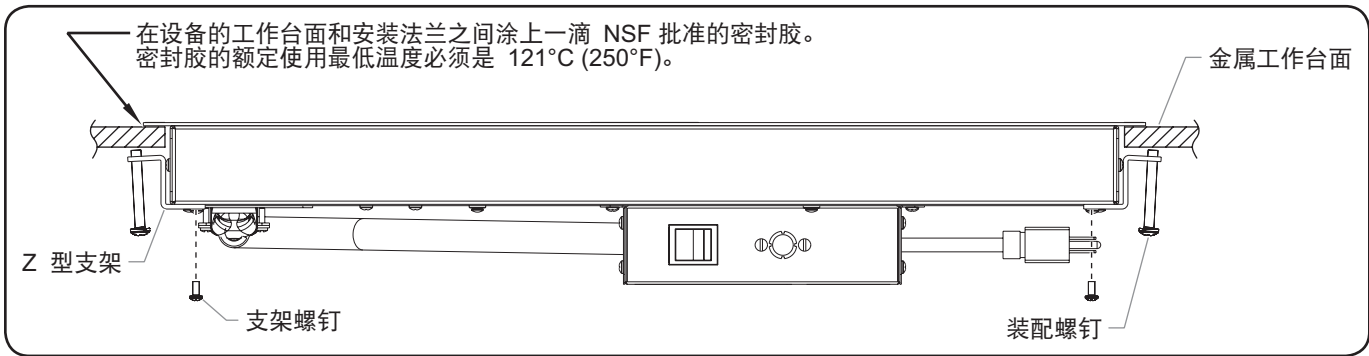
注意：本设备提供一条 1829 mm (6') 电源线；任何多余的电源线都应该整齐地布线，使之不会垂下来。



GRSB 型号安装

工作台面开口 — GRSB 型号

型号	最小宽度	最大宽度	最小深度	最大深度
GRSB-24-F	622 mm (24-1/2")	629 mm (24-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-24-I			508 mm (20")	514 mm (20- 1/4")
GRSB-24-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-30-F	775 mm (30-1/2")	781 mm (30-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-30-I			508 mm (20")	514 mm (20-1/4")
GRSB-30-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-36-F	927 mm (36-1/2")	934 mm (36-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-36-I			508 mm (20")	514 mm (20-1/4")
GRSB-36-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-42-F	1080 mm (42-1/2")	1086 mm (42-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-42-I			508 mm (20")	514 mm (20-1/4")
GRSB-42-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-48-F	1232 mm (48-1/2")	1238 mm (48-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-48-I			508 mm (20")	514 mm (20-1/4")
GRSB-48-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-54-I	1384 mm (54-1/2")	1391 mm (54-3/4")	20" (508 mm)	20-1/4" (514 mm)
GRSB-60-F	1537 mm (60-1/2")	1543 mm (60-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-60-I			508 mm (20")	514 mm (20-1/4")
GRSB-60-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSB-66-F	1689 mm (66-1/2")	1696 mm (66-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-66-I			508 mm (20")	514 mm (20-1/4")
GRSB-72-F	1842 mm (72-1/2")	1848 mm (72-3/4")	406 mm (16")	413 mm (16-1/4")
GRSB-72-I			508 mm (20")	514 mm (20-1/4")
GRSB-72-O			775 mm (30-1/2")	781 mm (30-3/4")



GRSBF 型号安装

工作台面开口 — GRSBF 型号

型号	最小宽度	最大宽度	最小深度	最大深度
GRSBF-18-F	470 mm (18-1/2")	476 mm (18-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-24-F	622 mm (24-1/2")	629 mm (24-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-24-I			508 mm (20")	514 mm (20-1/4")
GRSBF-24-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-24-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-30-F	775 mm (30-1/2")	781 mm (30-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-30-I			508 mm (20")	514 mm (20-1/4")
GRSBF-30-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-30-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-36-F	927 mm (36-1/2")	934 mm (36-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-36-I			508 mm (20")	514 mm (20-1/4")
GRSBF-36-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-36-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-42-F	1080 mm (42-1/2")	1086 mm (42-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-42-I			508 mm (20")	514 mm (20-1/4")
GRSBF-42-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-42-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-48-F	1232 mm (48-1/2")	1238 mm (48-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-48-I			508 mm (20")	514 mm (20-1/4")
GRSBF-48-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-48-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-60-F	1537 mm (60-1/2")	1543 mm (60-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-60-I			508 mm (20")	514 mm (20-1/4")
GRSBF-60-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-60-O			775 mm (30-1/2")	781 mm (30-3/4")
GRSBF-72-F	1842 mm (72-1/2")	1848 mm (72-3/4")	406 mm (16")	413 mm (16-1/4")
GRSBF-72-I			508 mm (20")	514 mm (20-1/4")
GRSBF-72-S			622 mm (24-1/2")	629 mm (24-3/4")
GRSBF-72-O			775 mm (30-1/2")	781 mm (30-3/4")

总则

请使用以下程序打开和操作 GRS, GRSB 和 GRSBF 设备。

警告

操作本设备前，请仔细阅读“重要安全事项”中的所有安全说明。

1. 将设备插入电压、尺寸及插头配置均正确且妥当接地的电气插座中。请参阅本手册的“规格”部分了解详细信息。
2. 将电源打开/关闭 (I/O) 开关移至打开 (I) 位置。

小心

燃烧危险：得将金属物体或厨具留在电磁炉上或附近。它们可能变热发烫。

3. 将恒温控制器转至所需的温度设置。

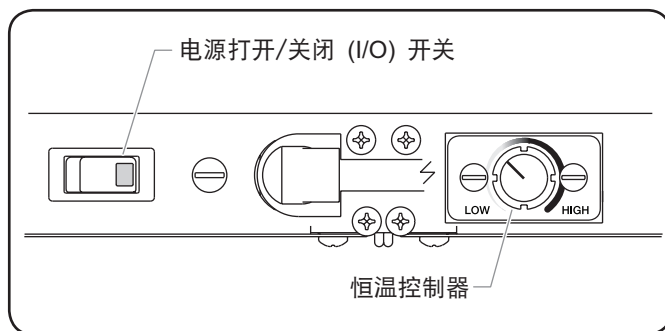
注意：顺时针转动恒温控制器旋钮将升高温度设置。逆时针转动恒温控制器旋钮将降低温度设置。

4. 等待 30 分钟以使设备达到运行温度。

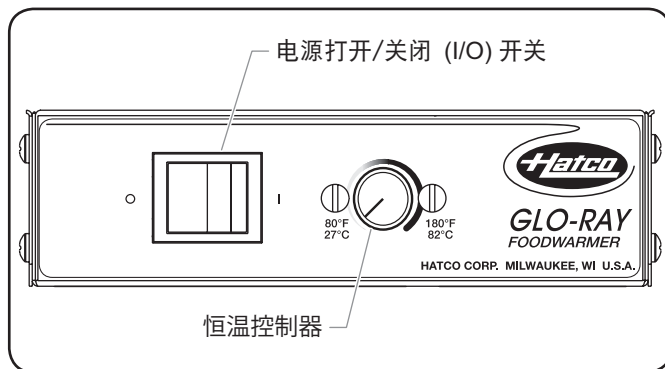
注意

不要在硬涂层表面滑动食物盘、使用底部粗糙的食物盘或者让任何东西掉在硬涂层表面上。可能发生刮擦。使用不当造成的硬涂层表面损坏不在保修范围内。

注意：请参阅“选件及附件”部分了解有关配备平接型壁挂遥控控制盒的 GRSB 和 GRSBF 设备的安装和操作信息。



控制面板 — GRS 型号



控制面板 — GRSB 和 GRSBF 型号

总则

Hatco Glo-Ray 保温板的设计经久耐用、性能优异且易于维护。



警告

触电危险：

- 在进行任何清洁、调整或维护之前，请先关闭电源开关，拔下电源线，并使设备冷却。
- 不得将设备浸入水中。本设备不具备防水性能。如果设备被水浸泡，不得进行操作。
- 不得用蒸汽或使用过多的水清洁本设备。
- 本设备不具备“防喷淋”结构。请勿使用喷淋头清洁本设备。
- 维修时只能使用正品 Hatco 更换零部件。未使用正品 Hatco 更换零部件会导致质保失效，使设备操作人员受到有害电压威胁，并引起触电或着火。正品 Hatco 更换零部件可以保证使用环境下的安全运行。某些散件或通用更换零部件没有可在 Hatco 设备中安全工作的特性。

本设备不含“用户维修”零部件。如果本设备需要维修，请联系 Hatco 授权服务代理，或致电 (0512) 6732-5091 联系联系 Hatco 服务部。

每日清洁

为保护 Glo-Ray 保温板的抛光表面，建议每天清洁所有表面。

注意

只允许使用非摩擦性清洁剂。摩擦性清洁剂可能会刮伤本设备的表面处理层，破坏其外观，并易使表面积尘。

1. 关闭设备，拔掉电源线（针对台式），并让设备冷却。
2. 如有必要，取下并清洗所有食物盘。
3. 用非研磨的湿布擦拭所有金属表面。顽固污渍可使用品质良好的不锈钢或无磨料清洁剂去除。使用小刷子和温和皂清洁双手难以接触到的区域。
4. 使用非研磨的干布擦干所有表面。

**警告**

本设备只能由受过培训且具备相应资格的人员负责维修。若由不具备相应资格的人员维修，则可能引起触电或着火。

**警告**

触电警告：在进行任何清洁、调整或维护之前，请先关闭电源开关，拔下电源线，并使设备冷却。

症状	可能原因	纠正措施
设备过热。	恒温控制器设置过高。	将恒温控制器设置调低。
	恒温控制器处于“打开”位置。	请联系授权服务机构或 Hatco 请求帮助。
	设备插入错误电源。	由专业人士验证电源供应是否与设备规格匹配。
设备不够热。	恒温控制器设置过低。	将恒温控制器设置调高。
	设备位置易受气流影响（空调管或排气扇）。	阻挡气流或重新安置设备。
设备根本不运行。	设备未接通电源。	将设备接入合适的电源。
	设备未开机。	将电源打开/关闭 (I/O) 开关移至打开 (I) 位置。
	电源打开/关闭 (I/O) 开关不能正常工作。	请联系授权服务机构或 Hatco 请求帮助。
	加热元件烧坏。	
	恒温控制器有缺陷。	

对问题进行故障针对？

如果您的困境在问题解决后仍无法解除，请联系距您最近的经过授权的服务代理或 Hatco 以寻求帮助。 请查找最近的服务机构，请登录 Hatco 网站 www.hatcocorp.com，选择 支持 下拉菜单，然后单击“查找服务代理”；或者联系 Hatco 零部件和服务团队：

电话： (0512) 6732-5091

电子邮件： infocn@hatcocorp.com

102 mm (4") 可调节脚架 (GRS 型号)

请使用以下程序将 4" 可调节脚架安装在 GRS 型号上。

注意：102 mm (4") 脚架是在 914 mm (36") 和更宽型号上使用的标准脚架。



小心

美国国家卫生基金会 (NSF) 要求对宽度超过 914 mm (36") 或重量超过 36 kg (80 lbs.) 的设备进行密封，或抬升到安装表面上方。如果不能在使用点密封设备，则应包括 102 mm (4") 脚架，以便允许在设备下方进行合适的清洁检修。

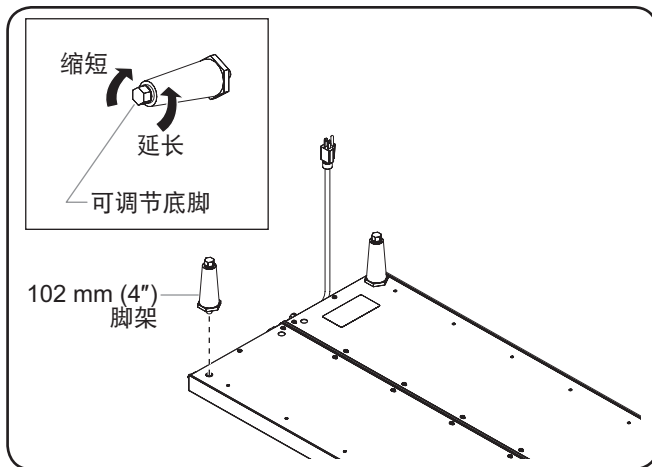
1. 关掉设备，断开电源线并让设备冷却。

注意

不要将设备放在具有控制面板的一侧。可能会损坏设备。

2. 小心地将本机倒置，并将其放置在平面上。确保用东西盖住表面，防止刮擦设备。
3. 在每个角将 102 mm 脚架拧到设备的底部。用手拧紧，直到贴紧。请勿拧得过紧。
4. 将设备返回直立位置。

注意：4" 脚架上的底脚可以调节，从而调平设备。在设备处于最终位置之后，使用 14 mm (9/16") 开口扳手进行水平调整。



脚架安装

橡胶底脚 (GRS 型号)

橡胶底脚可以作为附件，高度为 10 mm (3/8")。橡胶底脚能够让搁板更接近工作台面。

壁挂遥控控制盒 (GRSB 和 GRSBF 模块)

两种平接型壁挂遥控控制盒可用于 GRSB 和 GRSBF 设备 — 机械恒温控制盒和数字指示温度控制 (ITC) 盒。两种控制盒均使用以下程序进行安装。

警告

触电危险：遥控控制盒必须安装在直墙上的垂直位置。遥控控制盒安装在水平位置可造成积液，导致触电。

注意

不要将壁挂遥控控制盒安装在直接受热的位置。控制盒直接受热会导致控制器过热、功能故障和失灵。

不要修改控制盒上的接线或切断恒温器毛细管以增加半遥控安装距离。切断恒温器毛细管会引起设备过热，并且可能损坏设备和周围的工作台面。

注意：建议由具有资质的电工将设备连接到电源。

1. 准备开口和预钻螺丝孔（参见下面的尺寸示意图）。
2. 从控制盒卸下装饰盖板。
3. 通过背面将控制盒定位在开口中。
4. 使用螺丝（未提供）将控制盒固定到表面。
5. 将合适的电源连接到壁挂遥控控制盒。
6. 重新安装装饰盖板。用硅粘合剂将装饰盖板密封到安装表面。

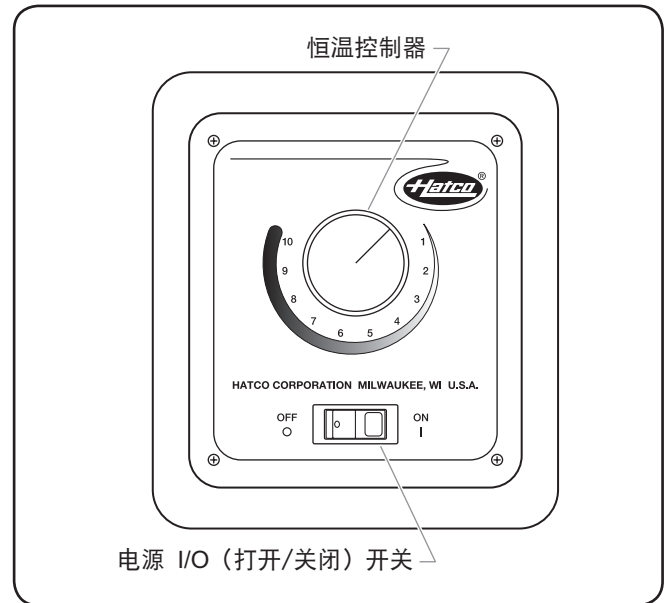
注意：设备配备一根 36" (914 mm) 柔性导管，后者将控制盒连接到设备。另外，仅针对数字温度控制器提供 1829 mm (6') 和 3048 mm (10') 可选长度的导管。

电源 I/O（打开/关闭）开关

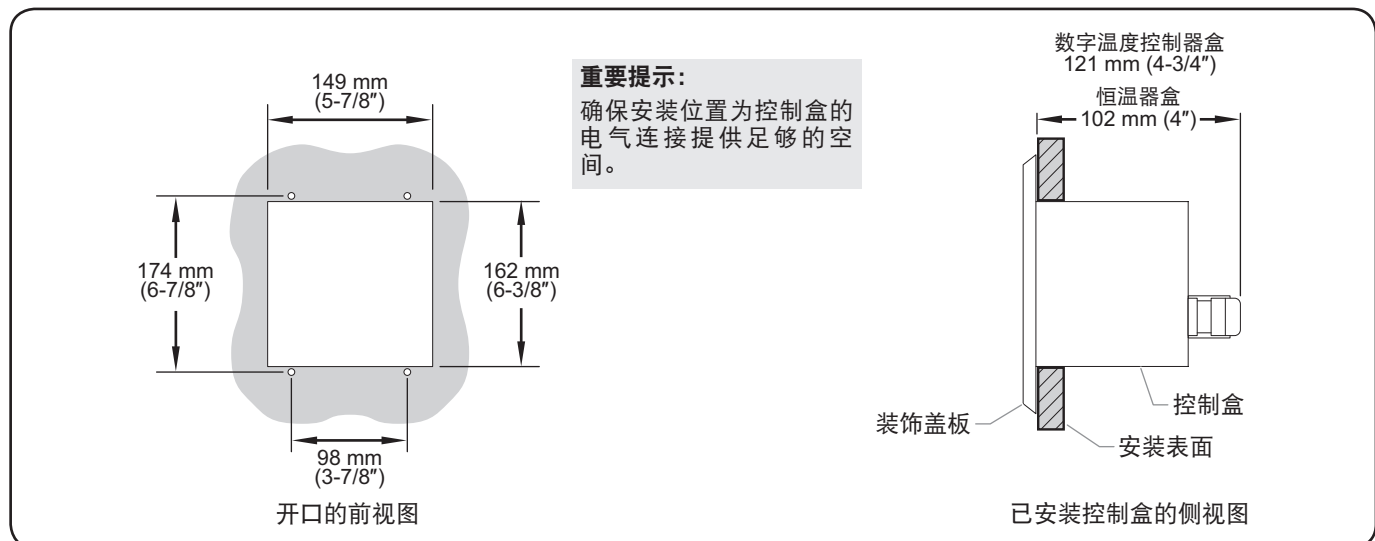
两种平接型壁挂遥控控制盒配备电源 I/O（打开/关闭）开关。将电源 I/O（打开/关闭）开关移至 I（打开）位置可打开设备。当设备打开时，开关中的指示灯发光。

更改设定温度 — 机械温度控制

顺时针转动温度控制器可升高设定温度。逆时针转动温度控制器可降低设定温度。



机械温度控制



壁挂遥控控制盒安装尺寸

更改设定温度 — 数字温度控制器

配备数字温度控制器的设备在打开时将自动加热到设定温度。请按照以下程序更改设定温度。

注意：当设备温度低于 54°C (130°F) 时，显示屏上显示的温度可能不准确。

如果在完成最后步骤之前编程序列中断，则内存中将不接受更改的值。

1. 按 **SET** 三下按键。当前设定温度将显示在温度显示屏上（按两下按键后将显示“SP”）。
2. 按 **▲** 按键或 **▼** 长按 10 秒可更改设定温度。
3. 按 **SET** 按键以锁定新的设定温度。温度显示屏将变为空白两秒钟，以显示新设置已被接受。

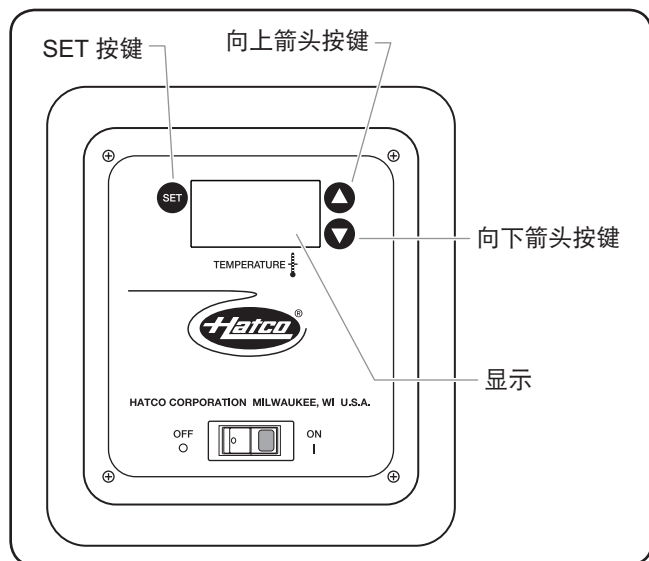
注意：编程过程中无任何操作超过 10 秒钟，则控制器将自动退出编程模式，且不保存任何更改。

更改华氏和摄氏温度设置 — 数字温度控制器

按照以下程序将显示屏在华氏温度和摄氏温度之间进行更改。

1. 按 **SET** 一下按键。显示“F”表示为华氏温度，显示“C”则表示为摄氏温度。
2. 按 **▲** 按键或 **▼** 长按按键 10 秒以在“F”（华氏温度）和“C”（摄氏温度）之间进行更改。
3. 按 **SET** 三下按键以锁定新的设置。温度显示屏将变为空白两秒钟，以显示新设置已被接受。

注意：编程过程中无任何操作超过 10 秒钟，则控制器将自动退出编程模式，且不保存任何更改。



数字温度控制器

1. 产品质保

赫高保证其生产的产品（下称“本产品”）不存在材料和工艺缺陷，在按照赫高的说明书安装和维护的情况下，自购买之日起1年内（用户必须书面且保养）或自赫高出厂之日起18个月内，设备可以保证正常工作。客户必须通过在赫高的官网上完成本产品的注册来确定产品的购买日期，或是经由赫高判断进而认可的其他方式。

赫高保证在下述时间内及条件下，下列部件自购买之日起（符合上述条件）起不存在材料和工艺缺陷（条件如下）：

a) 保修期为两（2）年的部件：

履带式烤面包机加热器（金属铠装）
保温抽屉加热器（金属铠装）
保温抽屉的抽屉滚轴和滑轨
S食品保温器加热器（金属铠装）
保温陈列柜加热元件（金属铠装、空气加热）
保温柜加热元件（金属铠装、空气加热）
保温汤锅加热元件—HWB系列（金属铠装）

b) 保修期为五（5）年的部件：

3CS和FR水箱

c) 保修期为十（10）年的部件：

电动瞬时加热器的水箱
煤气瞬时加热器的水箱

d) 保修期为九十（90）天的部件：

可更换零件

上述质保为赫高独家提供，并代替任何明示或隐含的质保，包括但不限于侵犯某个特定用途、专利或其他知识产权的适够性或实用性的银汉质保。在没有特定说明的情况下，上述质保不包括：带涂层白炽灯泡、日光灯、保温加热灯泡、带涂层卤素灯泡、卤素加热灯泡、氙气灯泡、LED光管、玻璃组件和保险丝；由于结垢、化学腐蚀或严寒造成的瞬时加热器水箱、翅片管式换热器或其他水加热设备的故障；或产品使用不当、擅自改动或误用、安装不当，或电压不正确。

2. 修复和损坏限制

本文所述赫高责任以及对用户的独家修复补偿义务仅限于在上述保修期内提出索赔，由赫高或赫高授权的服务机构负责更换新零件或产品或对原零件或产品进行维修。赫高有权接受或拒绝任何此类全部或部分的索赔。在此有限质保规定中，“翻新”是指本产品的部分或整机已经被赫高或赫高授权的服务代理机构修复至原有的产品规格。未经赫高事先书面批准，赫高不接受任何产品的退回，经过赫高同意的产品退回，其相关费用均由用户独自承担。在任何情况下，对于因故或意外而引起的损失，包括但不限于人工费用，或因产品的使用，或不会用，或产品隶属或成为其他产品的一部分而造成的利润损失，赫高将不予负责。

服务事项

此款 Hatco 设备的保修期为自购买之日起 1 年内或 Hatco 发货之日起 18 个月内，以先发生的日期为准。

如果此设备 在保修期内出现问题，请做以下事项：

联系当地 Hatco 经销商

在联系 Hatco 经销商寻求服务帮助时，请为经销商提供以下信息，以确保及时处理：

- 设备型号
- 序列号（位于设备）
- 设备具体问题
- 购买日期
- 商业名称
- 邮寄地址
- 联系人姓名和电话号码

Hatco 经销商会做以下事项：

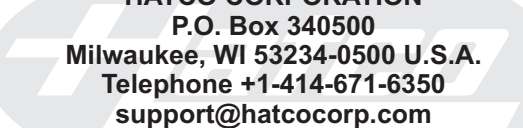
- 按需提供更换零部件
- 向 Hatco 提交保修索赔以供处理

非保修问题

如果遇到需要帮助的非保修问题，请联系最近的 Hatco 授权服务代理。

查找最近的服务代理：

- 向 Hatco 致电：(0512) 6732-5091
- 向 Hatco 发送电子邮件：infocn@hatcocorp.com



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