

www.hatcocorp.com

Register Online!
(see page 2)



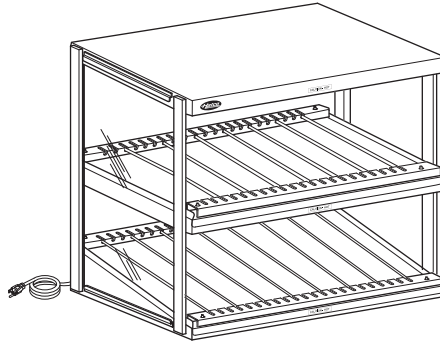
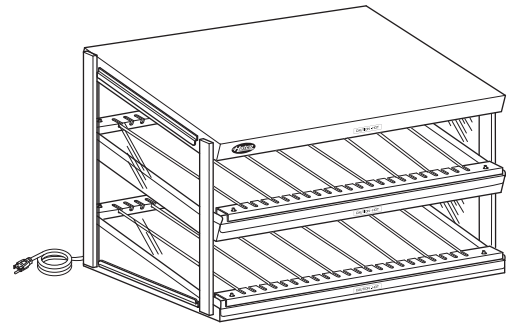
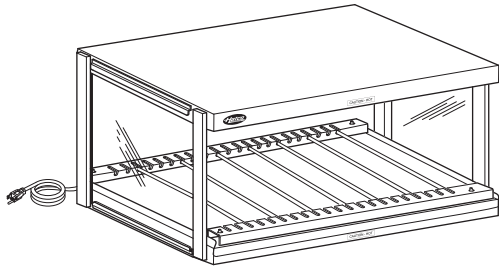
GLO-RAY®

Merchandising Display Warmers

GRSDH, GRSDS, and GRSDS/H Series

Installation and Operating Manual

P/N 07.04.301.00



⚠ 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.

⚠ ADVERTENCIA

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.

⚠ AVERTISSEMENT

Ne pas utiliser cet équipement sans avoir lu et compris le contenu de ce manuel ! Le non-respect des instructions contenues dans ce manuel peut entraîner de graves blessures ou la mort. Ce manuel contient des informations importantes concernant l'entretien, l'utilisation et le fonctionnement de ce produit. Si vous ne comprenez pas le contenu de ce manuel, veuillez le signaler à votre supérieur. Conservez ce manuel dans un endroit sûr pour pouvoir vous y référer plus tard.

CONTENTS

Important Owner Information	2	Installation	13
Introduction	2	General	13
Important Safety Information	3	Operation	14
Model Designation	4	Maintenance	15
Model Description	4	General	15
All Models.....	4	Cleaning	15
GRSDH Models.....	4	Replacing Display Light Bulbs	15
GRSDS Models.....	4	Troubleshooting Guide	16
GRSDS/H Models	4	Options and Accessories	17
Specifications	5	Limited Warranty	19
Plug Configurations.....	5	Authorized Parts Distributors	Back Cover
Electrical Rating Charts.....	5		
Dimensions — GRSDH Models	10		
Dimensions — GRSDS Models	11		
Dimensions — GRSDS/H Models.....	12		

IMPORTANT OWNER INFORMATION

Record the model number, serial number (specification label located on the back of the unit), voltage, and purchase date of the unit in the spaces below. Please have this information available when calling Hatco for service assistance.

Model No. _____

Serial No. _____

Voltage _____

Date of Purchase _____

Register your unit!

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

Business Hours: 8:00 AM to 5:00 PM
Central Standard Time (C.S.T.)

(Summer Hours: June to September –
8:00 AM to 5:00 PM C.S.T.
Monday through Thursday
8:00 AM to 2:30 PM C.S.T. Friday)

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

E-mail: partsandservice@hatcocorp.com

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

The Hatco Glo-Ray® Merchandising Display Warmers are perfect for holding wrapped sandwiches or boxed pizza on a buffet line or at temporary serving areas. These warmers hold hot wrapped products and keep them at optimum serving temperatures without affecting quality. Pre-focused infrared heat from above and a thermostatically controlled heated base extends the holding times of most wrapped food. The infrared heating elements are guaranteed against burnout and breakage for two years. These units also feature incandescent lights along with a cord and plug set(s).

Hatco Glo-Ray Merchandising Display Warmers are products 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 Glo-Ray Merchandising Display Warmers. Hatco recommends all installation, operating, and safety instructions appearing in this manual be read prior to installation or operation of the warmer.

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



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



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



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:

- 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 proper voltage and size electrical receptacle.
- Units supplied without an electrical plug require field installation of proper plug. Plug must be properly grounded and of correct voltage, size, and configuration for electrical specifications of unit. Contact a qualified electrician to determine and install proper electrical plug.
- Turn OFF power switch, unplug power cord, and allow unit to cool before performing any cleaning, setup, 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 70°F (21°C).
- 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. Cord must be replaced by Hatco, an Authorized Hatco Service Agent, or a person with similar qualifications.
- This unit is not “jet-proof” construction. Do not use jet-clean spray to clean this unit.
- Do not clean unit when it is energized or hot.
- This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock or burn.
- 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 1” (25 mm) from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

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.

WARNING

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

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.

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

Do not place food product directly onto hardcoat surface. Food product must be wrapped, boxed, or on a food pan.

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 unit will get hot. Use caution when touching these areas.

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

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

NOTICE

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

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

IMPORTANT—DO NOT use paper towel or glass cleaner to clean plastic surfaces such as sneeze guards and flip-up doors. Paper towel and glass cleaner may scratch the material. Wipe off plastic surfaces using a soft, clean, water-dampened cloth.

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.

Clean unit daily to avoid malfunctions and maintain sanitary operation.

MODEL DESIGNATION

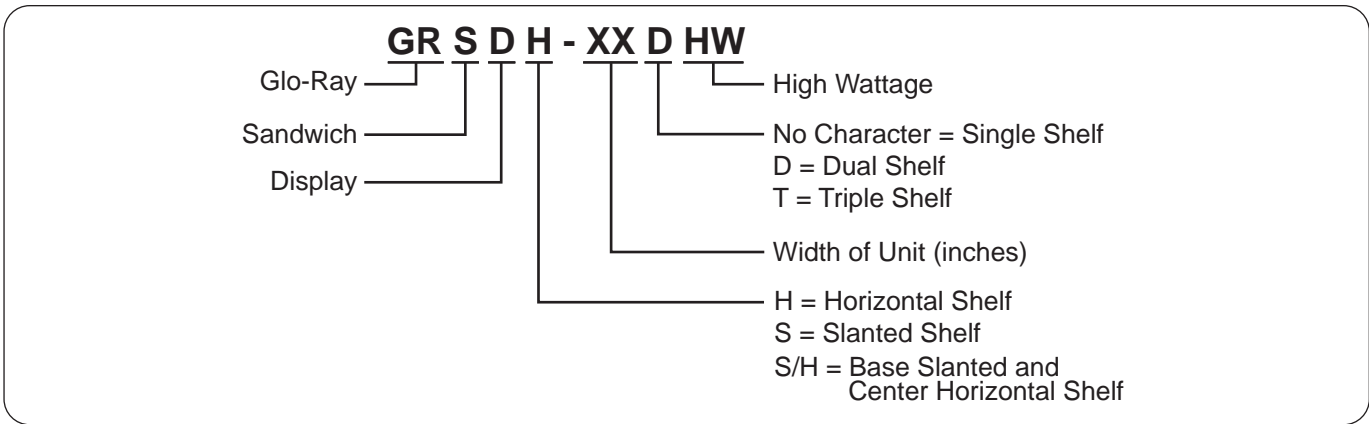


Figure 1. Model Designation

MODEL DESCRIPTION

All Models

All Hatco Glo-Ray® Merchandising Display Warmers are constructed of aluminum, stainless steel, and powdercoated steel. Features include tempered glass side panels, a temperature controlled heated base, infrared upper heating elements, incandescent lights, product divider rods, legs, and a cord and plug set. The operating temperature range is from room temperature to approximately 185°–200°F (85°–93°C).

GRSDH Models

The GRSDH models are horizontal shelf warmers designed to hold hot wrapped product. They can be ordered in various widths from 24" to 60" (610 to 1524 mm) and are available in single or dual shelf models.

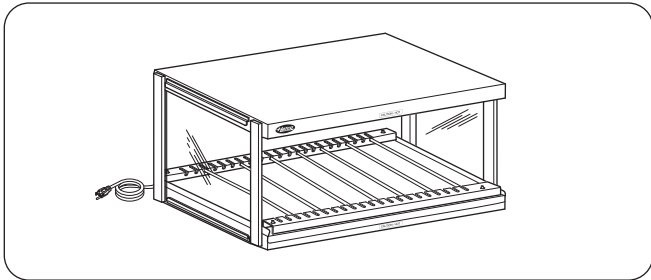


Figure 2. GRSDH Model — Single Shelf

GRSDS Models

The GRSDS models are slant shelf warmers designed to hold hot wrapped product. The shelves are slanted for the convenience of self-serve. They can be ordered in various widths from 24" to 60" (610 to 1524 mm) and are available in single or dual shelf models. 24" (610 mm) and 36" (914 mm) units are available in triple shelf models.

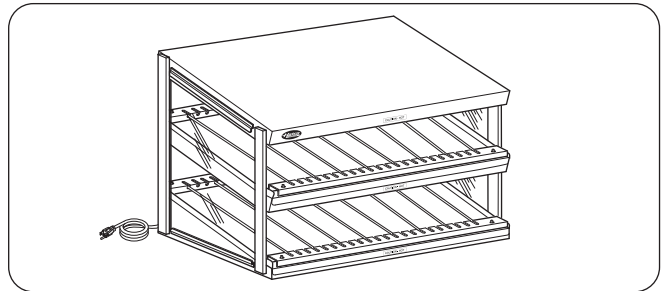


Figure 3. GRSDS Model — Dual Shelf

GRSDS/H Models

The GRSDS/H models are dual shelf units that include one slanted shelf and one horizontal shelf. They can be ordered in widths of 30" (762 mm), 36" (914 mm), or 41" (1041 mm). GRSDS/H models are ideal for holding popcorn on the top horizontal shelf and nachos, boxed pizza, or wrapped product on the bottom slanted shelf.

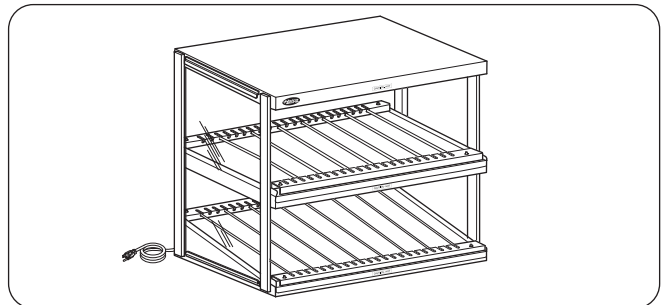


Figure 4. GRSDS/H Model — Dual Shelf

Plug Configurations

Units are supplied from the factory with an electrical cord and plug installed (plugs are supplied according to the applications). Some international units may require field installation of the proper plug.



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 proper voltage and size electrical receptacle.
- Units supplied without an electrical plug require field installation of proper plug. Plug must be properly grounded and of correct voltage, size, and configuration for electrical specifications of unit. Contact a qualified electrician to determine and install proper electrical plug.

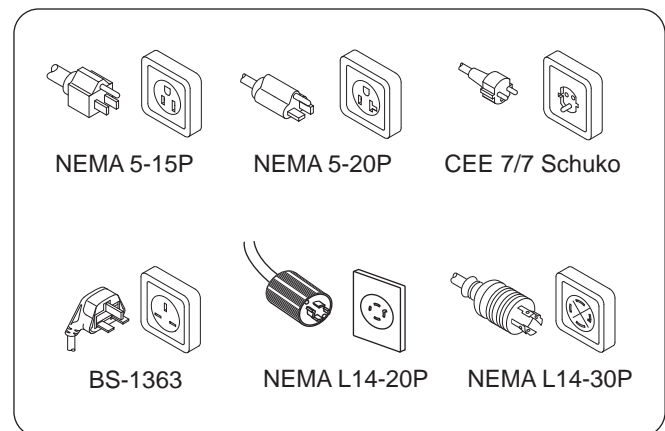


Figure 5. Plug Configurations

NOTE: Receptacle not supplied by Hatco.

Electrical Rating Chart — GRSDH Models, Single Shelf

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDH-24	120	830	6.9	NEMA 5-15P	51 lbs. (23 kg)
GRSDH-30	120	970	8.1	NEMA 5-15P	58 lbs. (26 kg)
	200	940	4.7	CEE 7/7 Schuko	58 lbs. (26 kg)
	220	890	4.0	CEE 7/7 Schuko	58 lbs. (26 kg)
	240	1060	4.4	BS-1363	58 lbs. (26 kg)
	220–230 (CE)	890–974	4.0–4.2	CEE 7/7 Schuko	58 lbs. (26 kg)
	230–240 (CE)	974–1060	4.2–4.4	BS-1363	58 lbs. (26 kg)
GRSDH-36	120	1170	9.8	NEMA 5-15P	66 lbs. (30 kg)
	220	1074	4.9	CEE 7/7 Schuko	66 lbs. (30 kg)
	240	1278	5.3	BS-1363	66 lbs. (30 kg)
	220–230 (CE)	1074–1174	4.9–5.1	CEE 7/7 Schuko	66 lbs. (30 kg)
	230–240 (CE)	1174–1278	5.1–5.3	BS-1363	66 lbs. (30 kg)
GRSDH-41	120	1340	11.2	NEMA 5-15P	74 lbs. (34 kg)
	200	1180	5.9	No Plug	74 lbs. (34 kg)
	220	1228	5.6	CEE 7/7 Schuko	74 lbs. (34 kg)
	240	1464	6.1	BS-1363	74 lbs. (34 kg)
	220–230 (CE)	1228–1343	5.6–5.8	CEE 7/7 Schuko	74 lbs. (34 kg)
	230–240 (CE)	1343–1464	5.8–6.1	BS-1363	74 lbs. (34 kg)
GRSDH-52	120	1760	14.7	NEMA 5-15P*	86 lbs. (39 kg)
	220	1604	7.3	CEE 7/7 Schuko	86 lbs. (39 kg)
	240	1912	8.0	BS-1363	86 lbs. (39 kg)
	220–230 (CE)	1604–1754	7.3–7.6	CEE 7/7 Schuko	86 lbs. (39 kg)
	230–240 (CE)	1754–1912	7.6–8.0	BS-1363	86 lbs. (39 kg)
	GRSDH-60	120/208–240	2100	15.0	NEMA L14-20P
220		1830	8.3	CEE 7/7 Schuko	198 lbs. (90 kg)
240		2180	9.1	BS-1363	198 lbs. (90 kg)
220–230 (CE)		1830–2001	8.3–8.7	CEE 7/7 Schuko	198 lbs. (90 kg)
230–240 (CE)		2001–2180	8.7–9.1	BS-1363	198 lbs. (90 kg)

The shaded areas contain electrical information for **International models only**.

* NEMA 5-20P for Canada

SPECIFICATIONS

Electrical Rating Chart — GRSDH Models, Horizontal Dual Shelf

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDH-24D	120	1660	13.8	NEMA 5-15P	90 lbs. (41 kg)
GRSDH-30D	120	1920	16.0	NEMA 5-20P	100 lbs. (45 kg)
	220	1780	8.1	CEE 7/7 Schuko	100 lbs. (45 kg)
	240	2120	8.8	BS-1363	100 lbs. (45 kg)
	220-230 (CE)	1780-1948	8.1-8.5	CEE 7/7 Schuko	100 lbs. (45 kg)
	230-240 (CE)	1948-2120	8.5-8.8	BS-1363	100 lbs. (45 kg)
GRSDH-36D	120†	1170	9.8	NEMA 5-15P‡	112 lbs. (51 kg)
	120/208-240	2340	9.8	NEMA L14-20P	112 lbs. (51 kg)
	220	2148	9.8	CEE 7/7 Schuko	112 lbs. (51 kg)
	240	2556	10.7	BS-1363	112 lbs. (51 kg)
	220-230 (CE)	2148-2348	9.8-10.2	CEE 7/7 Schuko	112 lbs. (51 kg)
	230-240 (CE)	2348-2556	10.2-10.7	BS-1363	112 lbs. (51 kg)
GRSDH-41D	120†	1340	11.2	NEMA 5-15P‡	126 lbs. (57 kg)
	120/208-240	2680	11.2	NEMA L14-20P	126 lbs. (57 kg)
	220	2456	11.2	CEE 7/7 Schuko	126 lbs. (57 kg)
	240	2928	12.2	BS-1363	126 lbs. (57 kg)
	220-230 (CE)	2456-2686	11.2-11.7	CEE 7/7 Schuko	126 lbs. (57 kg)
	230-240 (CE)	2686-2928	11.7-12.2	BS-1363	126 lbs. (57 kg)
GRSDH-52D	120†	1760	14.7	NEMA 5-15P‡	150 lbs. (68 kg)
	120/208-240	3520	14.7	NEMA L14-20P	150 lbs. (68 kg)
	220	3208	14.6	CEE 7/7 Schuko	150 lbs. (68 kg)
	240	3824	15.9	BS-1363	150 lbs. (68 kg)
	220-230 (CE)	3208-3508	14.6-15.3	CEE 7/7 Schuko	150 lbs. (68 kg)
	230-240 (CE)	3508-3824	15.3-15.9	BS-1363	150 lbs. (68 kg)
GRSDH-60D	120/208-240	4200	17.5	NEMA L14-20PΔ	268 lbs. (122 kg)
	220	3660	16.6	No Plug	268 lbs. (122 kg)
	240	4360	18.2	No Plug	268 lbs. (122 kg)
	220-230 (CE)	3660-4002	16.6-17.4	No Plug	268 lbs. (122 kg)
	230-240 (CE)	4002-4360	17.4-18.2	No Plug	268 lbs. (122 kg)

The shaded areas contain electrical information for **International models only**.

† Not available in Canada

‡ Unit comes equipped with two cord and plug sets, requiring two separate 15 A power circuits. Ratings are for each circuit.

Δ NEMA L14-30P for Canada.

Electrical Rating Chart — GRSDS Models, Slant Single Shelf

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDS-24	120	695	5.8	NEMA 5-15P	72 lbs. (33 kg)
	220	629	2.9	CEE 7/7 Schuko	72 lbs. (33 kg)
	240	749	3.1	BS-1363	72 lbs. (33 kg)
	220–230 (CE)	629–688	2.9–3.0	CEE 7/7 Schuko	72 lbs. (33 kg)
	230–240 (CE)	688–749	3.0–3.1	BS-1363	72 lbs. (33 kg)
GRSDS-24HW	120	1165	9.7	NEMA 5-15P	72 lbs. (33 kg)
GRSDS-30	120	790	6.6	NEMA 5-15P	80 lbs. (36 kg)
	220	730	3.3	CEE 7/7 Schuko	80 lbs. (36 kg)
	240	862	3.6	BS-1363	80 lbs. (36 kg)
	220–230 (CE)	730–799	3.3–3.5	CEE 7/7 Schuko	80 lbs. (36 kg)
	230–240 (CE)	799–870	3.5–3.6	BS-1363	80 lbs. (36 kg)
GRSDS-30HW	120	1450	12.1	NEMA 5-15P*	80 lbs. (36 kg)
GRSDS-36	120	935	7.8	NEMA 5-15P	92 lbs. (42 kg)
	220	864	3.9	CEE 7/7 Schuko	92 lbs. (42 kg)
	240	1030	4.3	BS-1363	92 lbs. (42 kg)
	220–230 (CE)	865–946	3.9–4.1	CEE 7/7 Schuko	92 lbs. (42 kg)
	230–240 (CE)	946–1030	4.1–4.3	BS-1363	92 lbs. (42 kg)
GRSDS-36HW	120	1775	14.8	NEMA 5-15P*	92 lbs. (42 kg)
GRSDS-41	120	1090	9.1	NEMA 5-15P	96 lbs. (44 kg)
	200	1062	5.3	No Plug	96 lbs. (44 kg)
	220	1003	4.6	CEE 7/7 Schuko	96 lbs. (44 kg)
	240	1195	5.0	BS-1363	96 lbs. (44 kg)
	220–230 (CE)	1003–1097	4.6–4.8	CEE 7/7 Schuko	96 lbs. (44 kg)
	230–240 (CE)	1097–1195	4.8–5.0	BS-1363	96 lbs. (44 kg)
GRSDS-41HW	120†	2070	17.3	NEMA 5-20P	96 lbs. (44 kg)
GRSDS-52	120	1400	11.7	NEMA 5-15P	102 lbs. (46 kg)
	220	1275	5.8	CEE 7/7 Schuko	102 lbs. (46 kg)
	240	1520	6.3	BS-1363	102 lbs. (46 kg)
	220–230 (CE)	1275–1396	5.8–6.1	CEE 7/7 Schuko	102 lbs. (46 kg)
	230–240 (CE)	1396–1520	6.1–6.3	BS-1363	102 lbs. (46 kg)
GRSDS-52HW	120/208–240	2710	14.8	NEMA L14-20P	102 lbs. (46 kg)
GRSDS-60	120	1715	14.3	NEMA 5-15P*	108 lbs. (49 kg)
	220	1665	7.6	CEE 7/7 Schuko	108 lbs. (49 kg)
	240	1715	7.2	BS-1363	108 lbs. (49 kg)
	220–230 (CE)	1665–1820	7.6–7.9	CEE 7/7 Schuko	108 lbs. (49 kg)
	230–240 (CE)	1575–1715	6.8–7.2	BS-1363	108 lbs. (49 kg)

The shaded areas contain electrical information for **International models only**.

† Not available in Canada

* NEMA 5-20P for Canada

SPECIFICATIONS

Electrical Rating Chart — GRSDS Models, Slant Dual Shelf

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDS-24D	120	1355	11.3	NEMA 5-15P	128 lbs. (58 kg)
	220	1352	6.1	CEE 7/7 Schuko	128 lbs. (58 kg)
	240	1611	6.7	BS-1363	128 lbs. (58 kg)
	220-230 (CE)	1352-1479	6.1-6.4	CEE 7/7 Schuko	128 lbs. (58 kg)
	230-240 (CE)	1479-1611	6.4-6.7	BS-1363	128 lbs. (58 kg)
GRSDS-24DHW	120/208-240	2290	9.7	NEMA L14-20P	128 lbs. (58 kg)
	220-230 (CE)	1973-2156	9.0-9.4	CEE 7/7 Schuko	128 lbs. (58 kg)
	230-240 (CE)	2156-2348	9.4-9.8	BS-1363	128 lbs. (58 kg)
GRSDS-30D	120	1530	12.8	NEMA 5-15P*	140 lbs. (64 kg)
	220	1419	6.5	CEE 7/7 Schuko	140 lbs. (64 kg)
	240	1690	7.0	BS-1363	140 lbs. (64 kg)
	220-230 (CE)	1419-1552	6.5-6.8	CEE 7/7 Schuko	140 lbs. (64 kg)
	230-240 (CE)	1552-1690	6.8-7.0	BS-1363	140 lbs. (64 kg)
GRSDS-30DHW	120†	1400/1450	11.7/12.1	NEMA 5-15P‡	140 lbs. (64 kg)
	120/208-240	2850	12.1	NEMA L14-20P	140 lbs. (64 kg)
	220	2743	12.5	CEE 7/7 Schuko	140 lbs. (64 kg)
	240	2922	12.2	BS-1363	140 lbs. (64 kg)
GRSDS-36D	120	1810	15.1	NEMA 5-20P	158 lbs. (72 kg)
	220	1669	7.6	CEE 7/7 Schuko	158 lbs. (72 kg)
	240	1990	8.3	BS-1363	158 lbs. (72 kg)
	220-230 (CE)	1670-1827	7.6-7.9	CEE 7/7 Schuko	158 lbs. (72 kg)
	230-240 (CE)	1827-1990	7.9-8.3	BS-1363	158 lbs. (72 kg)
GRSDS-36DHW	120/208-240	3490	14.8	NEMA L14-20P	158 lbs. (72 kg)
	220-230 (CE)	3003-3283	13.7-14.3	CEE 7/7 Schuko	158 lbs. (72 kg)
	230-240 (CE)	3283-3574	14.3-14.9	BS-1363	158 lbs. (72 kg)
GRSDS-41D	120†	1090/1030	9.1/8.6	NEMA 5-15P‡	178 lbs. (81 kg)
	120/208-240	2120	9.1	NEMA L14-20P	178 lbs. (81 kg)
	200	2098	10.5	No Plug	178 lbs. (81 kg)
	220	1951	8.9	CEE 7/7 Schuko	178 lbs. (81 kg)
	240	2325	9.7	BS-1363	178 lbs. (81 kg)
	220-230 (CE)	1951-2135	8.9-9.3	CEE 7/7 Schuko	178 lbs. (81 kg)
	230-240 (CE)	2135-2325	9.3-9.7	BS-1363	178 lbs. (81 kg)
GRSDS-41DHW	120†	2010/2070	16.8/17.3	NEMA 5-20P♦	178 lbs. (81 kg)
	120/208-240	4080	17.3	NEMA L14-20P	178 lbs. (81 kg)
	220-230 (CE)	3477-3800	15.8-16.5	CEE 7/7 Schuko	178 lbs. (81 kg)
	230-240 (CE)	3800-4137	16.5-17.2	BS-1363	178 lbs. (81 kg)

The shaded areas contain electrical information for **International models only**.

† Not available in Canada

* NEMA 5-20P for Canada

‡ Unit comes equipped with two cord and plug sets, requiring two separate 15 A power circuits. Ratings are for each circuit.

♦ Unit comes equipped with two cord and plug sets, requiring two separate 20 A power circuits. Ratings are for each circuit.

NOTE: High wattage units have a high wattage output on the top shelf only.

SPECIFICATIONS

Electrical Rating Chart — GRSDS Models, Slant Dual Shelf (continued)

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDS-52D	120†	1400/1325	11.7/11.0	NEMA 5-15P‡	205 lbs. (93 kg)
	120/208–240	2725	11.7	NEMA L14-20P	205 lbs. (93 kg)
	220	2483	11.3	CEE 7/7 Schuko	205 lbs. (93 kg)
	240	2960	12.3	BS-1363	205 lbs. (93 kg)
	220–230 (CE)	2485–2718	11.3–11.8	CEE 7/7 Schuko	205 lbs. (93 kg)
	230–240 (CE)	2718–2960	11.8–12.3	BS-1363	205 lbs. (93 kg)
GRSDS-52DHW	120/208–240	5340	22.6	NEMA L14-30P	205 lbs. (93 kg)
GRSDS-60D	120/208–240	3340	14.3	NEMA L14-20P	238 lbs. (108 kg)
	220	3240	14.7	CEE 7/7 Schuko	238 lbs. (108 kg)
	240	3340	13.9	BS-1363	238 lbs. (108 kg)
	220–230 (CE)	3240–3541	14.7–15.4	CEE 7/7 Schuko	238 lbs. (108 kg)
	230–240 (CE)	3067–3340	13.3–13.9	BS-1363	238 lbs. (108 kg)

Electrical Rating Chart — GRSDS Models, Slant Triple Shelf

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDS-24T	120†	2015	16.8	NEMA 5-20P	183 lbs. (83 kg)
GRSDS-36T	120/208–240	2685	14.6	NEMA L14-20P	225 lbs. (120 kg)

Electrical Rating Chart — GRSDS/H Models, Slant/Horizontal Dual Shelf

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
GRSDS/H-30D	120	1530	12.8	NEMA 5-15P*	140 lbs. (64 kg)
	220	1419	6.5	CEE 7/7 Schuko	140 lbs. (64 kg)
	240	1690	7.0	BS-1363	140 lbs. (64 kg)
	220–230 (CE)	1419–1552	6.5–6.8	CEE 7/7 Schuko	140 lbs. (64 kg)
	230–240 (CE)	1552–1690	6.8–7.0	BS-1363	140 lbs. (64 kg)
GRSDS/H-30HWD	120/208–240	2450	12.1	NEMA L14-20P	140 lbs. (64 kg)
GRSDS/H-36D	120	1810	15.1	NEMA 5-20P	158 lbs. (72 kg)
	220	1669	7.6	CEE 7/7 Schuko	158 lbs. (72 kg)
	240	1990	8.3	BS-1363	158 lbs. (72 kg)
	220–230 (CE)	1670–1827	7.6–7.9	CEE 7/7 Schuko	158 lbs. (72 kg)
	230–240 (CE)	1827–1990	7.9–8.3	BS-1363	158 lbs. (72 kg)
GRSDS/H-36HWD	120/208–240†	2910	14.8	NEMA L14-20P	158 lbs. (72 kg)
	120/240†	3490	14.8	NEMA L14-20P	158 lbs. (72 kg)
GRSDS/H-41D	120/208–240	2120	9.1	NEMA L14-20P	178 lbs. (81 kg)
	220	1951	8.9	CEE 7/7 Schuko	178 lbs. (81 kg)
	240	2325	9.7	BS-1363	178 lbs. (81 kg)
	220–230 (CE)	1951–2135	8.9–9.3	CEE 7/7 Schuko	178 lbs. (81 kg)
	230–240 (CE)	2135–2325	9.3–9.7	BS-1363	178 lbs. (81 kg)
GRSDS/H-41HWD	120/208–240†	3460	17.3	NEMA L14-20P	178 lbs. (81 kg)

The shaded areas contain electrical information for **International models only**.

† Not available in Canada

* NEMA 5-20P for Canada

‡ Unit comes equipped with two cord and plug sets, requiring two separate 15 A power circuits. Ratings are for each circuit.

NOTE: High wattage units have a high wattage output on the top shelf only.

SPECIFICATIONS

Dimensions — GRSDH Models

Model	Width (A)	Depth (B)	Height (C)*	Shelf Height (D)	Footprint Width (E)	Footprint Depth (F)
GRSDH-24	24" (610 mm)	19-1/2" (495 mm)	12-1/8"† (308 mm)	7-1/8" (181 mm)	21-1/2" (546 mm)	18" (457 mm)
GRSDH-30	30" (762 mm)	19-1/2" (495 mm)	12-1/8"† (308 mm)	7-1/8" (181 mm)	27-1/2" (699 mm)	18" (457 mm)
GRSDH-36	36" (914 mm)	19-1/2" (495 mm)	12-1/8"† (308 mm)	7-1/8" (181 mm)	33-1/2" (851 mm)	18" (457 mm)
GRSDH-41	41" (1041 mm)	19-1/2" (495 mm)	15"♦ (381 mm)	7-1/8" (181 mm)	38-1/2" (978 mm)	18" (457 mm)
GRSDH-52	52" (1321 mm)	19-1/2" (495 mm)	15"♦ (381 mm)	7-1/8" (181 mm)	49-1/2" (1257 mm)	18" (457 mm)
GRSDH-60	60" (1524 mm)	19-1/2" (495 mm)	15"♦ (381 mm)	7-1/8" (181 mm)	57-1/2" (1461 mm)	18" (457 mm)
GRSDH-24D	24" (610 mm)	19-1/2" (495 mm)	25-1/2"♦ (648 mm)	7-1/8" (181 mm)	21-1/2" (546 mm)	18" (457 mm)
GRSDH-30D	30" (762 mm)	19-1/2" (495 mm)	25-1/2"♦ (648 mm)	7-1/8" (181 mm)	27-1/2" (699 mm)	18" (457 mm)
GRSDH-36D	36" (914 mm)	19-1/2" (495 mm)	25-1/2"♦ (648 mm)	7-1/8" (181 mm)	33-1/2" (851 mm)	18" (457 mm)
GRSDH-41D	41" (1041 mm)	19-1/2" (495 mm)	25-1/2"♦ (648 mm)	7-1/8" (181 mm)	38-1/2" (978 mm)	18" (457 mm)
GRSDH-52D	52" (1321 mm)	19-1/2" (495 mm)	25-1/2"♦ (648 mm)	7-1/8" (181 mm)	49-1/2" (1257 mm)	18" (457 mm)
GRSDH-60D	60" (1524 mm)	19-1/2" (495 mm)	25-1/2"♦ (648 mm)	7-1/8" (181 mm)	57-1/2" (1461 mm)	18" (457 mm)

* Add 3-1/8" (79 mm) to height for electronic controls.

♦ Height includes 4" (102 mm) legs attached.

† Add 3" (76mm) to height when using 4"(102mm) legs.

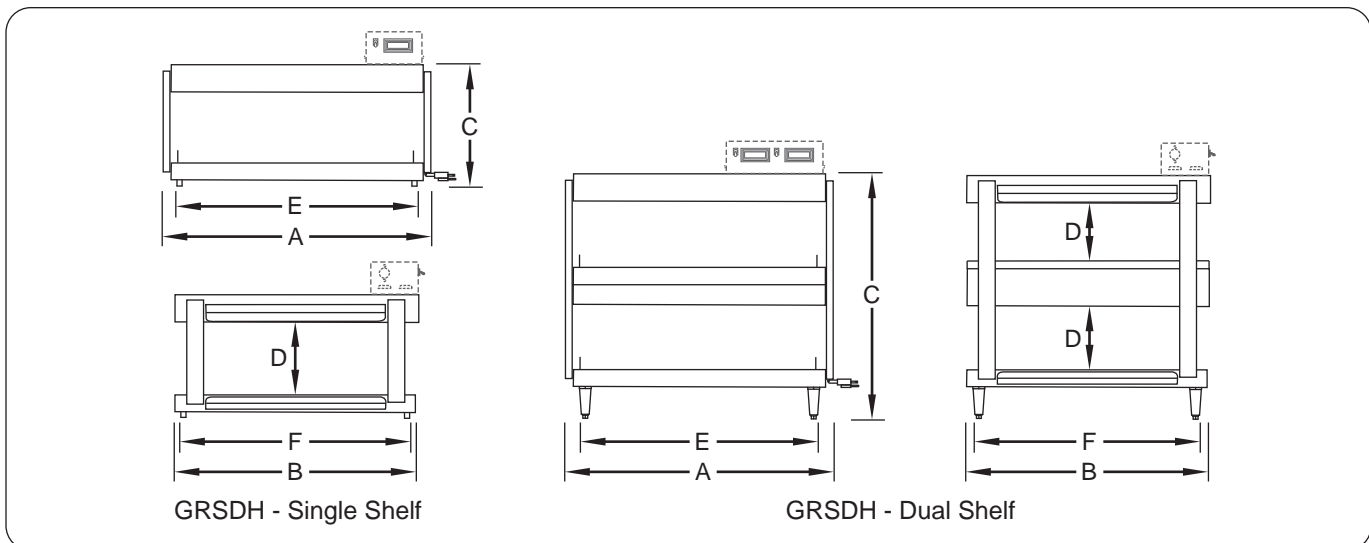


Figure 6. GRSDH Single Shelf and Dual Shelf Dimensions

Dimensions — GRSDS Models

Model	Width (A)	Depth (B)	Height (C)	Shelf Height (D)	Footprint Width (E)	Footprint Depth (F)
GRSDS-24	24" (610 mm)	24-1/4" (614 mm)	18-5/8"† (473 mm)	8-1/4" (210 mm)	21-1/2" (546 mm)	22-1/2" (572 mm)
GRSDS-30	30" (762 mm)	24-1/4" (614 mm)	18-5/8"† (473 mm)	8-1/4" (210 mm)	27-1/2" (699 mm)	22-1/2" (572 mm)
GRSDS-36	36" (914 mm)	24-1/4" (614 mm)	21-1/2"♦ (546 mm)	8-1/4" (210 mm)	33-1/2" (851 mm)	22-1/2" (572 mm)
GRSDS-41	41" (1041 mm)	24-1/4" (614 mm)	21-1/2"♦ (546 mm)	8-1/4" (210 mm)	38-1/2" (978 mm)	22-1/2" (572 mm)
GRSDS-52	52" (1321 mm)	24-1/4" (614 mm)	21-1/2"♦ (546 mm)	8-1/4" (210 mm)	49-1/2" (1257 mm)	22-1/2" (572 mm)
GRSDS-60	60" (1524 mm)	24-1/4" (614 mm)	21-1/2"♦ (546 mm)	8-1/4" (210 mm)	57-1/2" (1461 mm)	22-1/2" (572 mm)
GRSDS-24D	24" (610 mm)	24-1/4" (614 mm)	32-3/8"♦ (822 mm)	8-1/4" (210 mm)	21-1/2" (546 mm)	22-1/2" (572 mm)
GRSDS-30D	30" (762 mm)	24-1/4" (614 mm)	32-3/8"♦ (822 mm)	8-1/4" (210 mm)	27-1/2" (699 mm)	22-1/2" (572 mm)
GRSDS-36D	36" (914 mm)	24-1/4" (614 mm)	32-3/8"♦ (822 mm)	8-1/4" (210 mm)	33-1/2" (851 mm)	22-1/2" (572 mm)
GRSDS-41D	41" (1041 mm)	24-1/4" (614 mm)	32-3/8"♦ (822 mm)	8-1/4" (210 mm)	38-1/2" (978 mm)	22-1/2" (572 mm)
GRSDS-52D	52" (1321 mm)	24-1/4" (614 mm)	32-3/8"♦ (822 mm)	8-1/4" (210 mm)	49-1/2" (1257 mm)	22-1/2" (572 mm)
GRSDS-60D	60" (1524 mm)	24-1/4" (614 mm)	32-3/8"♦ (822 mm)	8-1/4" (210 mm)	57-1/2" (1461 mm)	22-1/2" (572 mm)

† Add 3" (76mm) to height when using 4" (102mm) legs.

♦ Height includes 4" (102 mm) legs attached.

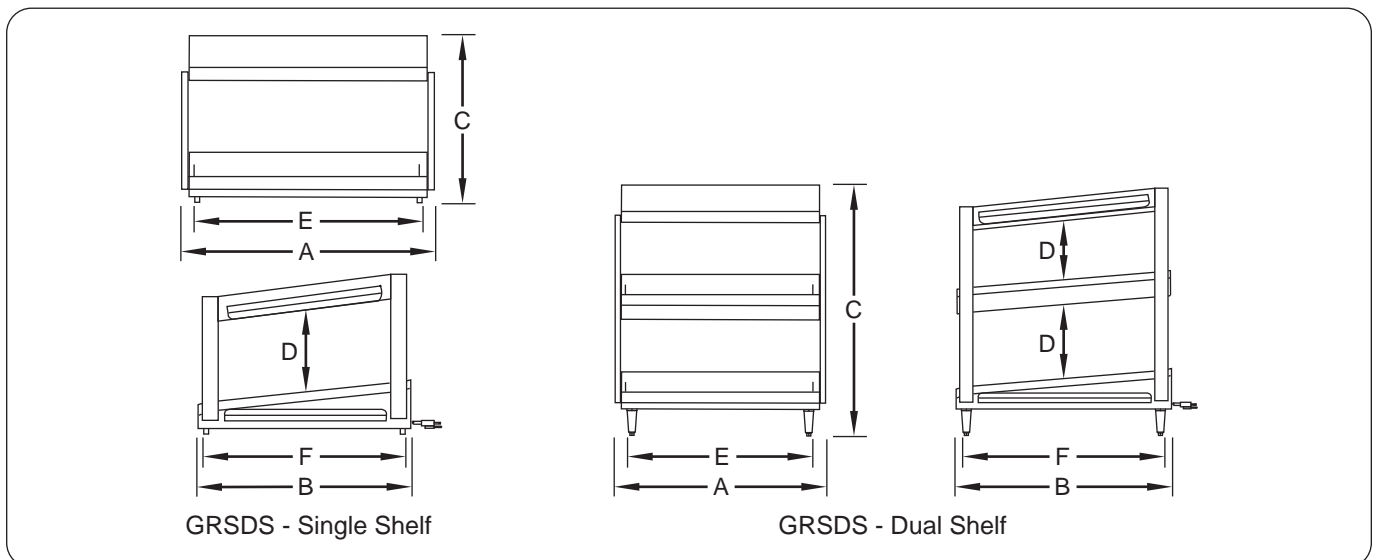


Figure 7. GRSDS Single Shelf and Dual Shelf Dimensions

SPECIFICATIONS

Dimensions — GRSDS Models, Slant Triple Shelf

Model	Width (A)	Depth (B)	Height (C)♦	Footprint Width (D)	Footprint Depth (E)
GRSDS-24T	24" (610 mm)	24-1/4" (614 mm)	43-7/8" (1114 mm)	21-1/2" (546 mm)	22-3/4" (578 mm)
GRSDS-36T	36" (914 mm)	24-1/4" (614 mm)	43-7/8" (1114 mm)	33-1/2" (851 mm)	22-3/4" (578 mm)

♦ Height includes 4" (102 mm) legs attached.

Dimensions — GRSDS/H Models

Model	Width (A)	Depth (B)	Height (C)♦	Top Shelf Height (D)*	Base Shelf Height (E)	Footprint Width (F)	Footprint Depth (G)
GRSDS/H-30D	30" (762 mm)	24-1/4" (614 mm)	33-1/2" (851 mm)	12" (305 mm)	10-3/8" (264 mm)	27-1/2" (699 mm)	22-1/2" (572 mm)
GRSDS/H-36D	36" (914 mm)	24-1/4" (614 mm)	33-1/2" (851 mm)	12" (305 mm)	10-3/8" (264 mm)	33-1/2" (851 mm)	22-1/2" (572 mm)
GRSDS/H-41D	41" (1041 mm)	24-1/4" (614 mm)	33-1/2" (851 mm)	12" (305 mm)	10-3/8" (264 mm)	38-1/2" (978 mm)	22-1/2" (572 mm)
GRSDS-30DHW	30" (762 mm)	24-1/4" (614 mm)	33-1/2" (851 mm)	12" (305 mm)	10-3/8" (264 mm)	27-1/2" (699 mm)	22-1/2" (572 mm)
GRSDS-36DHW	36" (914 mm)	24-1/4" (614 mm)	33-1/2" (851 mm)	12" (305 mm)	10-3/8" (264 mm)	33-1/2" (851 mm)	22-1/2" (572 mm)
GRSDS-41DHW	41" (1041 mm)	24-1/4" (614 mm)	33-1/2" (851 mm)	12" (305 mm)	10-3/8" (264 mm)	38-1/2" (978 mm)	22-1/2" (572 mm)

♦ Height includes 4" (102 mm) legs attached.

* Optional 15" (381 mm) spacing adds 3" (76 mm) of height to unit.

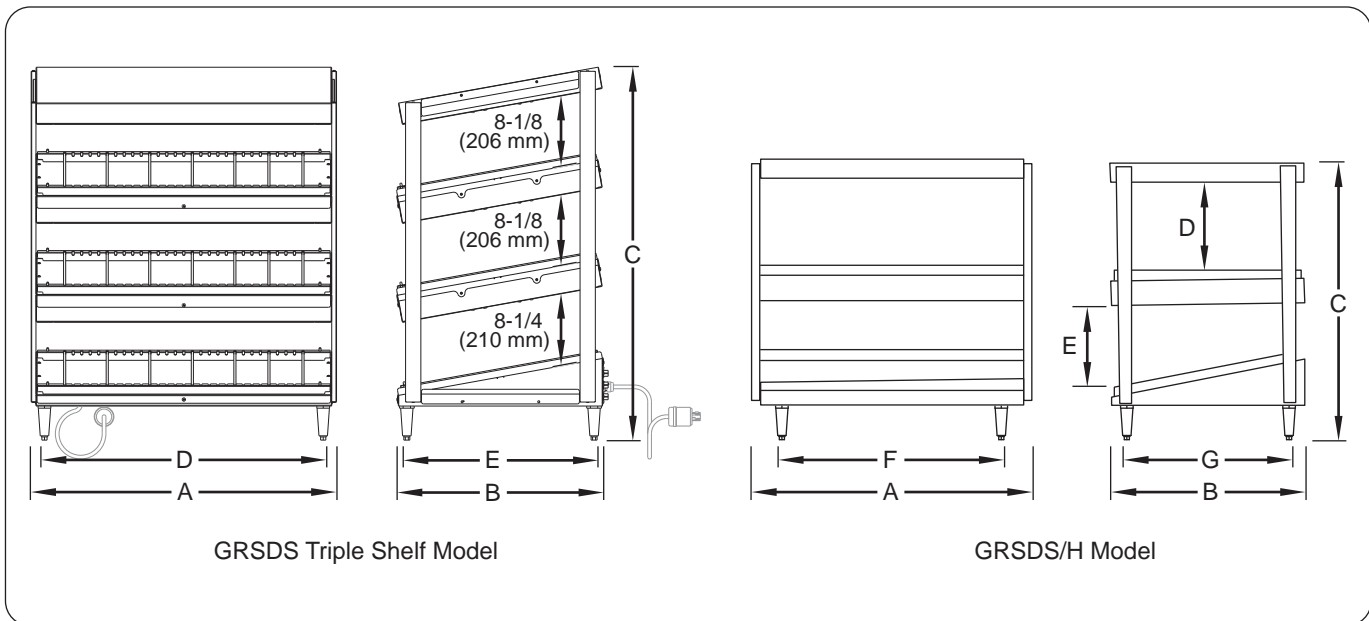


Figure 8. GRSDS Triple Shelf and GRSDS/H Dimensions

General

Glo-Ray® Merchandising Display Warmers are shipped with most components pre-assembled. Care should be taken when unpacking shipping carton to avoid damage to the unit and components enclosed.

⚠ WARNING

ELECTRIC SHOCK HAZARD: Unit is not weatherproof. Locate unit indoors where ambient air temperature is a minimum of 70°F (21°C).

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

⚠ CAUTION

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

1. Remove the unit from the carton.

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

2. Remove tape and protective packaging from all surfaces of the unit.

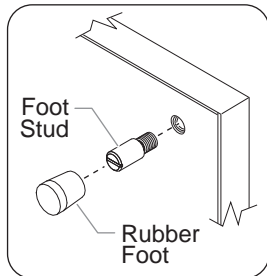
NOTICE

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

3. Carefully lay the unit on its side and install the four rubber feet.

- Thread a foot stud into the hole at each corner on the bottom of the unit. Tighten securely.
- Slip a rubber foot over each foot stud.

NOTE: If 4" (102 mm) legs are required, refer to the OPTIONS AND ACCESSORIES section in this manual for installation instructions. 4" legs are standard on models 36" (1041 mm) and wider.



4. Slide each glass side panel into the upper channel, then lower the panel into the lower channel.

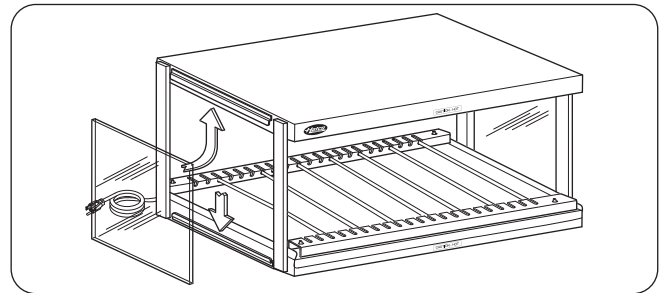


Figure 9. Glass Side Panel Installation

5. Install the channel dividers and product divider rods.

- Position the channel dividers onto the locator pins on the front edge and back edge of the unit.
- Place the product divider rods into the channel dividers. The rods can be adjusted easily to separate holding areas as needed.

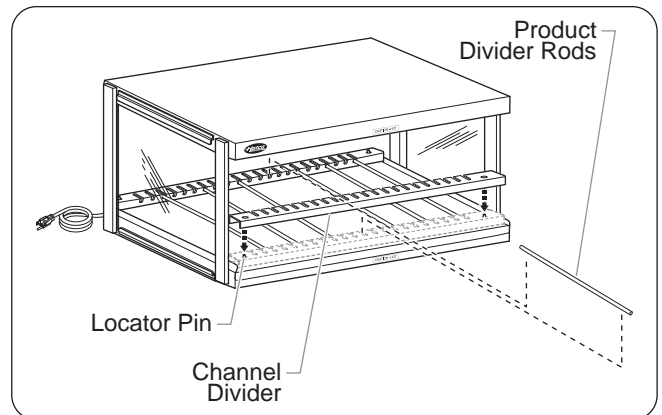


Figure 10. Installing Product Divider Rods

NOTE: Unit must be transported in the upright position.

6. Place the unit in the desired location.

- Locate the unit in an area where the ambient air temperature is constant and a minimum of 70° F (21° C). Avoid areas that may be subject to active air movements or currents (i.e., near exhaust fans/hoods and air conditioning ducts).
- 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.

OPERATION

General

Use the following procedures to operate the Merchandising Display Warmers.



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

Do not place food product directly onto hardcoat surface. Food product must be wrapped, boxed, or on a food pan.



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.

Startup

1. Plug the unit into a properly grounded electrical outlet of the correct voltage, size, and plug configuration. See the SPECIFICATIONS section for details.
2. Move the Power ON/OFF switch(es) to the ON position.
 - The overhead strip heaters and overhead lights will turn on.
 - The heated base(s) will energize.

NOTE: All Power ON/OFF switches must be in the ON position for the heated base(s) to function.



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

3. Turn the Temperature Control(s) to the desired temperature setting between LOW and HIGH. The operating temperature range of the heated base(s) is from room temperature to approximately 185°–200°F (85°–93°C).

- Turning the Temperature Control clockwise will increase the temperature setting. Turning the Temperature Control counterclockwise will decrease the temperature setting.

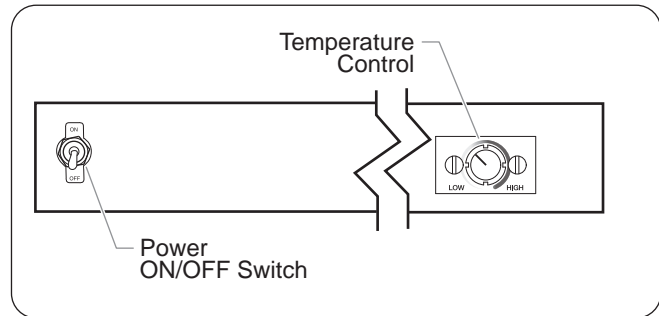


Figure 11. Controls

NOTE: If the unit is equipped with a Digital Temperature Controller(s) instead of the standard Temperature Control knob(s), see the OPTIONS AND ACCESSORIES section for operation instructions.

4. Allow the unit 30 minutes to reach operating temperature before placing preheated food product.

Shutdown

1. Move the Power ON/OFF switch to the OFF position. The overhead strip heaters, overhead lights, and heated base(s) will shut off.

General

Hatco Glo-Ray® Merchandising Display Warmers 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, setup, 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.
- Do not steam clean or use excessive water on unit.
- Do not clean unit when it is energized or hot.

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.

Cleaning

To preserve the finish of the unit as well as maintain performance, it is recommended that the unit be cleaned daily.

NOTICE

Clean unit daily to avoid malfunctions and maintain sanitary operation.

IMPORTANT—DO NOT use paper towel or glass cleaner to clean plastic surfaces such as sneeze guards and flip-up doors. Paper towel and glass cleaner may scratch the material. Wipe off plastic surfaces using a soft, clean, water-dampened cloth.

1. Turn off the unit, unplug the power cord, and allow the unit to cool.
2. Remove and wipe down the product dividers.
3. Wipe down all exterior and interior surfaces using a water-dampened cloth. A non-abrasive cleaner may be used for difficult stains. Hard to reach areas should be cleaned using small brush and mild soap.
4. Clean the glass side panels using a standard glass cleaner.
5. Clean the plastic sneeze guards and flip-up doors (if equipped) using soft cleaning cloths, mild soap, and water, if equipped. **NOTICE: Do not use paper towel or glass cleaner on plastic surfaces — scratching may occur.**

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

1. Turn off the unit, unplug the power cord, and allow the unit to cool.
2. Unscrew the light bulb from the unit and replace it with a new, specially-coated incandescent light bulb.

NOTE: Hatco shatter-resistant light bulbs meet NSF standards for food holding and display areas. For 120 and 120/208–240 V applications, use Hatco P/N 02.30.043.00. For 200, 220, 240, 220–230 and 230–240 V applications, use Hatco P/N 02.30.058.00.

NOTE: Shatter-resistant halogen bulbs are available in place of the standard incandescent bulbs. Halogen bulbs have a special coating to guard against injury and food contamination in the event of breakage. For 120 and 120/208–240 V applications, use Hatco P/N 02.30.081.00. For 220, 240, 220–230, and 230–240 V applications use Hatco P/N 02.30.082.00.

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



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



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

Symptom	Probable Cause	Corrective Action
Light bulb not working.	Light bulb defective.	Replace light bulb.
	Power turned OFF.	Move Power ON/OFF switch(es) to the ON position.
Food cavity not hot enough.	Temperature Control set too low.	Adjust Temperature Control to a higher setting.
	Heating element(s) not working.	Contact Authorized Service Agent or Hatco for assistance.
	Temperature Control not working properly.	Contact Authorized Service Agent or Hatco for assistance.
	Excessive air movement around unit.	Restrict or redirect air movement (i.e., air conditioning duct or exhaust fan) away from unit or install flip-up doors on unit to contain heat and block air flow.
	Unit connected to incorrect power supply.	Contact Authorized Service Agent or Hatco for assistance.
Food cavity too hot.	Temperature Control set too high.	Adjust Temperature Control to a lower setting.
	Temperature Control not working properly.	Contact Authorized Service Agent or Hatco for assistance.
	Unit connected to incorrect power supply.	Contact Authorized Service Agent or Hatco for assistance.
No heat, but light works.	Temperature Control set too low.	Adjust Temperature Control to a higher setting.
	Heating element(s) not working.	Contact Authorized Service Agent or Hatco for assistance.
	Temperature Control not working properly.	Contact Authorized Service Agent or Hatco for assistance.
No heat and no light.	Power turned OFF.	Move Power ON/OFF switch(es) to the ON position.
	Circuit breaker tripped.	Reset circuit breaker. If circuit breaker continues to trip, contact Authorized Service Agent or Hatco for assistance.

Digital Temperature Controller

Units may be equipped with an optional digital temperature controller that regulates and displays the base temperature(s). Use the following procedures to operate the digital temperature controller.

NOTE: This option is factory installed only, not available for retrofit.

NOTE: Units manufactured for use outside the United States and Canada will have digital temperature controllers that indicate temperature in Celsius (°C).

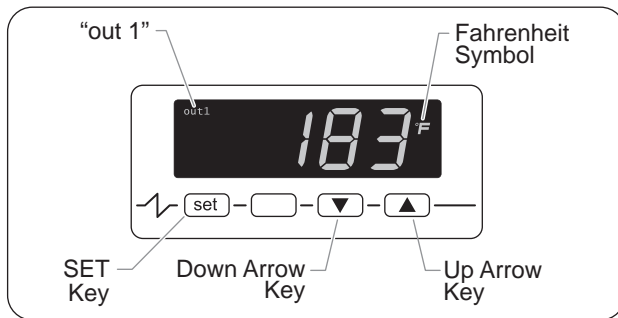


Figure 12. Digital Temperature Controller

1. Move the unit Power ON/OFF switch(es) to the ON position.
 - The digital temperature controller will energize and the current temperature of the heated base(s) will appear on the display. **CAUTION: Some exterior surfaces on the unit will get hot. Use caution when touching these areas.**
 - The phrase “out 1” will appear in the upper left corner of the display to show that the base is in heat mode.
2. Press and release the **set** key. The current setpoint temperature will be shown on the display and “out 1” will flash in the upper left corner.
3. Press the **▲** key or **▼** key within 15 seconds to change the setpoint temperature. If no key is pressed within 15 seconds, the display will revert to the current temperature of the heated base(s)
4. Press the **set** key or wait 15 seconds to lock in the new setpoint temperature. The setpoint temperature range of the controller is from room temperature to the maximum operating temperature of the unit.

Locking/Unlocking the Digital Temperature Controller

The keys on the digital temperature controller can be locked to prevent unauthorized changes to the settings.

To lock the keys of the digital temperature controller:

- Press and hold both the **set** key and **▼** key at the same time for over two seconds. The message “Loc” will appear on the display.

To unlock the keys of the digital temperature controller:

- Press and hold both the **set** key and **▼** key at the same time until the message “UnL” appears on the display.

Sneeze Guards

Optional sneeze guards are available for the all models. GRSDH models can be fitted with sneeze guards above each shelf on both sides of the unit. GRSDS and GRSDS/H models can be fitted with sneeze guards above each shelf on the customer side of the unit only. Use the following procedure to install sneeze guards.

1. Remove the screws from the face of the unit that align with the holes in the sneeze guard.
2. Align the holes on the sneeze guard with the screw holes on the unit.
3. Insert the screws removed in step #1 through the sneeze guard and into the unit.
4. Tighten the screws until the sneeze guard is secure. Do not over-tighten the screws.

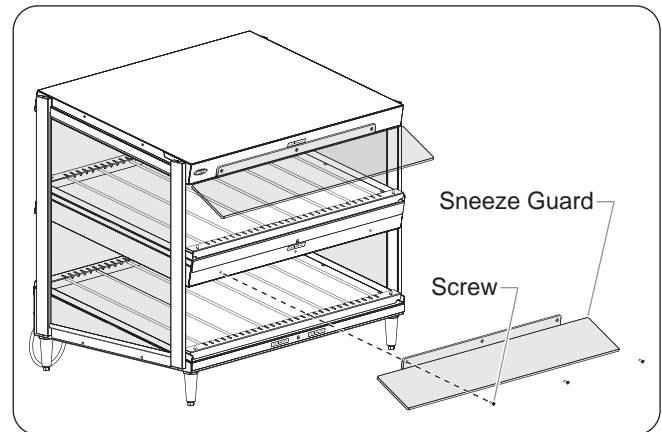


Figure 13. GRSDS Model Sneeze Guard Installation

Display Sign Holder

A display sign holder (sign not included) is available for installation on the top or intermediate shelf. The sign holder is installed by simply attaching the magnetic side of the sign holder to the desired shelf.

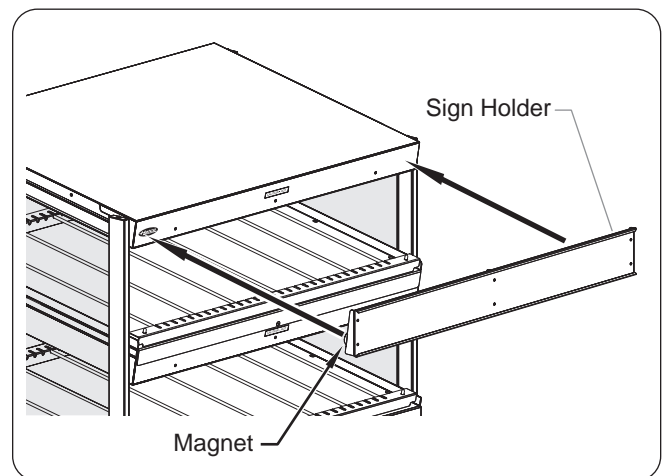


Figure 14. Display Sign Holder

OPTIONS AND ACCESSORIES

4" (102 mm) Adjustable Legs

NOTICE

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

Carefully lay unit on its side. Install legs to bottom of unit. Hand-tighten legs until snug. Do not over-tighten. Return unit to the upright position.

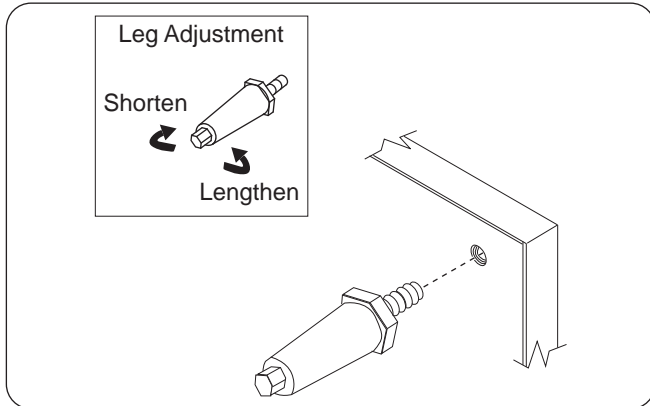


Figure 15. Leg Installation

NOTE: Legs are adjustable for leveling the unit. Use a 5/8" (16 mm) open-end wrench to make leveling adjustments once the unit is placed in final position.

Stainless Steel End Panels

Stainless steel end panels are factory installed options in place of the glass end panels.

Halogen Display Lights

Optional halogen display light bulbs can be ordered in place of the standard incandescent display light bulbs.

Flip-Up Door Locking Plates

Flip-up door locking plates are factory installed and are available as options for GRSDS-XX and GRSDS-XXD models. Flip-up door locking plates allow access to the server side only.

Flip-Up Doors

Flip-up doors are available as accessories for all models. The doors can be installed to each shelf on either the customer side or operator side of the unit. Use the following procedure to install flip-up doors (the procedure is the same for either side as well as each shelf).

1. Remove the two screws from the element end cover above the desired shelf on each side of the unit.
2. Align the holes on the mounting brackets with the screw holes on the element end covers of the unit.
3. Insert the screws removed in step 1 through the mounting brackets and into the unit. Tighten securely.
4. Place a spacer on each hinge screw (both included with door).
5. Align the screw holes at each end of the channel on the flip-up door with the hole on each mounting bracket.
6. Insert a hinge screw with spacer through each mounting bracket and into the flip-up door.
7. Tighten the hinge screws until the flip-up door is secure. Make sure the spacers on the hinge screws go through the holes in the mounting brackets. Do not over-tighten the screws.

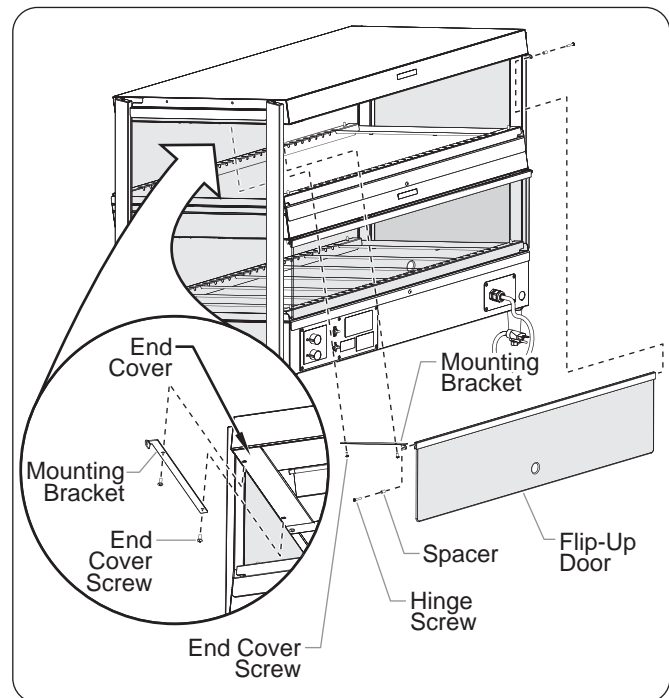


Figure 16. Flip-Up Door Installation

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 — HWB, HWBI, and HWBI-S Series (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

- d) **Ninety (90) Day Parts-Only 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, 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, at Hatco's option, to repair or replacement using new or refurbished parts or Product by Hatco or 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. 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.

HATCO AUTHORIZED PARTS DISTRIBUTORS

ALABAMA

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

ARIZONA

Service Solutions Group
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

3Wire 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
Mableton 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

Service Solutions Group
Lexington 859-254-8854

Service Solutions Group
Louisville 502-451-5411

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

Bildons Appliance Service
Detroit 248-478-3320

Commercial Kitchen Service
Bay City 517-893-4561

Midwest Food Equip. Service
Grandville 616-261-2000

MINNESOTA

GCS Service
Plymouth 800-345-4221

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

Duffy's Equipment Services, Inc.
Buffalo 800-836-1014

3Wire Northern
Plattsburgh 800-634-5005

Duffy's Equipment Services, Inc.
Sauquoit 800-836-1014

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

Service Solutions Group
Cincinnati 513-772-6600

Commercial Parts and Service
Columbus 614-221-0057

Electrical Appl. Repair Service
Brooklyn Heights 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 888-866-9276

Refrigerated Specialist, Inc.
Mesquite 888-866-9276

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

3Wire Restaurant Appliance
Seattle 800-207-3146

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, Inc.
Ottawa 613-739-8458

QUÉBEC

Choquette - CKS, Inc.
Montreal 514-722-2000

Choquette - CKS, Inc.
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

partsandservice@hatcocorp.com

www.hatcocorp.com

Register your unit online!

See IMPORTANT OWNER INFORMATION
section for details.