



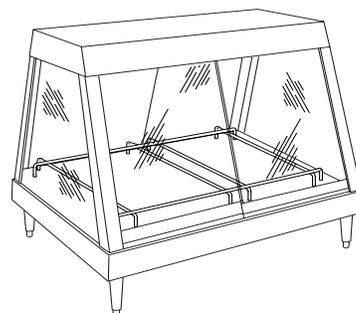
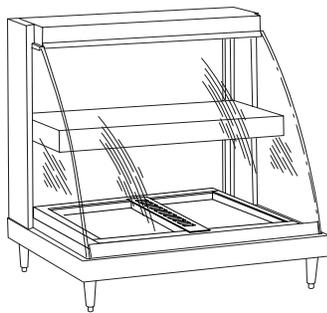
GLO-RAY[®]

Heated Display Cases

GRCD & GRHD Series

Installation & Operating Manual

I & W #07.05.080.00



This manual contains important safety information concerning the maintenance, use and operation of this product. Failure to follow the instructions contained in this manual may result in serious injury. If you are unable to understand the contents of this manual, please bring it to the attention of your supervisor. Do not operate this equipment unless you have read and understood the contents of this manual.

Este manual contiene importante información sobre seguridad concerniente al mantenimiento, uso y operación de este producto. Cualquier falla en el seguimiento de las instrucciones contenidas en este manual puede resultar en un serio daño. Si usted no puede entender el contenido de este manual por favor pregunte a su supervisor. No opere este equipo al menos que haya leído y comprendido el contenido de este manual.

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IMPORTANT OWNER INFORMATION

Record the model number, serial number (located on the back of the unit), voltage and purchase date of your Glo-Ray® Heated Display Case in the spaces below. Please have this information available when calling Hatco for service assistance.

Model No. _____
Serial No. _____
Voltage _____
Date of Purchase _____

Business Hours: 8:00 a.m. to 5:00 p.m.
Central Standard Time
(Summer Hours: June to September –
8:00 a.m. to 5:00 p.m. C.D.T.
Monday through Thursday
8:00 a.m. to 2:30 p.m. C.D.T. Friday)
Telephone: (800) 558-0607; (414) 671-6350
Parts & Service Fax: (800) 690-2966
(414) 671-3976 (International)
Additional information can be found by visiting our
web site at www.hatcocorp.com.

INTRODUCTION

Hatco Glo-Ray Heated Display Cases are designed to hold prepared foods for prolonged periods of time while maintaining that “just made” quality. Hatco Display Cases provide the best environment for food products by regulating the air temperature. Display models equipped with humidity control also balance the humidity level. The use of controlled heat maintains serving temperature and texture longer than conventional holding equipment.

Glo-Ray Heated Display Cases keep all foods at optimum serving temperatures without affecting quality. These Glo-Ray warmers have prefocused infrared heat from above and a thermostatically controlled heated base to extend the holding times of most foods.

This manual provides the installation, safety and operating instructions for the Glo-Ray Heated

Display Cases. We recommend all installation, operating and safety instructions appearing in this manual be read prior to installation or operation of your Hatco Heated Display Case. Safety instructions that appear in this manual after a warning symbol  and the words **WARNING** or **CAUTION** printed in bold face are very important.  **WARNING** means there is the possibility of serious injury or death to yourself or others.  **CAUTION** means there is the possibility of minor or moderate injury. **CAUTION** *without the symbol* signifies the possibility of equipment or property damage only.

Your Hatco Glo-Ray Heated Display Case is a product of extensive research and field testing. The materials used were selected for maximum durability, attractive appearance and optimum performance. Every unit is thoroughly inspected and tested prior to shipment.

IMPORTANT SAFETY INSTRUCTIONS

IMPORTANT! Read the following important safety instructions to avoid personal injury or death, and to avoid damage to the equipment or property.

⚠ WARNINGS

- ⚠ To avoid any injury, turn the power switch OFF, unplug the unit from the power source and allow to cool before performing any maintenance.
- ⚠ Plug unit into a properly grounded electrical outlet of the correct voltage, size and plug configuration. If the plug and receptacle do not match, contact a qualified electrician to determine the proper voltage and size and install the proper electrical outlet.
- ⚠ Only light bulbs which meet or exceed N.S.F standards, specifically designed for food holding areas must be used. Breakage of light bulbs not specifically coated could result in personal injury and/or food contamination.
- ⚠ Unit is not waterproof. To avoid electrical shock or personal injury, DO NOT submerge in water. Do not operate if it has been submerged in water.
- ⚠ To avoid electrical shock or personal injury, do not steam clean or use excessive water on the unit.
- ⚠ To prevent any injury or damage to the unit do not pull unit by power cord.
- ⚠ To prevent any injury, discontinue use if power cord is frayed or worn.
- ⚠ To prevent any injury, do not place food directly on glass or stainless steel surfaces. Food product must be wrapped or boxed.
- ⚠ To avoid any injury, on GRCD-PDG and GRCDH-PDG series units do not allow liquids to spill onto the heated glass shelf.
- ⚠ To avoid any injury, on GRCD-PDG and GRCDH-PDG series units do not clean heated glass shelf when unit is energized or hot.

⚠ CAUTIONS

- ⚠ Some exterior surfaces on the unit will get hot. Use caution when touching these areas to avoid injury.
- ⚠ For safe and proper operation, the unit must be located a reasonable distance from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.
- ⚠ To prevent any injury or damage locate the unit at the proper counter height, in an area that is convenient for use. The location should be level to prevent the unit or its contents from accidentally falling, and strong enough to support the weight of the unit and food displayed.
- ⚠ The unit must be transported in an upright position. If laid on its side, all glass surfaces, pans rails and skirts must be secured with tape, and water must be removed from humidified units.
- ⚠ The National Sanitation Foundation (NSF) requires units over 36" (914 mm) in length or weighing more than 80 lbs. (36 kg) to be either sealed or raised on the installation surface. If this unit cannot be sealed at the point of use, 4" (102 mm) legs are included to allow for proper cleaning access below unit.
- ⚠ Unit is not weatherproof. For safe and proper operation locate the unit indoors where the ambient air temperature is constant and is a minimum of 70°F (21°C).
- ⚠ To avoid any injury on GRCD-PDG and GRCDH-PDG series units do not come in contact with the heated glass shelf while unit is in operation.

IMPORTANT SAFETY INSTRUCTIONS

IMPORTANT! Read the following important safety instructions to avoid personal injury or death, and to avoid damage to the equipment or property.

⚠ WARNINGS

- ⚠ If service is required on this unit, contact your 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.**
- ⚠ This product has no “user” serviceable parts. To avoid damage to the unit or injury to personnel, use only Authorized Hatco Service Agents and Genuine Hatco Parts when service is required.**
- ⚠ 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. It is essential to use Hatco Replacement Parts when repairing Hatco equipment. Failure to use Hatco Replacement Parts may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn.**

CAUTIONS

- Do not lay unit on the side with the control panel or the front of a curved glass unit, damage to unit could occur.**
- To avoid damage to glass do not remove rubber shipping tabs or tape from glass until legs have been installed.**
- Use only non-abrasive cleaners. Abrasive cleaners could scratch the finish of your Glo-Ray Heated Display Case, marring its appearance and making it susceptible to dirt accumulation.**
- Do not allow the glass shelf to overheat on GRCD-PDG and GRCDH-PDG series units. Overheating may cause the food containers to melt or soften.**
- Do not use food pans, ceramic dishes, or abrasive materials on heated glass shelves. Food pans, ceramic dishes, and abrasive materials may scratch the glass shelf marring its appearance and making it susceptible to dirt accumulation. It is recommended that glass shelves be used for food products contained in disposable paper or plastic containers or wrapping.**

MODEL DESCRIPTIONS

ALL GRCD MODELS

All GRCD models are constructed of stainless steel and aluminum with a tempered curved front glass panel and glass sides. The display cases feature a specially designed thermostatically controlled heated base, infrared upper heating elements, incandescent lights, 4" (102 mm) appliance legs, and a cord and plug set.

GRCD-1P (Single Tier)

The GRCD-1P is designed to hold up to one standard full size food pan. The unit has one hinged door.

GRCD-1PD (Dual Tier)

The GRCD-1PD is designed to hold up to one half size or two 1/3 size standard food pans on the top stainless steel shelf, and one standard full size food pan on the bottom. The unit has one hinged door.

GRCD-2P (Single Tier)

The GRCD-2P is designed to hold up to two standard full size food pans. The unit has two sliding rear doors.

GRCD-2PD (Dual Tier)

The GRCD-2PD is designed to hold up to one full size plus a 1/3 size standard food pan on the top stainless steel shelf, and two standard full size food pans on the bottom. The unit has two sliding rear doors.

GRCD-2PDG (Dual Tier)

The GRCD-2PDG features an upper heated glass shelf designed to hold hot wrapped or boxed food and a lower heated base that holds two standard full size food pans. The unit has two sliding rear doors.

GRCD-3P (Single Tier)

The GRCD-3P is designed to hold three standard full size food pans. The unit has two sliding rear doors.

GRCD-3PD (Dual Tier)

The GRCD-3PD is designed to hold up to two full size standard food pans on the top stainless steel shelf and three standard food pans on the bottom. The unit has two sliding rear doors.

GRCD-3PDG (Dual Tier)

The GRCD-3PDG features an upper heated glass shelf designed to hold hot wrapped or boxed food and a lower heated base that holds three standard full size food pans. The unit has two sliding rear doors.

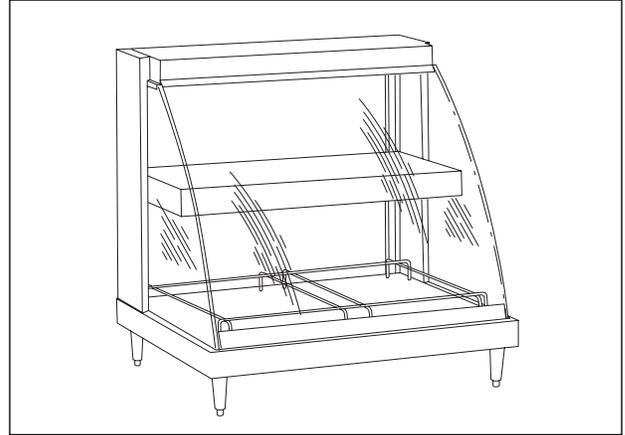


Figure 1. Glo-Ray Model GRCD-2PD Shown

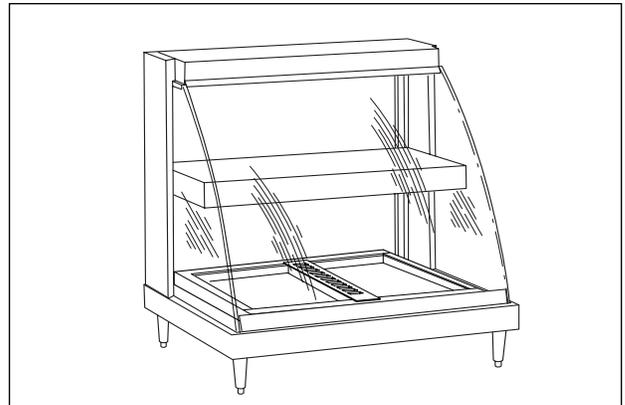


Figure 2. Glo-Ray Model GRCDH-2PD Shown

GRCDH SERIES (Humidified)

The GRCDH Models (Humidified) are similar to the GRCD Models (Non-Humidified) listed above but come equipped with a thermostatically-controlled, adjustable humidity system. A 3 quart (2.8 liter) capacity heated water trough in the base provides humidity to extend food holding time up to four hours.

NOTE: GRCD models cannot be converted to GRCDH models.

MODEL DESCRIPTIONS

ALL GRHD MODELS

All GRHD models are constructed of stainless steel and aluminum with sliding doors on the back side, and full view tempered glass sides. The display cases feature a thermostatically controlled heated base, infrared upper heating elements, incandescent lights, 4" (102 mm) appliance legs, and a cord and plug set.

GRHD-2P (Single Tier)

The GRHD-2P is designed to hold up to two standard, full size food pans.

GRHD-2PD (Dual Tier)

The GRHD-2PD is designed to hold two half size standard food pans on the top shelf and two standard full size food pans on the bottom.

GRHD-3P (Single Tier)

The GRHD-3P is designed to hold three standard food pans.

GRHD-3PD (Dual Tier)

The GRHD-3PD is designed to hold three half size standard food pans on the top shelf and three standard food pans on the bottom.

GRHD-4P (Single Tier)

The GRHD-4P is designed to hold four standard food pans.

GRHD-4PD (Dual Tier)

The GRHD-4PD is designed to hold four half size standard food pans or two full size standard food pans on the top shelf, and four standard food pans on the bottom.

GRHDH MODELS (Humidified)

The GRHDH Models (Humidified) are similar to the GRHD Models (Non-Humidified) but come equipped with a thermostatically controlled, adjustable humidity system. A 3 or 6 quart (2.8 or 5.7 liter) capacity heated water trough in the base provides humidity to extend food holding time up to four hours.

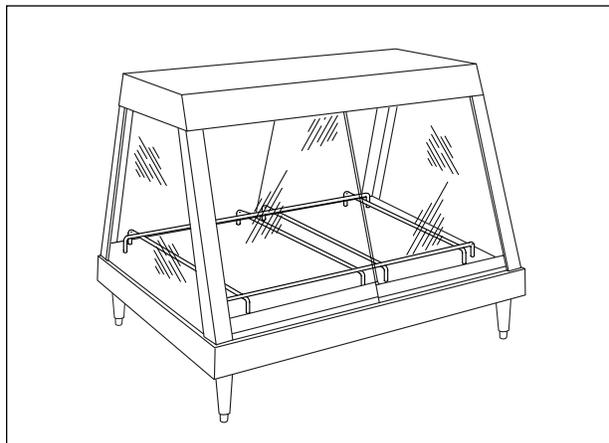


Figure 3. Glo-Ray Model GRHD-2P Shown

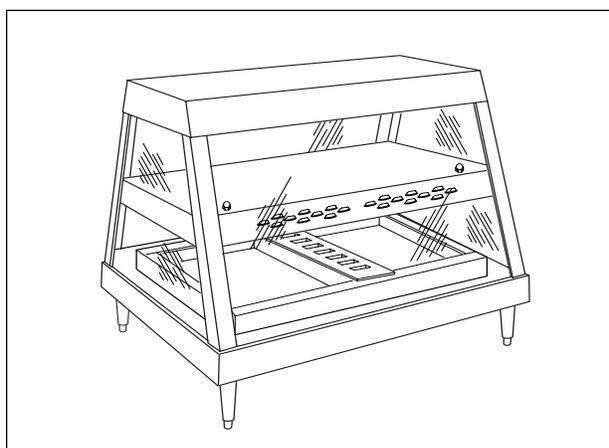


Figure 4. Glo-Ray Model GRHDH-2PD Shown

NOTE: GRHDH models are equipped with humidity on the bottom shelf only.

NOTE: GRHD models cannot be converted to GRHDH models.

SPECIFICATIONS

ELECTRICAL RATING CHART - GRCD MODELS

| Model | Voltage | Watts | Amps | Plug Configuration | Shipping Weight |
|-----------|-----------|-------|------|--------------------|------------------|
| GRCD-1P | 100 | 410 | 4.1 | NEMA 5-15P | 60 lbs. (27 kg) |
| | 120 | 410 | 3.4 | NEMA 5-15P | 60 lbs. (27 kg) |
| | 220-230CE | 443 | 1.9 | CEE 7/7 Schuko | 60 lbs. (27 kg) |
| | 220 | 405 | 1.8 | CEE 7/7 Schuko | 60 lbs. (27 kg) |
| | 230-240CE | 425 | 1.8 | BS 1363 | 60 lbs. (27 kg) |
| | 240 | 425 | 1.8 | BS 1363 | 60 lbs. (27 kg) |
| GRCD-1PD | 100 | 860 | 8.6 | NEMA 5-15P | 98 lbs. (45 kg) |
| | 120 | 860 | 7.2 | NEMA 5-15P | 98 lbs. (45 kg) |
| | 220-230CE | 989 | 4.3 | CEE 7/7 Schuko | 98 lbs. (45 kg) |
| | 220 | 905 | 4.1 | CEE 7/7 Schuko | 98 lbs. (45 kg) |
| | 230-240CE | 905 | 3.8 | BS 1363 | 98 lbs. (45 kg) |
| | 240 | 905 | 3.8 | BS 1363 | 98 lbs. (45 kg) |
| GRCD-2P | 100 | 780 | 7.8 | NEMA 5-15P | 104 lbs. (47 kg) |
| | 120 | 780 | 6.5 | NEMA 5-15P | 104 lbs. (47 kg) |
| | 220-230CE | 776 | 3.4 | CEE 7/7 Schuko | 104 lbs. (47 kg) |
| | 220 | 710 | 3.2 | CEE 7/7 Schuko | 104 lbs. (47 kg) |
| | 230-240CE | 780 | 3.3 | BS 1363 | 104 lbs. (47 kg) |
| | 240 | 780 | 3.3 | BS 1363 | 104 lbs. (47 kg) |
| GRCD-2PD | 100 | 1210 | 12.1 | NEMA 5-15P | 170 lbs. (77 kg) |
| | 120 | 1210 | 10.1 | NEMA 5-15P* | 170 lbs. (77 kg) |
| | 220-230CE | 1177 | 5.1 | CEE 7/7 Schuko | 170 lbs. (77 kg) |
| | 220 | 1077 | 4.9 | CEE 7/7 Schuko | 170 lbs. (77 kg) |
| | 230-240CE | 1285 | 5.4 | BS 1363 | 170 lbs. (77 kg) |
| | 240 | 1285 | 5.4 | BS 1363 | 170 lbs. (77 kg) |
| GRCD-2PDG | 120 | 1130 | 9.4 | NEMA 5-15P♦ | 170 lbs. (77 kg) |
| GRCD-3P | 100 | 1005 | 10.1 | NEMA 5-15P | 152 lbs. (69 kg) |
| | 120 | 1005 | 8.4 | NEMA 5-15P | 152 lbs. (69 kg) |
| | 220-230CE | 1000 | 4.4 | CEE 7/7 Schuko | 152 lbs. (69 kg) |
| | 220 | 915 | 4.2 | CEE 7/7 Schuko | 152 lbs. (69 kg) |
| | 230-240CE | 1005 | 4.2 | BS 1363 | 152 lbs. (69 kg) |
| | 240 | 1005 | 4.2 | BS 1363 | 152 lbs. (69 kg) |
| GRCD-3PD | 120 | 1710 | 14.3 | NEMA 5-15P* | 218 lbs. (99 kg) |
| | 220-230CE | 1570 | 6.8 | CEE 7/7 Schuko | 218 lbs. (99 kg) |
| | 220 | 1434 | 6.5 | CEE 7/7 Schuko | 218 lbs. (99 kg) |
| | 230-240CE | 1710 | 7.1 | BS 1363 | 218 lbs. (99 kg) |
| | 240 | 1710 | 7.1 | BS 1363 | 218 lbs. (99 kg) |
| GRCD-3PDG | 120 | 1725 | 14.3 | NEMA 5-15P♦ | 218 lbs. (99 kg) |

* NEMA 5-20P for Canada.

† Not available for Canada with Backlit Base Sign Holder.

♦ **NOTE:** GRCD-PDG series contain a GFCI (Ground Fault Circuit Interrupt) built into the unit.

■ The electrical information in the shaded areas pertains to **Export models only**.

SPECIFICATIONS

ELECTRICAL RATING CHART - GRCD MODELS

| Model | Voltage | Watts | Amps | Plug Configuration | Shipping Weight |
|------------|-----------|-------|------|--------------------|-------------------|
| GRCDH-1P | 100 | 660 | 6.6 | NEMA 5-15P | 71 lbs. (32 kg) |
| | 120 | 660 | 5.5 | NEMA 5-15P | 71 lbs. (32 kg) |
| | 220-230CE | 693 | 3.0 | CEE 7/7 Schuko | 71 lbs. (32 kg) |
| | 220 | 634 | 2.9 | CEE 7/7 Schuko | 71 lbs. (32 kg) |
| | 230-240CE | 697 | 2.9 | BS 1363 | 71 lbs. (32 kg) |
| | 240 | 697 | 2.9 | BS 1363 | 71 lbs. (32 kg) |
| GRCDH-1PD | 100 | 1038 | 10.4 | NEMA 5-15P | 100 lbs. (45 kg) |
| | 120 | 1110 | 9.3 | NEMA 5-15P | 100 lbs. (45 kg) |
| | 220-230CE | 1201 | 4.9 | CEE 7/7 Schuko | 100 lbs. (45 kg) |
| | 220 | 1099 | 5.0 | CEE 7/7 Schuko | 100 lbs. (45 kg) |
| | 230-240CE | 1177 | 4.9 | BS 1363 | 100 lbs. (45 kg) |
| | 240 | 1177 | 4.9 | BS 1363 | 100 lbs. (45 kg) |
| GRCDH-2P | 100 | 976 | 9.8 | NEMA 5-15P | 124 lbs. (56 kg) |
| | 120 | 1030 | 8.6 | NEMA 5-15P | 124 lbs. (56 kg) |
| | 220-230CE | 1026 | 4.5 | CEE 7/7 Schuko | 124 lbs. (56 kg) |
| | 220 | 939 | 4.3 | CEE 7/7 Schuko | 124 lbs. (56 kg) |
| | 230-240CE | 1052 | 4.4 | BS 1363 | 124 lbs. (56 kg) |
| | 240 | 1052 | 4.4 | BS 1363 | 124 lbs. (56 kg) |
| GRCDH-2PD | 100 | 1352 | 13.5 | NEMA 5-15P | 174 lbs. (79 kg) |
| | 120 | 1460 | 12.2 | NEMA 5-15P* | 174 lbs. (79 kg) |
| | 220-230CE | 1427 | 6.2 | CEE 7/7 Schuko | 174 lbs. (79 kg) |
| | 220 | 1306 | 5.9 | CEE 7/7 Schuko | 174 lbs. (79 kg) |
| | 230-240CE | 1532 | 6.4 | BS 1363 | 174 lbs. (79 kg) |
| | 240 | 1532 | 6.4 | BS 1363 | 174 lbs. (79 kg) |
| GRCDH-2PDG | 120 | 1380 | 11.5 | NEMA 5-15P♦ | 174 lbs. (79 kg) |
| GRCDH-3P | 100 | 1201 | 12.0 | NEMA 5-15P | 172 lbs. (78 kg) |
| | 120 | 1255 | 10.5 | NEMA 5-15P | 172 lbs. (78 kg) |
| | 220-230CE | 1251 | 5.4 | CEE 7/7 Schuko | 172 lbs. (78 kg) |
| | 220 | 1145 | 5.2 | CEE 7/7 Schuko | 172 lbs. (78 kg) |
| | 230-240CE | 1277 | 5.3 | BS 1363 | 172 lbs. (78 kg) |
| | 240 | 1277 | 5.3 | BS 1363 | 172 lbs. (78 kg) |
| GRCDH-3PD | 120 | 1960 | 16.0 | NEMA 5-20P† | 222 lbs. (101 kg) |
| | 220-230CE | 1818 | 7.9 | CEE 7/7 Schuko | 222 lbs. (101 kg) |
| | 220 | 1663 | 7.6 | CEE 7/7 Schuko | 222 lbs. (101 kg) |
| | 230-240CE | 1989 | 8.3 | BS 1363 | 222 lbs. (101 kg) |
| | 240 | 1982 | 8.3 | BS 1363 | 222 lbs. (101 kg) |
| GRCDH-3PDG | 120 | 1915 | 15.9 | NEMA 5-20P♦ | 222 lbs. (101 kg) |

* NEMA 5-20P for Canada.

† Not available for Canada with Backlit Base Sign Holder.

♦ **NOTE:** GRCD-PDG series contain a GFCI (Ground Fault Circuit Interrupt) built into the unit.

■ The electrical information in the shaded areas pertains to **Export models only**.

SPECIFICATIONS

ELECTRICAL RATING CHART - GRHD MODELS

| Model | Voltage | Watts | Amps | Plug Configuration | Shipping Weight |
|----------|-----------|-------|------|-------------------------|-------------------|
| GRHD-2P | 100 | 940 | 9.4 | NEMA 5-15P | 120 lbs. (54 kg) |
| | 120 | 940 | 7.8 | NEMA 5-15P | 120 lbs. (54 kg) |
| | 220-230CE | 1131 | 4.9 | CEE 7/7 Schuko | 120 lbs. (54 kg) |
| | 220 | 1035 | 4.7 | CEE 7/7 Schuko | 120 lbs. (54 kg) |
| | 230-240CE | 940 | 3.9 | BS 1363 | 120 lbs. (54 kg) |
| | 240 | 940 | 3.9 | BS 1363 | 120 lbs. (54 kg) |
| GRHD-2PD | 120 | 1310 | 10.9 | NEMA 5-15P | 168 lbs. (76 kg) |
| | 220-230CE | 1333 | 5.8 | CEE 7/7 Schuko | 168 lbs. (76 kg) |
| | 220 | 1220 | 5.6 | CEE 7/7 Schuko | 168 lbs. (76 kg) |
| | 230-240CE | 1310 | 5.5 | BS 1363 | 168 lbs. (76 kg) |
| | 240 | 1310 | 5.5 | BS 1363 | 168 lbs. (76 kg) |
| GRHD-3P | 120 | 1350 | 11.3 | NEMA 5-15P | 150 lbs. (68 kg) |
| | 220-230CE | 1601 | 7.0 | CEE 7/7 Schuko | 150 lbs. (68 kg) |
| | 220 | 1465 | 6.7 | CEE 7/7 Schuko | 150 lbs. (68 kg) |
| | 230-240CE | 1350 | 5.6 | BS 1363 | 150 lbs. (68 kg) |
| | 240 | 1350 | 5.6 | BS 1363 | 150 lbs. (68 kg) |
| GRHD-3PD | 120 | 1755 | 14.6 | NEMA 5-15P* | 188 lbs. (85 kg) |
| | 220-230CE | 1749 | 7.9 | CEE 7/7 Schuko | 188 lbs. (85 kg) |
| | 220 | 1600 | 7.3 | CEE 7/7 Schuko | 188 lbs. (85 kg) |
| | 230-240CE | 1755 | 7.3 | BS 1363 | 188 lbs. (85 kg) |
| | 240 | 1755 | 7.3 | BS 1363 | 188 lbs. (85 kg) |
| GRHD-4P | 120 | 1785 | 14.9 | NEMA 5-15P* | 215 lbs. (98 kg) |
| | 120/208 | 1785 | 7.7 | NEMA 14-20P | 215 lbs. (98 kg) |
| | 120/240 | 1785 | 7.7 | NEMA 14-20P | 215 lbs. (98 kg) |
| | 220-230CE | 2109 | 9.2 | CEE 7/7 Schuko | 215 lbs. (98 kg) |
| | 220 | 1930 | 8.8 | CEE 7/7 Schuko | 215 lbs. (98 kg) |
| | 230-240CE | 1785 | 7.4 | BS 1363 | 215 lbs. (98 kg) |
| | 240 | 1785 | 7.4 | BS 1363 | 215 lbs. (98 kg) |
| GRHD-4PD | 120 | 2660 | 22.2 | NEMA 5-30P [†] | 230 lbs. (104 kg) |
| | 120/208 | 2660 | 12.4 | NEMA 14-20P | 230 lbs. (104 kg) |
| | 120/240 | 2660 | 12.4 | NEMA 14-20P | 230 lbs. (104 kg) |
| | 220-230CE | 2661 | 11.6 | CEE 7/7 Schuko | 230 lbs. (104 kg) |
| | 220 | 2435 | 11.1 | CEE 7/7 Schuko | 230 lbs. (104 kg) |
| | 230-240CE | 2661 | 11.1 | BS 1363 | 230 lbs. (104 kg) |
| | 240 | 2660 | 11.1 | BS 1363 | 230 lbs. (104 kg) |

* NEMA 5-20P for Canada.

† Not available for Canada.

■ The electrical information in the shaded areas pertains to **Export models only**.

SPECIFICATIONS

ELECTRICAL RATING CHART - GRHD MODELS

| Model | Voltage | Watts | Amps | Plug Configuration | Shipping Weight |
|-----------|-----------|-------|------|--------------------|-------------------|
| GRHDH-2P | 100 | 1190 | 11.9 | NEMA 5-15P | 120 lbs. (55 kg) |
| | 120 | 1190 | 9.9 | NEMA 5-15P | 120 lbs. (55 kg) |
| | 220-230CE | 1289 | 5.6 | CEE 7/7 Schuko | 120 lbs. (55 kg) |
| | 220 | 1179 | 5.4 | CEE 7/7 Schuko | 120 lbs. (55 kg) |
| | 230-240CE | 1212 | 5.0 | BS 1363 | 120 lbs. (55 kg) |
| | 240 | 1212 | 5.0 | BS 1363 | 120 lbs. (55 kg) |
| GRHDH-2PD | 120 | 1560 | 13.0 | NEMA 5-15P* | 175 lbs. (79 kg) |
| | 220-230CE | 1671 | 7.3 | CEE 7/7 Schuko | 175 lbs. (79 kg) |
| | 220 | 1529 | 7.0 | CEE 7/7 Schuko | 175 lbs. (79 kg) |
| | 230-240CE | 1582 | 6.6 | BS 1363 | 175 lbs. (79 kg) |
| | 240 | 1582 | 6.6 | BS 1363 | 175 lbs. (79 kg) |
| GRHDH-3P | 120 | 1600 | 13.3 | NEMA 5-15P* | 162 lbs. (73 kg) |
| | 220-230CE | 1731 | 7.5 | CEE 7/7 Schuko | 162 lbs. (73 kg) |
| | 220 | 1584 | 7.2 | CEE 7/7 Schuko | 162 lbs. (73 kg) |
| | 230-240CE | 1622 | 6.8 | BS 1363 | 162 lbs. (73 kg) |
| | 240 | 1622 | 6.8 | BS 1363 | 162 lbs. (73 kg) |
| GRHDH-3PD | 120 | 2005 | 16.7 | NEMA 5-20P† | 200 lbs. (91 kg) |
| | 220-230CE | 2141 | 9.3 | CEE 7/7 Schuko | 200 lbs. (91 kg) |
| | 220 | 1959 | 8.9 | CEE 7/7 Schuko | 200 lbs. (91 kg) |
| | 230-240CE | 2027 | 8.4 | BS 1363 | 200 lbs. (91 kg) |
| | 240 | 2027 | 8.4 | BS 1363 | 200 lbs. (91 kg) |
| GRHDH-4P | 120 | 2285 | 19.0 | NEMA 5-30P‡ | 215 lbs. (98 kg) |
| | 120/208 | 2285 | 9.8 | NEMA 14-20P | 215 lbs. (98 kg) |
| | 120/240 | 2285 | 9.8 | NEMA 14-20P | 215 lbs. (98 kg) |
| | 220-230CE | 2463 | 10.7 | CEE 7/7 Schuko | 215 lbs. (98 kg) |
| | 220 | 2253 | 10.2 | CEE 7/7 Schuko | 215 lbs. (98 kg) |
| | 230-240CE | 2329 | 9.7 | BS 1363 | 215 lbs. (98 kg) |
| | 240 | 2329 | 9.7 | BS 1363 | 215 lbs. (98 kg) |
| GRHDH-4PD | 120 | 3160 | 26.3 | NEMA 5-30P‡ | 240 lbs. (109 kg) |
| | 120/208 | 3160 | 13.9 | NEMA 14-20P | 240 lbs. (109 kg) |
| | 120/240 | 3160 | 13.9 | NEMA 14-20P | 240 lbs. (109 kg) |
| | 220-230CE | 3375 | 14.7 | CEE 7/7 Schuko | 240 lbs. (109 kg) |
| | 220 | 3088 | 14.0 | CEE 7/7 Schuko | 240 lbs. (109 kg) |
| | 230-240CE | 3204 | 13.4 | BS 1363 | 240 lbs. (109 kg) |
| | 240 | 3204 | 13.4 | BS 1363 | 240 lbs. (109 kg) |

* NEMA 5-20P for Canada.

† Not available for Canada.

■ The electrical information in the shaded areas pertains to **Export models only**.

SPECIFICATIONS

PLUG CONFIGURATIONS

Units are supplied from the factory with an electrical cord and plug. See Figure 5.



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

DIMENSIONS - GRCD MODELS

| Model | (A) Width | (B) Length | (C) Height* |
|------------|-----------------|----------------------|---------------------|
| GRCD-1P | 26" (660 mm) | 20-5/8" (524 mm) | 24" (610 mm) |
| GRCD-1PD | 26" (660 mm) | 20-5/8" (524 mm) | 31-3/4" (807 mm) |
| GRCD-2P | 26" (660 mm) | 32-1/2" (826 mm) | 24" (610 mm) |
| GRCD-2PD | 26" (660 mm) | 32-1/2" (826 mm) | 31-3/4" (807 mm) |
| GRCD-2PDG | 26" (660 mm) | 32-1/2" (826 mm) | 31-3/4" (807 mm) |
| GRCD-3P | 26" (660 mm) | 45-1/2" (1156 mm) | 24" (610 mm) |
| GRCD-3PD | 26" (660 mm) | 45-1/2" (1156 mm) | 31-3/4" (807 mm) |
| GRCD-3PDG | 26" (660 mm) | 45-1/2" (1156 mm) | 31-3/4" (807 mm) |
| GRCDH-1P | 26" (660 mm) | 20-5/8" (524 mm) | 24" (610 mm) |
| GRCDH-1PD | 26" (660 mm) | 20-5/8" (524 mm) | 31-3/4" (807 mm) |
| GRCDH-2P | 26" (660 mm) | 32-1/2" (826 mm) | 24" (610 mm) |
| GRCDH-2PD | 26" (660 mm) | 32-1/2" (826 mm) | 31-3/4" (807 mm) |
| GRCDH-2PDG | 26" (660 mm) | 32-1/2" (826 mm) | 24" (610 mm) |
| GRCDH-3P | 26" (660 mm) | 45-1/2" (1156 mm) | 24" (610 mm) |
| GRCDH-3PD | 26" (660 mm) | 45-1/2" (1156 mm) | 31-3/4" (807 mm) |
| GRCDH-3PDG | 26" (660 mm) | 45-1/2" (1156 mm) | 31-3/4" (807 mm) |

* Height includes 4" (102 mm) for legs.

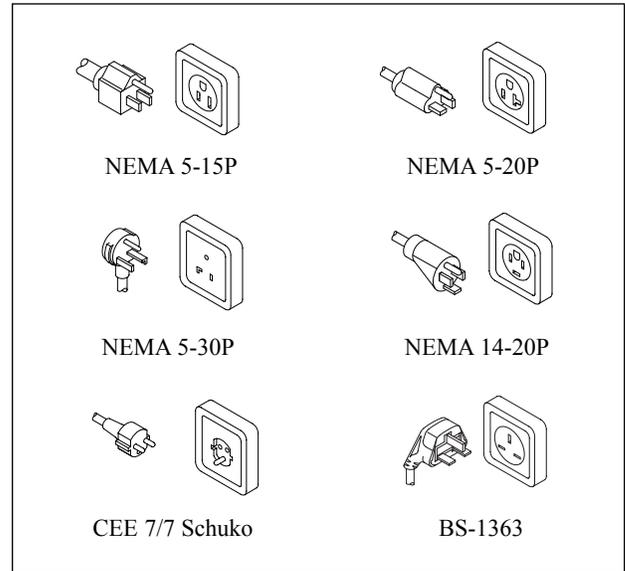


Figure 5. Plug Configurations

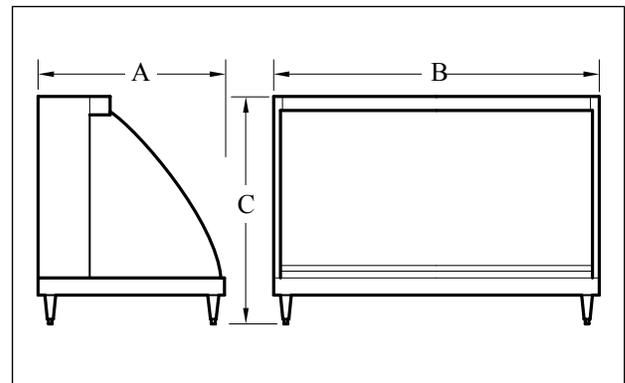


Figure 6. Dimensions - GRCD Models

NOTE: On **dual** shelf units, the interior usable space dimension for the upper shelf is as follows:

- 15" (381 mm) deep
- 6-3/4" (172 mm) high with pan enclosure installed
- 9" (229 mm) high without pan enclosure and metal shelf
- 10-1/4" (260 mm) high without pan enclosure and glass shelf
- 18" (457 mm) wide for -1PD model
- 30" (762 mm) wide for -2PD models
- 43" (1092 mm) wide for -3PD models

NOTE: On **dual** shelf units, the lower shelf interior height dimension is as follows:

- 8" (203 mm) with pan enclosure installed
- 10-1/4" (260 mm) without pan enclosure

NOTE: On **single** shelf units, the interior height dimension is as follows:

- 12-1/8" (308 mm) with pan enclosure installed
- 14-1/8" (359 mm) without pan enclosure

SPECIFICATIONS

DIMENSIONS - GRHD MODELS

| Model | (A) Width | (B) Length | (C) Height* |
|----------|-----------------|----------------------|-----------------|
| GRHD-2P | 26" (660 mm) | 32-1/2" (826 mm) | 25" (635 mm) |
| GRHD-2PD | 26" (660 mm) | 32-1/2" (826 mm) | 30" (762 mm) |
| GRHD-3P | 26" (660 mm) | 45-1/2" (1156 mm) | 25" (635 mm) |
| GRHD-3PD | 26" (660 mm) | 45-1/2" (1156 mm) | 30" (762 mm) |
| GRHD-4P | 26" (660 mm) | 58-1/2" (1486 mm) | 25" (635 mm) |
| GRHD-4PD | 26" (660 mm) | 58-1/2" (1486 mm) | 30" (762 mm) |

* Height includes 4" (102 mm) for legs.

| Model | (A) Width | (B) Length | (C) Height* |
|-----------|-----------------|----------------------|-----------------|
| GRHDH-2P | 26" (660 mm) | 33-3/8" (848 mm) | 25" (635 mm) |
| GRHDH-2PD | 26" (660 mm) | 33-3/8" (848 mm) | 30" (762 mm) |
| GRHDH-3P | 26" (660 mm) | 46-3/8" (1178 mm) | 25" (635 mm) |
| GRHDH-3PD | 26" (660 mm) | 46-3/8" (1178 mm) | 30" (762 mm) |
| GRHDH-4P | 26" (660 mm) | 59-3/8" (1508 mm) | 25" (635 mm) |
| GRHDH-4PD | 26" (660 mm) | 59-3/8" (1508 mm) | 30" (762 mm) |

* Height includes 4" (102 mm) for legs.

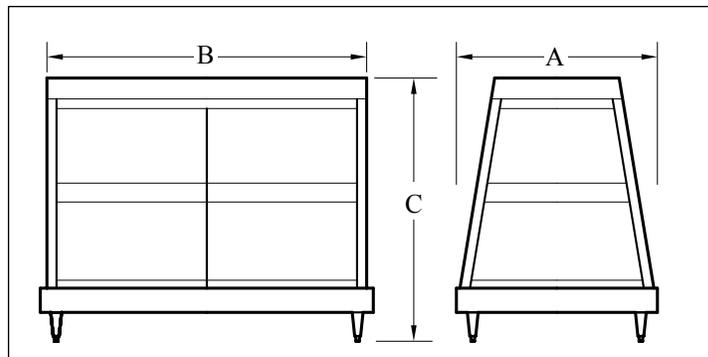


Figure 7. Dimensions - GRHD Models

ALL MODELS



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

CAUTION

To avoid damage to glass do not remove rubber shipping tabs or tape from glass until legs have been installed.

GRCD MODELS

1. Remove plastic bag containing 4 adjustable legs from inside the unit.
2. Remove pan rail (GRCD units) or pan skirts, water trough (GRCDH units) and front glass.
3. Carefully lay unit on its side (requires 2 people). Install legs to bottom of unit as shown in Figure 8. Hand tighten legs until snug. Do not overtighten. Return unit to the upright position.

CAUTION

Do not lay unit on the side with the control panel or the front of a curved glass unit, damage to unit could occur.

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

4. Remove rear doors on 2-pan and 3-pan models by grasping the door edges then lifting up and out of the bottom channel. Discard the protective cardboard from top of each door.

NOTE: Do not remove the plastic glides from top of door glass. See Figure 9.

5. Remove tape and protective film from all outside surfaces of unit.
6. Remove front curved glass by rotating it partially forward and lifting straight up and off. Discard rubber packing strips.
7. Remove tape and protective film from all internal parts and surfaces.
8. Install pan rail (GRCD units) or pan skirts and water trough (GRCDH units).

9. Install rear doors and front curved glass.

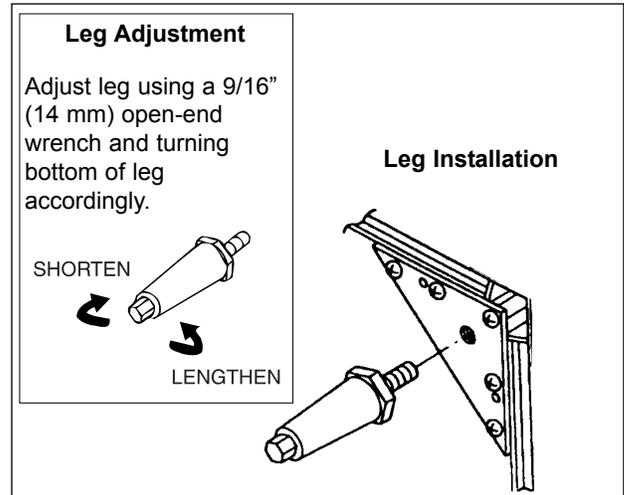


Figure 8. Adjustable Legs

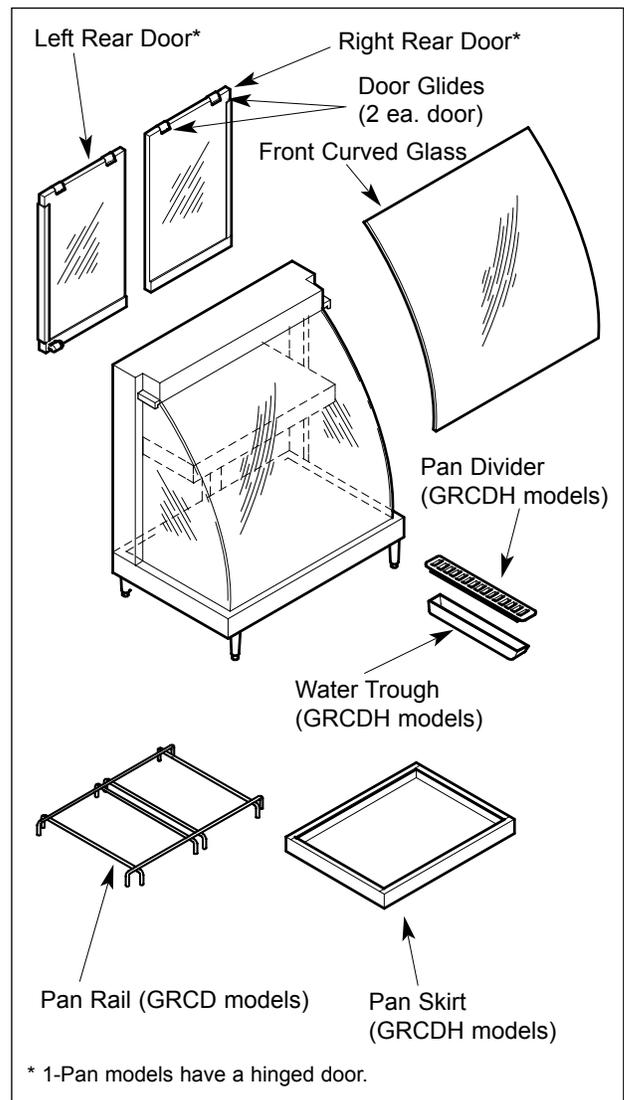


Figure 9. Exploded View - GRCD Models

INSTALLATION

GRHD MODELS

1. Remove plastic bag containing 4 adjustable legs from inside the unit.
2. Remove all components from inside the unit. See Figure 10.
3. Remove all doors by grasping the door edges then lifting up and out of the bottom channel. See Figure 10. Discard the protective cardboard from top of each door.

NOTE: Do not remove the plastic glides from top of door glass. See Figure 10.

4. Carefully lay unit on its side (requires 2 people). Install legs to bottom of unit as shown in Figure 8. Hand tighten legs until snug. Do not overtighten. Return unit to the upright position.

NOTE: If your unit is equipped with optional Slant Leg Kit, see Accessories for installation instructions.

CAUTION

Do not lay unit on the side with the control panel or the front of a curved glass unit, damage to unit could occur.

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

5. Remove tape and protective film from all surfaces of unit.
6. Install pan rail (GRHD units) or pan skirt, divider and water trough (GRHDH units).
7. Re-install rear doors.

NOTE: If your unit is equipped with optional Sandwich Chutes and/or Display Sign Holder, see Accessories for installation instructions.

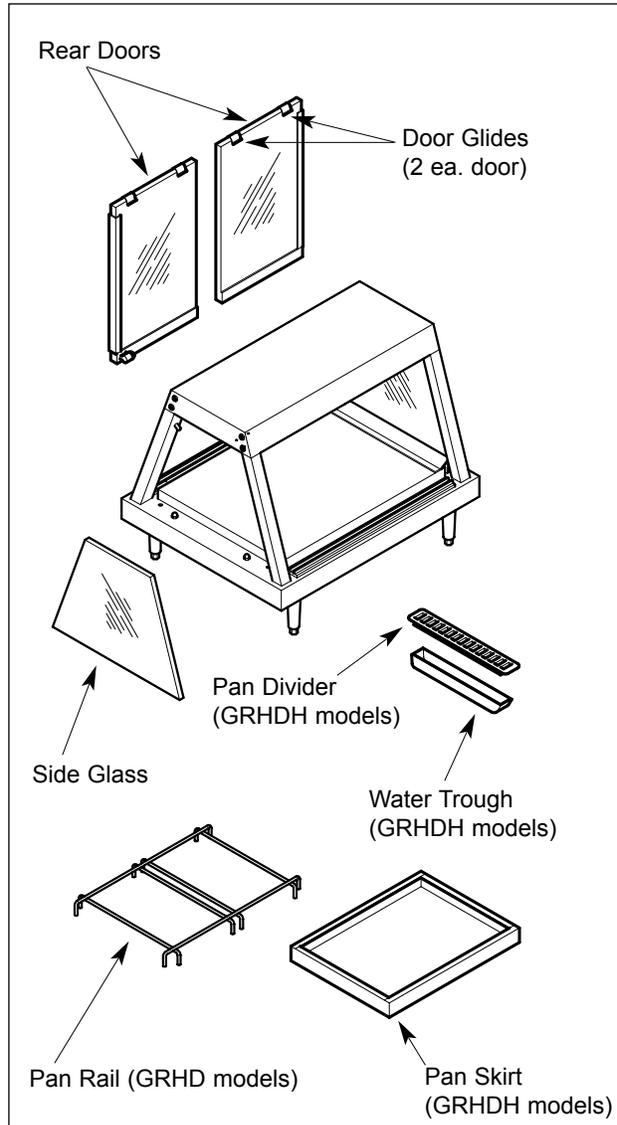


Figure 10. Exploded View - GRHD Models

INSTALLATION

LOCATION - ALL MODELS

CAUTION

The unit must be transported in an upright position. If laid on its side, all glass surfaces, pans rails and skirts must be secured with tape, and water must be removed from the unit.

CAUTION

To prevent any injury or damage locate the unit at the proper counter height, in an area that is convenient for use. The location should be level to prevent the unit or its contents from accidentally falling, and strong enough to support the weight of the unit and food displayed.

CAUTION

For safe and proper operation, the unit must be located a reasonable distance from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

WARNING

Unit is not waterproof. To avoid electrical shock or personal injury. **DO NOT** submerge in water. Do not operate if it has been submerged in water.

CAUTION

Unit is not weatherproof. For safe and proper operation locate the unit indoors where the ambient air temperature is constant and is a minimum of 70°F (21°C).

OPERATION

⚠ CAUTION

Some exterior surfaces on the unit will get hot. Use caution when touching these areas to avoid injury.

⚠ WARNING

To prevent any injury or damage to the unit do not pull unit by power cord.

⚠ WARNING

To prevent any injury, discontinue use if power cord is frayed or worn.

⚠ WARNING

To prevent any injury, do not place food directly on glass or stainless steel surfaces. Food product must be wrapped or boxed.

⚠ CAUTION

To avoid any injury on GRCD-PDG and GRCDH-PDG series units do not come in contact with the heated glass shelf while unit is in operation.

⚠ WARNING

To avoid any injury, on GRCD-PDG and GRCDH-PDG series units do not allow liquids to spill onto the heated glass shelf.

CAUTION

Do not allow the glass shelf to overheat on GRCD-PDG and GRCDH-PDG series units. Overheating may cause the food containers to melt or soften.

CAUTION

Do not use food pans, ceramic dishes, or abrasive materials on heated glass shelves. Food pans, ceramic dishes, and abrasive materials may scratch the glass shelf marring its appearance and making it susceptible to dirt accumulation. It is recommended that glass shelves be used for food products contained in disposable paper or plastic containers or wrapping.

NOTE: Scratches on heated glass shelves are not covered under warranty.

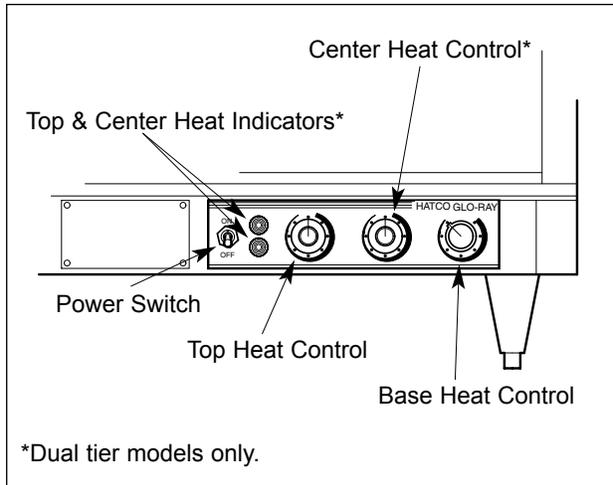


Figure 11. Control Panel – Non-Humidified Models

NON-HUMIDIFIED MODELS

1. Plug cabinet into a properly grounded electrical outlet of the correct voltage, size and plug configuration. See *Specifications* for details.
2. Turn the Power Switch to the ON position. See Figure 11.
3. On start-up set all heat controls at maximum to assure safe food holding.

On dual tier models, the Top and Center Heat Indicators will light when controls are in the ON position.

NOTE: Temperature settings may vary depending upon product make-up and consistency.

4. Allow unit 30 minutes to reach operating temperature.

HUMIDIFIED MODELS

1. Plug cabinet into a properly grounded electrical outlet of the correct voltage, size and plug configuration. See *Specifications* for details.
2. Remove the center slotted pan divider from the water trough.
3. Turn the Power Switch to the ON position. See Figure 12.
4. Rotate the Humidity Selector Control to the desired position. The green Humidity On Indicator will light up to show that humidity is on. The red Low Water Indicator will light when the water trough is empty.
5. Fill the water trough with softened or distilled water. The trough has a 3 quart (2.8 liter) capacity. If the red Low Water Indicator is on, press the Reset Button.

NOTE: Use of softened or distilled water is recommended to preserve the life of electrical and mechanical components. If hard water is used, the trough will require periodic cleaning and deliming. See Maintenance section for deliming instructions.

6. Re-install the center Pan Divider.
7. On start-up set all heat controls at maximum to assure safe food holding.

On dual tier models, the Top and Center Heat Indicators will light when controls are in the ON position.

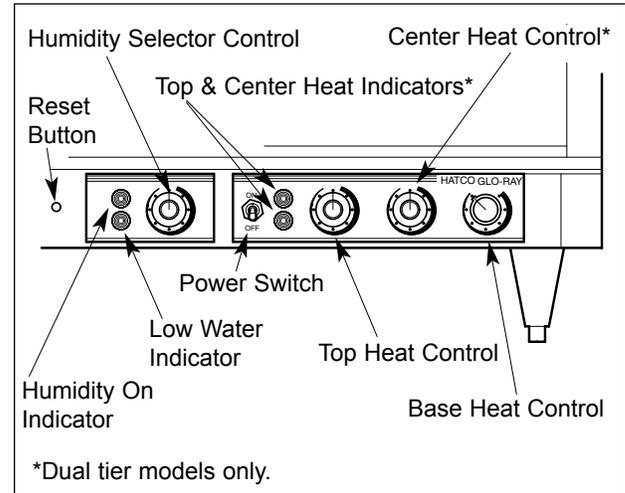


Figure 12. Control Panel – Humidified Models

NOTE: Temperature and humidity settings may vary depending upon product make-up and consistency.

NOTE: The trough capacity permits uninterrupted operation for approximately 4 hours, depending on the settings and how frequently the door is opened. When the red Low Water Indicator lamp is lit, add water to the reservoir and press the Reset Button.

8. Allow unit 30 minutes to reach operating temperature.
9. At the end of the day or shift, turn unit off and allow to cool down. Remove and clean the water trough.

MAINTENANCE

GENERAL

Hatco Glo-Ray® Heated Display Cases are designed for maximum durability and performance, with minimum maintenance.

WARNING

To avoid any injury, turn the power switch OFF, unplug the unit from the power source and allow to cool before performing any maintenance.

CLEANING

To preserve the bright finish of the Glo-Ray Heated Display Case, it is recommended that the exterior and interior surfaces be wiped daily with a damp cloth. Food pans should be removed and washed. Stubborn stains may be removed with a good stainless steel cleaner or a non-abrasive cleaner. Hard to reach areas should be cleaned with a small brush and mild soap.

CAUTION

Use only non-abrasive cleaners. Abrasive cleaners could scratch the finish of your Glo-Ray Heated Display Case, marring its appearance and making it susceptible to dirt accumulation.

WARNING

To avoid electrical shock or personal injury, do not steam clean or use excessive water on the unit.

WARNING

To avoid any injury, on GRCD-PDG and GRCDH-PDG series units do not clean heated glass shelf when unit is energized or hot.

Clean the glass sides and heated glass shelves using a common glass cleaner and soft non-abrasive cloth.

NOTE: Scratches on heated glass shelves are not covered under warranty.

NOTE: If the water used on GRCDH/GRHDH models (humidified) has an excessive amount of lime or mineral content, use the following instructions for periodic cleaning and de-liming of the water trough.

REMOVING LIME & MINERAL DEPOSITS - HUMIDIFIED MODELS

1. Turn the power switch off and unplug the unit from its power source.
2. After the unit has cooled down, remove the water trough.
3. Fill the water trough with a mixture of water and delimer.

NOTE: The de-limer used should be a safe, non-toxic, non-corrosive solution. Follow the delimer's instructions for proper mixture of water and de-limer solution.

4. Allow the trough to stand with the mixture for the recommended period of time. (The time required will vary depending on the solution used and amount of deposits in the trough.)
5. After the delimiting period, drain the solution from the trough.
6. Continue to fill and rinse the trough with water only, until the trough is clean.
7. Install the trough into the unit. Plug the display case power cord into its power source and fill the trough as usual for daily operation.

NOTE: The lime and mineral content of the water used for daily operation will determine how often de-liming procedure must be performed.

DISPLAY LIGHT BULB REPLACEMENT

The display lights are incandescent light bulbs which illuminate the warming area. These bulbs have a special coating to guard against injury and food contamination in the event of breakage.

1. To replace a light bulb, disconnect the power supply and wait until the unit has cooled.
2. Bulbs have a threaded base. Unscrew the light bulb from the unit and replace it with a new specially coated incandescent bulb.

***NOTE:** Hatco shatter-resistant light bulbs meet N.S.F. standards for food holding and display areas. For 120, 120/208 and 120/240 Volt applications, use Hatco part #02.30.043.00. For 220 or 240 Volt applications, use Hatco part # 02.30.058.00.*

WARNING

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

GROUND FAULT CIRCUIT INTERRUPT

The GRCD-PDG series is supplied with a built in Ground Fault Circuit Interrupt (GFCI) which is designed to turn electrical power off to the internal components when there is a short circuit or electrical fault.

To reset the “GFCI” push the red reset button in. If the “GFCI” continues to trip, contact your local Authorized Hatco Service Agency.

WARNING

If service is required on this unit, contact your 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.

WARNING

This product has no “user” serviceable parts. To avoid damage to the unit or injury to personnel, use only Authorized Hatco Service Agents and Genuine Hatco Parts when service is required.

WARNING

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. It is essential to use Hatco Replacement Parts when repairing Hatco equipment. Failure to use Hatco Replacement Parts may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn.

ACCESSORIES

SLANT LEG KIT (GRHD Models Only without Humidity)

The Slant Leg Kit tilts the unit in a forward position for optimum display of food product.

1. Remove the pan rail or sandwich chutes.
2. Carefully lay unit on its side (requires two people).

CAUTION

Do not lay unit on the side with the control panel or the front of a curved glass unit, damage to unit could occur.

3. Remove screws from bottom right side and bottom left side of unit. See Figure 13.
4. Position slant leg over holes with long leg towards the rear, and install using original screws.
5. Feet have an adjustable range of 3/4" to 1-1/2" (3 - 6 mm). Return unit to upright position and adjust feet to desired height.

SANDWICH CHUTES (GRHD Models Only)

Sandwich Chutes provide for upright display of sandwich products.

NOTE: The following assembly procedure is the same for both single and double tier units.

1. Remove protective film from all parts.
2. Remove the side glass panels by pushing in the spring loaded pins and removing panels.
3. Install the end pieces to the unit using knurled thumbscrews. Tighten securely but do not overtighten. See Figure 14.
4. Re-install side glass panels.
5. Install separator and sandwich chutes.

DISPLAY SIGN HOLDER (GRHD Models Only)

The display sign holder allows you to customize your unit with product name and/or graphics.

1. Remove screws from upper left and right side of unit as shown in Figure 15.
2. Install sign holder using original screws.
3. Insert sign (not included) and plexiglas cover.

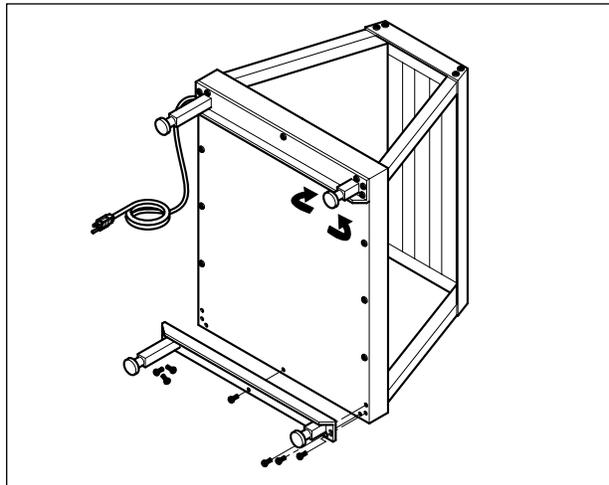


Figure 13. Slant Leg Kit - GRHD Models without Humidity

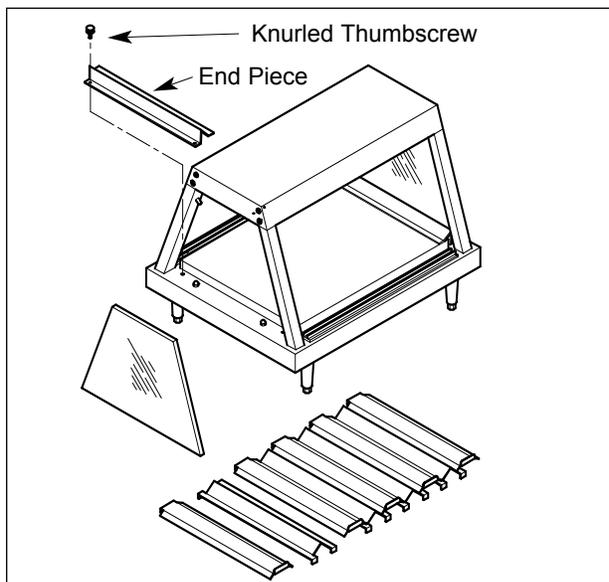


Figure 14. Sandwich Chutes - GRHD Models Only

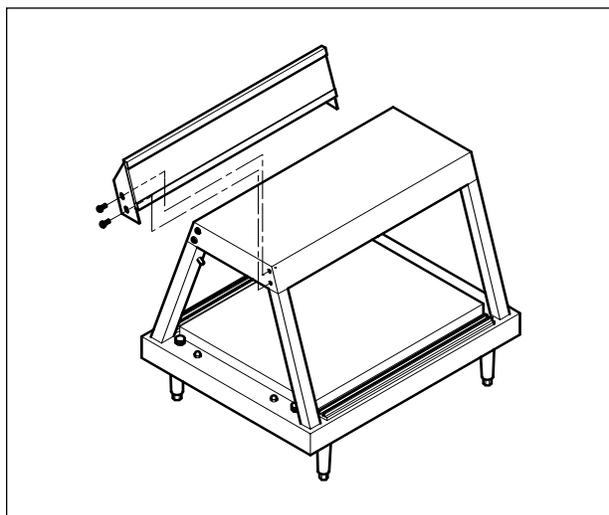


Figure 15. Display Sign Holder - GRHD Models Only

DESIGNER COLORS

Choose an optional *Designer* color in place of the stainless steel exterior finish to match your décor.

DOUBLE-SIDED OPENING

(GRHD Models Only)

GRHD models can be configured for double-sided opening by installing the optional front doors.

SLIDING OR FLIP-UP STYLE DOORS

(GRHD Models Only)

Sliding or flip-up style doors are available.

BREATH PROTECTORS

(GRHD Models Only)

7½" (191 mm) breath protectors are available in lieu of sliding doors.

PAN SKIRT

Available for top metal shelf on two tiered models and bottom shelf of non-humidified units.

BACKLIT BASE

(GRCD 2-Pan and 3-Pan Models Only)

The optional backlit base allows you to showcase your product by customizing your display cabinet.

MIRROR GLASS DOOR

One way mirror enhances food displays on customer side while allowing operator to review food from rear.

DISPLAY SIGN HOLDER

(GRHD Models Only)

A metal holder with acrylic window is available to promote product (sign not included).

SLANT LEG KIT

Available for non-humidified models only.

PANS & TRIVETS

Stainless steel food holding pans are available in either 2½" (64 mm) or 4" (102 mm) depths. These pans are offered in full size, half size or third size. Optional wire trivets prevent foods from touching pan bottom.

HATCO LIMITED WARRANTY

1. PRODUCT WARRANTY

Hatco warrants the products that it manufactures (the "Products") to be free from defects in materials and workmanship, under normal use and service, for a period of one (1) year from the date of purchase when installed and maintained in accordance with Hatco's written instructions or 18 months from the date of shipment from Hatco. Buyer must establish the product's purchase date by returning Hatco's Warranty Registration Card or by other means satisfactory to Hatco in its sole discretion.

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

- a) **One (1) Year Parts and Labor PLUS One (1) Additional Year Parts-Only Warranty:**
 - Toaster Elements (metal sheathed)
 - Drawer Warmer Elements (metal sheathed)
 - Drawer Warmer Drawer Rollers and Slides
 - Food Warmer Elements (metal sheathed)
 - Infra-Black® Elements (metal sheathed)
 - Display Warmer Elements (metal sheathed air heating)
 - Holding Cabinet Elements (metal sheathed air heating)

- b) **One (1) Year Parts and Labor PLUS Four (4) Additional Years Parts-Only Warranty on pro-rated terms that Hatco will explain at Buyer's Request:**
 - Powermite® Gas Booster Heater Tanks
 - Mini Compact Tanks (stainless steel)
 - 3CS and FR Tanks

- c) **One (1) Year Parts and Labor PLUS Four (4) Additional Years Parts-Only Warranty PLUS Five (5) Year Parts-Only Warranty on pro-rated terms that Hatco will explain at Buyer's Request:**
 - Booster Heater Tanks (Castone®)

- d) **One (1) Year Parts-Only Warranty for components not installed by Hatco:**
 - Accessory Components (including but not limited to valves, gauges and remote switches)

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, lamp warmer heat bulbs, glass components, Product failure in booster tank, fin tube heat exchanger, or other water heating equipment, caused by liming, sediment buildup, chemical attack or freezing, Product misuse, tampering or misapplication, improper installation, application of improper voltage, or recalibration of thermostats or high limit switches, or transportation damage.

2. LIMITATION OF REMEDIES AND DAMAGES

Hatco's liability and Buyer's exclusive remedy hereunder will be limited solely, at Hatco's option, to repair or replacement by a Hatco-authorized service agency (other than where Buyer is located outside of the United States or Canada, 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. Without limiting the generality of the foregoing, all portable Products (as defined in N.S.F. 4-4.28.4) shall be delivered by Buyer, at its sole expense, to the nearest Hatco-authorized service agency for replacement or repair. Hatco reserves the right to accept or reject any such claim in whole or in part. Hatco will not accept the return of any Product without prior written approval from Hatco, and all such approved returns shall be made at Buyer's sole expense. HATCO WILL NOT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO LABOR COSTS OR LOST PROFITS RESULTING FROM THE USE OF OR INABILITY TO USE THE PRODUCTS OR FROM THE PRODUCTS BEING INCORPORATED IN OR BECOMING A COMPONENT OF ANY OTHER PRODUCT OR GOODS.