



# **FLAV-R-FRESH®**

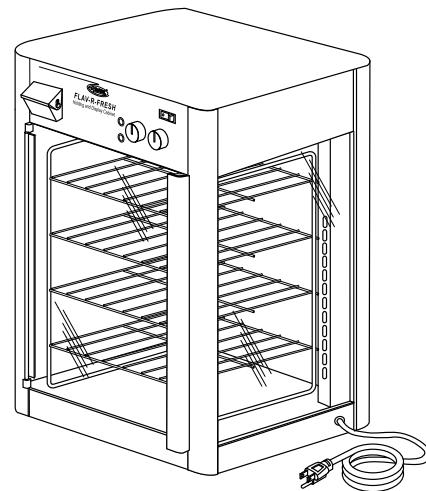
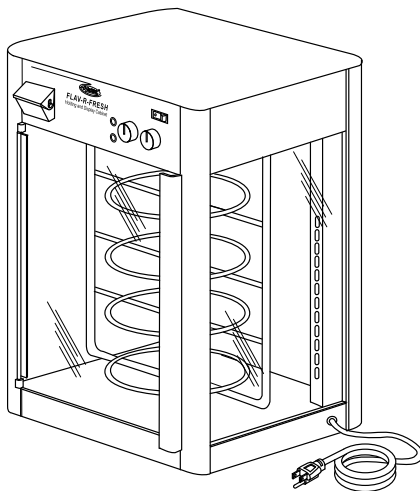
## **Holding & Display Cabinets**

### **FDWDE Series**

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## **Installation & Operating Manual**

I&W #07.05.193.00



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're 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 (identification decal located on the lower right hand side, rear corner of the unit), voltage and purchase date of your Flav-R-Fresh® Holding and Display Cabinet in the spaces provided. Please have this information available when contacting Hatco for service assistance.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Voltage \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Business Hours: 8:00 a.m. to 5:00 p.m.  
Central Standard Time

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

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

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




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

## INTRODUCTION

Hatco Flav-R-Fresh® Holding and Display Cabinets are designed to hold prepared foods for prolonged periods of time while maintaining that “just-made” quality. Hatco Holding and Display Cabinets provide the best environment for food products by regulating the air temperature while at the same time balancing the humidity level. The use of controlled moisturized heat maintains serving temperature and food texture longer than conventional dry holding equipment.

The Flav-R-Fresh® air flow pattern is designed to maintain consistent cabinet temperature without drying out foods. The precise combination of heat and humidity creates a “blanket” effect around the food. The air flow rate enables the cabinet to recover temperature rapidly after opening and closing the door.

This manual provides the installation, safety and operating instructions for the Flav-R-Fresh®















Holding and Display Cabinets. We recommend all installation, operating and safety instructions appearing in this manual be read prior to installation or operation of your Hatco Holding and Display Cabinet. Safety instructions that appear in this manual after a warning symbol  and the words **WARNING** or **CAUTION** printed in boldface 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. The word **NOTICE** signifies the possibility of equipment or property damage only.

Hatco Flav-R-Fresh® Holding and Display Cabinets are a product of extensive research and field testing. The materials used were selected for maximum durability, attractive appearance and optimum performance. Every unit is thoroughly inspected and tested prior to shipment.





# IMPORTANT SAFETY INFORMATION

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

## WARNINGS

-  To prevent electric shock or injury, turn the power switch OFF, unplug the unit from the power source and allow to cool completely before performing any maintenance or cleaning.
-  For safe and proper operation 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.
-  Over-filling can cause electrical shock. Stop filling when the LOW WATER indicator light goes off.
-  To avoid any injury, turn the power OFF to the unit and allow to cool before draining.
-  To prevent any injury discontinue use if power cord is frayed or worn.
-  To prevent any injury or damage to the unit do not pull unit by power cord.
-  To avoid any injury or damage the unit must only be serviced by qualified personnel.
-  Only light bulbs which meet or exceed NSF standards, specifically designed for food holding areas may be used. Breakage of light bulbs not specially coated could result in personal injury and/or food contamination.
-  For safe and proper operation, the Display Cabinet must be located 2" (51 mm) from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.
-  Holding food at temperatures less than 140°F (60°C) may be dangerous. Temperatures under 140°F (60°C) promote the growth of harmful bacteria and toxins in some foods.
-  Hatco Corporation is not responsible for the actual food product serving temperature. It is the responsibility of the user to assure that the food product is held and served at a safe temperature.
-  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 Replacement Parts when service is required.
-  Genuine Hatco Replacement Parts are specified to operate safely in the environments in which they are used. Some after-market 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

-  Some exterior surfaces on the Display Cabinet will get hot. Use caution when touching these areas to avoid injury.
-  To avoid any injury or damage locate the Display Cabinet 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.
-  Unit is not weatherproof. For safe and proper operation locate the unit indoors where the ambient air temperature is a minimum of 70°F (21°C).
-  The unit must be transported in an upright position. Before moving or tipping the unit secure all glass surfaces with tape. The water must also be drained from the unit. Failure to do so may result in damage to the unit or personal injury.

## IMPORTANT SAFETY INFORMATION

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### NOTICES

**Water Quality Requirements** – Incoming water in excess of 3.0 grains of hardness per gallon (GPG) (.75 grains of hardness per liter) must be treated and softened before being used. Water containing over 3.0 GPG (.75 GPL) will decrease the efficiency and reduce the operating life of the unit.

**Use only non-abrasive cleaners.** Abrasive cleaners could scratch the finish of your Flav-R-Fresh® Holding and Display Cabinet marring its appearance and making it susceptible to soil accumulation.

**Do not use de-ionized water.** de-ionized water will greatly shorten the life of the water reservoir and heating element.

## MODEL DESIGNATION

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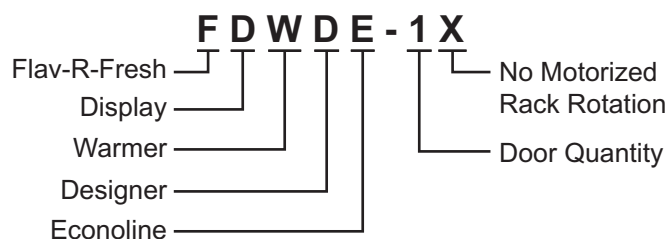


Figure 1. Model Designation

## MODEL DESCRIPTIONS

### ALL MODELS

All display cabinets have an air heating system, humidity system with low water control protection, incandescent lights, tempered glass sides and door. The standard access door can be hinged left or right. The pretzel tree is stainless steel and the other display racks are nickel-plated. All units are available in the following *Designer* colors; Black, Navy Blue, Gray Granite, Hunter Green, Warm Red and White Granite.

### MODEL FDWDE-1

The Flav-R-Fresh® model FDWDE-1 is a **single door** model with a motorized rotating display. (See Figure 2.) It comes standard with a pizza rack that holds up to four (4) round pizza pans with a maximum diameter of 15" (381 mm). The rotating rack automatically pauses when the door is opened. An optional rotating pretzel tree or 4-shelf multi-purpose stationary rack is also available.

*NOTE: Model FDWDE-1 **cannot** be converted to a model FDWDE-2.*

### MODEL FDWDE-1X

The FDWDE-1X is similar to the FDWDE-1, but features a 4-shelf multi-purpose stationary rack instead of the rotating display. (See Figure 3.) The rack can hold pans with a maximum width of 13-1/2" (343 mm) and depth of 13" (330 mm).

*NOTE: Model FDWDE-1X **cannot** be converted to a model FDWDE-1 or FDWDE-2X.*

### MODEL FDWDE-2

The FDWDE-2 is the same as model FDWDE-1, but has an additional door on the opposite side of the controls for pass-through convenience.

### MODEL FDWDE-2X

The FDWDE-2X is the same as model FDWDE-1X, but has an additional door on the opposite side of the controls for pass-through convenience.

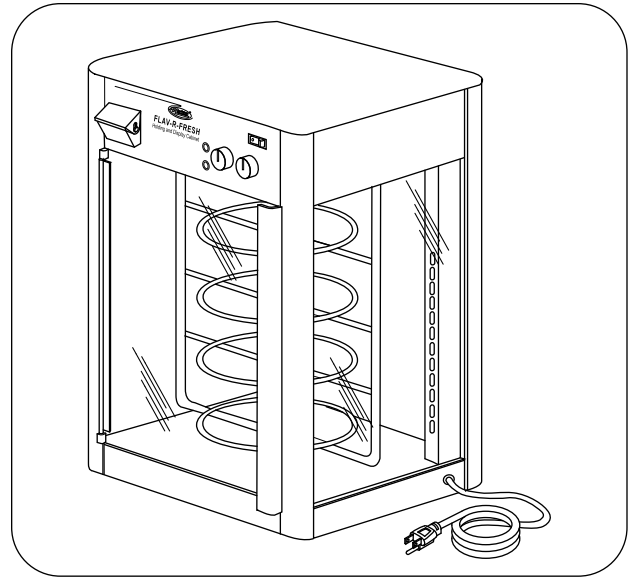


Figure 2. FDWDE-1 Model

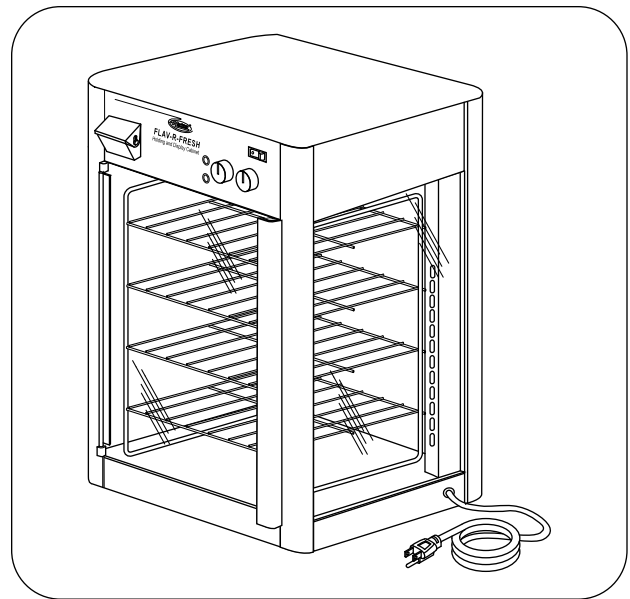


Figure 3. FDWDE-1X Model

# SPECIFICATIONS

## PLUG CONFIGURATIONS

Units are supplied from the factory with an electrical cord and plug installed. Plugs are supplied according to the applications as shown in Figure 4.

### WARNING

For safe and proper operation 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.

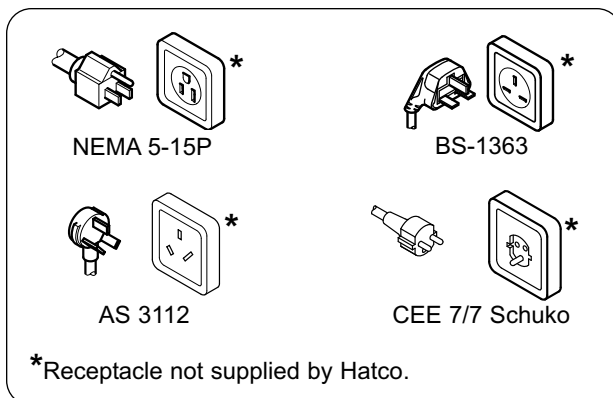


Figure 4. Plug Configurations

## ELECTRICAL RATING CHART

Model	Voltage	Hertz	Watts	Amps	Plug Configuration	Shipping Weight
FDWDE-1	120	60	1420	11.8	NEMA 5-15P	80 lbs. (36 kg)
	220	50	1470	6.7	CEE 7/7 Schuko, BS-1363 or AS 3112	80 lbs. (36 kg)
FDWDE-1X	120	60	1420	11.8	NEMA 5-15P	82 lbs. (37 kg)
	220	50	1470	6.7	CEE 7/7 Schuko, BS-1363 or AS 3112	82 lbs. (37 kg)
FDWDE-2	120	60	1420	11.8	NEMA 5-15P	86 lbs. (39 kg)
	220	50	1470	6.7	CEE 7/7 Schuko, BS-1363 or AS 3112	86 lbs. (39 kg)
FDWDE-2X	120	60	1420	11.8	NEMA 5-15P	88 lbs. (40 kg)
	220	50	1470	6.7	CEE 7/7 Schuko, BS-1363 or AS 3112	88 lbs. (40 kg)

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

## DIMENSIONS

Model	Width (A)	Depth (B)	Height (C)
FDWDE-1	19-3/8" (492 mm)	20-7/8" (530 mm)	28-5/8" (727 mm)
FDWDE-1X	19-3/8" (492 mm)	20-7/8" (530 mm)	28-5/8" (727 mm)
FDWDE-2	19-3/8" (492 mm)	22" (559 mm)	28-5/8" (727 mm)
FDWDE-2X	19-3/8" (492 mm)	22" (559 mm)	28-5/8" (727 mm)
Cabinet Opening: 15-3/4"W x 19-3/4"H (400 x 502 mm)			

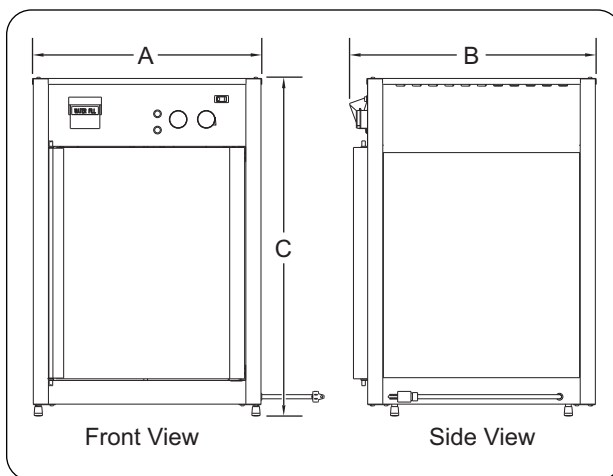


Figure 5. Dimensions

# INSTALLATION

## UNPACKING

The Flav-R-Fresh® Holding & Display Cabinets are shipped with most components installed and ready for operation. The following installation instructions must be performed before plugging in and operating the cabinet.

1. Remove unit from box.
2. Remove information packet. **To prevent delay in obtaining warranty coverage, fill out and mail in the warranty card.**
3. Remove tape and protective packaging from all surfaces of unit.

### Floor Sheet

The stainless steel floor in all Flav-R-Fresh® units is protected during shipping with a sheet of corrugated cardboard. This protection **must be removed** prior to cabinet operation.

### Display Racks

The display racks have packing material and cardboard attached for protection during shipping. This protection **must be removed** prior to cabinet operation.

### Legs

The Flav-R-Fresh® cabinets are shipped with four 1" (25 mm) metal screw-type feet attached to the bottom of the unit. If you received the cabinet with the optional 4" (102 mm) Adjustable Legs, see *ACCESSORIES* for installation instructions.

### Glass Panels

The Flav-R-Fresh® Holding and Display Cabinets have tempered glass panels that are protected during shipping by rubber tabs along the glass edges and tape to securely hold the panels. (See Figure 6.) These tabs and tape **must be removed** prior to cabinet operation.

*NOTE: If installing 4" (102 mm) legs, do not remove glass protection until leg installation is complete. See ACCESSORIES.*

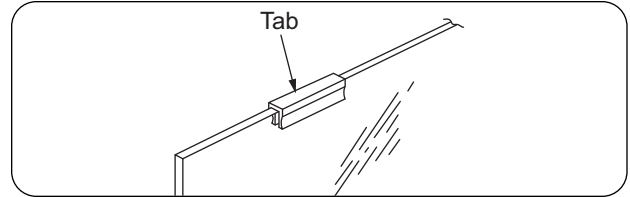


Figure 6. Shipping Tabs for Glass Panels

## LOCATION

### ⚠ CAUTION

To avoid any injury or damage locate the Display Cabinet 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.

### ⚠ WARNING

For safe and proper operation, the Display Cabinet must be located 2" (51 mm) from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

### ⚠ CAUTION

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

### ⚠ CAUTION

The unit must be transported in an upright position. Before moving or tipping the unit secure all glass surfaces with tape. The water must also be drained from the unit. Failure to do so may result in damage to the unit or personal injury.

# INSTALLATION

## REVERSIBLE ACCESS DOOR

The Flav-R-Fresh® access door may be hinged on either the left or right side for your convenience (See Figure 7.). To reverse the door hinges follow these instructions:

1. Remove the top hinge pin screw holding door to hinge. Remove nylon washer.
2. Tip the door assembly toward you (away from cabinet) and lift gently to clear the bottom hinge assembly. Remove nylon washers.
3. Remove the screws holding hinges to the cabinet.
4. Remove screws from striker plates on non-hinge side of the cabinet and reinstall striker plates on the other side where the hinges were previously mounted.
5. Mount hinges on the opposite side, using the original hinge mounting screws.
6. Carefully rotate the door 180° and re-install the hinge pin screw that was removed in Step 1.
7. Remove the hinge pin screw on the end that is now the top.
8. Carefully place the door assembly with the two (2) nylon washers onto the bottom hinge.
9. Tip/tilt the door assembly towards the cabinet and align the door top with the hinge. Re-install the other door hinge pin with one (1) nylon washer.

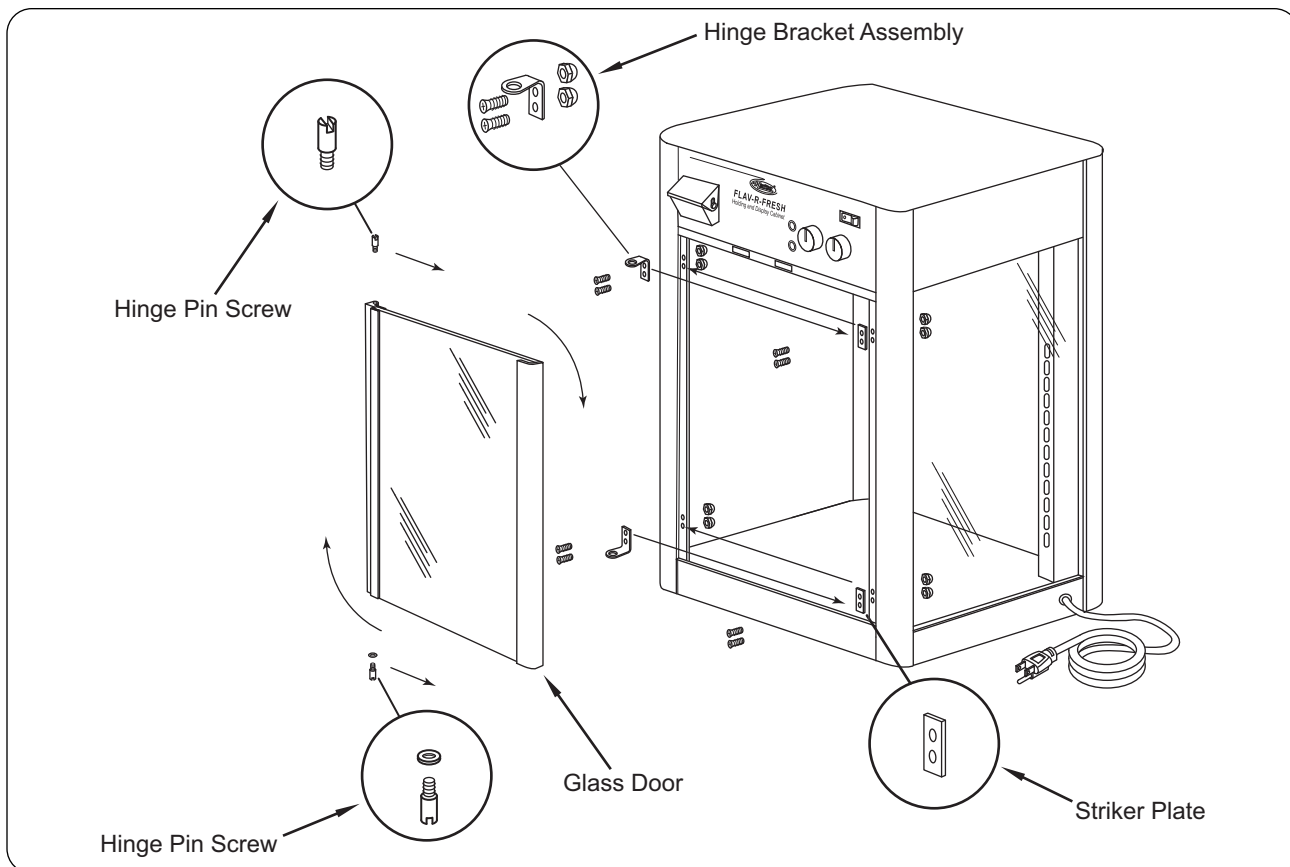


Figure 7. Reversible Access Door



# INSTALLATION

## RELOCATING PROXIMITY SWITCH (Rotating Rack Models Only— FDWDE-1 & FDWDE-2)

(See Figure 8)

FDWDE Models equipped with rotating rack will require relocating the proximity switch(es) when reversing the door(s).

The proximity switch stops the rack from rotating when the door is opened. Follow these steps listed so the proximity switch is in the proper position after reversing the door(s). Unit requires one switch per door.

1. Turn off the unit. Unplug the unit from the power source.
2. Remove the four screws that secure top cover.
3. Remove the screw and nut securing the proximity switch to the cabinet ceiling sheet. The screw is accessed from inside the cabinet. Reinstall screw and nut into hole after removing switch.
4. Cut the cable tie securing the proximity switch wires to the wiring harness. Mark the two wires for reassembly and unplug the wires from the proximity switch. Route the wires to the opposite corner and reattach the wires to the switch.
5. Remove the screw and nut from the new mounting hole. Using opposite hole on switch, secure the proximity switch to the mounting hole with the screw and nut.
6. Make sure wires do not interfere with other components inside the cabinet then secure switch wires to wiring harness with a cable tie (not supplied).
7. Install cover and four screws.
8. Plug the unit into the proper power source.
9. Turn on the unit and test the operation of the proximity switch(es) by making sure the rack rotates when the doors are closed and stops rotating when a door is opened.

*NOTE: On models equipped with two doors, it may be necessary to move the air chamber to access the proximity switch on the customer side door. Drain all water from the unit, remove the drain plug from inside the cabinet, and remove four screws securing air chamber assembly to the cabinet. Carefully move air chamber out of the way to access proximity switch. Reassemble after relocating switch.*

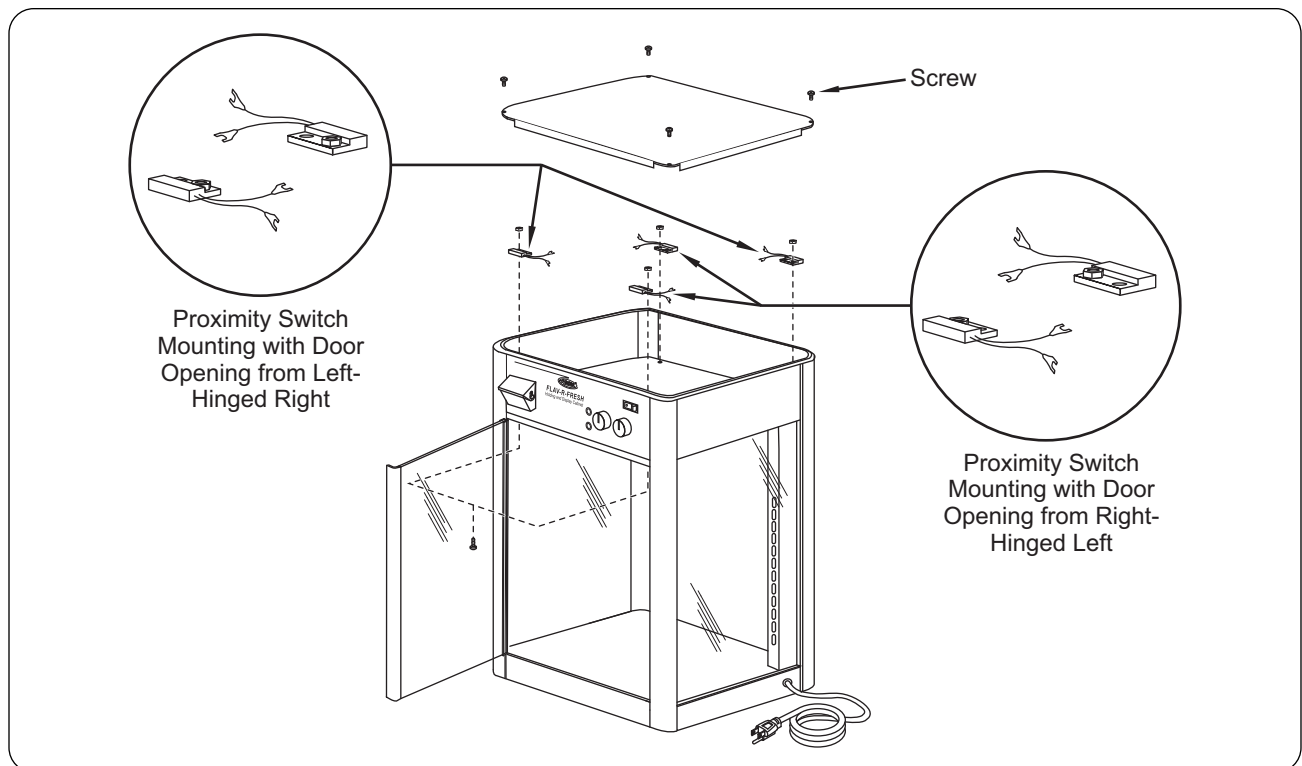


Figure 8. Relocating Proximity Switch

# OPERATION

## GENERAL

1. Plug the cabinet into a properly grounded electrical outlet of the correct voltage, size and plug configuration. See *SPECIFICATIONS* for details.
2. Place the power switch in the ON position. The HUMIDITY CYCLE and LOW WATER indicator lights will light up at this time.

### NOTICE

**Water Quality Requirements – Incoming water in excess of 3.0 grains of hardness per gallon (GPG) (.75 grains of hardness per liter) must be treated and softened before being used. Water containing over 3.0 GPG (.75 GPL) will decrease the efficiency and reduce the operating life of the unit.**

*NOTE: Product failure caused by liming or sediment buildup is not covered under warranty.*

3. Fill the water reservoir with **softened or distilled** water. To fill the reservoir, lift up the fill cup cover and pull forward (See Figure 9.). Slowly pour the water into the cup until the LOW WATER indicator light goes off.



### WARNING

**Over-filling can cause electrical shock. Stop filling when the LOW WATER indicator light goes off.**

Use of softened or distilled water is recommended to preserve the life of the electrical and mechanical components in the reservoir. **Do not** use de-ionized water. If “hard” water is used, the reservoir will require periodic cleaning and de-liming. See *MAINTENANCE* for de-liming instructions.

### NOTICE

**Do not use de-ionized water. de-ionized water will greatly shorten the life of the water reservoir and heating element.**

*NOTE: Product failure caused by de-ionized water is not covered by warranty.*

*NOTE: On the initial fill the water reservoir capacity is 80 ounces or 2-1/2 quarts (2.3 liters).*

4. Set the humidity selector to the desired level. See the *FOOD HOLDING GUIDE* for recommendations.
5. Set the temperature selector to the desired temperature. See the *FOOD HOLDING GUIDE* for recommendations.

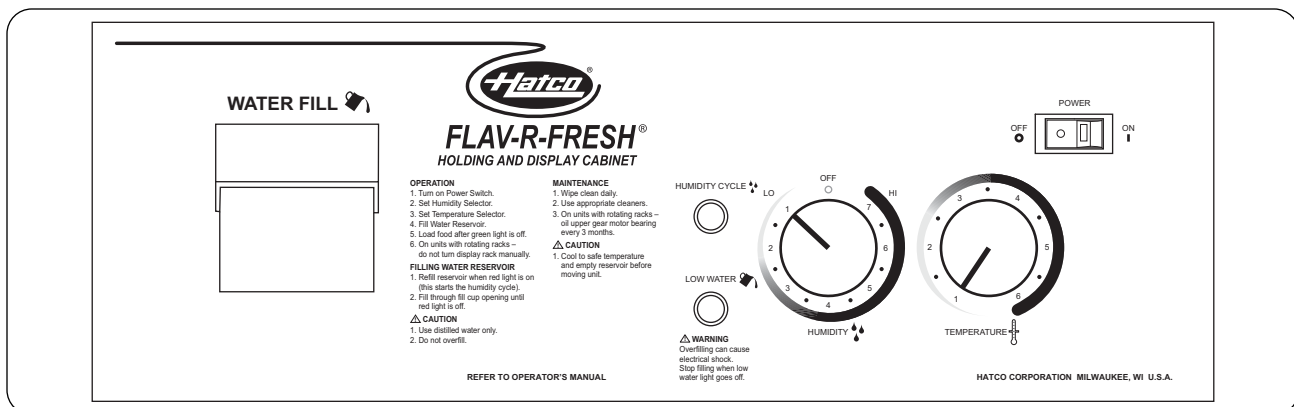


Figure 9. Flav-R-Fresh® Control Panel

## OPERATION

*NOTE: Temperature and humidity settings may vary depending upon product make-up and consistency. The temperature indicator displays the lowest temperature point inside the cabinet, not the product temperature.*

Allow 20 minutes to preheat a full reservoir of water. The Flav-R-Fresh® is then ready to hold foods at the humidity and temperature selected.

The reservoir capacity permits uninterrupted operation for approximately 3-6 hours, depending on the settings and how frequently the door is opened. When the LOW WATER indicator light is lit, add water to the reservoir. The water reservoir refill capacity is approximately 64 ounces, or two (2) quarts (1.9 liters).

### CAUTION

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

### WARNING

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

### WARNING

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

### WARNING

Hatco Corporation is not responsible for the actual food product serving temperature. It is the responsibility of the user to assure that the food product is held and served at a safe temperature.

### WARNING

Holding food at temperatures less than 140°F (60°C) may be dangerous. Temperatures under 140°F (60°C) promote the growth of harmful bacteria and toxins in some foods.

## FOOD HOLDING GUIDE

Type of Food	Maximum Holding Time	Humidity Setting	Temperature	
			°F	°C
Biscuits	4 Hours	4	130	54
Chicken Pieces (Fried)	4 Hours	7	175	79
Croissants	4 Hours	1	140	60
Fruit Pies	3-1/2 Hours	4	140	60
Onion Rings	1/2 to 1 Hour	1	175	79
Pizza - Thick Crust	1 Hour	4	185	85
- Thin Crust	1 Hour	5	180	82
Pretzels	3 Hours	4	140	60
Wrapped Sandwiches	2 Hours	4	180	82

*NOTE: All times and settings are recommendations only and may vary depending on product preparation, cooking time and internal food temperature.*

# MAINTENANCE

## GENERAL

The Hatco Flav-R-Fresh® units are designed for maximum durability and performance, with minimum maintenance.

## CLEANING

### WARNING

To prevent electric shock or injury, turn the power switch OFF, unplug the unit from the power source and allow to cool completely before performing any maintenance or cleaning.

### WARNING

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

Hatco Flav-R-Fresh® cabinets are made of stainless steel and aluminum. To preserve the bright finish, 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.

### NOTICE

**Use only non-abrasive cleaners. Abrasive cleaners could scratch the finish of your Flav-R-Fresh® Holding and Display Cabinet marring its appearance and making it susceptible to soil accumulation.**

Clean the glass sides using a common glass cleaner. For hard-to-clean stains, removal of the glass is suggested.

#### To Remove The Glass:

1. Lift the glass to be cleaned from the bottom of the cabinet.
2. Pull the lower edge away from the cabinet.
3. Carefully lower the glass until the top clears the cabinet.

#### To Replace The Glass:

1. Position the glass with the top edge under the cabinet lip and raise the glass until it clears the bottom channel of the cabinet.
2. Move the bottom of the glass towards the cabinet until the glass rests against the cabinet frame.
3. Carefully lower the glass until it rests in the bottom channel of the cabinet.

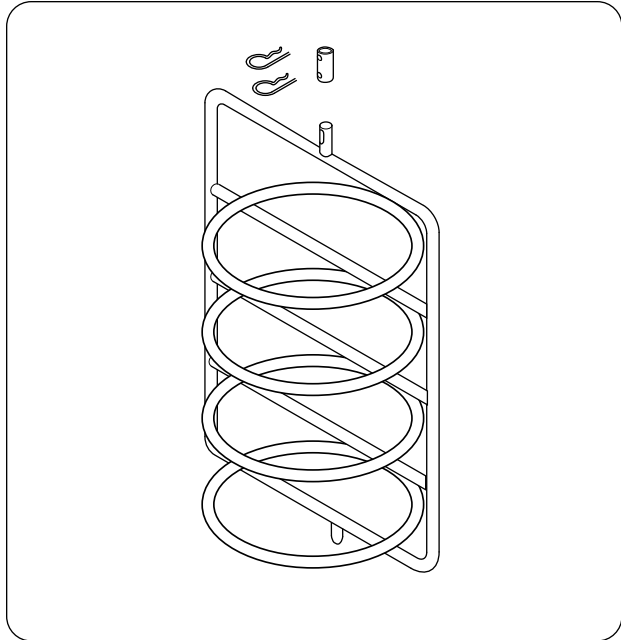


Figure 10. Removing Motorized Display Racks

#### To Remove The Rotating Rack For Cleaning (Models FDWDE-1 and FDWDE-2):

1. Open the front access door.
2. Remove the two (2) pins from the rotating rack coupling located at the top of the rack inside the cabinet. (See Figure 10.)
3. Lower the connecting coupling until it is free of the motor shaft and remove the rack from the cabinet.

#### To Replace The Rotating Rack:

1. Insert the rack into the cabinet through the access door and place and rack bottom point in the dimple located at the center of the cabinet floor.
2. Slide the rack coupling up onto the motor shaft and align the coupling holes.
3. Insert the two (2) pins through the coupling and through the shafts.

## DRAINING THE RESERVOIR

### WARNING

To avoid any injury, turn the power OFF to the unit and allow to cool before draining.

It is recommended that the Flav-R-Fresh® water reservoir be drained prior to moving the cabinet and after removing lime or mineral deposits from the water reservoir.

To drain reservoir, locate valve on underside of the ceiling sheet. Position a 1 gallon (4 liters) container under valve. Turn the valve handle from the Horizontal position (closed) to the Vertical position (open). Once reservoir is empty return handle to the closed position.

The Hatco Flav-R-Fresh® Holding and Display Cabinets are designed for maximum durability and performance, with minimum maintenance. The rack motor and blower motor are permanently lubricated and require no maintenance.

*NOTE: If the water used has an excessive amount of lime or mineral content, follow the instructions for periodic cleaning and de-liming of the water reservoir.*

### NOTICE

**Water Quality Requirements – Incoming water in excess of 3.0 grains of hardness per gallon (GPG) (.75 grains of hardness per liter) must be treated and softened before being used. Water containing over 3.0 GPG (.75 GPL) will decrease the efficiency and reduce the operating life of the unit.**

*NOTE: Product failure caused by liming or sediment buildup is not covered under warranty.*

## REMOVING LIME & MINERAL DEPOSITS

1. Turn the power switch off and unplug the unit from its power source.
2. After the unit has cooled down, drain all remaining water out of the unit.
3. Fill the unit with a mixture of 75% water and 25% off-the-shelf vinegar.

*NOTE: It is recommended that this procedure be performed when the unit will not be used for a period of time, such as the end of the day.*

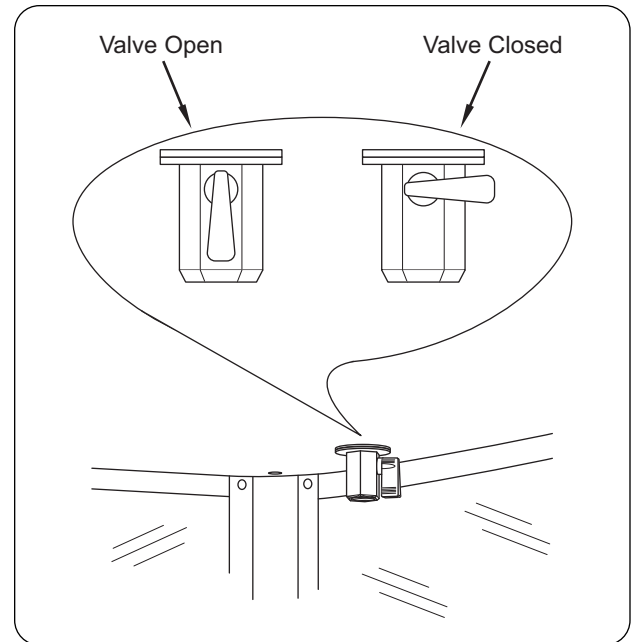


Figure 11. Draining Reservoir Valve

4. Plug unit into the correct power source and turn the unit ON.
5. With both the humidity and heat settings on high, allow the unit to run for 30 minutes.
6. After the de-liming period, turn the unit off, unplug from the power source, and allow it to cool
7. Drain the solution from the unit. (See *DRAINING THE RESERVOIR*.)
8. Continue to fill and drain the unit with water only until the discharge is clear and all de-liming solution has been removed and rinsed.
9. Plug the cabinet power cord into its power source and fill the unit as usual for daily operation.

*NOTE: How often this procedure must be performed depends on the lime and mineral content of the water used for daily operation.*

# MAINTENANCE

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## DISPLAY LIGHT BULB REPLACEMENT

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

To replace a bulb, disconnect the power supply and wait until the unit has cooled. Display lamps have a threaded base. Unscrew the bulb from the unit and replace it with a new specially coated incandescent bulb. Hatco shatter-resistant bulbs meet NSF standards for food holding and display areas. For 120 Volt applications, use Hatco part number 02.30.043.00. For 220 Volt applications use Hatco part number 02.30.058.00.

### **WARNING**

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

### **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 after-market 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.

# TROUBLESHOOTING GUIDE



## WARNING

To avoid any injury or damage the unit must only be serviced by qualified personnel.



## WARNING

To prevent electric shock or injury, turn the power switch OFF, unplug the unit from the power source and allow to cool completely before performing any maintenance or cleaning.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Unit is energized, but display lights do not work.	Light bulb is burned out or loose.	Check light bulb; if burned out, replace. If loose, tighten.
Unit operates, but is not circulating air inside cabinet.	Blower wires are loose or disconnected.	Contact Authorized Service Agent or Hatco for assistance.
	The correct voltage may not be supplied to blower.	Contact Authorized Service Agent or Hatco for assistance.
Unit is plugged in, however nothing works.	No power to unit.	Check electrical receptacle and verify that power supply matches specifications on unit. If receptacle is not working, check circuit breaker and reset or plug unit into a different known working receptacle.
	Power cord connections are loose or disconnected.	Contact Authorized Service Agent or Hatco for assistance.
	Power cord is damaged.	Contact Authorized Service Agent or Hatco for assistance.
	Defective On/Off switch.	Contact Authorized Service Agent or Hatco for assistance.
Unit is operational, but revolving rack (if so equipped) does not turn.	Incorrect voltage is supplied to rack motor.	Contact Authorized Service Agent or Hatco for assistance.
	Proximity magnet or proximity switch not working properly.	Contact Authorized Service Agent or Hatco for assistance.

## TROUBLESHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Unit is not producing any "hot air" inside cabinet.	Safety high-limit is tripped or open.	Contact Authorized Service Agent or Hatco for assistance.
	Incorrect voltage supplied to heating element.	Contact Authorized Service Agent or Hatco for assistance.
	Blower motor is not working.	Check blower motor - refer to Symptom <i>"Unit operates, but is not circulating air inside cabinet."</i>
Unit is heating, but is not producing humidity inside cabinet. Low water light is off, and unit is full of water.	Incorrect voltage supplied to water heating element or water heating element is defective.	Contact Authorized Service Agent or Hatco for assistance.
Unit is heating, but is not producing humidity inside cabinet. LOW WATER indicator light is on and unit is full of water.	Low water protection system is malfunctioning.	Contact Authorized Service Agent or Hatco for assistance.



## ACCESSORIES

### 4" (102 MM) ADJUSTABLE LEGS

The 4" (102 mm) adjustable legs are used to add additional height to the unit.

1. Secure all glass sides and doors with tape. Lay the unit on it's side.
2. Remove the four 1" (25 mm) metal screw type feet.
3. Remove leg bracket hardware, and align the new leg bracket (part number 04.24.235.00) over existing bracket. Secure to the cabinet with the previously removed hardware.
4. Screw the 4" (102 mm) legs into the holes provided. After all the legs are tightened, return the unit to its upright position. If the unit is not level or rocks, turn the adjustable tip of the appropriate leg to correct the condition. (See Figure 12.)

### DISPLAY RACKS

A nickel-plated 4-tier circle rack, a nickel-plated 4-shelf multi-purpose rack and a stainless steel pretzel tree are available to "customize" Flav-R-Fresh® to your foodservice operation. (See Figure 13.)

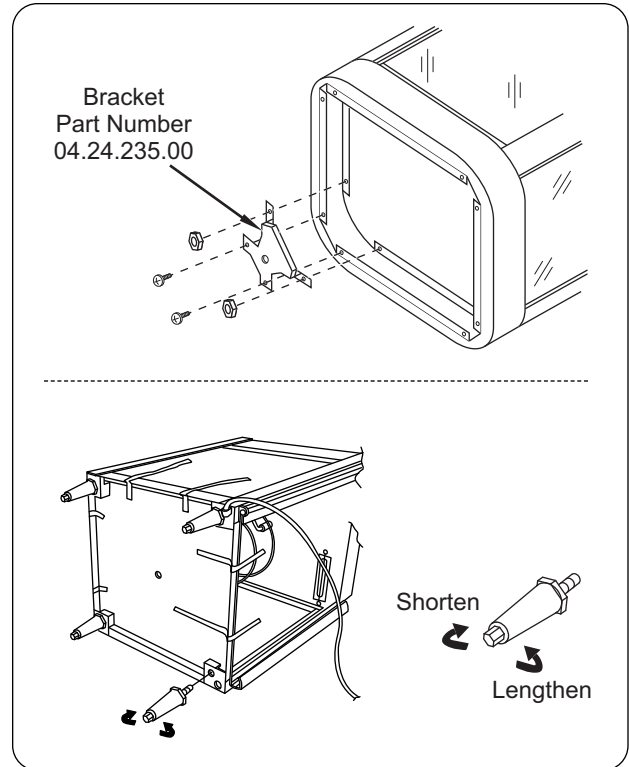
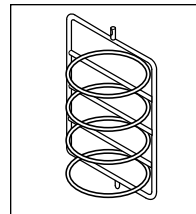
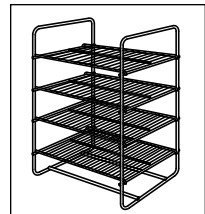


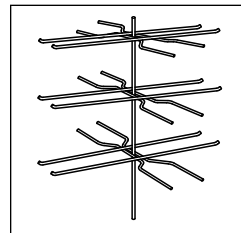
Figure 12. Installation of Adjustable Legs



**4-Tier Circle Rack\***  
Model FDWD4TCR  
3-1/4" (83 mm)  
between shelves.



**4-Shelf Multi-Purpose Rack**  
Model FDWD4SMP  
3-1/2" (89 mm)  
between shelves.  
1<sup>st</sup> & 3<sup>rd</sup> racks are removable.



**3-Tier Pretzel Tree\***  
Model FDWD3TPT  
5-7/8" (149 mm)  
between tiers.

\*Racks designed for use with motorized display.

Figure 13. Display Racks

# ACCESSORIES

## MERCHANDISING DECAL

Self-adhesive merchandising decals are available to promote your food products. The decals are designed to be installed on three (3) sides of the cabinet above the glass panels. Merchandising decals are red with yellow letters reading HOT PIZZA or HOT PRETZELS. A graphic decal featuring pizza illustrations is also available.

### Decal Installation (See Figure 14)

1. Before installing decals, clean the side panels with a non-oily cleaner, such as isopropyl alcohol (rubbing alcohol).
2. After the cleaned surfaces have dried, remove the protective backing from the decal and apply to the panel.
3. Any air pockets or bubbles behind the sticker can be removed by rubbing gently with soft cloth from the center towards the outer edges.

## SIGN HOLDER

### Three Piece Sign Holder Installation (See Figure 15)

*NOTE: Signage not supplied by Hatco. Sign dimensions 19-1/16" w (484 mm) x 3-1/4" h (83 mm) x 1/16" l (2 mm).*

To install the sign holder follow these instructions:

1. Remove the screws from FDWD hood.
2. Align side sign holders over mounting holes for hood.
3. Reinsert mounting screws from hood in holes on control side of sign holder. DO NOT tighten.
4. Align back sign holder with holes in side sign holders and holes in hood.
5. Reinsert mounting screws from hood into back sign holder.
6. Tighten all screws.
7. Place polycarbonate window(s) into sign holder.

### One Piece Sign Holder Installation (See Figure 16)

*NOTE: Signage not supplied by Hatco. Sign dimensions 9-5/16" w (491 mm) x 6-5/8" h (168 mm) x 1/16" l (2 mm).*

1. Remove the screws from FDWD hood.
2. Remove existing hood.

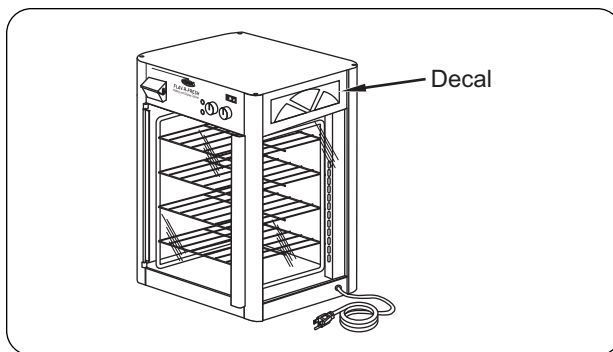


Figure 14. Decal Installation

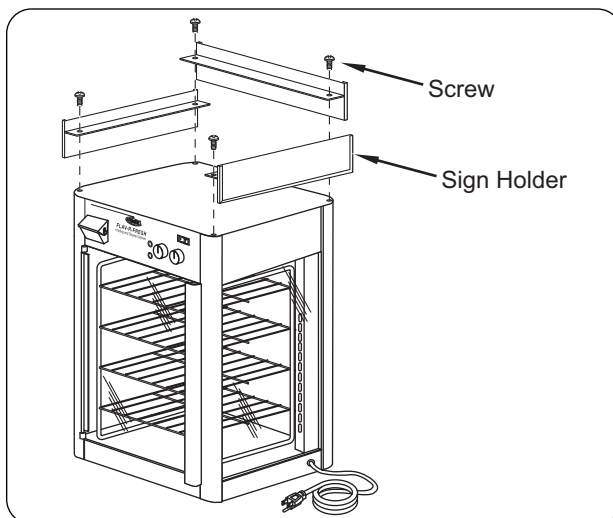


Figure 15. Three Piece Sign Holder Installation

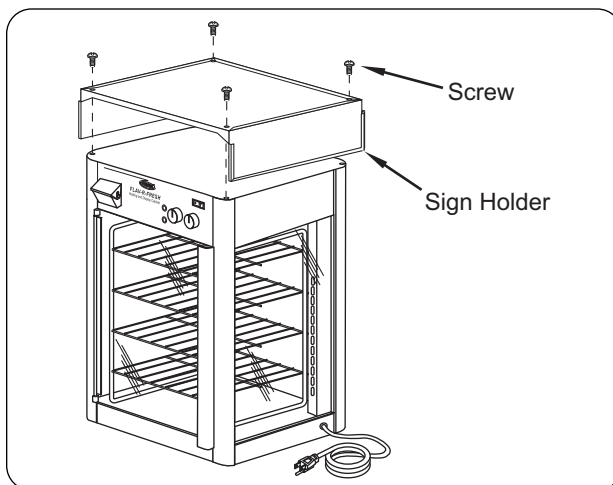


Figure 16. One Piece Sign Holder Installation

3. Place new hood-sign holder assembly over mounting holes.
4. Reinsert mounting screws in holes.
5. Tighten all screws.

# 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)  
Display Warmer Elements (metal sheathed air heating)  
Holding Cabinet Elements (metal sheathed air heating)  
Built-In Heated Well Elements  
(metal sheathed)

**b) One (1) Year Parts and Labor PLUS Four (4) Years Parts-Only Warranty on pro-rated terms that Hatco will explain at Buyer's request:**

3CS and FR Tanks

**c) One (1) Year Parts and Labor PLUS Nine (9) Years Parts-Only Warranty on:**

Electric Booster Heater Tanks  
Gas Booster Heater Tanks

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT INFRINGEMENT. Without limiting the generality of the foregoing, SUCH WARRANTIES DO NOT COVER: Coated incandescent light bulbs, fluorescent lights, 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, or application of improper voltage.

## 2. LIMITATION OF REMEDIES AND DAMAGES

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