



# FLAV-R-SAVOR<sup>®</sup>

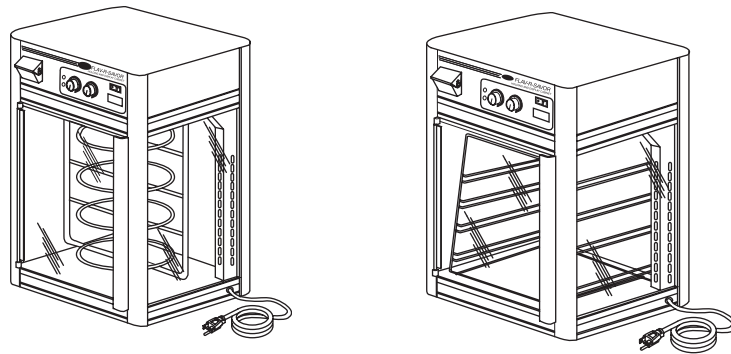
## Merchandising Cabinets with Heat & Humidity

### FSD & FSDT Series

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## Installation & Operating Manual

I&W #07.05.005.00



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 (located on the side of the unit), voltage and purchase date of your Flav-R-Savor® Merchandising Cabinet with Heat & Humidity 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

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



24 Hour 7 Day Parts & 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](http://www.hatcocorp.com).

## INTRODUCTION

Hatco Flav-R-Savor Merchandising Cabinets with Heat & Humidity are designed to hold prepared foods for prolonged periods of time while maintaining that “just-made” quality.

Hatco Heat & Humidity Cabinets provide the best environment for food products by regulating the air temperature while at the same time balancing the humidity level.

Flav-R-Savor 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 rapidly recover temperature after opening and closing the door.

The use of controlled moisturized heat maintains serving temperature and texture longer than conventional dry holding equipment.














This manual provides the installation, safety and operating instructions for the Flav-R-Savor Merchandising Cabinets. We recommend all installation, operating and safety instructions appearing in this manual be read prior to installation or operation of your Hatco Display Cabinet. 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 personal 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 Flav-R-Savor Merchandising Cabinet with Heat & Humidity 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 INFORMATION

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





## WARNINGS

-  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.
-  To avoid any 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, 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 avoid electrical shock or personal injury, do not steam clean or use excessive water on the unit.
-  Some exterior surfaces on the unit will get hot. Use caution when touching these areas to avoid injury.
-  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 specially coated or covered could result in personal injury and/or food contamination.
-  Be sure the protective lens cover for the light bulbs are installed. Breakage of a bulb not properly covered could result in personal injury and/or food contamination.
-  Unit is not waterproof. DO NOT submerge in water. Do not operate if it has been submerged in water.
-  Do not lay unit on the side with the control panel or damage to the unit could occur.
-  To avoid any injury, turn the power OFF to the unit and allow to cool before draining.
-  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.
-  Units with a motorized rotating style display use safety door switches that turn the rotating rack off when a door is opened. If the rack rotates when a door is opened, unplug the unit and contact your Authorized Service Agent for service.

## 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.
-  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.
-  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.

## CAUTIONS

-  To avoid any injury or damage locate the Holding 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.
-  The unit must be transported in an upright position. If laid on its side, the water must be drained from the unit.
-  The National Sanitation Foundation (NSF) requires that 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 the unit must be located indoors where the ambient air temperature is a minimum of 70°F (21°C) and a maximum of 85°F (29°C).

# IMPORTANT SAFETY INFORMATION

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## CAUTIONS

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

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.

## MODEL DESCRIPTION

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### ALL MODELS

Flav-R-Savor Display Cabinets come in either brushed aluminum or painted *Designer* colors. All units feature tempered glass sides and door(s). The access door can be hinged left or right. The cabinet interior top and bottom is made of easy-to-clean stainless steel. The unit also has fluorescent lighting to heighten product awareness. All display racks are plated.

### MODELS FSD-1 AND FSDT-1

The FSD-1 is a standard single door model with revolving display motor. It has a revolving rack that holds three or four display trays. The FSDT-1 is a single door model with revolving display motor like the FSD-1, but it is 5" (127 mm) taller and holds four or five display trays.

### MODELS FSD-1X AND FSDT-1X

The FSD-1X and FSDT-1X are similar to the FSD-1 and FSDT-1, but feature a stationary rack instead of a rotating rack.

### MODELS FSD-2 AND FSDT-2

The FSD-2 and FSDT-2 are similar to the FSD-1 and FSDT-1, but have a convenient double door to allow "pass-through" for production areas.

### MODELS FSD-2X AND FSDT-2X

The FSD-2X and FSDT-2X are similar to the FSD-1X and FSDT-1X featuring a stationary rack instead of a rotating rack and also have a convenient double door to allow "pass-through" for production areas.

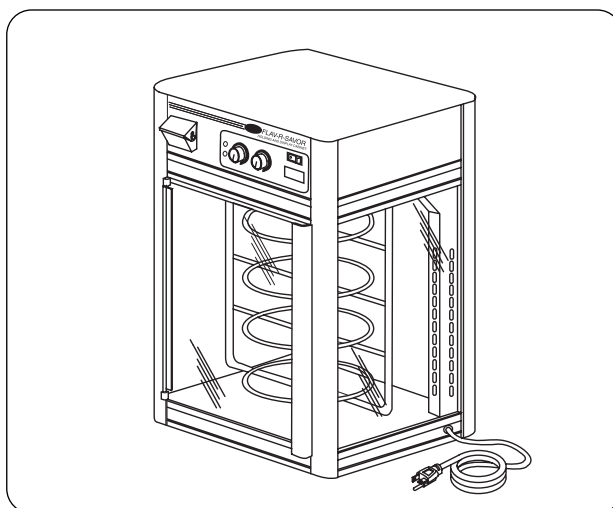


Figure 1. Model FSDT-1



Figure 2. Model FSDT-1X

# SPECIFICATIONS

## ELECTRICAL RATING CHART

| Model   | Voltage      | Hertz | Watts     | Amps    | Plug Configuration | Shipping Weight  |
|---------|--------------|-------|-----------|---------|--------------------|------------------|
| FSD-1   | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 113 lbs. (51 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 113 lbs. (51 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 113 lbs. (51 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 113 lbs. (51 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 113 lbs. (51 kg) |
| FSD-1X  | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 111 lbs. (50 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 111 lbs. (50 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 111 lbs. (50 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 111 lbs. (50 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 111 lbs. (50 kg) |
| FSD-2   | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 114 lbs. (52 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 114 lbs. (52 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 114 lbs. (52 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 114 lbs. (52 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 114 lbs. (52 kg) |
| FSD-2X  | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 112 lbs. (51 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 112 lbs. (51 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 112 lbs. (51 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 112 lbs. (51 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 112 lbs. (51 kg) |
| FSDT-1  | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 120 lbs. (54 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 120 lbs. (54 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 120 lbs. (54 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 120 lbs. (54 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 120 lbs. (54 kg) |
| FSDT-1X | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 118 lbs. (51 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 118 lbs. (51 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 118 lbs. (51 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 118 lbs. (51 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 118 lbs. (51 kg) |
| FSDT-2  | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 122 lbs. (55 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 122 lbs. (55 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 122 lbs. (55 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 122 lbs. (55 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 122 lbs. (55 kg) |
| FSDT-2X | 120          | 60    | 1440      | 12.0    | NEMA 5-15P         | 120 lbs. (54 kg) |
|         | 220          | 50/60 | 1440      | 6.5     | CEE 7/7 Schuko     | 120 lbs. (54 kg) |
|         | 240          | 50/60 | 1440      | 6.0     | BS 1363            | 120 lbs. (54 kg) |
|         | 220-230 (CE) | 50/60 | 1440-1574 | 6.5-6.8 | CEE 7/7 Schuko     | 120 lbs. (54 kg) |
|         | 230-240 (CE) | 50/60 | 1322-1440 | 5.8-6.0 | BS 1363            | 120 lbs. (54 kg) |

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

*NOTE: Shipping weight includes packaging.*

# SPECIFICATIONS

## PLUG CONFIGURATION

Units are supplied from the factory with an electrical cord and plug installed. Plugs are supplied according to the applications. (See Figure 3.)

### 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.

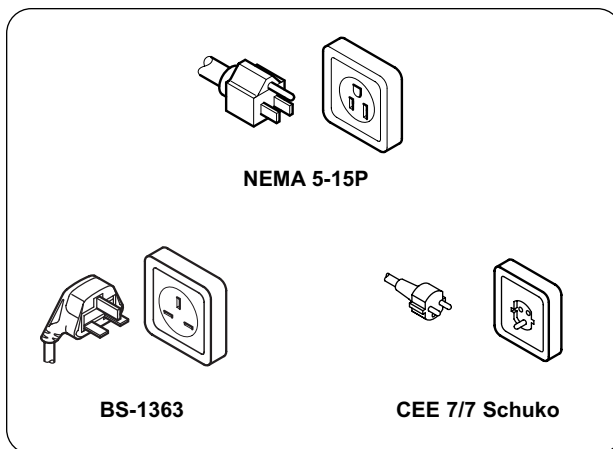


Figure 3. Plug Configurations

## DIMENSIONS

| Model   | Width<br>(A)        | Depth<br>(B)        | Height<br>(C)*      |
|---------|---------------------|---------------------|---------------------|
| FSD-1   | 22-1/2"<br>(572 mm) | 24"<br>(610 mm)     | 27-1/2"<br>(699 mm) |
| FSD-1X  | 22-1/2"<br>(572 mm) | 24"<br>(610 mm)     | 27-1/2"<br>(699 mm) |
| FSD-2   | 22-1/2"<br>(572 mm) | 25-1/8"<br>(638 mm) | 27-1/2"<br>(699 mm) |
| FSD-2X  | 22-1/2"<br>(572 mm) | 25-1/8"<br>(638 mm) | 27-1/2"<br>(699 mm) |
| FSDT-1  | 22-1/2"<br>(572 mm) | 24"<br>(610 mm)     | 32-1/2"<br>(826 mm) |
| FSDT-1X | 22-1/2"<br>(572 mm) | 24"<br>(610 mm)     | 32-1/2"<br>(826 mm) |
| FSDT-2  | 22-1/2"<br>(572 mm) | 25-1/8"<br>(638 mm) | 32-1/2"<br>(826 mm) |
| FSDT-2X | 22-1/2"<br>(572 mm) | 25-1/8"<br>(638 mm) | 32-1/2"<br>(826 mm) |

Cabinet Openings:

FSD models: 19"W x 18-5/8"H (483 x 473 mm)

FSDT models: 19"W x 23-3/4"H (483 x 603 mm)

\*Add 1" (25 mm) to height for display sign.

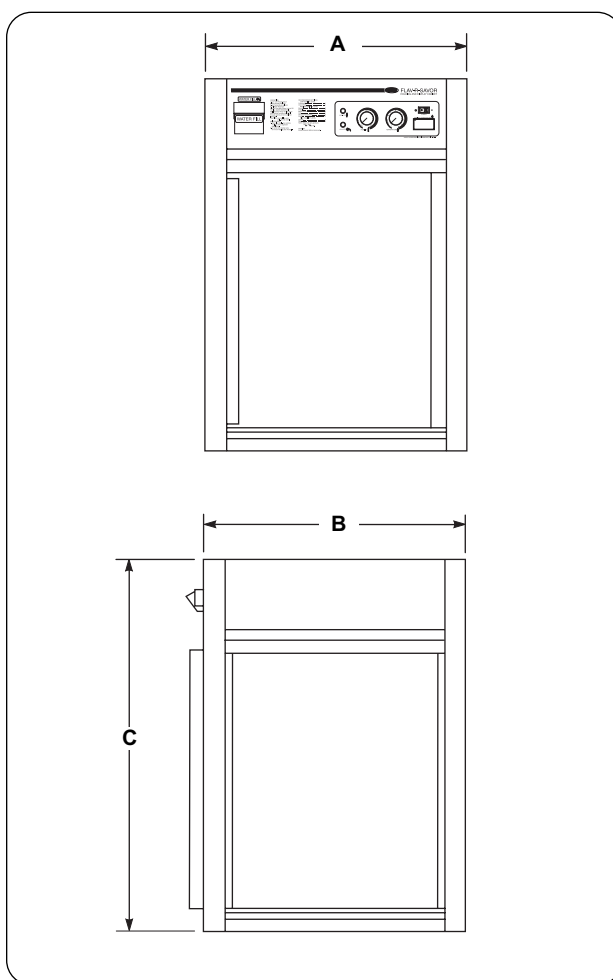


Figure 4. Dimensions

# INSTALLATION

## UNPACKING

The Flav-R-Savor Holding and 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.

### **WARNING**

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

### **WARNING**

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

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 film from all surfaces of unit.
4. The stainless steel floor in all Flav-R-Savor units is protected during shipping with a sheet of corrugated cardboard. This protection must be removed prior to cabinet operation.
5. The plated display racks have packing material and cardboard attached for protection during shipping. This protection must be removed prior to cabinet operation.
6. The Flav-R-Savor Holding and Display Cabinets have tempered glass panels that are protected and secured during shipping by rubber tabs and/or foam tape along the glass edges. These tabs and foam tape must be removed prior to cabinet operation.

To remove a glass panel, grasp the panel firmly from inside and outside of the cabinet, lift up and out of the bottom channel, then carefully lower glass panel until it clears the upper channel.

To reinstall, position glass panel top edge under the cabinet lip, raise panel until it clears the bottom channel, then carefully lower the panel until it rests in the bottom channel.

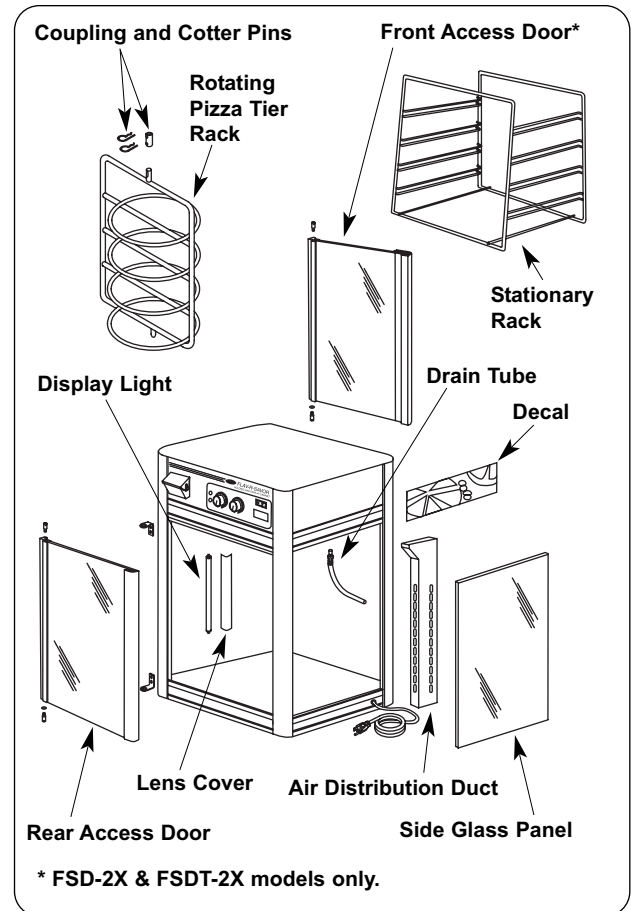


Figure 5. FSD & FSDT Models

7. If your unit was ordered with Merchandising Decal Graphics, see *ACCESSORIES* for installation instructions.

If your unit is equipped with the optional Merchandising Display Sign, see *ACCESSORIES* for installation instructions.

If installing the optional Stacking Kit, see *ACCESSORIES* for installation instructions.



# INSTALLATION

## LOCATION

### ⚠ WARNING

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.

### ⚠ CAUTION

To avoid any injury or damage locate the Holding 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.

### ⚠ CAUTION

The unit must be transported in an upright position. If laid on its side, the water must be drained from the unit.

### ⚠ CAUTION

The National Sanitation Foundation (NSF) requires that 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.

*NOTE: The unit must be transported in the upright position. If laid on its side, all glass surfaces must be secured with tape, and water must be drained from the unit. See DRAINING THE RESERVOIR in the MAINTENANCE section.*

## REVERSIBLE ACCESS DOOR

1. Remove hinge pivot pin from top of door left side and carefully remove door from hinges. Do not lose plastic washer located under bottom hinge pin.
2. Swap the door hinges with the strike plates on the right side using original hardware.
3. Reinstall hinge pivot pin to door removed in step 1.
4. Rotate the door 180° and remove other hinge pin.
5. Place plastic washer on bottom hinge pin and install door into hinges. Install top hinge pivot pin and tighten securely.

*NOTE: See RELOCATING PROXIMITY SWITCH when reversing a door.*

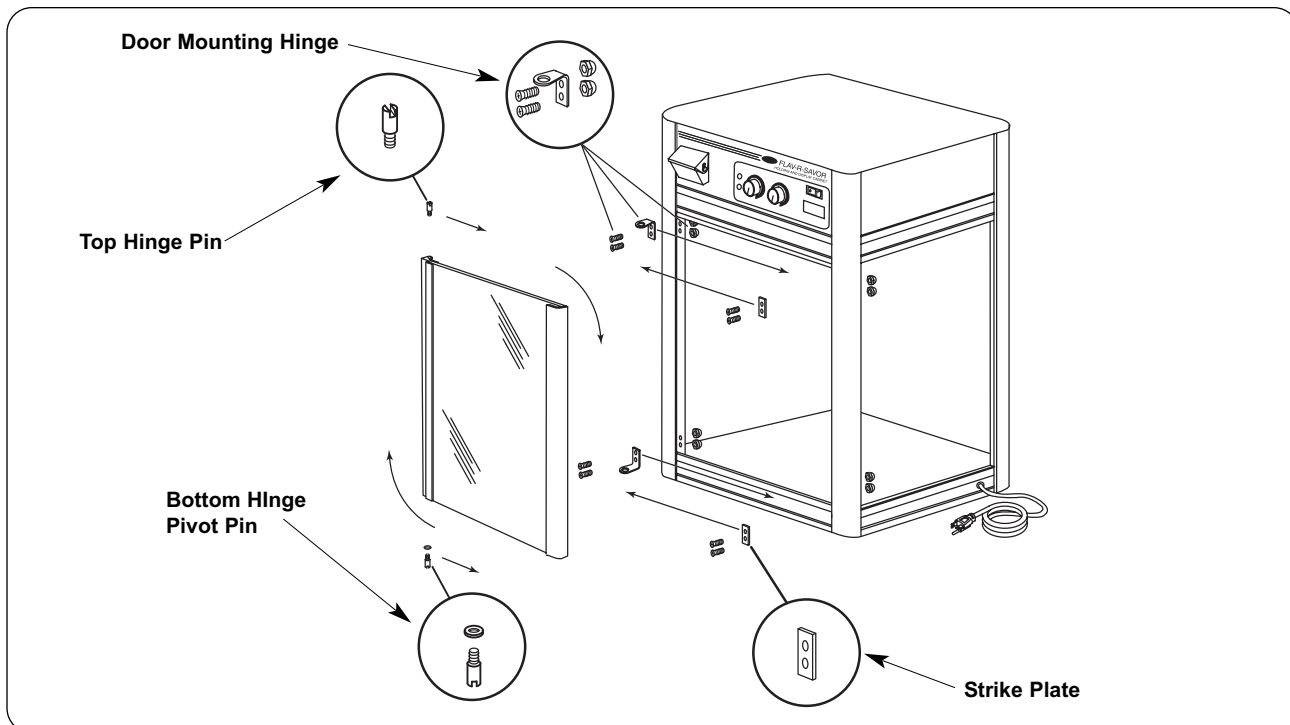


Figure 6. Reversible Access Door



# INSTALLATION

## RELOCATING PROXIMITY SWITCH (Rotating Rack Models Only—FSD-1, FSDT-1, FSD-2, FSDT-2)

(See Figure 7)

FSD 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. Remove the 4 screws and top cover.
2. Remove the screw and nut securing the proximity switch to the cabinet. The screw is accessed from inside the cabinet. Reinstall screw and nut into hole after removing switch.
3. 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.

4. 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.

Make sure to maintain switch orientation when tightening hardware.

5. 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).

*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.*

6. Install cover and four screws.

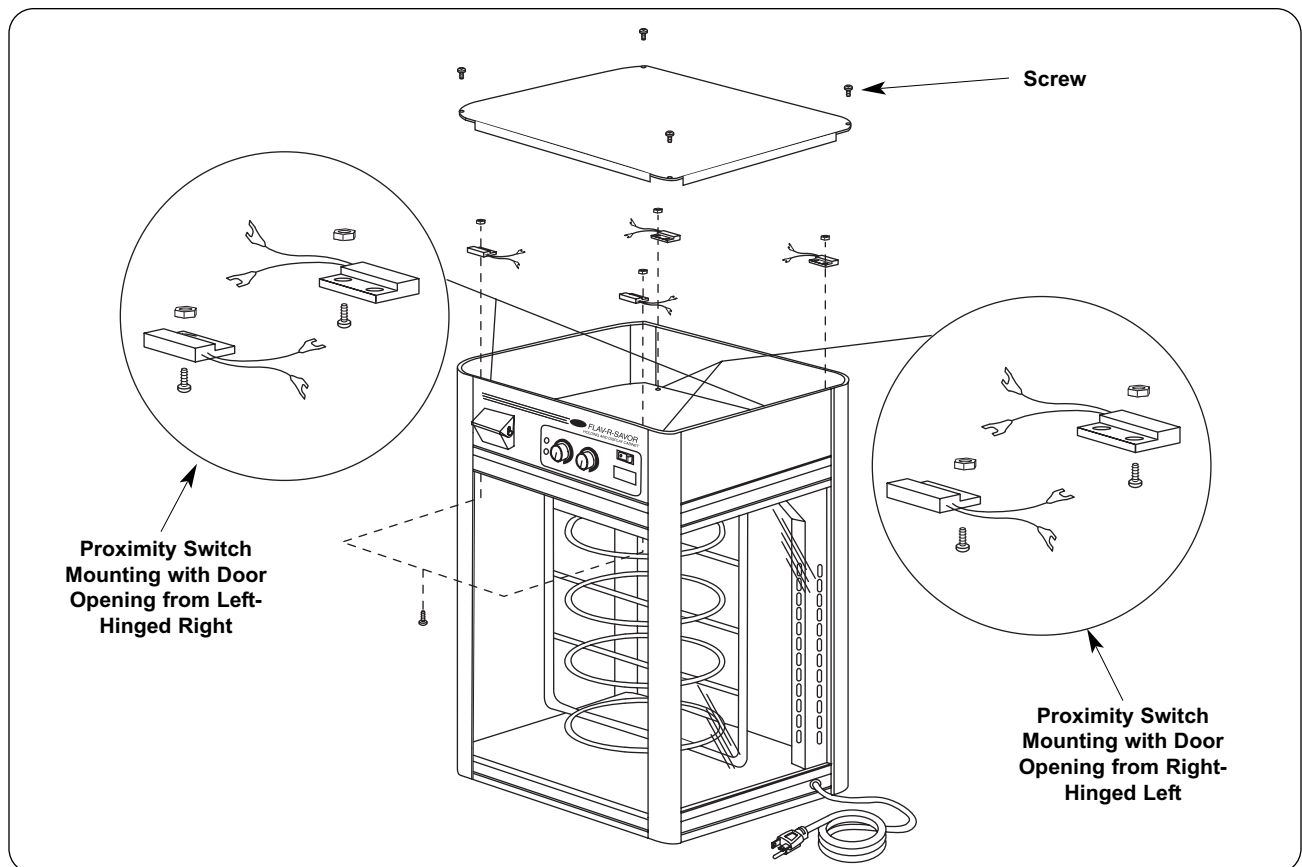


Figure 7. Relocating Proximity Switch

# OPERATION

## ⚠ WARNING

Some exterior surfaces on the unit 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.

## ⚠ CAUTION

Unit is not weatherproof. For safe and proper operation the unit must be located indoors where the ambient air temperature is a minimum of 70°F (21°C) and a maximum of 85°F (29°C).

1. Plug unit into an electrical outlet of the correct voltage, size and plug configuration. See *SPECIFICATIONS* for details.
2. Turn the Power Switch on the control panel to the ON position. The indicators will light up at this time. (See Figure 8.)
3. Fill the water reservoir with softened or distilled water. To fill the reservoir, lift the fill cup cover up and pull forward. Slowly pour the water into the cup until the red Low Water Indicator 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 deionized water. If "hard" water is used, the reservoir will require periodic cleaning and deliming. (See *MAINTENANCE* for removing lime and mineral deposits.)

*NOTE: On the initial fill, the water reservoir capacity is one gallon (3.8 liters).*

4. Set the Humidity Control and Temperature Control to the desired level. See the *FOOD HOLDING GUIDE* for recommendations.

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

5. Allow 30 minutes to preheat a full reservoir of water. The green Humidity Cycle Indicator will go off when the interior of the cabinet has reached the selected humidity setting. The Flav-R-Savor cabinet is then ready to hold foods at the humidity and temperature selected.

The reservoir capacity permits uninterrupted operation for approximately 4-8 hours, depending on the settings and how frequently the door is opened. When the red Low Water Indicator is lit, add water to the reservoir.

*NOTE: Product failure due to lime or mineral deposits is not covered under warranty.*

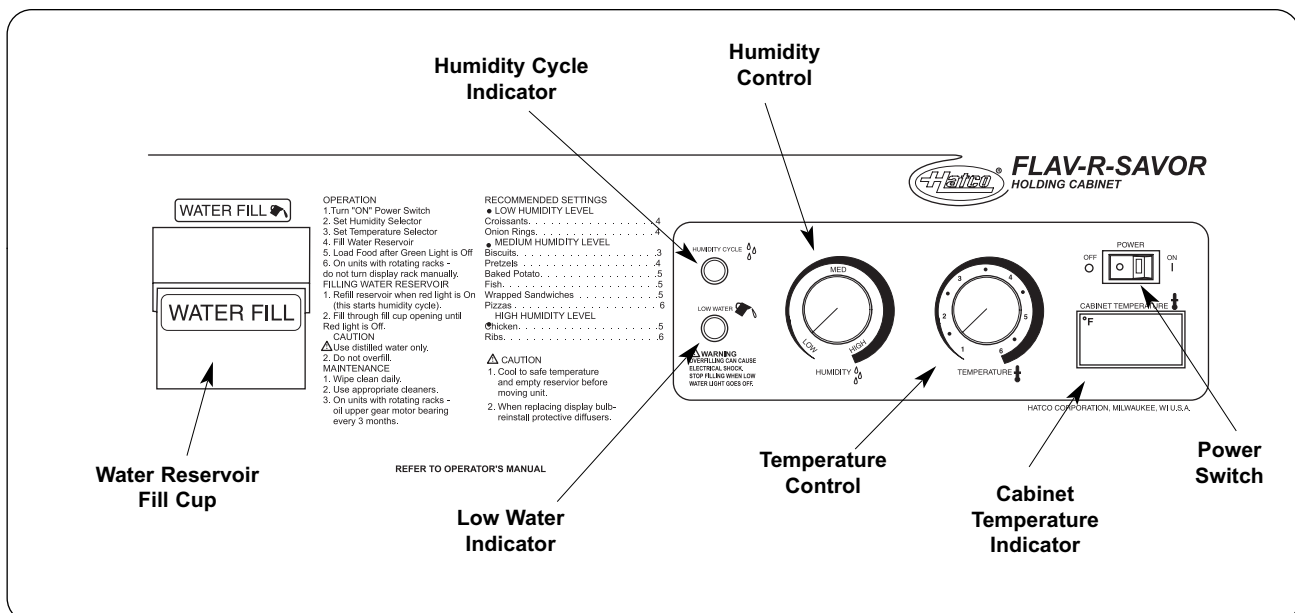


Figure 8. Control Panel

## OPERATION

### FOOD HOLDING GUIDE

| Type of Food          | Maximum Holding Time | Humidity Setting | Temperature |     |    |
|-----------------------|----------------------|------------------|-------------|-----|----|
|                       |                      |                  | Setting     | °F  | °C |
| Bagels                | 3 Hours              | Low              | 4           | 140 | 60 |
| Biscuits              | 2 Hours              | Medium           | 3           | 130 | 54 |
| Chicken - Parts       | 5 Hours              | High             | 5           | 175 | 79 |
| Chicken - Whole       | 2 Hours              | High             | 5.5         | 180 | 82 |
| Croissants            | 3 Hours              | Low              | 4           | 140 | 60 |
| Fish                  | 1 Hour               | Medium           | 5.5         | 180 | 82 |
| Frankfurters          | 2 Hours              | High             | 6           | 185 | 85 |
| Fruit Pies            | 3.5 Hours            | Medium           | 4           | 140 | 60 |
| Hot Dogs (Appetizers) | 4 Hours              | High             | 5           | 175 | 79 |
| Onion Rings           | 1 Hour               | Low              | 4           | 140 | 60 |
| Pizza                 | 1 Hour               | Medium           | 6           | 185 | 85 |
| Pretzels              | 3 Hours              | Medium           | 4           | 140 | 60 |
| Ribs                  | 2 Hours              | High             | 6           | 185 | 85 |
| Wrapped Sandwiches    | 2 Hours              | Medium           | 4.5         | 160 | 71 |

*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-Savor Holding & Display Cabinets 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

#### WARNING

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

#### WARNING

Unit is not waterproof. DO NOT submerge in water. Do not operate if it has been submerged in water.

To preserve the bright finish of the Flav-R-Savor cabinet, it is recommended that the exterior and interior surfaces be wiped daily with a damp cloth. Food pans should be removed and washed. Air distribution duct is removable for cleaning. 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 unit 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.

#### Removing 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.

# MAINTENANCE

## Installing 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.

## Removing Rotating Rack

(Models FSD-1, FSDT-1, FSD-2, FSDT-2)

1. Open the front access door.
2. Remove the two cotter pins from the rotating rack coupling located at the top of the rack inside the cabinet. (See Figure 9.)
3. Lower the connecting coupling until it is free of the motor shaft and remove the rack from the cabinet.

## Installing Rotating Rack

(Models FSD-1, FSDT-1, FSD-2, FSDT-2)

1. With the coupling on the rack, insert the rack into the cabinet through the access door and place the 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 cotter pins through the coupling and shaft.

### **WARNING**

Units with a motorized rotating style display use safety door switches that turn the rotating rack off when a door is opened. If the rack rotates when a door is opened, unplug the unit and contact your Authorized Service Agent for service.

## 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-Savor water reservoir be drained prior to moving the cabinet and after removing lime or mineral deposits from the water reservoir.

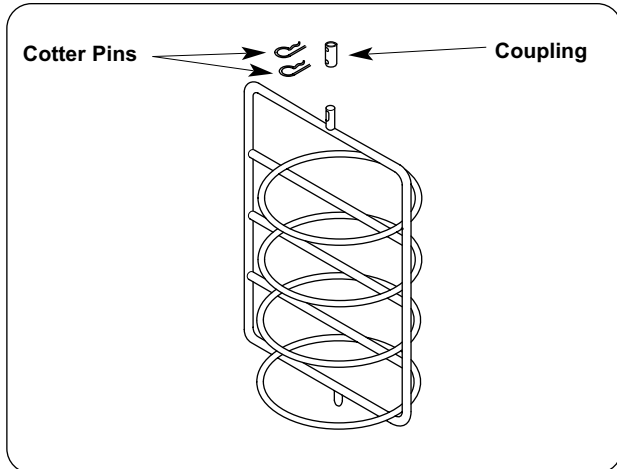


Figure 9. Rotating Rack

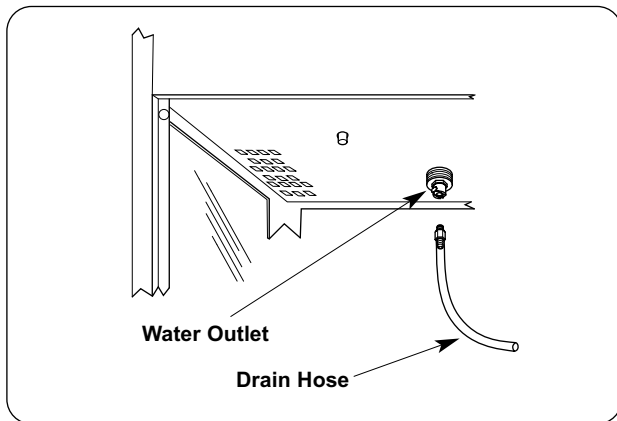


Figure 10. Draining Reservoir

**NOTE:** The drain hose assembly is located in the corner of the cabinet inside the rear door.

**NOTE:** Position a container to hold the water while draining.

**NOTE:** To ease installation, moisten the inside of the drain hose end with water before installing.

1. Insert the drain hose fitting into the water outlet, located on the ceiling of the cabinet. Once the fitting is installed, water will begin to drain from the hose. (See Figure 10.)
2. Once the unit has finished draining, the drain tube assembly can be removed by pressing the release tab and gently pulling the fitting out.
3. Place the drain tube back into the holding clips inside the rear door.

# MAINTENANCE

## DISPLAY LIGHT BULB REPLACEMENT

### 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 specially coated or covered could result in personal injury and/or food contamination.

### WARNING

Be sure the protective lens cover for the light bulbs are installed. Breakage of a bulb not properly covered could result in personal injury and/or food contamination.

The unit is equipped with two 120 Volt fluorescent light tubes which illuminate the warming area. These tubes have a special lens cover to guard against injury and food contamination in the event of breakage. When replacing a fluorescent light, use Hatco part #02.30.074.00.

To replace a fluorescent light, disconnect the power supply and wait until the unit has cooled. Remove the protective lens cover from the fixture and then carefully twist the fluorescent tube and gently pull to remove it from the sockets.

## REMOVING LIME & MINERAL DEPOSITS

### CAUTION

**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.*

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

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. See *DRAINING THE RESERVOIR*.
3. Fill the unit with a mixture of water and delimer.

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

4. Allow the unit to stand with the mixture in the reservoir for the recommended period of time. (The time required will vary depending on the solution used and amount of deposits in the reservoir.)
5. After the deliming period, drain the solution from the tank.
6. Continue to fill and drain the unit with water only, until the discharge is clear and all deliming solution has been removed and rinsed.
7. 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.*

### 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

### STACKING KIT

Special brackets are available for stacking one unit on top of another. This stacking hardware secures the top unit to the lower unit. Holes must be drilled into both units and brackets attached using hardware supplied. (See Figure 11.)

### ADJUSTABLE LEGS

4" (102 mm) adjustable legs are available for the units. Legs mount in holes at bottom corners of cabinet. (See Figure 12.)

### MERCHANDISING DISPLAY SIGN

Merchandising Display Signs, which include the metal holder, acrylic window and printed sign are available to promote Pizza, Chicken or Fish food products. Install holder on one of three sides of the cabinet top.

1. Remove the existing screws securing the top cover in place, position the sign holder over the screw holes and reinstall the screws. (See Figure 13.)
2. Place the printed sign in the holder and slide the protective acrylic window over the sign.

### MERCHANDISING FOOD GRAPHICS

Graphic decals feature food illustrations only and are available for Pizza, Chicken, Pretzel and Croissant/Biscuits. Install decals on three sides of the cabinet above the glass panels.

1. Clean the stainless steel side panels with a non-oily cleaner, such as isopropyl alcohol (rubbing alcohol).
2. When sides are dry, simply remove the protective backing from the decal and apply to the panel.
3. Remove air pockets by rubbing gently with a soft cloth from the center towards the outer edges.

### PANS

Aluminum half-size bun pans 18" x 13" (457 x 330 mm) are available for the stationary style racks.

Aluminum Pizza pans are available in 14" (356 mm), 15" (381 mm), 16" (406 mm) and 18" (457 mm) diameters which fit all of the rotating style racks.

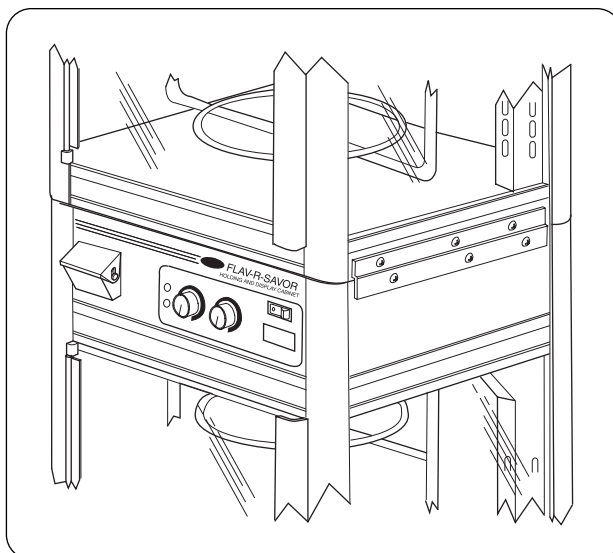


Figure 11. Stacking Kit

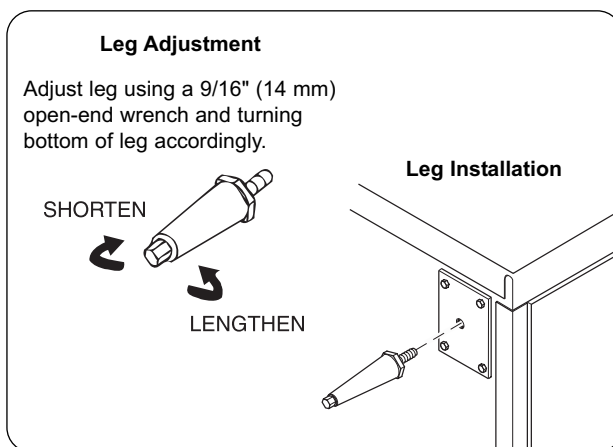


Figure 12. Adjustable Legs

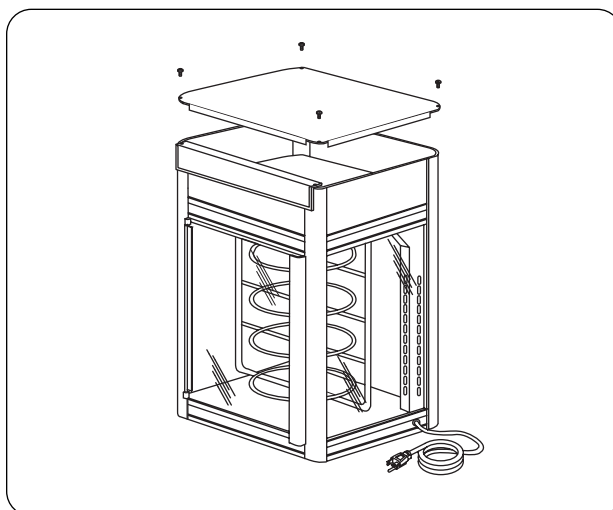


Figure 13. Display Sign



## DISPLAY RACKS

A wide assortment of plated racks are available to "customize" the Flav-R-Savor to your foodservice operation.

### FSD Only (See Figure 14)

5-Shelf Multi-Purpose Rack, Model - FS5SMPACC

3-Tier Circle Rack, Model - FSD3TCRACC

3-Tier Pan Rack, Model - FS3TPRACC‡

### FSDT Only (See Figure 15)

7-Shelf Multi-Purpose Rack, Model - FST7SMPACC

4-Tier Circle Rack, Model - FSDT4TCRACC

5-Tier Circle Rack, Model - FSDT5TCRACC

4-Tier Pan Rack, Model - FST4TPRACC‡

3-Shelf Angle Rack, Model - FST3SARACC

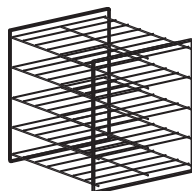
5-Shelf Angle Rack, Model - FST5SARACC

3-Tier Pretzel Tree, Model - FSDT3TPTACC

‡ Accommodates half-size bun pans, not included.

## DESIGNER COLORS

Choose from warm red, black, gray granite, white granite, hunter green or navy blue powdercoated cabinet colors to blend into any decor. Only available at time of purchase.



### 5-Shelf Multi-Purpose Rack

Model FS5SMPACC

Shelf 1: 2-3/4" (70 mm) on center.

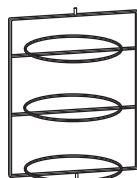
*NOTE: Shelf 1 is the bottom shelf.*

Shelf 2: 3" (76 mm) on center.

Shelf 3: 3" (76 mm) on center.

Shelf 4: 3-1/4" (83 mm) on center.

Shelves #2, 3 & 4 are removable.

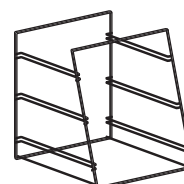


### 3-Tier Circle Rack

Model FSD3TCRACC

Top Tier: 5" (127 mm) on center.

All others: 5-1/4" (133 mm) on center.



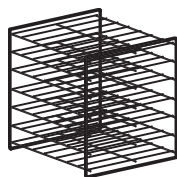
### 3-Tier Pan Rack

Model FS3TPRACC‡

Top Tier: 4" (102 mm) on center.

All others: 4-1/4" (108 mm) on center.

Figure 14. Display Racks - FSD Only



### 7-Shelf Multi-Purpose Rack

Model FST7SMPACC

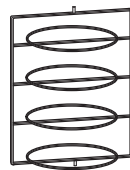
Shelves 1 & 5: 2-3/4" (70 mm) on center.

*NOTE: Shelf 1 is the bottom shelf.*

Shelves 2, 3 & 6: 3" (76 mm) on center.

Shelf 4: 3-1/4" (83 mm) on center.

Shelves #2, 3, 4, 6 & 7 are removable.

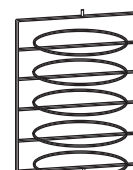


### 4-Tier Circle Rack

Model FSDT4TCRACC

Top Two Tiers: 5" (127 mm) on center.

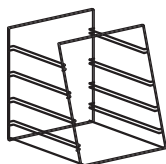
Bottom Two Tiers: 5-1/4" (133 mm) on center.



### 5-Tier Circle Rack

Model FSDT5TCRACC

All Tiers 4" (102 mm) on center.

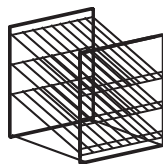


### 4-Tier Pan Rack

Model FST4TPRACC‡

Top Tier: 4" (102 mm) on center.

All others: 4-1/4" (108 mm) on center.



### 3-Shelf Angle Rack

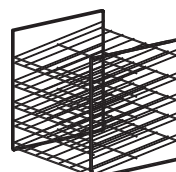
Model FST3SARACC

Top Tier: 5" (127 mm) on center.

All others: 5-1/4" (133 mm) on center.

Middle shelf is removable.

Rack shelves slant at 15° angle.

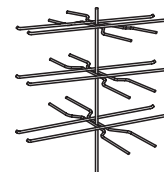


### 5-Shelf Angle Rack

Model FST5SARACC

All Shelves 3-3/4" (95 mm) on center.

All shelves are removable.



### 3-Tier Pretzel Tree

Model FSDT3TPTACC

Top Two Tiers: 6" (152 mm) on center.

Bottom Tier: 7" (178 mm) on center.

Figure 15. Display Racks - FSDT Only



# HATCO LIMITED WARRANTY

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## 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)
- 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.