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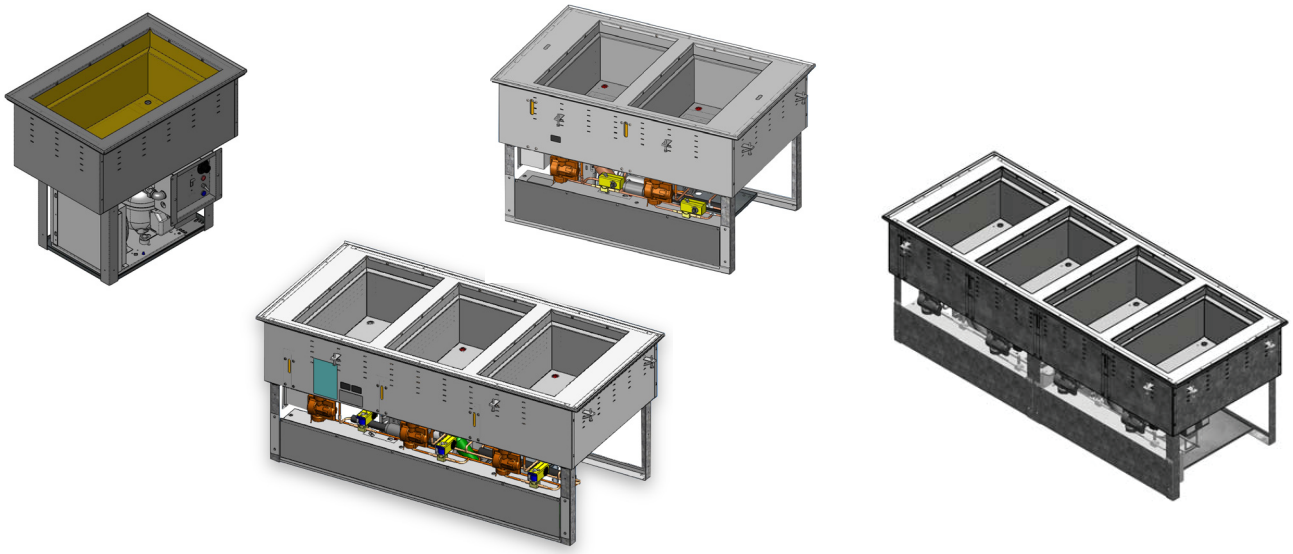
VOLLRATH®

Outperform every day.™

Operator's Manual

1 WELL, 2 WELL, 3 WELL, AND 4 WELL HOT/COLD DROP-IN

(NSF7 Cold Food Holding and NSF4 Hot Food Holding)



Item	Description	Heater Watts (per well)	Compressor HP	Compressor Refrigerant	Max Amps Draw	Voltage	Plug
3667101D	1 Well Hot/Cold Drop-in, Top Mount	625W	1/4 hp	R404	6.0	120V	5-15P
3667101U	1 Well Hot/Cold Drop-in, Bottom Mount						
3667102D	1 Well Hot/Cold Drop-in, Top Mount					120/208-240V	14-20P
3667102U	1 Well Hot/Cold Drop-in, Bottom Mount						
3667201D	2 Well Hot/Cold Drop-in, Manifold Drain				11.2	120V	5-15P
3667201DA	2 Well Hot/Cold Drop-in, Auto Drain						
3667202D	2 Well Hot/Cold Drop-in, Manifold Drain				8.6	120/208-240V	14-20P
3667202DA	2 Well Hot/Cold Drop-in, Auto Drain						
3667301D	3 Well Hot/Cold Drop-in, Manifold Drain				16.0	120V	5-20P
3667301DA	3 Well Hot/Cold Drop-in, Auto Drain						
3667302D	3 Well Hot/Cold Drop-in, Manifold Drain				11.2	120/208-240V	14-20P
3667302DA	3 Well Hot/Cold Drop-in, Auto Drain						
3667402D	4 Well Hot/Cold Drop-in, Manifold Drain		(2) 1/4 hp		14.0	120/208-240V	14-20P
3667402DA	4 Well Hot/Cold Drop-in, Auto Drain						

Thank you for purchasing this Vollrath equipment. Before operating the equipment, read and familiarize yourself with the following operating and safety instructions. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Safety Precautions

To ensure safe operation, read the following statements and understand their meaning. This manual contains safety precautions which are explained below. Please read carefully.

⚠ WARNING

Warning is used to indicate the presence of a hazard that will or can cause severe personal injury or death.

⚠ CAUTION

Caution is used to indicate the presence of a hazard that will or can cause minor or major personal injury if the caution is ignored.

NOTICE is used to note information that is important but not hazard-related.

These precautions should be followed at all times. Failure to follow these precautions could result in injury to yourself and others.

To reduce risk of injury or damage to the equipment:

- Use only grounded electrical outlets matching the nameplate rated voltage.
- Do not use an extension cord with this equipment. Do not plug this equipment into a power strip or multi-outlet power cord.
- Keep equipment and power cord away from open flames, electric burners or excessive heat.
- Do not operate if equipment has been damaged or is malfunctioning in any way.
- Unit should only be used in a flat, level position.
- Do not operate hot well without water.
- Do not use food pans deeper than 6" (15.2 cm).
- Do not place any hot items on the top surface.

Function and Purpose

This unit is intended and designed to keep food at proper serving temperatures. This unit is made for use in an ambient temperature below 86 °F (30 °C). Using in warmer temperatures will take unit out of NSF compliance. Modifying refrigeration parameters may void the warranty.

Hot food stations are not intended or designed to cook raw food or to reheat prepared food. Cold food stations are not intended or designed to cool or chill food. Food must be prepared and placed in food stations at proper serving temperatures. Refrigerated cold stations are best used for holding periods up to four hours. For best performance, stainless steel containers are recommended.

This equipment is not intended for household, industrial or laboratory use.

Unpacking the Equipment

1. Remove all packing material and tape, as well as any protective plastic from the equipment.
2. Clean any glue residue left over from the plastic or tape.
3. Dispose all packaging materials in an environmentally responsible manner.

Installation

This unit must be installed on a dedicated electrical circuit in accordance with local codes. Installation must be qualified service personnel.

Clearance Requirements

- One, two and three well drop-ins are zero clearance on all sides.
- Four well drop-in requires zero clearance on sides and 1 1/2" clearance at the bottom.

Venting Requirements

The Hot/Cold Drop-ins must have adequate ventilation. Minimum requirements are listed in the table below.

Drop-in	Number of cutouts		Size
	Intake	Discharge	
One Well	1	1	8" x 10"
Two Well	1	1	8" x 10"
Three- Well	1	1	8" x 10"
Four-Well	2	2	8" x 10"

The preferred location for the venting cutouts is on the short ends of the cabinet. If the short end are not available the long sides can be used. See drawings below. When louvers are installed in the long sides, Vollrath recommends using a fan to assist air movement.

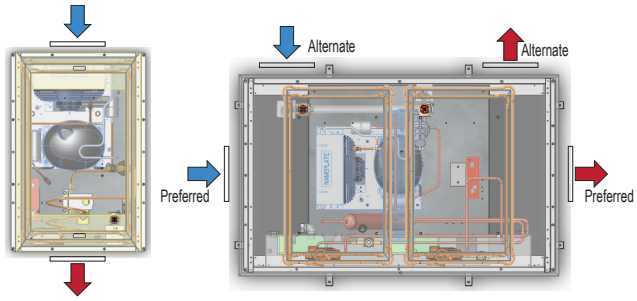


Figure 1. One and two drop-in well louver cutout locations

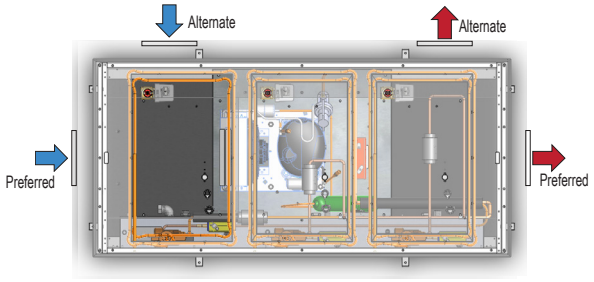


Figure 2. Three well drop-in louver cutout locations

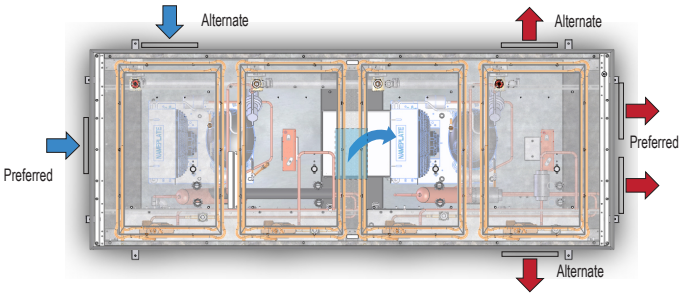


Figure 3. Four well drop-in louver cutout locations

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Control Box Mounting

Controls must be mounted on the operator side (raceway side) for proper orientation with wells. The control box requires 3" of depth in the cabinet when using the included frame. Without the frame, the control box requires 4" of depth in the cabinet.

Control Box Cutout Dimensions

Model	Cutout Dimension
One Well Drop-in	7" x 8"
Two Well Drop-in	7" x 10-1/2"
Three Well Drop-in	7" x 13"
Four Well Drop-in	7" x 15-1/2"

Control Box Locations

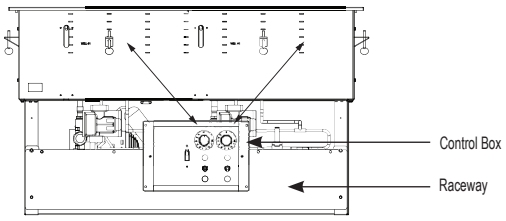


Figure 4. Two well drop-in control box mounting

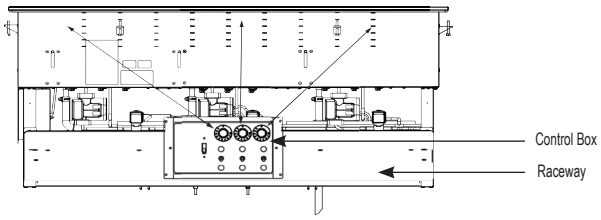


Figure 5. Three well drop-in control box mounting

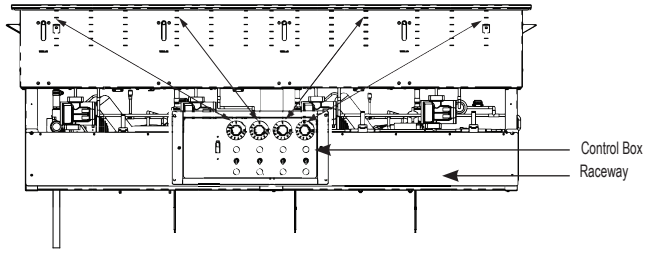


Figure 6. Four well drop-in control box mounting

Hot/Cold Well Drop-in Cutout Dimensions

Model	Cutout Dimension
One Well Top Mount Drop-in	25-1/4" x 17-5/16"
One Well Bottom Mount Drop-in	Per customer specification for amount of visible top flange
Two Well Drop-in	25-1/4" x 40-3/4"
Three Well Drop-in	25-1/4" x 54"
Four Well Drop-in	25-1/4" x 67-1/4"

NOTICE: Well cutouts must have a corner radius of 7/8".

NOTICE: Control cutouts must have a corner radius of 3/8".

Seal the Flange

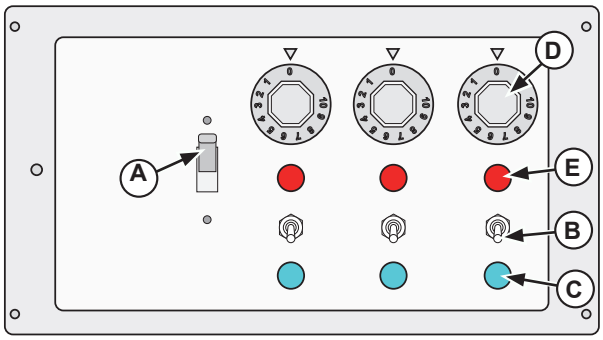
Top Mount

1. Place a bead of silicone sealer rated at a minimum of 450 °F (232 °C) around the well flange to prevent water from leaking into control areas.
2. Set the clips into slots
3. Tighten the thumbscrews slowly and in an alternating pattern to evenly compress the silicone.

Bottom Mount

Place a bead of silicone sealer rated at a minimum of 450 °F (232 °C) between the countertop and the inside of the well to prevent water from leaking into control areas, and in mounting holes when using rivets or other fasteners.

Controls



Ⓐ **ON/OFF SWITCH**. Switches the equipment power "ON" or "OFF".

Ⓑ **MODE SELECTOR SWITCH**. The down position selects refrigeration mode. The up position selects heating mode The center position selects neutral mode. When the switch is in the center or up positions, the drain valve will be closed.

Ⓒ **REFRIGERATION INDICATOR LIGHT**. Illuminates when the unit is in the refrigeration mode.

Ⓓ **TEMPERATURE CONTROL DIAL** (Hot Mode Only). Used to set or adjust the hot temperature of the well. The higher the number the higher the temperature, the lower the number the lower the temperature.

Ⓔ **HEATING INDICATOR LIGHT**. Illuminates when the unit is in the heating mode.

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Operation

⚠ WARNING

Electrical Shock Hazard.
Keep water and other liquids from entering the inside of the unit. Liquid inside the unit could cause an electrical shock

Do not over fill wells, pans or trays. Liquid could contact the electrical components and cause a short circuit or an electrical shock. Unplug unit before performing service, draining or removing spillage pans and trays. Do not spray water or cleaning products. Do not use a power cord that has been modified or damaged.

NOTICE: Before using this equipment it must be cleaned and dried thoroughly.

NOTICE: For best performance, prevent drafts or room air currents from disturbing the curtain of hot or cold air above the food pans.

Refrigerated Mode

NOTICE: When switching from hot mode to refrigerated mode, turn the mode selecting switch to the neutral mode center position. Remove the hot food pans. Remove the drain plug or switch to cold mode and drain water from the system. Drain the hot water before beginning refrigerated mode.

1. Plug the equipment into a properly grounded electrical supply matching the nameplate rating. Damage to the equipment can occur if incorrect power is supplied to equipment.
2. Turn the on/off switch to the "ON" position.
3. Turn the mode selector switch to the down position. This will open the drain valve on models with auto-drains. On units with manual drain plugs, remove the drain plug. Units do not have an adjustable temperature setting.
4. Allow the unit to run for approximately 60 minutes.
   For the best performance when using ice with this unit, allow unit to run for approximately 2 hours before adding ice. This will help the ice remain solid.
5. Place containers of properly chilled food into the pre-chilled unit.
6. Regularly check the food temperature.

   NOTICE: Monitor food temperature closely for food safety. The United States Public Health Service recommends that cold food be held at a maximum of 41 ºF (5 ºC) to help prevent bacteria growth.
7. When finished using the unit, turn the mode selector switch to the middle position and turn the on/off to the "OFF" position. Remove the food containers.

Heating Mode

⚠ CAUTION

Burn Hazard.
Do not touch heating surfaces, liquid, or food while unit is heating or operating.

Hot food, steam and liquids can burn skin. Allow the hot liquid, spillage pans and trays to cool before handling. Use gloves, mitts or pot holders if it is necessary to handle hot pans.

1. Plug the equipment into a properly grounded electrical supply matching the nameplate rating. Damage to the equipment can occur if incorrect power is supplied to equipment.
2. Turn the on/off switch to the "ON" position. Turn the mode selector switch to the up position.
3. Fill the well to the correct level with clean fresh water. The correct level is about 1" (2.5 cm) from the bottom. Always maintain water in the well. Do not over fill. Allowing the well to run dry during operation may reduce the service life of the equipment.
4. Preheat the water in the wells by covering wells with empty food containers or covers. Turn the heat control to the maximum heat setting. Preheat for 60 minutes.
5. Place container of hot food product, above 140 °F (60 °C), into preheated equipment.
6. Reduce heat setting to a level that will maintain a safe holding temperature and maintain food quality.

   NOTICE: Monitor food temperature closely for food safety. The United States Public Health Service recommends that hot food be held at a minimum of 140 ºF (60 ºC) to help prevent bacteria growth. Maintain correct water level and temperature setting. Periodically remove food container and check the water level. Add water if needed.

During operation

1. Maintain water level. Periodically (approximately 2 hours) remove container of food and check the water level. Add **hot** water if needed.

When Finished Using the Equipment

1. Turn the mode selector switch to the center position. Turn the on/off switch to the "OFF" position.

   NOTICE: When the selector switch is in the center position or the hot position the drain valve will be in the closed position.
2. When finished using the unit, remove the food containers.
3. When removing hot food containers from unit use gloves, mitts or pot holders to protect hands.
4. Allow the unit and water to cool completely before cleaning.

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Cleaning

To maintain the appearance and increase the service life, clean your equipment daily.

NOTICE: Do not use caustic cleaning chemicals, steel wool or commercial lime removal products to clean the equipment.

1. Remove the food containers.
2. If the drop-in was in heating mode, drain the water.
   - If the unit has an automatic drain, turn the mode selector switch to cold mode. This will allow the water to drain. Turn the ON/OFF switch to the "OFF" position.
   - If the unit has a manual drain, turn the ON/OFF switch to the "OFF"position. Let the water in the wells cool. Remove the drain plug to drain the water.
3. Let hot wells cool before cleaning.
4. Use a damp cloth or sponge dipped in soapy water to clean the inside of the well and the outside of the equipment.
5. Thoroughly rinse equipment with water after cleaning.

Troubleshooting Chart

Problem	It might be caused by	Course of Action
Unit does not have power.	Unit is not plugged in.	Plug unit in.
	Power switch is in the "OFF" position.	Turn power switch to the "ON" position.
	Circuit breaker is tripped.	Reset the circuit breaker.
	Defective circuit or in-adequate power supply.	Call licensed electrician.
Unit has power but is not operating.	Unknown.	Contact Vollrath Technical Services 800-632-0832.
Unit does not heat or chill correctly.	Drafts or room air currents disturbing the curtain of hot or cold air immediately above the food pans	Eliminate drafts and room air currents.

Service and Repair

There are no user serviceable parts within this appliance. To avoid serious injury or damage, never attempt to repair the unit or replace a damaged power cord yourself. Do not send units directly to The Vollrath Company LLC. Please contact Vollrath Technical Service from the list below.

VOLLRATH Technical Service • 1-800-628-0832 • Email: techservicereps@vollrathco.com

When contacting Vollrath Technical Service, please be ready with the item number, model number (if applicable), serial number, and proof of purchase showing the date the unit was purchased.

Warranty Statement for The Vollrath Co. L.L.C.

This warranty does not apply to products purchased for personal, family or household use, and The Vollrath Company LLC does not offer a written warranty to purchasers for such uses.

The Vollrath Company LLC warrants the products it manufactures or distributes against defects in materials and workmanship for a period of one year, except as specifically described in our full warranty statement. In all cases, the warranty runs from the date of the end user's original purchase date found on the receipt. Any damages from improper use, abuse, modification or damage resulting from improper packaging during return shipment for warranty repair will not be covered under warranty.

For complete warranty information, product registration and new product announcement, visit www.vollrath.com.

VOLLRATH®

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