



Concepts Serving Systems

Installation Manual

Please read this manual completely before attempting to install or operate this equipment!
Notify carrier of damage! Inspect all components immediately.



February 2013

Important Warning And Safety Information



WARNING

Read This Manual Thoroughly Before Operating, Installing, Or Performing Maintenance On The Equipment.



WARNING

Failure To Follow Instructions In This Manual Can Cause Property Damage, Injury Or Death.



WARNING

Do Not Store Or Use Gasoline Or Other Flammable Vapors Or Liquids In The Vicinity Of This Or Any Other Appliance.



WARNING

Unless All Cover And Access Panels Are In Place And Properly Secured, Do Not Operate This Equipment.



WARNING

This Appliance Is Not Intended For Use By Persons Who Lack Experience Or Knowledge, Unless They Have Been Given Supervision Or Instruction Concerning Use Of The Appliance By A Person Responsible For Their Safety.



WARNING

This Appliance Is Not To Be Played With.



WARNING

Do Not Clean With Water Jet.



WARNING

Do Not Use Electrical Appliances Inside The Food Storage Compartment Of This Appliance.



CAUTION

Observe the following:

- Minimum clearances must be maintained from all walls and combustible materials.
- Keep the equipment area free and clear of combustible material.
- Allow adequate clearance for air openings.
- Operate equipment only on the type of electricity indicated on the specification plate.
- Unplug the unit before making any repairs.
- Retain this manual for future reference.

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Receiving And Inspecting The Equipment

Even though most equipment is shipped crated, care should be taken during unloading so the equipment is not damaged while being moved into the building.

1. Visually inspect the exterior of the package and skid or container. Any damage should be noted and reported to the delivering carrier immediately.
2. If damaged, open and inspect the contents with the carrier.
3. In the event that the exterior is not damaged, yet upon opening, there is concealed damage to the equipment notify the carrier. Notification should be made verbally as well as in written form.
4. Request an inspection by the shipping company of the damaged equipment. This should be done within 10 days from receipt of the equipment.
5. Check the lower portion of the unit to be sure legs or casters are not bent.
6. Also open the compressor compartment housing and visually inspect the refrigeration package. Be sure lines are secure and base is still intact.
7. Freight carriers can supply the necessary damage forms upon request.
8. Retain all crating material until an inspection has been made or waived.



The units with LiquiTec technology cold pans contain a non-toxic eutectic fluid within a sealed inner liner. This fluid may leak if the tank is punctured so care must be taken when uncrating and setting in place. The eutectic fluid is non-toxic and may be flushed down a disposal drain. If the LiquiTec unit cold pans leak, immediately call the Delfield service department directly at 1-800-733-8821 not your local service agent.

Uncrating the Equipment

First cut and remove the banding from around the crate. Remove the front of the crate material, use of some tools will be required. If the unit is on legs remove the top of the crate as well and lift the unit off the skid. If the unit is on casters it can be "rolled" off the skid.

Serial Number Information

If your unit is **heated**, the serial tag is located above the louvered panel near the on/off switch.

Refrigerated units have the serial tag located in the compressor area near the on/off switch.

Understorage units often have the serial tag located on the left inside the storage area.

All purpose counters, utility equipment or delivery carts do not require serial numbers but a model tag is placed at the top of the pylon on the back of the unit.

Always have the serial number of your unit available when calling for parts or service.

This manual covers standard units only. If you have a custom unit, consult the customer service department at the number listed below.

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Warranty Information

Visit http://www.delfield.com/minisite/service/warranty_info to:

- Register your product for warranty.
- Verify warranty information.
- View and download a copy of your warranty.

Regulatory Certifications

All Models are certified by:

 **National Sanitation Foundation (NSF)**

Electical models are also certified by:

 **Underwriters Laboratories (UL)**
Underwriters Laboratories of Canada (ULC)

Tools And Supplies Required



The following tools are either required or will make the installation easier:

- 1) A scissor jack to lift and hold heavy units off the floor so that legs can be adjusted, allowing the proper leveling of the units.
- 2) A level is needed to assist in the leveling of each unit from front to back and left to right. A 2' (61cm) level is a must; a 4' (122cm) level is also desirable.
- 3) Two 6' (183cm) pipe clamps are useful in pulling equipment tightly together while fasteners are installed. This results in a better spline.
- 4) Vise grips will hold backsplash bars together as they are being bolted together.
- 5) A steel hammer and a block of wood can be used to make minor alterations of the stainless steel along the seam between two units, in order to perfect the seam. This is used after the units are splined.
- 6) A rubber mallet.
- 7) A socket set.
- 8) Phillips, hex head and straight blade screwdrivers.
- 9) 7/16" (1.1cm), 9/16" (1.4cm) and 1/2" (1.3cm) open end wrenches.
- 10) Silicone sealant; Dow Corning #732 is ideal.
- 11) Drill motor.
- 12) Electrical test meter.
- 13) 5/16 nut driver to remove shipping braces.
- 14) Adjustable wrench for leg adjustments.

Line Up Installation

1. Identify where the equipment will be installed.
 - Units represented in this manual are for indoor use only.
 - Be sure the location chosen has a floor strong enough to support the total weight and contents. Call the factory if necessary to determine total weight. Reinforce the floor as necessary to provide for maximum loading.
 - Do not install heated units near combustible objects or surfaces affected by heat or moisture.
 - For the most efficient refrigeration, be sure to provide good air circulation inside and out.
 - Inside refrigerated cabinet: Do not pack unit so full that air cannot circulate. Take care not to block air flow to the fans and allow space along the sides.
 - Outside refrigerated cabinet: Be sure the unit has access to ample air; avoid hot corners and locations near stoves and ovens. It is suggested the rear of the unit be no less than two inches from any wall, partition or any other object which will restrict exhaust air flow.
 - Lift units by ribs at designated places. Stickers provided. See Photos 1 and 2.
2. Study lineup, floor plan and utility connections to determine order of installation. Place Unit #1.
3. Remove the galvanized shipping braces from the bottom of the unit.
4. Screw adjustable feet all the way in on the first unit. Level to work height, usually 36" or as specified.
5. Level Unit #1 front to back and left to right by adjusting the bullet feet.
6. Use caution when placing units together to protect against damaging the laminate.
7. Place Unit #2.
8. There are (approximately 3) holes along the top and bottom sides. Thread a 1/4-20 x 1" bolt through the unit 1 bracing hole, two supplied washers and unit 2 bracing hole. Secure with a nut. Repeat for each hole. Do not tighten until Unit #2 is level.
9. Level Unit #2 front to back and left to right by adjusting the bullet feet.
10. Tighten the nuts and bolts that connect Unit #1 and #2.
11. Repeat steps 6-10 as you add each additional unit.
11. Connect the electrical quick connects in the bases.
12. Have the top installed. Verify it is secure and level.



Photo 1. The units should be lifted by the bracing only

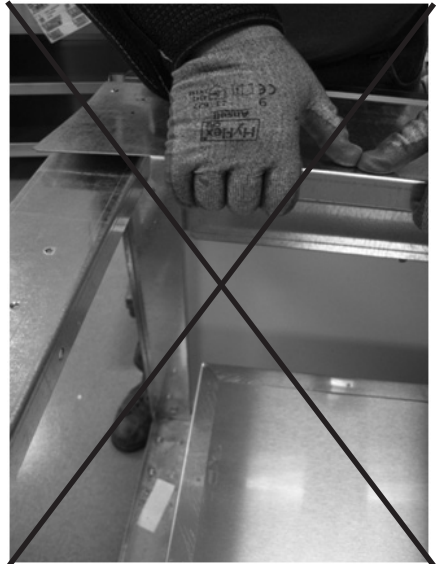


Photo 2. DO NOT lift the units by anything but the bracing



Photo 3. First view of units placed next to each other

Line Up Installation, continued

13. Install cold pans into unit. Ensure the gasket is visible. If there is no gasket, silicone the seams.
14. Install hot wells into unit. Ensure the gasket is visible. If there is no gasket, silicone the seams.
15. Make plumbing and drain connections on cold pans and hot wells.



Moisture collecting from improper drainage can create a slippery surface on the floor and a hazard to employees. It is the owner's responsibility to provide proper drainage.

16. Plumb drains if necessary.
17. Plumb water lines if necessary.
18. Make electrical connections on cold pans and hot wells. Install hot well control panel.
19. Install the kick plate (if required) by placing the shoulder bolt into the key hole slot. See Photo 6. Install screws on end caps as necessary. The kick plate will stay in place but can also be easily removed for cleaning under the units.
20. Back panels may be removed by unscrewing the hex head screws.
21. Install counter protector as necessary.
22. Install signage, lighting and food shields as required. Instructions are found on the following pages.
23. Unit is ready for final utility hookups.
24. Install tray slides.
25. Before the heated units are used the first time for serving: Turn the temperature knob to "10" and heat the well for 15 minutes. Do not be alarmed if small amount of smoke appears; this preheat should burn off any residue or dust that has adhered to the food well element.
26. Check electrical outlets for proper operation.
27. Function test all equipment.

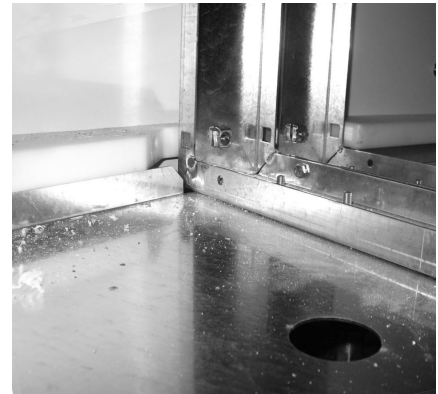


Photo 4. Second view of units placed next to each other

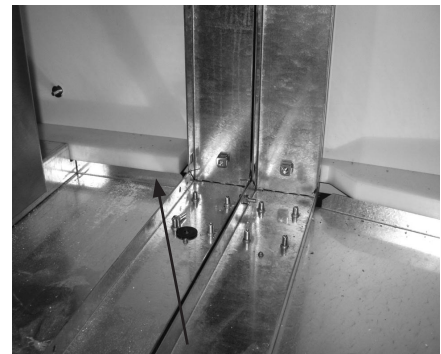


Photo 5. Third view of units placed next to each other

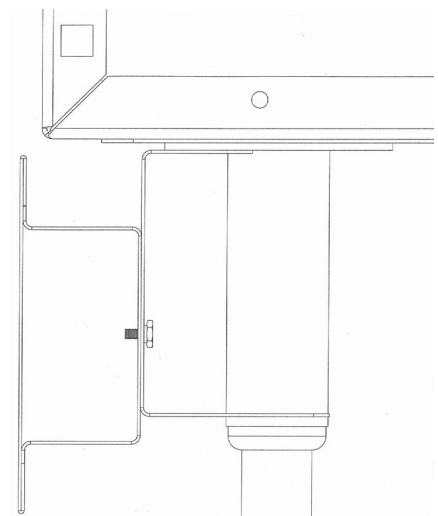


Photo 6. Kick plate shoulder bolt installed in the key hole slot

Beverage Counter Installation

1. Identify where the equipment will be installed.
2. Remove the galvanized shipping braces from the bottom of the unit.
3. Place Unit #1.
4. Screw adjustable feet all the way in on the first unit. Level to work height, usually 36" or as specified.
5. Level Unit #1 front to back and left to right by adjusting the bullet feet.
6. Use caution when placing units together to protect against damaging the laminate.
7. Place Unit #2.
8. There are (approximately 3) holes along the top and bottom sides. Thread a 1/4-20 x 1" bolt through the unit 1 bracing hole, two supplied washers and unit 2 bracing hole. Secure with a nut. Repeat for each hole. Do not tighten until Unit #2 is level.
9. Level Unit #2 front to back and left to right by adjusting the bullet feet.
10. Tighten the nuts and bolts that connect Unit #1 and #2.
11. Repeat steps 6-10 as you add each additional unit.
12. Have the top installed. Verify it is secure and level.
13. Plumb drains if necessary.
14. Plumb water lines if necessary.
15. Install the kick plate (if required) by placing the shoulder bolt into the key hole slot. See Photo 6. Install screws on end caps as necessary. The kick plate will stay in place but can also be easily removed for cleaning under the units.
16. Back panels may be removed by unscrewing the hex head screws.
17. Beverage counter weight limit is 600 pounds per 48 linear inches.
18. If the beverage counter has a drop in unit, ensure the gasket is visible. If there is no gasket, silicone the seams around the drop in.

Tower Module Installation

1. Identify where the equipment will be installed.

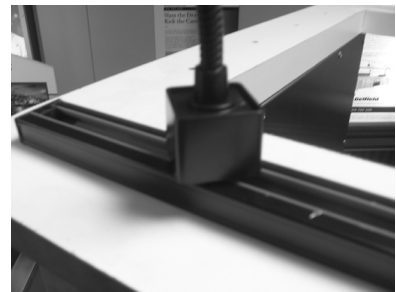


2. **Level the flanged feet and bolt to the floor.**

3. Install the gooseneck lighting:
 - A. Pull down on the connection box collar, push the connection post into the track and then rotate it 90 degrees until it locks into place.
 - B. If the light is mounted with the (2) metallic tabs toward the side of the track with only (1) copper strip, the light will not work. To correct this, simply pull down on the connection box collar and twist it until it is released from the track. Then, rotate it 180 degrees and mount back into the track using the directions above.
 - C. To move the light, pull down on the connection box collar and twist 90 degrees. Slide to the desired location and turn back 90 degrees.

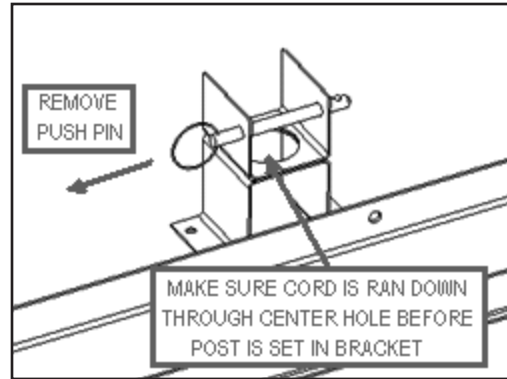
Note: The side of the connection post with (2) metallic tabs aligns with the side of the track with the (2) copper strips.

4. Follow installation instructions provided with menu boards (if this option was ordered with the tower module).
5. Verify the module is plugged into a receptacle and the Reach-In is plugged into the GFCI receptacle. If lights were provided, turn on the ON/OFF switch on the back of the tower.
6. Slide the Reach-In in place.

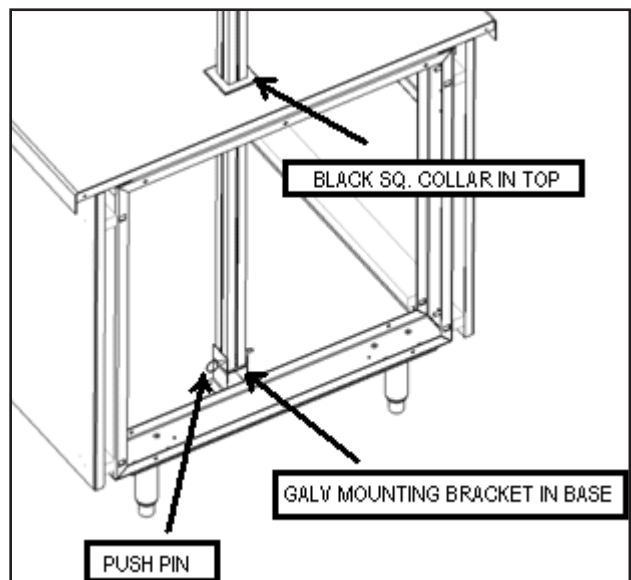


Fixed Height Signage Installation

1. Verify that black square collars are mounted in the 2" square holes in the unit top. If they are not, locate them in the crate and place them back in the holes in top.
2. Make sure the push pins are removed from the mounting brackets in the bottom of the base.
3. With a person supporting each post of the signage, pick up and hold vertically over top of the collared holes in top.
4. If electrical cord is coming out the bottom of one of the posts, lower it through the collared hole.
5. Next, lower signage posts down through collared holes in top.
6. Secure in place by sliding push pin through bracket and post.
7. If electrical cord is present, plug into the outlet in the base.



Prepare base.



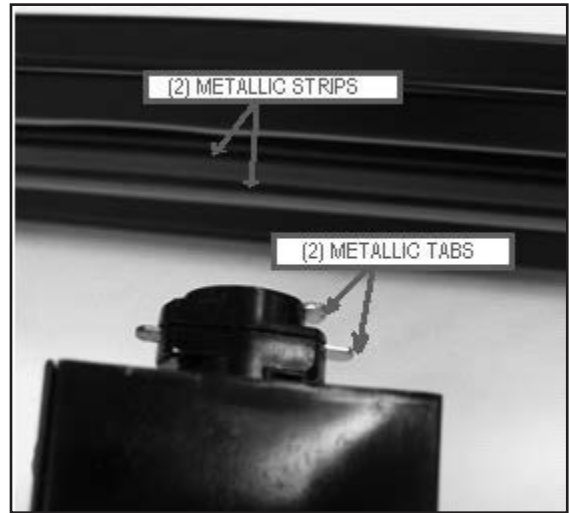
Signage post installed in base.

Signage Lighting Installation

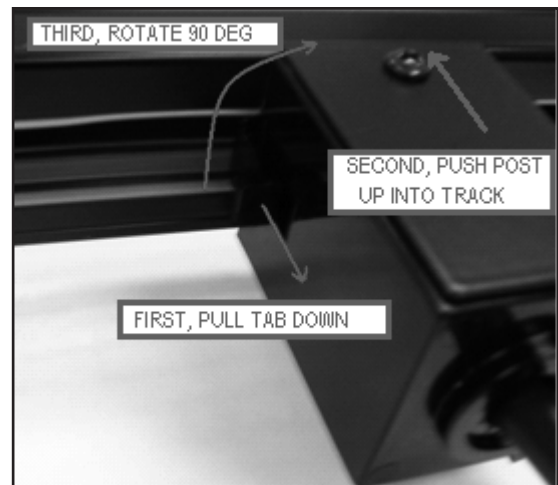
To mount decorative lamps:

Note: The connection post with (2) metallic tabs aligns with the side of the track with the (2) copper strips

1. Pull down on the tab on the side of the lamp's connection box, push the connection post up into the track, then rotate it 90 degrees until the connector locks into place.
2. If the light is mounted with the (2) metallic tabs toward the side of the track with only (1) copper strip, the light will not work. To correct this, simply pull down on the tab on the side of the lamp's connection box and twist it 90 degrees until it releases from the track. Then, rotate it 180 degrees and mount back into the track using the directions above.



Locate the metallic tabs and strips.

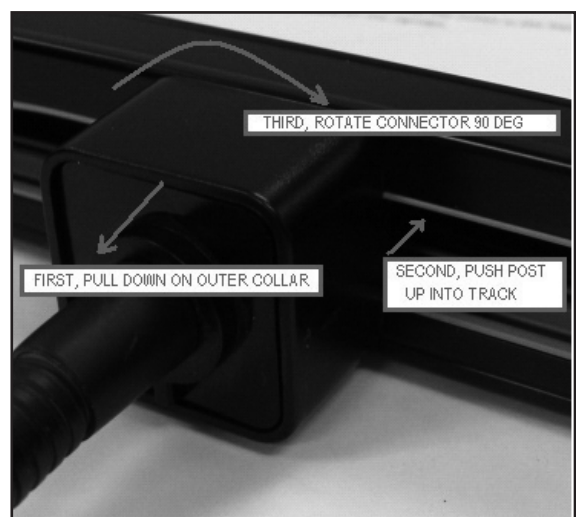


Decorative lamp installation steps.

To mount flexible spotlights:

Note: The side of the connection post with (2) metallic tabs aligns with the side of the track with the (2) copper strips.

1. Pull down on the connection box collar, push the connection post up into the track and then rotate it 90 degrees until it locks into place.
2. If the light is mounted with the (2) metallic tabs toward the side of the track with only (1) copper strip, the light will not work. To correct this, simply pull down on the connection box collar and twist it until it is released from the track. Then, rotate it 180 degrees and mount back into the track using the directions above.
3. To move the light, pull down on the connection box collar and twist 90 degrees. Slide to the desired location and turn back 90 degrees.
4. Turn switch ON.
5. Check for proper operation.



Flexible spotlight installation steps.

FlexiShield® Food Shields Installation

1. Set food shield on base unit. See Figure 1.
2. Line base over holes.
 - Install screws (provided) into predrilled holes. See Figure 2.
 - Place 2 dabs of silicone on screws and place cover over screws.
3. Make any necessary electrical connections.
4. If applicable test lights, heat lamps etc.
5. Adjust glass for proper alignment and ensure that all hardware is tightened securely.
6. Clean food shield and glass with mild soap and water.

FlexiShield® food shields are to be used as food and counter protection only and should not be used in any other way.

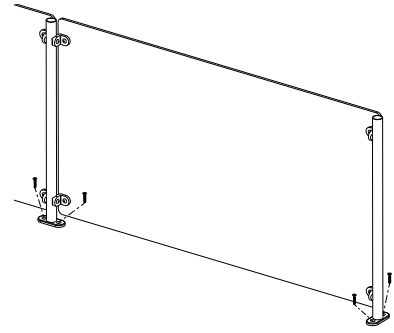


Figure 1. Food shield over holes

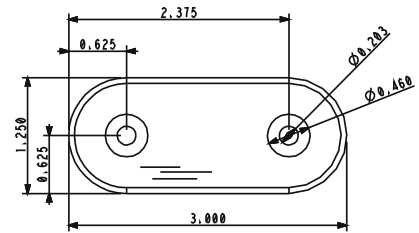


Figure 2. Flange dimensions

Mobile Hand Sink Installation



CAUTION

The hand sink is to be used for hand washing only, not for consumption.



CAUTION

Hot water heater MUST be filled with water before connecting the water heater to power to prevent damage to the heater.

The fresh water and waste water containers are located in the base of the sink compartment on the right. The fresh water containers are on the left with clear vinyl tubing and waste water tanks are on the right with a rigid drain tube. Two fresh water and two waste water containers are provided with each unit.

To add water to the fresh water container, remove the cap the vinyl tubing is connected to on the container by pressing the button on the cap and pull out the cap from the container. Pull the container out of the sink base and unscrew the cap of the fill access hole at the back of the container. Fill the container with water and screw the cap back on at the back of the container and push the cap with the vinyl tubing back into place at the front. Make sure there are no kinks in the clear vinyl tubing.

Verify the black waste arm at the end of the drain line is in the hole on the waste container.

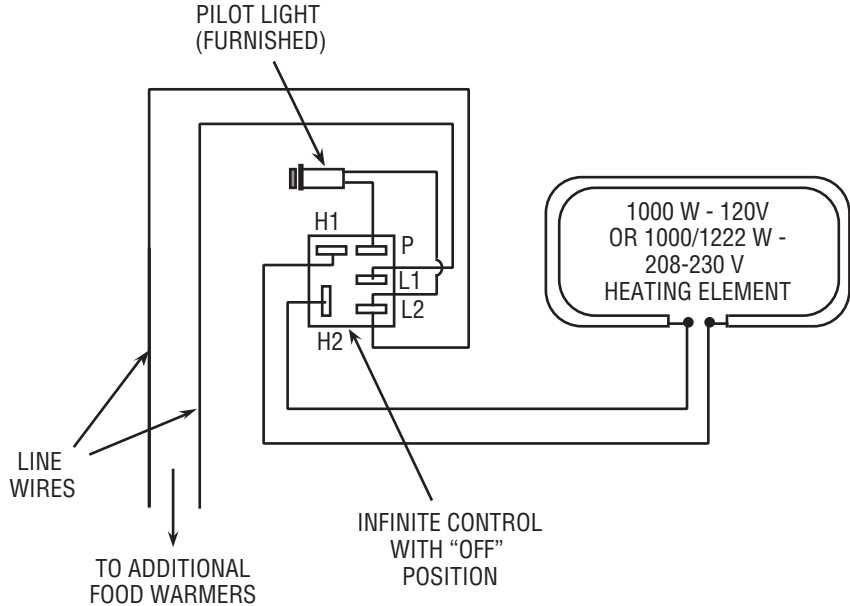
Before Operating The Sink:

Water heater MUST be filled with water before connecting the water heater to power to prevent damage to the heater.

Before plugging the sink into a wall receptacle, verify the water pump only is plugged into the GFCI receptacle in the base of the unit. If the water heater is plugged in, unplug it until the heater has been filled with water. Put the switch and the breaker to the "ON" position in the base of the unit. Make sure the GFCI receptacle is ON.

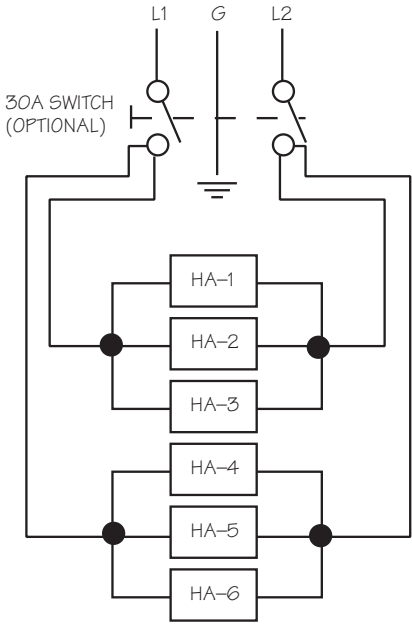
To fill the water heater with water, turn on the hot water handle on the faucet until water flows. When water flows into the sink, the water heater is filled with water. The water heater can now be plugged into the GFCI receptacle. Verify the water heater power switch on the front of the heater is ON. The red light on the switch will stay on until it has reached the set temperature.

Wiring Diagram, Heated Serving Counter



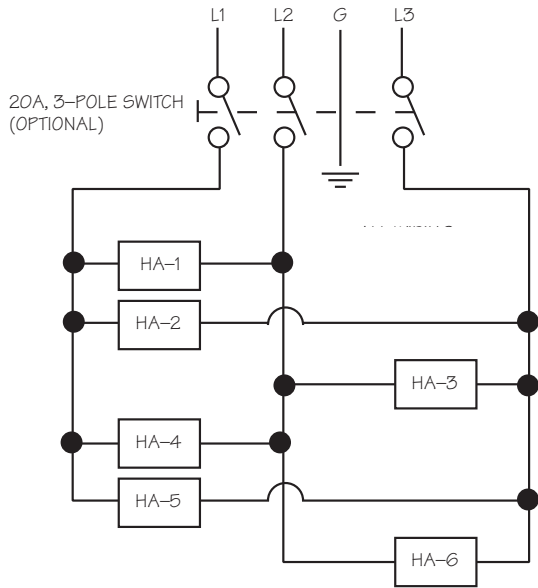
AMPERES IN LINE WIRES

# OF WARMERS	1 PHASE			3 PHASE		
	120V, 1 PHASE	208V, 1 PHASE	230V, 1 PHASE	L1	L2	L3
2	16.7	9.6	10.6			
3	25	14.4	15.9	14.4/15.9	14.4/15.9	14.4/15.9
4	33.3	19.2	21.3	19.2/21.3	19.2/21.3	14.4/15.9
5		24	26.6	24/26.1	19.2/21.3	19.2/21.3
6		28.8	31.3	28.8/31.3	28.8/31.3	28.8/31.3



HA = HEATER ASSEMBLY

Standard Single Phase

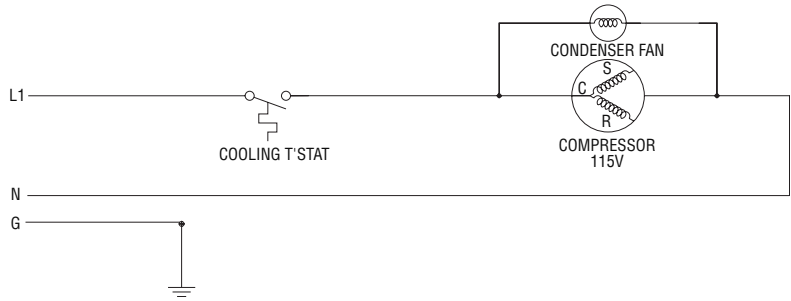


HA = HEATER ASSEMBLY

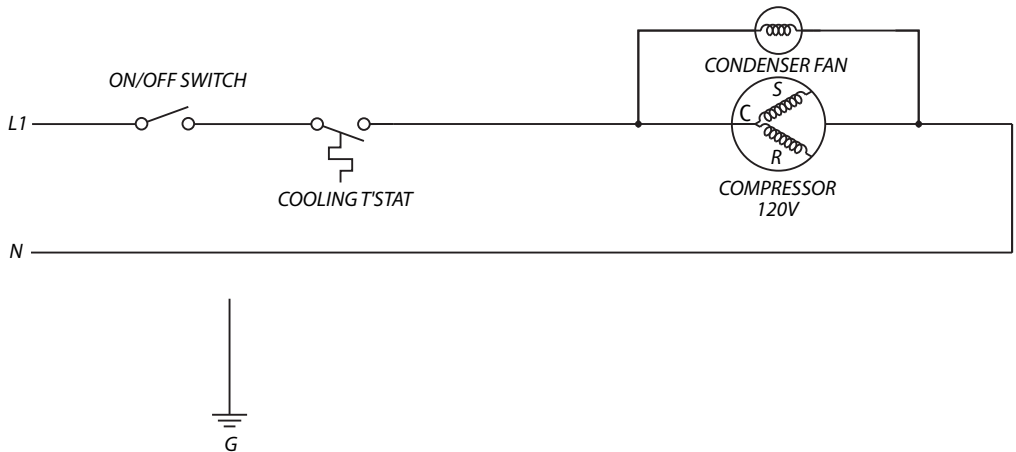
Optional Three Phase



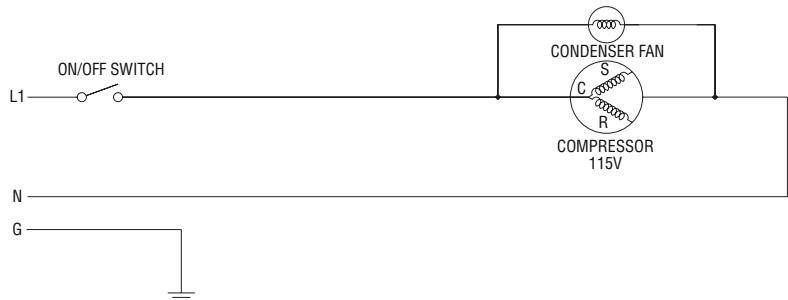
Wiring Diagram, Self-Contained Mechanically Cooled Serving Counter



Wiring Diagram, Self-Contained LiquiTec® Cold Pan Serving Counter

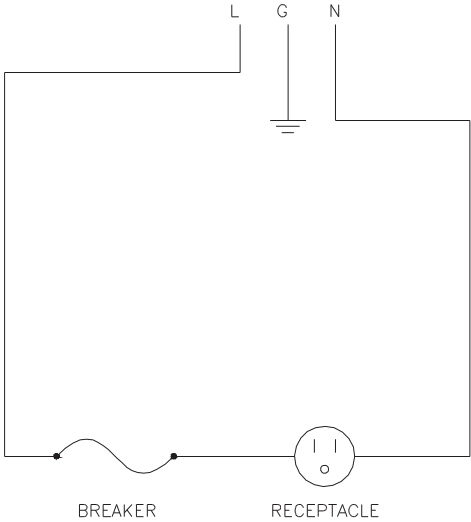


Wiring Diagram, Self-Contained Frost Top Serving Counter

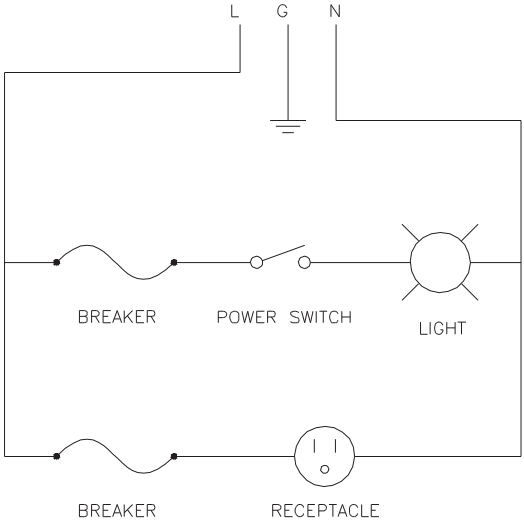


Wiring Diagram, Tower Module

WIRING FOR TOWER
NEMA 5-20R OUTLET W/ BREAKER

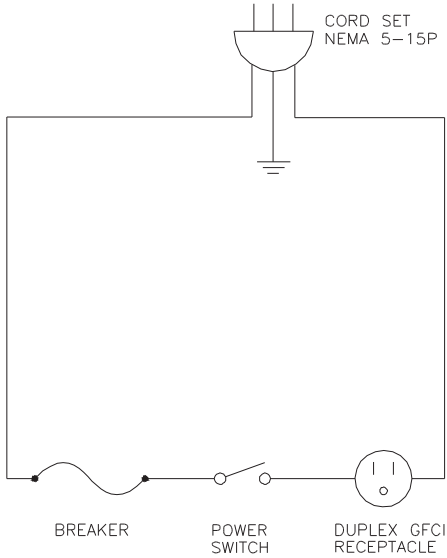


WIRING FOR TOWER
NEMA 5-20R OUTLET W/ BREAKER
WITH LIGHTS AND SWITCH



Wiring Diagram, Mobile Hand Sink

WIRING FOR HANDSINK UNIT
NEMA 5-15R OUTLET W/ BREAKER





Mt. Pleasant, MI



Covington, TN

Thank you for choosing Delfield!

Help is a phone call away. Help our team of professional, courteous customer service reps by having your model number and serial number available at the time of your call (800) 733-8829.

Model: _____ S/N: _____

Installation Date: _____



For a list of Delfield's authorized parts depots, visit our website at www.delfield.com

Register your Delfield warranty online. Go to www.delfield.com under the service tab to complete.

