

# **Pasta Station** Production Centers

# Original Instructions Installation, Operation and Maintenance Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.





# Important Warning And Safety Information



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



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.

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.



This Appliance Is Not To Be Played With.



Do Not Clean With Water Jet.

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



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 & 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.

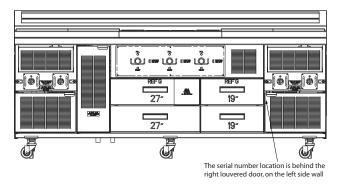
- 1. Visually inspect the exterior of the package and skid or container. Any damage should be noted and reported to the delivering carrier immediately.
- 2. If damaged, open and inspect the contents with the carrier.
- 3. In the event that the exterior is not damaged, yet upon opening, there is concealed 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. Be certain to check the compressor compartment housing and visually inspect the refrigeration package. Be sure lines are secure and base is still intact.
- 6. Freight carriers can supply the necessary damage forms upon request.
- 7. Retain all crating material until an inspection has been made or waived.



# **Serial Number Information**

The serial number location is behind the right louvered door, on the left side wall.

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



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Refer to the **Multilingual Inducs Cooker** manual for operation, maintenance and service instructions.

# **Warranty Information**

Visit http://www.delfield.com/minisite/service/warranty\_info to:

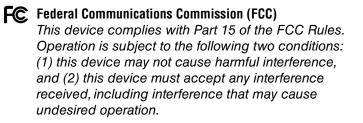
- Register your product for warranty.
- Verify warranty information.
- View and download a copy of your warranty.

# **Regulatory Certifications**

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National Sanitation Foundation (NSF)

CUL) Underwriters Laboratories (UL) Underwriters Laboratories of Canada (CUL)

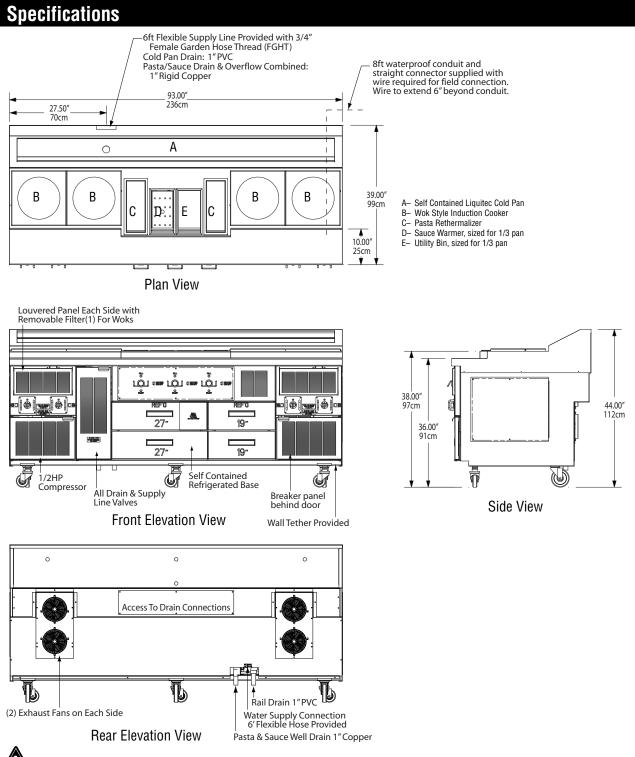


#### Industry Canada Interference-Causing Equipment Standard (ICES)

This ISM device complies with Canadian ICES-001. This Class A digital apparatus complies with Canadian ICES-003.



#### Production Center Pasta Station, Service, Installation And Operations Manual



NOTE

For information on induction cook tops, please refer to Garland's operations manual.

Specifications							
Model	1/6 Size Pan Cap. In Rail	Full Size Pan Cap. In Drawers*	# of Installed Induction Woks	H.P.	V-Hz-Ph	Amps	Ship Weight
F18RC93-BPL	14	6	4	1/2	120/208-60-3	84	1,255lbs/569kg

\* Adapter bars for drawers provided



# Installation

### Location

This unit is intended for indoor use only. Be sure the location chosen has a floor strong enough to support the total weight of the cabinet and contents. A fully loaded model may weigh as much as 1,500 pounds! Reinforce the floor as necessary to provide for maximum loading.

It is very important to allow for proper air flow, both inside and outside.

Avoid hot corners and locations near stoves, ovens and other pieces of cooking equipment.



Do not install the unit near any combustible material or object affected by heat or moisture.

### Leveling

A level cabinet looks better and will perform better because the drain pan will drain properly, the doors will line up with the frames properly and the cabinet will not be subject to undue strain. The front casters are adjustable.

### Plumbing

The LiquiTec rail drain (1" PVC) will be plumbed to the machine compartment. The hot well drain (1" rigid copper) will also exit the rear of the machine compartment.



Unit is supplied with a 3/4" flexible garden hose fresh water connection.



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 a container or outlet for drainage.

### **Electrical connection**

Refer to the amperage data on the specifications page, the serial tag, your local code or the National Electrical Code to be sure the unit is connected to the proper power source. A protected circuit of the correct voltage and amperage must be run for permanent connection of the unit.



The breaker must be turned to OFF and the unit disconnected from the power source whenever performing service or maintenance functions.

### **Tether Installation**

Tether must be securely fastened to the unit and the wall behind the unit. Tether must be shorter than the electrical whip to prevent the electrical connection from being pulled from the wall.

1. Find the pre-drilled hole in the front leg rail on the breaker panel side. Attach the quick link on one end of the cable to the leg rail.

\*Note – the cable must be attached to the FRONT leg rail



- 2. Anchor the provided stainless steel bracket securely to the wall.
- 3. Attach the opposite end of the cable using the quick link.





# Operation

### Liquitec Rail

LiquiTec cold pans are adjusted at the factory to provide satisfactory operation without any further adjustments. However, if it is necessary to adjust the temperature, the control is located in the machine compartment. Turn the knob clockwise as indicated on the control. Settings are from 1 through 9; 9 being the coldest. Adjustments should be made gradually. Several small adjustments will be more effective than one large adjustment. It may take an hour or longer to realize the temperature change depending on the application and location of the unit.

These units are not designed to cool warm food products. Items should be placed in the unit pre-cooled at least to the desired holding temperature, if not slightly colder. In some applications, a gradual warming of product may occur, particularly at the exposed top of the product. Stirring or rotation of the product may be necessary to maintain overall temperature. Warming of food product can occur very quickly outside of the unit. When loading or rotating the product, avoid leaving food items in a non-refrigerated location for any length of time to prevent warming or spoilage.

The unit has an ON/OFF switch located behind the right louvered door. Turn the unit ON an hour prior to use to allow for ample cool down time.

To ensure product quality in the rail it is recommended that product be rotated every four hours. Product in the rail should be removed and placed in the refrigerated base at the end of the day. This allows you to turn the rail off at night. The LiquiTec rail is required to be shut off at night to allow for defrosting.

Temperature in the refrigerated rail opening is 33°F to 41°F with pans flush with the LiquiTec option at 86°F ambient room temperature.

The cold pan is not intended to be used with ice.



Keep in mind the location of the refrigeration lines on wrapped rail units. A refrigeration leak in a rail is extremely difficult and costly to repair. In some cases it cannot be repaired at all.

### **Refrigerated Base**

Delfield refrigerated bases are designed to maintain an operational temperature of 33°F to 40°F. It is adjusted at the factory to provide satisfactory operation without any further adjustments. However, if it is necessary to adjust the temperature, the control is located in the machine compartment. Turn the knob clockwise as indicated on the control. Settings are from 1 through 9; 9 being the coldest. Adjustments should be made gradually. Several small adjustments will be more effective than one large adjustment. It may take an hour or longer to realize the temperature change depending on the application and location of the unit.



Do not place hot pans on/against the blue ABS liner. Do not throw items into the storage area. Failure to heed these recommendations could result in damage to the interior of the cabinet or to the blower coil.



Overloading the storage area, restricting the air flow and continuous opening and closing of the doors and drawers will hamper the units ability to maintain operational temperature.

### **Refrigerator Evaporator Fan Operation**

When the base or rail is initially powered up or immediately following a power outage the unit will begin cooling after a 3-6 minute delay. During normal operation the evaporator fan pulses independently of the compressor as dictated by the controller as follows:

- 1. During the cooling mode, compressor and evaporator fan run simultaneously.
- 2. During the compressor off mode, evaporator fan pulses three minutes on and three minutes off.
- 3. During an actual defrost event other than the off-cycle defrost, compressor stays off but the evaporator fan runs continuously.

	Cooling	Defros	t Cycle		
Compressor On		Compressor Off		Compressor Off	
Evap Fan On	Evap Fan Off	Evap Fan On	Evap Fan Off	Evap Fan On	Evap Fan Off
х		Cycles On 3-Min, Off 3-Min		Х	

### Hot Food Wells

These units must be operated with water in the well. If operated dry, a low water safety switch will interrupt the electric supply to the heater to prevent heater failure. If the low water safety switch shuts off power, turn the control to the OFF position. If the water level is below the heating element, see the shut down procedure below, then refill with water. Reactivate the well by turning the control ON and resetting to the previous temperature.

Continuous interruption of power due to a low water level may disable the heater permanently.

#### Hot Well Shut Down Procedure

- 1. Turn off the hot food well.
- 2. Open drain valve and drain water.
- 3. Allow element to air cool for 45 minutes before cleaning.

#### Shut Down Procedure Warning

WARNING

Do not run water in tank. Doing so may cause catastrophic damage to heating element and could potentially lead to personal injury of those working with or near the unit.

Please refer to on site operations guide for information pertaining to:

- The proper flow rate of the water supply
- Adjustments to the metering valve supplied for the narrow hot well



### Maintenance



Never hose down interior or exterior of units with water. This will void the warranty. Wipe interior dry of any water accumulation.

#### **Gasket Maintenance**

Gaskets require regular cleaning to prevent mold and mildew build up and also to retain the elasticity of the gasket. Gasket cleaning can be done with the use of warm soapy water. Avoid full strength cleaning products on gaskets as this can cause them to become brittle and crack. Never use sharp tools or knives to scrape or clean the gasket. Gaskets can be easily replaced and do not require the use of tools or an authorized service person. The gaskets are "Dart" style and can be pulled out of the groove in the door and new gaskets can be "pressed" back into place.

#### **Drain Maintenance - Base**

Each unit has a drain located inside the unit that removes the condensation from the evaporator coil and routes it to an external condensate evaporator pan. Each drain can become loose or disconnected during normal use. If you notice water accumulation on the inside of the unit be sure the drain tube is connected to the evaporator drain pan. If water is collecting underneath the unit make sure the end of the drain tube is in the condensate evaporator in the machine compartment. The leveling of the unit is important as the units are designed to drain properly when level. Be sure all drain lines are free of obstructions.

#### Drawer Maintenance

#### **Drawer Assembly Cleaning**

The drawer assembly is designed to be cleaned easily. Both drawer and tracks are removable without tools. The drawer tracks are dishwasher safe or can be cleaned in a sink with detergents and a soft bristle brush. Drawers and tracks should be cleaned on a weekly basis.

#### **Remove Drawers**

Pull the drawer box out until it stops. Lift up on the drawer front and pull the drawer box completely out. Using a soft bristle brush, clean the track on the bottom of the drawer box. When finished, it should be wiped clean of all food and debris.

#### Tracks

The drawer box assembly must be removed. Pull the drawer tracks out until they hit a stop. Locate blue safety clips towards the back of each drawer track. Blue safety clips have a tab on the top. Push the tab back until it clicks. Lift up and pull the drawer tracks all the way out of the drawer cage. The drawer tracks are dishwasher safe



or can be cleaned in a sink with detergents and a soft bristle brush. Drawers and tracks should be cleaned on a weekly basis. Using a soft bristle brush, wash the track making sure each

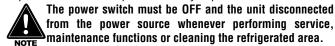
roller is thoroughly cleaned. The drawer cage should be cleaned with a soft bristle brush, removing any food and debris gathered on the bottom ledge. Once it's cleaned thoroughly with a soft bristle brush, wipe remaining debris clean with a soft towel.

#### Reassembly

Push the drawer tracks into the drawer cage. The blue safety clip must remain pushed towards the back. Lift up and slide the drawer track all the way into the drawer cage. The blue safety clip will lock in place automatically. Once all tracks are replaced, insert the drawer box. Rest the drawer box bottom track on the front track roller. Then push the drawer back in place SLOWLY. When the drawer box is about half way in you will hit a STOP. You must lift the front of the drawer up approximately ½" (1.3cm) to continue inward. Clean tracks as often as possible. The cleaner the tracks are the better they will operate.

#### **Caster Maintenance**

Wipe casters with a damp cloth monthly to prevent corrosion.



### Refrigerators and Freezers

The interior and exterior can be cleaned using soap and warm water. If this isn't sufficient, try ammonia and water or a nonabrasive liquid cleaner. When cleaning the exterior, always rub with the "grain" of the stainless steel to avoid marring the finish. Do not use an abrasive cleaner because it will scratch the stainless steel and can damage the breaker strips and gaskets.

#### **Stainless Steel Care and Cleaning**

To prevent discoloration or rust on stainless steel several important steps need to be taken. First, we need to understand the properties of stainless steel. Stainless steel contains 70- 80% iron, which will rust. It also contains 12-30% chromium, which forms an invisible passive film over the steel's surface, which acts as a shield against corrosion. As long as the protective layer is intact, the metal is still stainless. If the film is broken or contaminated, outside elements can begin to breakdown the steel and begin to form discoloration or rust. Proper cleaning of stainless steel requires soft cloths or plastic scouring pads.

#### **NEVER USE STEEL PADS, WIRE BRUSHES OR SCRAPERS!**

Cleaning solutions need to be alkaline based or non-chloride cleaners. Any cleaner containing chlorides will damage the protective film of the stainless steel. Chlorides are also commonly found in hard water, salts, and household and industrial cleaners. If cleaners containing chlorides are used be sure to rinse repeatedly and dry thoroughly. Routine cleaning of stainless steel can be done with soap and water. Extreme stains or grease should be cleaned with a non-abrasive cleaner and plastic scrub pad. Always rub with the grain of the steel. There are stainless steel cleaners available which can restore and preserve the finish of the steels protective layer. Early signs of stainless steel breakdown are small pits and cracks. If this has begun, clean thoroughly and start to apply stainless steel cleaners in attempt to restore the passivity of the steel.



Never use an acid based cleaning solution! Many food products have an acidic content, which can deteriorate the finish. Be sure to clean the stainless steel surfaces of ALL food products. Common items include, tomatoes, peppers and other vegetables.

#### **Cleaning the Condenser Coil**

In order to maintain proper refrigeration performance, the condenser fins must be cleaned of dust, dirt and grease regularly. It is recommended that this be done at least every three months. If conditions are such that the condenser is totally blocked in three months, the frequency of cleaning should be increased. Clean the condenser with a vacuum cleaner or stiff brush. If extremely dirty, a commercially available condenser cleaner may be required.



## Maintenance, continued

Failure to maintain a clean condenser coil can initially cause high temperatures and excessive run times. Continuous operation with a dirty or clogged condenser coil can result in compressor failure. Neglecting the condenser coil cleaning procedures will void any warranties associated with the compressor and cost to replace the compressor.



Never use a high-pressure water wash for this cleaning procedure as water can damage the electrical components located near or at the condenser coil.



Do not place hot pans on/against the blue ABS liner. Do not throw items into the storage area. Failure to follow these recommendations could result in damage to the interior of the cabinet or to the blower coil. Overloading the storage area, restricting the airflow, and continuous opening and closing of the doors and drawers will hamper the units ability to maintain operational temperature.

#### **Refrigerated rail units**

Product in the rail must be removed to the refrigerated base at the end of the day. This allows you to turn the rail off at night to save energy and to defrost the rail. It also helps maintain product quality. An on/off switch is provided for the rail and is required to be shut off at night. A thermostat is provided to maintain rail temperature. Over shelves and other items mounted to the rail area should never be installed in the field due to the potential damage to the refrigeration system.

#### Preventing blower coil corrosion

To help prevent corrosion of the blower coil, store all acidic items, such as pickles and tomatoes, in sealable containers. Immediately wipe up all spills.



Units with pans should be operated with pans in place. Operating the unit without all pans in place will lower efficiency and may damage the unit.

Continuous opening and closing of the doors will hamper the unit's ability to maintain optimum refrigeration temperature. Top section is not intended for overnight storage. Product should be removed from pans. Pans can remain in unit while empty.

#### Defrosting

Refrigerated cold pans should be defrosted daily.



Never use sharp objects or tools to clean or scrape ice/frost build up from the refrigerated cold pans. A puncture to the pan could cause irreparable damage to the refrigeration system. The Eutectic Fluid is NOT refillable and loss of fluid due to a puncture would cause irreparable damage.

## **Replacement Parts**

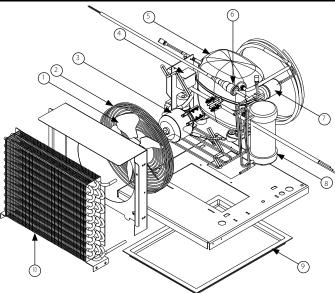
Part Number	Part Description
BPP00074	Cable, Tether
3234198	Caster, 5"
MCP00253	Caster, 6"-6.5" Adjustable
2194974	Contactor, 2 Pole, 120V
RF000083	Danfoss Thermostat Assembly, Defrost, For Base
000-282-0051	Danfoss Control Assembly, Single Probe for Rail
372-018-003L	Divider Bar, 1/6 Size
3516225	Expansion Valve, Rail
3517356	Fan Blade, 5.56" CW Back
3516178	Fan Guard, Back
2162715	Fan Motor, Back
2195311	Filter, Line, 20A
0160179	Hinge Kit, Door
2195086	Immersion Heater
BPP00062	Induction Cooker
2193927	Low Pressure Control
2194550	Momentary Switch

Part Number	Part Description
2194095	Pilot Light, Amber
2194190	Pilot Light, Red
2194265	Power Receptacle, 20a-250v
2194809	Probe, Temp, Sensor, Danfoss
2194808	Probe, Defrost, Danfoss, Control
BPP00073	Quick Link
BPP00069	Relay, 120VAC Coil, 25A, 120/240
2196068	Relay, 13Amp, DPDT, 120VAC
2190154	Rocker Switch, 20a/125v
3516053	Solenoid Coil W/ Junction Box, Rail
3516102	Solenoid Valve, Rail 1/4odf
2194156	Switch, Liquid Level
3516135	Thermometer, Hanging
2194202	Thermostat, Food Well
BPP00004	T-stat Knob, Ctrl, Food Well
362-BZ8-0030	Wiper Strip, 15x3
362-BZ8-0031	Wiper Strip, 23x3

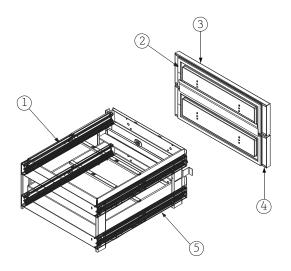


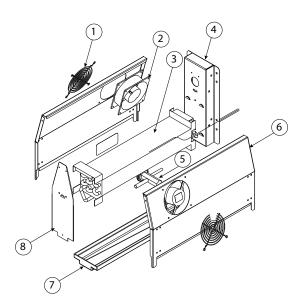
### Production Center Pasta Station, Service, Installation And Operations Manual





Key	Part Number	Part Description
	000-BN5-0035	Condensing Unit, 1/2hp
1	3516554	Fan Blade, Condenser, 9"
2	2160019	Fan Guard, Condenser
3	2162716	Fan Motor, Condenser
4	3516462	Start/Run Capacitor
5	3527026	Compressor Sc12mlx
6	3516331	High Pressure Switch
7	3516322	Filter Drier
8	3516659	Receiver, used on models built after 9-9-15
	3516459	Receiver, used on models built before 9-9-15
9	039-231-0031	Condensate Pan, Large
10	3516455	Condenser Coil





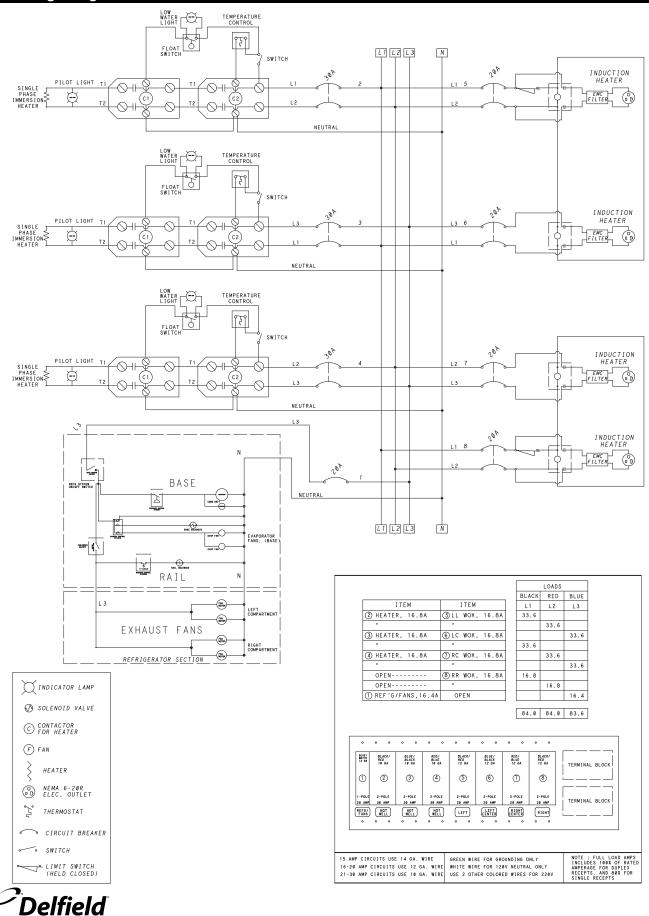
Key	Part Number	Part Description
	000-AEW-007P	Drawer System Assy Lo Pro, 27"
1	3234926	Drawer Track, Rh Middle
2	1701196	Gasket, 27", Drawer
3	000-328-003X	Drawer Front, 27", Top
4	000-328-0031	Drawer Front, 27", Bottom
5	3234925	Drawer Track, Lh Middle
	000-AEW-007Q	Drawer System Assy, 19"
1	3234926	Drawer Track, Rh Middle
2	1701194	Gasket, 19", Drawer
3	000-328-003Y	Drawer Front, 19", Top
4	000-328-003G	Drawer Front, 19", Bottom
5	3234925	Drawer Track, Lh Middle

Key	Part Number	Part Description
-	000-248-0030	Coil Assembly, R404A, Ref
1	2160024	Guard, fan, 4.7"
2	2160023	Fan, axiel, 120V
3	3516095	Coil, evaporator
4	030-232-0003	Back, evaporator, enclosure
5	3516273	Expansion valve, 1/4, R-404a
6	030-233-0001	Side, coil, angled
7	075-231-0033	Drip pan, evaporator
8	030-234-0003	Front, coil
-	2184317	Harness, coil
-	2194809	Probe, Temp, Sensor, Danfoss
-	2194808	Probe, Defrost, Danfoss, Control



#### Production Center Pasta Station, Service, Installation And Operations Manual

# Wiring Diagram

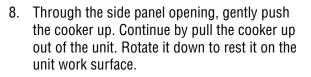


# **Removing An Induction Cooker**

- 1. Turn off all circuit breakers.
- 2. Pull unit out from the wall to access side panel.
- 3. Remove screws securing side panel.
- 4. Remove side panel and set aside.
- 5. Unplug induction cooker.



- 6. Remove silicone from around cooker flange.
- 7. Remove the two induction flange mounting screws using a hand held Phillips head screw driver (non-power tool).









# Removing An Induction Cooker, continued

9. Remove control whip connection on bottom of induction cooker by hand twisting off.



- 10. Pull the electrical cord up and out of the opening.
- 11. Cooker can now be taken away.
- 12. Remove the fours screws securing the control assembly flange.



13. Pull the assembly (flange, control and electrical whip) out from the front.



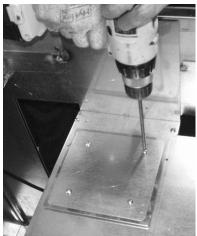


# **Installing An Induction Cooker**

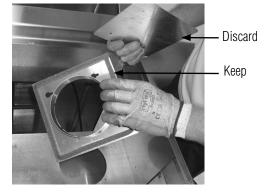
- 1. Turn off all circuit breakers.
- 2. Remove silicone from around blank s/s cover.
- 3. Remove the two mounting screws holding the blank s/s cover using a hand held Phillips head screw driver (non-power tool).
- 4. Pull the cover off and discard.



5. Inside the unit opening there is a two piece blank cover assembly over the plenum hole. Remove the four screws and assembly.



6. Discard the galvanized portion of the assembly. Retain the ring assembly.



- 7. On the front of the unit remove four screws and the blank s/s cover where the fourth control is to be located and discard.
- 8. Push the black conduit whip through the opening and into the open cavity.



9. Install the new control assembly where the blank cover used to be with four screws.



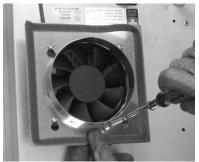
- 10. Place the new cooker upside down on a work surface or floor.
- 11. Loosen but do not remove the four screws holding the fan assembly in place.



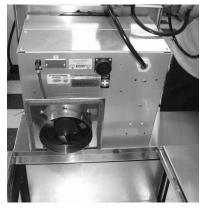


# Installing An Induction Cooker, continued

12. Place the ring assembly over the four fan mounting holes, ring and insulation tape facing away from the cooker. Slide it into the slots. Hand tighten the four screws. Do not over tighten.



13. Place cooker on its side, cord on top, in front of the opening on the unit work surface.



- 14. Reach down into the opening and retrieve the control conduit whip and pull it up to the cooker.
- 15. Make the connection to the cooker by twisting the end in place.



- 16. Drop the cooker electrical cord into the opening.
- 17. Remove screws securing side panel. Remove side panel and set aside.

18. Plug the cooker into the right outlet.



19. Grab the cooker on each side and rotate it up then place it into the opening.



- 20. Adjust it until you can feel the ring drop into the round plenum opening below.
- 21. Make sure the cooker flange seats flush over the unit top turn-up.
- 22. The cooker may set up slightly, push it down until the mounting holes line up.
- 23. Secure cooker with two 10/24 screws using Locktite®. Hand tighten screws using a hand held Phillips head screw driver (non-power tool).



- 24. Apply silicone around new cooker and between cookers.
- 25. Reinstall side panel with original screws.
- 26. Turn on all circuit breakers.



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