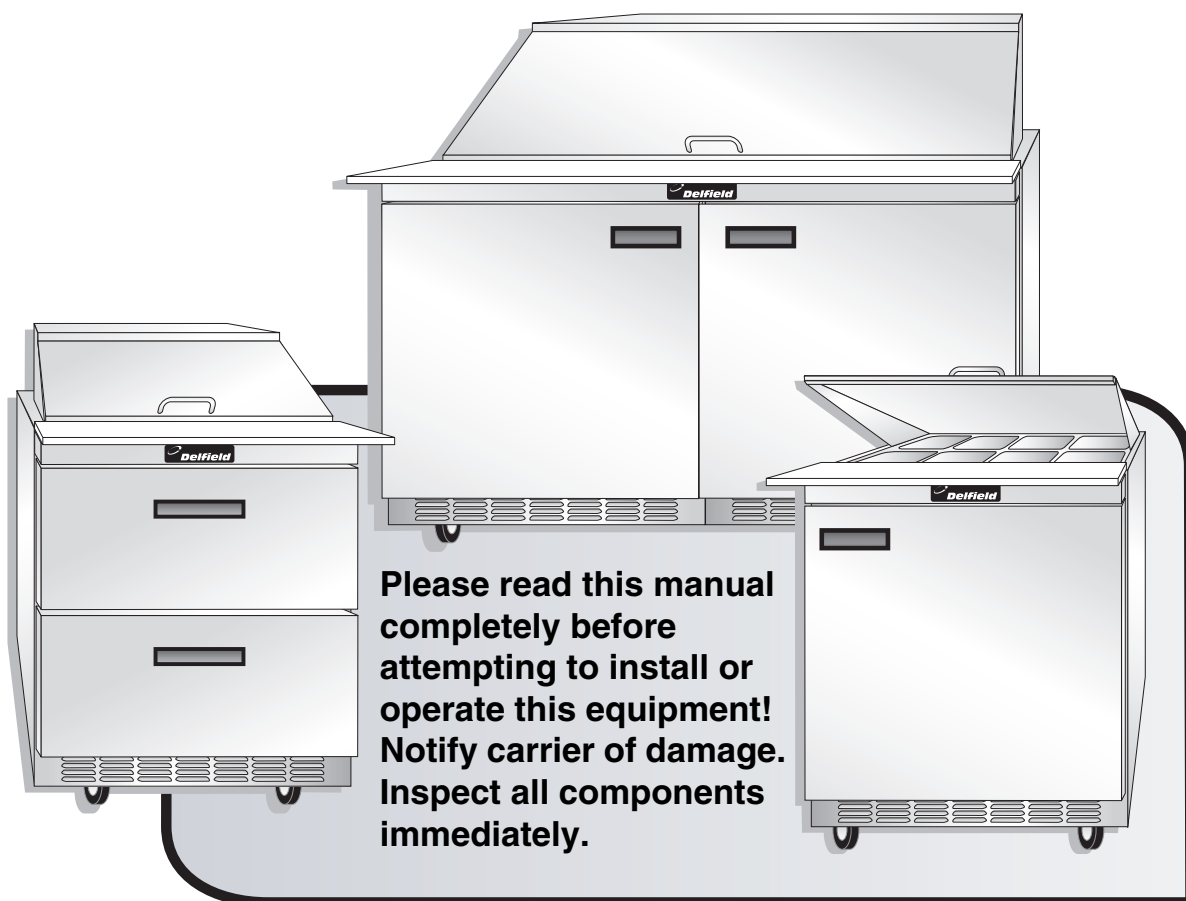




Delfield

INSTALLATION & OPERATION MANUAL

4400 Series Compact Refrigerators



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IMPORTANT WARNING AND SAFETY INFORMATION



WARNING

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.

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.

DAMP OR WET HANDS MAY STICK TO COLD SURFACES.

ALLOW HEATED EQUIPMENT TO COOL DOWN BEFORE ATTEMPTING TO CLEAN OR SERVICE.



CAUTION

Observe the following:

- Keep the equipment area free and clear of combustible material.
- Maintain adequate clearance for air openings.
- Operate equipment only on the type of electricity indicated on the specification plate.
- Unplug the cabinet before making any repairs.

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INTRODUCTION

General

All cabinets have stainless steel exteriors and ABS interiors. Door gaskets are magnetic and mount to the door, snapping in place and are removable without tools.

Serial Number Location

The serial number on all 4400 series compact refrigerators is printed under the top nosing directly above the door when the door is in the closed position. The serial number on all 4400 series two-door compact refrigerators is printed above the right hand door.

Always have the serial number of your cabinet available when calling for parts or service. A complete list of authorized Delfield parts depots is available on our website at www.delfield.com.

This manual covers standard cabinets only. If you have a custom cabinet, consult the customer service department at (800) 733-8829.

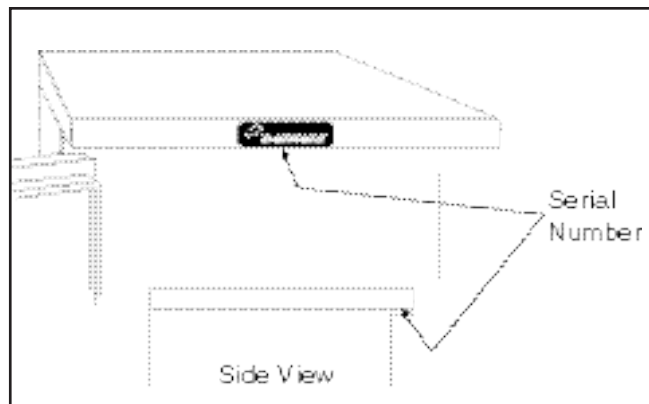


Figure 1. Serial Number Location

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 cabinet to be sure legs or casters are not bent.
6. Be sure to inspect 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.

SPECIFICATIONS

FLAT TOP REFRIGERATOR BASES

MODEL	DESCRIPTION	L	OVERALL D	H	STORAGE CUBIC FT.	SHELVES SQ. FT.	1/6 PAN CAPACITY	H.P.	REFG. CHG. (ounces)	AMP	NEMA PLUG	SHIP. WT. (lbs)
4427N	one door	27"	31.5"	36"	5.7	3.2	—	1/5	9	7.2	5-15P	220
D4427N	two drawer	27"	31.5"	36"	1.38	—	—	1/5	9	7.2	5-15P	265
4432N	one door	32"	31.5"	36"	6.9	3.88	—	1/5	9	7.2	5-15P	280
D4432N	two drawer	32"	31.5"	36"	2.7	—	—	1/5	9	7.2	5-15P	315
4448N	two door	48"	31.5"	36"	10.7	4.18	—	1/5	9	7.2	5-15P	335
D4448N	four drawer	48"	31.5"	36"	2.7	—	—	1/5	9	7.2	5-15P	370
4460N	two door	60"	31.5"	36"	15.7	7.19	—	1/2	12	12	5-15P	340
D4460N	four drawer	60"	31.5"	36"	2.7	—	—	1/2	12	12	5-15P	375
4464N	two door	64"	31.5"	36"	16.7	7.76	—	1/2	12	12	5-15P	395
D4464N	four drawer	64"	31.5"	36"	5.4	—	—	1/2	12	12	5-15P	440
4472N	three door	72"	31.5"	36"	18.9	8.22	—	1/2	12	12	5-15P	485
D4472N	six drawer	72"	31.5"	36"	4	—	—	1/2	12	12	5-15P	545

WORK TOP REFRIGERATOR BASES WITH 4" BACKSLASH

MODEL	DESCRIPTION	L	OVERALL D	H	STORAGE CUBIC FT.	SHELVES SQ. FT.	1/6 PAN CAPACITY	H.P.	REFG. CHG. (ounces)	AMP	NEMA PLUG	SHIP. WT. (lbs)
ST4427N	one door	27"	31.5"	40"	5.7	3.2	—	1/5	9	7.2	5-15P	220
STD4427N	two drawer	27"	31.5"	40"	1.38	—	—	1/5	9	7.2	5-15P	265
ST4432N	one door	32"	31.5"	40"	6.9	3.88	—	1/5	9	7.2	5-15P	280
STD4432N	two drawer	32"	31.5"	40"	2.7	—	—	1/5	9	7.2	5-15P	315
ST4448N	two door	48"	31.5"	40"	10.7	4.18	—	1/5	9	7.2	5-15P	335
STD4448N	four drawer	48"	31.5"	40"	2.7	—	—	1/5	12	7.2	5-15P	370
ST4460N	two door	60"	31.5"	40"	15.7	7.19	—	1/2	12	12	5-15P	340
STD4460N	four drawer	60"	31.5"	40"	2.7	—	—	1/2	12	12	5-15P	375
ST4464N	two door	64"	31.5"	40"	16.7	7.76	—	1/2	12	12	5-15P	395
STD4464N	four drawer	64"	31.5"	40"	5.4	—	—	1/2	12	12	5-15P	440
ST4472N	three door	72"	31.5"	40"	18.7	8.22	—	1/2	12	12	5-15P	485
STD4472N	six drawer	72"	31.5"	40"	4	—	—	1/2	12	12	5-15P	545

UNDERCOUNTER REFRIGERATORS

MODEL	DESCRIPTION	L D	OVERALL CUBIC FT.	H SQ. FT.	STORAGE CAPACITY	SHELVES	1/6 PAN	H.P. (ounces)	REFG. CHG.	AMP PLUG	NEMA WT. (lbs)	SHIP.
UC4427N	one door	27"	31.5"	34.25"	5.7	3.2	—	1/5	9	7.2	5-15P	220
UCD4427N	two drawer	27"	31.5"	34.25"	1.38	—	—	1/5	9	7.2	5-15P	265
UC4432N	one door	32"	31.5"	34.25"	6.9	3.88	—	1/5	9	7.2	5-15P	280
UCD4432N	two drawer	32"	31.5"	34.25"	2.7	—	—	1/5	9	7.2	5-15P	315
UC4448N	two door	48"	31.5"	34.25"	10.7	4.18	—	1/5	9	7.2	5-15P	335
UCD4448N	four drawer	48"	31.5"	34.25"	2.7	—	—	1/5	9	7.2	5-15P	370
UC4460N	two door	60"	31.5"	34.25"	15.7	7.19	—	1/2	12	12	5-15P	340
UCD4460N	four drawer	60"	31.5"	34.25"	2.7	—	—	1/2	12	12	5-15P	375
UC4464N	two door	64"	31.5"	34.25"	16.7	7.76	—	1/2	12	12	5-15P	395
UCD4464N	four drawer	64"	31.5"	34.25"	5.4	—	—	1/2	12	12	5-15P	440
UC4472N	three door	72"	31.5"	34.25"	18.7	8.22	—	1/2	12	12	5-15P	485
UCD4472N	six drawer	72"	31.5"	34.25"	4	—	—	1/2	12	12	5-15P	545

SALAD TOP REFRIGERATOR BASES

MODEL	DESCRIPTION	L	OVERALL D	H	STORAGE CUBIC FT.	SHELVES SQ. FT.	1/6 PAN CAPACITY	H.P.	REFG. CHG. (ounces)	AMP	NEMA PLUG	SHIP WT. (lbs)
4427N-6	one door	27"	31.5"	36"	5.7	3.24	6	1/5	9	7.2	5-15P	240
D4427N-6	two drawer	27"	31.5"	36"	1.38	—	6	1/5	9	7.2	5-15P	290
4448N-8	two door	48"	31.5"	36"	10.7	5.48	8	1/5	9	7.2	5-15P	320
D4448N-8	four drawer	48"	31.5"	36"	2.7	—	8	1/5	9	7.2	5-15P	395
4448N-12	two door	48"	31.5"	36"	10.7	5.48	12	1/5	9	7.2	5-15P	320
4460N-8	two door	60"	31.5"	36"	15.7	7.19	8	1/2	12	12	5-15P	345
D4460N-8	four drawer	60"	31.5"	36"	2.7	—	8	1/2	12	12	5-15P	450
4460N-12	two door	60"	31.5"	36"	15.7	7.19	12	1/2	12	12	5-15P	345
D4460N-12	four drawer	60"	31.5"	36"	2.7	—	12	1/2	12	12	5-15P	450
4464N-8	two door	64"	31.5"	36"	16.7	7.76	8	1/2	12	12	5-15P	435
D4464N-8	four drawer	64"	31.5"	36"	5.4	—	8	1/2	12	12	5-15P	495
4464N-12	two door	64"	31.5"	36"	16.7	7.76	12	1/2	12	12	5-15P	435
D4464N-12	four drawer	64"	31.5"	36"	5.4	—	12	1/2	12	12	5-15P	495
4464N-16	two door	64"	31.5"	36"	16.7	7.76	16	1/2	12	12	5-15P	435
D4464N-16	four drawer	64"	31.5"	36"	5.4	—	16	1/2	12	12	5-15P	495
4472N-12	three door	72"	31.5"	36"	18.9	8.22	12	1/2	12	12	5-15P	485
D4472N-12	six drawer	72"	31.5"	36"	4	—	12	1/2	12	12	5-15P	545
4472N-18	three door	72"	31.5"	36"	18.9	8.22	18	1/2	12	12	5-15P	485
D4472N-18	six drawer	72"	31.5"	36"	4	—	18	1/2	12	12	5-15P	545

MEGA TOP REFRIGERATED FRONT BREATHERS

MODEL	DESCRIPTION	L D	OVERALL CUBIC FT.	H	STORAGE SQ. FT.	SHELVES CAPACITY	1/6 PAN	H.P. (ounces)	REFG. CHG.	AMP PLUG	NEMA WT. (lbs)	SHIP.
4427N-9M	one door	27"	31.5"	36"	5.7	3.2	9	1/5	9	7.2	5-15P	290
D4427N-9M	two drawer	27"	31.5"	36"	1.38	—	9	1/5	9	7.2	5-15P	325
4432N-12M	one door	32"	31.5"	36"	6.9	3.88	12	1/5	9	7.2	5-15P	315
D4432N-12M	two drawer	32"	31.5"	36"	2.7	—	12	1/5	9	7.2	5-15P	350
4448N-18M	two door	48"	31.5"	36"	10.7	5.48	18	1/5	9	7.2	5-15P	360
D4448N-18M	four drawer	48"	31.5"	36"	1.5	—	18	1/5	9	7.2	5-15P	395
4460N-12M	two door	60"	31.5"	36"	15.7	7.19	12	1/2	12	12	5-15P	430
D4460N-12M	four drawer	60"	31.5"	36"	2.7	—	12	1/2	12	12	5-15P	465
4460N-18M	two door	60"	31.5"	36"	15.7	7.19	18	1/2	12	12	5-15P	430
D4460N-18M	four drawer	60"	31.5"	36"	2.7	—	18	1/2	12	12	5-15P	465
4460N-24M	two door	60"	31.5"	36"	15.7	7.19	24	1/2	12	12	5-15P	430
D4460N-24M	four drawer	60"	31.5"	36"	2.7	—	24	1/2	12	12	5-15P	465
4464N-12M	two door	64"	31.5"	36"	16.7	7.76	12	1/2	12	12	5-15P	435
D4464N-12M	four drawer	64"	31.5"	36"	5.4	—	12	1/2	12	12	5-15P	470
4464N-18M	two door	64"	31.5"	36"	16.7	7.76	18	1/2	12	12	5-15P	435
D4464N-18M	four drawer	64"	31.5"	36"	5.4	—	18	1/2	12	12	5-15P	470
4464N-24M	two door	64"	31.5"	36"	16.7	7.76	24	1/2	12	12	5-15P	435
D4464N-24M	four drawer	64"	31.5"	36"	5.4	—	24	1/2	12	12	5-15P	470
4472N-18M	three door	72"	31.5"	36"	18.7	8.22	18	1/2	12	12	5-15P	485
D4472N-18M	six drawer	72"	31.5"	36"	4	—	18	1/2	12	12	5-15P	545
4472N-24M	three door	72"	31.5"	36"	18.7	8.22	24	1/2	12	12	5-15P	485
D4472N-24M	six drawer	72"	31.5"	36"	4	—	24	1/2	12	12	5-15P	545
4472N-30M	three door	72"	31.5"	36"	18.7	8.22	30	1/2	12	12	5-15P	485
D4472N-30M	six drawer	72"	31.5"	36"	4	—	30	1/2	12	12	5-15P	545

INSTALLATION

Location

Cabinets represented in this manual are 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. Reinforce the floor as necessary to provide for maximum loading.

The location should be selected so that power cords can be connected without any extensions.

For the most efficient operation, be sure to provide good air circulation inside and outside the cabinet. Avoid hot corners and locations near stoves and ovens.

Inside Cabinet

Do not pack refrigerator so full that air cannot circulate.

Outside Cabinet

4400 Series equipment door and drawer models

These cabinets have Delfield's "front-breathing" design. They may be installed flush against a wall or built into a counter as required.

The louver at the floor level must be kept completely clear of any obstructions. Proper operation of these models is dependent on air being able to flow freely through the front louver. The louver at the back of the cabinet is not necessary for proper operation, but any air flow through it is beneficial.



CAUTION

Any restriction of the proper air flow outlined above, total or partial, will void the warranty on the cabinet.

Leveling

A level cabinet will perform better because the drain pan will drain properly, the drawers or doors will line up with the frames and the cabinet will not be subject to undue strain.



CAUTION

Never stand on the unit or its drawers! Doing so may result in bodily injury. They are not designed to hold the weight of a person and will collapse if misused in this

manner.

Stabilizing

All models are supplied standard on casters for your convenience, for ease of cleaning underneath and for mobility.



CAUTION

The cabinet must be installed in a stable condition with the front wheels locked. Locking the front casters after installation is the owner's and operator's responsibility.

Plumbing

Self-contained models are standard with a condensate evaporator. If, for some reason, a cabinet does not have a condensate evaporator, or the evaporator fails, the cabinets drain must have an outlet to an appropriate drainage area or container.



CAUTION

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

Electrical Connection



CAUTION

A 7' (2.1 m) long grounded supply cord and three-pronged plug are provided with standard cabinets. Simply plug into a three-pronged wall outlet for proper grounding of the cabinet to begin operation. Do not use an adapter to connect to a two-pronged outlet. The three-pronged outlet provides a ground connection which must be used to prevent a shock hazard.



CAUTION

The wall outlet must be checked by a qualified electrician to be sure a proper ground is present and that the outlet provides the correct voltage and required amperage to match the rating plate.

Any power cord that is frayed or damaged should be replaced. When disconnecting the cabinet from the power source, do not pull on the cord. Firmly grip the plug and remove from outlet.

The 15-P plug shown in Figure 2 is used on the various 4400 Series models.

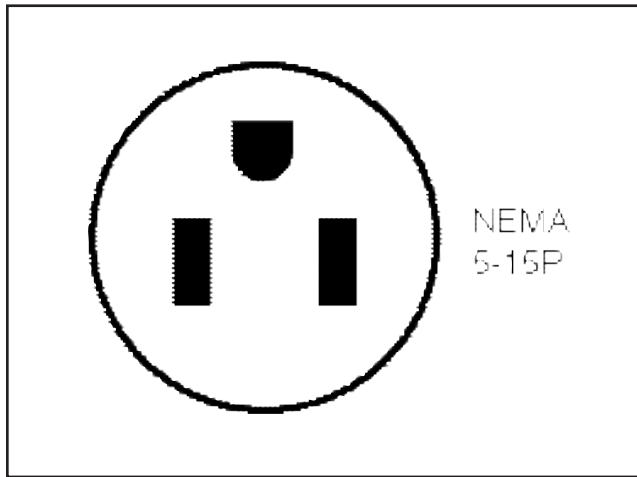


Figure 2. 5-15P Connector

Refer to the amperage data list in SPECIFICATIONS, the serial tag, your local code or the National Electrical Code to be sure the cabinet is connected to the proper power source. A protected circuit of the correct voltage and amperage must be run for connection of the line cord, or permanent connection to the cabinet.



CAUTION

The thermostat must be turned to OFF and the cabinet disconnected from the power source whenever performing service, maintenance functions or cleaning the refrigerated area.

Caster Mounting Detail

A universal bolt hole pattern, Figure 3, is provided on the bottom of the cabinet. It will accommodate any caster. Simply line up the plate holes with the corresponding cabinet holes.

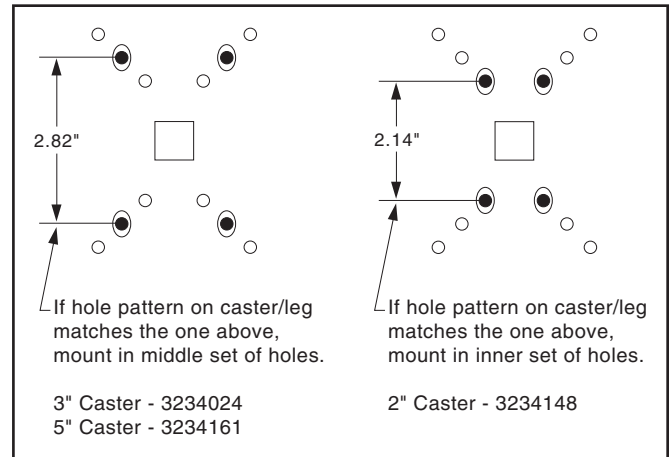


Figure 3. Universal Caster Mounting Pattern

Note: For undercounter units, 2" casters will be mounted into a recessed box.

OPERATION

REFRIGERATED CABINETS

After the cabinet is connected to the power source it will automatically begin operating. With the covers and doors closed, the temperature of the cabinet should reach 36°F to 40°F (2°C to 4°C) in about one hour. Temperature on salad top will maintain 33°F to 41°F (1°C to 4°C) with pans recessed 2.5" (6.5cm) at 86°F ambient room temperature for a period of four hours, meeting NSF-7 requirements. The temperature control on a flat top unit is located on the back panel inside the refrigerator and can be adjusted to meet the current conditions. The temperature control on a salad top unit is located in the rear of the unit, 14" to 16" above floor in access hole.

Temperature Control Instruction for Flat Top Units

A thermostat located in the evaporator housing on the interior rear of the cabinet controls the temperature inside the box (see Figure 4). The factory setting for the control is "4" and maintains about 38°F (3°C) inside the box. Set toward "1" for higher temperatures and toward "7" for lower temperatures.

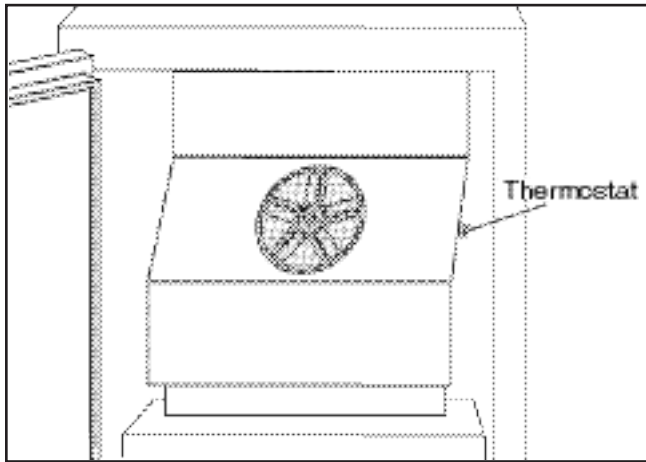


Figure 4. Thermostat Location - Flat Top

Temperature Control Instruction for Salad Top Units

A thermostat located in rear of cabinet controls the temperature inside the box (see Figure 5). The factory setting for the control is 5 and maintains about 34°F (1°C) to 36°F (2°C) inside the box. Set toward 1 for higher temperatures and toward 9 for lower temperatures.

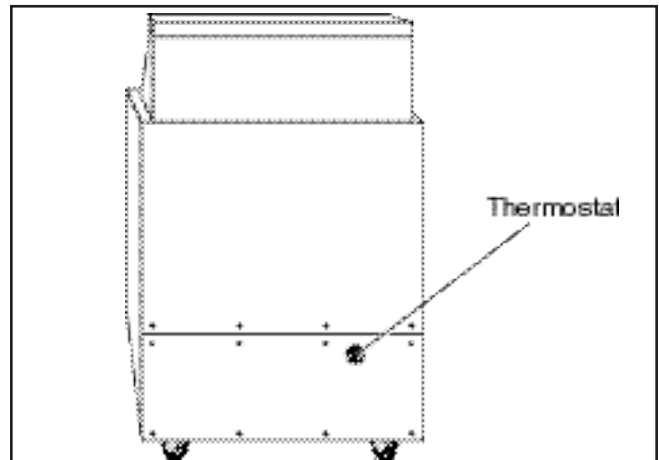


Figure 5. Thermostat Location - Salad Top



CAUTION

Cabinets with pans should be operated with pans in place. Operating the cabinet without all pans in place will lessen efficiency and may damage the cabinet.

Continuous opening and closing of the door will hamper the cabinet'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 cabinet while empty.

Defrosting

Refrigerators defrost automatically with every cycle of the compressor. The water generated is routed to a pan on the rear of the cabinet and is evaporated by the heat given off by the compressor.

MAINTENANCE



CAUTION

The thermostat must be turned to OFF and the cabinet disconnected from the power source whenever performing service, maintenance functions or cleaning the refrigerated area.

STAINLESS STEEL CARE AND CLEANING

To prevent discoloration or rust on stainless steel several important steps need to be taken. First, the properties of stainless steel need to be understood. 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 will not corrode and is still stainless. If the film is broken or contaminated, outside elements can begin to breakdown the steel and begin to form rust or other discoloration.



CAUTION

NEVER USE STEEL PADS, WIRE BRUSHES OR SCRAPERS!

Do not use an abrasive cleaner because it will scratch the stainless steel and plastic and can damage gaskets. Proper cleaning of stainless steel requires soft cloths or plastic scouring pads.

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 upon completion.

Routine cleaning of the interior and exterior can be done with soap and warm water. Extreme stains or grease should be cleaned with a non-abrasive cleaner and plastic scrub pad. When cleaning the exterior, always rub with the grain of the stainless steel to avoid marring the finish. There are also stainless steel cleaners available which can restore and preserve the finish of the steel's protective layer.

Early signs of stainless steel breakdown can consist of small pits and cracks. If this has begun, clean thoroughly and start to apply stainless steel cleaners in an attempt to restore the passivity of the steel.



CAUTION

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

CLEANING THE CONDENSER COIL

The condenser coil requires regular cleaning every 90 days (recommended). In some instances you may find a large amount of debris and dust or grease accumulated prior to the 90 day time frame. In these cases the condenser coil should be cleaned every 30 days.

If the build up on the coil consists of only light dust and debris the condenser coil can be cleaned with a simple brush. Heavier dust build up may require a vacuum or even compressed air to blow through the condenser coil.

If heavy grease is present there are de-greasing agents available for refrigeration use, and specifically for the condenser coils. The condenser coil may require using a de-greasing agent and then being blown through with compressed air. Follow the de-greasing agent manufacturer's instructions.

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



CAUTION

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.

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 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.

If your freezer seems to vibrate excessively when the compressor is running, loosen (but do not remove) the bolts on the compressor. Semi-hermetic models should be loosened before operating.

BASIC MAINTENANCE

Gasket Maintenance

Gaskets require regular cleaning to prevent mold and mildew build up and also to maintain 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 prevent proper seals. Also, never use sharp tools or knives to scrape or clean the gasket which could possibly tear the gasket and rip the bellows.

Gaskets can easily be replaced and do not require the use of tools or authorized service persons. 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.

Doors/Hinges

Over time and with heavy use the door hinges may become loose. If it is noticed that the door is beginning to sag, it may be necessary to tighten the screws that mount the hinge brackets to the frame of the cabinet, Figure 6. If the doors are loose or sagging, this can cause the hinge to pull out of the frame which may damage both the doors and the door hinges. In some cases this may

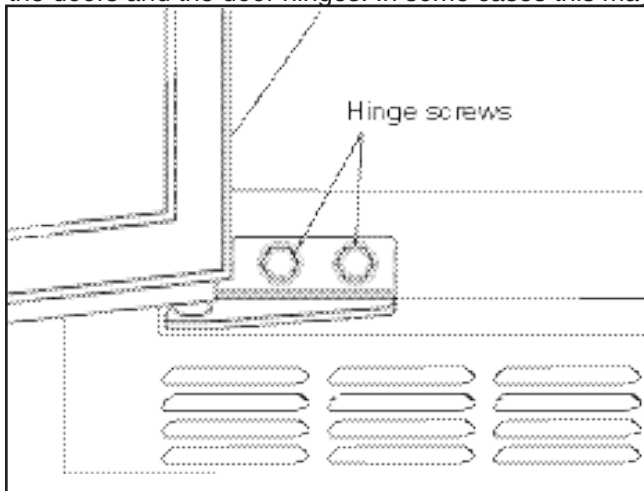


Figure 6. Door Hinge

require repair by a qualified service agent or maintenance personnel.

Drain Maintenance

Each cabinet has a drain located inside which removes the condensation from the evaporator coil and evaporates it at an external condensate evaporator pan. Each drain can become loose or disconnected from moving or bumping the drain. If you notice excessive water accumulation on the inside of the cabinet, be sure the drain tube is connected from the evaporator housing to

the condensate evaporator drain pan. If water has collected underneath the cabinet, check the condensate evaporator drain tube to be sure it is still located inside the drain pan. Leveling the cabinet is important as it is designed to drain properly when on a level surface. If your floor is not level this can also cause drain problems. Be sure all drain lines are free of obstructions. Typically, food product is found blocking drain lines causing water to back up and overflow the drain pans.

Refrigeration Cycle

During the refrigeration cycle the evaporator fans will run continuously with the exception of door openings. The temperature control allows for the evaporator coil to clear after each off cycle and before the compressor runs again.

Drawer Maintenance

Drawer Assembly Cleaning

The drawer assembly is designed to be cleaned easily. Both drawer and tracks are removable without tools. The intermediate 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

To remove a drawer, simply pull the drawer out until it stops. At this point lift up on the drawer front and pull the drawer 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.

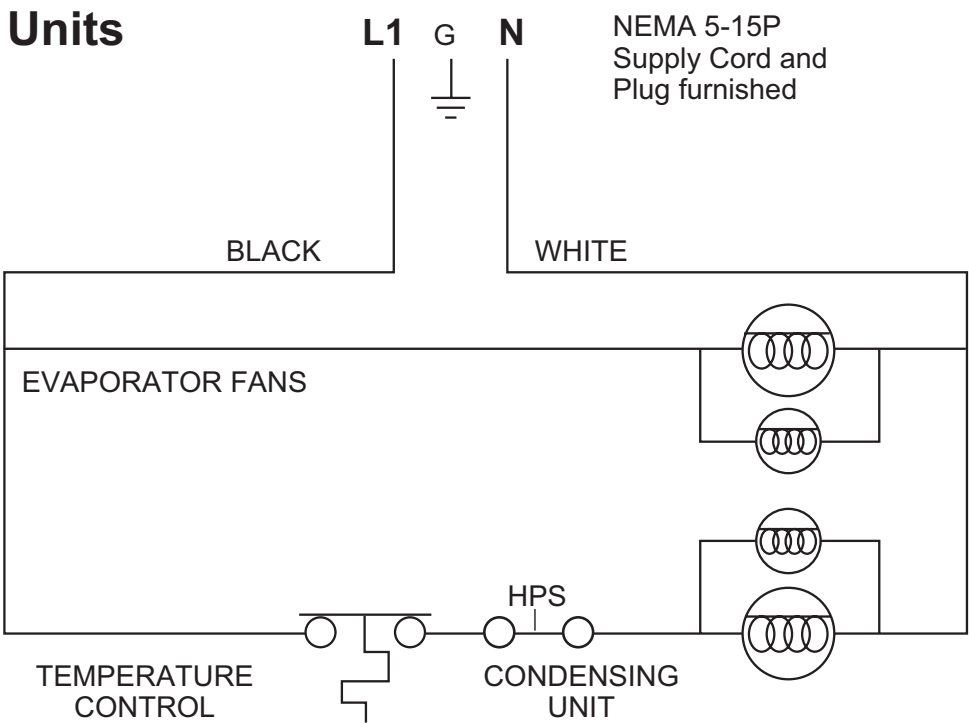
Tracks

To remove the intermediate tracks, the drawer box assembly must be removed. The intermediate tracks are removed by pulling the track out 1.50" to 2.00" (3.8cm to 5.0cm). Line up the rear white roller with the half moon notch in the outer profile, and then rotate the track away from the outer track profile freeing the intermediate profile. The intermediate 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 intermediate track making sure each roller is thoroughly cleaned. The outer profile track 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

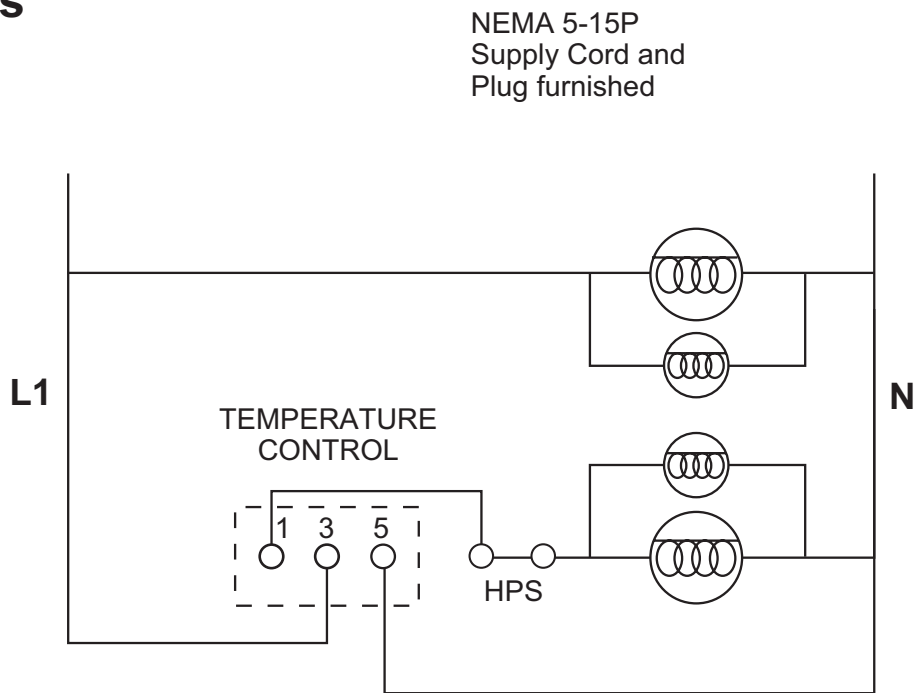
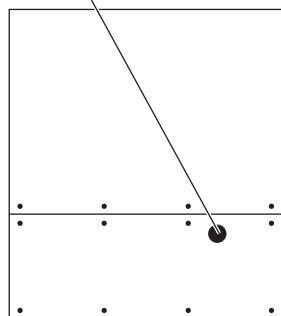
Place intermediate tracks back into the outer track profile by lining up the rear roller with the half moon notch and rotating towards the outer profile. Once all tracks are replaced, insert the drawer box. Rest the drawer box bottom track on the front intermediate track roller. Then push the drawer back in

Flat Top Units



Salad Top Units

Temperature Control Knob Access



WIRING DIAGRAMS

STANDARD LABOR GUIDELINES TO REPAIR OR REPLACE PARTS ON DELFIELD EQUIPMENT

Advice and recommendations given by Delfield Service Technicians do not constitute or guarantee any special coverage.

A maximum of 1-hour is allowed to **diagnose a defective component**.

A maximum of 1-hour is allowed for **retrieval of parts** not in stock.

A maximum **travel distance** of 100 miles round trip and 2-hours will be reimbursed.

Overtime, installation/start-up, normal control adjustments, general maintenance, glass breakage, freight damage, and/or correcting and end-user installation error will not be reimbursed under warranty unless pre-approved with a **Service Work Authorization** from Delfield. You must submit the number with the service claim.

LABOR OF 1-HOUR IS ALLOWED TO RE-

PLACE:

• Thermostat	• Evaporator/Condenser Fan Motor and Blade
• Hi-limit/Thermal Protector Switch	• Fan Delay/Defrost Termination Switch
• Compressor Start Components and Overload Protector	• Door Hinges, Locks, and Gaskets

LABOR OF 2 HOURS IS ALLOWED TO REPLACE:

• Drawer Tracks/Cartridges	• Locate/Repair a Leak
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LABOR OF 3 HOURS IS ALLOWED TO REPLACE:

• Condenser or Evaporator Coil	• Hot gas condensate evaporator
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LABOR OF 4 HOURS IS ALLOWED TO REPLACE

Compressor

This includes recovery of refrigerant and leak check.

\$55.00 maximum reimbursement for refrigerant recovery (includes recovery machine, pump, torch, oil, flux, minor fittings, solder, brazing rod, nitrogen, or similar fees.)

REFRIGERANTS

R404A A maximum of \$12.00/lb. or 75¢/oz. will be reimbursed.

Manufacturers Limited Lifetime Warranty

Delfield warrants to the original purchaser-user, subject to the limitations and exclusions set forth below, that the ABS interior of the Delfield models identified above will be free of manufactured defects for as long as the equipment is owned by the original purchaser-user and is in operation.

What is covered

For purposes of this Warranty, interior liner is defined as the portion of the interior liner which is made of ABS material. This Warranty applies only to products sold and installed after March 1, 2000 in the United States, Canada, Puerto Rico, and Mexico. For purposes of this Warranty, lifetime is defined as the expected usable life for the equipment of 12 years.

Delfield's Obligation

Limited strictly to shipping OEM replacement parts or repair kits for any ABS covered interior. A Delfield authorized service dealer and Delfield's Service Department must confirm the liner defect has occurred under normal conditions and is not due to misuse as defined below. All decisions regarding the ABS interior shall be made by Delfield's Service Department and shall be binding upon the parties. No labor or service charges or allowances are covered by this warranty. Warranty service must be performed by a Delfield approved authorized service agent.

User Responsibility

The product must be installed, cleaned and maintained as described in the Installation & Operation manual which is furnished with the product. Only approved replacement parts may be used. Failure to adhere to the requirements of this paragraph may void warranty coverage.

Procedures

All claims for replacement parts or repair kits must be made through a Delfield Parts Depot or an authorized Delfield

dealer. The defective part invoice must be returned to Delfield within 15 days after the date of service to be eligible for warranty coverage. All claims must include the model, serial number, an original date of installation and customer identification. Use of parts other than original Delfield replacement parts will not be covered.

Exclusions

This warranty does not cover labor, service, charges for travel time, mileage, or premium charges. This warranty also does not include defects resulting from:

Operation of the product beyond the specification set forth in the Service and Installation Manual.

Failure to clean and maintain the product as described in the Service and Installation Manual.

Installation of the product in a manner other than as set forth in the Service and Installation.

Use or installation of replacement parts not approved by Delfield; or The introduction of hot items directly onto the ABS liner.

This warranty is in lieu of all other warranties or guarantees of any kind, express or implied, except Delfield's One Year Parts and 90-Day Warranty 4400 Series. ANY IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED AND EXCLUDED. IN NO EVENT SHALL DELFIELD BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE, OR FOR ANY DEFECT RESULTING IN WHOLE OR IN PART FROM MISUSE, ALTERATION, IMPROPER INSTALLATION OR INADEQUATE MAINTENANCE OF THE PRODUCT OR ANY PART THEREOF.

No part or assembly which has been subject to accident, alteration or misuse, or which has not been installed or serviced in accordance with the Installation & Operation Manual furnished with the product, or which is from equipment on which the serial number has been altered or removed, shall be covered by this warranty.



STANDARD ONE YEAR WARRANTY (One year parts, 90 days labor)

The Delfield Company ("Delfield") warrants to the Original Purchaser of the Delfield product (herein called the "Unit") that such Unit, and all parts thereof, will be free from defects in material and workmanship under normal use and service for a period of one (1) year from the date of shipment of the Unit to the Original Purchaser **or, if the Original Purchaser returns the warranty card completely filled out including the date of installation within thirty (30) days of receipt of the Unit, one (1) year from the date of installation.** During this one year warranty period, Delfield will repair or replace any defective part or portion thereof returned to Delfield by the Original Purchaser which Delfield determines was defective due to faulty material or workmanship. The Original purchaser will pay all labor, crating, freight and related costs incurred in the removal of the Unit of defective component and shipment to Delfield, except that during a period of either ninety (90) days from the date of shipment of the Unit to the Original Purchaser or, if the Original Purchaser returns the warranty card completely filled out including the date of installation within thirty (30) days of receipt of the Unit, ninety (90) days from the date of installation Delfield will pay all related labor costs. Delfield will pay the return costs if the Unit or part thereof was defective.

The term "Original Purchaser" as used herein means that person, firm, association, or corporation for whom the Unit was originally installed.

This warranty does not apply to any Unit or part thereof that has been subjected to misuse, neglect, alteration, or accident, such as accidental damage to the exterior finish, operated contrary to the recommendations specified by Delfield; or repaired or altered by anyone other than Delfield in any way so as to, in Delfield's sole judgement, affect its quality or efficiency. This warranty does not apply to any Unit that has been moved from the location where it was originally installed. This warranty also does not cover the refrigerator drier or the light bulbs used in the Unit. **The warranty is subject to the user's normal maintenance and care responsibility as set forth in the Service and Installation Manual, such as cleaning the condenser coil, and is in lieu of all other obligations of Delfield. Delfield neither assumes, nor authorizes any other person to assume for Delfield, any other liability in connection with Delfield's products.**

Removal or defacement of the original Serial Number or Model Number from any Unit shall be deemed to release Delfield from all obligations hereunder or any other obligations, express or implied.

Parts furnished by suppliers to Delfield are guaranteed by Delfield only to the extent of the original manufacturer's express warranty to Delfield. Failure of the Original Purchaser to receive such manufacturer's express warranty to Delfield. Failure of the Original Purchaser to receive such manufacturer's warranty shall in no way create any warranty, expressed or implied, or any other obligation or liability on Delfield's part in respect thereof.

IF THE CUSTOMER IS USING A PART THAT RESULTS IN A VOIDED WARRANTY AND A DELFIELD AUTHORIZED REPRESENTATIVE TRAVELS TO THE INSTALLATION ADDRESS TO PERFORM WARRANTY SERVICE, THE SERVICE REPRESENTATIVE WILL ADVISE CUSTOMER THE WARRANTY IS VOID. SUCH SERVICE CALLS WILL BE BILLED TO CUSTOMER AT THE AUTHORIZED SERVICE CENTER'S THEN APPLICABLE TIME AND MATERIALS RATES. CONSIDER: CUSTOMER MAY INITIATE A SERVICE AGREEMENT WITHOUT PARTS COVERAGE.

If shipment of a replacement part is requested prior to the arrival in the Delfield factory of the part claimed to be defective, the Original Purchaser must accept delivery of the replacement part of a C.O.D. basis, with credit being issued after the part has been received and inspected at Delfield's plant and determined by Delfield to be within this warranty.

Under no condition does this warranty give the Original Purchaser the right to replace the defective Unit with a complete Unit of the same manufacturer or of another make. Unless authorized by Delfield in writing, this warranty does not permit the replacement of any part, including the motor-compressor, to be made with the part of another make or manufacturer.

No claims can be made under this warranty for spoilage of any products for any reason, including system failure.

The installation contractor shall be responsible for building access, entrance and field conditions to insure sufficient clearance to allow any hood(s), vent(s), or Unit(s) if necessary, to be brought into the building. Delfield will not be responsible for structural changes or damages incurred during installation of the Unit or any exhaust system.

Delfield shall not be liable in any manner for any default or delay in performance hereunder caused by or resulting from any contingency beyond Delfield's control, including, but not limited to, war, governmental restrictions or restraints, strike, lockouts, injunctions, fire, flood, acts of nature, short or reduced supply of raw materials, or discontinuance of the parts by the original part manufacturer.

Except as provided in any Additional Four Year Protection Plan, if applicable, and the Service Labor Contract, if applicable, the foregoing is exclusive and in lieu of all other warranties, whether written or oral, express or implied. This warranty supersedes and excludes any prior oral or written representations or warranties. Delfield expressly disclaims any implied warranties of merchantability, fitness for a particular purpose of compliance with any law, treaty, rule or regulation relating to the discharge of substances into the environment. The sole and exclusive remedies of any person relating to the Unit, and the full liability of Delfield for any breach of this warranty, will be as provided in this warranty.

Other than this Delfield Standard One Year Limited Warranty, any applicable Delfield Additional Four Year Protection Plan or applicable Delfield Service Labor Contract, the Original Purchaser agrees and acknowledges that no other warranties are offered or provided in connection with or for the unit or any other part thereof.

In no event will Delfield be liable for special, incidental or consequential damages, or for damages in the nature of penalties.

IF DURING THE WARRANTY PERIOD, CUSTOMER USES A PART FOR THIS DELFIELD EQUIPMENT OTHER THAN AN UNMODIFIED NEW OR RECYCLED PART PURCHASED DIRECTLY FROM DELFIELD OR ANY OF ITS AUTHORIZED SERVICE CENTERS AND/OR THE PART BEING USED IS MODIFIED FROM ITS ORIGINAL CONFIGURATION, THIS WARRANTY WILL BE VOID. FURTHER, DELFIELD AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY CLAIMS DAMAGES OR EXPENSES INCURRED BY THE CUSTOMER WHICH ARISE DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART, DUE TO THE INSTALLATION OF ANY MODIFIED PART AND/OR PART

NOTES



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**



980 S. Isabella Rd., Mt. Pleasant, MI 48858, U.S.A. • (989) 773-7981 or (800) 733-8829 • Fax (989) 773-3210 • www.delfield.com
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