

200 & 300 SERIES

Service and Installation Manual

Please read this manual completely before attempting to install or operate this equipment! Notify carrier of damage! Inspect all components immediately. See page 2.



Effective APRIL 2003

200 and 300 Series Service and Installation Manual

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SERIAL NUMBER INFORMATION

The serial number on all Model 225 and 227 units is located on the tag affixed next to the temperature control, inside the compressor stand at the bottom of the unit.

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

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RECEIVING AND INSPECTING THE EQUIPMENT

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

- Visually inspect the exterior of the package and skid or container. Any damage should be noted and reported to the delivering carrier immediately.
- If damaged, open and inspect the contents with the carrier.
- 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.
- Request an inspection by the shipping company of the damaged equipment. This should be done within 10 days from receipt of the equipment.
- 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.
- Retain all crating material until an inspection has been made or waived.

SPECIFICATIONS

MODEL NUMBEI		OVERALL D	н	CUTOUT SIZE	CABINET CAPACITY	H.P.	AMP	DESIGN LOAD BTU	SYSTEM CAP. BTU
DROP-I	IN ICE C	REAM FR	EEZERS						
N225	16.56"	27.87"	26.75"	26.37" x 15.37"	6 gal.	1/4	5.0	292	569
N227	30"	27.87"	26.75"	26.37" x 28.56"	12 gal.	1/4	5.0	473	661

DROP-IN ICE CREAM FREEZERS WITH LEXAN® LID									
225L	16.56"	27.87"	26.75"	26.37" x 15.37"	6 gal.	1/4	5.0	292	569
227L	30"	27.87"	26.75"	26.37" x 28.56"	12 gal.	1/4	5.0	473	661

MODE NUME		L	OVERALI D	L H	CUTOUT SIZE	ICE CAPACITY
DRO	P-IN WATER STATIONS	AND IC	E STOR	AGE		
203	ice chest	20.25"	20.25"	23.25"	19.25" x 19.25"	90 lbs.
204	water and ice station	24"	21"	23.5"	21" x 17.75"	45 lbs.
240	ice chest with cover	21"	17.5"	17"		75 lbs.
248	water and ice station	31"	15"	22.5"	28" x 12.5"	45 lbs.
305	ice chest with cover	21.25"	15.25"	13"	17.75" x 13.25"	45 lbs.
307	glass filler	12"	12"	9.5"		_
UNDERCOUNTER SINKS, WATER STATIONS AND ICE STORAGE						
242	UC sink & faucet	18"	13.5"	12.75"	17" x 12.5"	
250	UC sink, ice chest and water station	46"	14.12"	22.75"	45" x 13"	45 lbs.



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INSTALLATION

Location

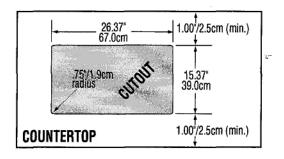
The refrigeration system has been factory tested and should require no further adjustment during installation.

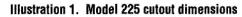
For the most efficient refrigeration, be sure to provide good air circulation inside and out.

Outside Cabinet: Be sure that the unit has access to ample air. Avoid hot corners and locations near stoves and ovens.

Counter Cutouts

For installation provide a cutout in the counter as shown (see illustration 1 or 2). The counter must be sturdy enough to hold the combined weight up to 300 lbs. of the drop-in and the product stored inside.





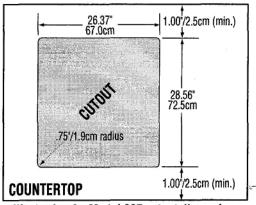
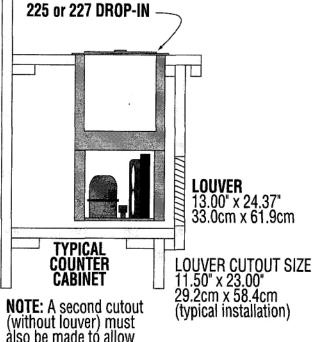


Illustration 2. Model 227 cutout dimensions



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The louver provided must be installed in front of the condensing unit's finned coil (see illustration 3). A second cutout must be made at the rear or end of the equipment to allow air flow through the unit. No louver is provided for the second cutout. Any restriction to the proper air flow, total or partial, will void the compressor warranty.



also be made to allow proper air flow.

Illustration 3. Models 225 & 227 louver installation

Electrical Connection

Refer to the amperage data on page 2, 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 connection of the line cord.

If the unit does not operate after it is plugged in, check the thermostat to see if it was inadvertently turned **OFF** during installation.



The unit must be disconnected from the power source whenever performing service or maintenance functions.



OPERATION MODELS 225 AND 227

After installation, the unit will begin operating simply by plugging it into the proper outlet. If the unit does not operate after being plugged in, check to see if the thermostat is in the OFF position.

The models 225 and 227 are designed to hold ice cream or other frozen products at a temperature range of 5°F to -5°F (-15°C to -21°C). The thermostat is located in the machine compartment.

MAINTENANCE MODELS 225 AND 227

In order to maintain proper refrigeration performance, the condenser fins must be cleaned of dust, dirt, and grease 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.

Defrosting must be done manually after 3/8" of ice accumulation.

The lid should be cleaned regularly with a soft cloth or sponge and solution of soap and water to maintain their ability to seal properly.

MAINTENANCE - MODELS 203, 204, 240, 242, 248, 250, 305 & 307

The interior and exterior of these models may be cleaned using soap and warm water. If this is not sufficient, try ammonia and water or a non-abrasive cleaner. Be sure to rinse thoroughly with clean water after using ammonia or a 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. Abrasive cleaners will scratch the stainless steel and plastic.



PARTS LIST AND ILLUSTRATION - MODEL 225/227 9 3 4 6 5 8 7 10 1 3234188 Cover (solid)* 3234189 Cover (see-through)* 2 1701022 Trim gasket 12 3 3526715 Compressor, 1/4 H.P. (404A) 2183349 4 Harness, power cord 5 3516047 Temperature control (13 6 3977986 Wire fan guard 7 GMK00203 Access cover 8 GMK000208 Comp. stand 9 AMK00021 Fan motor bracket 10 2162691 Fan motor 11 Fan blade 3516172 12 GMK00207 Fan baffle 13 3516067 Condensing coil Purchase locally Capillary tube, .031" i.d. 120" Lid lock device 225 standard cover MK900086 Lid lock device 227 standard cover MV800013

*Locking device for the cover is optional; the locking device for the solid and see-through covers are different.

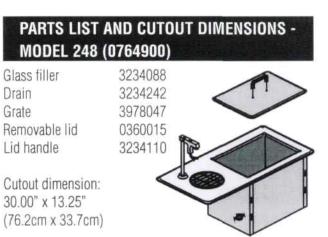


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PARTS LIST A Model 203 (0	ND CUTOUT DIMENSIONS - 1762400)	PARTS LIST AND CUTOUT DIMENSIONS - Model 204 (0762700)			
Removable lid Lid handle	00360015 3234110	Glass filler Drain Grate Removable lid Lid handle	3234088 3234242 3978047 0360015 3234110		
Cutout dimensions	19.25" x 19.25" (48.9cm x 48.9cm)	Cutout dimension:	21.00" x 17.75" (53.3cm x 45.1cm)		

PARTS LIST AND CUTOUT DIMENSIONS -MODEL 242 (0761600) MODEL 250 (0762000) Basket Strainer 3234007 Basket strainer 3234007 3234076 Faucet 3234076 Faucet 3234088 Glass filler Drain 3234242 3978047 Grate Removable lid 0360015 Lid handle 3234110 Cutout dimensions: 17.00" x 12.50" (40.6cm x 31.8cm)



PARTS LIST AND CUTOUT DIMENSIONS -

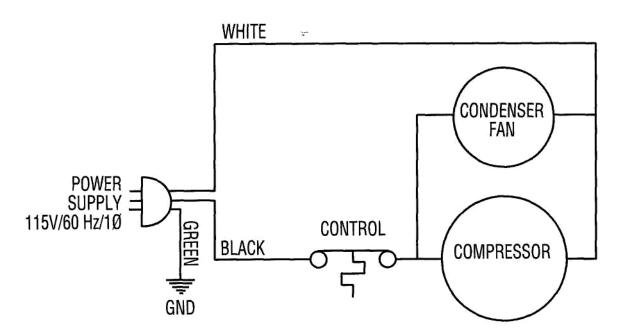
Cutout dimension: 45.00" x 13.00" (114.3cm x 33.0cm)





PARTS LIST AND CUTOUT DIMENSIONS -PARTS LIST AND CUTOUT DIMENSIONS -MODEL 307 (0763300) MODEL 305 (0764000) 3234242 Glass filler 3234088 Drain 3978047 Removable lid 0360015 Grate 3234110 Lid handle Cutout dimension: 8.00" (20.3cm) diameter plus four .37" dia. (1.0cm) diameter Cutout dimensions: 17.75" x 13.25" (45.1cm x 33.7cm) holes arranged in a square 10.12" (25.7cm) on each side.

WIRING DIAGRAM MODELS 225 AND 227





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 REPLACE:

- Thermostat
- Infinite Switch
- Door Jamb Switch
- Solenoid Coil
- Hi-limit/Thermal Protector Switch
- Fan Delay/Defrost Termination Switch
- Compressor Start Components and Overload Protector
- Defrost Timer
- Thermometer
- Gear Box

LABOR OF 2 HOURS TO REPLACE:

- Drawer Tracks/Cartridges
- Pressure Control
- Solenoid Valve

LABOR OF 3 HOURS TO REPLACE:

- EPR or CPR Valve
- Expansion Valve

LABOR OF 4 HOURS TO REPLACE

Compressor

This includes recovery of refrigerant and leak check.

\$35.00 maximum reimbursement for refrigerant recovery (includes recovery machine, pump, torch, oil, flux, minor fittings, solder, brazing rod, nitrogen, or similar fees.)

REFRIGERANTS

•R22 A maximum of \$4.00/lb. or 250/oz. will be reimbursed.

•R134A A maximum of \$5.00/lb. or 310/oz. will be reimbursed.

R404A A maximum of \$12.00/lb. or750/oz. will be reimbursed.

- Contactor/Relay
- Transformer
- Evaporator/Condenser Fan Motor and Blade
- Circulating Fan Motor and Blade
- Microprocessor Control
- Water Level Sensor/Probe
- · Door Hinges, Locks, and Gaskets
- Condensate Element
- · Springs/Lowerator
- Defrost Element
- Heating Element
- Locate/Repair Leak
- · Condenser or Evaporator Coil



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 there of 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 me 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 Deffield 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 manufacturers 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 Defield 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 RECEIVED FROM AN UNAUTHORIZED SERVICE CENTER. If the warranty becomes void, Customer may purchase from Delfield, if available, a Service Agreement or service at the then current time and materials rate.

For more information on Delfield warranty's log on and check out the service section of our web site at www.delfield.com.



ADDITIONAL FOUR YEAR PROTECTION PLAN (for Mator-Compressor only)

Delfield Model#	Serial #

Installation

Date

In addition to the Standard One Year Warranty on the Motor-Compressor contained in the above listed Delfield product (the "Unit"), The Delfield Company ("Delfield") also agrees to repair, or exchange with similar or interchangeable parts in design and capacity at Delfield's option, the defective Motor-Compressor contained in the Unit (the "Motor-Compressor), or any part thereof, for the Original Purchaser only, at any time during the four (4) years following the initial one (1) year period commencing on the date of installation for the Original Purchaser. Failure of the Original Purchaser to register the registration card containing the Original Purchasers name, address, date of installation, model number and serial number of the Unit containing the Motor-Compressor within 30 days from the date of installation shall void this warranty. This additional warranty is only available if the Motor-Compressor is inoperative due to defects in material or factory workmanship, as determined by Delfield in its sole judgement and discretion. The Original Purchaser shall be responsible for returning the defective Motor-Compressor to Delfield prepaid, F.O.B. at the address shown on the back cover of this manual.

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

The term "Motor-Compressor" as used herein does not include unit base, air or water cooled condenser, receiver, electrical accessories such as relay, capacitors, refrigerant controls, or condenser fan/motor assembly. This warranty does not cover labor charges incidental to the replacement of parts. This warranty further does not include any equipment to which said condensing unit is connected, such as cooling coils, temperature controls or refrigerant metering devices. This warranty shall be void if the Motor-Compressor, in Delfield's sole judgement, has been subjected to misuse, neglect, alteration or accident, operated contrary to the recommendations specified by the Unit manufacturer, repaired or altered by anyone other than Delfield in any way so as, in Delfield's sole judgment, to affect its quality or efficiency or if the serial number has been altered, defaced or removed. This Warranty does not apply to a Motor-Compressor in any Unit that has been moved from the location where it was originally installed. The addition of methyl chloride to the condensing unit or refrigeration system shall void this warranty.

General Conditions

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 any part or the Motor-Compressor by the unit manufacturer.

Replacement of a defective Motor-Compressor is limited to one (1) Motor-Compressor by us during the four (4) year period. Delfield shall replace the Motor-Compressor at no charge.

This warranty does not give the Original Purchaser of the Motor-Compressor the right to purchase a complete replacement Motor-Compressor of the same make or of another make. It further does not permit the replacement to be made with a Motor-Compressor of another kind unless authorized by Delfield. In the event Delfield authorizes the Original Purchaser to purchase a replacement Motor-Compressor locally, only the wholesale cost of the Motor-Compressor is refundable.

Expressly excluded from this warranty are damages resulting from spoilage of goods.

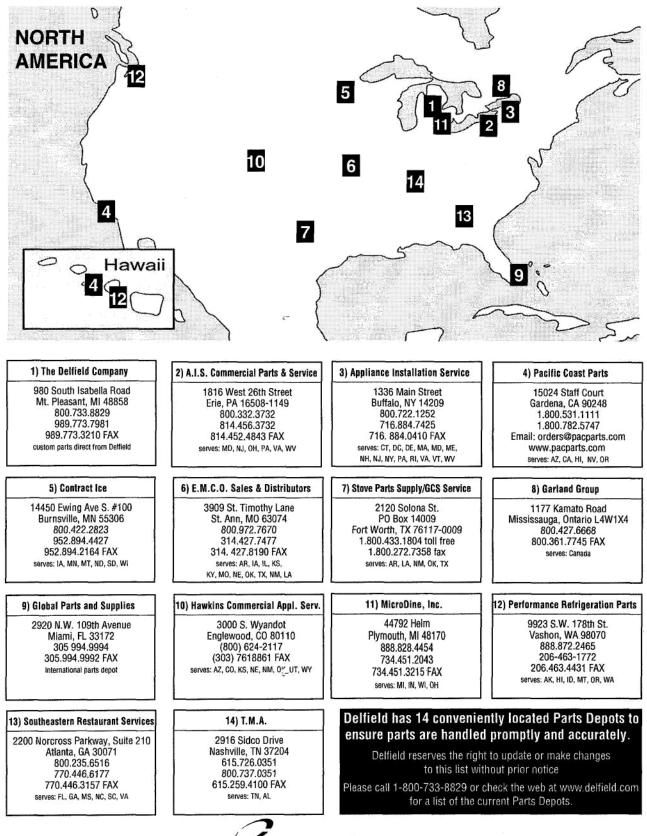
Except as provided in any applicable Standard One Year Limited Warranty or applicable Service Labor Contract, the foregoing is exclusive and in lieu of all other warranties, whether written or oral, express or implied. This Warranty supersedes and excludes any prior oral or written representations or warranties. Delfield expressly disclaims any implied warranties of merchantability, fitness for a particular purpose or compliance with any law, treaty, rule or regulation relating to the Motor-Compressor, and the full liability of Delfield for any breach of this warranty, will be as provided in this warranty.

Other than any applicable Delfield Standard One year Limited Warranty, this Delfield Additional Four Year Protection Plan and any 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 Motor-Compressor or any part thereof.

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



AUTHORIZED PARTS DEPOTS





980 S. Isabella Rd., Mt. Pleasant, MI 48804-0470, U.S.A. • (989) 773-7981 or (800) 733-8821 • Fax (800) 669-0619 • www.delfield.com Delfield reserves the right to make changes in design or specifications without prior notice. 2003 The Delfield Company. All rights reserved. Printed in the U.S.A. DM200_300 04/03