

## OPERATORS MANUAL

This manual provides  
Installation & Operating instructions for

# ***FREEZERS***



### **NOTIFY CARRIER OF DAMAGE AT ONCE.**

It is the responsibility of the consignee to inspect the container upon receipt of same and to determine the possibility of any damage, including concealed damage. Randell suggests that if you are suspicious of damage to make a notation on the delivery receipt. It will be the responsibility of the consignee to file a claim with the carrier. We recommend that you do so at once.

Manufacture Service/Questions 888-994-7636.

Information contained in this document is known to be current and accurate at the time of printing/creation. Unified Brands recommends referencing our product line websites, [unifiedbrands.net](http://unifiedbrands.net), for the most updated product information and specifications.



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Congratulations on your recent purchase of Randell food service equipment, and welcome to the growing family of satisfied Randell customers.

Our reputation for superior products is the result of consistent quality craftsmanship. From the earliest stages of product design, to successive steps in fabrication and assembly, rigid standards of excellence are maintained by our staff of designers, engineers, and skilled employees.

Only the finest heavy-duty materials and parts are used in the production of Randell brand equipment. This means that each unit, given proper maintenance, will provide years of trouble free service to its owner.

In addition, all Randell food service equipment is backed by one of the best warranties in the food service industry and by our professional staff of service technicians. Retain this manual for future reference.

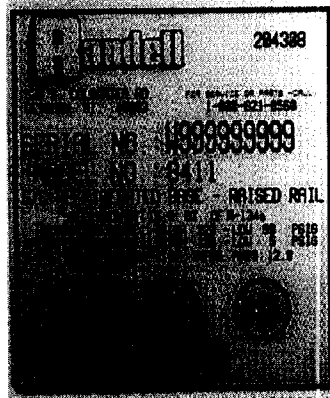
**Notice:** Due to a continuous program of product improvement, Randell Manufacturing reserves the right to make changes in design and specifications without prior notice.

**Notice:** Please read the entire manual carefully before installation.  
If certain recommended procedures are not followed, warranty claims will be denied.

Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Installation Date \_\_\_\_\_

**Randell Manufacturing**  
**Service and Parts**  
**Hot Line**  
**1-800-621-8560**  
**or for our**  
**Service Agent Listings**  
**visit our web site at**  
**[www.randell.com](http://www.randell.com)**

**RANDELL MANUFACTURING  
SERIAL NUMBER LOCATION**



This is a sample of a serial number tag.

## Unit Installation

### A. Receiving Shipment

Upon arrival, examine the exterior of the shipping crate for signs of abuse. It is advisable that the shipping crate be partially removed, in order to examine the cabinet for any possible concealed damages which might have occurred during shipment. If no damages are evident, replace the crate in order to protect the unit during storage and local delivery. If the unit is damaged, it should be noted on the delivery slip or bill of lading and signed to that effect. A claim must be filed immediately against the carrier indicating the extent and estimated cost of damage occurred.

### B. Locating Your New Unit

The following conditions should be considered when selecting a location for your unit:

1. Floor and Countertop load - The area on which the unit will rest must be free of vibration and suitably strong enough to support the combined weights of the unit plus the maximum product load weight.
2. Clearance - There must be a combined total of at least 3" clearance on all sides of the unit.
3. Ventilation - The air cooled self contained unit requires a sufficient amount of cool clean air. Avoid placing the unit near heat generating equipment such as ovens, ranges, heaters, fryers, steam kettles, etc. and out of direct sunlight. Avoid locating the make table in an unheated room or where the room temperature may drop below 55° F or above 90° F.

### C. Electrical Supply

The wiring should be done by a qualified electrician in accordance with local electrical codes. A properly wired, and grounded outlet will assure proper operation. Please consult the data plate attached to the compressor to ascertain the correct electrical requirements. Supply voltage and amperage requirements are located on the serial number tag located inside the far left door.

**Note: It is important that a voltage reading be made at the compressor motor electrical connections, while the unit is in operation, to verify that the correct voltage required by the compressor is being supplied. Low or high voltage can detrimentally affect operation and thereby void its warranty.**

**Note: It is important that your unit has its own dedicated line. Condensing units are designed to operate with a voltage fluctuation of plus or minus 10% of the voltage indicated on the unit data plate. Burn out of a condensing unit due to exceeding voltage limits will void the warranty.**

### D. Door Inspection

1. Check doors/drawers to ensure that they are sealing properly.
2. Check doors for proper alignment.
3. Check doors to ensure that they open and shut freely.

**Note: For units supplied with self closing doors.**

### E. Installation Checklist

After the final location of the unit has been determined refer to the following checklist prior to start up:

1. Check all exposed refrigeration lines to ensure that they are not kinked, dented or rubbing together.
2. Check that condenser and evaporator fans rotate freely without striking any stationary members.
3. Unit must be properly leveled.
4. Plug in unit and turn on main on/off switch.
5. Turn on cold control located inside the base and rail power switch located on front compressor panel.
6. Refer to the front of this manual for serial number location. Please record this information in your manual on page 3 now. It will be necessary when ordering replacement parts or requesting warranty service.
7. Confirm that unit is holding temperature. Set controls to desired temperature for your particular ambient and altitude.
8. Allow your unit to operate for approximately 2 hours before putting in food this allows interior to cool down to storage temperature.

**Note: All motors are oiled and sealed.**

**Note: All self-contained models are shipped from the factory with the service valves open ready for operation.**

Note: The legs are equipped with bullet-type leveling bolts. Turn bolts clockwise or counterclockwise until the unit is level (both right to left and front to back). This can be done by hand or with an open end wrench.

### **Figure B - Temperature control adjustments**

The control knob allows for temperature adjustments, with in the cabinet only. Turning the knob clockwise will result in increased cooling. Keep the arrow on the knob pointed within the green arc. Turning it clockwise beyond the green can result in freeze-up, while turning it counterclockwise beyond the green will shut the compressor off. If your cabinet temperature remains to warm and your temperature control is at the maximum setting you may need to adjust the pressure control.

Your units pressure control should be set at the time of installation by a qualified installation contractor. If minor adjustments are needed at a later date, adjust control by turning the right adjusting screw clockwise (1/4 turn at a time) to a lower number for colder temperature and counterclockwise to a higher number for warmer temperature.

**Note: Numbers are pounds of pressure not degrees F.**

**Note: Do not adjust the differential screw.**

**Resetting self-closing hinge** Loosen set screw, using flat tip screwdriver turn bottom hinge (2) turns. Turn clockwise on left hinged doors, counterclockwise on right hand doors. Hold hinge in wound position with screwdriver and tighten set screw.

### **Door adjustment**

The doors are mounted to the cabinet with two screws on the upper hinge, and a hinge pin on the bottom. To adjust the door first open it 90° and remove the two screws, leaving the center adjusting screw loose enough to reposition door. Once repositioned, install all screws and tighten.

### **Reach In hinge adjustment and alignment**



To adjust reach in hinge open door to approximately 90° . Then remove hinge cover and loosen the three machine screws and adjust hinge plate as necessary to align door with cabinet front for proper gasket sealing (to make door tighter move adjustment plate forward, to loosen move adjustment plate out. Tighten hinges, replace hinge cover and reinstall door.

## BASIC PROGRAMMING

### The Display

The display normally shows the current temperature. There are also 3 Red LED's; the upper right indicates cooling, the upper left indicates defrost, and the bottom right is used for programming.

### The Buttons



There are two double buttons, each having 2 actions. To use them you must press either the left or right hand side of the button as appropriate. Up   Down

Manual Defrost  SET Set

### To Display the Set Point

Press and release the SET button and the Set Point will be displayed for 5 seconds.

### To alter the Set Point

Press and hold the SET button for at least 3 seconds and Set Point change mode is entered, the 2 small LED's will start flashing indicating you are now in programming mode. Use the  and  buttons

to alter the Set Point. The new value can then be stored either by pressing the SET button or by waiting 15 seconds until the exit time out has expired.

**If defrost adjustments are required, consult factory for detailed programming instructions.**

Press any button to silence alarm

### Alarm Codes

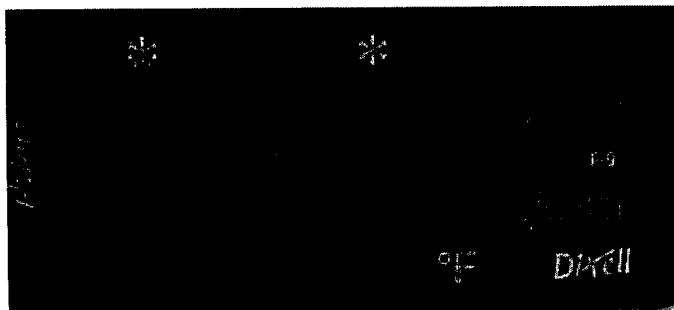
#### DISPLAY FLASHING

EE  
P1  
P2  
HA  
LA  
EA  
CA

#### PROBLEM

Data or memory corruption  
Fault with thermostat probe or probe wiring  
Fault with evaporator probe or probe wiring  
High temperature alarm  
Low temperature alarm  
External alarm  
Serious external alarm

If any alarm codes appear, consult factory. If P1 or P2 alarms are displayed, check probe connections at control.  
CAUTION – Disconnect power supply before attempting any servicing on the control wiring.



## Unit Operation

Allow your freezer to operate for approximately 2 hours before putting in food. This allows the interior to cool down to the correct storage temperature. During normal operation, a freezer continuously circulates below freezing cabinet air through the coil. Defrosting the coil requires a periodic supply of heat. This is accomplished by an automatic, time activated, temperature terminated, electric defrost system. The programmable time clock is preset at the factory for four defrost cycles every 24 hours and the non-programmable type 6 cycles every 24 hours. However, this may easily be changed to suit climatic conditions and usage, by adding or subtracting the number of cycles. To set up defrost cycles: open time clock cover and read the instructions on the back of the cover, set defrost cycles as desired. Adjustments made to defrost timers are not covered under warranty.

At the start of the defrost cycle, both the compressor and evaporator fans are off. The electric defrost heater (attached to coil) and drain pan heater (attached to drain pan below coil) are energized.

When the defrost termination senses 58 degrees, the coil is fully defrosted and the compressor operation is automatically resumed; defrost and drain pan heaters are automatically de-energized and the compressor is activated. The coil fans are delayed from starting at the termination of a defrost cycle. When the thermostat senses a coil temperature of 35 degrees, fan operation is automatically resumed. The freezer operation is now completely resumed.

During the defrost operation, heat is confined to the coil housing to prevent any significant rise in air temperature in the food zone, the fan delay action of the termination thermostat is twofold. First to prevent blowing of warm air into the food storage area. Second, to prevent any condensate retained on the defrosted coil, from being blown into the food storage area.

Normal defrosting which is terminated by the temperature sensors will average 10 to 15 minutes. A fail safe provision to the defrost cycle with resulting damage to food storage is provided by an override timer in the defrost clock. Setting the maximum duration of the override timer at 25 minutes provides a fail safe system in the event that the defrost terminator malfunctions.

Manual defrost - to turn freezer into manual defrost, with the non-programmable timer, turn center shaft 90 degrees, with a flat tip screwdriver, clockwise until a click is heard. If your unit is equipped with a programmable timer turn the reset knob until a pin in the timer dial passes the reset knob.

Automatic defrost - Each Randell freezer equipped with an automatic defrost timer, shuts the compressor for a specified number of times each day. When the unit is on defrost time, water will drain from the evaporator through a tube onto the condensate evaporator pan at the bottom or to a designated floor drain. The defrost timer cycle may be altered to a different number of cycles if your unit is equipped with a programmable timer.

Note: Both timers allow customer chosen defrost times.

Randell suggests a preventive maintenance program which would include the following:

1. Clean condenser coils. Coils are a critical component in the life of the compressor and must remain clean to assure proper air flow and heat transfer. Failure to maintain this heat transfer will affect unit performance and eventually destroy the compressor. Clean the condenser coils with coil cleaner.

**Note: Brush coil in direction of fins.**

2. Clean fan blades.
3. Lubricate door hinges with lithium grease.
4. Clean and disinfect drain lines and evaporator pan with a solution of warm water and bleach.
5. Clean gaskets on a weekly basis with a solution of warm water and a mild detergent to extend gasket life.

**NOTE: DO NOT USE SHARP UTENSILS WHILE CLEANING EQUIPMENT.**

Proper maintenance of equipment is the ultimate necessity in preventing costly repairs. By evaluating each unit on a regular schedule you can often catch and repair minor problems before they completely disable the unit and become burdensome on your entire operation.

## Preventive Maintenance

Randell strongly suggests a preventive maintenance program which would include the following **Monthly** procedures:

1. Cleaning of all condenser coils. Condenser coils are a critical component in the life of the compressor and must remain clean to assure proper air flow and heat transfer. Failure to maintain this heat transfer will affect unit performance and eventually destroy the compressor. Clean the condenser coils with coil cleaner and/or a vacuum cleaner and brush.

**Note: Brush coil in direction of fins, normally vertically as to not damage or restrict air flow from passing through condenser.**

2. Clean all fan blades, both on the condensing unit and the evaporator assembly.
3. Lubricate door hinges with lithium grease.
4. Clean and disinfect drain lines and evaporator pan with a solution of warm water and bleach.
5. Clean all gaskets on a weekly if not daily basis with a solution of warm water and a mild detergent to extend gasket life.

### NOTE: DO NOT USE SHARP UTENSILS

Recommended cleaners for your stainless steel include the following:

JOB	CLEANING AGENT	COMMENTS
Routine cleaning	Soap, ammonia, detergent Medallion	Apply with a sponge or cloth
Fingerprints and smears	Arcal 20, Lac-O-Nu, Ecoshine	Provides a barrier film
Stubborn stains and discoloration	Cameo, Talc, Zud, First impression	Rub in the direction of the polish lines
Greasy and fatty acids, blood, burnt-on foods	Easy-Off, De-grease It, Oven aid	Excellent removal on all finishes
Grease and oil	Any good commercial detergent	Apply with a sponge or cloth
Restoration/Passivation	Benefit, Super Sheen	Good idea monthly

Reference: Nickel Development Institute, DiverseyLever, Savin, Ecolab, NAFEM

Do not use steel pads, wire brushes, scrapers or chloride cleaners to clean your stainless steel.

### CAUTION: DO NOT USE ABRASIVE CLEANING SOLVENTS, NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL.

Proper maintenance of equipment is the ultimate necessity in preventing costly repairs. By evaluating each unit on a regular schedule you can often catch and repair minor problems before they completely disable the unit and become burdensome on your entire operation.

**For more information on preventive maintenance consult your local service company or CEFSA member.** Most repair companies offer this service at very reasonable rates to allow you the time you need to run your business along with the peace of mind that all your equipment will last throughout its expected life. These services often offer guarantees as well as the flexibility in scheduling of maintenance for your convenience. Randell believes strongly in the products it manufacturers and backs those products with one of the best warranties in the industry. We believe with the proper maintenance and use you will realize a profitable return on your investment and years of satisfied service.

**EASY TO FOLLOW  
TROUBLE SHOOTING CHART  
WITH  
ILLUSTRATIONS**

## **1. Cleaning condenser coil.**

An accumulation of dirt and dust prevents the condenser coil from removing heat, making your unit cool poorly, run constantly, or even stop completely if the compressor overheats. Clean coil using a vacuum cleaner with a wand attachment. If the coil is greasy, wash it with warm soapy water and a bristle brush, taking care not to drip water on other parts of your unit.

## **2. Cleaning drain and drain pan.**

Clean the drain using an oven baster to force a solution of hot water and baking soda or bleach into the opening. To clear a stubborn clog, insert a length of ¼" round plastic tubing into the drain and push it through to the drain pan, then pull it out. Wash the pan regularly with a solution of warm baking soda and water.

## **Checking the door seal.**

Open the door and examine all four sides of the door gasket for tears. Feel the gasket for brittleness or cracks. If the gasket shows damage replace it. If not, close the door and check the seal between gasket and cabinet for obvious gaps. Next open the door and shut it on a dollar bill slowly pull it out of the door. If the gasket seals properly, you will feel tension as it grips the bill. Repeat this test all around the door. If the gasket doesn't seal tightly, replace gasket after first checking the door for sagging, warping.

Packaging - Processing

**Bid on Equipment**

1-847-683-7720

[www.bid-on-equipment.com](http://www.bid-on-equipment.com)

SYMPTOM	POSSIBLE CAUSE	PROCEDURE
FREEZER NOT RUNNING	1. CIRCUIT BREAKER TRIPPED.	1. RESET.
	2. POWER CORD UNPLUGGED.	2. PLUG IN.
	3. THERMOSTAT TURNED OFF.	3. TURN ON.
	4. UNKNOWN.	4. CONTACT SERVICE.
CONDENSING UNIT RUNS FOR LONG PERIODS OR CONTINUOUSLY.	1. EXCESSIVE HEAT LOAD PLACED INTO UNIT.	1. ALLOW UNIT SUFFICIENT TIME TO REMOVE HEAT.
	2. PROLONGED OR TOO FREQUENT DOOR OPENINGS.	2. MAKE SURE DOOR IS CLOSED.
	3. GASKET NOT SEALING	3. CHECK GASKET.
	4. DIRTY CONDENSOR COIL.	4. CLEAN COIL.
	5. EVAPORATOR COIL FROZEN.	5. UNPLUG UNIT, DEFROST COIL.
	6. UNKNOWN	6. CALL FOR SERVICE.
UNIT SHORT CYCLES	1. CONDENSER COIL DIRTY.	1. CLEAN COIL.
	2. CONDENSER FAN FAULTY.	2. SERVICE FAN AND MOTOR.
	3. COMPRESSOR FAULTY.	3. CALL FOR SERVICE AT 1-800-621-8560.
	4. OVERLOAD REPEATEDLY TRIPPING.	4. CHECK OUTLET VOLTAGE.
UNIT NOT COLD ENOUGH	1. TEMPERATURE CONTROL SET TOO HIGH.	1. LOWER SETTING.
	2. TEMPERATURE CONTROL FAULTY.	2. TEST CONTROL.
	3. CONDENSER COIL DIRTY.	3. CLEAN COIL.
	4. DOOR NOT SEALING PROPERLY.	4. CHECK DOOR.
	5. DOOR GASKET DAMAGED.	5. REPLACE DOOR GASKET.
	6. EVAPORATOR FAN FAULTY.	6. SERVICE EVAPORATOR FAN.
	7. EVAPORATOR ICED UP.	7. CHECK DOOR.
	8. REFRIGERANT LEAKING OR CONTAMINATED.	8. CALL FOR SERVICE AT 1-800-621-8560.
MOISTURE AROUND DOOR OR FRAME.	1. BREAKER STRIPS FAULTY.	1. INSPECT STRIPS.
	2. TEMPERATURE SET TOO LOW	2. RAISE SETTING.
UNIT NOISY	1. UNIT NOT LEVEL	1. ADJUST LEVELING FEET.
	2. COMPRESSOR MOUNTINGS LOOSE OR HARDENED.	2. TIGHTEN OR REPLACE COMPRESSOR MOUNTINGS.
	3. CONDENSER FAN DAMAGED OR FITTING FAN SHROUD.	3. INSPECT CONDENSER FAN.
	4. EVAPORATOR FAN DAMAGED OR HITTING FAN SHROUD.	4. INSPECT EVAPORATOR FAN.
	5. MECHANICAL COMPARTMENT LOUVER RATTLING.	5. BEND OR ALIGN TABS TO REDUCE NOISE. REPLACE IF NECESSARY

COMMON  
PARTS LIST  
FOR  
CUSTOM FREEZERS

AFTER SERIAL NUMBER W000000121766

ITEM	DESCRIPTION	PART#
1	Casters 6" (set of 4)	1455
2	Casters 6" (set of 6)	1655
3	Caster non-lock (6")	HD CST061
4	Caster - lock (6")	HD CST060
5	Leg w/bullet ft 6" [opt]	RP LEG035
6	Unit power cord 16/3 9'	EL WIR461-90
7	Door right hand 18"	RP DOR654R
8	Door right hand 21"	RP DOR0013
8A	Door right hand 24"	RP DOR657R
8B	Door right hand 27"	RP DOR628R
9	Door left hand 18"	RP DOR654L
9A	Door left hand 21"	RP DOR0012
9B	Door left hand 24"	RP DOR657L
9C	Door left hand 27"	RP DOR628L
10	Door gasket 27"	IN GSK1015
10A	Door gasket 24"	IN GSK1010
10B	Door gasket 21"	IN GSK1006
10C	Door gasket 18"	IN GSK1005
11	Door hinge non-self closing	RP HNG9900
12	Door bushing	HD BSH050
13	Shelf 13" x 25"	HD SHL015
13A	Shelf 16" X 25"	HD SHL9912
13B	Shelf 19" x 25"	HD SHL060
13C	Shelf 22 x 25	HD SHL180
14	Shelf support pin	HD PIN0102
15	Shelf support- Frt & Bck of coil	RP BRK0107
15A	Shelf support Between doors	RP BRK0108
16	21" Dwr cartridge	11043-21
16A	24" Dwr cartridge	11043-24
16B	27" Dwr cartridge	11043-27
16C	27" Trip- Dwr cartridge	11043-27T
17	21" Dwr Assy	RP DWR0206
17A	24" Dwr Assy	RP DWR0201
17B	27" Dwr Assy	RP DWR0202
17C	27" Trip - Dwr Assy	RP DWR0123
18	21" Dwr Front	RP FRT921

ITEM	DESCRIPTION	PART#
18A	24" Dwr Front	RP FRT924
18B	27" Dwr Front	RP FRT927
18C	27" Trip-Dwr Front	RP FRM0117
19	21" Dwr Frm Assy	RP FRM9903
19A	24" Dwr Frm Assy	RP FRM9904
19B	27" Dwr Frm Assy	RP FRM9905
19C	27" Trip Dwr Frm Assy	RP FRM0117
19D	Extendable Dwr Tracks	RP TRK05SM
19E	Drawer Handle	HD HDL130
19F	Drawer Bearing	HD BRG210
20	Gasket Dwr 18"	IN GSK1035
20A	Gasket Dwr 21"	IN GSK1036
20B	Gasket Dwr 24"	IN GSK1040
20C	Gasket Dwr 27"	IN GSK1045
20D	Gasket Dwr 32"	IN GSK1050
21	Hinged Louver 14"	RP LVR011
22	Louver Magnet	HD CTH9901
22A	Louver Magnet Strike	HD STR9901
23	Louver Mtg Hng Brk [1pc]	RP BRK0109
24	Solenoid Valve [120v]	RF SOL9801
25	TXV [Rail]	RF VLV404
26	TXV [Base]	RF VLV404
27	Power cord/condensing unit	EL WIR470
28	Hanging Thermometer 4"	HD THR100
29	Base Thermostat	HD CNT100
30	Three wire thermo disk	RF TRM001
31	Cond unit [aea2411zxa] one door unit	RF CON0003
31A	Cond unit [m4pl0051-iaa-140]2&3 door unit	RF CON9901
32	Comp [ae2411zxa]	RF CMP031P
32A	Comp [m4pl0051-iaa-140]	RF CMP9902P
33	Digital control dixell	RF CNT750
34	Temperature sensor 2	RF CNT750-1

ITEM	DESCRIPTION	PART#
36	Condenser fan motor	EL MTR0101P
36A	Condenser fan motor	RF ASY0101P
36B	Condenser fan motor	RF ASY0101P
37	Condenser fan blade	RF FAN300
37A	Condenser fan blade	RF ASY0101P
37B	Condenser fan blade	RF ASY0101P
38	Filter Drier	RF FLT251
38A	Filter Drier	RF FLT377
39	Coil Assy	RP CSY0202
40	Coil Mtg Brk	RP BRK 1050
41	Evaporator Coil	RF COI107
42	Evaporator drain pan S/S	RP DRP0201
43	Evap coil vinyl drain tube	PL TBG075
44	Evap fan motor	EL MTR057
45	Cutting Board locator pin	HD PIN210
46	Locator pin riv-nut	FA NUT0124
47	Condensing Unit Dog House	RP DGH0101
47A	Condensing Unit Dog House	RP DGH0102
47B	Condensing Unit Dog House	RP DGH0103
48	Defrost heater	EL ELM9904