

OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

888-994-7636, fax 888-864-7636 randell.com

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

FOR YOUR SAFETY Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WARNING R290 flammable refrigerant in use. Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

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.

This manual provides information for:

SIDEMOUNT WORK TOP SERIES

9215F-290, 9205F-290 Freezer (-5°F to 0°F)



RETAIN THIS MANUAL FOR FUTURE REFERENCE

NOTICE: Due to a continuous program of product improvement, Randell 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 DA	TE

Crandell. SERIAL NUMBER XXXXXXXX MODEL NUMBER XXXXXXXX DESCRIPTION

The serial number is located in the cabinet left side or back wall closest to the compressor compartment under the drawer track. An example is shown here.

EQUIPMENT DESCRIPTION

MODEL	LENGTH	DEPTH	HEIGHT	DOORS	STORAGE CU. FT.	SHELVES CU. FT.	POWER USAGE KW PER DAY	НР	VOLT/CYCLE/ PHASE	AMPS	NEMA PLUG	SHIP WT.
9215F-290	48"	33"	36"	(2) 18"	11.58	9.5	3.38	1/2	115/60/1	5.5	5-15P	325
9205F-290	60"	33"	36"	(2) 24"	16.21	13.5	4.25	1/2	115/60/1	5.5	5-15P	370

IMPORTANT - READ FIRST - IMPORTANT

INTERIOR EVAPORATOR COVER



EXTERIOR OF UNIT



NEAR EXPOSED REFRIGERANT TUBING



NEAR MACHINE COMPARTMENT AND NAMEPLATE



INSTALLATION

CAUTION: THIS UNIT CONTAINS R290 FLAMMABLE REFRIGERANT. USE CAUTION WHEN HANDLING MOVING AND USE OF THE REFRIGERATOR OR FREEZER. AVOID DAMAGING THE REFRIGERANT TUBING OR INCREASE THE RISK OF A LEAK.

WARNING: FAILURE TO FOLLOW INSTALLATION GUIDELINES AND RECOMMENDATIONS MAY VOID THE WARRANTY ON YOUR UNIT.

WARNING: 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 TAG. BURN OUT OF A CONDENSING UNIT DUE TO EXCEEDING
VOLTAGE LIMITS WILL VOID THE WARRANTY.

THE DANFOSS CONTROLLER HAS LOW VOLTAGE PROTECTION AND WILL NOT OUTPUT VOLTAGE TO THE COMPRESSOR IF VOLTAGE IS LESS THAN 104V.

WARNING: IT IS IMPORTANT THAT A VOLTAGE READING BE MADE AT THE COMPRESSOR MOTOR ELECTRICAL CONNECTIONS, WHILE THE UNIT IS IN OPERATION TO VERIFY THE CORRECT VOLTAGE REQUIRED BY THE COMPRESSOR IS BEING SUPPLIED. LOW OR HIGH VOLTAGE CAN DETRIMENTALLY AFFECT OPERATION AND THEREBY VOID ITS WARRANTY.

WARNING: EVAPORATOR FANS RUN CONTINUOUSLY WHILE THE BASE IS POWERED ON.

WARNING: THIS UNIT IS INTENDED FOR USE IN LABORATORIES IN COMMERCIAL, INDUSTRIAL, OR INSTITUTIONAL OCCUPANCIES AS DEFINED IN THE SAFETY STANDARD FOR REFRIGERATION SYSTEMS, ASHRAE 15.

SELECTING A LOCATION FOR YOUR NEW UNIT

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

- Floor and Countertop Load: The area on which the unit will rest must be level, free of vibration, and suitably strong enough to support the combined weights of the unit plus the maximum product load weight.
- Clearance: Clearance must be a combined total of at least 1" on back of unit. Do not place any object that can block the ventilation exhaust from the machine compartment register. Area of equipment must be free of all combustible materials.
- Ventilation: The air cooled self contained unit requires a sufficient amount
 of cool clean air. Avoid surrounding your unit around other heat generating
 equipment and out of direct sunlight. Also, avoid locating in an unheated
 room or where the room temperature may drop below 70°F or rise above
 100°F.

INSTALLATION CHECKLIST

After the final location has been determined, refer to the following checklist prior to start-up:

- Check all exposed refrigeration lines to ensure that they are not kinked, dented, or rubbing together.
- Check that the condenser and evaporator fans rotate freely without striking any stationary members.
- 3. Unit must be properly leveled; check all legs or casters to ensure they all are in contact with the floor while maintaining a level work surface. Adjusting bullet feet heights or shimming casters may be necessary if the floor is not level. NOTE: Damage to equipment may result if not followed. Randell is not responsible for damage to equipment if improperly installed.
- 4. Allow unit time to cool down to temperature. If temperature adjustments are required, the control is located on the front panel. Confirm that the unit is holding the desired temperature.
- 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.
- 6. Before putting in food, allow your unit to operate for approximately two (2) hours so that interior of the unit is cooled down to storage temperature.
- Check drawer to ensure the drawer slides freely and fully extends along with seating into the cabinet properly when closed.

ELECTRICAL SUPPLY

Any wiring should be done by a qualified electrician in accordance with all national and local electrical codes. A properly wired and grounded outlet will assure proper operation. Please consult the data tag attached to the compressor to ascertain the correct electrical requirements. Supply voltage and amperage requirements are located on the serial number tag (see page 3 for location).

OPERATION

Allow unit to operate for approximately two (2) hours before placing in food.

AMBIENT CONDITIONS

Unit is designed for normal operating temperatures between 70-100°F. Operating outside of those temperatures may cause premature product wear or failure.

Randell has attempted to preset the temperature control to ensure that your unit runs at an optimum temperature, but due to varying ambient conditions, including elevation, food type and your type of operation, you may need to alter this temperature using control adjustment until desired temperature is reached.

DANFOSS CONTROLLER OPERATION

LED	FUNCTION
**	Compressor energized & Evaporator fan de-energized
****	Defrost in progress
*	Fans delay after defrost completion
*	Evaporator fan energize
4	An alarm is occurring
°C / °F	Temperature unit



POWER ON / OFF: Press the power switch to on/off. The LED display will turn on/off with the switch.

MANUAL DEFROST: Press and hold "Defrost" Button

CHANGE SET POINT: To raise temperature

- 1. Press and hold "Λ" to access set point.
- 2. When set point start flashing, Press "A" to adjust set point
- After 30 seconds, the display automatically reverts to showing the current temperature

CHANGE SET POINT: To lower temperature

- 1. Press and hold "v" to access set point
- 2. When set point start flashing, Press "v" to adjust set point
- After 30 seconds, the display automatically reverts to showing the current temperature

CHANGE FROM °F /°C:

- 1. Press the up/down buttons simultaneously for 5 seconds to access the menu.
- 2. Password is requested. Password is 000.
- 3. Press the bottom left button to OK the password.
- Using the up/down buttons, navigate to the "diS" level. Press the bottom left button to OK the selection.
- Using the up/down buttons, navigate to the "CFu" level. Press the bottom left button to OK the selection.
 - a. "-F" designates Fahrenheit.
 - b. "-C" designates Celsius.
- Press the top left button repeatedly to return to exit and return to the home screen.

DRAWER / DOOR ALARM: Acknowledging Alarms - Visual Display Only

- 1. After 2 minutes the display will flash the alarm message "dor"
- 2. Press any button to acknowledge alarm

DRAWER / DOOR ALARM: Door Alarm Activation – If audible alarm is wanted

- 1. Press the up/down buttons simultaneously for 5 seconds to access the menu.
- 2. Password is requested. Password is 000.
- Press the bottom left button to OK the password.
- Using the up/down buttons, navigate to the "ALA" level. Press the bottom left button to OK the selection.
- Using the up/down buttons, navigate to the "Abd" level. Press the bottom left button to OK the selection.
 - a. "0" Disables the alarm.
 - Any other number is the number of minutes before the buzzer sounds after the drawer is opened.
- Press the top left button repeatedly to return to exit and return to the home screen.

MAINTENANCE

WARNING: DO NOT USE SHARP UTENSILS AND/OR OBJECTS.

WARNING: DO NOT USE STEEL PADS, WIRE BRUSHES, SCRAPERS, OR CHLORIDE CLEANERS TO CLEAN YOUR STAINLESS STEEL.

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

WARNING: DO NOT PRESSURE WASH EQUIPMENT AS DAMAGE TO ELECTRICAL COMPONENTS MAY RESULT.

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

If a failure of the equipment is a direct result of any of the Preventative Maintenance guidelines being neglected, the repairs and parts replacements will not be covered under warranty.

It is recommended that the customer contact the local Authorized Service Agent to provide a quote to perform periodic Preventative Maintenance.

- 1. Clean fan blades on the condensing unit and evaporator assembly.
- Clean all gaskets on a weekly if not daily basis with a solution of warm water and a mild detergent to extend gasket life.
- 3. Lubricate door hinges with lithium grease.

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-0-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, Degrease It, Oven Aid	Excellent removal on all finishes
Grease and Oil	Any good commercial detergent	Apply with a sponge or cloth
Restoration/Preservation	Benefit, Super Sheen	Good idea monthly

Reference: Nickel Development Institute, Diversey Lever, Savin, Ecolab, NAFEM

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 CFESA 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 or maintenance for your convenience. For a complete listing of current Randell ASA please visit www.unifiedbrands.net.

Randell believes strongly in the products it manufactures 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.

REPLACEMENT PARTS

To order parts, contact your Authorized Service Agent. Supply the model designation, serial number, part description, part number, quantity, and when applicable, voltage and phase.

CONTACT US

If you have questions pertaining to the content in this manual, contact Randell at 888-994-7636.

TROUBLESHOOTING

This unit is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks to make in the event of a problem. Wiring diagrams are found at the end of this manual. When in doubt, turn unit off and contact service at 888-994-7636.

SYMPTOM	POSSIBLE CAUSE	PROCEDURE	
	No power to unit	Plug in unit	
Unit does not run	Control in OFF position	Turn controller on	
	Faulty control	Call for service at 888-994- 7636	
Unit too cold	Incorrect set point	Adjust control set point	
	Door / drawer ajar	Ensure door / drawer is fully closed	
	Gasket torn or out of place	Inspect the gasket for wear and position	
Unit too warm	Incorrect set point	Adjust control set point	
	Warm product introduced to cabinet	Pre-chill product 37°F or 3°F degree for freezer	
	Ice on the coil	Initiate manual defrost	
Unit noisy	Ice on the coil	Initiate manual defrost	
Unit does not defrost	Excessive ice on the coil	Initiate manual defrost	

SERVICE

CAUTION: COMPONENT PARTS SHALL BE REPLACED WITH LIKE COMPONENTS.
SERVICE WORK SHALL BE DONE BY FACTORY AUTHORIZED SERVICE
PERSONNEL, SO AS TO MINIMIZE THE RISK OF POSSIBLE IGNITION DUE TO
INCORRECT PARTS OR IMPROPER SERVICE.

CAUTION: BEFORE MAKING ANY REPAIRS, ENSURE THE UNIT IS DISCONNECTED

FROM ITS POWER SOURCE.

This piece of equipment uses a R290 Refrigeration system. This equipment has been clearly marked on the serial tag the type of refrigerant that is being used. There is also a warning labels stating that the unit contains R290 refrigerant. R290 is safe to use as long as you follow these warning labels and some.

No smoking or open flames when servicing this equipment. If needed, use a CO2 or dry=power type fire extinguisher

Replacement parts used on any R290 Refrigeration system cabinet must have specific UL certification for non-sparking components.

Only authorized service technician, certified in R290 system should service this equipment.

MANIFOLD SET

A R134A manifold set can be used for servicing this equipment.

REFRIGERANT RECOVERY

Follow all national and local regulations for R-290 refrigerant recovery.

LEAKING CHECKING AND REPAIR

Leak check an R-290 system the same way you would an R-134a or R-404A system with the following exceptions.

- 1. Do not use a Halid leak detector on a R290 system.
- 2. Electronic leak detector must be designated specifically for combustible gas.

Use of a bubble solution or an ultrasonic leak detector are acceptable.

When repairing a leak, it is recommended using oxygen free dry nitrogen with a trace gas not exceeding 200PSI.

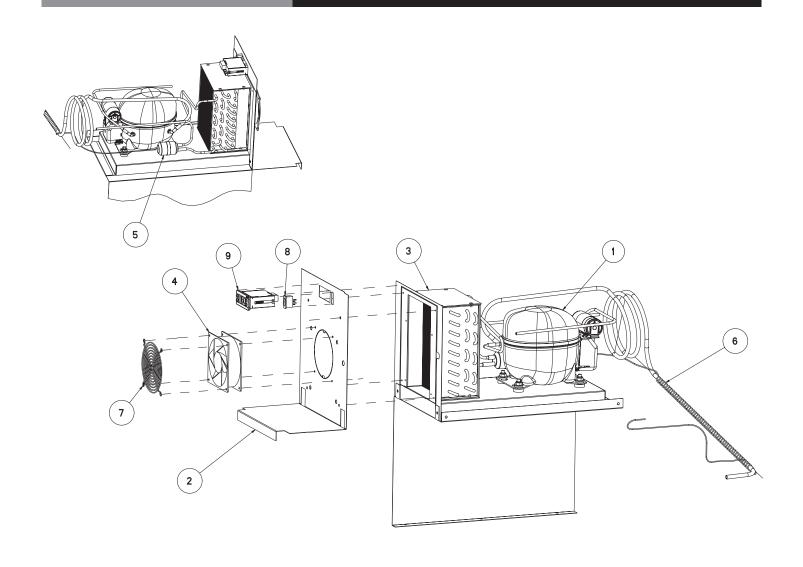
When accessing an R290 system, piercing valves are not to remain on the equipment in a permanent manner. After charge is recovered, Schrader valves are to be installed on the process stubs. Proper charge is to be weighed into the system and the system is to be leak checked afterwards.

The R290 equipment must have red process tubes and other devices through which the refrigerant is serviced, such as any service port. This color marking must remain on the equipment. If marking is removed, it must be replace and extend at least 2.5 centimeters (1") from the compressor.

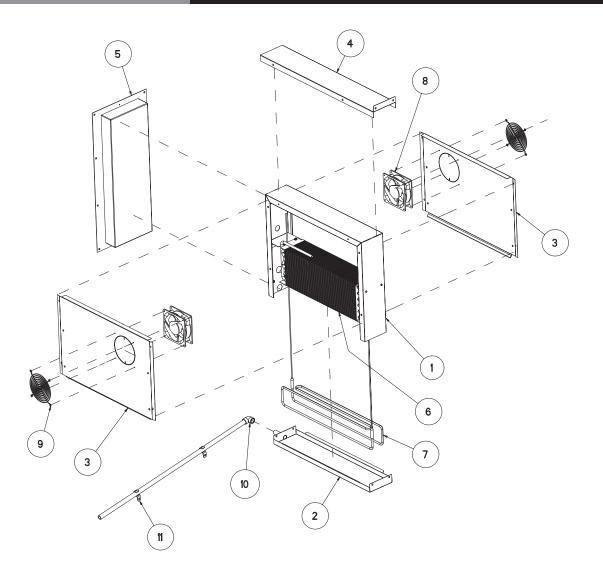
CHARGING

Follow the charge amount specified on the data tag. It is recommended to use the shortest hoses possible to prevent undercharging.

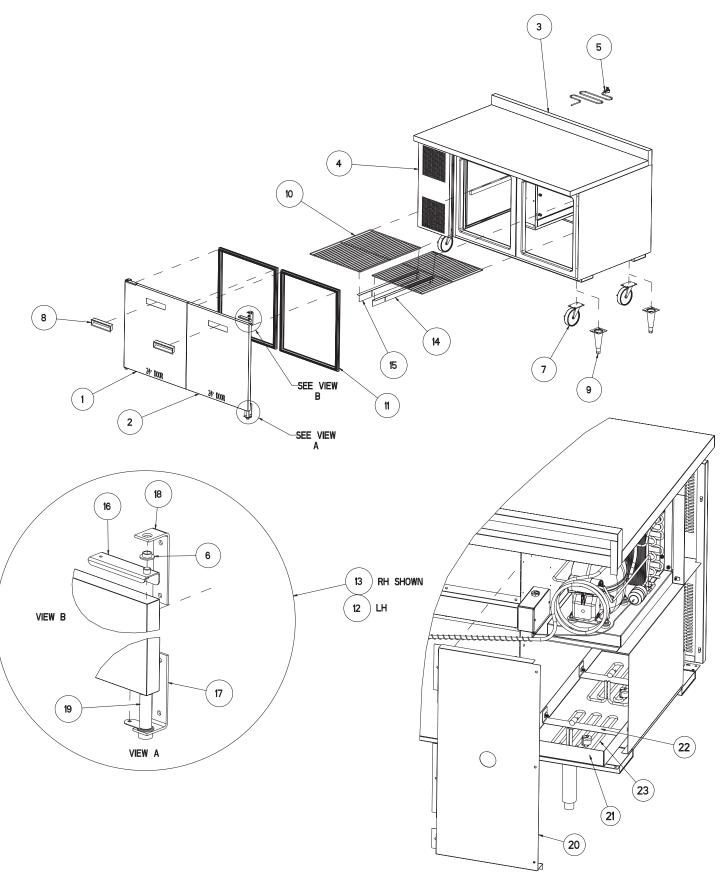
- · Ensure the system is sealed and leak checked
- Evacuate system to a minimum 500 micron
- Weigh in correct charge
- Leak check the system again
- Bleed the refrigerant from the high side hose to the low side hose
- Disconnect the hoses
- Remove line taps



ITEM	9205F-32-290 SERVICE PART	9215F-32-290 SERVICE PART	DESCRIPTION	
1	RF CMP1607	RF CMP1607	COMPRESSOR, 1/2HP, R290, EMBRACO, 115V-60HZ, NEU2140U	
1a	RF CMP1607SC	RF CMP1607SC	Compressor Start components	
2	RP SHD1704	RP SHD1704	SHROUD, CONDENSER FAN	
3	RF C0I1606	RF COI1606	COIL, 3.46" X 9.00" X 5.90"CONDENSER	
4	RF FAN0601	RF FAN0601	FAN. AXIAL, 127 X 38MM 120 CFM,115V CONDENSER	
5	RF FLT9902	RF FLT9902	DRYER, 1/4 X .042 FILTER EKP-032 DBL INLET	
6	RP WRP1704	RP WRP1704	CAP TUBE ASSY HEAT EXCHANGE, .036 X 7'	
7	HD GRD1610	HD GRD1610	FAN GUARD, NICKEL CHROME FINISH WIRE 116MM RND	
8	EL SWT1701	EL SWT1701	SWITCH, ROCKER, 125-250, 10.1A	
9	RP CNT1704	RP CNT1704	CONTROL, DANFOSS ERC112C, 9205F/9215	

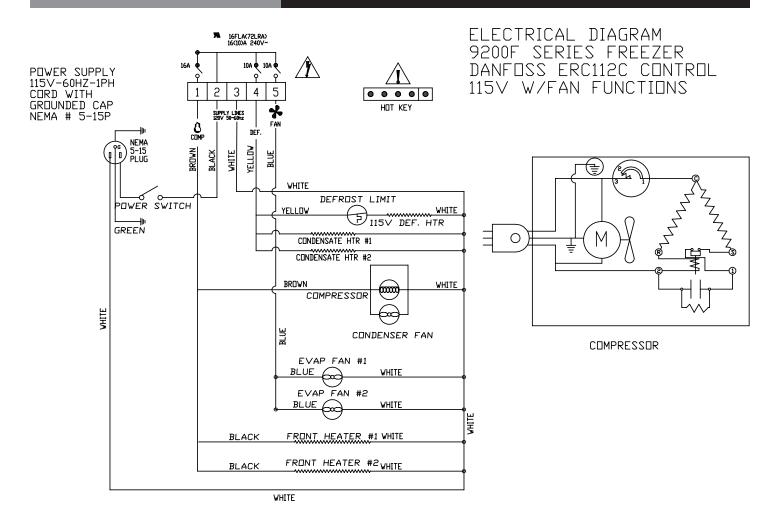


ITEM	9205F-32-290 SERVICE PART	9215F-32-290 SERVICE PART	DESCRIPTION
1	RP HSG1701	RP HSG1701	EVAP HOUSING
2	RP DRP0801	RP DRP0801	EVAP HOUSING DRAIN PAN
3	RP CVR1704	RP CVR1704	EVAP HOUSING COVER
4	RP BRK1701	RP BRK1701	EVAPORATOR MOUNTING BRACKET
5	RP LVR0516	RP LVR0516	LOUVER
6	RF COI1602	RF C0I1602	EVAP COIL
7	EL ELM1601	EL ELM1601	ELEMENT, DEFROST HEATER, 9205F/9215F
8	RF FAN1401	RF FAN1401	FAN, AXIAL, 119 X 38MM, OPER/TEMP RANGE -30C-+70C,115V-50/60
9	RF FAN0703	RF FAN0703	FAN GUARD, NICKEL CHROME FINISH WIRE 116MM RND
10	PB ELB505	PB ELB505	ELBOW, 1/2" CPVC CPV90050
11	EL_CLM200	EL_CLM200	CLAMP, 1/2" 1-HOLE 1901 BRIDGEPORT 920S
12	RF CNT1602	RF CNT1602	THERMISTOR, QT, COIL SENSOR, BLUE, 10' (NOT SHOWN ON DRW)
13	RF CNT1603	RF CNT1603	THERMISTOR, QTI, AIR SENSOR, BLACK, 10' (NOT SHOWN ON DRW)



ITEM	9205F-32-290 SERVICE PART	9215F-32-290 SERVICE PART	DESCRIPTION	
1	RP DOR104		DOOR, LH 24" W/REC HANDLE & PFG	
1A		RP DOR102	DOOR, LH 18" W/REC HANDLE & PFG	
2	RP DOR103		DOOR, RH 24" W/REC HANDLE & PFG	
2A		RP DOR101	DOOR, RH 18" W/REC HANDLE & PFG	
3	RP T0P9205-32		TOP, STAINLESS STEEL FOR 9205-32-7	
3A		RP T0P9215-32-7A	TOP, STAINLESS STEEL FOR 9215-32-7	
4	RP LVR0516	RP LVR0516	LOUVER PANEL, 12"	
5	EL WIR460-90	EL WIR460-90	POWER CORD, 9' 16/3-90	
6	HD BSH050	HD BSH050	BUSHING, NYLON HINGE	
7	HD CST060	HD CST060	CASTER, 6" W/BRAKE	
7A	HD CST061	HD CST061	CASTER, 6" W/O BRAKE	
8	HD HDL0103	HD HDL0103	HANDLE, RECESSED DOOR	
9	HD LEG9902	HD LEG9902	LEG, 6" W/BULLET FOOT	
10	HD SHL060		SHELF, 19-1/8" X 25-1/4"	
10A		HD SHL015	SHELF, 13-1/8" X 25-1/4"	
11	IN GSK1025		GASKET, 21.57" X 24.25" PUSH IN	
11A		IN GSK1020	GASKET, 15.59" X 24.25" PUSH IN	
12	RP HNG9902	RP HNG9902	HINGE ASSEMBLY, LEFT HAND	
13	RP HNG9901	RP HNG9901	HINGE ASSEMBLY, RIGHT HAND	
14	RP CLP1001R	RP CLP1001R	SHELF SUPPORT	
15	RP CLP1001L	RP CLP1001L	SHELF SUPPORT	
16	RP HNG035	RP HNG035	HINGE, TOP DOOR CHANNEL RIGHT HAND	
16A	RP HNG034	RP HNG034	HING, TOP DOOR CHANNEL LEFT HAND	
17	RP HNG027	RP HNG027	HINGE, BOTTOM L BRACKET W/COLLAR	
18	RP HNG023	RP HNG023	HINGE, TOP L BRACKET W/O COLLAR	
19	RP HNG025	RP HNG025	HINGE, SPRING LOAD ASSEMBLY	
20	RP BCK1708	RP BCK1708	BACK PANEL, MECH HOUSING	
21	RP CPN1706	RP CPN1706	PAN, CONDENSATE	
22	RP BRK1707	RP BRK1707	BRACKET, CONDENSATE PAN	
23	EL WIR274	EL WIR274	ELEMENT, 115V 200W	

Electrical Schematic



NOTE: BLUE (EVAP COIL) = S2 BLACK (AIR) = S1

Service Log

Model No:		Purchased From:		
Serial No:		Location:		
Date Purchased:		Date Installed:		
Purchase Order No:		For Service Call:		
Data	Maintenana Perference	1	Dayfayya ad Du	
Date	Maintenance Performed	1	Performed By	