OPERATOR MANUAL
IMPORTANT INFORMATION, KEEP FOR OPERATOR

This manual provides information on installation, operating, maintenance, trouble shooting & replacement parts for:

DEEP WELL REFRIGERATOR SERIES:
4337DWR-290
4939DWR-290

- Refrigerator (40ºF)

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

WARNING / 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.

Information contained in this document is known to be current and accurate at the time of printing/creation. Randell recommends referencing our product line websites, unifiedbrands.net, for the most updated product information and specifications.

PART NUMBER PP MNL1801, REV A (08/23)

888-994-7636, fax 888-864-7636
unifiedbrands.net

Part of Electrolux Professional Group

IMPORTANT - READ FIRST - IMPORTANT

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 out 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 some 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 RESERVES THE RIGHT TO MAKE CHANGES IN DESIGN AND SPECIFICATIONS WITHOUT PRIOR NOTICE.

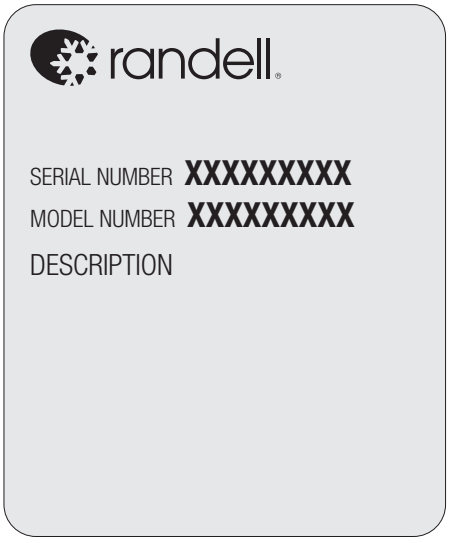
NOTICE: PLEASE READ THE ENTIRE MANUAL CAREFULLY BEFORE INSTALLATION. IF CERTAIN RECOMMENDED PROCEDURES ARE NOT FOLLOWED, WARRANTY CLAIMS WILL BE DENIED.

MODEL NUMBER _____

SERIAL NUMBER _____

INSTALLATION DATE _____

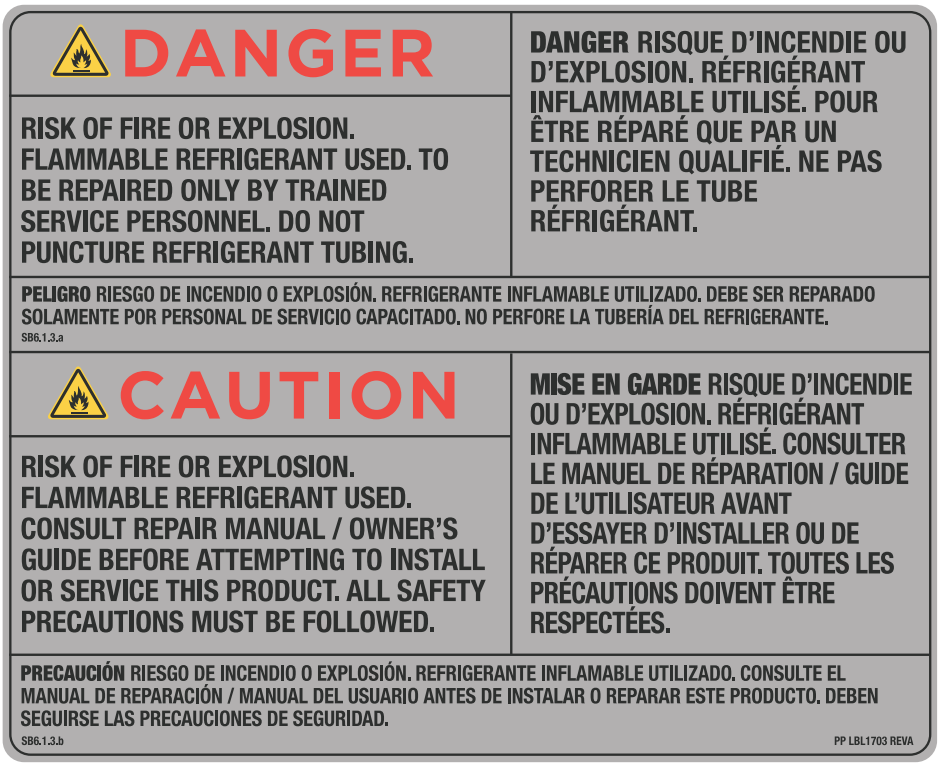
THE SERIAL NUMBER IS LOCATED INSIDE THE MECHANICAL HOUSING CABINET, INTERIOR WALL ABOVE COMPRESSOR.
AN EXAMPLE IS SHOWN BELOW.



Labeling

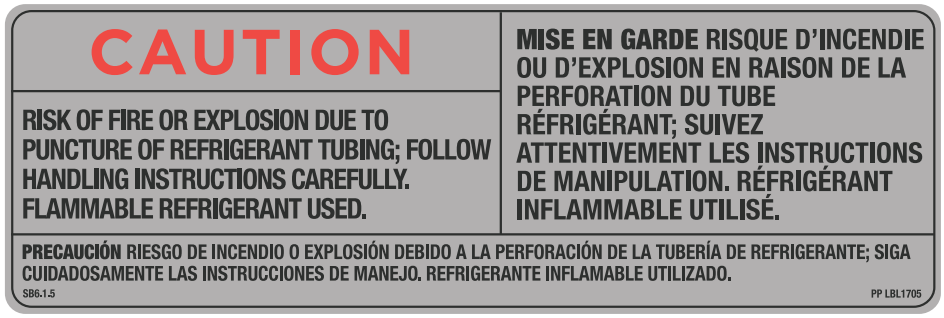
The following warning labels will be found on your equipment:

BACK WALL NEAR MACHINE COMPARTMENT

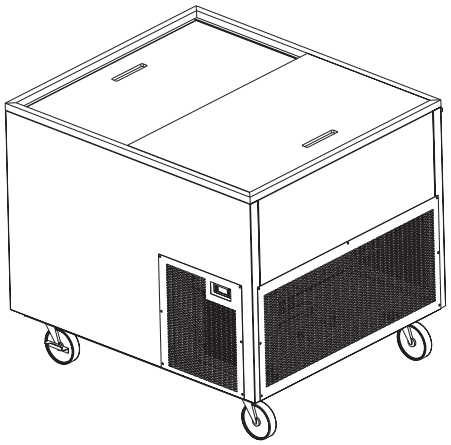


BACK WALL NEAR MACHINE COMPARTMENT

INSIDE MACHINE COMPARTMENT ABOVE DATA PLATE



Equipment Description



MODEL	LENGTH	DEPTH	HEIGHT	NO. OF OPENINGS	STORAGE (CUBIC FEET)	POWER USAGE KW (PER DAY)	COMPRESSOR	VOLT	AMPS	NEMA	UNIT WT (LBS)
4337DWR-290	43”	37”	37”	1	7.15	.85	1/4	115/60/1	1.7	5-15P	288
4939DWR-290	49”	39”	37”	1	8.7	1.21	1/4	115/60/1	1.7	5-15P	430

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.

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.

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

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.

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.

SELECTING A LOCATION FOR 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 level, free of vibration, and suitably strong enough to support the combined weights of the unit plus the maximum product load weight.

2. **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.

3. **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 55°F or rise above 100°F.

INSTALLATION CHECKLIST

After the final location 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 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. Plug in unit and turn on main on/off power button on the controller.

5. 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.

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 the unit is holding temperature. Set control to desired temperature for your particular ambient and altitude.

8. Before putting in product, allow your unit to operate for approximately two (2) hours so that interior of the unit is cooled down to storage temperature.

Operation

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

AMBIENT CONDITIONS
Unit is designed for normal operating temperatures are 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.

It is normal for the refrigerated deep well to develop an even layer of frost during operation. **NOTE**: Keeping the sliding cover closed as much as possible will prevent excessive frost buildup.

MORNING STARTUP
1. Cold pan cleaning may be performed at this time.
2. Turn on unit with switch located in the mechanical compartment.
3. Allow 30 minutes for the cold pan to cool down before loading product.
4. Load the product and proceed with food preparation. **NOTE**: Product entering the cold pan must be at 40°F or less.

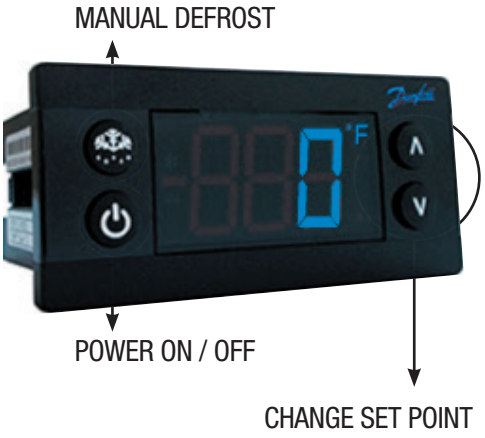
EVENING SHUT DOWN
Remove product from the cold pan at the end of the day's preparation. The product may be discarded or stored in any commercial refrigerator.
1. Turn off unit with switch located in the mechanical compartment. This will allow unit to thaw which allows for better operation when starting up unit for next day operation.
2. Unit cleaning may be performed at this time once the frost has melted off the surface. NOTE: Water may form small pools and have to be pushed to the drain for 100% draining.

DANFOSS CONTROLLER OPERATION

LED	FUNCTION
	Compressor energized
	Defrost in progress
	Fans delay after defrost completion
	An alarm is occurring
ºC / ºF	Temperature unit

POWER ON / OFF: Press and hold the power button until LED display turns On / Off

Operation



MANUAL DEFROST: Press and hold “Defrost” Button

CHANGE SET POINT: To raise temperature
1. Press and hold “∧” to access set point.
2. When set point start flashing, Press “∧” to adjust set point
3. 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
3. After 30 seconds, the display automatically reverts to showing the current temperature

CHANGE FROM ºF /ºC :
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.
4. Using the up/down buttons, navigate to the “diS” level. Press the bottom left button to OK the selection.
5. 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.
6. Press the top left button repeatedly to return to exit and return to the home screen.

Maintenance

DO NOT USE SHARP UTENSILS AND/OR OBJECTS.

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.

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 from passing through condenser.
2. Clean fan blades on the condensing unit.
3. Clean and disinfect drain lines and evaporator pan with a solution of warm water and mild detergent.

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, 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.

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.

SYMPTOM	POSSIBLE CAUSE	PROCEDURE
Unit does not run	No power to unit	Plug in unit
	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
Unit too warm	Lid open	Ensure lid is fully closed
	Incorrect set point	Adjust control set point
	Warm product introduced to cabinet	Pre-chill product -3ºF for freezer
Unit noisy	Vibration in the cabinet	Inspect for loose parts

When in doubt, turn unit off and call for service at 888-994-7636.

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.

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.

No smoking or open flames when servicing this equipment. If needed, use a CO^2 or dry=power type fire extinguisher

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 R290 system the same way you would an R134a or R404A 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.

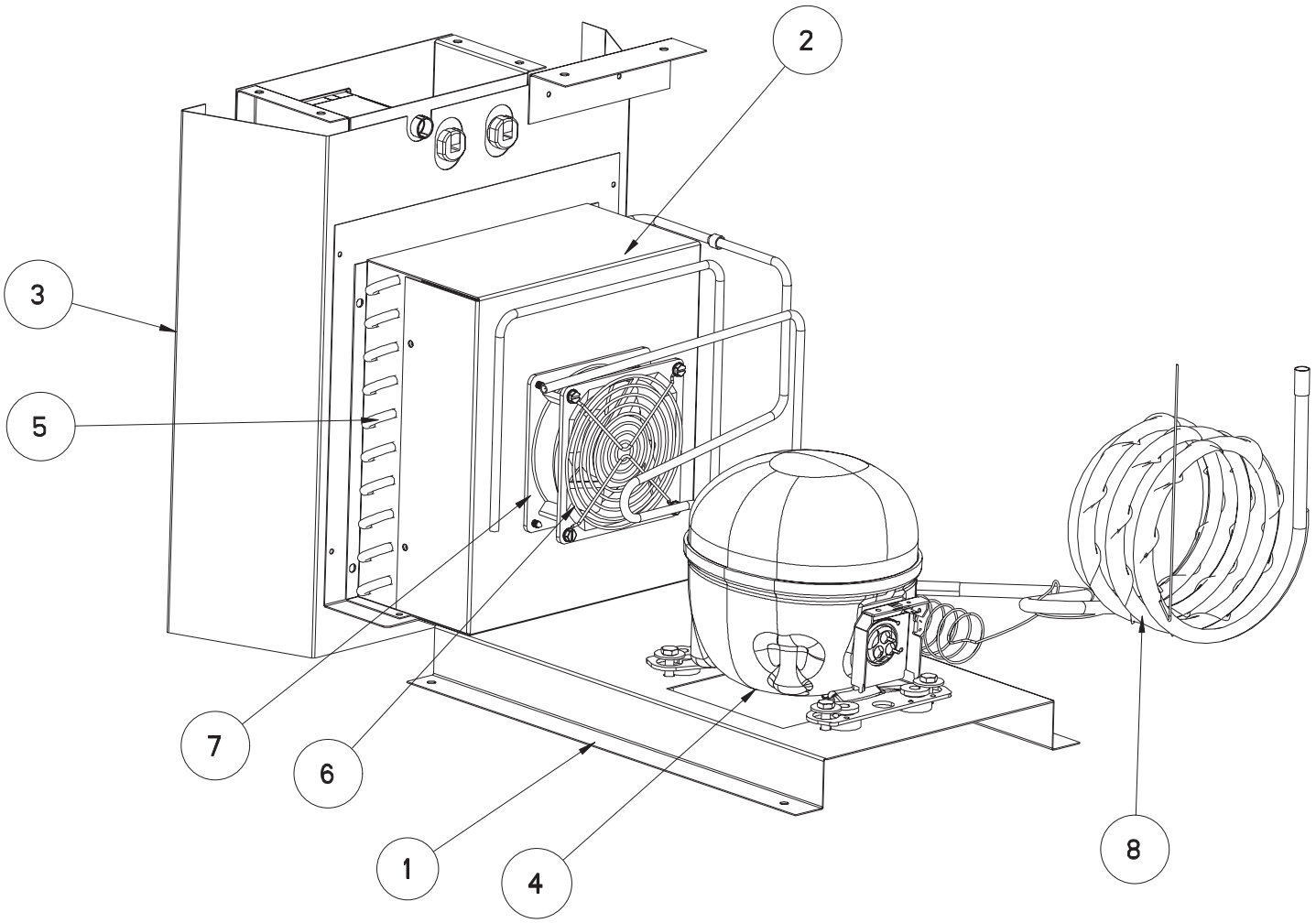
When accessing an R290 system, piercing valves are not to remain on the equipment in a permanent manner. After charge is recovered, Schrader valves are to be installed on the process stubs. Proper charge is to be weighed into the system and the system is to be leak checked afterwards.

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.

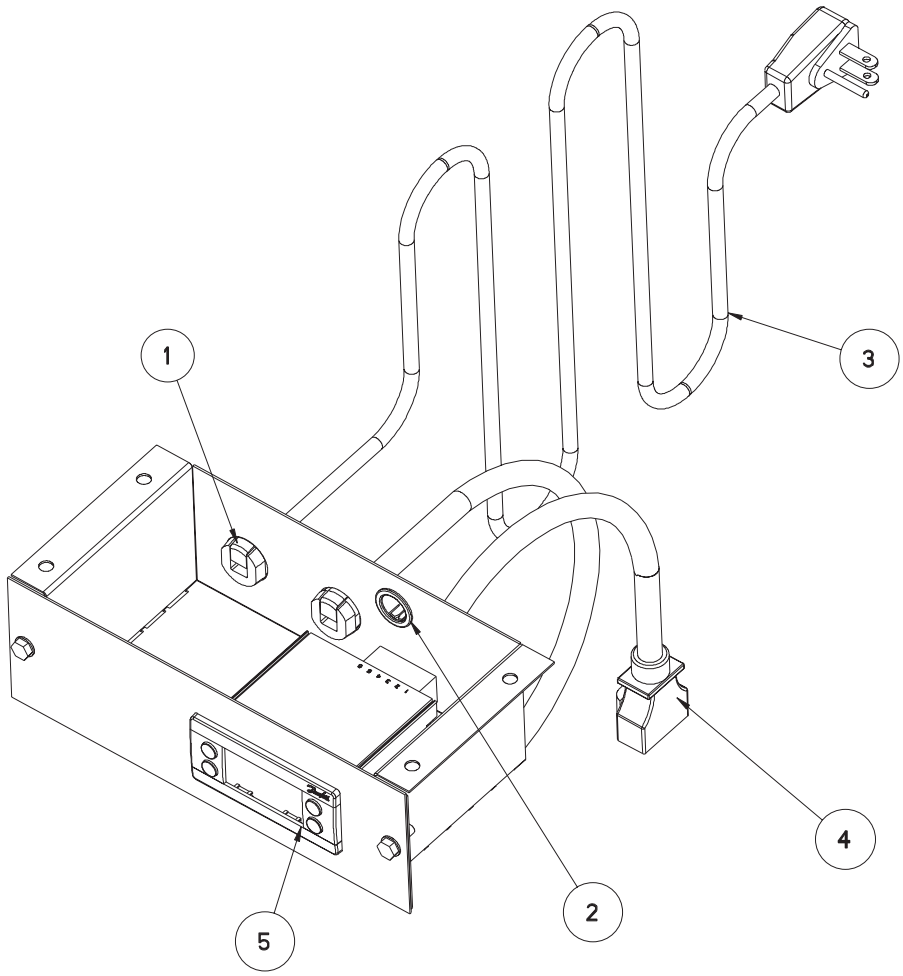
- Ensure the system is sealed and leak checked
- Evacuate system to a minimum 500 micron
- Weigh in correct charge
- Leak check the system again
- Bleed the refrigerant from the high side hose to the low side hose
- Disconnect the hoses
- Remove line taps

Parts List



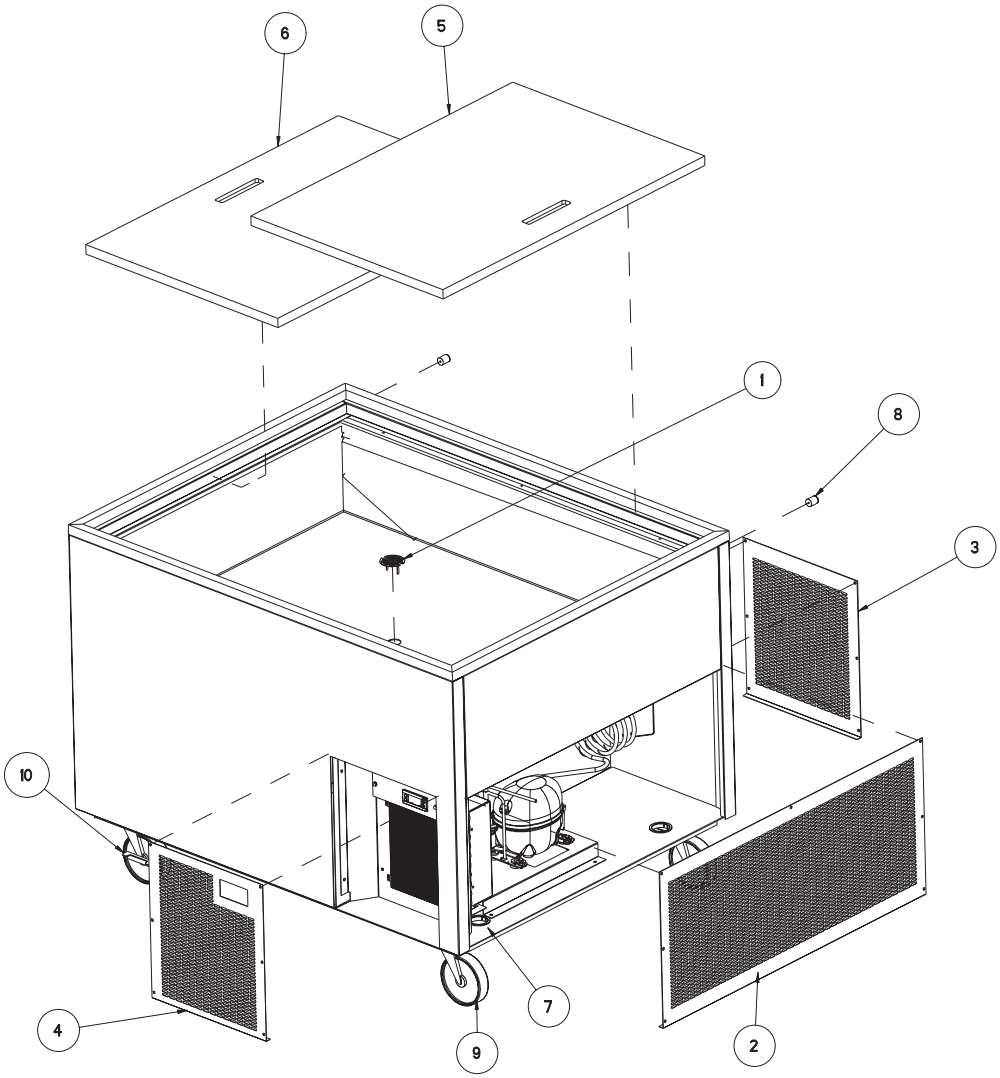
ITEM	PART NUMBER	DESCRIPTION
1	RP MNT1702	MOUNT, COMPRESSOR ASSEMBLY
2	RP SHD1721	SHROUD, FAN
3	RP SHD1722	SHROUD, CONDENSOR COIL
4	RP CMP1604	COMPRESSOR
	RP CMP1604SC	START COMPONENTS, COMPRESSOR
5	RF COI1603	COIL, CONDENSOR
6	RF FAN0703	FAN GUARD, NICKEL CHROME FINISH
7	RF FAN1401	FAN, CONDENSOR MOTOR
8	RP WRP1709	CAP TUBE ASSY
NOT SHOWN	RF FLT9902	FILTER DRIER

Parts List



ITEM	PART NUMBER	DESCRIPTION
	SR BOX1704	CONTROL/ELECTRICAL BOX ASSEMBLY
1	EL GRM300	GROMMET, 7/8 BLACK SQUEEZE (QUANTITY OF 2)
2	EL GRM062	GROMMET, 7/8 BLACK SQUEEZE
3	EL WIR461-90	POWER CORD, 9' 16/3 W/90º PLUG
4	EL WIR469A	CORD, 14GA 18" FEMAL
5	RP CNT1714	DANFOSS CONTROL, 4000DWR-290
NOT SHOWN	RF CNT1603	THERMISTOR, BLACK, AIR

Parts List

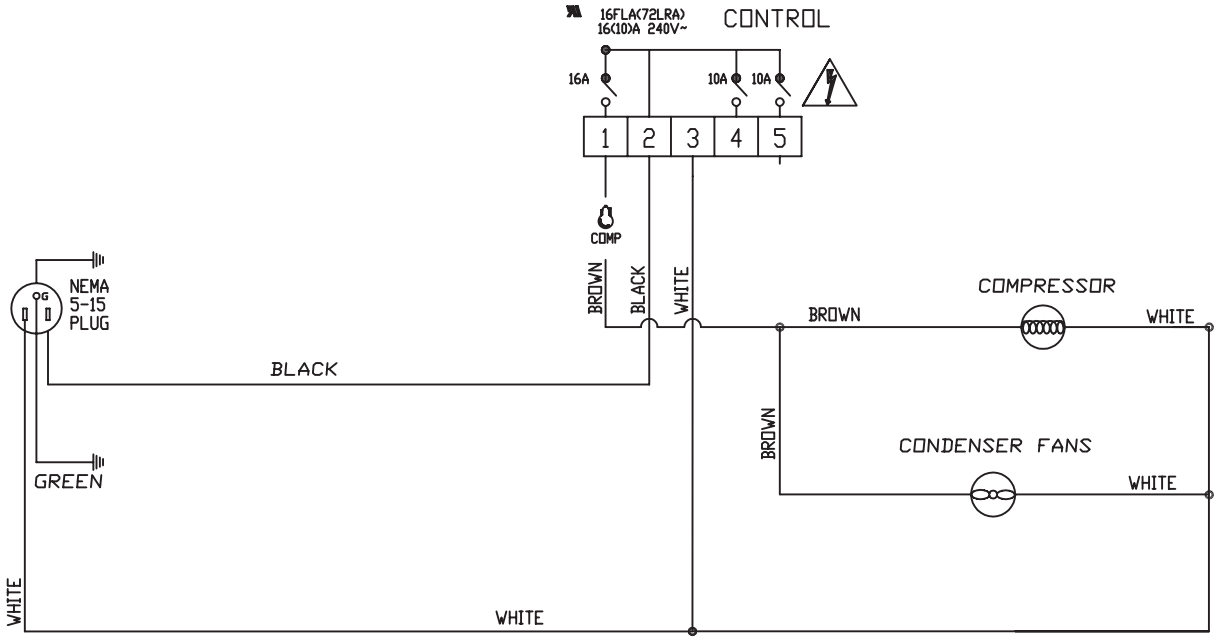


ITEM	PART NUMBER	DESCRIPTION
1	RP DSN001	DRAIN, STRAINER PLATE 1-1/2"
2	RP LVR1722	LOUVER, SS, BACK, 4939DWR-290
2	RP LVR1723	LOUVER, SS, BACK, 4337DWR-290
3	RP LVR1601	LOUVER, SS, END
4	RP LVR1721	LOUVER, SS, W/CONTROL CUTOUT
5	RP LID4939T	SLIDING LID, TOP, 4939DWR-290
5	RP LID4337T	SLIDING LID, TOP, 4337DWR-290
6	RP LID4939B	SLIDING LID, BOTTOM, 4939DWR-290
6	RP LID4337B	SLIDING LID, BOTTOM, 4337DWR-290
7	EL GRM200	GROMMET, 2" SNAP IN (QUANTITY OF 2)
8	HP BMP034	BUMPER, 1" X 3/4 DIA (QUANTITY OF 2)
9	HD CST0212	CASTER, 6" NON-LOCKING (QUANTITY OF 2)
10	HD CST0213	CASTER, 6" LOCKING (QUANTITY OF 2)

Electrical Schematic

POWER SUPPLY
115V-60HZ-1PH
CORD WITH
GROUNDED CAP
NEMA # 5-15P

NOTE:
BLACK (AIR) = S1



ELECTRICAL DIAGRAM
4000DWR-290 SERIES
DANFOSS ERC112C CONTROL

Service Log

Model No:	Purchased From:
Serial No:	Location:
Date Purchased:	Date Installed:
Purchase Order No:	For Service Call:

Date	Maintenance Performed	Performed By