



# OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

1055 Mendell Davis Drive, Jackson, MS 39272  
888-994-7636, fax 888-864-7636  
unifiedbrands.net



THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, 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. Unified Brands 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:

## RANSERVE MOBILE SERVING



### RETAIN THIS MANUAL FOR FUTURE REFERENCE

NOTICE: Due to a continuous program of product improvement, Unified Brands reserves the right to make changes in design and specifications without prior notice.

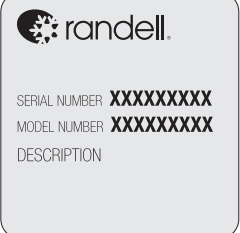
NOTICE: Please read the entire manual carefully before installation. If certain recommended procedures are not followed, warranty claims will be denied.

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

INSTALLATION DATE \_\_\_\_\_

The serial number tag on Randell refrigerated equipment is located in the mechanical housing. The serial number tag on Randell hot food and silverware stand are located on the far left front side of the unit. The serial number tag on Randell cashier stands and cold pans are located on the far left side.



## EQUIPMENT DESCRIPTION

RECESSED COLD PANS										
OLD MODEL	NEW MODEL	LENGTH	DEPTH	HEIGHT	12 X 20" PAN CAPACITY	HP	VOLTS	AMPS	NEMA	SHIP WT
<b>Closed Base - Steel</b>										
RAN SCA-2	RS SSC-RCP-2	36"	30"	35"	2	1/4	115/60/1	3.5	5-15P	250
RAN SCA-3	RS SSC-RCP-3	48"	30"	35"	3	1/4	115/60/1	3.5	5-15P	300
RAN SCA-4	RS SSC-RCP-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	350
RAN SCA-5	RS SSC-RCP-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	400
RAN SCA-6	RS SSC-RCP-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	450
<b>Open Base - Steel</b>										
RAN SCA-2S	RS SSO-RCP-2	36"	30"	35"	2	1/4	115/60/1	3.5	5-15P	250
RAN SCA-3S	RS SSO-RCP-3	48"	30"	35"	3	1/4	115/60/1	3.5	5-15P	300
RAN SCA-4S	RS SSO-RCP-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	350
RAN SCA-5S	RS SSO-RCP-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	400
RAN SCA-6S	RS SSO-RCP-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	450
<b>Closed Base - Fiberglass</b>										
RANFG SCA-2	RS FGC-RCP-2	36"	30"	35"	2	1/4	115/60/1	3.5	5-15P	250
RANFG SCA-3	RS FGC-RCP-3	48"	30"	35"	3	1/4	115/60/1	3.5	5-15P	300
RANFG SCA-4	RS FGC-RCP-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	350
RANFG SCA-5	RS FGC-RCP-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	400
RANFG SCA-6	RS FGC-RCP-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	450
<b>Open Base - Fiberglass</b>										
RANFG SCA-4S	RS FGO-RCP-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	350
RANFG SCA-5S	RS FGO-RCP-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	400
RANFG SCA-6S	RS FGO-RCP-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	450



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RECESSED FROST TOPS										
OLD MODEL	NEW MODEL	LENGTH	DEPTH	HEIGHT	12 X 20" PAN CAPACITY	HP	VOLTS	AMPS	NEMA	SHIP WT
<b>Closed Base - Steel</b>										
RAN FTA-2	RS SSC-RFT-2	36"	30"	35"	2	1/4	115/60/1	3.5	5-15P	190
RAN FTA-3	RS SSC-RFT-3	48"	30"	35"	3	1/4	115/60/1	3.5	5-15P	225
RAN FTA-4	RS SSC-RFT-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	265
RAN FTA-5	RS SSC-RFT-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	310
RAN FTA-6	RS SSC-RFT-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	355
<b>Open Base - Steel</b>										
RAN FTA-2S	RS SSO-RFT-2	36"	30"	35"	2	1/4	115/60/1	3.5	5-15P	190
RAN FTA-3S	RS SSO-RFT-3	48"	30"	35"	3	1/4	115/60/1	3.5	5-15P	225
RAN FTA-4S	RS SSO-RFT-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	265
RAN FTA-5S	RS SSO-RFT-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	310
RAN FTA-6S	RS SSO-RFT-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	355
<b>Closed Base - Fiberglass</b>										
RANFG FTA-2	RS FGC-RFT-2	36"	30"	35"	2	1/4	115/60/1	3.5	5-15P	190
RANFG FTA-3	RS FGC-RFT-3	48"	30"	35"	3	1/4	115/60/1	3.5	5-15P	225
RANFG FTA-4	RS FGC-RFT-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	265
RANFG FTA-5	RS FGC-RFT-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	310
RANFG FTA-6	RS FGC-RFT-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	355
<b>Open Base - Fiberglass</b>										
RANFG FTA-4S	RS FGO-RFT-4	60"	30"	35"	4	1/4	115/60/1	3.5	5-15P	265
RANFG FTA-5S	RS FGO-RFT-5	72"	30"	35"	5	1/4	115/60/1	3.5	5-15P	310
RANFG FTA-6S	RS FGO-RFT-6	84"	30"	35"	6	1/4	115/60/1	3.5	5-15P	355

ICE COOLED COLD PANS								
MODEL	NEW MODEL	LENGTH	DEPTH	HEIGHT	12 X 20" PAN CAPACITY	COLD PAN INTERIOR DIMENSIONS	SHIP WT	
<b>Closed Base - Steel</b>								
RAN IC-2	RS SSC-ICP-2	36"	30"	35"	2	25" x 20" x 6"	140	
RAN IC-3	RS SSC-ICP-3	48"	30"	35"	3	38" x 20" x 6"	175	
RAN IC-4	RS SSC-ICP-4	60"	30"	35"	4	52" x 20" x 6"	215	
RAN IC-5	RS SSC-ICP-5	78"	30"	35"	5	67" x 20" x 6"	260	
RAN IC-6	RS SSC-ICP-6	86"	30"	35"	6	76.5" x 20" x 6"	310	
<b>Open Base - Steel</b>								
RAN IC-2S	RS SSO-ICP-2	36"	30"	35"	2	25" x 20" x 6"	140	
RAN IC-3S	RS SSO-ICP-3	48"	30"	35"	3	38" x 20" x 6"	175	
RAN IC-4S	RS SSO-ICP-4	60"	30"	35"	4	52" x 20" x 6"	215	
RAN IC-5S	RS SSO-ICP-5	78"	30"	35"	5	67" x 20" x 6"	260	
RAN IC-6S	RS SSO-ICP-6	86"	30"	35"	6	76.5" x 20" x 6"	310	
<b>Closed Base - Fiberglass</b>								
RANFG IC-2	RS FGC-ICP-2	36"	30"	35"	2	-	250	
RANFG IC-3	RS FGC-ICP-3	48"	30"	35"	3	-	300	
RANFG IC-4	RS FGC-ICP-4	60.25"	30"	35"	4	-	350	
RANFG IC-5	RS FGC-ICP-5	78"	30"	35"	5	-	400	
RANFG IC-6	RS FGC-ICP-6	86"	30"	35"	6	-	450	
<b>Open Base - Fiberglass</b>								
RANFG IC-3S	RS FCO-ICP-3	48"	30"	35"	3	-	275	
RANFG IC-4S	RS FCO-ICP-4	60.25"	30"	35"	4	-	325	
RANFG IC-5S	RS FCO-ICP-5	78"	30"	35"	5	-	375	
RANFG IC-6S	RS FCO-ICP-6	86"	30"	35"	6	-	425	

HOT FOOD WELLS															
MODEL	LENGTH	DEPTH	HEIGHT	NO. OF WELLS	NO. OF ELEMENTS	120V			208V			240V			SHIP WT.
						KW	AMPS*	NEMA	KW	AMPS*	NEMA	KW	AMPS*	NEMA	
<b>Closed Base - Steel</b>															
RAN HTD-2	30"	27"	35"	2	2	2.2	18.4	5-30P	2.2	10.6	6-15P	2.2	9.2	6-15P	175
RAN HTD-3	48"	27"	35"	3	3	3.3	27.6	5-50P	3.3	15.9	6-20P	3.3	13.8	6-20P	215
RAN HTD-4	60"	27"	35"	4	4	4.4	36.8	5-50P	4.4	21.2	6-30P	4.4	18.4	6-30P	260
RAN HTD-5	72"	27"	35"	5	5	5.5	46	-	5.5	27.4	6-50P	5.5	23	6-30P	325
RAN HTD-6	86"	27"	35"	6	6	-	-	-	6.6	31.7	6-50P	6.6	27.5	6-50P	390
<b>Open Base - Steel</b>															
RAN HTD-2S	30"	27"	35"	2	2	2.2	18.4	5-30P	2.2	10.6	6-15P	2.2	9.2	6-15P	175
RAN HTD-3S	48"	27"	35"	3	3	3.3	27.6	5-50P	3.3	15.9	6-20P	3.3	13.8	6-20P	215
RAN HTD-4S	60"	27"	35"	4	4	4.4	36.8	5-50P	4.4	21.2	6-30P	4.4	18.4	6-30P	260
RAN HTD-5S	72"	27"	35"	5	5	5.5	46	-	5.5	27.4	6-50P	5.5	23	6-30P	325
RAN HTD-6S	86"	27"	35"	6	6	-	-	-	6.6	31.7	6-50P	6.6	27.5	6-50P	390
<b>Heated Base - Steel</b>															
RAN HTD-2B	30"	27"	35"	2	2	3.3	27.6	5-50P	3.03	14.6	6-20P	3.3	13.8	6-20P	175
RAN HTD-3B	48"	27"	35"	3	3	4.4	36.8	5-50P	4.125	19.8	6-30P	4.4	18.4	6-30P	215
RAN HTD-4B	60"	27"	35"	4	4	5.5	46	-	5.225	25.1	6-50P	5.5	23	6-30P	260
RAN HTD-5B	72"	27"	35"	5	5	-	-	-	6.325	30.4	6-50P	6.6	27.5	6-50P	325
RAN HTD-6B	86"	27"	35"	6	6	-	-	-	7.425	37	6-50P	7.7	32	6-50P	390
<b>Closed Base - Fiberglass</b>															
RANFG HTD-2	30"	30"	35"	2	2	2.2	18.4	5-30P	2.2	10.6	6-15P	2.2	9.2	6-15P	175
RANFG HTD-3	48"	30"	35"	3	3	3.3	27.6	5-50P	3.3	15.9	6-20P	3.3	13.8	6-20P	225
RANFG HTD-4	60.25"	30"	35"	4	4	4.4	36.8	5-50P	4.4	21.2	6-30P	4.4	18.4	6-30P	275
RANFG HTD-5	72"	30"	35"	5	5	-	-	-	5.5	27.4	6-50P	5.5	23	6-30P	325
RANFG HTD-6	86"	30"	35"	6	6	-	-	-	6.6	31.7	6-50P	6.6	27.5	6-50P	375
<b>Open Base - Fiberglass</b>															
RANFG HTD-3S	48"	30"	35"	3	3	3.3	27.6	5-50P	3.3	15.9	6-20P	3.3	13.8	6-20P	225
RANFG HTD-4S	60.25"	30"	35"	4	4	4.4	36.8	5-50P	4.4	21.2	6-30P	4.4	18.4	6-30P	275
RANFG HTD-5S	72"	30"	35"	5	5	-	-	-	5.5	27.4	6-50P	5.5	23	6-30P	325
RANFG HTD-6S	86"	30"	35"	6	6	-	-	-	6.6	31.7	6-50P	6.6	27.5	6-50P	375
<b>Heated Base - Fiberglass</b>															
RANFG HTD-4B	60.25"	30"	35"	4	4	-	-	-	5.225	25.1	6-50P	5.5	23	6-30P	400
RANFG HTD-6B	86"	30"	35"	6	6	-	-	-	7.425	36	6-50P	7.7	32	6-50P	500


SERVING						
MODEL	NEW MODEL	LENGTH	DEPTH	HEIGHT	NO OF 5 1/4" DIA VERTICAL SILVERWARE BINS	SHIP WT
RAN SW-8	RS SSC-TSW-8	30"	30"	35"	8	110
RAN SW-12	RS SSC-TSW-12	36"	30"	35"	12	120
RAN CA	RS SSO-CS	30"	30"	35"	-	135
RAN FGSW-8	RS FGC-TSW-8	30"	30"	35"	8	135
RAN FGSW-12	RS FGC-TSW-12	36"	30"	35"	12	135
RANFG CA	RS FGO-CS	30"	30"	35"	-	135

# IMPORTANT - READ FIRST - IMPORTANT

## INTERIOR EVAPORATOR COVER

 <b>DANGER</b> RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. DO NOT USE MECHANICAL DEVICES TO DEFROST REFRIGERANT TUBING.	RISQUE D'INCENDIE OU D'EXPLOSION. INFLAMMABLE REFRIGERANT UTILISÉ. NE PAS UTILISER DE DISPOSITIFS MÉCANIQUES POUR DÉGIVRER LE RÉFRIGÉRATEUR. NE FAIRE AUCUN TUBE REFRIGÉRANT DE PUNCTON. SBL 1.2	 <b>WARNING ALERTE</b> DO NOT REMOVE PANEL - HIGH VOLTAGE - QUALIFIED PERSONNEL ONLY NE PAS RETIRE LE PANNEAU - HAUTE TENSION - PERSONNEL QUALIFÉ SEULEMENT NO RETIRE EL PANEL - ALTA TENSION - CALIFICADO PERSONAL
<small>RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMMABLE UTILIZADO. NO UTILICE DISPOSITIVOS MECÁNICOS PARA DESCONGELAR EL REFRIGERADOR. NO PERFORE LA TUBERÍA DEL REFRIGERANTE. PP LBL1701 REV B</small>		 <b>CAUTION ATTENTION</b> MOVING PARTS. DO NOT OPERATE WITH COVER REMOVED PIÈCES MOBILES NE PAS FAIRE FONCTIONNER SANS COUVERCLE LAS PIEZAS DE MOVIMIENTO NO FUNCIONAN CON LA CUBIERTA RETIRADA

## EXTERIOR OF UNIT

 <b>CAUTION</b> RISK OF FIRE OR EXPLOSION. DISPOSE OF PROPERLY IN ACCORDANCE WITH FEDERAL OR LOCAL REGULATIONS. FLAMMABLE REFRIGERANT USED.	MISE EN GARDE RISQUE D'INCENDIE OU D'EXPLOSION. ÉLIMINER (or DISPOSER) CORRECTEMENT CONFORMÉMENT AUX RÉGLEMENTATIONS FÉDÉRALES OU LOCALES. REFRIGÉRANT INFLAMMABLE UTILISÉ. PP LBL1704 REV B
<small>PRECAUCIÓN RIESGO DE INCENDIO O EXPLOSIÓN. DESECHÉLO ADECUADAMENTE CONFORME A LOS REGLAMENTOS FEDERALES O LOCALES. REFRIGERANTE INFLAMMABLE UTILIZADO. SBL 1.3</small>	

## NEAR EXPOSED REFRIGERANT TUBING

 <b>CAUTION</b> RISK OF FIRE OR EXPLOSION DUE TO PUNCTURE OF REFRIGERANT TUBING; FOLLOW HANDLING INSTRUCTIONS CAREFULLY. FLAMMABLE REFRIGERANT USED.	MISE EN GARDE RISQUE D'INCENDIE OU D'EXPLOSION EN RAISON DE LA PERFORATION DU TUBE REFRIGÉRANT. SUIVEZ ATTENTIVEMENT LES INSTRUCTIONS DE MANIPULATION. REFRIGÉRANT INFLAMMABLE UTILISÉ.
<small>PRECAUCIÓN RIESGO DE INCENDIO O EXPLOSIÓN DEBIDO A LA PERFORACIÓN DE LA TUBERÍA DE REFRIGERANTE. SIGA CUIDADOSAMENTE LAS INSTRUCCIONES DE MANEJO. REFRIGERANTE INFLAMMABLE UTILIZADO. SBL 1.5 PP LBL1705 REV B</small>	

## NEAR MACHINE COMPARTMENT AND NAMEPLATE

 <b>DANGER</b> RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. TO BE REPAIRED ONLY BY TRAINED SERVICE PERSONNEL. DO NOT PUNCTURE REFRIGERANT TUBING.	DANGER RISQUE D'INCENDIE OU D'EXPLOSION. REFRIGÉRANT INFLAMMABLE UTILISÉ. POUR ÊTRE RÉPARÉ QUE PAR UN TECHNICIEN QUALIFIÉ. NE PAS PERFORER LE TUBE REFRIGÉRANT.
 <b>CAUTION</b> RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. CONSULT REPAIR MANUAL / OWNER'S GUIDE BEFORE ATTEMPTING TO INSTALL OR SERVICE THIS PRODUCT. ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.	MISE EN GARDE RISQUE D'INCENDIE OU D'EXPLOSION. REFRIGÉRANT INFLAMMABLE UTILISÉ. CONSULTEZ LE MANUEL DE RÉPARATION / GUIDE DE L'UTILISATEUR AVANT D'ESSAYER D'INSTALLER OU DE RÉPARER CE PRODUIT. TOUTES LES PRÉCAUTIONS DOIVENT ÊTRE RESPECTÉES. PP LBL1703 REV B
<small>PELIGRO RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMMABLE UTILIZADO. DEBE SER REPARADO SOLAMENTE POR PERSONAL DE SERVICIO CAPACITADO. NO PERFORE LA TUBERÍA DEL REFRIGERANTE. SBL 1.3.1</small>	<small>PRECAUCIÓN RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMMABLE UTILIZADO. CONSULTE EL MANUAL DE REPARACIÓN / MANUAL DEL USUARIO ANTES DE INSTALAR O REPARAR ESTE PRODUCTO. DEBEN SEGUIRSE LAS PRECAUCIONES DE SEGURIDAD. SBL 1.3.1</small>

## INSTALLATION

- CAUTION:** THIS UNIT CONTAINS R290 FLAMMABLE REFRIGERANT. SEE ABOVE CAUTION.
- CAUTION:** UNIT MUST BE INSTALLED INTO IT'S OWN COMPARTMENT TO PROPERLY CONTAIN ANY REFRIGERANT LEAK. IT IS REQUIRED THAT NO ARCHING POTENTIAL COMPONENTS (GFCI) OR ELECTRICAL CONNECTIONS ARE BELOW 14.5" FROM THE BOTTOM OF THE CABINET.
- 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:** 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:** 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:** Do not place any object that can block the ventilation exhaust from the machine compartment register. 20 inch clearance at the louvered end of the unit. Area of equipment must be free of all combustible materials.
- Ventilation:** Avoid surrounding your unit around other heat generating equipment and out of direct sunlight. Avoid locating in an unheated room or where the room temperature may drop below 70° F (21°C) or above 86°F (32°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 tag attached to the compressor to ascertain the correct electrical requirements. Supply voltage and amperage requirements are located on the serial number tag.

## INSTALLATION CHECKLIST

After the final location of the unit 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 all visible components for any potential damage.
- Check that condenser fans rotate freely without striking any stationary members.
- Unit must be properly leveled.
- Unit must be property leveled; Check all legs or casters ensure they all are in contact with the floor while maintaining a level work surface. Adjusting bullet feet height or shimming casters may be necessary if the floor is not level. NOTE: Damage to equipment may result if not followed. Unified Brands is not responsible for damage to equipment in improperly installed.
- Plug unit into power source. Unit will come on. If unit does not turn on, refer to controller operation section of this manual to manually turn on the unit.
- Allow unit 50-60 minutes to cool down to temperature. If temperature adjustments are required, refer to controller operation section of this manual to adjust the temperature. 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 now. It will be necessary when ordering replacement parts or requesting warranty service.

## OPERATION - COLD

### AMBIENT CONDITIONS

Unit is designed for normal operating temperatures are between 70°F (21°C) and 86°F (32°C). Operating outside of those temperatures may cause premature product wear or failure. Unified Brands 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.






### MORNING STARTUP

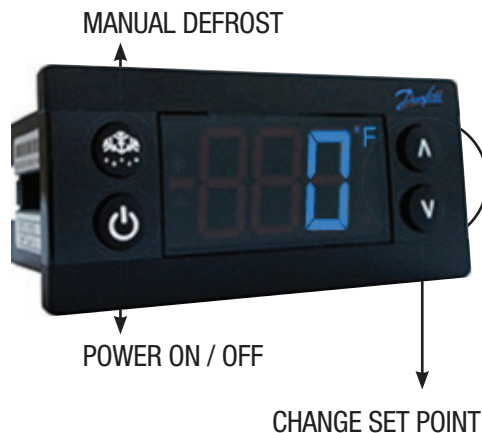
1. Unit cleaning may be performed at this time.
2. Turn on power to unit by pushing the controller power button.
3. Allow 50-60 minutes for your unit to cool down before loading product.
4. Load the product and proceed with food preparation. NOTE: Product entering the cold pan must be at 37°F +/- 2°F or less. All pans should be in position.

### EVENING SHUT DOWN

1. Remove product from the unit at the end of the day's preparation. The product may be discarded or stored in any commercial refrigerator.
2. Turn off power to unit by pushing the controller power button.
3. 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 & Evaporator fan de-energized
	Defrost in progress
	Fans delay after defrost completion
	Evaporator fan energize
	An alarm is occurring
°C / °F	Temperature unit



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

**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 "Λ" 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 °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.
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.

## OPERATION - HOT

**CAUTION:** MOISTURE COLLECTING FROM IMPROPER DRAINAGE CAN CREATE A SLIPPERY SURFACE ON THE FLOOR AND HAZARD TO EMPLOYEES. WHEN MAKING ELECTRICAL CONNECTIONS REFER TO THE AMPERAGE DATA LISTED ON THE UNIT'S DATA PLATE. REFERENCE YOUR LOCAL CODE OR THE NATIONAL ELECTRICAL CODE HANDBOOK TO ENSURE THE UNITS CONNECTED TO THE PROPER POWER SOURCE.

Switch the master switch, located on the control panel, to hot and the red indicator light will illuminate. All units are design for 145 to 175°F operation or 140 to 170°F product temperature. When used as a hot well the unit must have water in it all times. Failure to use water or to add water when the unit is heating may cause damage to the unit.

1. Add 1" to 2" of water to holding tank. Hot water is recommended.
2. Turn thermostat to #4
3. Red indicator light will energize to show corresponding well that is heating.
4. Wait 1 hour before adjusting thermostat. Higher number will increase temperature. Lower number will decrease temperature.
5. Turn thermostat to off position when operation is completed. Switch master switch to the off position.

Refilling of wet operation units is required periodically if the water level is lower than 1." NOTE: Do not add water to an empty hot well that is at holding temperature.

### PLUMBING

The units drain must have an outlet to an appropriate drainage area or container.

NOTE: Electric Elements are not submersible.

NOTE: Drains must be plumbed according to all applicable local code requirements.

## 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.**

Unified Brands 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.

### 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 with a solution of warm water and mild detergent.
4. Check silicone seal around drop in flange for peeling and cracks. Reapply with food grade silicone as necessary.

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 Unified Brands ASA please visit [www.unifiedbrands.net](http://www.unifiedbrands.net).

Unified Brands 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 Unified Brands at 888-994-7636 or [tsrandell@unifiedbrands.net](mailto:tsrandell@unifiedbrands.net).

## 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 or [tsrandell@unifiedbrands.net](mailto:tsrandell@unifiedbrands.net).

SYMPTOM - COLD	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	Incorrect set point	Adjust control set point
Unit noisy	Vibration in the cabinet	Inspect for loose parts

SYMPTOM - HOT	POSSIBLE CAUSE	PROCEDURE
Unit doesn't heat	No power to unit	Plug in unit
	Temperature control turned off	Check temperature control
	Temperature control faulty	Test temperature control
	Element does not heat	Test element for continuity
Unit too hot	Thermostat not shutting off	Test thermostat
Unit runs constantly	Too much water in tank	1" - 2" of water in the tank
	Thermostat sensing bulb	Check location of sensing bulb
Unit leaking water	Drain	Check drains for leaks
	Pan cracked	Call ASA for repair

## DANFOSS CONTROLLER CODES

DISPLAYED ALARM CODE	ALARM	ACTION
Hi	High Temperature Alarm	Inspect door/drawer sealing
		Contact service
Lo	Low Temperature Alarm	Contact service
CON	Condenser Temperature High Limit	Clean condenser coil
		Inspect coil for any objects obstruction hindering airflow
		Contact service
uHi	Line Voltage Too High	Verify voltage of power source, to be performed by qualified technician
		Contact service
uLi	Line Voltage Too Low	Verify voltage of power source, to be performed by qualified technician
		Contact service
LEA	Continuous Compressor Runtime	Inspect door/drawer sealing
		Inspect condenser coil, clean if necessary
		Contact service
E01	S1 Sensor Failure	Contact service
E02	S2 Sensor Failure	Contact service
E03	S3 Sensor Failure	Contact service
E04	S4 Sensor Failure	Contact service

## SERVICE - COLD

**CAUTION: COMPONENT PARTS SHALL BE REPLACED WITH FACTORY OEM PARTS. 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.

No smoking or open flames when servicing this equipment. If needed, use a CO2 or dry-powder 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

**COLD**

**CALL FACTORY FOR REPLACEMENT PARTS:  
888-994-7636**

**Parts List**

DESCRIPTION	PART NUMBER	Cold Pan	Frost Top	Ice Cooled
NON-LOCKING CASTER	HD CST1702	X	X	X
LOCKING CASTER	HD CST1701	X	X	X
LOUVER - FIBERGLASS ONLY, HINGED	RP LVR1901	X	X	-
LOUVER - FIBERGLASS ONLY, REMOVABLE	RP LVR1902	X	X	-
POWER CORD, 9' 16/3 W/90*	EL WIR1703	X	X	X
DRAIN, 1" , GREY	HD DRN1702	X	X	-
DRAIN VALVE	PB VLV0102	X	X	-
DRAIN SCREEN	RP DSN001	X	X	-
ADAPTER BARS	RP BAR020	X	-	-
LOCKING MECHANISM, RANSERVE	HD LCK0201	X	X	X
MOUNT, COMPRESSOR BASE SKID	RP MNT1901	X	X	-
ACCUMULATOR	RF ACM1701	X	X	-
FILTER DRYER	RF FLT9902	X	X	-
FAN GUARD	RF FAN1602	X	X	-
FAN GUARD	RF FAN0703	-	X	-
FAN, AXIAL, CONDENSER	RF FAN0601	X	-	-
FAN, AXIAL, CONDENSER	RF FAN1401	-	X	-
SHROUD, FAN	RP HSG1803	-	X	-
CONDENSER COIL	RF COI1603	X	X	-
CAP TUBE WRAP W/ HEAT EXCHANGE	RP WRP1802	X	X	-
COMPRESSOR, 1/4HP, R290, EMBRACO EM2X3125U	RF CMP1604	X	X	-
START COMPONENTS	RF CMP1604SC	X	X	-
DANFOSS CONTROL, PROGRAMMED - RCP	RP CNT1803	X	-	-
DANFOSS CONTROL, PROGRAMMED, - RFT	RP CNT1901	-	X	-
SENSOR, COIL	RF CNT1603	X	X	-
BRACKET, FOLDING TRAYSLIDE	HD BRK0201	X	X	X
BRACKET, FOLDING 3 RAIL TRAY SLIDE	HD BRK210	X	X	X
LIGHT FIXTURE	CONSULT FACTORY	X	X	X



**HOT****CALL FACTORY FOR REPLACEMENT PARTS:  
888-994-7636**

# Parts List

DESCRIPTION	PART NUMBER
NON-LOCKING CASTER	HD CST1702
LOCKING CASTER	HD CST1701
LOCKING MECHANISM, RANSERVE	HD LCK0201
THERMOSTAT	EL HFT1601
CONTROL KNOB	HD KNB1701
BEZEL FOR THERMOSTAT	HD GRD0203
PILOT LIGHT	EL LGT500
CONTROL KNOB GUARD	RP GRD230
HEATING ELEMENT, 120V	RP ELM1100B
HEATING ELEMENT, 208V, 1100W	RP ELM1172B
HEATING ELEMENT, 240V, 1100W	RP ELM1124B
BAR HEATING ELEMENT, 240V	EL HTR750
ELEMENT PAN / NO ELEMENT	RP EPN005
ELEMENT PAN / WITH ELEMENT - 208V	RP EPN208
ELEMENT PAN / WITH ELEMENT - 240V	RP EPN240
WELL ASSY, 120V ELEMENT, W/ DRAIN	RP WEL0001
WELL ASSY, 208V ELEMENT, W/ DRAIN	RP WEL0003
WELL ASSY, 240V ELEMENT, W/ DRAIN	RP WEL0004
DRAIN SREEN, HFW	RP SCN001
BALL VALVE - 1/2"	PB VLV501
BALL VALVE - 1/2" W/ EXT HANDLE	RP VLV501
EXTENDED HANDLE ONLY - DRAIN VALVE	RP HDL1701
PAN WITH DRAIN, 12 X 20	RP PAN0005
POWER CORD	CONSULT FACTORY
PLUG for POWER CORD	CONSULT FACTORY
BRACKET, FOLDING TRAYSLIDE	HD BRK0201
BRACKET, FOLDING 3 RAIL TRAY SLIDE	HD BRK210
SWITCH, HI LIMIT, HTD-B MODELS ONLY	EL SWT1902

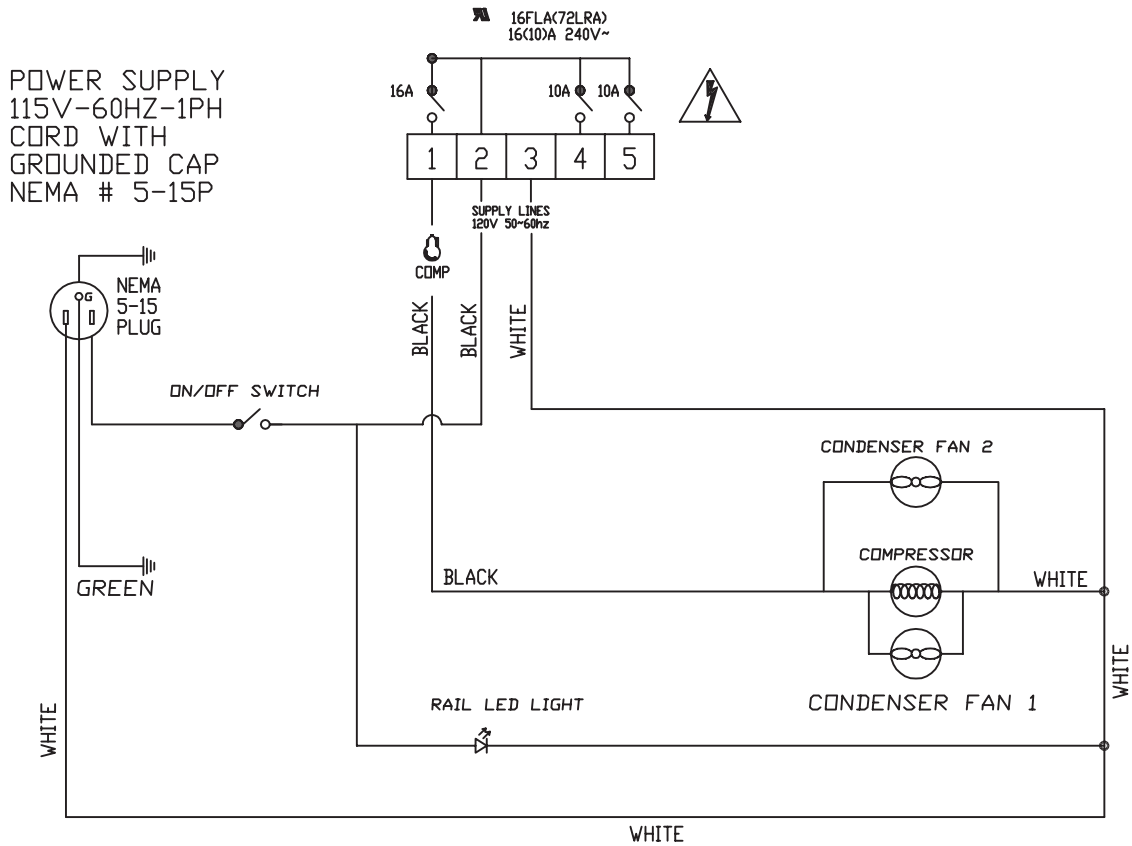
**SERVING**

CALL FACTORY FOR REPLACEMENT PARTS:  
888-994-7636

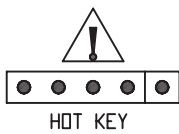
**Parts List**

DESCRIPTION	PART NUMBER	CASHIER STAND	COUNTER PROTECTOR	S/S WORK TOP UNIT	TRAY & SILVERWARE STAND
NON-LOCKING CASTER	HD CST1702	X	-	X	X
LOCKING CASTER	HD CST1701	X	-	X	X
PANEL, STAINLESS - SPECIFY DIMENSIONS	RP PNL1604	X	-	X	X
PERFORATED SILVERWARE INSERT	HD INS100	-	-	-	X
LOCKING MECHANISM, RANSERVE	HD LCK0201	X	-	X	X
DRAWER ASSEMBLY	CONSULT FACTORY	X	-	-	-
DRAWER TRACKER, S35-1020	HD TRK004	X	-	-	-
HANDLE, DRAWER 4"	HD HDL010	X	-	-	-
PAMINATE PANEL, SPECIFICY DIMENSIONS, MFG OF LAMINATE, COLOR & COLOR CODE	RP PNL1605	X	-	X	X
GLASS W/ FRAME, SPECIFY DIMENSIONS	CONSULT FACTORY	-	-	-	-
GLASS, TEMPERED, SPECIFY DIMENSIONS	CONSULT FACTORY	-	X	-	-
BRACKET ADJ. SNEEZEGUARD	HD BRK215	-	X	-	-
BRACKET, FIXED GLASS	CONSULT FACTORY	-	X	-	-
BRACKET, FOLDING TRAYSLIDE	HD BRK0201	X	-	X	X
BRACKET, FOLDING 3 RAIL TRAY SLIDE	HD BRK210	X	-	X	X

# Wiring Diagram



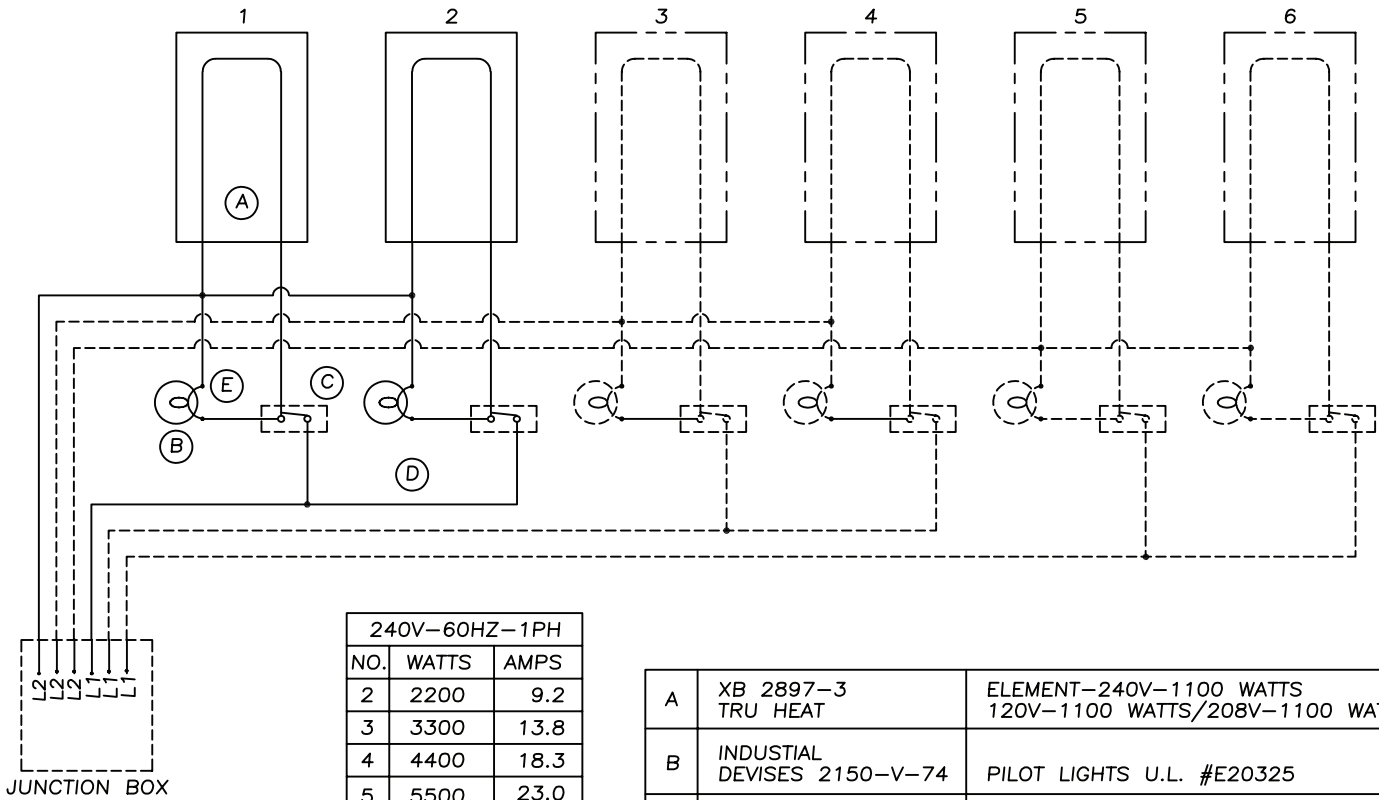
ELECTRICAL DIAGRAM  
RANSERV RAN SC R290  
DANFOSS ERC112C CONTROL  
115V W/FAN FUNCTIONS  
ALL WIRES 18 AWG



NOTE:  
BLACK (AIR) = S1

HOT

# Wiring Diagram



240V-60HZ-1PH		
NO.	WATTS	AMPS
2	2200	9.2
3	3300	13.8
4	4400	18.3
5	5500	23.0
6	6600	27.6

120V-60HZ-1PH		
NO.	WATTS	AMPS
2	2200	18.3
3	3300	27.5
4	4400	36.6
5	5500	45.9
6	6600	55.0

208V-60HZ-1PH		
NO.	WATTS	AMPS
2	2200	10.6
3	3300	15.9
4	4400	21.2
5	5500	26.5
6	6600	31.8

A	XB 2897-3 TRU HEAT	ELEMENT-240V-1100 WATTS 120V-1100 WATTS/208V-1100 WATTS
B	INDUSTIAL DEVICES 2150-V-74	PILOT LIGHTS U.L. #E20325
C	MEARS C-1-25	THERMOSTATIC CONTROL U.L. #E16835
D	PTFE HIGH TEMP WIRE	250° C RATING
E	BUCHANAN 20065	TERMINALS U.L. #146 C

*THIS HARNESS DOES NOT APPLY  
TO A 2000W HEATER.*

# Service Log

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

Date	Maintenance Performed	Performed By