### OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

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

## **FX SERIES:**

FX-1-290 FX-2WS-290 FX-1A-290 FX-2WSA-290 FX-1UC-290 FX-2WSRE-290 FX-1RE-290 FX-2WSREA-290 FX-1REA-290 FX-2UCB-290 FX-3SS-290

- 2N1-Two Cooling Systems in one:
  - Refrigerator (40°F)
  - Freezer (-5° to 0°F)
  - Or anywhere in between (-5° to 40°F)







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

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.

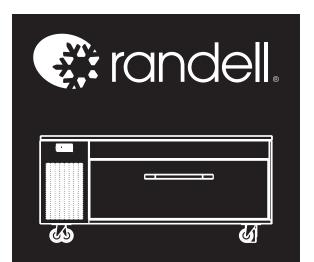
#### **NOTIFY CARRIER OF DAMAGE AT ONCE**

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.

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, for the most updated product information and specifications.

PART NUMBER PP MNL1701, REV A (02/17)





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

## **IMPORTANT - READ FIRST - IMPORTANT**

Congratulations on your recent purchase of Unified Brands food service equipment, and welcome to the growing family of satisfied Unified Brands 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 Unified Brands brand equipment. This means that each unit, given proper maintenance will provide years of trouble free service to its owner.

In addition, all Unified Brands 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, 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 IS LOCATED IN THE CABINET LEFT SIDE UNDER THE DRAWER TRACK. AN EXAMPLE IS SHOWN BELOW.



# **Table of Contents**

Important Operator Notices	page 2
Warranty Policies	page 4-6
Equipment Description	page 7
Installation	page 8
Operation	page 9-10
Maintenance	page 11
Troubleshooting	page 12
Service	page 13
Parts List	page 14-17
Electrical Schematic	page 18
Labeling	page 19-20
Service Loa	page 21

# **Warranty Policies**

Congratulations on your purchase of a Unified Brands Brand piece of equipment. Unified Brands believes strongly in the products it builds and backs them with the best warranty in the industry. Standard with every unit is the peace of mind that this unit has been thoroughly engineered, properly tested and manufactured to excruciating tolerances, by a manufacturer with over 30 years of industry presence. On top of that front end commitment, Unified Brands has a dedicated staff of certified technicians that monitor our own technical service hotline at **1-888-994-7636** to assist you with any questions or concerns that may arise after delivery of your new Unified Brands equipment.

#### **PARTS WARRANTY**

One year parts replacement of any and all parts that are found defective in material or workmanship. Unified Brands warrants all
component parts of manufactured new equipment to be free of defects in material or workmanship, and that the equipment meets
or exceeds reasonable industry standards of performance for a period of one year from the date of shipment from any Unified
Brands factory, assembly plant or warehouse facility.

**NOTE**: warranties are effective from date of shipment, with a thirty day window to allow for shipment, installation and set-up. In the event equipment was shipped to a site other than the final installation site, Unified Brands will warranty for a period of three months following installation, with proof of starting date, up to a maximum of fifteen months from the date of purchase.

Free ground freight of customer specified location for all in warranty parts within continental U.S. Component part warranty does
not cover glass breakage or gasket replacement. Unified Brands covers all shipping cost related to component part warranty sent
at regular ground rates (UPS, USPS). Freight or postage incurred for any express or specialty methods of shipping are the
responsibility of the customer.

#### LABOR COVERAGE

In the unlikely event a Unified Brands manufactured unit fails due to defects in materials or workmanship within the first ninety days, Unified Brands agrees to pay the contracted labor rate performed by an Authorized Service Agent (ASA). Any work performed by a non-ASA will not be honored by Unified Brands. Please consult Unified Brands Technical Support (888-994-7636) for a complete listing of ASAs or visit the service page of our website: www.unifiedbrands.net. Warranties are effective from date of shipment, with a thirty day window to allow for shipment, installation and setup. Where equipment is shipped to any site other than final installation, Unified Brands will honor the labor warranty for a period of ninety days following installation with proof of starting date, up to a maximum of six months from date of purchase.

Temperature adjustments are not covered under warranty, due to the wide range of ambient conditions.

To request a warranty approval number, call our Field Service Department at: 1-888-994-7636

#### WHEN OPTIONAL 5 YEAR COMPRESSOR WARRANTY APPLIES

- 1. Provide reimbursement to an ASA for the cost of locally obtained replacement compressor in exchange for the return of the defective compressor sent back freight prepaid. NOTE: Unified Brands does limit amount of reimbursement allowed and does require bill from local supply house where compressor was obtained (customer should not pay servicing agent up front for compressor).
- 2. Provide repair at the manufacturing facility by requiring that the defective unit be sent back to Unified Brands freight prepaid. Perform repair at the expense of Unified Brands and ship the item back to the customer freight collect.
- 3. Furnish a replacement compressor freight collect in exchange for the return of the defective compressor sent back freight prepaid.
- 4. Furnish complete condensing unit freight collect in exchange for the return of the defective condensing unit sent back freight prepaid. (Decisions on whether or not to send complete condensing units will be made by Unified Brands in-house service technician).

## **Warranty Policies**

#### WHEN OPTIONAL LABOR EXTENSION POLICY APPLIES

Unified Brands will provide reimbursement of labor to an ASA for any customer that has an optional labor extension of our standard warranty. (Contracted rates do apply) Unified Brands offers both 1 and 2 year extensions. Labor extensions begin at the end of our standard warranty and extend out 9 months to 1 calendar year or 21 months to 2 calendar years from date of purchase. Please contact Unified Brands technical service hotline at 1-888-994-7636 for details and any question on Authorized Service Agents (ASA).

#### WHEN EXPORT WARRANTIES APPLY

- 1. Unified Brands covers all non-electrical components under the same guidelines as our standard domestic policy.
- 2. All electrical components operated on 60Hz are covered under our standard domestic policy.
- 3. All electrical components operated on 50Hz are covered for 90 days from shipment only.
- 4. Service labor is covered for the first ninety days with authorization from the factory prior to service being performed.
- 5. Inbound costs on factory supplied items to be responsibility of the customer.
- 6. Extended warranty options are not available for parts, labor, or compressors from the factory.

#### ITEMS NOT COVERED UNDER WARRANTY

- 1. Maintenance type of repairs such as condenser cleaning, temperature adjustments, clogged drains, unit leveling and re-application of silicone.
- 2. Unified Brands does not cover gaskets under warranty. Gaskets are a maintenance type component that are subject to daily wear and tear and are the responsibility of the owner of the equipment. Because of the unlimited number of customer related circumstances that can cause gasket failure all gasket replacement issues are considered non-warranty. Unified Brands recommends thorough cleaning of gaskets on a weekly basis with a mild dish soap and warm water. With proper care Unified Brands gaskets can last up to two years, at which time we recommend replacement of all gaskets on the equipment for the best possible performance.

#### NOTICE: FOOD LOSS IS NOT COVERED UNDER WARRANTY

- 3. Repairs caused by abuse such as broken glass, freight damage, or scratches and dents.
- 4. Electrical component failure due to water damage from cleaning procedures.
- 5. Improper installation of equipment.
- 6. Repairs performed outside of Unified Brands' Authorized Service Agent network.

#### **OUOTATIONS**

Verbal quotations are provided for customer convenience only and are considered invalid in the absence of a written quotation. Written quotations from Unified Brands are valid for 30 days from quote date unless otherwise specified. Unified Brands assumes no liability for dealer quotations to end-users.

#### **SPECIFICATION & PRODUCT DESIGN**

Due to continued product improvement, specification and product design may change without notice.

# **Warranty Policies**

#### **SANITATION & SAFETY REQUIREMENTS**

Product is designed to meet NSF sanitation and performance requirements, and UL safety requirements. Unified Brands is not responsible for specific local requirements unless made aware of them prior to bid process. Additional costs may apply.

#### **CANCELLATIONS**

Orders cancelled prior to production scheduling entered into engineering/production and cancelled are subject to a cancellation charge (contact factory for details).

#### STORAGE CHARGES

Unified Brands makes every effort to consistently meet our customer's shipment expectations. If after the equipment has been fabricated, the customer requests delay in shipment, and warehousing is required:

- 1. Equipment held for shipment at purchasers request for a period of 30 days beyond original delivery date specified will be invoiced and become immediately payable.
- 2. Equipment held beyond 30 days after the original delivery date specified will also include storage charges.

#### **SHIPPING & DELIVERY**

Unified Brands will attempt to comply with any shipping, routing or carrier request designated by dealer, but reserves the right to ship merchandise via any responsible carrier at the time equipment is ready for shipment. Unified Brands will not be held responsible for any carrier rate differences; rate differences are entirely between the carrier and purchaser. Point of shipping shall be determined by Unified Brands (Weidman, MI/Prior, OK/Jackson, MS). At dealer's request, Unified Brands will endeavor whenever practical to meet dealer's request. Freight charges to be collect unless otherwise noted.

#### **DAMAGES**

All crating conforms to general motor carrier specifications. To avoid concealed damage, we recommend inspection of every carton upon receipt. In the event the item shows rough handling or visible damage to minimize liability, a full inspection is necessary upon arrival. Appearance of damage will require removing the crate in the presence of the driver. A notation must be placed on the freight bill and signed for by the truck driver at the time of delivery. Any and all freight damage that occurs to a Unified Brands piece of equipment as a result of carrier handling is not considered under warranty, and is not covered under warranty guidelines. Any freight damage incurred during shipping needs to have a freight claim filed by the receiver with the shipping carrier. Consignee is responsible for filing of freight claims when a clear delivery receipt is signed. Claims for damages must be filed immediately (within 10 days) by the consignee with the freight carrier and all cartons and merchandise must be retained for inspection. Internal or concealed damage may fall under Unified Brands responsibility dependent upon the circumstances surrounding each specific incident and are at the discretion of the Unified Brands in-house service technician.

#### **RETURNED GOODS**

Authorization for return must first be obtained from Unified Brands before returning any merchandise. Any returned goods shipment lacking the return authorization number will be refused, all additional freight costs to be borne by the returning party. Returned equipment must be shipped in original carton, freight prepaid and received in good conditions. Any returned merchandise is subject to a minimum handling charge (contact factory for details).

#### INSTALLATION

Equipment installation is the responsibility of the dealer and/or their customer. Unified Brands requires all equipment to be professionally installed.

#### **PENALTY CLAUSES**

Dealer penalty clauses, on their purchase order or contractually agreed to between the dealer and their clients are not binding on Unified Brands. Unified Brands does not accept orders subject to penalty clauses. This agreement supersedes any such clauses in dealer purchase orders.

# **Equipment Description**



FX-2WS Double Drawer

MODEL	LENGTH	ОЕРТН	НЕІСНТ	NO. OF DRAWERS	STORAGE (CUBIC FEET)	REFRIG. POWER USAGE (PER DAY)	FREEZER POWER USAGE (PER DAY)	COMPRESSOR	VOLT	AMPS	NEMA	SHIP WT (LBS)
FX-1-290	43.3"	28"	36"	1	3.1	0.88	1.65	1/4(1)	115/60/1	1.7	5-15P(1)	225
FX-1A-290	43.3"	28"	14.7"	1	2.5	0.79	1.7	1/4(1)	115/60/1	1.7	5-15P(1)	245
FX-1UC-290	27"	29.5"	33.2"	1	2.83	0.75	1.83	1/4(1)	115/60/1	1.7	5-15P(1)	422
FX-1RE-290	35"	34.5"	16.3"	1	3.1	0.88	1.65	1/4(1)	115/60/1	1.7	5-15P(1)	245
FX-1REA-290	35"	34.5"	14.7"	1	2.5	0.79	1.7	1/4(1)	115/60/1	1.7	5-15P(1)	245
FX-2WS-290	43.3"	28"	36.2"	2	6.2	1.76	3.3	1/4(2)	115/60/1	3.4	5-15P(2)	635
FX-2WSA-290	43.3"	28"	36.2"	2	5	1.58	3.4	1/4(2)	115/60/1	3.4	5-15P(2)	635
FX-2WSRE-290	35"	34.5"	36.2"	2	6.2	1.76	3.3	1/4(2)	115/60/1	3.4	5-15P(2)	635
FX-2WSREA-290	35"	34.5"	33"	2	5	1.58	3.4	1/4(2)	115/60/1	3.4	5-15P(2)	635
FX-2UCB-290	54"	29.5"	43.5"	2	6.2	1.5	3.66	1/4(2)	115/60/1	3.4	5-15P(2)	900
FX-3SS-290	43.3"	28"	51.2"	3	9.3	2.64	4.95	1/4(3)	115/60/1	5	5-15P(3)	891

## Installation

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.

#### **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 for FX-1RE(A)-290. 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 FX 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:

- 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. Unified Brands 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.
- 7. 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 2 for location).

## **Operation**

THE FX-1 SERIES UNIT IS DESIGNED TO OPERATE IN EITHER REFRIGERATOR OR FREEZER. FACTORY DEFAULT SETTING IS FOR FREEZER MODE AND SET AT -3°F.

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

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.

#### **DANFOSS CONTROLLER OPERATION**

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



CHANGE SET POINT

**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 "\( \Lambda \)" to access set point.
- 2. When set point start flashing, Press "\n" 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

## **Operation**

#### **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.

#### **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.
- 3. Press the bottom left button to OK the password.
- 4. Using the up/down buttons, navigate to the "ALA" level. Press the bottom left button to OK the selection.
- 5. Using the up/down buttons, navigate to the "Abd" level. Press the bottom left button to OK the selection.
  - a. "0" Disables the alarm.
  - b. Any other number is the number of minutes before the buzzer sounds after the drawer is opened.
- 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.

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:

- 1. Clean fan blades on the condensing unit and evaporator assembly.
- 2. 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. Modify for FX drawer slides and verify with engineering

#### 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.

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.

# **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	
	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	

When in doubt, turn unit off and call for service and call for service at 888-944-7636.

## **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. 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 CO<sup>2</sup> 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.

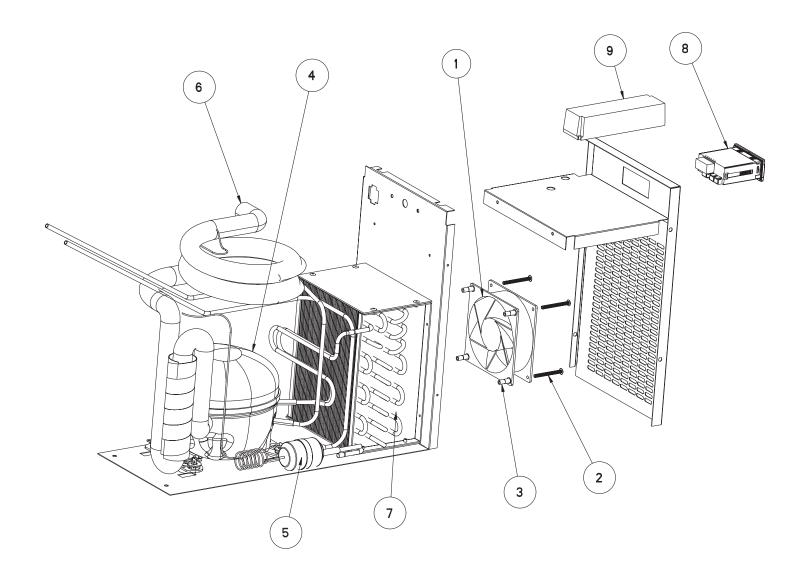
When accessing an R290 system, piercing valves are not to remain on the equipment in a permanent manner. After charge is recovered, Schrader valves are to be installed on the process stubs. Proper charge is to be weighed into the system and the system is to be leak checked afterwards.

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.

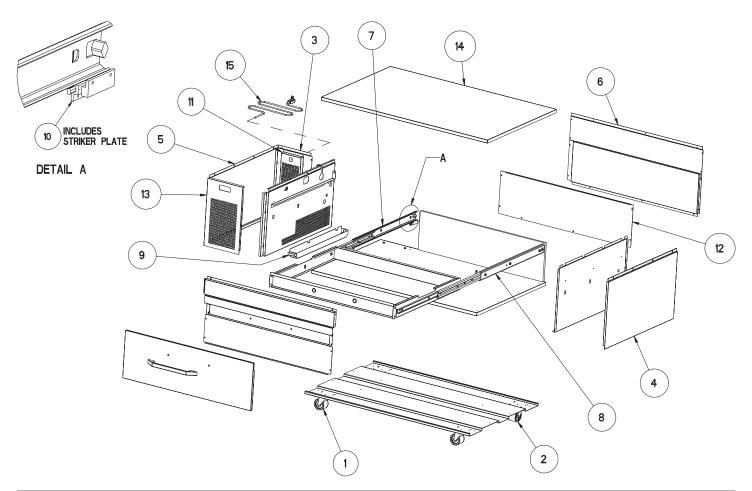
#### **CHARGING**

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

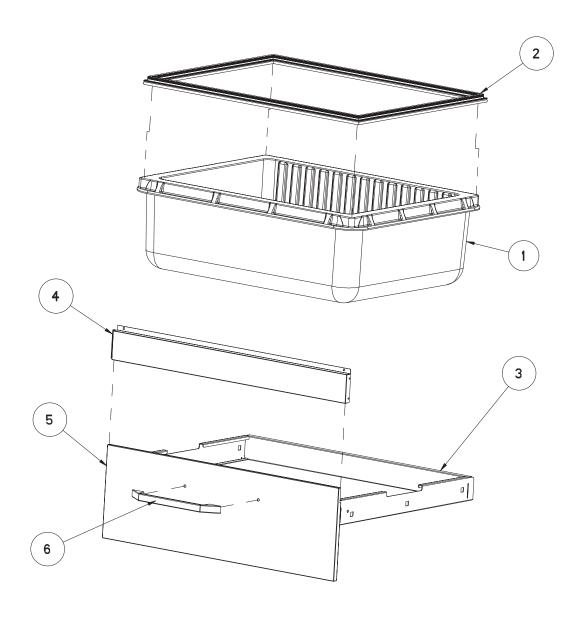
- Ensure the system is sealed and leak checked
- Evacuate system to a minimum 500 micron
- Weigh in correct charge
- Leak check the system again
- Bleed the refrigerant from the high side hose to the low side hose
- Disconnect the hoses
- Remove line taps



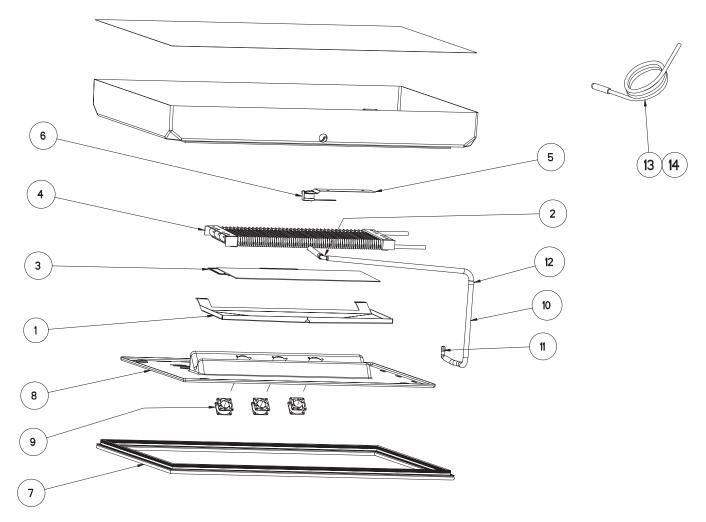
ITEM	PART NUMBER	DESCRIPTION	
1	RF FAN0601	FAN. AXIAL, 127 X 38MM 120 CFM,115V CONDENSER	
2	FA BLT0349	BOLT, 6-32x1/2 T/H/P 18-8 SS 08BC PHILLIPS TRUSS SS	
3	FA NUT0312	RIVNUT, 6-32 THD	
4	RF CMP1604	COMPRESSOR, 3/8 HP, LO, 404, 115V, DANFOSS	
4a	RF CMP1604SC	COMPRESSOR START COMPONENTS	
5	RF FLT9902	DRYER, 1/4x.042 FILTER EKP-032 SC DBL INL CAP TUBE N	
6	RP WRP1701	CAP TUBE HEAT EXCHANGER ASSY	
7	RF COI1606	COIL, 3.46" X 9.00" X 5.90"CONDENSER	
7A	RF COI1608	COIL, 3.46" X 9.00" X 5.90"CONDENSER (FX-1RE(A) - 290)	



ITEM	PART NUMBER	DESCRIPTION
1	HD CST9801	2.5" SWIVEL CASTER (NO LOCK)HD CST9801
2	HD CST9802	2.5" SWIVEL CASTER (WITH LOCK)HD CST9802
3	RP PNL1702	PANEL BACK MACHINE COMP
4	RP END1701	SIDE, EXTERIOR, S/S, RIGHT
5	RP END1702	SIDE, EXTERIOR, S/S, LEFT
6	RP BCK1701	BACK, EXTERIOR
7	HD TRK1101_BASE	TRACK, DWR SLIDE L/H 2-1/8 X 28 BAYONET MNT
8	HD TRK1102_BASE	TRACK, DWR SLIDE R/H 2-1/8 X 26 (650MM) BAYONET MNT
9	RP CPN0601	PAN CONDENSATE DRAIN
10	EL SWT1604	SWITCH, MAGNETIC
11	RP PNL1701	PANEL ACCESS BACK
12	RP CLP1701	CLIP COUNTER WEIGHT BOTTOM
13	RP LVR1702	LOUVER, S/S, FX-1
13A	RP LVR0907	LOUVER, FX-1UC
14	RP T0P1501	TOP, 1100mm x 712mm
15	EL WIR461-90	POWER CORD, 9' 16/3-90
16	HD WCK1401	CF-SE2001 CONDENSATE 7.00IN X3.00IN X 1/16 IN

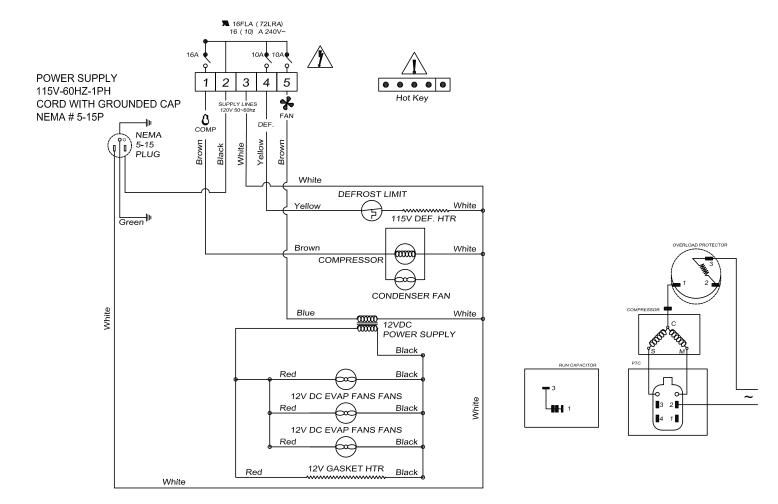


ITEM	PART NUMBER	DESCRIPTION	
1	RP PAN0705	INSULATED DRAWER TUB FOR FX-1, FX-1RE	
1A	RP PAN0706	INSULATED DRAWER TUB FOR FX-1A, FX-REA	
1B	RP PAN0801	INSULATED DRAWER TUB FOR FX-1UC	
2	RP GSK0604	GASKET, MAGNETIC, SLIDE SEAL, PF, 765 X 614mm	
3	RP DWR1603	DRAWER CARRAIGE ASSY W/FRONT, FX-1, FX-1RE	
3A	RP DWR1504	DRAWER CARRIAGE ASSY W/FRONT, FX-1UC	
4	RP PNL1703	PANEL, FRONT, S/S, FX-1	
5	RP FRT1701	FRONT, DRAWER, S/S, FX-1, FX-1RE	
5A	RP FRT1601	FRONT, DRAWER FX-1UC	
6	HD HDL130	CHROME SCULPTURED HANDLE	



ITEM	PART NUMBER	DESCRITPION
1	RP DRP0602	EVAPORATOR DRAINING DRAIN PAN W/DEFROST ELEMENT
2	PB ELB0313	ELBOW, 1/2" ID X 3/8" ID 90 CU CXC
3	EL PAD1101	PAD, FLEXIBLE HEATING FOIL 6.9" X 15.75" 150W 120V
4	RF C0I0603	COIL, 1.00" X 7.00" X 15.7" STAGED FIN EVAPORATOR
5	RP BRK0704	BRACKET FOR HI-LIMIT
6	RF TRM0501	THERMODISC 2-WIRE, OPEN:70 CLOSE:50 SE0-70-T17
7	RP GSK0604	GASKET, MAGNETIC, SLIDE SEAL, PF, 765 X 614mm
8	RF DIF0601	DIFFUSER, LID FOR FX-1, FX-1A, FX-1RE, FX-1REA
8A	RF DIF0801	DIFFUSER, LID FOR FX-1UC
9	RF FAN0602	FAN. AXIAL, 40 X 20MM 10.8 CFM,12VDC EVAPORATOR
10	HD HSE0601	HOSE, .375" ID X 1/2" OD POLYETHYLENE FLEXIBLE TUBE
11	PB ELB0701	ELBOW, BARB NYLON 3/8 X 3/8
12	EL CLM550	CLAMP, 1/2" CABLE CLAMP 3308 N*
13	RF CNT1602	THERMISTER, QT COIL SENSOR, BLUE 10'
14	RF CNT1603	THERMISTER, QTI AIR SENSOR, BLACK 10'

# **Electrical Schematic**



NOTE: BLUE (EVAP COIL) = S2 BLACK (AIR) = S1 DRAWER SWITCH = S4

# Labeling

The following warning labels will be found on your equipment:

#### INTERIOR EVAPORATOR COVER



RISK OF FIRE OR EXPLOSION.
FLAMMABLE REFRIGERANT USED.
DO NOT USE MECHANICAL DEVICES
TO DEFROST REFRIGERATOR. DO NOT
PUNCTURE REFRIGERANT TUBING.

RISQUE D'INCENDIE OU D'EXPLOSION. INFLAMMABLE RÉFRIGÉRANT UTILISÉ. NE PAS UTILISER DE DISPOSITIFS MÉCANIQUES POUR DÉGIVRER LE RÉFRIGÉRATEUR. NE FAIRE AUCUN TUBE RÉFRIGÉRANT DE PONCTION.

RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMABLE UTILIZADO. NO UTILICE DISPOSITIVOS MECÁNICOS PARA DESCONGELAR EL REFRIGERADOR. NO PERFORE LA TUBERÍA DEL REFRIGERANTE.

# DO NOT REMOVE PANEL - HIGH VOLTAGE - QUALIFIED PERSONNEL ONLY NE PAS RETIFIE LE PANNEAU - HAUTE TENSION-PERSONNEL QUALIFIE SEULEMENT NO RETIRE LE PANEL - ALTA TENSIÓN - CALIFICADO PERSONAL CAUTION ATTENTIÓN

MOVING PARTS, DO NOT OPERATE WITH COVER REMOVED PIÉCES MOBILES NE PAS FAIRE FONCTIONNER SANS COUVERCLE LAS PIEZAS DE MOVIMIENTO NO FUNCIONAN CON LA CUBIERTA RETIRADA PP LBLITTO!

#### NEAR MACHINE COMPARTMENT AND NAMEPLATE



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. RÉFRIGÉRANT INFLAMMABLE UTILISÉ. POUR ÊTRE RÉPARÉ QUE PAR UN TECHNICIEN QUALIFIÉ. NE PAS PERFORER LE TUBE RÉFRIGÉRANT.

PELIGRO RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMABLE UTILIZADO, DEBE SER REPARADO SOLAMENTE POR PERSONAL DE SERVICIO CAPACITADO. NO PERFORE LA TUBERÍA DEL REFRIGERANTE.

SB61.3.a

# **A** CAUTION

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. RÉFRIGÉRANT INFLAMMABLE UTILISÉ. CONSULTER LE MANUEL DE RÉPARATION / GUIDE DE L'UTILISATEUR AVANT D'ESSAYER D'INSTALLER OU DE RÉPARER CE PRODUIT. TOUTES LES PRÉCAUTIONS DOIVENT ÊTRE RESPECTÉES.

**PRECAUCIÓN** RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMABLE UTILIZADO. CONSULTE EL MANUAL DE REPARACIÓN / MANUAL DEL USUARIO ANTES DE INSTALAR O REPARAR ESTE PRODUCTO. DEBEN SEGUIRSE LAS PRECAUCIONES DE SEGURIDAD.

SB6.1.3.b

PP LBL1703 REVA

# Labeling

#### **EXTERIOR OF UNIT**

# **CAUTION**

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. RÉFRIGÉRANT INFLAMMABLE UTILISÉ.

**PRECAUCIÓN** RIESGO DE INCENDIO O EXPLOSIÓN. DESÉCHELO ADECUADAMENTE CONFORME A REGLAMENTOS FEDERALES O LOCALES. REFRIGERANTE INFLAMABLE UTILIZADO.

PP LBL1704

#### **NEAR EXPOSED REFRIGERANT TUBING**

## **CAUTION**

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 RÉFRIGÉRANT; SUIVEZ ATTENTIVEMENT LES INSTRUCTIONS DE MANIPULATION. RÉFRIGÉRANT INFLAMMABLE UTILISÉ.

PRECAUCIÓN RIESGO DE INCENDIO O EXPLOSIÓN DEBIDO A LA PERFORACIÓN DE LA TUBERÍA DE REFRIGERANTE; SIGA CUIDADOSAMENTE LAS INSTRUCCIONES DE MANEJO. REFRIGERANTE INFLAMABLE UTILIZADO.

886.1.5

PP LBL1705

# Service Log

Model No:			Purchased From:	
Serial No:			Location:	
Date Purchased:			Date Installed:	
Purchase Order No:		For Service Call:		
Date Maintenance Perform		ed	Performed By	

	·



1055 Mendell Davis Drive · Jackson MS 39272 888-994-7636 · 601-372-3903 · Fax 888-864-7636 unifiedbrands.net