



Traulsen Refrigeration

SERVICE MANUAL #01

Instructions For The Troubleshooting And Repair Of Traulsen Compact Undercounter Refrigerator, Freezer & Prep Table Models

27", 48" & 60" Compact Undercounter Refrigerator Models
27", 48" & 60" Compact Undercounter Freezer Models
27", 48" & 60" Compact Prep Table Models







-NOTICE-

This Manual is prepared for the use of trained Authorized Traulsen Service Agents and should not be used by those not properly qualified, nor should the equipment for which it is prepared be adjusted or repaired by anyone except properly qualified personnel. This manual is not intended to be all encompassing, but is written to supplement the formal training, on-the-job experience and other product knowledge acquired by Authorized Traulsen Service Agents. Reproduction or other use of this Manual, without the express written consent of Traulsen & Co., Inc. is prohibited.

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k-Evaporator Fan Motor			
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MODEL		SN NO.		MD	
ML		MAX. OPERATING AMBIENT			
VOLTS		HZ	PH	TOTAL AMPS	
MAXIMUM FUSE SIZE OR HACR TYPE CIRCUIT BREAKER			AMPS	MINIMUM CIRCUIT AMPACITY	
			AMPS	AMPS	
REFRIGERANT TYPE	OUNCES MAXIMUM	DESIGN PRESSURE PSIG		H.S	L.S
LIGHT AMPS	EVAPORATOR FAN MOTORS	QTY.	FULL LOAD AMPS EACH		
ANTICONDENSATE HEATER AMPS		DEFROST HEATER AMPS			
COMPRESSOR	RATED LOAD AMPS	LRA	AMPS		
CONDENSER FAN MOTORS	QTY	FULL LOAD AMPS EACH			
COMMERCIAL REFRIGERATOR AND/OR FREEZER					
   					
286L PLATE NO. 432680-5 FORT WORTH, TX. MADE IN U.S.A. DATA NO. 432679-					

I. THE SERIAL TAG

The serial tag is a permanently affixed sticker on which is recorded vital electrical and refrigeration data about your Traulsen product, as well as the model and serial number. This tag is located on the left side of the interior compartment of all compact undercounter refrigerator, freezer and prep table models.

READING THE SERIAL TAG

- Serial = The permanent ID# of your Traulsen
- Model = The model # of your Traulsen
- Volts = Voltage
- Hz = Cycle
- PH = Phase
- Total Current = Maximum amp draw
- Minimum Circuit = Minimum circuit required
- Lights = Light wattage
- Heaters = Heater amperage
- Refrigerant = Refrigerant type used
- Design Pressure = High & low side operating pressures and refrigerant charge
- Agency Labels = Designates agency listings

II. GENERAL INFORMATION

II. a - INTRODUCTION:

This manual applies to the following Traulsen models:

UHT27, UHT48 & UHT60 Compact Undercounter Refrigerator Models

ULT27, ULT48 & ULT60 Compact Undercounter Freezer Models

UPT276, UPT279, UPT488, UPT4812, UPT4818, UPT6012, UPT6018 & UPT6024 Compact Prep Table Refrigerator Models

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

II. b - MODEL DESIGNATIONS:

The three letter model prefix indicates the type:

UHT = Compact Undercounter Refrigerator

ULT = Compact Undercounter Freezer

UPT = Compact Prep Table

The next two numbers indicate the product width:

27 = 27" Wide Refrigerator, Freezer or Prep Table

48 = 48" Wide Refrigerator, Freezer or Prep Table

60 = 60" Wide Refrigerator, Freezer or Prep Table

The last one or two number indicates the pan capacity (prep tables only):

6 = Six (6) Sixth Size Pan Capacity

8 = Eight (8) Sixth Size Pan Capacity

9 = Nine (9) Sixth Size Pan Capacity

12 = Twelve (12) Sixth Size Pan Capacity

18 = Eighteen (18) Sixth Size Pan Capacity

24 = Twenty Four (24) Sixth Size Pan Capacity

II. c - WIRING DIAGRAM:

Refer to the wiring diagrams on pages 21 and 22 for any service work performed on the unit. Should you require another copy, please contact Traulsen Service at (800) 825-8220, and provide the model and serial number of the unit involved.

II. d - INSTALLATION:

Generally compact undercounter refrigeration products are installed by the dealer or others contracted by the dealer or owner. Detailed installation instructions are included with each unit.

II. e - CLEANING:

Detailed cleaning instructions are included with each unit, however special care **MUST** be given to the condenser coil. The condenser coil must be cleaned at a minimum of every six months. This can be done with a vacuum cleaner using a brush attachment, or a stiff brush or wisk broom. For more information please refer to section "V. a & b" of the Compact Undercounter Owner's Manual.

II. f - TOOL REQUIREMENTS:

For most jobs a standard set of hand tools, a VOM with AC current tester, along with a temperature tester or thermometer are adequate. However in some cases the following additional tools may be required as well:

- Refrigeration Reclaiming Equipment
- Acetylene Torch
- Nitrogen Bottle With Gauges
- Nitrogen Regulator
- Refrigeration Gauge Manifold
- Refrigerant Scale
- Valve Core Removal Kit

III. SPECIFICATIONS

Model No.	HP	Refrigerant Type	Refrigerant Charge	Cond. Unit Amp Draw (LRA)	Voltage	Amps
UHT27	1/6	R-134a	8 oz.	4.0	120/60/1	3.4
UHT48	1/4	R-134a	12oz.	6.1	120/60/1	6.7
UHT60	1/4	R-134a	12oz.	6.1	120/60/1	6.7
ULT27	1/3	R-134a	9 oz.	7.2	120/60/1	6.7
ULT48	1/3	R-404A	14 oz.	8.9	120/60/1	10.0
ULT60	1/2	R-404A	14 oz.	10.8	120/60/1	12.0
UPT276	1/5	R-134a	9 oz.	4.5	120/60/1	4.3
UPT279	1/5	R-134a	9 oz.	4.5	120/60/1	4.3
UPT488	1/4	R-134a	12 oz.	6.1	120/60/1	7.0
UPT4812	1/4	R-134a	12 oz.	6.1	120/60/1	7.0
UPT4818	1/4	R-134a	12 oz.	6.1	120/60/1	7.0
UPT6012	1/4	R-134a	12 oz.	6.1	120/60/1	7.0
UPT6018	1/4	R-134a	12 oz.	6.1	120/60/1	7.0
UPT6024	1/4	R-134a	12 oz.	6.1	120/60/1	7.0

IV. OPERATING DATA

Refrigerator Model: UHT27			Freezer Model: ULT27		
Refrigerant	R-134a	R-134a	Refrigerant	R-134a	R-134a
Ambient Temperature	70° F	100° F	Ambient Temperature	70° F	100° F
Suction Pressure			Suction Pressure		
Start of Cycle	43 lb.	43 lb.	Start of Cycle	11 lb.	11 lb.
End of Cycle	15 lb.	15 lb.	End of Cycle	0 lb.	1 lb.
Discharge Pressure			Discharge Pressure		
Start of Cycle	68 lb.	71 lb.	Start of Cycle	84 lb.	120 lb.
End of Cycle	87 lb.	145 lb.	End of Cycle	116 lb.	164 lb.

IV. OPERATING DATA

Refrigerator Model: UHT48			Freezer Model: ULT48		
Refrigerant	R-134a	R-134a	Refrigerant	R-404A	R-404A
Ambient Temperature	70° F	100° F	Ambient Temperature	70° F	100° F
Suction Pressure			Suction Pressure		
Start of Cycle	37 psig	36 psig	Start of Cycle	37 psig	41 psig
End of Cycle	12 psig	15 psig	End of Cycle	14 psig	20 psig
Discharge Pressure			Discharge Pressure		
Start of Cycle	58 psig	130 psig	Start of Cycle	164 psig	250 psig
End of Cycle	102 psig	171 psig	End of Cycle	210 psig	310 psig

Refrigerator Model: UHT60			Freezer Model: ULT60		
Refrigerant	R-134a	R-134a	Refrigerant	R-404A	R-404A
Ambient Temperature	70° F	100° F	Ambient Temperature	70° F	100° F
Suction Pressure			Suction Pressure		
Start of Cycle	37 psig	38 psig	Start of Cycle	39 psig	40 psig
End of Cycle	11 psig	21 psig	End of Cycle	11 psig	17 psig
Discharge Pressure			Discharge Pressure		
Start of Cycle	57 psig	109 psig	Start of Cycle	96 psig	126 psig
End of Cycle	99 psig	168 psig	End of Cycle	214 psig	308 psig

Prep Models: UPT276 & UPT279			Prep Models: UPT488, UPT4812 & UPT4818		
Refrigerant	R-134a	R-134a	Refrigerant	R-134a	R-134a
Ambient Temperature	70° F	100° F	Ambient Temperature	70° F	100° F
Suction Pressure			Suction Pressure		
Start of Cycle	41 lb.	43 lb.	Start of Cycle	30 psig	32 psig
End of Cycle	21 lb.	20 lb.	End of Cycle	12 psig	21 psig
Discharge Pressure			Discharge Pressure		
Start of Cycle	61 lb.	90 lb.	Start of Cycle	89 psig	148 psig
End of Cycle	118 lb.	174 lb.	End of Cycle	105 psig	171 psig

Prep Models: UPT6012, UPT6018 & UPT6024		
Refrigerant	R-134a	R-134a
Ambient Temperature	70° F	100° F
Suction Pressure		
Start of Cycle	29 psig	34 psig
End of Cycle	12 psig	20 psig
Discharge Pressure		
Start of Cycle	81 psig	128 psig
End of Cycle	99 psig	169 psig

V. REMOVAL & REPLACEMENT OF PARTS

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

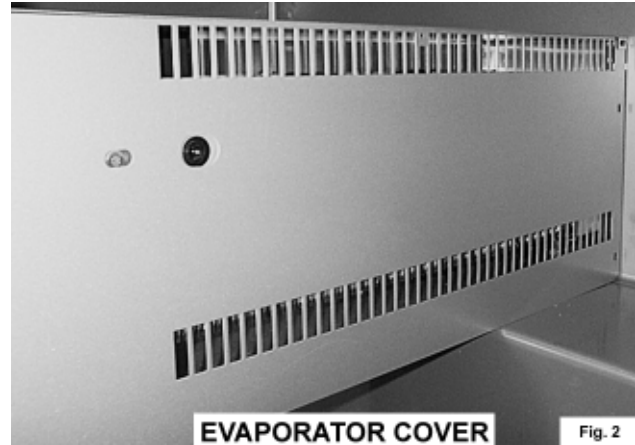
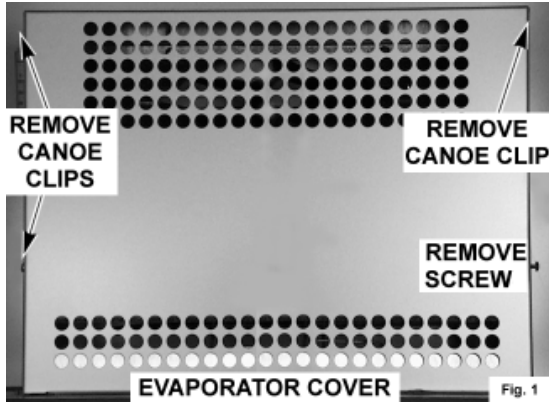
48" & 60" Models

V. a - EVAPORATOR COVERS:

Begin by removing the shelves from inside the cabinet. In addition on prep tables it will also be necessary to remove the pans and duct work. Next, remove the screw and lock washer and the canoe clips from the cover (see figure 1).

Begin by removing the shelves from inside the cabinet. In addition on prep tables it will also be necessary to remove the pans and duct work. Next, remove the screws from the evaporator cover (see figure 2).

NOTE: Lock washer must be installed.



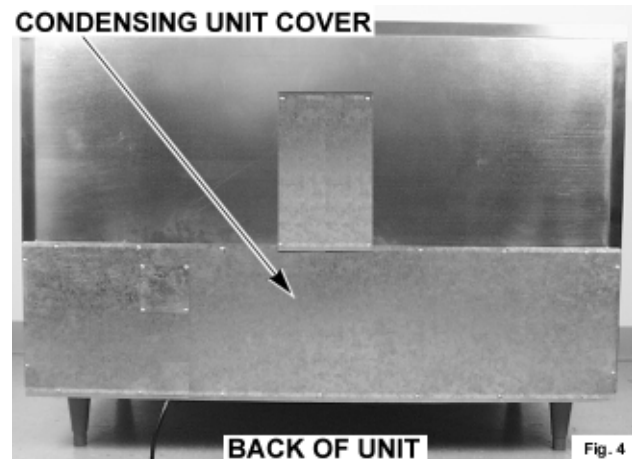
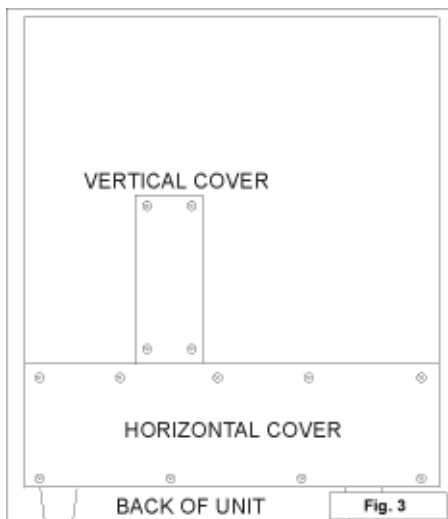
Reverse the procedure to install.

Reverse the procedure to install.

V. b - CONDENSING UNIT COVER:

Begin by accessing the back of the unit. Next remove the screws that secure the covers (see figure 3).

Begin by accessing the back of the unit. Next remove the screws that secure the cover (see figure 4).



Reverse the procedure to install.

Reverse the procedure to install.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

48" & 60" Models

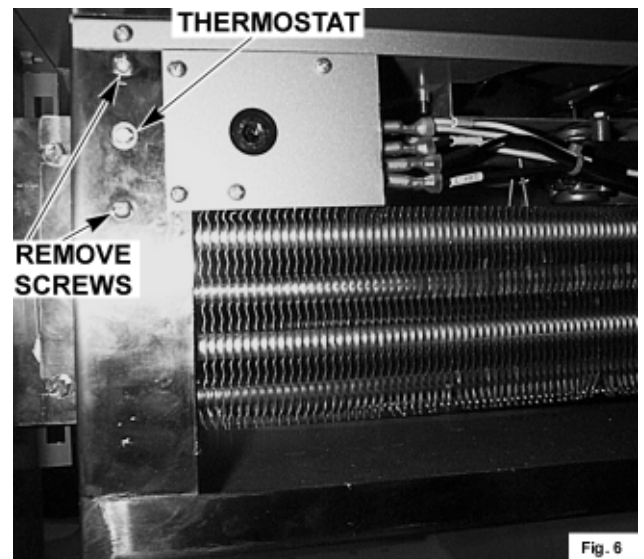
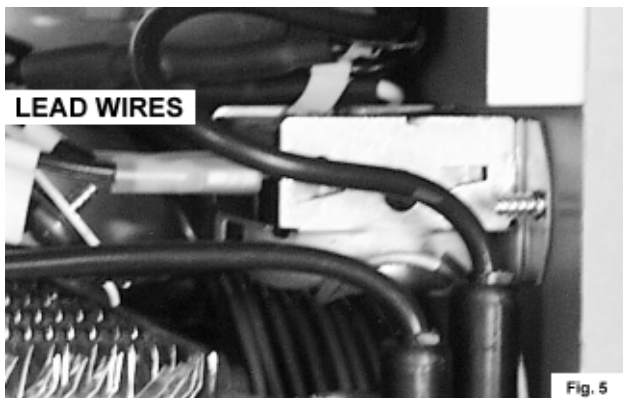
V. c - THERMOSTAT:

NOTE: The thermostat bulb for the refrigerator is embedded in the coil, top center location.

NOTE: The thermostat bulb for the refrigerator is above the evaporator coil, front area location, access from the left side of the evaporator coil, behind the door mullion.

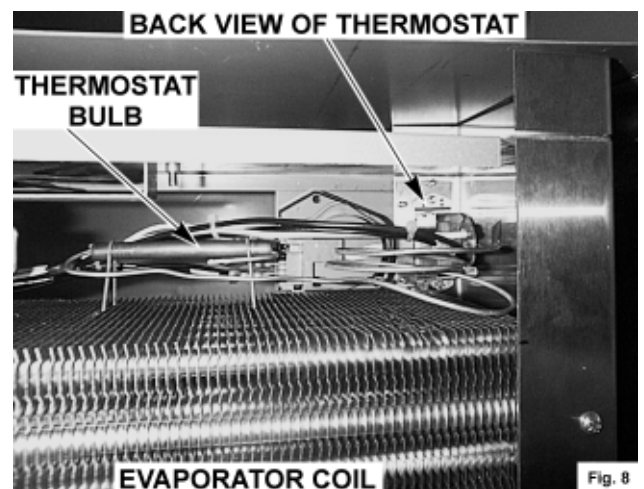
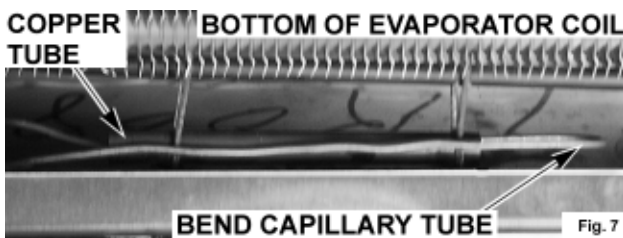
Begin by removing the evaporator cover as outlined in section "V a." Next, remove the screws that secure the thermostat and then disconnect the lead wires from the thermostat (see figure 5).

Begin by removing the evaporator cover as outlined in section "V a." Next, remove the screws that secure the thermostat and then remove the lead wire from the thermostat (see figure 6).



Remove the thermostat bulb from its location (see figure 7).

Remove the thermostat bulb from the mounting clips on the evaporator coil (see figure 8).



Reverse the procedure to install.

Reverse the procedure to install.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

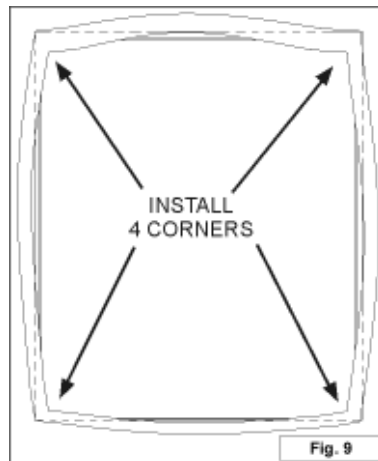
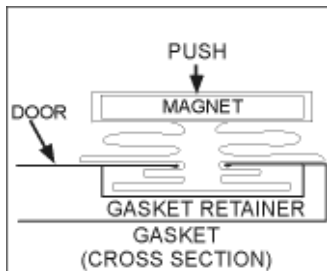


Fig. 9

V. d - DOOR GASKET:

Begin by removing the old gasket by pulling it out from the gasket retainer.

Begin installing the new gasket by installing the four corners first, pushing straight into the gasket until it is hooked behind the gasket retainer (see figure 9).

Next, starting at the center of one edge, push the door gasket straight in until it is hooked behind the gasket retainer (see figure 10).

Proceeding from this point out to the corners, continue to push the gasket straight into the gasket retainer.

Continue to the remaining edges and repeat the preceding operations until installation is completed.

Plug in the unit and put back into operation.

CAUTION: Do Not Pull on the gasket material. This will stretch it and, at room temperature, the material will NOT return to its original length.

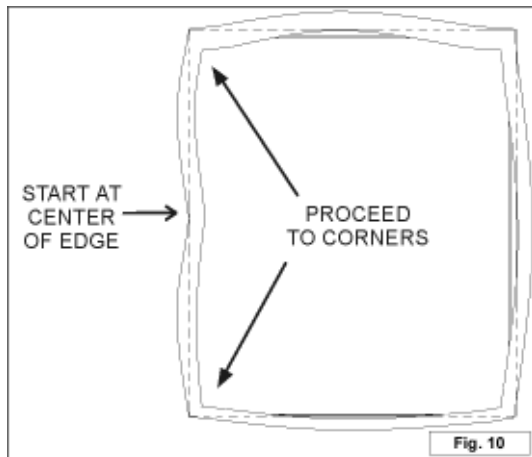


Fig. 10

V. e - DOOR:

Begin by removing the old door. Open it to the maximum position, placing support under the non-hinged end of the door so minimum movement occurs when bolts from the lower hinge are removed (see figure 11).

Remove the bolts from the lower hinge plate and proceed to remove the door from the top hinge bracket. The hinge plate pin and plastic bushing will remain in the top hinge plate.

To install, position the lower hinge plate into the position of being open 90 degrees to the cabinet. Place the top hinge plate pin in the hole in the top of the door and support the other end of the door for minimal movement.

Start the bolts in the lower hinge plate and tighten the bolts enough to hold the door in place. Remove the support from under the end of the door.

Adjust the door as outlined in "section VI. h."

V. f - DOOR HINGE MECHANISM:

Begin by removing the door as outlined above. Lay the door flat on a padded surface to prevent damage. Remove the screw that holds the lower hinge plate to the hinge mechanism stem.

NOTE: When installing, make sure the hinge mechanism stem is in a position where there is tension on the stem when turned in either direction.



Fig. 11

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

V. f - DOOR HINGE MECHANISM (cont'd):

Remove the door spring and two plastic bushings (see figure 12).

Remove the screws from the hinge mechanism and remove it from the door (see figure 13).

Insert the replacement hinge mechanism into the door. Use the hinge plate to turn hinge mechanism past the point of being spring loaded. This will allow the stem to be inserted into the square hole in the hinge plate.

A. For LH Hinge, Turn Clockwise.

B. For RH Hinge, Turn Counter-Clockwise.

Install the plastic bushing, the spring and the second plastic bushing on the hinge mechanism stem. Attach the hinge plate to the hinge mechanism.

NOTE: The lock washer is critical and must be installed.

Install the door as outlined in section "V. e."

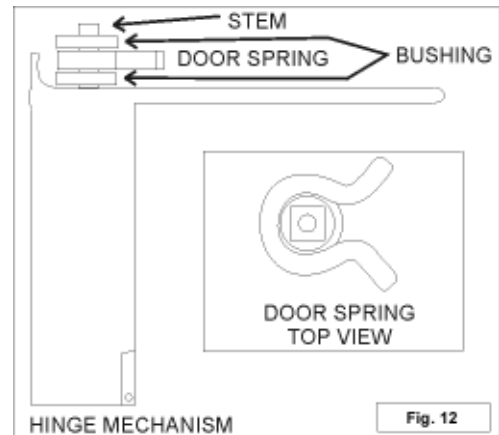


Fig. 12

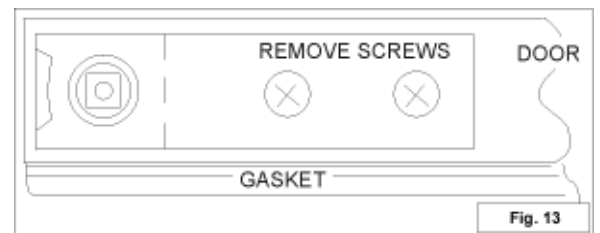
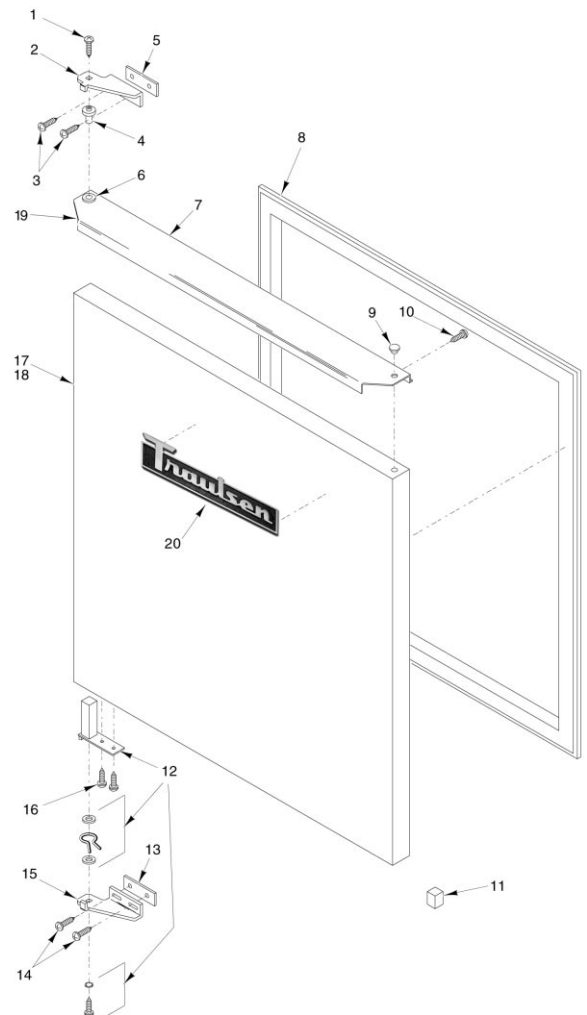


Fig. 13

ILLUS.

NO. NAME OF PART

- | | |
|----|---|
| 1 | Mach. Screw 10-32 x 3/8 Truss Hd |
| 2 | Hinge Plate (Lower RH, Upper LH) |
| 3 | Self-Tapping Screw 1/4-20 x 5/8 Hex Washer Hd., Type TT |
| 4 | Pin-Upper Hinge Pivot |
| 5 | Hinge Spacer |
| 6 | Bushing - Door Stop (Short) |
| 7 | Door Handle (Does Not Include Tape) |
| 8 | Door Gasket |
| 9 | Plug Button |
| 10 | Self-Tapping Screw 8-18 x 3/8 Phil Pan Hd., Type B |
| 11 | Square Plug |
| 12 | Hinge-Power Cartridge Assy.
(Incls. Spring, Washers & Retaining Screw) |
| 13 | Spacer-Hinge |
| 14 | Self-Tapping Screw 1/4-20 x 5/8 Hex Washer Hd., Type TT |
| 15 | Plate-Hinge (Lower LH, Upper RH) |
| 16 | Self-Tapping Screw 10-24 x 1/2 Phil Truss Hd., Type D |
| 17 | Door Assembly. (Right Hand) |
| 18 | Door Assembly. (Left Hand) |
| 19 | Tape For Door Handle |
| 20 | Traulsen Nameplate with adhesive |



V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

48" & 60" Models

V. g - DEFROST TIMER:

Begin by removing the evaporator cover as outlined in section "V a." Next, remove the screws that secure the defrost timer to the evaporator housing. Disconnect the lead wires from the defrost timer (see figure 14).

Begin by removing the evaporator cover as outlined in section "V a." Next, remove the screws that secure the defrost timer to its mounting bracket. Disconnect the lead wires from the defrost timer (see figure 15).

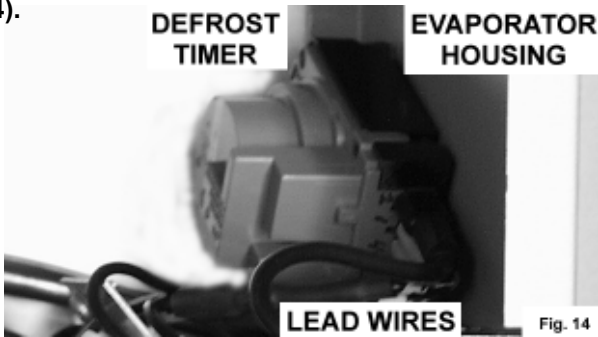


Fig. 14

Reverse the procedure to install. Adjust the defrost timer as outlined in "DEFROST TIMER SETTINGS" in the "Service Procedures & Adjustments" section.

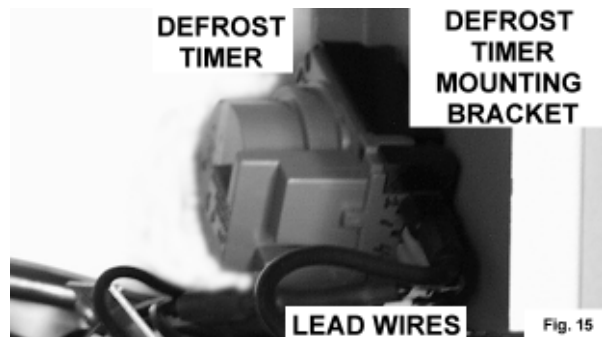


Fig. 15

Reverse the procedure to install. Adjust the defrost timer as outlined in "DEFROST TIMER SETTINGS" in the "Service Procedures & Adjustments" section.

V. h - HEATERS:

Begin by removing the evaporator and condensing unit covers as outlined in section "V a & b." Next, disconnect the lead wires to the defrost heater. There is a ground wire attached from the heater shield to the side panel of the evaporator housing (see figure 16).

Defrost Heater - Freezer Models Only: Begin by removing the evaporator cover as outlined in section "V a." Next, disconnect the lead wires to the defrost heater and drain pan heater. There is a ground wire attached from the heater shield to the side panel of the evaporator housing (see figure 17).

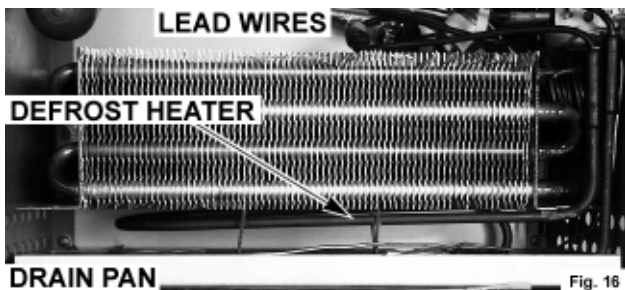


Fig. 16

Disconnect the drain tube from the drain pan at the back of the unit and pull the drain pan and heater from the unit.

Reverse the procedure to install.

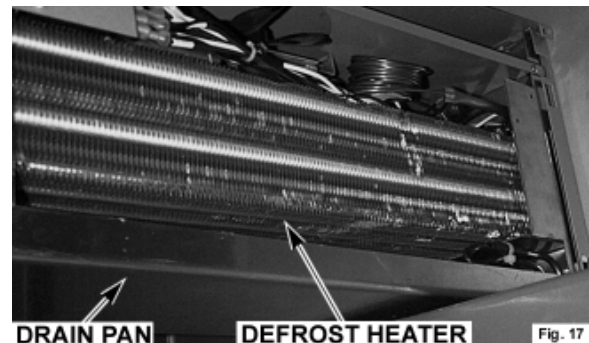


Fig. 17

Disconnect the drain tube from the drain pan at the back of the unit and remove evaporator defrost heater (see figure 18).

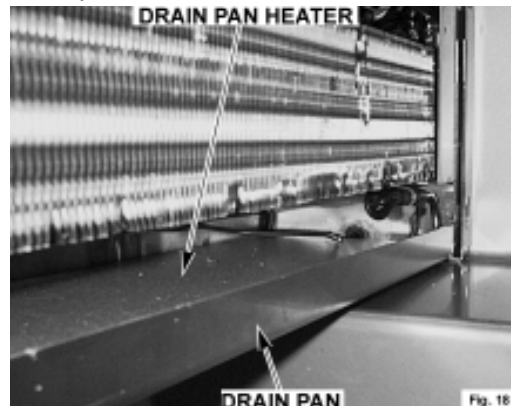


Fig. 18

Reverse the procedure to install.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

V. i - DOOR FRAME HEATER:

Begin by opening the door past 90 degrees. Next remove the door frame heater covers from the door frame by gently prying out on the inside edge of the cover.

NOTE: Do not bend the covers. They will be difficult to install.

Pull the door frame heater wire loose from the door frame channel (see figure 19).

Disconnect the supply lead wires from each end of the heater, and the (green) ground lead wire from one end.

Connect lead wires to replacement heater and insert the new heater into the door frame channel.

NOTE: Do not kink heater wire at the corners of the frame.

NOTE: Check position of the heater cover in the top corners of the door frame.

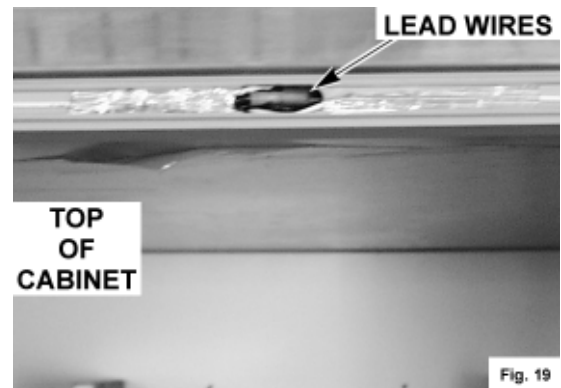
Install the horizontal heater covers first, then the vertical ones, using the following method.

a) Hook the inside edge of the heater cover over the lip of the door frame.

b) Use your fingers to push the outside edge over the outside lip of the heater channel in the door frame.

c) Repeat for each side.

Finish by checking for proper operation of both the door and door frame heater.



V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

48" & 60" Models

V. j - CONDENSING UNIT COMPONENTS:

NOTE: Condensing components may vary on some systems, but the following procedures are general guidelines for replacement of condensing unit components. Don't damage any connected refrigeration or electrical lines and wires.

Begin by removing the condensing unit cover as outlined in section "V b." Next, remove the screws from the condensing unit mounting plate and slide the condensing unit from the unit for easier access (see figure 20).



Reverse the procedure to install.

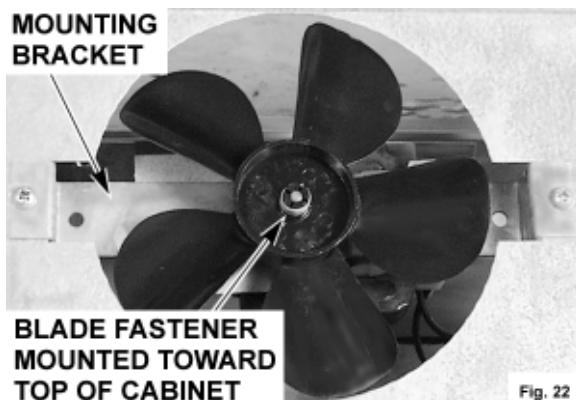
Begin by removing the condensing unit cover as outlined in section "V b." Next, remove the screws from the condensing unit mounting plate and slide the condensing unit from the unit for easier access (see figure 21).



Reverse the procedure to install.

V. k- EVAPORATOR FAN MOTOR:

Begin by removing the evaporator cover as outlined in section "V a." Next, pull the blade from the motor shaft (see figure 22).

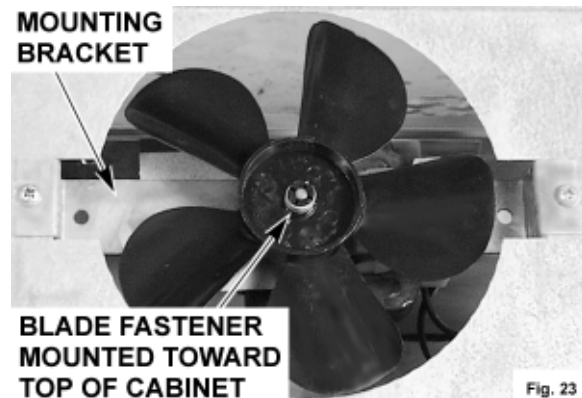


NOTE: To replace the fan blade only, reverse the procedure to install.

Next, remove the bolts that secure the evaporator fan motor mounting bracket. Then disconnect the lead wires to the motor and remove the motor from the mounting bracket.

Reverse the procedure to install.

Begin by removing the evaporator cover as outlined in section "V a." Next, remove the screws securing the fan shroud from the evaporator coil. Disconnect the lead wires to the motor and slide out the evaporator fan shroud. Pull the blade from the motor shaft (see figure 23).



NOTE: To replace the fan blade only, reverse the procedure to install.

Next, remove the bolts that secure the evaporator fan motor mounting bracket. Remove the motor from the mounting bracket.

Reverse the procedure to install.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

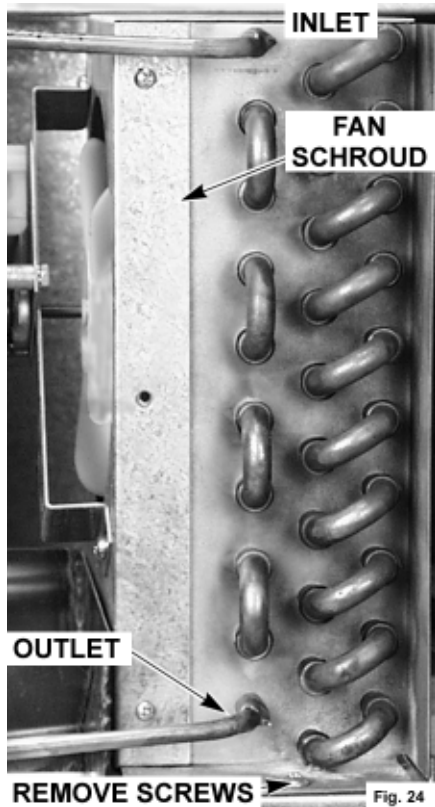
48" & 60" Models

V. I - CONDENSER COIL:

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

Begin by recovering refrigerant from the system.
NOTE: The use of reclaiming equipment is mandatory.

Next remove the condenser fan and shroud assembly from the coil. Disconnect inlet and outlet lines at the soldered connections nearest the condenser coil (see figure 24).



Remove the coil. Reverse the procedure to install coil, then proceed to the next step.

NOTE: It is recommended that the filter/drier be changed when this part is replaced.

Evacuate system. To finish, charge the system and put unit back into operation.

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

Begin by recovering refrigerant from the system.
NOTE: The use of reclaiming equipment is mandatory.

Next remove the condenser fan and shroud assembly from the coil. Disconnect inlet and outlet lines at the soldered connections nearest the condenser coil (see figure 25).



Remove the coil. Reverse the procedure to install coil, then proceed to the next step.

NOTE: It is recommended that the filter/drier be changed when this part is replaced.

Evacuate system. To finish, charge the system and put unit back into operation.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

48" & 60" Models

V. m - COMPRESSOR:

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

Begin by recovering refrigerant from the system. NOTE: The use of reclaiming equipment is mandatory.

Next disconnect the lead wires to the compressor junction box. Disconnect the suction and discharge lines from the compressor (see figure 26).



Remove the compressor. Install new compressor and connect wire leads and conduit at compressor junction box.

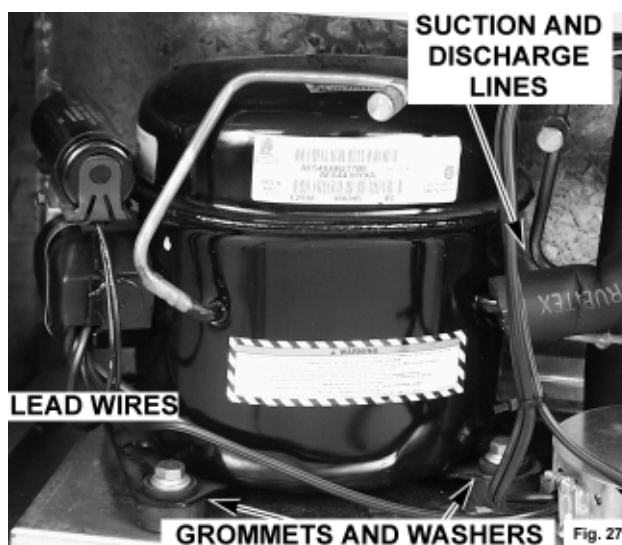
Remove the filter/drier and install a new filter/drier.

Evacuate system. To finish, charge the system and put unit back into operation.

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

Begin by recovering refrigerant from the system. NOTE: The use of reclaiming equipment is mandatory.

Next disconnect the lead wires to the compressor junction box. Disconnect the suction and discharge lines from the compressor (see figure 27).



NOTE: Note the position of the compressors vibration reduction grommets and washers, for reassembly with new compressor.

Remove the compressor. Install new compressor and connect wire leads and conduit at compressor junction box.

Remove the filter/drier and install a new filter/drier.

Evacuate system. To finish, charge the system and put unit back into operation.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

48" & 60" Models

V. n- CONDENSER FAN ASSEMBLY:

Begin by removing the screws that secure the fan mounting bracket and remove it from the condensing unit shroud (see figure 28).



Pull the blade from the motor shaft.

NOTE: To replace the fan blade only, reverse the procedure to install.

Next, disconnect the lead wires from the motor and remove the fan motor from the mounting bracket.

Reverse the procedure to install.

Begin by disconnecting the lead wires from the motor (see figure 29).



Next, remove the screws that secure the fan mounting bracket. Pull the blade from the motor shaft then remove the fan motor from the mounting bracket.

Reverse the procedure to install.

V. REMOVAL & REPLACEMENT OF PARTS (cont'd)

WARNING: UNPLUG UNIT BEFORE SERVICING

27" Models

48" & 60" Models

V. o- EVAPORATOR COIL:

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

Begin by removing the evaporator and condensing unit covers as outlined in sections "V. a & b".

Next, recover the refrigerant from the system.

NOTE: The use of reclaiming equipment is mandatory.

Remove the evaporator fan assembly and shroud. Move the thermostat bulb out of the way (on freezer models only, it will also be necessary to remove the high limit thermostat and clips that support the defrost heater and locate the thermostat bulb).

Remove the screws from the mounting brackets that secure the coil (see figure 30).



Disconnect the refrigeration lines to the evaporator coil at the back of the unit. Pull the coil from the cabinet.

NOTE: You may have to remove the defrost heater with the evaporator coil.

Reverse the procedure to install.

Evacuate system. To finish, charge the system and put unit back into operation.

NOTE: It is recommended that the filter/drier be changed when this part is replaced.

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

Begin by removing the evaporator and condensing unit covers as outlined in sections "V. a & b". Also remove the evaporator fan shroud as outlined in section "V. k".

Next, recover the refrigerant from the system.

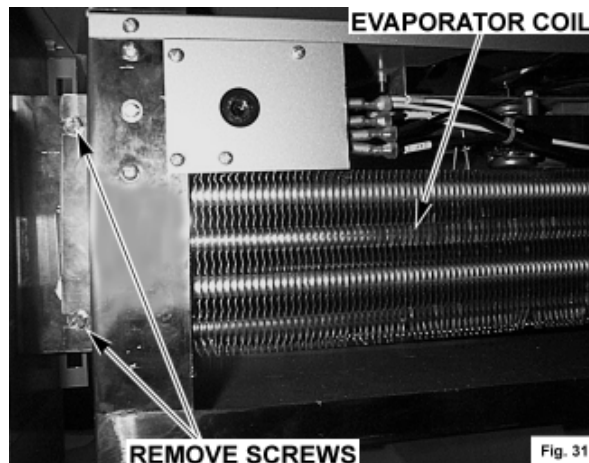
NOTE: The use of reclaiming equipment is mandatory.

Remove the thermostat as outlined in section "V. c" (on freezer models only, it will also be necessary to remove the high limit thermostat and screws that support the defrost heater).

Disconnect the wiring harness from condensing unit to the evaporator.

Disconnect the refrigeration lines and wiring harness to the evaporator coil at the back of the unit.

Remove the screws from the mounting brackets that secure the coil (see figure 31). Pull the coil from the cabinet.



NOTE: You may have to remove the defrost heater with the evaporator coil.

Reverse the procedure to install. Evacuate system.

NOTE: it is recommended that the filter/drier be changed when this part is replaced.

To finish, charge the system and put unit back into operation.

VI. SERVICE PROCEDURES & ADJUSTMENTS

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TEST OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

VI. a - SYSTEM ACCESS:

All external indicators should be checked as part of system diagnosis before determining the refrigerant pressures. Improper access may expose the refrigerant to contaminants and non-condensables which will result in system failure.

VI. b - BOLT-ON PIERCING VALVES:

CAUTION: Bolt-on piercing valves are used as a temporary diagnostic tool. They must be removed from the system before the system is put back into operation.

- 1) Place one piercing valve on the compressor process tube and one on the liquid line drier process tube. Follow the installation instructions provided by the manufacturer of the piercing valve.
- 2) Upon completion of diagnosis, pinch off the process tube just below the piercing valve.
- 3) Remove the valve and sweat the opening shut.
- 4) Install permanent access fittings in the suction and liquid lines as part of system repair.
- 5) When complete, follow the guidelines as outlined under "LEAK CHECK" and "EVACUATING SYSTEM."

VI. c - SWEAT-ON PIERCING VALVES:

NOTE: Sweat-on piercing valves are used for system diagnostics, but may be left on after service is complete. They may be installed while the system is fully charged.

- 1) Place one piercing valve on the compressor process tube and one on the liquid line drier process tube. Follow the installation instructions provided by the manufacturer of the piercing valve.
- 2) When complete, follow the guidelines as outlined under "LEAK CHECK" and "EVACUATING SYSTEM."

VI. d - REFRIGERANT LEAK CHECK:

DISCONNECT THE ELECTRICAL POWER TO THE MACHINE AT THE MAIN CIRCUIT BOX. PLACE A TAG ON THE CIRCUIT BOX INDICATING THE CIRCUIT IS BEING SERVICED.

THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

NOTE: The use of R-22 in small quantities is recommended as a trace gas for leak detection.

VI. d - REFRIGERANT LEAK CHECK (cont'd):

- 1) Access the refrigeration system (note: see section "VI. a - SYSTEM ACCESS").
- 2) Attach gauge manifold set to the system, low side to process tube on the compressor and the high side to the process tube on the drier.
- 3) Connect refrigerant bottle to the center of gauge manifold and open the valve on the bottle. Bleed charging hose at the manifold gauge to remove air from the system.
- 4) Open valve on low side of gauge manifold and charge system with one ounce of R-22.
- 5) Close low side of the gauge manifold and the valve on the refrigerant bottle.
- 6) Disconnect refrigerant bottle and connect nitrogen bottle.

NOTE: The use of a nitrogen regulator is required.

- 7) Set output valve on nitrogen valve to 120 psi.
- 8) Open nitrogen bottle valve and low side gauge manifold valve. Allow pressure to equalize.
- 9) Shut off both valves and disconnect nitrogen bottle.
- 10) Use a leak detector or a thick soapy solution and check for leaks at all tubing connections.

A - If leaks are found, repair leaks and repeat process.

B - If no leaks are found, evacuate system as outlined in section "VI. e - EVACUATING SYSTEM".

- 11) Charge the system and check for proper operation.

VI. e - EVACUATING SYSTEM:

Introduction - Refrigeration reclaiming equipment is required. Our goal in system evacuation is to remove all the non-condensables possible. No evacuation method will remove 100% of the moisture and air from within the refrigeration circuit. Because of this, guidelines and methods must be developed and adhered to ensuring only harmless amounts of contaminants remain in the system.

GUIDELINES

WARNING - DO NOT PRESSURIZE SYSTEM ABOVE 150 PSIG. PRIOR TO EVACUATION OR DURING LEAK TEST PROCEDURES.

- Use only a two stage vacuum pump (2 CFM or greater) and electronic micron.
- Evacuate from high and low sides of the system.
- No chemical additive or alcohols are to be used to "dry up" a system.

VI. SERVICE PROCEDURES & ADJUSTMENTS (cont'd)

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TEST OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

VI. e - EVACUATING SYSTEM/GUIDELINES (cont'd):

- Blow down of system with DRY NITROGEN prior to evacuation is acceptable and many times desirable. See "System Clean-Up."
- Evacuate to 200 microns.

PROCEDURE

WARNING: DISCONNECT THE ELECTRICAL POWER TO THE MACHINE AT THE MAIN CIRCUIT BOX. PLACE A TAG ON THE CIRCUIT BOX INDICATING THE CIRCUIT IS BEING SERVICED.

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

- 1) Access the refrigeration system as outlined under "SYSTEM ACCESS."
- 2) Connect low (blue) side of gauge manifold to schrader valve on compressor process line and high (red) side of gauge manifold to schrader valve on filter/drier process line.
- 3) Connect center line of gauge manifold to vacuum pump.
- 4) Turn vacuum pump on and open both sides of gauge manifold.
- 5) Pull a vacuum to 200 microns.
- 6) Break the vacuum with 3 psig of dry nitrogen.
- 7) Repeat steps 5 and 6.
- 8) Pull vacuum to 200 microns.
- 9) Charge system and check for proper operation.

VI. f - CHARGING SYSTEM:

WARNING: DISCONNECT THE ELECTRICAL POWER TO THE MACHINE AT THE MAIN CIRCUIT BOX. PLACE A TAG ON THE CIRCUIT BOX INDICATING THE CIRCUIT IS BEING SERVICED.

WARNING: THIS PROCEDURE REQUIRES THE USE OF REFRIGERANTS. BE CERTAIN THE WORK AREA IS WELL VENTILATED. SAFETY GOGGLES AND GLOVES SHALL BE WORN SINCE REFRIGERANTS MAY CAUSE BURNS TO THE SKIN.

- 1) Access the refrigeration system.
- 2) Attach gauge manifold set to the system, low side to process tube on the compressor and the high side to the process tube on the drier.

NOTE: See "SYSTEM ACCESS."

VI. f - CHARGING SYSTEM (cont'd):

- 3) Be sure system is properly leak checked and evacuated before charging as outlined under "LEAK CHECK" and "EVACUATING SYSTEM."
- 4) Make certain both valves are closed on the gauge manifold. Open the valve on the bottle. Bleed charging hose at the manifold gauge to remove the air.

NOTE: Initially charge system through high side to prevent liquid refrigerant from reaching compressor.

- 5) Open the high side gauge valve (red). Allow refrigerant to flow into the system until the nameplate charge is reached or until the high side will not accept any more refrigerant. At this point, shut the gauge and bottle valves.
- 6) Reconnect power to the unit and check for proper operation and high pressure leaks.
- 7) Add the remaining amount of refrigeration charge through the low side with the compressor running.
- 8) Check for proper operation and leaks.
- 9) Disconnect power to the unit and replace any covers removed.

VI. g - SYSTEM CLEAN UP/INTRODUCTION:

When a compressor burn-out or moisture infiltration is encountered, the service person must make the determination as to the degree of system contamination. Normally a compressor burn-out will fit into one of three categories:

- **CONTAINED** - compressor oil not acidic, no oil discoloration.
- **CONTAMINATED COMPRESSOR** - oil acidic, discoloration of oil, contamination limited to compressor.
- **MASSIVE CONTAMINATION** - contaminated oil and/or refrigerant pumped through system.

CONTAINED

- 1) Replacement of liquid line drier.
- 2) Install suction filter drier for clean up and then remove it when service is complete. Usually within 48 hours.
- 3) Replacement of compressor.
- 4) Evacuation (to 200 microns).
- 5) Charge by weight.

CONTAMINATED COMPRESSOR

The "contaminated compressor" requires the same procedure as the "contained" burn-out. Plus, the system must be flushed with nitrogen after the compressor and drier has been removed.

VI. SERVICE PROCEDURES & ADJUSTMENTS (cont'd)

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TEST OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

VI. g - SYSTEM CLEAN UP/INTRODUCTION (cont'd):

MASSIVE CONTAMINATION

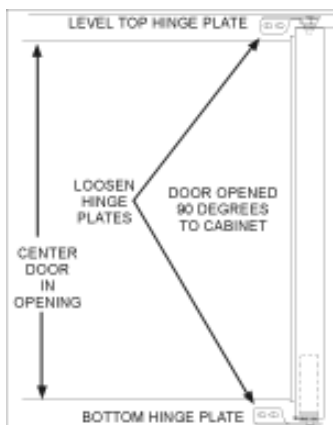
The replacement compressor **MUST NOT** be installed until after system clean-up procedures have been completed.

- 1) Remove the burned-out compressor as outlined under "COMPRESSOR" in "Section V. m".
- 2) Remove the capillary tube and drier.
- 3) Purge nitrogen through the high and low sides of system until moisture and contaminated oil has been removed from the remaining components of the system.
- 4) Reassemble refrigeration system and add an CW052 style liquid drier and a suction line drier.
- 5) Purge nitrogen through the high and low sides of system for 5 minutes.
- 6) Evacuate refrigeration as outlined under "EVACUATING SYSTEM" for 30 minutes. Repeat nitrogen purge and evacuation two more times.
- 7) Charge system as outlined under "CHARGING SYSTEM". Allow for the increased liquid capacity of the liquid line drier.
- 8) Reconnect power and check for proper operation.
- 9) Disconnect power and install any panels removed.
- 10) Return between 24 and 48 hours to recover gas, replace liquid line drier with a CW032 style drier. Remove the suction drier, but do not replace.
- 11) Evacuate and charge system as outlined under "EVACUATING SYSTEM" and "CHARGING SYSTEM".

VI. h - DOOR ADJUSTMENT:

WARNING: UNPLUG UNIT BEFORE SERVICING.

- 1) Open the door and loosen the hinge plate screws enough to move the hinges if desired, but the door is still held in place.
- 2) Center the door in the opening.
- 3) Level the top hinge plate and tighten the screws.
- 4) Level the lower hinge plate and tighten the screws.



VI. i - REHINGING DOOR:

WARNING: UNPLUG UNIT BEFORE SERVICING.

- 1) Remove the door as outlined in "Section V. e."
- 2) Remove the hinge plate pin and plastic bushing from the top hinge plate.
- 3) Remove the top hinge plate from the cabinet and set aside for use as the lower hinge plate.
- 4) Remove the plug button from the top of the door.
- 5) Lay the door face down on a padded flat surface.
- 6) Remove the screw that secures the bottom hinge plate to the hinge mechanism and set aside for use as the top hinge plate.
- 7) Remove the hinge mechanism, filler screws and square plug from the bottom of the door.



- 8) Remove enough foam from the new location of the hinge mechanism to allow for insertion of the hinge mechanism without compressing the foam.
- 9) Install the hinge mechanism into the bottom of the door where the square plug was removed and install the plug and filler screws in the remaining locations.



- 10) Use the hinge plate to turn the hinge mechanism past the point of being spring loaded. This will allow the stem to be inserted into the square hole in the hinge plate. For LH hinge, turn clockwise or for RH hinge, turn counterclockwise.
- 11) Install the plastic bushing, the spring and the second plastic bushing on the hinge mechanism stem. Attach the hinge plate to the hinge mechanism. **NOTE: The lockwasher is critical and must be installed.**
- 12) Remove the plastic buttons (turn counterclockwise, do not pull) from the hinge plate mounting positions on the opposite side of the cabinet.
- 13) Install the top hinge plate to the cabinet.
- 14) Install the plug button and hinge plate pin in the top of the door.
- 15) Install the door as outlined under "DOOR" in "REMOVAL AND REPLACEMENT OF PARTS."
- 16) Adjust the door as outlined under "DOOR ADJUSTMENT."

VI. SERVICE PROCEDURES & ADJUSTMENTS (cont'd)

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TEST OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

VI. i - REHINGING DOOR (cont'd):

- 13) Install the top hinge plate to the cabinet.
- 14) Install the plug button and hinge plate pin in the top of the door.
- 15) Install the door as outlined in "Section V. e".
- 16) Adjust the door as outlined under "DOOR ADJUSTMENT".

VI. j - DEFROST TIMER SETTING:

WARNING: UNPLUG UNIT BEFORE SERVICING

The timer is preset with four, 23 to 25 minute defrost cycles per day. You can only set when the defrost cycle will start.

- 1) Use a screwdriver to turn cam clockwise until you hear the contacts close. This position is when the defrost cycle begins.

NOTE: The screwdriver slot is designed to be turned clockwise only.

- 2) Continue to turn the cam until you hear the contacts open. The defrost cycle has ended and it will be six hours until the next occurrence.
- 3) You can continue turning the cam and position it approximately within the six hour period.

VI. k - DOOR PERIMETER HEATER TEST:

WARNING: UNPLUG UNIT BEFORE SERVICING

- 1) Access the heater wire around the door frame.
- 2) Plug the unit in and verify 120 volt supply to the heater.
- 3) The reading should be .25 amp.

VI. l - DEFROST HEATER TEST:

WARNING: UNPLUG UNIT BEFORE SERVICING

- 1) Access the heater lead wire to the defrost heater.
- 2) Plug the unit in, turn the defrost timer to start a defrost cycle.
- 3) Verify 120 volt supply to the heater.
- 4) The reading should be 3.7 amp (27" models) or 2.8 amp (48" & 60" models).
- 5) If you want to perform a continuity check:
 - a. Unplug the unit.
 - b. Disconnect the lead wires to the heater.
 - c. Use an ohmmeter to check for 32.4 ohms (27" models) or 41 ohms (48" & 60" models).

VI. m - DRAIN PAN HEATER TEST (n/a on 27" models):

WARNING: UNPLUG UNIT BEFORE SERVICING

- 1) Access the heater lead wire to the drain pan heater.
- 2) Plug the unit in, turn the defrost timer to start a defrost cycle.
- 3) Verify 120 volt supply to the heater.
- 4) The reading should be 1.04 amp.
- 5) If you want to perform a continuity check:
 - a. Unplug the unit.
 - b. Disconnect the lead wires to the heater.
 - c. Use an ohmmeter to check for 110.0 ohms.

VII. ELECTRICAL OPERATION

VII. a- COMPONENT FUNCTION:

Compressor:	Pumps refrigerant through refrigeration lines and components.
Condenser Fan:	Draws air across condenser coil to aid in removing heat from the refrigerant and moves air across compressor to aid in cooling the compressor.
Start Capacitor:	Wired in series with the start windings to help start compressor motor.
Thermal Overload:	Removes power from the compressor if the internal temperature of the compressor becomes too high (auto reset).
Relay:	Senses current of run winding of compressor motor. Normally open contacts close when the run winding draws a high amperage at start and brings the start capacitor and start windings into the circuit. As the motor reaches operating speed (less amperage through run winding), the normally open contacts open and removes the start capacitor and start windings from the circuit.
Evaporator Fan:	Draws air from the cabinet and moves the air through the evaporator coil.
Defrost Heater:	Defrosts evaporator coil and prevents water droplets from evaporator coil from freezing before they can drain into the condensate pan. Operates only during defrost cycle.
High Limit Thermostat:	Monitors temperature at the evaporator. Opens circuit to defrost heater if coil temperature reaches 40°F (± 5°). Closes at 20°F (± 5°).
Defrost Time Clock:	Controls defrost cycles on freezers. Four, 23 to 25 minute defrost per day. Start time can be set, but number of defrosts is permanent.
Door Perimeter Heater:	Prevents condensate from forming on door frame.
Thermostat:	Monitors cabinet air temperature. Opens when cabinet temperature reaches set temperature.
Drain Pan Heater:	48" and 60" models only. Defrosts drain pan to prevent water droplets from evaporator coil from freezing before they can drain out. Operates only during defrost cycle.
Hi-Limit Press. Control:	48" and 60" models only. Monitors compressor's head pressure. Removes power from compressor and condenser fan motor, if head pressure becomes too high (manual reset for high pressure trip).

VII. ELECTRICAL OPERATION (cont'd)

VII. b - SEQUENCE OF OPERATION:

REFRIGERATION

1 - Conditions:

- a. Unit connected to correct voltage.
- b. Condensing unit controlled by thermostat.
- c. Thermostat set to desired temperature.
- d. Evaporator fan powered.
- e. Cabinet temperature below set point.
- f. High limit thermostat closed (freezer).
- g. Power to thermostat contacts through defrost timer 1/4 (freezer).
- h. Door perimeter heater energized (freezer).
- i. Defrost timer motor energized (freezer).

2- Temperature Rises Above Set Temperature:

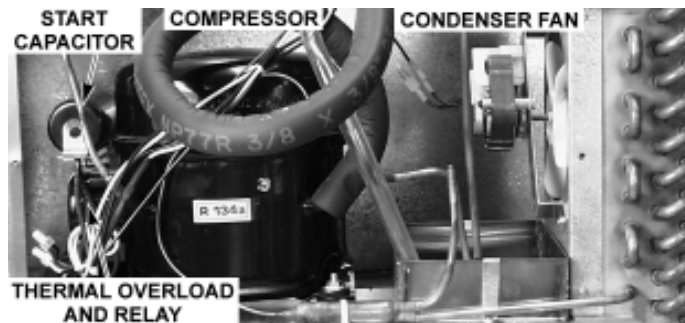
- a. Thermostat contact close, powering compressor.

3- Set Temperature Is Met:

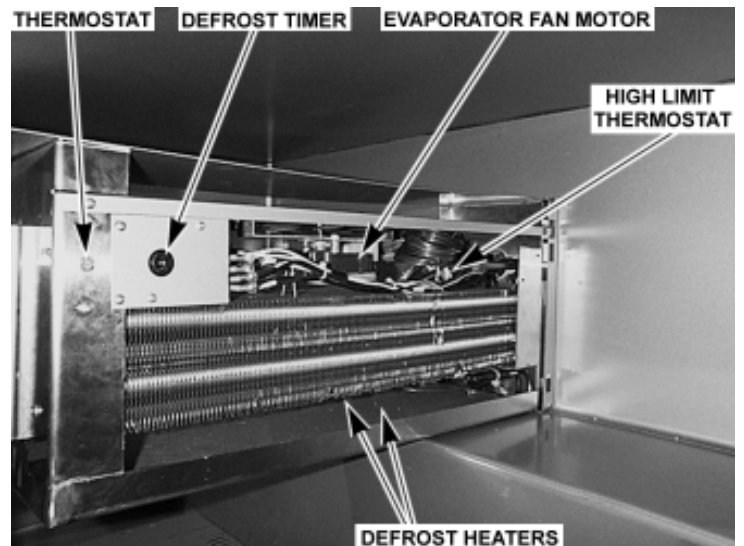
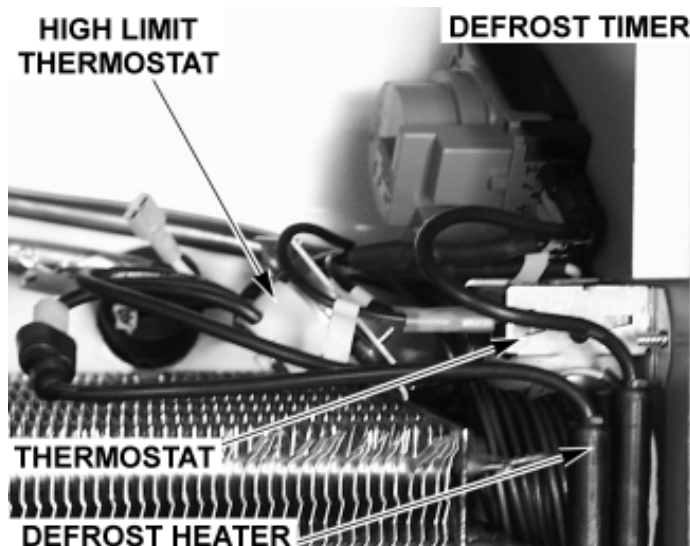
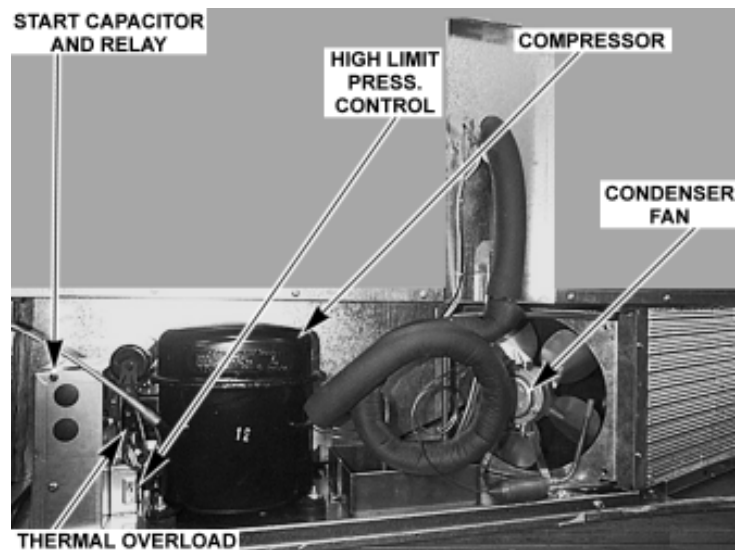
- a. Unit returns to conditions in step 1.

VII. c - COMPONENT LOCATION:

27" Models



48" & 60" Models



VII. b - SEQUENCE OF OPERATION (cont'd):

DEFROST MODE (freezer)

1 - Unit Operating In Refrigeration Mode.

2 - Defrost Initiated By Defrost Timer.

- a. Defrost timer contacts 1/4 open.
 - 1) Power removed from evaporator fan.
 - 2) Power removed from thermostat contacts.
- b. Defrost timer contacts 1/2 close.
 - 1) Power to defrost heater.

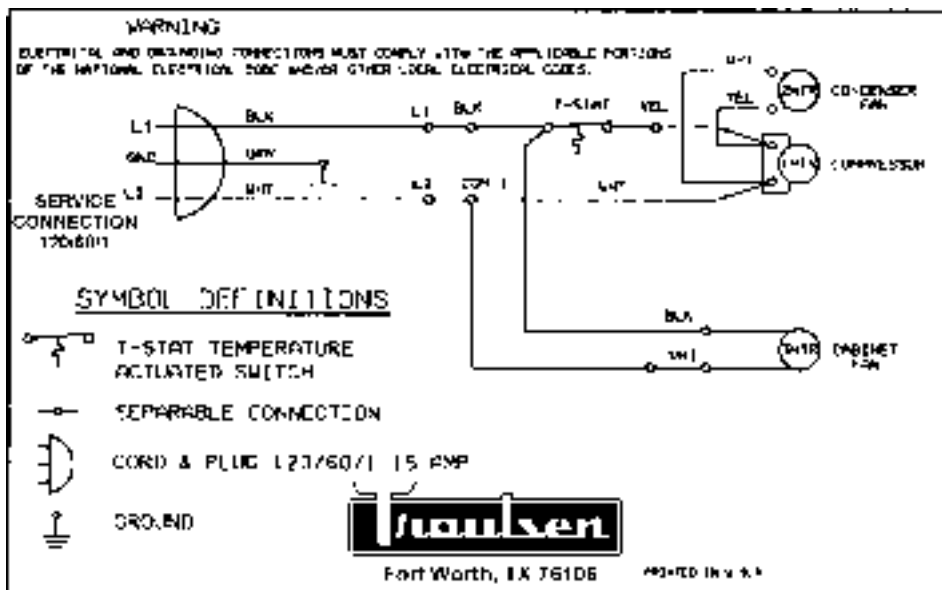
3 - Defrost Time Expires.

- a. Defrost timer contacts 1/2 open.
 - 1) Power removed from defrost heater.
- b. Defrost timer contacts 1/4 close.
 - 1) Power to evaporator fan.
 - 2) Power to thermostat.

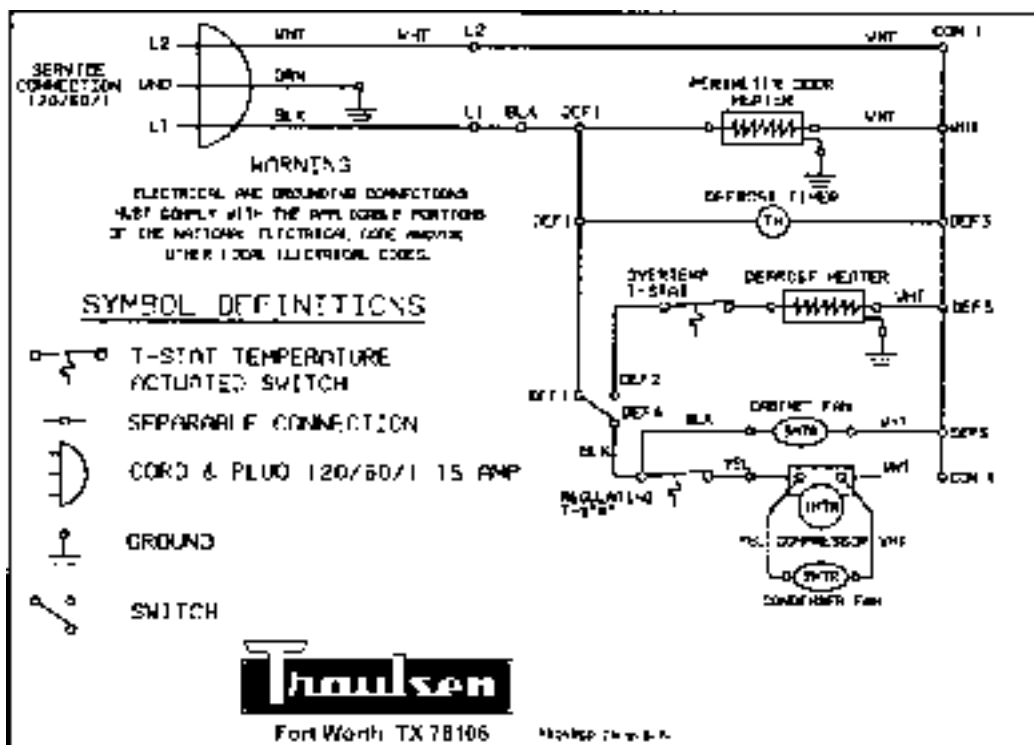
4 - Unit Returns To Normal Operation Until The Next Defrost Cycle.

VIII. WIRING DIAGRAMS - 27" MODELS

Electrical Diagram - Refrigerator Cabinet With Digital Thermometer Option
Models: UHT27, UPT276 & UPT276, 120VAC/60HZ/1PH



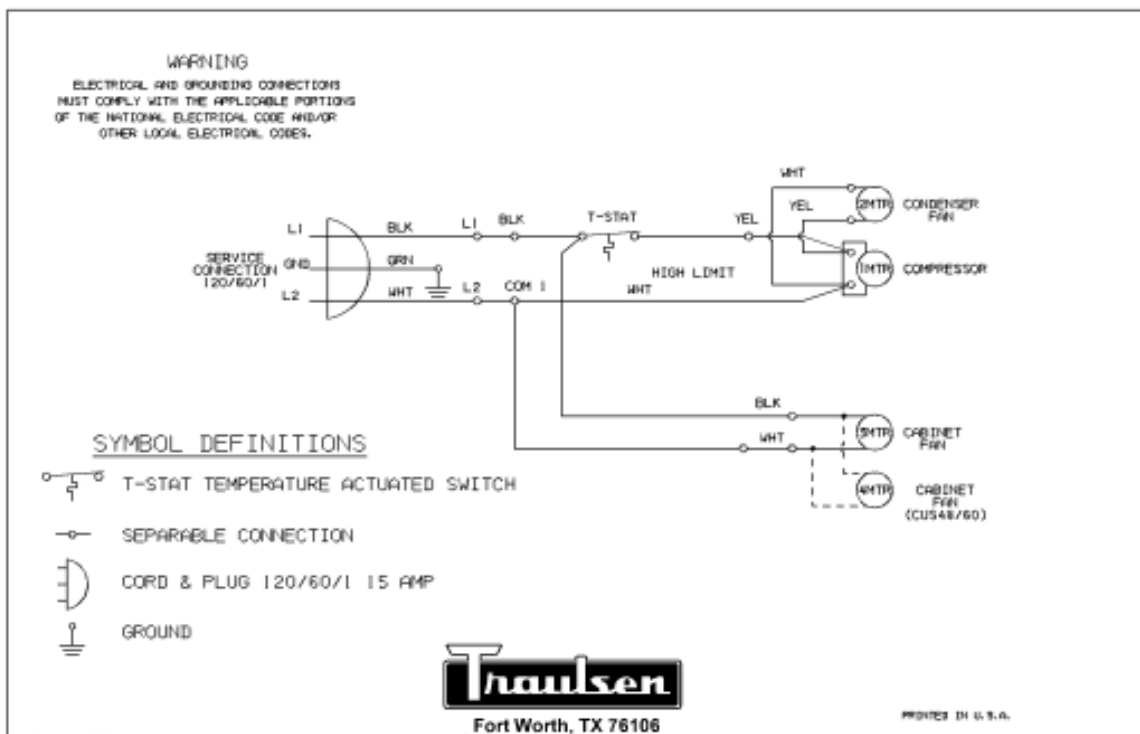
Electrical Diagram - Freezer Cabinet With Digital Thermometer Option
Model: ULT27, 120VAC/60HZ/1PH



VIII. WIRING DIAGRAMS - 48" & 60" MODELS

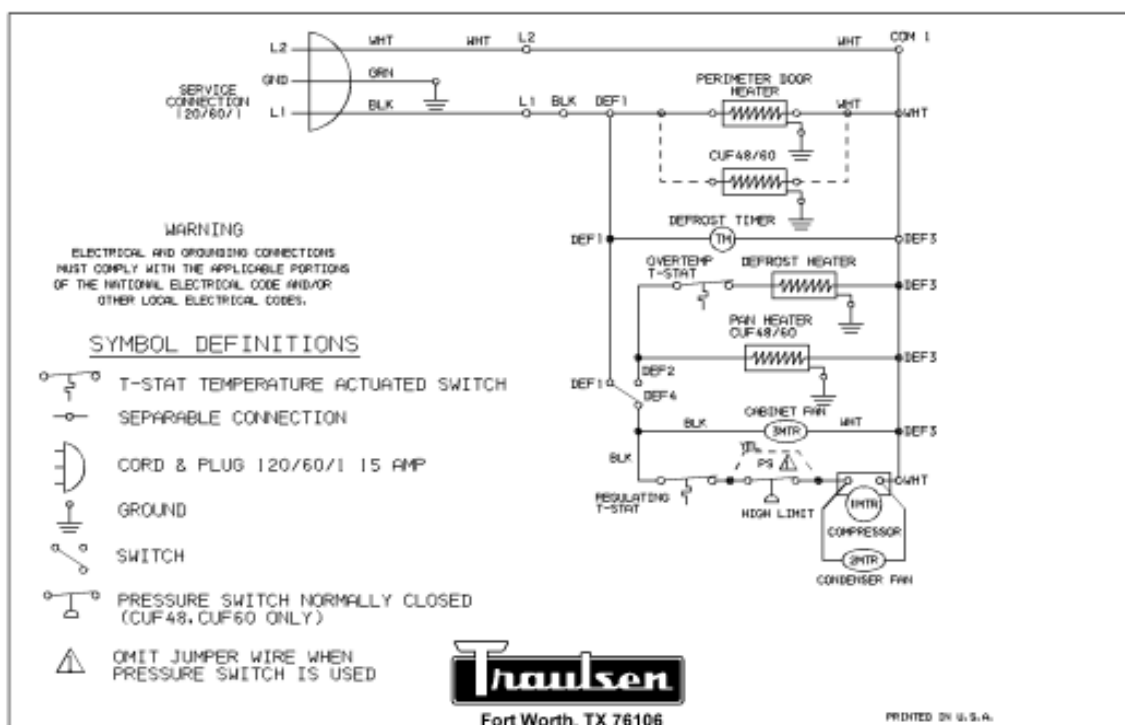
Electrical Diagram - Refrigerator Cabinets

Models: UHT48, UHT60, UPT488, UPT4812, UPT4818, UPT6012, UPT6018 & UPT6024, 120VAC/60HZ/1PH



Electrical Diagram - Freezer Cabinets

Model: ULT48 & ULT60, 120VAC/60HZ/1PH



VI. TROUBLESHOOTING

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL AND REFRIGERATION SYSTEM TEST OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

Compressor will not run, no current draw.	<ol style="list-style-type: none"> 1. Compressor circuit breaker open. 2. Cabinet temperature satisfied. 3. Wired wrong or faulty connection. 4. Start component malfunction. 5. Compressor motor windings open. 6. Thermostat malfunction. 7. High pressure control tripped.
Compressor will not run, current draw and trips overload.	<ol style="list-style-type: none"> 1. Low voltage. 2. Start component malfunction. 3. Compressor windings shorted. 4. Locked rotor. 5. Excessive head pressure.
Defrost time too long.	<ol style="list-style-type: none"> 1. Defrost timer malfunction.
Compressor short cycles on overload.	<ol style="list-style-type: none"> 1. Low voltage. 2. Improper air flow over condenser. 3. Low refrigerant charge. 4. Compressor electrical component malfunction. 5. High head pressure.
Compressor short cycles on thermostat.	<ol style="list-style-type: none"> 1. Improper air flow over evaporator coil. 2. Low ambient conditions. 3. Thermostat bulb improperly located. 4. Thermostat malfunction.
Continuous unit operation.	<ol style="list-style-type: none"> 1. Loss of refrigerant. 2. Excessive door openings. 3. Thermostat malfunction. 4. Compressor inoperative.
Compressor run time lengthy.	<ol style="list-style-type: none"> 1. Partial loss of refrigerant. 2. High ambient conditions. 3. Improper air flow over condenser coil. 4. Excessive product load. 5. Excessive door openings. 6. Door gasket inoperative. 7. Contaminates in refrigeration system. 8. Compressor malfunction.
Low suction pressure.	<ol style="list-style-type: none"> 1. Restriction in drier. 2. Loss of refrigerant. 3. Poor air flow.
High head pressure.	<ol style="list-style-type: none"> 1. Improper air flow across condenser. 2. Extreme ambient conditions. 3. Overcharge of refrigerant. 4. Air in system.
Will not defrost.	<ol style="list-style-type: none"> 1. Defrost heater malfunction. 2. High limit thermostat open. 3. Defrost timer inoperative. 4. Wired wrong or faulty connection.
Coil icing.	<ol style="list-style-type: none"> 1. Gasket leaking. 2. Drain tube plugged. 3. Non-frozen product in freezer.



Quality Refrigeration

Traulsen
 4401 Blue Mound Road Fort Worth, TX 76106
 Phone: (800) 825-8220 Fax-Svce: (817) 740-6757
 Website: www.traulsen.com

HOURS OF OPERATION:
 Monday thru Friday 7:30 am - 4:30 pm CST