



Quality Refrigeration

OWNER'S MANUAL



RAC-SERIES AIR CURTAIN REFRIGERATOR

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Hours Of Operation: Monday - Friday 7:30 a.m. - 4:30 p.m. (CST)

This Traulsen unit is built to our highest quality standards. We build our refrigerators this way as a matter of pride. This philosophy has made Traulsen the leader in commercial refrigeration since 1938. We thank you for your choice and confidence in Traulsen equipment and we know you will receive many years of utility from this equipment.

RAC-SERIES AIR-CURTAIN REFRIGERATOR

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1. THE SERIAL TAG

1A – SERIAL TAG & LOCATION:

The serial tag is a permanently affixed label on which is recorded vital electrical and refrigeration data about your Traulsen product, as well as the model and serial number. The serial tag is located near the power cable, when facing the control (front of unit) it is located in the exterior left side wall in the upper left corner of the of the unit. Prior to installation, test the electrical service to assure that it agrees with the specifications of the equipment marked on the serial tag. An example of the serial tag is shown below (See Fig. 1).




		MOBILE AIRSCREEN		20170706
		Serial 175324501	Model RAC-37	PTN
FOR SERVICE: 815-459-7500 4401 Blue Mound Fort Worth, TX 76106		Hertz 60HZ	Volts 120 V ~	Amps 9.0 A
		MFG No RAC-37		
Made in the USA		Max High Side 500 PSIG PSIG	Max Low Side 174 PSIG	
		OP High 175	OP Low 36	
 		N.Y. MEA APPROVED #60-94-E		
		LISTED 17YO		

Fig. 1

2. RECEIPT & INSPECTION

All Traulsen products are factory tested for performance and are free from defects when shipped. The utmost care has been taken in crating this product to protect against damage in transit.

Carefully inspect your Traulsen unit for damage during delivery. If damage is detected, you should save all crating materials and make note on the carrier's Bill of Lading describing the damage. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact the respective carrier and file a freight claim. There is a five (5) day limit to file freight damage with the carrier. Under no condition may a damaged unit be returned to Traulsen without first obtaining written permission (return authorization). You may contact Traulsen customer care at (800) 333-7447 to request a return.

3. INSTALLATION

3A - LOCATION:

Select a proper location for your Traulsen unit is very important.

Always:

- Install to assure that unit is level.
- Install to assure that unit is away from extreme heat.
- Install to assure that unit is away from a steamer.
- Install to assure that unit is NOT placed near or under a ventilation duct or hood, (this will disturb the airflow of the air curtain and will hamper the performance of the unit).
- Install to assure that unit is 6" minimum distance from back of unit to wall or obstruction.
- Install to assure that the door(s) may open a minimum of 90 degrees.

3. INSTALLATION (continued)

3A - LOCATION:

Never:

- Install equipment in an area of standing water
- Install near or under a ventilation hood or duct return
- Install equipment in an area not conducive to safe and proper operator use.

3B - PACKAGING:

Traulsen Air Curtain units are shipped from the factory on a wooden pallet and packaged in a durable cardboard container. The carton is attached to the wooden skid with the use of large staples. These should first be removed to avoid scratching the unit when lifting off the crate. Remove the wooden pallet and strapping material, and the unit should be rolled off the skid. Avoid laying the unit on its front, side or back for removal of the pallet.

NOTE: Traulsen does not recommend laying the unit down on its front, side or back. However, if you must please be certain to allow the unit to remain in an upright position afterwards for 48 hours before plugging the unit in or attempting to place the unit in to service, to assure that the compressor oils and refrigerant may settle.

3C - CLEARANCE:

It is important for the proper operation and longevity of your Traulsen unit that it have adequate provisions for air supply to the compressor. Allow approximately 6" - 12" between the back grill of the unit and the wall for proper air flow.

3D - WIRING DIAGRAM:

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

3E - CORD & PLUG:

Traulsen Air Curtain models are supplied with a cord & plug attached. It is shipped coiled at the bottom of the cabinet. For your safety and protection, all units supplied with a cord and plug include a special three-prong grounding plug on the service cord. Select only a dedicated electrical outlet with grounding plug for power source.

NOTE: Do not under any circumstances, cut or remove the round grounding prong from the plug, or use an extension cord.

3F - POWER SUPPLY:

The supply voltage should be checked prior to connection to be certain that proper voltage for the cabinet wiring is available (refer to the serial tag to determine correct unit voltage).

Make connections in accordance with local electrical codes. Use qualified electricians.

Use of a separate, dedicated 15 amp circuit is required. Size wiring to handle indicated load and provide necessary over-current protector in circuit (see amperage requirements on the unit's serial tag).

4. INTENDED USE

4A- OVERVIEW:

The refrigerator is designed to operate at standard temperature of 38°F (3.3°C) with door closed. With the door open (used as an air curtain) the unit can maintain 40°F (4.4°C) or lower temperature 60 to 120 minutes dependent upon application and operating conditions (room temp, humidity, surrounding air exchanges, and voltage). When the door of the unit is closed, it operates as a force air refrigerator with a highly efficient refrigeration system that provides faster "pull down" and "recovery" times than standard refrigerators. When the door is opened, a series of blower fans create a "wall" of air and areas of pressure, localizing a unique pattern of air from both the left and right side walls, as well as from the top. This movement across the cabinet opening keeps the cold air in and the warm air out of the food zone. This AIR CURTAIN seals itself around objects and is ideal for hospital and nursing home tray line / assembly line kitchen operations, flight kitchens, cafeterias, fast food and QSR applications. For best results, the air curtain was designed for "low profile" food products typical of these applications.

4. INTENDED USE (continued)

4B - TYPICAL OPERATING PARAMETERS:

The “curtain” is capable of maintaining 40°F (4.4°C) temperature or below for 60 to 120 minutes based at 75°F (24°C)/ 45% RH / 120V 15 amp dedicated circuit. HOWEVER, actual time your unit will run in this temperature zone depends on many factors, such as: room ambient temperature, humidity levels, air disruption (such as a hood, vent, or air return), amount of time unit was allowed to precondition the food(s), food temperatures when placed into the unit, type of food packaging, and profile of foods. It should also be noted that there is a lag time between the “ambient air” temperature in the cabinet and that of the actual product temperature. The food temperature differential can be 10°F - 20°F (-12°C to -4°C) cooler than the temperature indicated by the temperature display.

4C - SUGGESTED PAN SIZING:

Traulsen has designed this unit to operate with 18” x 26” (46 x 66 cm) trays. Ten (10) pair of removable tray slides are provided at a fixed 4-1/4” (10.8 cm) specific spacing to assure proper air-flow and maximum performance.

4D - PRODUCT UNLOADING:

When unloading product from the Air Curtain refrigerator, it is recommend that this be done from the top down. Empty trays can be removed or left in the unit after unloading their contents and will not effect the overall performance of the unit.

5. PRODUCT FEATURES

5A - CASTERS:

6” diameter polyurethane casters, 2 each with locks are supplied standard for Air-Curtain models. They are attached to 10-gauge stainless steel corner plate reinforcements/stress pads. These are shipped already installed on the unit for immediate use.

5B - GRIPS & HANDLES:

For easy mobility, stainless steel recessed hand grips are provided on the left and right sides. In addition, a 1” (2.5 cm) welded tubular push/pull handle is attached to the rear of the cabinet, protected by full perimeter bumper provided standard.

5C - ELECTRONIC CONTROL:

All Traulsen Air Curtain units are supplied with a microprocessor controller.

5D - ON DEMAND DEFROST:

Traulsen Air-Curtain models are supplied with an auto defrost as well as on demand defrost cycle. Located on the front control, and by depressing the switch, the unit will self defrost (maximum of 15 minutes). During a on demand defrost cycle, the indicator light will illuminate above the switch and the controller display will show “Def” and momentarily disable the compressor, the coil and the fans. This “On-Demand Defrost” feature allows proper defrosting of the accumulated condensation and ice build-up on the coil. Defrosting is needed to assure maximum efficiency and heat exchange of the coil, assuring maximum performance. After the defrost cycle ends, the unit will wait 60 seconds before the compressor and or the fans will return to normal operation, achieving the best restart performance and cooling temperatures. It is possible that the unit will self-initiate a defrost if excessive ice is on the coil.

NOTE: If the coil is not defrosted, temperatures will rise and reduced performance will be noticeable.

If the unit is in a defrost cycle, it can be canceled by pushing the defrost button. This will force the unit out of the defrost cycle. The unit will wait 60 seconds before the compressor and or the fans will return to normal operation, achieving the best restart performance and cooling temperatures.

5. PRODUCT FEATURES (continued)

5E - CONDENSATE EVAPORATOR:

During the “On-Demand Defrost” cycle or the “Off Cycle” of the compressor, the evaporator coil will defrost. The condensate from the evaporator coil flows from the top of the unit down a drain in the back to a condensate pan. Vapor escapes through the back grill. Proper attention should be given to defrosting your unit. Every “event” or time the unit is used with the door open, the coil will build-up ice. This reduces the effectiveness of the overall operation of the unit.

5F - TRAY SLIDES:

Ten (10) pairs of removable tray slides are provided standard at 4-1/4” (10.8 cm) spacing. Each tray slide can accommodate one (1) 18” x 26” (46 x 66 cm) pan / tray.

5G - WRAP-AROUND PERIMETER BUMPERS:

As the Air-Curtain refrigerator was designed to be mobile, a full extension perimeter rubber bumper guard is included to protect the unit as well as surrounding walls and doors during movement.

6. ELECTRONIC CONTROLLER

6A - CONTROL OVERVIEW:

The Traulsen Air Curtain models are supplied standard with an easy to use microprocessor control. It features several important user functions, greatly enhancing the overall utility of the cabinet. The Traulsen RAC-37 is the only two-stage (two temperature settings) Air Curtain currently available on the market. This feature allows the unit to be placed into service at either “Standard Temp” or lower “Colder Temp” settings.

6B - CONTROL FEATURE - ON/OFF:

This button has two uses: The first is to turn the unit ON and OFF. The second allows for the temperature display to be changed to indicate either degrees (F) Fahrenheit or degrees (C) Celsius. To change between temperature scales; While unit is OFF, press and hold the ON/OFF button for five (5) seconds. The refrigerator will start and then the display will switch from “dgF” to “dgC”. Repeat this step to change the temperature scale again.

6C - CONTROL FEATURE - “ON” LIGHT:

When illuminated the ON light indicates that the power is ON.

6D - CONTROL FEATURE - “CYCLE” LIGHT:

When illuminated the CYCLE light indicates that the cabinet is cooling down to the desired SET-POINT temperature. When cooling elements are activated, this light will remain illuminate until the cabinet has reached the SET-POINT temperature, and will go OFF at that time.

6E - TEMP RECALL:

This feature displays either the actual internal cabinet air temperature (default), or the desired “Set-Point” temperature (alternate).

ACTUAL: The factory default setting shows the actual (A) internal cabinet temperature and acts as a digital thermometer. A momentary touch of the TEMP RECALL button will recall the original temperature setting. The display will then automatically return the displaying the actual internal cabinet temperature.

SET-POINT: To display the set-point (S) temperature instead of the actual internal cabinet temperature. The display will indicate the set-point temperature until such time that the temperature is approximately 5°F +/- away from the set-point setting for more than 5 minutes, at which time the display will indicate actual temperature. Once the internal temperature return to set-point, the controller resumes to show set-point values.

To switch from one of these display functions to the other, press and hold the TEMP RECALL button for five (5) seconds. The display will flash either “S” (SET) or “A” (ACTUAL) to indicate which mode is active. To switch back again, repeat this step holding the TEMP RECALL button for five (5) seconds.

7. OPEN DOOR

7A – DOOR OPEN TIMER:

The RAC-37 Air Curtain is designed to operate at standard temperature of 38°F (3.3°C) (adjustable) with the door closed. Normal operation should be the door left closed when not necessary to access food tray line items. The open “door sensor” detects when the door is opened, and an LED display indicates “OPeN” as a reminder. When the door is opened a timer set to the factory default of 120 minutes (variable) begins a countdown sequence. The door alarm parameters can be set to remind, alert, alarm or auto shut down unit if the door is left in the open position beyond managements intended food safety practices or design function of the unit. If the door is closed after being open for less than 30 minutes the open door alarm timer will be reset as the unit continues normal operation.

7B – DOOR OPEN TIMER ELAPSE:

At the termination of the time elapse count down (factory default set at 120 minutes), an audio alert will beep to alert that the door has been open for the maximum time parameter that has been set, alerting operator the door should be closed. If the door is closed between 30 and 120minutes, the door alarm timer is reset and after 5 minutes an automatic defrost cycle begins.

7C – COUNT DOWN ALARM SEQUENCE:

If the door is not closed before the conclusion of the door open timer (factory default set at 120 minutes) the unit will display a 5 minute countdown timer. This is to alert the operator that at the election of management a pre-selected time period has been exceeded or the design limitation of the unit has been reached, and door must be closed. At the end of the 5 minute countdown timer the unit will flash “OPeN” and beeps three times every ten seconds. This mode is provided to further ensure proper operational procedures are met, management food safety programs are adhered to, unwanted operator error of equipment and the unit does not run indefinitely with the door open. If the door is closed after 120 minutes the unit will operate as defined in 7E (Standard default setting) or 7F (Optional setting).

7D – TERMINATE DOOR ALARM:

To terminate the open door alarm, the door must be closed and remain closed for 30 minutes (factory default parameter). Unit may initiate a defrost cycle at this time.

7E – AUTO OFF / SHUT DOWN (INACTIVE) (Standard default setting):

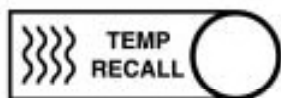
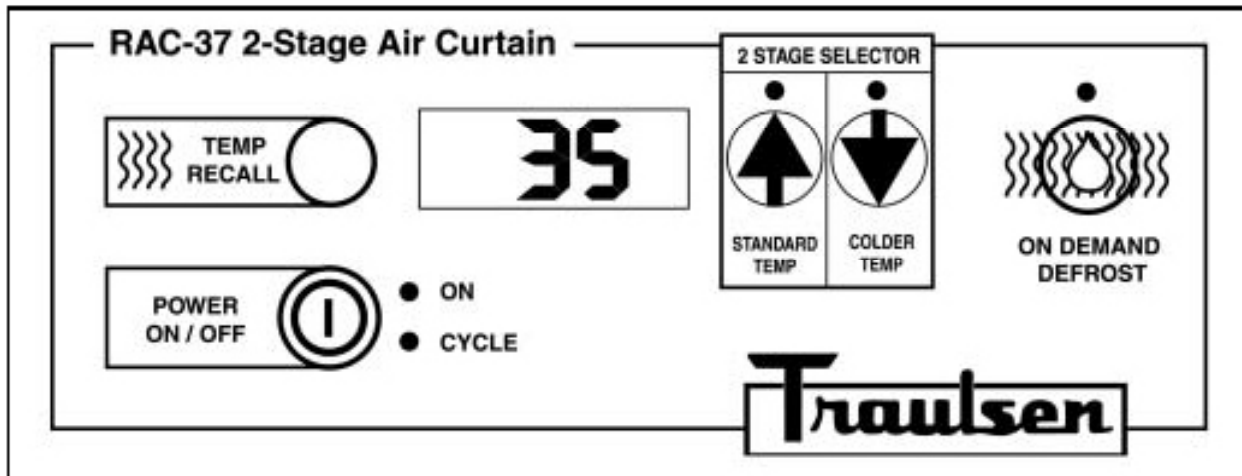
After the five minute countdown timer expires the evaporator and condenser fans remain on and will continue to run when the door is closed. Unit may initiate a defrost cycle at this time.

7F – AUTO OFF / SHUT DOWN (ACTIVE) (Optional setting):

This mode is used to actively force the unit to power down and not allow it to operate beyond management practices or the design function of the unit. The compressor and evaporator fans will completely shut down after the elapsed door open time has been exceeded, and will remain off until the unit has been reset by cycling the power switch to off and then back on.

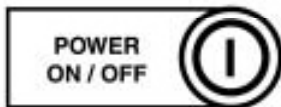
IMPORTANT NOTE: Perishable product left in the unit past the 120 minute open door session may be at unsafe temperatures.

8. ELECTRONIC CONTROLLER



TEMP RECALL

Press to display either actual or set-point temperature.

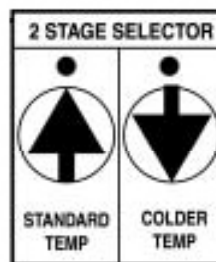


POWER ON/OFF

Serves two functions, turns cabinet ON or OFF and also allows you to change the temperature scale from degrees (F) Fahrenheit to degrees (C) Celsius as required.

ON DEMAND DEFROST

Press to initiate on-demand defrost
-OR- over-ride a defrost cycle in progress.



2 STAGE SELECTOR

• STANDARD TEMP:

Operating temperature is pre-set at 38°F (3.3° C) with temperature range of 32°F (0° C) to 40°F (4.4° C).

• COLDER TEMP:

Operating temperature pre-set at 32°F (0° C) with temperature range of 25°F (-4° C) to 32°F (0° C).

• SELECT STAGE:

Press & hold **STANDARD TEMP** (arrow up) or **COLDER TEMP** (arrow down) for 5 seconds.

• CHANGE TEMPERATURE:

Press **UP** arrow or **DOWN** arrow.



8A - ON DEMAND DEFROST:

Proper attention should be given to defrosting your unit. Every "event" or time the unit is used with the door open, the coil will build-up ice. This reduces the effectiveness of the overall operation of the unit. To prevent the build-up of ice on the coil, Traulsen has included an "On-Demand" defrost feature. To initiate an on-demand defrost, simply press the **ON-DEMAND DEFROST** button. Use this feature once a day or as needed to achieve proper performance.

8B - 2-STAGE SELECTOR:

A 2-Stage thermostat is provided standard with all Air Curtain units manufactured with an electronic controller.

This allows the user to choose from two operating modes:

- 1) Standard Operating Mode of 38°F (3.3° C) or
- 2) Lo-Temp 2-Hr. Temporary Operating Mode of 32°F (0° C)

Lo-Temp Operating Mode provides you with the added flexibility of being able to pre-chill products (such as milk and juices) for prolonged "Tray Delivery" times.

8C - GENERAL OPERATING INSTRUCTIONS:

- 1) Pre-chill cabinet with door closed for minimum of 1 hour with empty trays in position stabilize at 38°F (3.3° C) or desired set temperature.
- 2) Load cabinet from bottom to top, **PUSH TRAYS TO REAR OF WALL.**
- 3) After loading, close cabinet door and allow inside temperature to re-stabilize to desired temperature.
- 4) Unload cabinet from top to bottom. Keep empty trays in position.
- 5) This unit is equipped with an automatic energy efficient non-electric condensate evaporator.

9. CARE & MAINTENANCE

9A - CLEANING THE CONDENSER:

 **WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS ON THE UNIT.**

The most important thing you can do to insure a long, reliable service life for your Traulsen is to regularly clean the condenser coil. The condensing unit requires regularly scheduled cleaning to keep the finned condenser clean of lint and dust accumulation. Keeping the condenser clean allows the cabinet to operate more efficiently and use less energy.

To clean the condenser, first disconnect electrical power to the cabinet and remove the front and/or rear louver assembly. To remove this, remove the screws located on louver assembly. Once the screws are removed, the panel can be removed allowing full access to the front facing condenser. Vacuum any dirt, lint, or dust from the finned condenser coil, the compressor and other cooling system parts. If significant dirt is clogging the condenser fins, use brush or compressed air to blow this clear. Care should be taken not to bend any of the condenser fins, as this will reduce performance and compressor life. Replace louver assembly and screws which hold it in place.

9B - CLEANING THE EXTERIOR:

Exterior stainless steel should be cleaned with warm water, mild soap and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain.

Avoid the use of strong detergents and gritty, abrasive cleaners as they may tend to mar and scratch the surface. Do NOT use cleansers containing chlorine, this may promote corrosion of the stainless steel.

Care should also be taken to avoid splashing the unit with water containing chlorinated cleansers, when mopping the floor around the unit.

For stubborn odor spills, use baking soda and water (mixed to a 1 TBSP baking soda to 1 pint water ratio).

9C - CLEANING THE INTERIOR:

For cleaning stainless steel interiors, the use of baking soda is recommended. Use on breaker strips as well as door gaskets. All interior fittings are removable without tools to facilitate cleaning.

10. SERVICE

10A - SERVICE INFORMATION:

Before calling for service, please check the following:

- Push the “momentary defrost” button on the control panel. Allowing proper defrosting of the coil will allow proper performance in capacity. If the unit is NOT WORKING at all, please check the following;
- Is the electrical cord plugged in?
- Is the circuit breaker on and fuse OK?
- Is the “ON” indicator light illuminated? Press POWER On/Off button to illuminate.

NOTE: If the unit is NOT COOLING down to the proper temperatures, verify that the coil is defrosted.

If after checking the above items and the unit is still not operating properly, please contact an authorized Traulsen service agent. You may obtain the name of a service agent from the **MENU/SERVICE TAB** on our website: **www.traulsen.com**

For additional information, contact the Traulsen Parts and Service Department: **(800) 825-8220** between 7:30 am – 4:30 pm CST, Monday-Friday.

Traulsen reserves the right to change specifications or discontinue models without notice.

10. SERVICE (continued)

10B - SPARE PARTS:

Spare or replacement parts may be obtained through a parts supplier or one of our authorized service agents. You may obtain the name of a service agent from the **MENU/SERVICE TAB** on our website: www.traulsen.com

10C - WARRANTY REGISTRATION:

For your convenience, the warranties on your new Traulsen unit may be registered with us by one of two methods. Completing the enclosed warranty card (shipped with the unit), or by filling out the on-line warranty registration form located on the **MENU/SERVICE TAB** on our website: www.traulsen.com

11. TROUBLESHOOTING GUIDE

11A. TROUBLESHOOTING GUIDE CHART:

PROBLEM	POSSIBLE CAUSE
1. Product zone temperature too high.	<ul style="list-style-type: none"> • Control Setting Too High - Reset Control. • Inadequate Air Circulation - Rearrange Product Load To Improve Air Circulation And Flow. Keep Empty Trays in Position. • Unit May Need To Be Manually Defrosted. • Unit May Be In Defrost Cycle. See Indicator Light. Close Door And Wait 20 Minutes for Defrost Cycle To Finish. • Clean the Condenser.
2. Condensing unit fails to start - no hum.	<ul style="list-style-type: none"> • Line Disconnected - Reconnect. • Fuse - Replace Fuse. • Overload Protection - Determine Reason & Correct, Replace If Necessary. • Unit may need to be defrosted or has tripped off due to overload. Wait 30 minutes: Unit will self-reset.
3. Condensing unit fails to start - hums but trips on overload protector.	<ul style="list-style-type: none"> • Improperly Wired - Check Wiring Against Diagram trips on overload protector. • Low Voltage - Determine Reason & Correct. • Starting Capacitor Defective - Determine Reason & Replace • Relay Not Closing - Determine Reason & Correct, Replace If Necessary • Compressor Motor Has Winding Open Or Shorted - Replace Compressor • Internal Mechanical Trouble In Compressor - Replace Compressor • Unit may need to be defrosted or has tripped off due to overload. Wait 30 minutes: Unit will self-reset.
4. Condensing unit starts, but fails to switch.	<ul style="list-style-type: none"> • Improperly Wired - Check Wiring Against Diagram off of "start" winding. • Low Voltage - Determine Reason & Correct. • Relay Failing To Open - Determine Reason & Correct, Replace If Necessary. • Run Capacitor Defective - Determine Reason & Replace. • Excessively High Discharge Pressure - Check Discharge Shut-Off Valve, Or Insufficient Cooling On Condenser. • Compressor Motor Has Winding Open Or Shorted - Replace Compressor. • Internal Mechanical Trouble In Compressor - Replace Compressor.
5. Condensing unit starts and runs, but short cycles on overload protector.	<ul style="list-style-type: none"> • Additional Current Passing Through Overload Protector - cycles on overload protector. Check Wiring Diagram. Check For Added Fan Motors, Pumps, etc., Connected To Wrong Side Of Protector. • Low Voltage To Unit (or unbalanced if three phase) - Determine Reason & Correct. • Overload Protector Defective - Check Current - Replace Protector. • Run Capacitor Defective - Determine Reason & Replace. • Excessive Discharge Pressure - Check Ventilation, Restrictions In Cooling Medium, Restrictions in Refrigeration System. • Suction Pressure Too High - Check For Possibility Of Misapplication. Use Stronger Unit. • Compressor Too Hot (return gas) - Check Refrigerant Charge (fix leak) Add If Necessary. • Compressor Motor Has Winding Shorted - Replace Compressor.
6. Condensing unit runs but short cycles on.	<ul style="list-style-type: none"> • Overload Protector - See #4 Above. • Thermostat - Differential Set Too Close. • High Pressure "Cut-Out" Due To: <ol style="list-style-type: none"> a) Insufficient Air or Water Supply - Check Air or Water Supply To Condenser, Correct b) Overcharge - Reduce Refrigerant Charge c) Air In System - Purge • Low Pressure "Cut-Out" Due To: <ol style="list-style-type: none"> a) Liquid Line Solenoid Leaking - Replace b) Compressor Valve Leak - Replace c) Undercharge - Fix Leak, Add Refrigerant d) Restriction In Expansion Device - Replace Device

11. TROUBLESHOOTING GUIDE (continued)

11A. TROUBLESHOOTING GUIDE CHART:

PROBLEM	POSSIBLE CAUSE
7. Condensing unit operates for prolonged.	<ul style="list-style-type: none"> • Shortage Of Refrigerant - Fix Leak, Add Charge periods or continuously. • Control Contacts Stuck or Frozen Closed - Clean Contacts or Replace Control. • Excessive Heat Load Placed Into Cabinet - Allow Unit Sufficient Time For Removal Of Latent Heat. • Prolonged or Too Frequent Door Openings - Plan or Organize Schedule To Correct Condition. • Evaporator Coil Iced - Defrost. • Restriction In Refrigeration System - Determine Locations & Remove. • Dirty Condenser - Clean Condenser. • Filter Dirty - Clean or Replace. • Unit may need to be defrosted.
8. Start capacitor open or shorted or blown.	<ul style="list-style-type: none"> • Relay Contacts Not Opening Properly - Clean Contacts or Replace Relay If Necessary. • Prolonged Operation On Start Cycle Due To: <ul style="list-style-type: none"> a) Low Voltage To Unit - Determine Reason & Correct b) Improper Relay - Replace c) Starting Load Too High - Correct By Using Pump Down Arrangement If Necessary • Excessive Short Cycling - Determine Reason For Short Cycling (see #5 above) And Correct. • Improper Capacitor - Determine Correct Size.
9. Run capacitor open, shorted or blown.	<ul style="list-style-type: none"> • Improper Capacitor - Determine Correct Size & Replace. • Excessively High Line Voltage (110% of rated max) - Determine Reason & Correct.
10. Relay defective or burned out.	<ul style="list-style-type: none"> • Incorrect Relay - Check & Replace. • Incorrect Mounting Angle - Remount Relay In Correct Position. • Line Voltage Too High or Too Low - Determine Reason & Correct. • Excessive Short Cycling - Determine Reason (see #5 above) & Correct. • Relay Being Influenced By Loose Vibrating Mounting - Remount Rigidly. • Incorrect Run Capacitor - Replace With Proper Capacitor.
11. Suction line frosted or sweating.	<ul style="list-style-type: none"> • Overcharge of refrigerant - Correct Charge. • Evaporator Fan Not Running - Determine Reason & Correct.
12. Liquid line frosted or sweating.	<ul style="list-style-type: none"> • Restriction In Dehydrator or Strainer - Replace Part. • Liquid Shut-Off (king valve) Partially Closed - Open Valve Fully.
13. Noisy condensing unit.	<ul style="list-style-type: none"> • Loose Parts or Mounting - Find & Tighten. • Tubing Rattle - Reform To Free Of Contact. • Bent Fan Blade Causing Vibration - Replace Blade. • Fan Motor Bearing Worn - Replace Motor.
14. Error Message:	<ul style="list-style-type: none"> • "Err1" = Sensor 1 Failure • "Err2" = Configuration Connector Error • "Err3" = Sensor 2 Failure • "Err4" = Under Temperature • "Err5" = Over Temperature • "Err6" = Key Shorted • "Err7" = Door Switch • "Err8" = EEPROM Possible Corruption.
15. Error Message: "End" displays.	1. Unit surpassed open door maximum time allowance. Unit shut off.

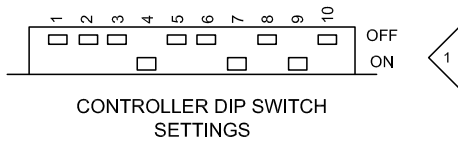
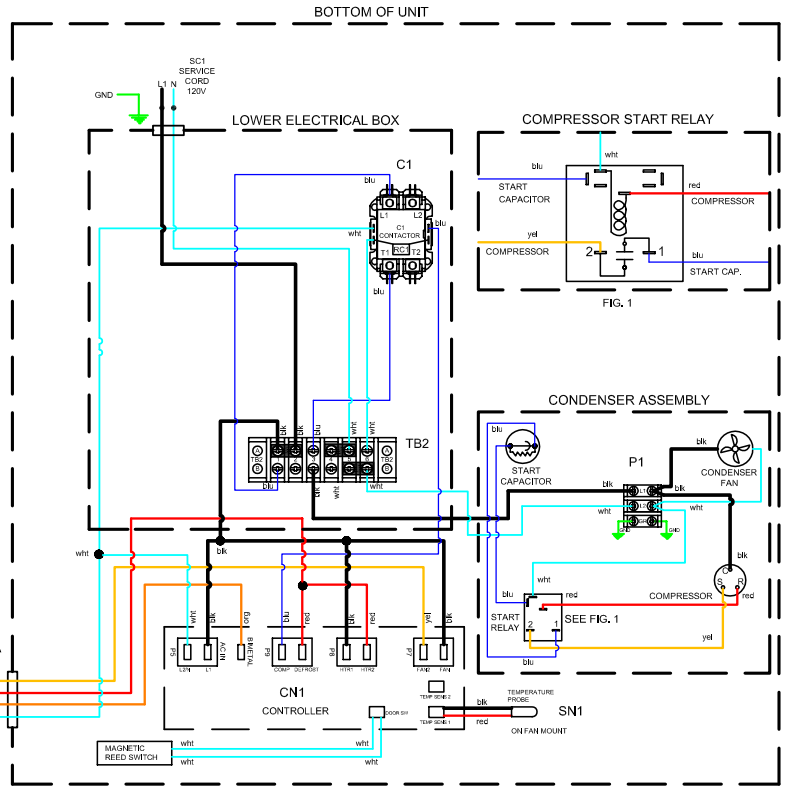
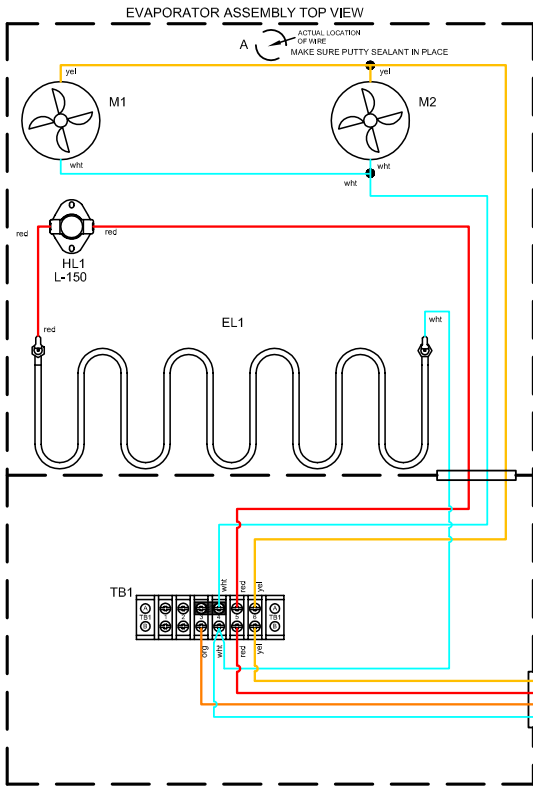
11B. HELPFUL HINTS FOR TOP PERFORMANCE:

1. Load cabinet from bottom to top.
2. Push pans and trays all the way back to rear wall.
3. Unload cabinet from top to bottom and keep empty trays in position for best performance.
4. Defrost unit daily or after each prolonged usage.

12. WIRING DIAGRAM

NOTES

1 ENSURE ON-BOARD DIP (SIP) SWITCH IS SET FOR CORRECT OPERATION.



13. WARRANTIES

STANDARD DOMESTIC WARRANTY

TRAULSEN warrants new equipment to the original purchaser, when installed within the United States against defective material and workmanship for one (1) year from the date of original installation. Under this warranty, TRAUlsen will repair or replace, at its option, including service and labor, all parts found to be defective and subject to this warranty. The compressor part is warranted for an additional four (4) years. During this period TRAUlsen will supply replacement compressor(s) if deemed defective, however, all installation, recharging and repair costs will remain the responsibility of the owner.

This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, attempted repairs, improper installation by unauthorized persons, and will not apply to food loss.

THERE ARE NO ORAL, STATUTORY OR IMPLIED WARRANTIES APPLICABLE TO TRAUlsen, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TRAUlsen SHALL HAVE NO OBLIGATION OR LIABILITY FOR CONSEQUENTIAL OR SPECIAL DAMAGES, GROWING OUT OF OR WITH RESPECT TO THE EQUIPMENT OR ITS SALE, OPERATION OR USE, AND TRAUlsen NEITHER ASSUMES NOR AUTHORIZES ANYONE ELSE TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE EQUIPMENT OR ITS SALE, OPERATION OR USE OTHER THAN AS STATED HEREIN.

INTERNATIONAL COMMERCIAL WARRANTY (for Canadian warranties see domestic US warranty)

TRAULSEN warrants to the original purchaser the Refrigeration Equipment manufactured and sold by it to be free from defects in material and workmanship under normal use and service for a period of one (1) year from date of shipment. Under this warranty, TRAUlsen will reimburse the purchaser for the replacement of any part of said equipment (excluding dryers & refrigerant gas) which then proves to be defective. This warranty is void if said equipment or any part thereof has been subject to misuse, damage in transit, accident, negligence or alteration.

TRAULSEN'S standard warranty does not apply to Export Sales. Rather, for a period of one (1) year from date of original installation not to exceed Fifteen (15) months from date of shipment from factory,

TRAULSEN:

Will replace, F.O.B. factory, any defective parts normally subject to warranty.

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ill not cover the cost of packing, freight or labor such costs being the sole responsibility of the dealer.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED AND CONSTITUTES TRAUlsen'S FULL OBLIGATION AND LIABILITY. WARRANTIES NOT AVAILABLE ON REMOTE MODELS.

NOTES:

NOTES:



Quality Refrigeration

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