

Traulsen & Co., Inc.



Quality Refrigeration

OWNER'S MANUAL

Instructions for the installation
and maintenance of most Traulsen models as well as
instructions to operate the following special models:

Even-Thaws
Proofers
Proofer/Retarders
Blast Freezers
Fish Files

This Traulsen unit is built to our highest quality standards. We build our refrigerators, freezers and heated cabinets 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.

All Traulsen units are placed on a permanent record file with the service department. In the event of any future questions you may have, please refer to the model and serial number found on the name tag affixed to the unit. Should you need service, however, call us on our toll free number, 800-825-8220 between 7:30 am and 4:30 pm CST, Monday thru Friday. It is our pleasure to help and assist you in every possible way.

INSTALLER

COMPLETE THE FOLLOWING INFORMATION PRIOR TO UNIT INSTALLATION

INITIAL START DATE: _____ SERIAL NO. _____

MODEL TYPE: _____

COMPANY/INDIVIDUAL NAME: _____

INSTALLER: _____

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FORT WORTH, TX.

SERIAL	MODEL	PH	
VOLTS	Hz		
TOTAL CURRENT	AMPS		
MINIMUM CIRCUIT	AMPS		
MAXIMUM OVERCURRENT PROTECTION			AMPS
LIGHTS	WATTS		
HEATERS	AMPS		
REFRIGERANT		TYPE	OZ
DESIGN PRESSURE		HIGH	LOW
REFRIGERANT		TYPE	OZ
DESIGN PRESSURE		HIGH	LOW

370-60294-00 REV (A)




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 in the upper right interior compartment on all reach-in/pass-thru and roll-in/roll-thru refrigerator, freezer and dual-temp models. For hot food and proofer models, this tag is located on the top of the unit behind the louvers to protect it from the heat.

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 ampacity
- Lights = Light wattage
- Heaters = Heater amperage (Hot Food units only)
- Refrigerant = Refrigerant type used
- Design Pressure = High & low side operating pressures and refrigerant charge
- Agency Labels = Designates agency listings

II. 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. All interior fittings have been carefully secured and the legs or casters are boxed and strapped inside to prevent damage. Door keys will be attached to the handle with a nylon strip. The handle is protected by an easily removable nylon netting.

You should carefully inspect your Traulsen unit for damage during delivery. If damage is detected, you should save all the crating materials and make note on the carrier's Bill Of Lading describing this. 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. Under no condition may a damaged unit be returned to Traulsen & Co. without first obtaining written permission (return authorization).

III. INSTALLATION

III. a - LOCATION:

Select a proper location for your Traulsen unit, away from extreme heat or cold. Allow enough clearance between the unit and the side wall in order to make use of the door stay open feature at 120° (self-closing feature operates up to 90°). The door(s) must be able to open a minimum of 90° in order to make use of the maximum clear door width available.

III. b - PACKAGING:

All Traulsen units are shipped from the factory bolted to a sturdy 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.

Most exterior stainless steel surfaces have a protective vinyl covering to prevent scratching during manufacturing, shipping and installation. After the unit is installed in place of service, remove and discard the covering from all surfaces.

To remove the wooden pallet, first if at all possible, we suggest that the cabinet remain bolted to the pallet during all transportation to the point of final installation. The bolts can then be removed with a 3/4" socket wrench. 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 24 hours before plugging it in so that the compressor oils and refrigerant may settle.

III. INSTALLATION (continued)

III. c - INSTALLING LEGS OR CASTERS:

6" high stainless steel legs are supplied standard for all Traulsen reach-in and pass-thru units. Casters in lieu of legs are available as an optional accessory for the same models. These are shipped from the factory packed inside a cardboard box which is strapped to one of the shelves. Remove the nylon strap and open the box, it should contain either four (4) legs or four (4) casters and sixteen (16) bolts.

WARNING: THE CABINET MUST BE BLOCKED AND STABLE BEFORE INSTALLING LEGS OR CASTERS.

To install the legs or casters, first raise and block the reach-in a minimum of 7" from the floor. For installing legs, thread the legs into the threaded holes on the bottom of the cabinet (see figure 1). Be certain that all legs are tightly secured (legs and casters should be tightened to 300 inch/pounds, max). When the unit is set in its final position, it is important for proper operation that the unit be level. The legs are adjustable for this purpose, turn the bottom of the leg counter-clockwise to raise it, clockwise to lower it. Level the unit from front to back as well as side to side in this manner, using a level placed in the bottom of the cabinet.

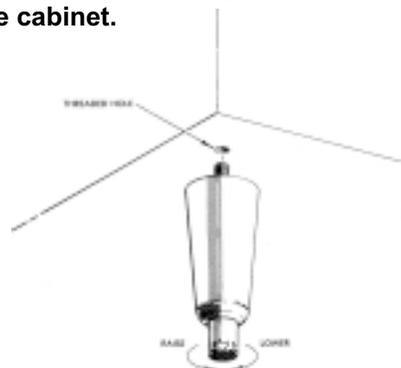


Fig. 1

Please note that Traulsen units are not designed to be moved while on legs. If the unit requires moving, a pallet jack or forklift should be used to prevent damage. For installing casters, the casters are "plate" type, and require the use of four (4) bolts each to secure them firmly to the cabinet bottom at each corner (see figure 2). The caster bolts are tightened using a 1/2" socket wrench.

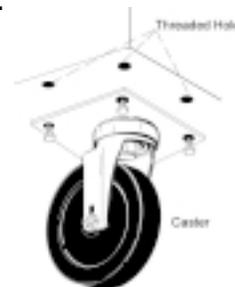


Fig. 2

III. d - SHELF PINS:

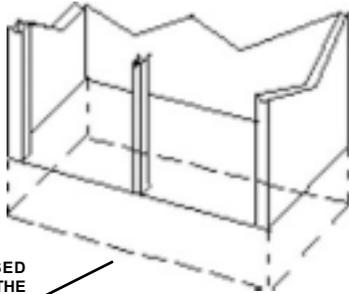
The unit is supplied with shelves and shelf pins installed. Check all shelf pins to assure they are tightened down as they may have come loose during shipping. Rotate the pins clockwise until they are secured against the side of the cabinet.

III. INSTALLATION (continued)

III. e - ROLL-IN MODEL INSTALLATION:

Roll-In cabinets set on the floor require the floor area to be flat and level. In addition, after the cabinet is set in place, sealant should be used around the perimeter of the base to comply with National Sanitation Foundation requirements (see figure 3). After sealing the unit, the enclosed ramp should then be installed.

SEALING BASE OF ROLL-IN MODELS



A SEALANT MUST BE USED AROUND THE PERIMETER OF THE BASE OF CABINET AS SHOWN TO FULLY COMPLY WITH SANITARY REQUIREMENTS.

A RECOMMENDED SEALANT IS DOW CORNING SILASTIC RTV #732

Fig. 3

A stainless steel threshold ramp(s) is included to facilitate rolling in racks. It is shipped wrapped in brown paper and secured to the rack guides inside the cabinet. To secure it in place, remove the two thumb screws in the breaker strip near the bottom door opening. Next, loosen the thumb screws located along the floor at the threshold. Place the ramp(s) on top of the loosened thumb screws and secure tabs on each end to breaker strips with thumb screws previously removed. After installing the ramp(s), it too should be sealed to the floor.

Bumper strips are secured to the back of Roll-In models with thumb screws. Loosen these and make them finger-tight to conform with the requirements of the National Sanitation Foundation (NSF).

III. f - INSTALLING THE CONDENSATE EVAPORATOR:

A condensate evaporator is normally supplied on all self-contained models (remote models require provision of either a floor drain or an optional condensate evaporator). On those models with the evaporator coil compartment located on the top of the unit, the condensate evaporator is also secured to the top of the cabinet. Check that the condensate pan is under the drain tube.

Some models, such as one-section dual-temperature reach-in refrigerator/freezers, are supplied with a bottom-mounted electric condensate evaporator. This is shipped in a cardboard carton secured to the cabinet interior, and must be installed prior to use.

After the cabinet has been uncrated and the legs/casters attached, you must install the bottom-mounted electric condensate evaporator. Locate the four (4)

III. f - INSTALLING THE CONDENSATE EVAP (cont'd):

holes on the exterior bottom towards the rear of the cabinet. Then, using the four (4) screws provided, attach the mounting rails to the cabinet bottom (the end flange is to be up and be facing towards the cabinet rear). Next, place the heater into the heater bracket (note the enclosed springs are only to be used when the heater is placed on the floor). Slide heater and bracket into the mounting rails. Plug the supplied cord into both the heater on one end, and the electrical outlet provided on the cabinet exterior bottom towards the front (see figure 4). Screw the "U-Trap" on to the drain line located on the rear of the cabinet and then screw the drain extension into the "U-Trap."

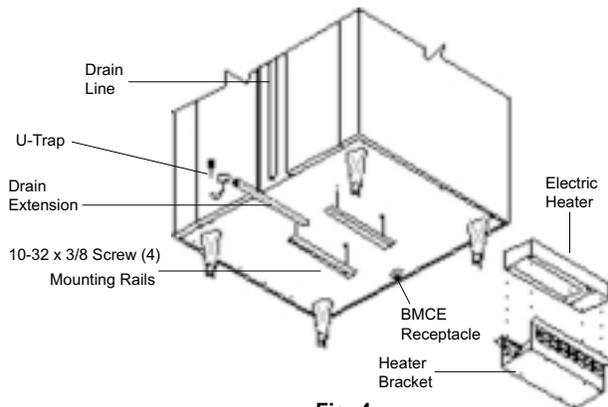


Fig. 4

A remote model is normally supplied configured for condensate to be run to a floor drain unless purchased with a condensate evaporator. The installer is responsible for making the required extension to the floor drain in accordance with good practice and local regulations.

III. g - REMOTE INSTALLATION:

Remote models are supplied without compressors, solenoid valves, etc. The correct voltage, amp listing and refrigerant are listed on the unit's serial tag. It is the responsibility of the installer to specify and supply the correct size compressor(s) based upon this information and on-site requirements. Refrigerant line installation must be done in accordance with good practice and local regulations. See section "III. g" for information concerning condensate removal for remote models.

III. h - CORD & PLUG:

Most self-contained models are supplied with a cord & plug attached. It is shipped coiled at the top of the cabinet, secured by a nylon strip. 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.

III. INSTALLATION (continued)

III. i - 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 circuit is required. Size wiring to handle indicated load and provide necessary overcurrent protector in circuit (see amperage requirements on the unit's serial tag).

III. j - 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.

III. k - COMPRESSOR HOLD DOWN PROVISIONS:

To protect the compressor during transit, some self-contained Traulsen models have compressors tightened down at the factory. The hold down bolts used to tighten these must be loosened before operation to allow the vibration eliminators to function properly. Failure to loosen the hold down bolts could result in refrigerant line leakage, vibration and noise. Check the top to be sure all factory installed blocking (if used) is also removed. Likewise, check the compressor enclosure of bottom mounted units (RFD/AFD models) to be sure all packing is removed and that compressors secured to the base of condensing unit are free to operate on their vibration eliminators.

III. l - CLEARANCE:

In order to assure optimum performance, the condensing unit of your Traulsen unit **MUST** have an adequate supply of air for cooling purposes. Therefore, the operating location must either have a minimum of 12" clearance overhead of the condensing unit or allow for unrestricted air flow at the back of the unit. Clearance of at least 12" above is required in order to perform certain maintenance tasks.

IV. CARE & MAINTENANCE

IV. a - CLEANING THE CONDENSER:

The most important thing you can do to insure a long, reliable service life for your Traulsen is to regularly clean the condenser coil.

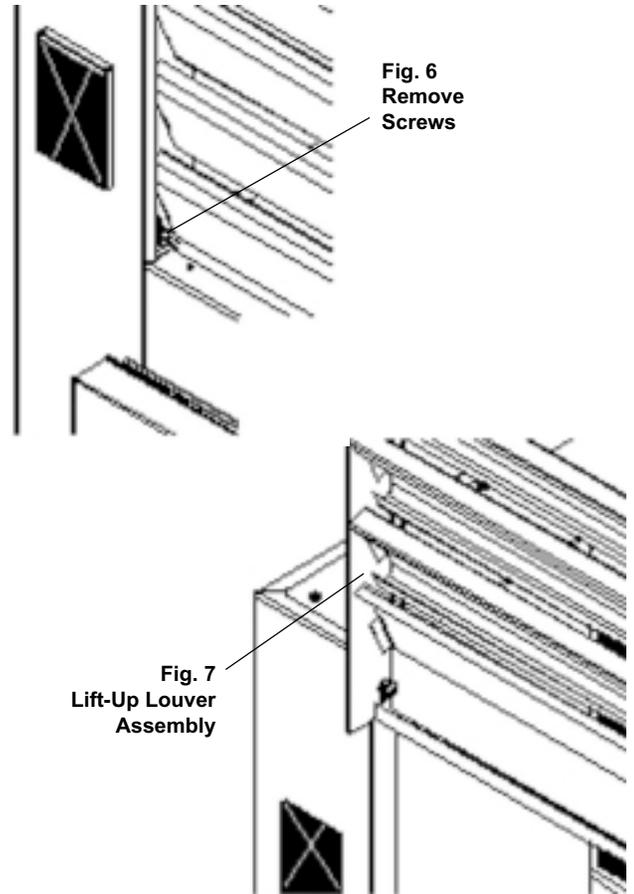
The condensing unit requires regularly scheduled cleaning to keep the finned condenser clean of lint and dust accumulation. Keeping the condenser clean allows the cabinet to operate more efficiently and use less energy. To clean the condenser, first disconnect electrical power to the cabinet and lift up the front louver assembly. To lift this, remove the

V. CARE & MAINTENANCE (cont'd)

IV. a - CLEANING THE CONDENSER (cont'd):

two screws located on both sides at the bottom of the louver assembly (see figure 6). Once the screws are removed, the panel can be pivoted upwards allowing full access to the front facing condenser (see figure 7). Vacuum or brush 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 compressed air to blow this clear.

Lower louver assembly and replace the screws to hold it in place.



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

IV. b - HINGE REPLACEMENT:

Both the door and hinge can be easily removed from the cabinet. To remove the door, remove the plug at the bottom of the top hinge. Inside the hinge there is a small screw which secures the door in place. Remove this with a flat head screwdriver and the door can then be lifted off the hinge. To remove the door portion of the hinge from the door, lift off the hinge cover and then remove the three Phillips head screws which secure the hinge in place on the door. To remove the cabinet portion of the hinge, remove the three Phillips head screws which hold it in place. On solid

IV. CARE & MAINTENANCE (cont'd)

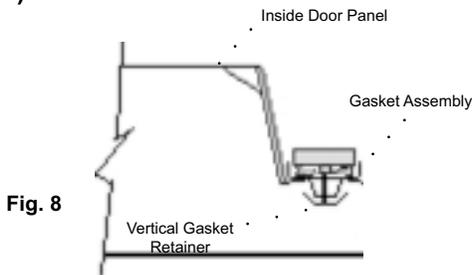
IV. b - HINGE REPLACEMENT:

door units, the top hinge(s) contains a microswitch for controlling the interior lighting.

To reassemble the hinge reverse the previous procedure.

IV. c - REPLACING THE GASKETS:

To remove the gasket to be replaced, grasp it firmly by one corner and pull it out. Before attempting to install a new gasket, both the unit and the gasket itself must be at room temperature. Insert the four corners first by using a rubber mallet (or hammer with a block of wood). After the corners are properly inserted, work your way towards the center from both ends by gently hitting with a mallet until the gasket is completely seated in place (see figure 8 for proper gasket placement).



NOTE: The gasket may appear too large, but if it is installed as indicated above it will slip into place.

IV. d - 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).

IV. e - CLEANING THE INTERIOR:

For cleaning both stainless steel and anodized aluminum interiors, the use of baking soda as described in section "IV. d" is recommended. Use on breaker strips as well as door gaskets. All interior fittings are removable without tools to facilitate cleaning.

V. MISC. OPERATIONS

V. a - ADJUSTING THE SHELVES:

For shelves mounted on pins, first select the desired location and remove the white plastic covers in the interior back and sides by rotating them counter-clockwise. Remove the shelf pins by rotating them counter-clockwise. Install the pins in the desired location by rotating clockwise. Make sure the pin is securely tightened down. Do not over tighten. Slide the shelf into its new position, and replace the white plastic covers into the holes vacated by the shelf pins.

VI. OTHER

VI. a - SERVICE INFORMATION:

Before calling for service, please check the following:

- Is the electrical cord plugged in?
- Is the fuse OK or circuit breaker on?
- Is the power switch "ON"?

If after checking the above items and the unit is still not operating properly, please contact an authorized Traulsen service agent. A complete list of authorized service agents was provided along with your Traulsen unit. If you cannot locate this, you may also obtain the name of a service agent from the Tech Service page of our website: www.traulsen.com.

If service is not satisfactory, please contact our in-house service department at:

Traulsen & Co., Inc.
4401 Blue Mound Road
Fort Worth, TX 76106
(800) 825-8220

Traulsen & Co., Inc. reserves the right to change specifications or discontinue models without notice.

VI. b - SPARE PARTS:

Spare or replacement parts may be obtained through a parts supplier or one of our authorized service agents. A complete list of authorized service agents accompanies this manual and is also posted on our company's official website @ www.traulsen.com.

VI. c - 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 Technical Service page of our website (www.traulsen.com).

VII. SPECIALTY PRODUCTS - PROOFER/PROOFER RETARDER MODELS

VII. a - INSTALLATION:

MECHANICAL CONNECTION: For plumbing, connect water supply to inlet strainer as marked on top of cabinet. This connection should be made with a 3/8" male NPT connector. Water supply pressure should 50 to 80 PSI for best operation.

The drain connector located at the top rear of the cabinet should be made with a 1/2" NPT drain line which should be connected to either a floor drain or sink connection. A back flow prevention device (vacuum breaker) must be used in the water supply line to this unit.

CAUTION: Any restriction in the drain line could cause overflow conditions. It is imperative that the 1/2" NPT fitting be used and the drain line not be reduced in diameter. If plastic is used, care must be taken to avoid collapsing the tubing.

ELECTRICAL CONNECTIONS: The Traulsen Proofer model requires two separate electrical connections. The first connection is to operate the heater and humidifier. This connection will either be 208/60/1 or 230/60/1.

Please note electrical information for each cabinet at given voltage.

<u>PRI132H</u>		
Voltage	208/60/1	230/60/1
Amps	21.5	24.0
Watts	4400	5500

<u>PRI232H</u>		
Voltage	208/60/1	230/60/1
Amps	30.0	33.5
Watts	6100	7700

<u>PRI332H/PRR232HUT</u>		
Voltage	208/60/1	230/60/1
Amps	30.0	33.5
Watts	6100	7700

The second connection is a standard 115/60/1 to operate the control circuits. When connecting a 115 volt power supply to the cabinet, be sure to connect neutral to white cabinet wire and "live" wire to cabinet black wire. Reversal of polarity will cause inconsistent operation. Electrical information on this connection is the same for each proofer cabinet.

	<u>PRI</u>	<u>PRR</u>
Voltage	115/60/1	115/60/1
Amps	3.0	13.5
Watts	500	2100

VII. b - PROOFER OPERATING INSTRUCTIONS:

The Traulsen proofer is designed to automatically flush out the water tank once every 24 hours. The operator should select a flush time when the unit is not proofing.

This unit displays the time of day and temperature of the unit simultaneously. When the proofer is activated both the time of day and the flush time must be adjusted.

SETTING THE CLOCK:

A-TIME OF DAY - When the unit is initially activated the time of day is shown as 12 p.m. Use a pointed object and insert into the fast or slow openings to advance the time of day. NOTE: P.M. is indicated by a LED dot in the upper left corner of the time display.

B-FLUSH TIMER - Insert a pointed object into the flush opening to display the flush time. While the flush time is being displayed the fast or slow openings should be used to advance to the desired flush time.

Once the time clock has been set the unit is ready for operation:

- 1) Adjust the temperature control to the desired temperature
- 2) Adjust the humidity control to the desired humidity.

To activate the unit turn ON the lower switch and then the control switch. Let the unit reach the temperature selected.

HEATER THERMOSTAT: When adjusting the heater thermostat, keep in mind that the heater element does not cool instantly. There is an override in temperature of approximately 9 to 12 degrees. This may vary, depending on location, and the thermostat may have to be adjusted. Once the unit is warmed up to the desired temperature, you will notice that the temperature will stabilize and not vary significantly.

VII. c - OPERATING THE DIAL HUMIDISTAT

The Traulsen humidifier is controlled by a dial humidistat (R.H.). Adjust dial selector for proper level of humidity. The humidity setting should be 2 to 3 percent below desired setting. The humidifier, in addition to creating humidity in the cabinet, will also create heat. Activate the power switch to the control heater element. The level of desired humidity should be based upon product being proofed. If however, you are utilizing one level of humidity for all products, it is not necessary to readjust the humidistat each time the cabinet is turned on.

VII. SPECIALTY PRODUCTS - PROOFER/PROOFER RETARDER MODELS (cont'd)

VII. c - OPERATING THE DIAL HUMIDISTAT (cont'd):

When the desired temperature and humidity settings are achieved, the white mode indicating lights will go OFF and you are now ready to proof your product. The mode lights indicate the various stages of operation during the proofing process.

AMBER - "LOWER LEVEL" Will be illuminated during normal operation. Will only turn off when heater water level is below minimum safety level or at start-up.

WHITE - "THERMOSTAT" Will be illuminated when cabinet is not at set temperature. When cabinet achieves set temperature, the light will turn off.

RED - "TROUBLE" Will illuminate whenever the water level is below minimum safe level. It will also be on at start-up for approximately 30 seconds. When the red light illuminates, power to the heaters is turned off. This light is also lit during the flush period until the units water level returns to normal.

GREEN - "WATER LEVEL" Will be illuminated when the water pan is full. This light will turn off when the solenoid valve opens to replenish the water pan.

WHITE - "HUMIDISTAT" Will be illuminated when cabinet is not at set humidity. When the cabinet reaches the set point this light will turn off.

VII. d - RETARDER OPERATION:

Additional control features for use with model PRR232HUT only.

RETARD MODE: When in retard mode, the refrigeration system will maintain the cabinet temperature between 35° to 40° F. This temperature can be adjusted through use of the temperature control, located inside the unit mounted on the front of the evaporator coil housing. To lower the cabinet temperature, turn the control knob clockwise. To raise the temperature, turn the knob counter-clockwise.

TIME DELAY: The Traulsen proofer/retarder cabinet is supplied equipped with a time delay. When the unit is in automatic operation, this time delay shuts the unit down for up to one hour when switching from RETARD to PROOF mode. This allows the cabinet to gradually rise in temperature before the air and water heaters come on.

For the best performance, it is recommended that this time delay be used. However, a time delay override allows the user to bypass the relay, and the unit will go from RETARD directly into PROOF. This is accomplished by placing the delay bypass switch in the "ON" position.

VII. d - RETARDER OPERATION (cont'd):

AUTOMATIC MODE/24 HOUR TIMER - The Traulsen proofer retarder cabinet is designed to allow both automatic and manual operation. With the function switch in the "AUTO" position, a 24-hour timer automatically switches between PROOF and RETARD modes at preset times daily.

To set these switching times, carefully pull the front protective cover (clear plastic) from the timer, which is located on the front panel. These should be one green "ON" pin and one red "OFF" pin on the timer dial, as well as two spares for each in the top right hand corner. Simply pull the red "OFF" pin from the outside ring of the dial and place it in the position corresponding to the time that the cabinet should switch out of RETARD. NOTE: White portion of the dial corresponds to daytime hours; black portion corresponds to nighttime hours.

If the time delay is not bypassed, the cabinet will go into a waiting period and then switch into PROOF mode. Therefore, the "OFF" pin should be set at least one hour and thirty minutes before the cabinet is ready to proof. Of course, this will vary with conditions and the user should find the best time for application.

The "ON" pin should be placed at the time when the unit should switch out of PROOF. When the pressure in the refrigeration system is in the operating range, the system will start and soon come down to standard retarding temperatures (37° to 42° F). The time necessary for this function of operating conditions (proof temperature, room temperature, etc.) and will vary.

Once both pins have been properly placed, set the correct time of day. This is accomplished by turning the center knob clockwise until the correct hour is indicated at the white marker in the left-hand corner. Now adjust for correct minutes, which are indicated by the pointer in the interior cut out on the dial. The timer runs independent of the control circuits, and should only need adjustment in the event of a power failure.

TO SET THE UNIT FOR AUTOMATIC OPERATION:

1. Set the 24-hour timer for the correct time of day
2. Set pins for desired switching times on 24-hour time
3. Choose time delay bypass; "ON" or "OFF"
4. Set mode switch for "AUTO"
5. Set desired proof temperature and humidity
6. Place control switch in the "ON" position

The unit will now run automatically.

VII. SPECIALTY PRODUCTS - PROOFER/PROOFER RETARDER MODELS (cont'd)

VII. d - RETARDER OPERATION (cont'd):

MANUAL OPERATION - The Traulsen proofer retarder can also be used in either PROOF or RETARD mode, regardless of what the 24-hour timer is set for. By switching manually to PROOF or RETARD, the cabinet can be run as needed without disturbing the pre-set schedule you have the 24-hour timer set for.

VII. e - CARE OF WATER TANK & HEATING ELEMENTS:

The automatic flush system on the Traulsen proof cabinet will help minimize the amount of cleaning necessary to maintain an accurate and consistent operation of this cabinet. Because water conditions vary from location to location, we recommend that the tank cover be removed and the interior of the water tank, along with the heating elements, be cleaned with a soft nylon bristled brush. We recommend cleaning twice a year or as conditions dictate. Replace tank cover before placing proof cabinet back into operation. If your area has extremely hard water, a local water treatment expert should be consulted. It is important to note that after treatment the water should not be deionized. A simple zeolite conditioner is usually the best system. Use of an in-line cartridge will reduce the frequency of cleaning the heating coil, but remember to frequently replace the cartridge.

VII. f - INTERIOR ARRANGEMENTS:

Traulsen proofer and proofer retarder models are designed to accommodate roll-in bakery racks. See below for size and capacities.

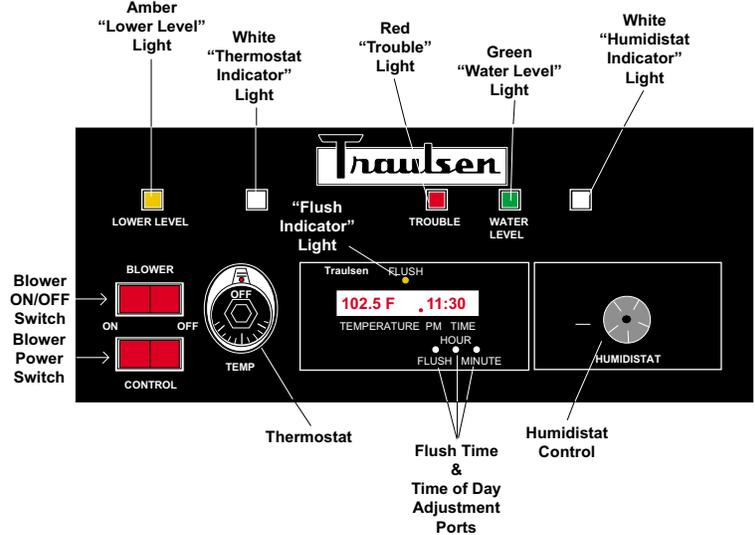
Model PRI132H can accommodate one (1) roll-in rack with a maximum size, with wheels inboard of frame, of 27" wide by 29" deep by 72" high.

Model PRI232H can accommodate two (2) standard 18" x 26" pan racks or two (2) 23" x 23" donut screen racks.

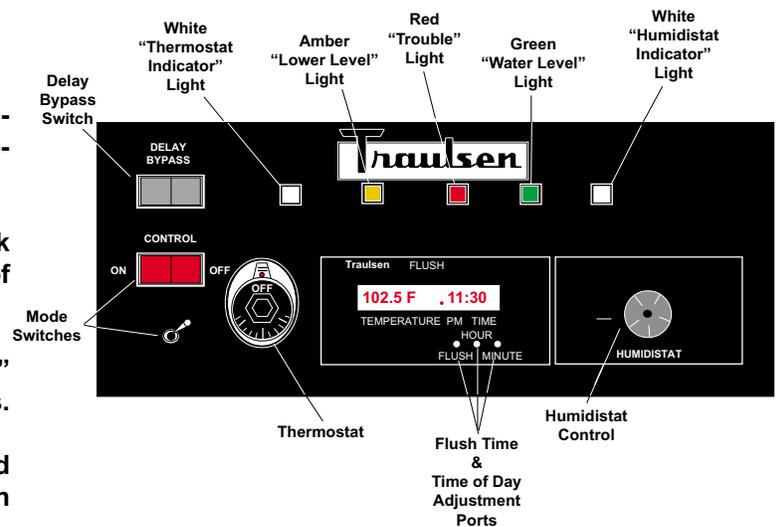
Model PRI332H can accommodate three (3) standard 18" x 26" pan racks or two (2) 23" x 23" donut screen racks.

Model PRR232HUT can accommodate two (2) standard 18" x 26" pan racks or two (2) 23" x 23" donut screen racks.

The Proofer Control



The Proofer/Retarder Control



VIII. SPECIALTY PRODUCTS - EVEN-THAW MODELS

VIII. a - APPLICATION OVERVIEW:

The Even-Thaw is designed to thaw product at safe temperatures. By keeping the cabinet temperature from rising above 40° F, the Even-Thaw inputs small amounts of heat while moving large volumes of air around the product. This design allows the product to thaw at temperatures that minimize bacteria growth. When in Even-Thaw mode, the refrigeration system is disabled and a second control adds enough heat to keep the cabinet at the upper limit of normal refrigerator temperatures. The rate at which the frozen product absorbs heat gradually slows as it warms. During the Even-Thaw process, the unit will continue to operate in this mode (refrigeration OFF, blower and heater ON) until the product being thawed can no longer absorb the heat as fast as it is being put into the cabinet. When this happens, the air temperature will slowly rise to 40° F at which time the heater will turn OFF and the refrigeration system will begin to cycle. As the refrigeration system begins to cycle the product continues to thaw. Based on the product being thawed and the way it is loaded, the end-user will have to determine how much time it takes to thaw each particular product.

VIII. b - PRODUCT LOADING GUIDELINES:

THE EVEN-THAW IS DESIGNED TO BE LOADED TO CAPACITY FOR EACH EVEN-THAW CYCLE. When the unit is cycling at refrigerator temperatures (approximately 36° to 39° f), load the cabinet with frozen product to be thawed. If possible, remove all packaging and place the product directly on aluminum sheet pans for optimum heat transfer. While it is possible to Even-Thaw product that is wrapped, it will be slower than if it were unwrapped. At the very least the packaging should be opened to allow air to circulate. Also, it is not recommended to thaw product that is stored or packaged in cardboard boxes. Product should be placed on the pans in a single layer; each pan should be filled with as much product as can be arranged without the pieces touching each other. The cabinet should be loaded with as many pans as it will hold and still allow air circulation on all sides of the pan.

VIII. c - STARTING AN EVEN-THAW CYCLE:

With the cabinet filled with frozen product and the doors closed, the compressor will run until the air temperature falls to its lower set point. The blower will continue to run, circulating air across the frozen product, which will lower the air temperature further. At approximately 32° f, the unit will automatically switch to the Even-Thaw mode, disabling the compressor and enabling the heater. If the doors are not left open too long during the loading stage, this automatic switching to Even-Thaw mode normally takes 5 - 10 minutes. An amber light on the upper left hand face of the cabinet indicates Even-Thaw mode. Even-Thaw mode can also be initiated manually by the start button located between the green (refrigeration) and amber (Even-Thaw) indicator lights.

VIII. d - CONCLUSION OF EVEN-THAW CYCLE:

The Even-Thaw cycle will end automatically (return to refrigeration mode), when the air circulating in the cabinet reaches 40° f. A green light on the upper left hand face of the cabinet indicates refrigeration mode. At this point the unit can be used as a holding cabinet at refrigerator temperatures with no operator action required. If the unit is needed for thawing additional frozen product, all previously thawed product should be moved to another unit.

VIII. e - INTERIOR ARRANGEMENTS:

Traulsen reach-in even-thaw models are supplied standard with tray slides to facilitate thawing.

Roll-in even-thaw models are designed to accommodate two (2) 27" wide by 29" deep by 66" high roll-in racks (measurements with wheels inboard of frame).

VIII. f - FREQUENTLY ASKED QUESTIONS:

Q. How much product can I load at one time?

A. As much as the cabinet will hold with individual pieces flat on the sheet without touching each other, and with space for air circulation between sheets. This could be a hundred pounds or more per section.

Q. How long will it take to thaw?

A. It can vary greatly depending on the type of product being thawed, packaging (if any), and size of the individual pieces. Small "flat" pieces (chicken breasts, fish fillets etc.) will thaw the fastest, while large "round" items (whole fowl, hams or roasts) will be the slowest. In any event the EvenThaw process is much faster than thawing in a standard refrigerator, and much safer than thawing at room temperature because the product never exceeds 40° f.

Q. Will the EvenThaw work with a small batch?

A. Not very well. Heat will be introduced into the cabinet faster than a small batch of frozen food can absorb it, causing the EvenThaw cycle to end prematurely, and return to refrigeration mode. The product will continue to thaw while in refrigeration mode, but at a slower rate.

Q. Why is some product not completely thawed when the EvenThaw cycle ends?

A. A partial load, large pieces or packaged product can cause the cycle to end prematurely.

Q. Why does nothing happen when I push the EvenThaw cycle start button?

A. The unit is too warm. The internal air temperature must be in the normal refrigeration range to initiate the EvenThaw cycle.

VIII. SPECIALTY PRODUCTS - EVEN-THAW MODELS (cont'd)

VIII. f - FREQUENTLY ASKED QUESTIONS (cont'd):

Q. What happens if we lose electrical power during the EvenThaw process?

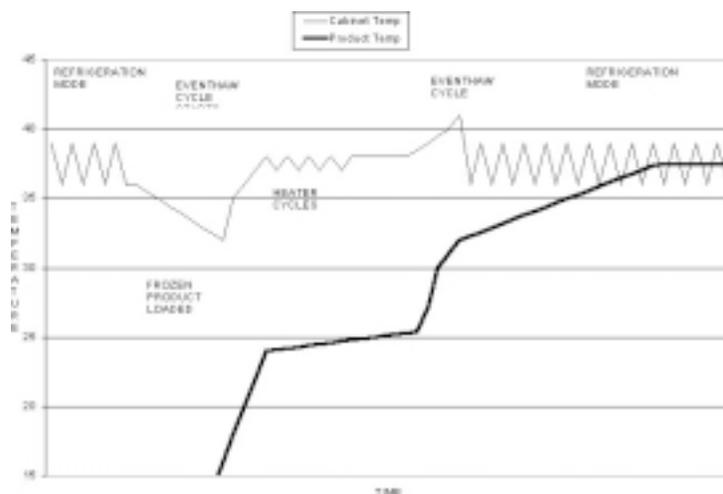
A. The unit will return to operation in refrigeration mode when power is restored.

Q. What about bagged or boxed product?

A. It will thaw more slowly than individual pieces because the packaging acts as an insulator, hindering heat transfer to the frozen product. The EvenThaw cycle will probably end prematurely, returning to refrigeration mode before the product is completely thawed. It will continue to thaw, but at a slower rate.

Q. What will happen if I open the door while the unit is in EvenThaw mode?

A. The influx of warm air will cause the EvenThaw cycle to end, returning the unit to refrigeration mode. As soon as the air is back down to refrigerator temperature, the EvenThaw can be restarted using the push button located between the indicator lights. **DO NOT OPEN DOORS DURING EVEN-THAW CYCLE.**



IX. SPECIALTY PRODUCTS - FISH FILE MODELS

IX. a - FISH FILE APPLICATION:

Traulsen fish file models are specifically designed for the storage of fresh fish or poultry in a moist refrigerated environment, packed in crushed ice, thereby preventing dehydration and bacteria growth. For best results, product should be layered between ice starting and ending with a layer of ice. The normal operating temperature should be approximately 36° F, just right to prevent the ice from melting away too quickly. For temperature monitoring a digital thermometer is included (dial thermometer on model RFC232WSC).

IX. b - SPECIAL INSTALLATION NOTE:

Installation should be performed as typical with any other model, see "Section III." However, a fish file requires provision of a floor drain for removing water resulting from the melted ice. The drain line should be located at the bottom of the cabinet. Connect this drain line to the floor drain using a 3/4" FPT connector (furnished) or equivalent depending on location. Close proximity of a hose reel or hose connection is helpful to wash out the unit.

CAUTION: An electric condensate evaporator cannot be used to dispose of water from melted ice.

IX. c - DRAWER PANS:

Each fish file drawer is supplied with one (1) 16" wide by 18-7/8" long by 6-1/2" deep plastic pan, each pan contains a plastic perforated insert. When the ice melts, the resulting water drains through the perforated insert at the bottom of the pan into the drain port of the pan.

IX. d - PRODUCT LOADING:

Product should be layered in ice, starting and ending with a layer of ice. The ice cools the product, keeping its surface moist and cleansing it as it slowly melts.

Fish and poultry should be held in separate units to avoid transferring odors.

Product should be removed for off hours storage.

IX. e - CLEANING:

This unit should be cleaned on a daily basis. The entire interior should be sprayed with water. Both drawer pans and inserts should be thoroughly cleaned and sanitized each day.

The weep hole in the bottom of the drawer liner should be checked to make sure it remains clear, to drain excess moisture. Product should not be set in water.

Both drawer pans and inserts should be thoroughly cleaned and sanitized each day.

X. SPECIALTY PRODUCTS - BLAST FREEZER MODELS

X. a - BLAST FREEZER APPLICATION:

The roll-in blast freezer models were specifically designed for batch processing, where quick freezing is required to help prolong product shelf life.

X. b - SPECIAL INSTALLATION NOTE:

Installation should be performed as typical with any other model, see "Section III." However, a blast freezer also requires provision of a floor drain for removing condensate. A floor mounted electric condensate evaporator is available from Traulsen as an optional accessory.

Additionally, these models do not include a cord and plug. Actual wiring to the power supply should be provided by a qualified electrician.

X. c - INTERIOR ARRANGEMENTS:

Traulsen blast freezers are designed to accommodate 27" wide by 29" deep by 66" high roll-in racks (measurements with wheels inboard of frame). One section model accommodates one (1) roll-in rack. Two section model accommodates two (2) roll-in racks.

X. d - BLAST FREEZING vs. BLAST CHILLING:

The Traulsen blast freezer models were designed to quickly freeze up to 200 lbs. of refrigerated product (maximum start temperature of 40° F) per batch. However, it was not designed to refrigerate hot, cooked product (140° F) down to either a chilled or frozen state.

CAUTION: Room temperature or warmer product placed in the blast freezer can ice the coil and result in reduced performance and/or unit failure.

To cool foods at that temperature, a blast chiller is required. It was designed to chill its respective capacity of product from 140° F down to 40° F in approximately 90 minutes. If freezing is then required, only then can a blast freezer be utilized.

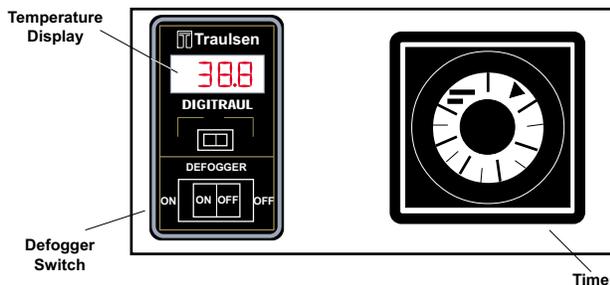
X. e - NORMAL OPERATION:

The blast freezer operates as a conventional freezer, maintaining temperatures of 0° to -5° F, when not in BLAST FREEZE MODE (i.e. with the blast freeze timer in the "OFF" position).

X. f - DEFROST:

The cabinet has been shipped from the factory with three (3) timeclock defrost settings (12 midnight, 8 a.m. and 4 p.m.). For proper operation of the defrost system it is imperative that the timeclock be set to the correct time of day when the electrician makes the original installation. Similarly, if a power failure should occur, the timeclock must be reset after resumption of normal operation.

The Blast Freezer Control



X. g - BLAST FREEZE OPERATION:

To operate in BLAST FREEZE MODE, the blast freeze timer must be turned to the appropriate time period desired. In this mode, two (2) additional fans will operate in order to promote rapid freezing of the product and a secondary control assumes command of the condensing units so as to maintain cabinet air temperatures of -20° F.

Selecting the correct length of time required for blast freezing a particular product must be calculated by the operator. Freezing times will vary as a result of many factors, such as:

- Product Density
- Product Water/Fat Content
- Product Temperature
- Product Load
- Product Packaging & Spacing

All these factors need to be taken into account when determining the length of a blast freeze batch. We suggest that the operator begin a chart to record their own operational experience with frequently used loads and their respective freezing times.

X. h - PROPER PACKAGING:

Packaging of food product is necessary to prevent dehydration, inhibit oxidation and allow accelerated heat transfer. This is due to the combination of high air velocities and cold temperatures required for blast freezing.

The particular type of packaging chosen should meet the following requirements:

- It **MUST** have the ability to withstand the temperature range through which it will pass (-20° F through to 400° F if also used for reheating).
- It **MUST** be protected against oxidation.
- It **MUST** have the ability to prevent dehydration.
- It **MUST** allow for rapid heat transfer to the food during freezing and reheating.

XI. TROUBLE SHOOTING GUIDE

FIND YOUR PROBLEM HERE	REMEDY
1. Condensing unit fails to start.	a. Check if cord & plug has been disconnected.
2. Condensing unit operates for prolonged periods or continuously.	a. Are doors closing properly? b. Dirty condenser or filter. Clean properly. c. Evaporator coil iced. Needs to defrost. d. Shortage of refrigerant, call service.
3. Food compartment is too warm.	a. Check door(s) and gasket(s) for proper seal b. Perhaps a large quantity of warm food has recently been added or the door was kept open for a long period of time, in both cases, allow adequate time for the cabinet to recover its normal operating temperature.
4. Food compartment is too cold.	a. Perhaps a large quantity of very cold or frozen food has recently been added. Allow adequate time for the cabinet to recover its normal operating temperature.
5. Condensation on the exterior surface.	a. Check door alignment and gaskets for proper seal. b. Condensation on the exterior surface of the unit is perfectly normal during periods of high humidity.
6. Compressor hums but does not start.	a. Call for service.

XII. WARRANTY INFORMATION

STANDARD DOMESTIC WARRANTY

TRAULSEN & CO., INC. 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, not to exceed 15 months from date of shipment. Under this warranty, TRAULSEN & CO., INC. 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 & CO., INC. 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 & CO., INC. 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 & CO., INC. 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.

will 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.

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HOURS OF OPERATION:

Monday thru Friday 7:30 am - 4:30 pm CST

EXTENDED WARRANTY SERVICE HOURS

Monday thru Friday 4:30 pm - 6:00 pm CST



Quality Refrigeration

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