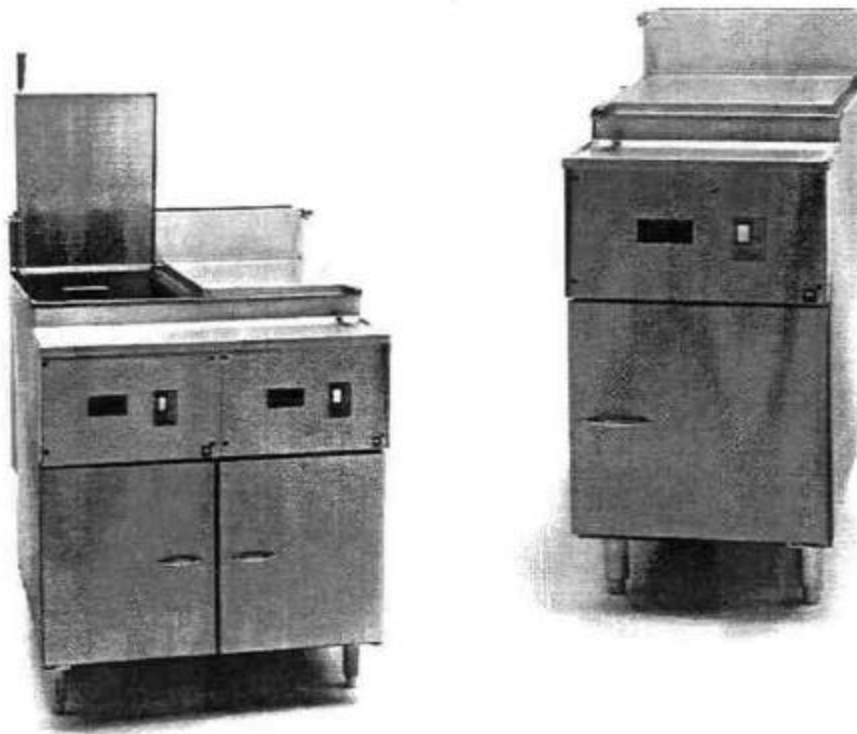


# Pitco Frialator

## Installation, Operation, and Maintenance Manual

For the  
Taco Bell "Rethermalizer"

Model Numbers  
RTE14S & RTE14S-2



*There's Always Something Cooking!*



## NOTICES

There are three different types of notices that you should be familiar with, a NOTICE, a CAUTION and a WARNING. A NOTICE is a special note used to call your attention to a particular important point. A CAUTION is used to point out a procedure or operation which may cause equipment damage. The WARNING notice is the most important of the three because it warns of an operation that may cause personal injury. Please familiarize yourself with your new Rethermalizer before operating it and heed the notices throughout this manual. All of these NOTICES are listed in the appropriate places.

## FOR YOUR SAFETY

DO NOT store or gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

## WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance thoroughly before installing or servicing this equipment.

**THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE**

L20-115 Rev 1

Revision Date: 29 July 1996

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# General Information and Installation

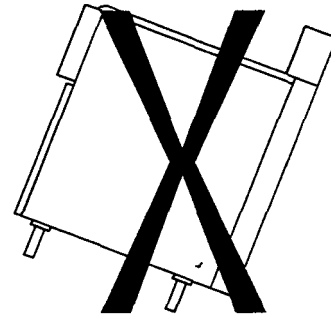
The Pitco Frialator Rethermalizer is a revolutionary new reheating unit. By using Pitco Frialator's Quick Heating Electric Elements, the Rethermalizer is up to temperature and ready to cook within 30 to 45 minutes. The cook tank holds approximately 15 gallons of water whose level is maintained automatically by the unit. The water temperature is monitored and controlled by its own Electronic Temperature Control mounted in the front panel. Each Temperature Control is preset at the factory to maintain the water temperature at 195°F. It is fully programmable for cases of increased altitude where the cook temperature must be decreased. Quick recovery time and even temperatures are assured by using three separate heating elements. The Rethermalizer is very easy to use, allowing you to Rethermalize and not worry about the unit. However, it is important that you familiarize yourself with the operation and safety notices of this manual. This manual contains the Installation, Operation, Maintenance and Service procedures for the Taco Bell Electric Rethermalizer. Do not discard this manual, store it in a safe place for future reference.

## CHECKING YOUR NEW RETHERMALIZER

Every effort has been made to ensure that your Rethermalizer will be delivered to you in perfect condition. As you unpack the Rethermalizer, inspect the unit for damage. If something is damaged, DO NOT sign the bill of lading, and save the packing materials. Contact the Freight Company immediately, because they are only responsible for 15 days after delivery. Check the packing list enclosed with your Rethermalizer to ensure that you have received everything on the list. If you are missing any parts, contact the dealer from whom the unit was purchased. As you unpack the Rethermalizer be careful to keep its weight evenly distributed.

### CAUTION

To prevent equipment damage, do not tilt the unit onto any one of its legs.



Locate your Pitco Frialator warranty and make note of the Date Received and Serial Number, located on the Data plate mounted on the inside of the door. Put your warranty in a safe place for future reference. DO NOT return the warranty sheet to Pitco Frialator. With the exception of the Legs, the Rethermalizer has been fully assembled for you at the factory and is ready to be installed.

### Check Your Order

In the shipping crate with me Rethermalizer you will also find:

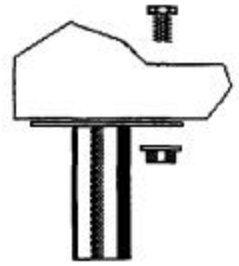
- (1) Cleaning Brush    (1) Tube Screen    (1) Meat Rack

### Leg Installation and Adjustment

Installing the legs on the Rethermalizer is done with two 7/16" wrenches. The legs must be installed before connecting the unit to the electrical supply. The legs provide the necessary height to meet sanitation requirements. Attach the legs by performing the following procedure.

- a. Lay the Rethermalizer on its back being careful not to damage the cabinet. Protect the outside of the unit with cardboard or a drop cloth when laying it down.
- b. Attach each leg with the supplied nuts and bolts. Each leg requires four 1/4-20 x 5/8" bolts.

- c. Mount the bolts from the inside of the unit with the nut on the outside.
- d. When all four legs are mounted, stand the unit up being careful not to put too much weight on any one leg.
- e. Move the Rethermalizer to the desired location and continue with the installation.



## INSTALLATION.

It is **STRONGLY** recommended that you have **ALL** of the installation done by qualified professionals. The professionals that install your new Rethermalizer will know the local building codes and ensure that your installation is safe. This manual provides the installer with valuable information on the installation of your Rethermalizer.

### **DO NOT allow the installer to keep this manual.**

#### Installation Clearances

The Rethermalizer needs adequate clearances to allow for servicing, fire and sanitation regulations. It requires 6" clearance underneath to allow for cleaning, this is achieved by using 6" legs, which are supplied with the cooker.

#### Plumbing Connections

The plumbing installation should be done by a licensed plumber and must comply with local and national codes. The water inlet line on the Rethermalizer is located on the back of the unit and consists of a 1/2" NPT male threaded fitting. This line feeds water to the auto fill valve through the manual shut-off valve also located on the back of the unit. The drain outlet is located underneath the unit and can be inserted into a drainage system. The drain line and the overflow line are connected together, this connection is made after the drain valve to provide an unobstructed overflow path.

#### CAUTION

If the water supply is in excess of 50 PSI it must have a pressure regulator installed to limit the Rethermalizers Input Water Pressure to 50 PSI max. Your Rethermalizer is supplied with an And - Siphon valve located at the inlet to the tank. Should your water supply lose pressure, this device will preclude siphoning of the tank contents into the water supply system.

#### Electrical Connection

The electrical service used by the Rethermalizer must comply with local codes. If there are no local codes that apply, refer to the National Electrical Code (NEC) to install the service, In Canada refer to CSA Standard C22.1. Wiring diagrams are provided inside the front panel of the Rethermalizer.

This machine has been designed to be used with several different input voltages. The connection options are shown in the back of the Installation and Operation manual.

If it is to be installed on a voltage different to that stated on the data plate (located on the inside of the door) **the Input wires to the Transformer must be changed.** Consult Note 4. on the wiring schematic located in the back of the Installation and Operation manual for this information.

Note 4. For 240 VAC units, connect Red wire to Pin 1 on T1.  
For 220 VAC units, connect Red wire to Pin 1 on T1.  
For 208 VAC units, connect Red wire to Pin 2 on T1.

The power requirements for the unit are shown below.

Voltage	Power	Current	Phase
208 VAC	8KW	38Amps	1
220 VAC	9KW	41 Amps	1
240 VAC	10 KW	44 Amps	1

### VENTILATION AND FIRE SAFETY SYSTEMS

Your new Rethermalizer must have correct ventilation to function safely and properly. Your ventilation system should be designed to allow for easy cleaning. Frequent cleaning of the ventilation system and the Rethermalizer will reduce the chances of fire. It is very important to install a fire safety system. Please contact your dealer for more information on ventilation and fire safety systems.

**WARNING**  
Never stand on the rethermalizer to service or clean the hood.

### VISUAL CHECKS AND EQUIPMENT LOCATIONS

Before you begin filling the unit, perform the following visual checks:

- a. Move the Rethermalizer to its permanent cooking position and ensure that the Rethermalizer drain is lined up with the floor drain.
- b. Check all of the nuts that hold the sensor brackets in place. Ensure that the mounting screws and nuts are tight to prevent them from coming loose during operation. Figure 1 shows the location of the Temperature probe, and the Water Level sensors. Also shown are the over flow stand pipe and the water entry nozzle. Look down inside the Rethermalizer tanks to see the probes.

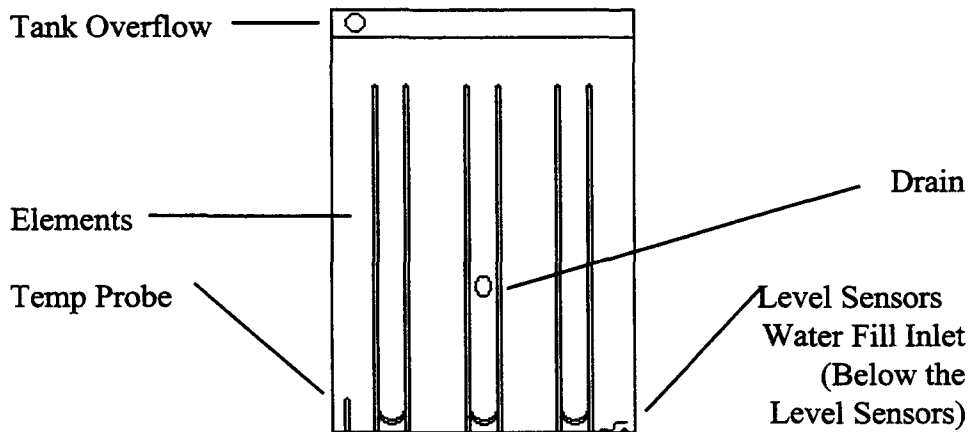


Figure 1: Component Locations, Inside Tank

### INITIAL CLEANING

When the Rethermalizer is shipped, many of its parts are covered with a thin coat of oil for protection. Before the unit is ready for use it must be cleaned to remove the oil coating and any foreign matter that may have accumulated during storage and shipment. Perform the cleaning as described in the WEEKLY CLEANING section.

### ELECTRONIC TEMPERATURE CONTROL

The Electronic Temperature Control is preset at the factory to maintain 195°F. It does not require further adjustments unless you require a lower cooking temperature due to altitude. In such cases refer to the TEMPERATURE CONTROL CALIBRATION section.

# Operating Instructions

This chapter describes how to operate your Rethermalizer to obtain the best performance.

## FILLING THE RETHERMALIZER

The Rethermalizer is equipped with an automatic water level fill system. To fill the unit with water place the Power Switch in the ON position. This causes the Water Fill Solenoid valve to open and supply water to fill the unit through the nozzle in the bottom of the tank. The tank will continue to fill until the water level reaches the level sensors. When both water level sensors are covered the solenoid valve will close stopping the flow of water.

### NOTE

During normal operation the automatic water fill system will continue to control the water level in the Rethermalizer tank. If the water control system turns ON while the Elements are working the fill system will automatically turn the Elements OFF. This is normal and will not affect the operation of the Rethermalizer. When the tank refills to the high level probe the solenoid will close and the elements will resume heating automatically.

## MANUAL OPERATION OF THE WATER FILL SYSTEM

Although the water fill system is completely automatic, the Water Fill Solenoid valve can be bypassed manually to fill the tank. To bypass the Water Fill Solenoid valve open the Manual Valve, located in the bypass pipe inside the cabinet, just behind the Water Fill Solenoid. This should only be done if the solenoid valve fails and the Rethermalizer needs to be operated. When the Rethermalizer is filled to the correct level ensure that the Manual Valve is returned to its normally closed position.

### CAUTION

When the Manual Valve is open the automatic water fill system **WILL NOT** maintain the water level. When it is necessary to use the Manual Valve it is important that the water level be monitored closely.

## START-UP AND USE

- a. Place the Power Switch in the ON position. If the water level is NOT at the correct operating level the Water Fill Solenoid valve will open and fill the tank.
- b. When the water reaches the correct operating level, the heating elements will begin to heat, and the Temperature Control will control the water temperature. When the Temperature Control is calling for heat the red LED light on the display will also be ON. When the water temperature reaches the SET temperature (195°F, unless set to another temperature due to altitude requirements) the elements will turn off. The Rethermalizer is now up to temperature and ready to accept the food to be heated. Place the food to be heated in the rack and lower into the water.
- c. The Temperature Control will maintain the water temperature at the SET temperature and the water fill system will keep the water at the correct level.

## SHUTDOWN

Press the Power Switch to the OFF position.

# Maintenance and Adjustments.

This chapter provides you with the information and procedures necessary to perform Rethermalizer maintenance and adjustments. If, after performing maintenance on your Rethermalizer it does not operate properly, contact your Authorized Service Center.

## DAILY CLEANING

Your Rethernalizer should be cleaned every day to maintain peak performance and appearance. Use warm water with a mild detergent, rinsing with clear water, and drying with a soft, cloth to clean exterior surfaces. Wipe down the unit using a clean soft cloth to clean up water spillage. Use a nonabrasive scouring powder or pad to clean stains if necessary.

## WEEKLY CLEANING

The continuous filling and evaporation of water from the Rethermalizer will cause deposits to build up around the tank. At least once a week the unit should be thoroughly cleaned to remove these deposits and generally clean the unit. Perform the cleaning as described below.

- a. Fill the tank with water and add a mild detergent to the tank being cleaned.
- b. Turn the Rethermalizer on and allow it to reach normal operating temperature. Allow the unit to soak for a short time to remove residue. Use the cleaning brush to remove deposits from the tank cooking surface and elements. Pay special attention to the Water Level Probes located on the right hand side on the inside front of the tank. You can use a nonabrasive scouring powder or pad to clean stains if necessary. When the cleaning is complete, turn the unit off and drain the water.
- c. When the tank has cooled, rinse it thoroughly with cool water. Continue to rinse the tank until all cleaning agents have been rinsed from the tank. Now that the tank is clean, you are ready to fill and operate the Rethermalizer.

**CAUTION**  
Do NOT use chlorine based cleaning agents in your tank, the chlorine will attack the metal and lead to premature failure.

## TEMPERATURE CONTROL PROGRAMMING

The temperature controller does not need routine calibration. It will maintain its factory set values during normal operations. In some instances, where the rethermalizer has been installed at higher altitudes, the controller will require its SET temperature reprogramming. Follow the steps below if this is the case.

- a. Remove the front panel and install a jumper wire between me +5 and -3 terminals to enable the reprogramming function. If, during the setting procedure, you stop for longer than 15 seconds the controller will revert to the temperature display mode WITHOUT changing its settings.
- b. Press the °F switch five times until LO shows in the display. Press the °F one more time to display the LO setting. Using the Down arrow on the front of the display change the LO setting to 188 (this should be low enough for most applications). Press the °F key until the display goes blank.
- c. Press the SET key and the display will show SP 1. Press the SET key again to display the current setting. Using the Down arrow on the front of the display change the SET value to a value at which the water stops boiling.
- d. Once the value is correct press the SET key again until the display goes blank. Remove the jumper wire from the +5 and -3 terminals and reinstall the front panel.



# Service and Troubleshooting

## WARNING

To prevent burns, always ensure that the unit is completely SHUT DOWN and COOLED down before working on the Rethermalizer

## WARNING

The power supply must be disconnected before servicing or cleaning the appliance.

## WARNING

This section is provided for Qualified Service Personnel ONLY.

This chapter is provided to help Authorized Service Personnel in the repair of most problems likely to occur with the Rethermalizer. To gain access to the front panel electrical components, remove the four screws on the front panel. Disconnect the wiring harness, remove the front panel and set aside. An electrical schematic is supplied inside the front panel for use by an Authorized Service Person. There is also an electrical schematic in the back of this manual. After servicing is complete, the diagram should be replaced for future reference.

## TROUBLE SHOOTING

This section is provided to aid the Authorized Service Technician in the repair of your Rethermalizer.

SYMPTOM	POSSIBLE CAUSE
Display will not light	Bad Temperature Control, Fuse Holder, Fuse, Transformer or Switch
Maintains wrong temperature	Bad Probe or Display
Display lit, but does not heat	Bad K1 Relay, contactor. Probe, Display, Elements or Water Level control.
Constantly fills, or will not fill	Bad K1 Relay, Level Sensor Seals, Level Control or Water fill solenoid. Manual bypass valve may be open.

## COMPONENT DIAGNOSIS

Before diagnosing any individual components, all appropriate power supplies and wiring terminations must be checked. Follow the appropriate section below to diagnose the suspected components.

### Temperature Control:

When 24 VAC is supplied to the Temperature Control the display should be lit. When the water temperature is below the SET level 24 VAC can be found between the RELAY (NO) and AC (Yellow wire) terminals. The Red LED Heating indicator light will be ON. When problems with the Temperature Control occur it is important that the Probe be checked also.

Water Level Control:

Check for 24 VAC between the COM and 24 V PWR (Power) terminals. Disconnect the HIGH, LOW and COM terminals, a 24 VAC signal can now be seen between the N.C. and COM terminals. The safety Relay (K1) and the Water Fill Solenoid will energize. Using a jumper wire, short the HIGH, LOW and COM terminals together, this will cause the Control to stop the 24 VAC signal between the N.C. and 24 V PWR terminals.

Water Fill Solenoid:

The Water Fill Solenoid should be open when a 24 VAC signal is applied to the two wires leading to the Actuator. With no voltage present the Solenoid should be closed.

Safety Relay (K1):

With a 24 VAC signal present at the coil section of the relay the switch section should have closed the circuit between the two Gray wires.

Temperature Probe:

Disconnect the probe from the Temperature Control at terminals S and GND. Measure the water temperature (with an independent temperature meter or thermometer) and the resistance of the probe at the same time. Consult the chart below for probe specifications.

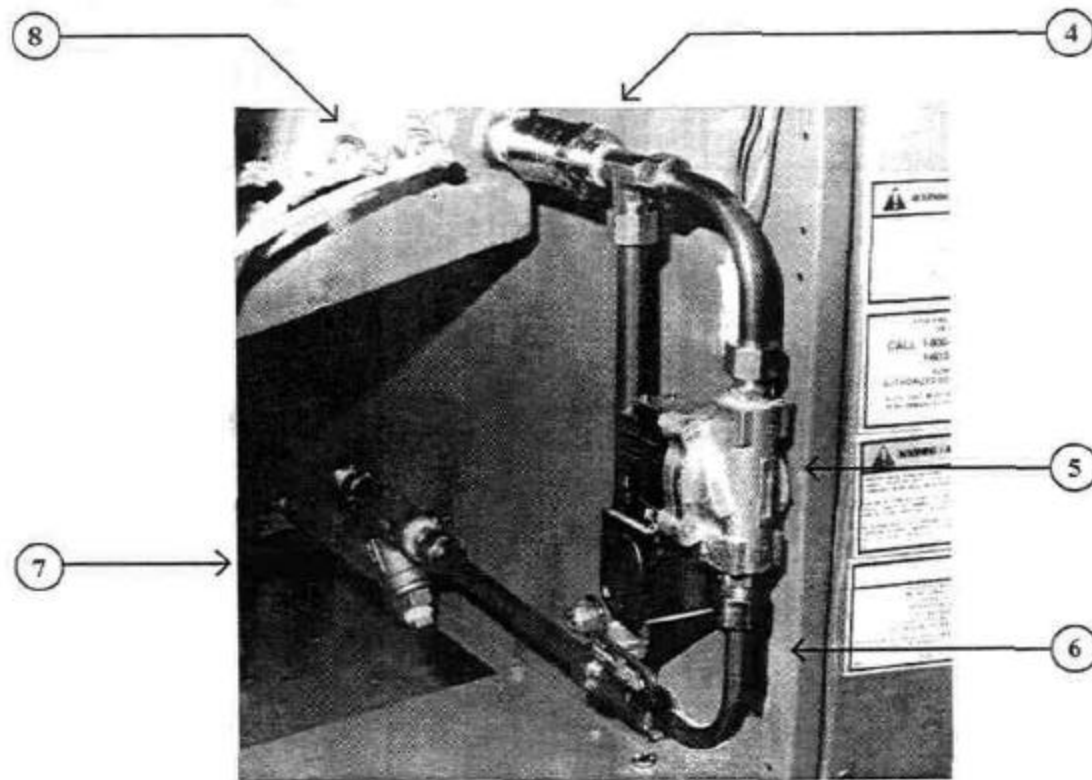
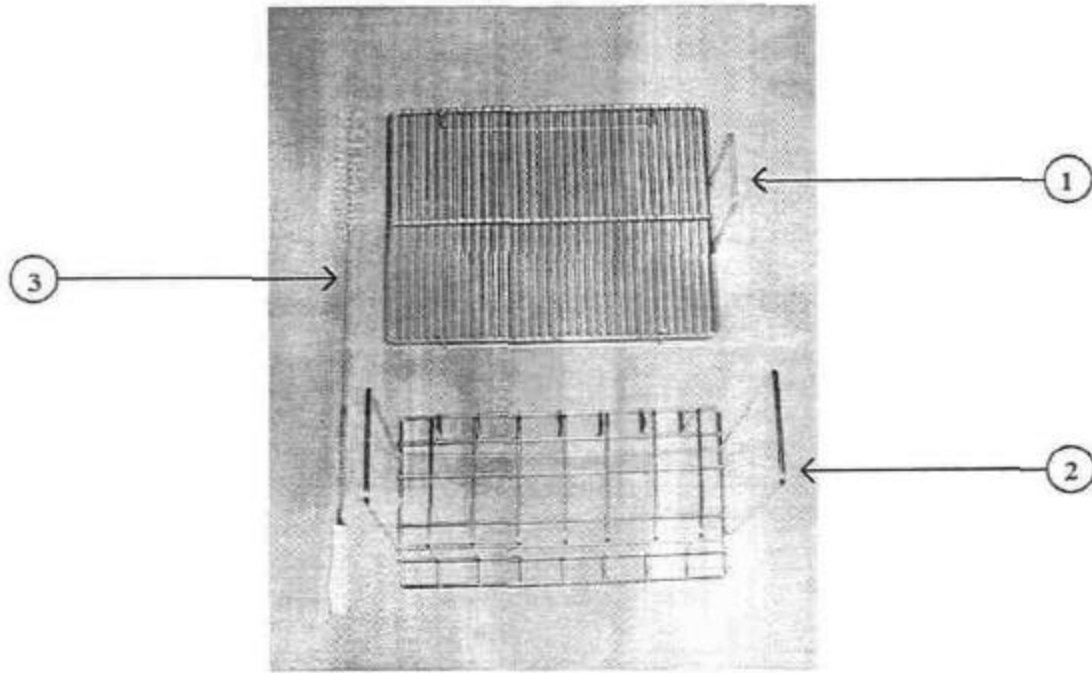
Temperature °F	Resistance Ohms
70°F	975
80°F	1020
90°F	1060
100°F	1101
110°F	1147
120°F	1189

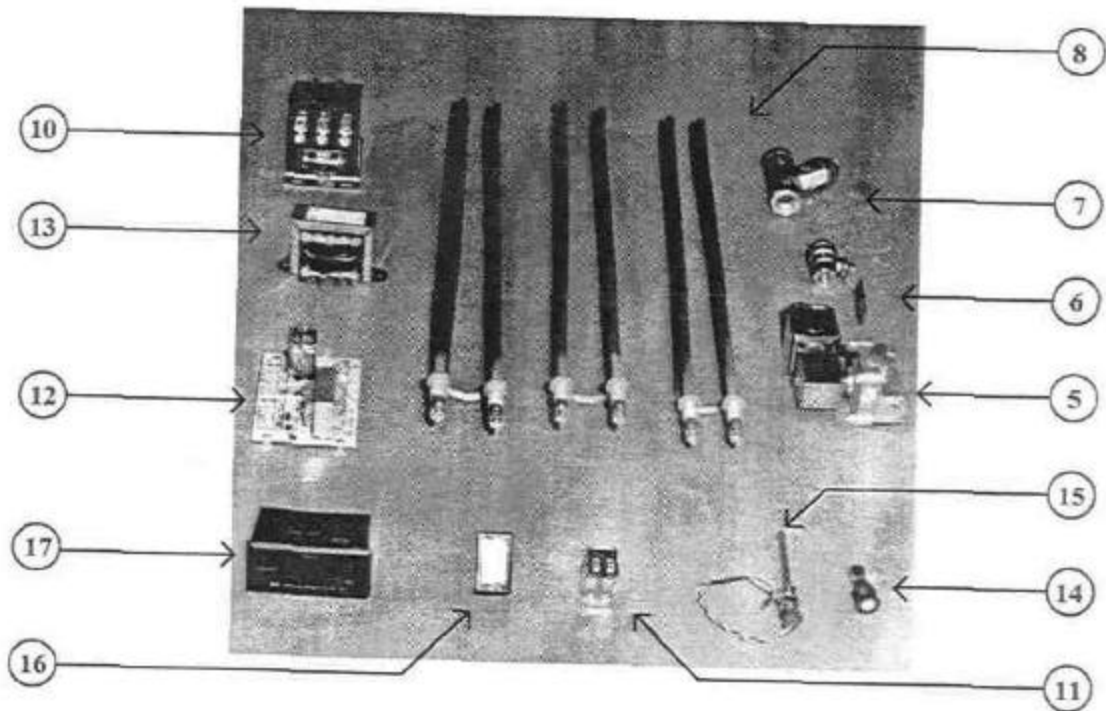
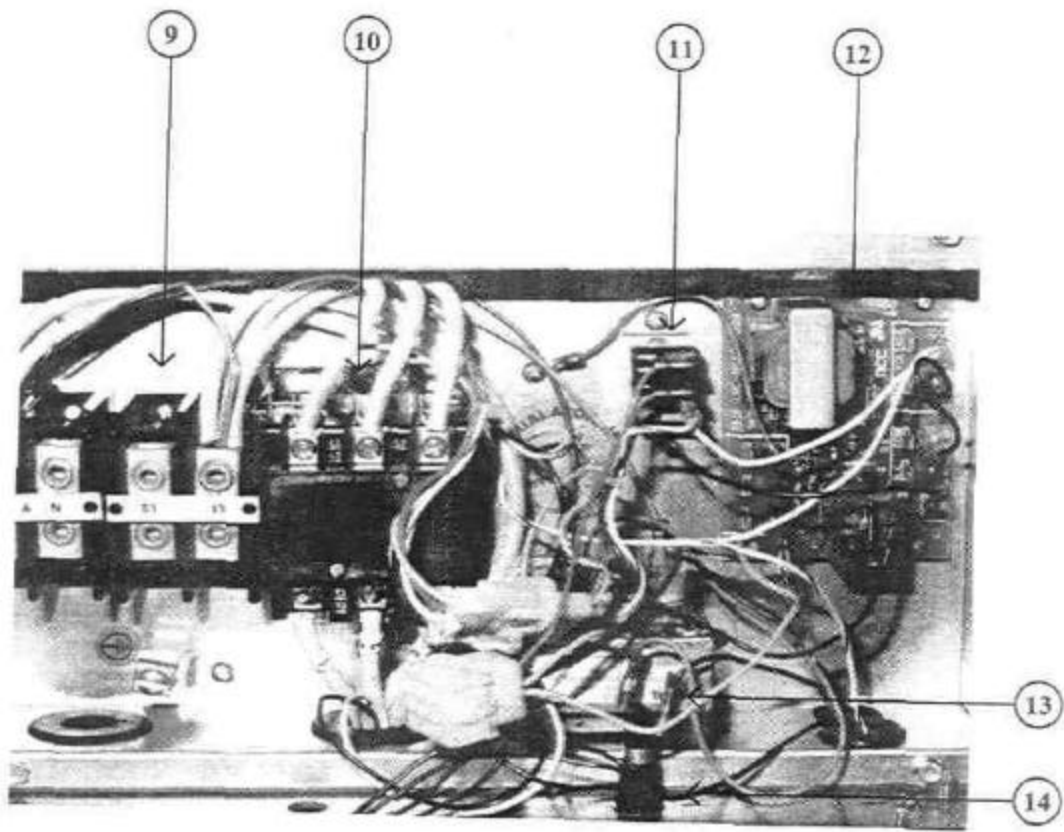
Temperature °F	Resistance Ohms
130°F	1234
140°F	1274
150°F	1320
160°F	1364
170°F	1409
180°F	1454

Temperature °F	Resistance Ohms
190°F	1493
195°F	1512
200°F	1533
210°F	1575
212°F	1617

**IF YOU HAVE ANY QUESTIONS OR NEED ASSISTANCE  
WITH YOUR NEW RETHERMALIZER, PLEASE CALL US  
ON OUR TOLL FREE TECHNICAL SUPPORT LINE:  
1-800-258-3708**

parts





## Part Numbers

Ref #	Description	Part Number
1	Support Rack .....	B4510301
2	Portion Rack.....	B4509402
3	Cleaning Brush .....	PP10730
4	Anti Siphon Valve .....	PP10726
5	Water Fill Valve .....	PP10982
6	Manual Valve .....	PP10945
7	In Line Filter .....	PP10992
8	Elements (Quantity of 3) .....	PP10953
9	Terminal Block (Quantity of 2) .....	P5047302
10	Contactor .....	PP10560
11	Safety Relay.....	P5046688
12	Water Level Control .....	PP10981
13	Transformer .....	PP10210
14	Fuse Holder.....	P5045794
Not Shown	Fuse (2 Amp Slow Blow Glass Type) .....	P5045717
15	Temperature Sensing Probe (With Gland Nut) .....	B6718701
16	Power Switch .....	PP10654
17	Electronic Temperature Control.....	PP10703

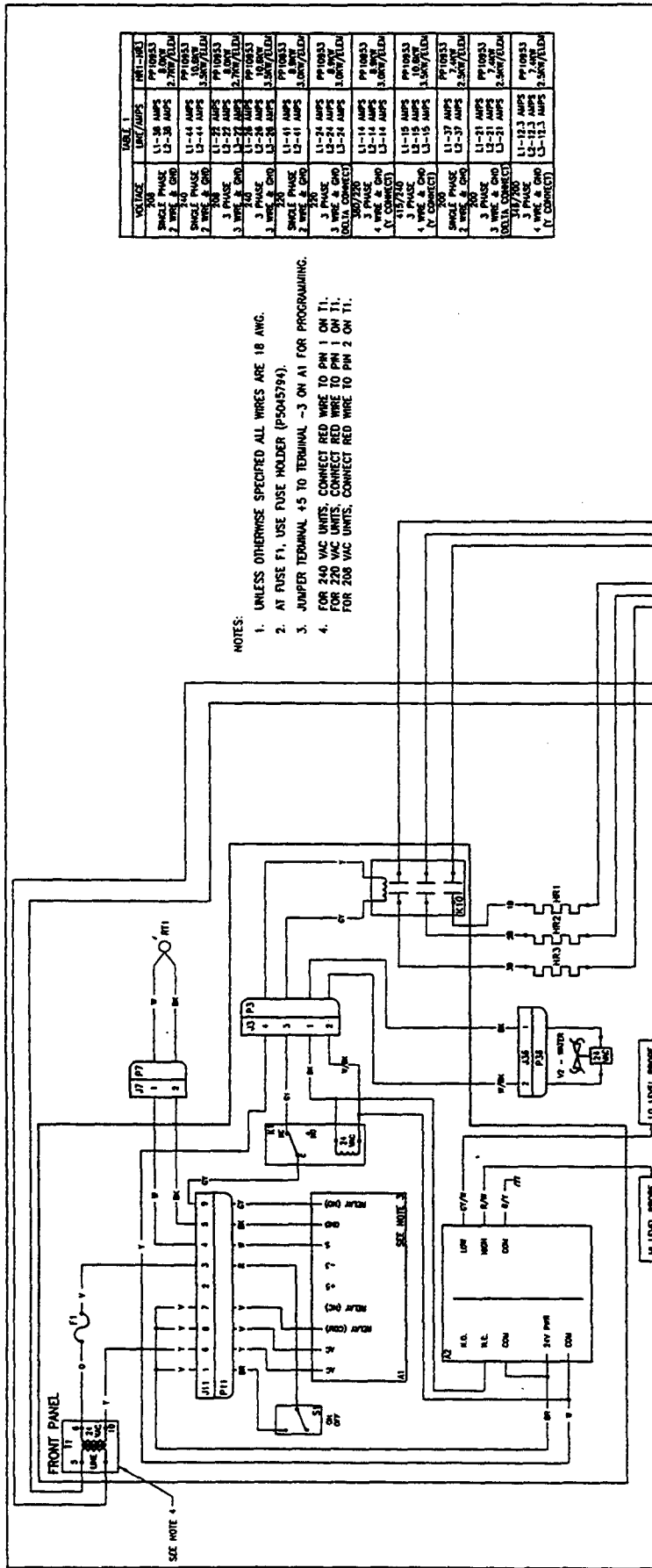
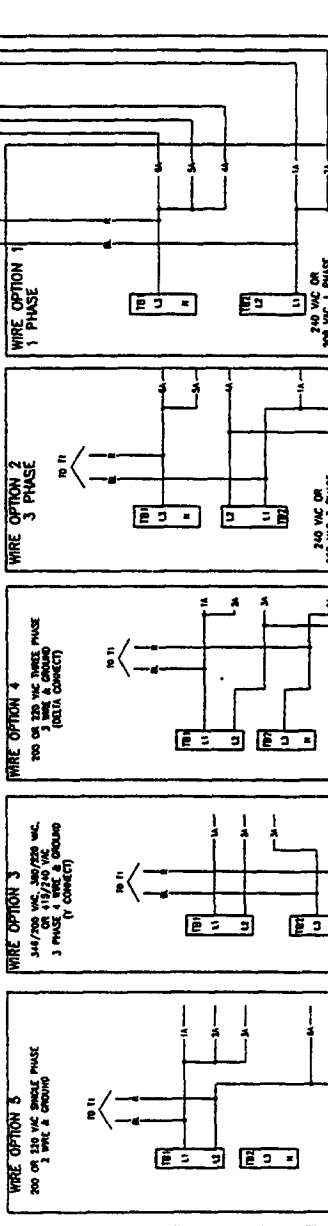


TABLE 1

VOLTAGE	WIRE/AMPS	PART NO.
208	11-18 AMPS	PP10853
208	19-24 AMPS	PP10854
208	25-30 AMPS	PP10855
208	31-36 AMPS	PP10856
208	37-42 AMPS	PP10857
208	43-48 AMPS	PP10858
208	49-54 AMPS	PP10859
208	55-60 AMPS	PP10860
208	61-66 AMPS	PP10861
208	67-72 AMPS	PP10862
208	73-78 AMPS	PP10863
208	79-84 AMPS	PP10864
208	85-90 AMPS	PP10865
208	91-96 AMPS	PP10866
208	97-102 AMPS	PP10867
208	103-108 AMPS	PP10868
208	109-114 AMPS	PP10869
208	115-120 AMPS	PP10870
208	121-126 AMPS	PP10871
208	127-132 AMPS	PP10872
208	133-138 AMPS	PP10873
208	139-144 AMPS	PP10874
208	145-150 AMPS	PP10875
208	151-156 AMPS	PP10876
208	157-162 AMPS	PP10877
208	163-168 AMPS	PP10878
208	169-174 AMPS	PP10879
208	175-180 AMPS	PP10880
208	181-186 AMPS	PP10881
208	187-192 AMPS	PP10882
208	193-198 AMPS	PP10883
208	199-204 AMPS	PP10884
208	205-210 AMPS	PP10885
208	211-216 AMPS	PP10886
208	217-222 AMPS	PP10887
208	223-228 AMPS	PP10888
208	229-234 AMPS	PP10889
208	235-240 AMPS	PP10890
208	241-246 AMPS	PP10891
208	247-252 AMPS	PP10892
208	253-258 AMPS	PP10893
208	259-264 AMPS	PP10894
208	265-270 AMPS	PP10895
208	271-276 AMPS	PP10896
208	277-282 AMPS	PP10897
208	283-288 AMPS	PP10898
208	289-294 AMPS	PP10899
208	295-300 AMPS	PP10900

- NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL WIRES ARE 18 AWG.
  2. AT FUSE F1, USE FUSE HOLDER (P5045794).
  3. JUMPER TERMINAL 45 TO TERMINAL -3 ON AI FOR PROGRAMMING.
  4. FOR 240 VAC UNITS, CONNECT RED WIRE TO PIN 1 ON T1.  
FOR 220 VAC UNITS, CONNECT RED WIRE TO PIN 1 ON T1.  
FOR 208 VAC UNITS, CONNECT RED WIRE TO PIN 2 ON T1.

PART NO.	DESCRIPTION	QUANTITY
V2	PP10982 VALVE, WATER - 24V SOLENOID	1
TB1, TB2	P5047302 TERM. BLOCK, 2 POST-ENTRANCE	2
T1	PP10210 XTENR. 40VA - 120/208/240V TO 24V	1
S1	PP10854 SWITCH, ROCKER-SFST (ON-OFF)	1
R1	PP10704 THERM. TEMPERATURE - RTD	1
P1	P504580 CONNECTOR, PLUG-9 PIN MOLEX	1
P4, P7, P8	P504588 CONNECTOR, PLUG-2 PIN MOLEX	3
MPI	P504524 LUG, GROUND 1/8-ZANG	1
K10	P504524 LUG, GROUND 1/8-ZANG	1
K1	PP10580 CONTACTOR, DEF PURP-40AMP 24 VAC 3PST-NO	1
J1	P504868 RELAY, 24 VAC - SPST W/NTG TABS	1
J4, J7, J8	P504538 CONNECTOR, JACK-9 SKT MOLEX	3
WRT, WR2, WR3	PP10953 ELEMENT, TUBULAR	3
F1	P5045717 FUSE, 2 AMP-SLOW BLOW (GLASS)	1
A2	PP10981 CONTROLLER, LIQUID LEVEL - 24V RELAY	1
A1	PP10703 THERMOSTAT, SOLID STATE - 24V W/ONDISPLAY	1



PARTS LIST

QTY	PART NO.	DESCRIPTION	UNIT
1	P5045794	FUSE HOLDER	PCB
1	P5045794	FUSE HOLDER	PCB
1	P5045794	FUSE HOLDER	PCB
1	P5045794	FUSE HOLDER	PCB
1	P5045794	FUSE HOLDER	PCB

SEE TABLE

SCHEMATIC, RTE14

700215 C

Micro Frigolator Inc.  
240 W. Main St.  
Canton, N.Y. 13617