







**CABINET MODEL REE-1821** 

# ELECTRIC ULTRATHERM 2 RETHERMALIZER OPERATING INSTRUCTIONS







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#### **PREFACE**

This manual was written and published by the Technical Publications Department, Ultrafryer Systems, for use by store employees who will operate and maintain the Electric Ultratherm 2 Rethermalizer. Proper use of this manual will allow store employees to properly operate, clean and maintain this equipment which will reduce service call expenses.

TECHNICAL PUBLICATIONS DEPARTMENT ULTRAFRYER SYSTEMS

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WARRANTY INFORMATION



**GENERAL INFORMATION** 

#### **SAFETY**

The Electric Rethermalizer operates on 120/208 or 120/240 volts single phase electrical power and **NO CLEANING OR REPAIR** to any component should be attempted without FIRST disconnecting electrical power **OFF**. When in use the Rethermalizer will maintain water temperature above 150°F (66°C) which can cause severe burns. **ALLOW METAL SURFACES TO COOL BEFORE CLEANING THE RETHERMALIZER.** 

#### DESCRIPTION



TABLE MODEL REO-1620 30" (762 mm) WIDE, 29" (737 mm) DEEP 37 ½" (953 mm) HIGH



CABINET MODEL REO-1620 19¼" (489 mm) WIDE, 34 ½" (876 mm) DEEP, 42 ½" (1080 mm) HIGH

#### ELECTRIC ULTRATHERM 2 RETHERMALIZER

The Electric Ultratherm 2 Rethermalizer was designed by Ultrafryer Systems to operate as a commercial warmer to thaw, heat and hold frozen products such as rice, macaroni and beans up to eight (8) hours. It is constructed from 16 and 18 gauge type 304 stainless steel with a #3 finish and can be built as a cabinet or table model according to a purchase order. Both standard models are equipped with a programmable Rethermalize and Hold Temperature Controller (RHTC), twin stainless steel baskets, self filling water float valve and a water overflow drain.

#### **SPECIFICATIONS**

Electrical 9.5 Kilowatts, 46 AMPS @, 208 Volts, 40 AMPS @, 240 Volts 60 HZ, Single Phase

Water Capacity

Table Model 16 Gallons (60 Liters)

Cabinet Model 20 Gallons (76 Liters)

Shipping Weight Table Model - 180 Pounds (81 Kilograms)

Cabinet Model - 230 Pounds (104 Kilograms)

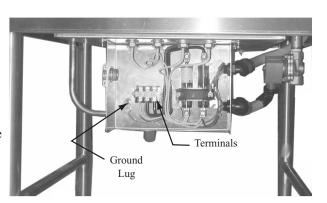
INSTALLATION AND INITIAL CLEANING

#### **INSTALLATION**

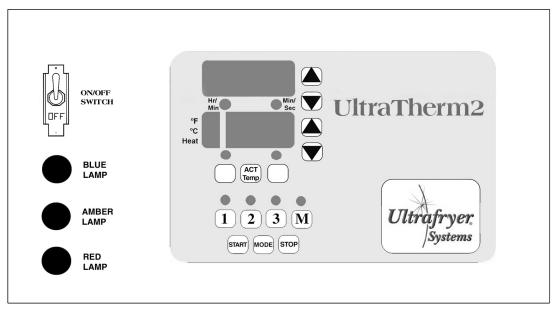
- 1. Place the Rethermalizer in the location where it is to be operated.
- 2. Have a licensed plumber level the Rethermalizer and connect a ½" (13 mm) copper water line equipped with a WATER SHUT-OFF VALVE to the WATER SOLENOID VALVE mounted to the rear of the Rethermalizer.

**NOTE:** Water hardness may affect the performance and longevity of component parts coming in direct contact with the water. Therefore, the local water supplier should be contacted to determine if the water to be used with the appliance should be treated with a filter, strainer, softener, and/or descaler.

- 3. Have a licensed electrician perform the following:
  - a. Connect an UL approved 4 wire 60 ampere electrical cord to the terminal inside the units electrical box shown to the right:
  - b. Install a NEMA rated electrical plug on the electrical cord.
  - c. Install a "mating" NEMA rated electrical receptacle on the wall behind the Rethermalizer operating location.
  - d. Connect the building ground to the ground lug located inside the unit's electrical box.
- 4. Test operate the Rethermalizer as follows:
  - a. Ensure the controls listed below are in the proper position:



# APPLICABLE CIRCUIT BREAKER IS ON ELECTRICAL PLUG IS CONNECTED TO THE ELECTRICAL WALL RECEPTACLE WATER SHUT-OFF VALVE IS OPEN DRAIN VALVE LEVER IS CLOSED



- b. Turn the ON/OFF switch to the ON position. Water should begin flowing into the Rethermalizer tub, the Rethermalize and Hold Temperature Controller (RHTC) will turn ON and the AMBER and BLUE lamps below the ON/OFF switch will LIGHT.
- c. When water reaches the FLOAT of the liquid level switch the following should occur:
  - 1) The **BLUE** lamp will turn **OFF**.
  - 2) Water flow will **STOP**.
  - 3) The **HEAT** lamp on the RHTC will **LIGHT** and the **RED** lamp below the ON/OFF switch will **LIGHT** indicating water is being heated.
  - 4) If the RHTC has been programmed, the pre-set temperature and time will appear in the display. If it has not been programmed 5:00 and 150 will appear in the display.
  - 5) When water temperature is within 20°F (11°C) of the RHTC pre-set temperature the RED lamp will remain **ON**, the **HEAT** lamp on the RHTC will turn **OFF** and the **READY** lamp will **LIGHT**.

- b. Turn the ON/OFF switch to the ON position. Water should begin flowing into the Rethermalizer tub, the Rethermalize and Hold Temperature Controller (RHTC) will turn ON and the AMBER and BLUE lamps below the ON/OFF switch will LIGHT.
- c. When water reaches the **FLOAT** of the liquid level switch the following should occur:
  - 1) The **BLUE** lamp will turn **OFF**.
  - 2) Water flow will **STOP**.
  - 3) The **HEAT** lamp on the RHTC will **LIGHT** and the **RED** lamp below the ON/OFF switch will **LIGHT** indicating water is being heated.
  - 4) If the RHTC has been programmed, the pre-set temperature and time will appear in the display. If it has not been programmed **5:00** and **150** will appear in the display.
  - 5) When water temperature is within 20°F of the RHTC pre-set temperature the **RED** lamp will remain **ON**, the **HEAT** lamp on the RHTC will turn **OFF** and the **READY** lamp will **LIGHT**.
- d. Turn the **ON/OFF** switch to the **OFF** position, then turn the drain valve lever to the **OPEN** position to drain water in the tub into a floor drain.

### CAUTION: ALLOW ALL METAL SURFACES OF THE RETHERMALIZER TO COOL PRIOR TO PROCEEDING.

#### INITIAL CLEANING

1. Remove and **THOROUGHLY** wash the following items in the 3 compartment sink with **HOT** water and soap, rinse these parts with **HOT** water and allow them to air dry:

#### STAINLESS STEEL CHUB BASKET

d. Turn the **ON/OFF** switch to the **OFF** position, then turn the drain valve lever to the **OPEN** position to drain water in the tub into a floor drain.

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#### INITIAL CLEANING

1. Remove and **THOROUGHLY** wash the following items in the 3 compartment sink with **HOT** water and soap, rinse these parts with **HOT** water and allow them to air dry:

```
STAINLESS STEEL CHUB BASKET
STAINLESS STEEL TUB GRILL
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- 2. **THOROUGHLY** wash the Rethermalizer tub with **HOT** water and soap; then rinse the tub with **HOT** water and allow it to air dry.
- 3. Wipe the top, side and front surfaces of the Rethermalizer with a **HOT** damp cloth.
- 4. When the chub baskets, grill and tub are dry, replace the grill and baskets in the tub.

RETHERMALIZER AND HOLD TEMPERATURE CONTROLLER (RHTC) OPERATION

#### **GENERAL**

#### A. RHTC FEATURES

#### 1. PROGRAMMABLE TEMPERATURE

The user will be able to program a cook temperature for each of the three (3) product keys from 150°F (66°C) to 212°F (100°C). The recommended cook temperature is 190°F (88°C).

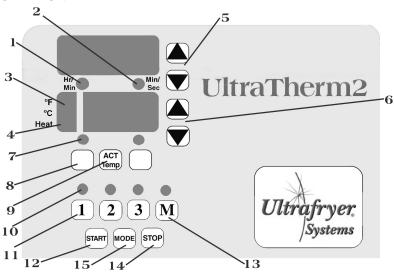
#### 2. PROGRAMMABLE TIMES

The user will be able to program a cook time for each product key up to 99 hours, 59 minutes and up to 59 seconds.

#### 3. PROGRAMMABLE HOLD TIME

The user will be able to program each product key for a continuing count up hold time and temperature of  $140^{\circ}$  F (60°C) to 200°F (93°C). The recommended hold temperature is  $170^{\circ}$ F (77°C).

#### **B. RHTC KEY DESCRIPTION**



RETHERMALIZE AND HOLD TEMPERATURE CONTROLLER (RHTC)

#### 1. HOUR/MINUTE

When lit, denotes hour and minute of timing mode

#### 2. MINUTE/SECOND

When lit, denotes minute and second of timing mode

#### 3. READY LAMP

When lit, denotes cook temperature is within 20°F (11°C) of the pre-set temperature.

#### 4. HEAT LAMP

When lit, denotes controller is calling for heat.

#### 5. UPPER ARROW KEYS

In operating and programming mode, used to increase or decrease time

#### 6. LOWER ARROW KEYS

In operating and programming mode used to increase or decrease temperature.

#### 7. HOLD LAMP

When lit, denotes a hold time has been programmed for the corresponding product key.

#### 8. HOLD KEY

In programming mode used to set a hold time for the corresponding product key.

#### 9. ACT TEMP KEY

In operating mode shows actual temperature when pressed and held

#### 10. PRODUCT KEY LAMP

In programming mode when lit, denotes this is the key you are setting; in operating mode when lit denotes this is the active product key.

#### 11. PRODUCT KEY

In programming mode denotes this is the product key you are setting; in operating mode used to select a timing cycle.

#### 12. START KEY

Used to start a timing cycle

#### **13. M KEY**

In operating mode the M (manual) key is used for on-the-fly change of time or temperature.

#### 14. STOP KEY

Used to stop a timing or hold timer cycle.

#### 15. MODE KEY

Use to enter the programming mode

#### C. RHTC DESCRIPTIONS

**190** The unit is in Operating Mode. The actual temperature is continuously shown in the display and is within 20°F (11°C) of the pre-set temperature.

**620** The unit is in Operating Mode. The probe is defective.

:00 This display signifies a cook cycle has just ended.

#### **PROGRAMMING**

- 1. GENERAL There are three (3) pre-settable product keys plus a MANUAL (M) product key. The timing range of all keys is from one (1) second to 99 hours. Times automatically switch from minute/second to hour/minute. In addition, each product key can be programmed for one (1) HOLD time. Once a product key has been programmed and has been pressed, the lamp above that key will LIGHT, and the display will start counting down, as soon as, the PRE-SET temperature for that key is reached. When the display counts down the programmed time, :00 will appear in the display and the controller will emit an audible alarm to alert the operator. The RHTC display uses FLEX TIME when counting down by adjusting cook time depending on cook temperature.
- 2. **PROGRAMMING** The following steps **MUST** be performed to enter and program each product key:

<b>STEP</b>	<u>ACTION</u>	RESULT
1	Press the product key you want to program	The lamp above the product key will <b>LIGHT</b>
2	Press the mode key until the lamp above the product key starts <b>FLASHING</b> (approximately 3 seconds)	The RHTC is now in the programming mode

#### STEP

3

#### **ACTION**

- Press the **UPPER** UP and DOWN arrow keys to program the **COOK** time.
- When the cook time is set, press the **LOWER** UP and DOWN arrow keys to program the **COOK** temperature.
- To use the **HOLD** feature and set the holding temperature, **PRESS** and hold the **HOLD KEY**; then use the **LOWER** UP and DOWN arrow keys to set the holding temperature. When the hold temperature is set release the hold key.
- 6 Press the mode key to exit the programming mode.

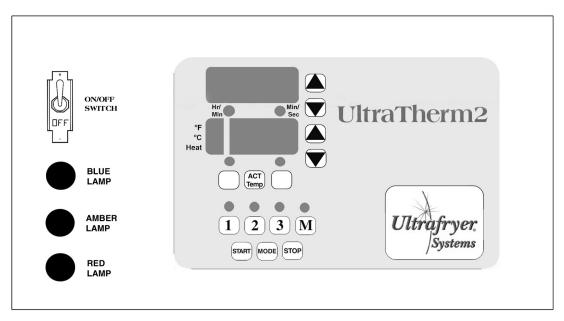
#### RESULT

The longer you press the arrow key, the faster the display will change.

The longer you press the arrow key, the faster the display will change. The recommended cook temperature is 190°F (88°C).

The light above the **HOLD** key will **LIGHT** if the hold feature has been set correctly. The recommended hold temperature is 170°F (77°C).

The product key lamp will stop **FLASHING** and remain lit.



**COOKING** – The following steps **MUST** be performed to start a cook cycle:

### **STEP** 1

#### **ACTION**

Turn the ON/OFF switch **ON**.

When the BLUE lamp turns OFF,
 PRESS the product key for the product to be cooked.

#### <u>RESULT</u>

- a. The **AMBER** and **BLUE** lamp will **LIGHT** and water will begin flowing into the Tub.
- b. When water reaches the **FLOAT** of the liquid level switch water flow will **STOP** and the **BLUE** lamp will turn **OFF**.
- a. The LAMP above that product key will LIGHT
- b. The **RED** lamp below the ON/OFF switch will **LIGHT.**
- c. The **HEAT** lamp on the RHTC controller will **LIGHT**.
- d. The pre-set cook temperature will appear in the display.
- e. The pre-set cook time will appear in the display.

NOTE: If :00 immediately appears in the display, that product key is NOT programmed.

- When water temperature is within 20°F (11°C) of the pre-set temperature for that product:
  - 1) The **HEAT** lamp on the RHTC will **TURN OFF**
  - 2) The **READY** lamp on the RHTC will **LIGHT**
  - 3) The **RED** lamp below the ON/OFF switch will remain **ON** until the pre-set temperature is reached.

#### STEP ACTION

- 3 When the **READY** lamp **LIGHTS** place the product to be cooked into the Rethermalizer tub and press the **START** key
- 4 Press the **STOP** key to turn the alarm signal **OFF.**
- 5 Repeat steps 3 and 4 to cook/hold other products.

#### **RESULT**

- a. The pre-set cook time will appear in the RHTC display and start counting **DOWN**
- b. When the pre-set cook time ends:
- 1) the LAMP above that product key will begin FLASHING
- 2) The RHTC will emit an audible **ALARM**
- 3) :00 will appear in the RHTC display
- a. If a **HOLD** time and temperature has been programmed:
  - 1) The **LAMP** above the hold key will **LIGHT**.
  - 2) The time in the RHTC will begin counting UP.
  - 3) The **LAMP** above the product key programmed for a hold time will begin **FLASHING**.
- b. To cancel a hold time, press the **STOP** key.

PREVENTIVE MAINTENANCE, TROUBLESHOOTING, AND CLEANING

#### PREVENTIVE MAINTENANCE AND INSPECTION REQUIREMENTS

Although the Rethermalizer only requires minimal preventive maintenance, the need to keep it clean cannot be over-stressed. The tub, basket, and grill come in contact with food and **MUST** be **THOROUGHLY** cleaned each evening. If the Rethermalizer is kept clean and if the following inspections are performed, this unit will provide many years of trouble free service.

#### INSPECTION REQUIREMENTS

#### INSPECTION INTERVAL

ITEM Electrical plug, cord and ON/OFF switch	DAILY X	WEEKLY	MONTHLY Replace of	Inspect the electrical cord, plug and ON/OFF switch for any physical damage.
Chub Basket and Grill			X damage. item	Inspect the Chub Basket and Grill for If applicable order replacement
Drain lever ment, accumulation of debris		X		Inspect the drain lever for free move- and check for

**NOTE:** As mentioned previously, it is **ESSENTIAL** that the Rethermalizer be kept **CLEAN** throughout the day and **THOROUGHLY CLEANED** at store closing each day.

#### TROUBLE SHOOTING CHART

<u>PROBLEM</u>	PROBABLE CAUSE	CORRECTIVE ACTION
Water will not flow into     Rethermalizer tub	a. Water shut-off valve in the in the closed position	a. Place shut-off valve in the open position
	b. Electrical plug not connected to electrical receptacle.	b. Connect plug to receptacle.
	c. ON/OFF switch in the OFF position.	c. Place switch in the ON position.
	d. Circuit breaker in the main electrical panel tripped.	d. Reset circuit breaker and check for cause that made breaker trip.
	e. Defective ON/OFF switch	e. Replace the ON/OFF switch
	f. Defective water float liquid level switch	f. Replace water float liquid level switch
	g. Defective water solenoid valve	g. Replace water solenoid valve

<b>PROBLEM</b>	PROBABLE CAUSE	<b>CORRECTIVE ACTION</b>
2. Water fills to the float level line but is not heated	a. Defective control relay	a. Replace control relay
	b. Defective temperature controller probe	b Replace temperature controller probe
	c. Defective heat element contactor	c. Replace heat element contactor
	d. Defective heat element	d. Replace heat element
3. <b>BLUE</b> fill lamp lights but there is no water flow	a. Water shut-off valve closed	a. Turn valve to the open position
	b. Defective water float liquid level switch	b. Replace switch
	c. Defective water solenoid valve	c. Replace valve
4. RHTC has <b>:00</b> in display immediately after a product key is pressed	a. Product key is not programmed	a. Check RHTC programming
5. <b>620</b> appears in RHTC display	a. The RHTC probe is defective	a. Replace probe

#### **CLEANING**

#### 1. DAILY

- a. Prepare a 6 quart (5.7 liters) container of sanitized warm water, in the proper ratio, for use in cleaning soiled surfaces.
- b. Periodically throughout the day soak a cloth towel in the sanitized solution, wring out the towel until it is damp and clean any soiled surface.
- c. Perform the following routines at store closing:
  - 1) Allow **ALL** metal surfaces and the water to **COOL**, remove the electrical plug from the electrical receptacle, and **CAREFULLY** drain the water from the Rethermalizer tub.
  - 2) Remove the two (2) Chub baskets and grill from the Rethermalizer tub; wash them with dish wash solution, **THOROUGHLY** rinse; and allow these items to air dry.
  - 3) Clean the Rethermalizer tub with dish wash solution, **THOROUGHLY** rinse and allow it to air dry.
  - 4) Clean all exterior surfaces with a reusable towel dampened with sanitizer and buff dry.
  - 5) Reassemble the Rethermalizer

#### 2. WEEKLY

- a. Perform daily cleaning routines listed above.
- b. Place the Chub Baskets and Grill in a fryer with **BOIL-OUT SOLUTION** for cleaning.
- c. After the baskets and grill have been cleaned **ENSURE** they are **THOROUGHLY** sprayed with a solution of **1 PART** vinegar to **25 PARTS** water to **NEUTRALIZE** the boil-out solution; then allow these items to air dry.
- d. Reassemble the Rethermalizer

**SERVICE PARTS** 

**TECHNICAL ASSISTANCE** – Contact an authorized service agent or the Customer Service Department, Ultrafryer Systems at 1-800-525-8130 for technical assistance.

#### ORDERING INFORMATION:

1. **REPLACEMENT PARTS** - Provide the following information when ordering replacement parts.

Your company name

Your company purchase order number

Bill-to address

Ship-to address

Quantity desired

Part number and description of the desired item

Your name or signature of authorized buyer

Phone in order to: 1-800-545-9189 Ext. 5029

FAX order to: 1-210-731-5099 Mail order to: Ultrafryer Systems

Order Entry Office P.O. Box 5369

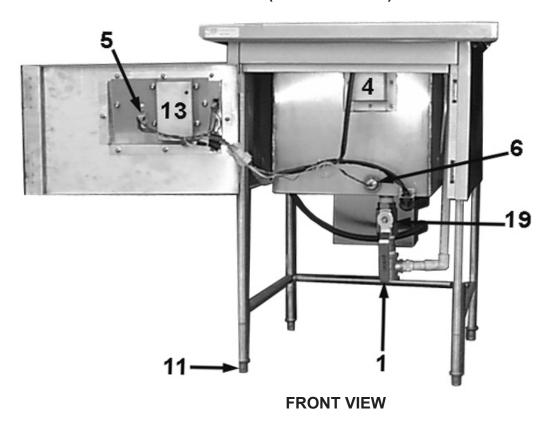
San Antonio, TX 78201

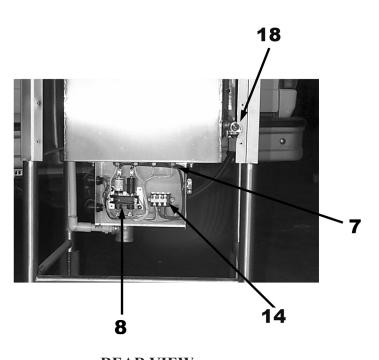
E-Mail Order To: UltrafryerServices@AFCE.COM

- 2. <u>TERMS</u> Net 30 days for customers on open accounts. Past due balances will be charged 1 ½% per month (18% per annum) until full balance is paid.
- 3. DAMAGES Ultrafryer Systems is not responsible for damage occuring in transit. All deliveries must be inspected for damage to shipping containers prior to departure of the delivering carrier. Any damage must be notated on the receiving document to facilitate filing of freight claims. Carriers must be notified immediately and freight inspections must be requested from the carrier. Ultrafryer Systems can and will gladly assist you in preparing and processing of the necessary claims only is proper notification has been accomplished on the carrier delivery document. Damaged equipment and or containers must be available for the claims inspector to inspect.
- 4. <u>RETURNS</u> Ultrafyer Systems cannot guarantee credit for items returned without proper authorization. All returns must have prior Ultrafyer Systems Customer Service or Warranty department approval. An assigned number will be issued by the approval authority. Please print the assigned number on all returned packages and corresponding paperwork. Returned goods are subject to a 15% restocking charge. Ultrafyer Systems is not responsible for freight charges on returned goods unless authorized by Customer Service and or Warranty personnel. Ultrafyer Systems does not receive freight collect or C.O.D. shipments.

**PARTS IDENTIFICATION** – Locate the part on the following sketches and note the index number i.e, 1, 2, etc; then obtain the part number and description for that index number on the page facing the sketches. Use that part number and description when ordering a replacement part

# ELECTRIC ULTRATHERM 2 RETHERMALIZER (TABLE MODEL)





**REAR VIEW** 

#### **ELECTRIC ULTRATHERM 2 RETHERMALIZER**

(TABLE MODEL)

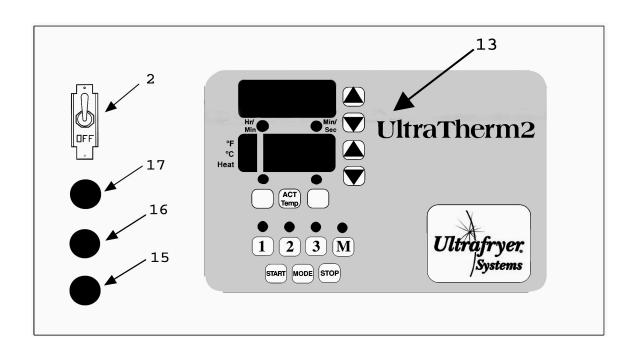
INDEX			
<u>NUMBER</u>	<u>PART</u>	<u>PN</u>	<u>DESCRIPTION</u>
1	LEVER	12A510	DRAIN BALL VALVE
2	SWITCH	18-204	120 VOLT SPST ON/OFF
*3	GUARD	18-129	ON/OFF SWITCH
4	SWITCH	18A004	FLOAT LIQUID LEVEL
5	RELAY	18A020	120 VOLT CONTROL
6	PROBE	18A276	TEMPERATURE CONTROLLER
7	ELEMENT	18A281	208 VOLT 9.5 KW ELECTRIC HEAT (NOTE 1)
		18A033	240 VOLT 9.5 KW ELECTRIC HEAT (NOTE 1)
8	CONTACTOR	18A283	120 VOLT 60 AMP 2 POLE MERCURY RATED AT600 VOLTS
9	SWITCH	19A145	HI-LIMIT PRESET TO TRIP AT 450°F
*10	BASKET	19A539	6 1/2" X 18" (165 x 457mm) 12"(305mm) DEEP S/S CHUB WITH HANGER BRACKET (CABINET MODEL)
		19A475	6 1/2" X 18" (165 x 457mm) 12" (305mm) DEEP S/S CHUB (TABLE MODEL)
11	FOOT	22-022	ADJUSTABLE S/S BULLET(TABLE MODEL) (NOTE 2)
*12	GRILL	22-725	14" X 18" (356 x 457mm) TUB
13	CONTROLLER	12A427	RETHERMALIZER AND HOLD TEMPERATURE (RHTC)
14	SECTION	23-015	ELECTRICAL TERMINAL
15	SNAPLIGHT	23-362	125 VOLT 1/3 WATT W/RED LENS
16	SNAPLIGHT	23A056	125 VOLT 1/3 WATT W/AMBER LENS
17	SNAPLIGHT	23A054	125 VOLT 1/3 WATT W/BLUE LENS
18	VALVE	24-349	120 VOLT SPST WATER SOLENOID
19	VALVE	24A057	1 1/4" (32mm) CHROME DRAIN BALL

\*NOT SHOWN

## WITH THE EXCEPTION OF CHUB BASKETS, BULLET FEET/CASTERS, BOTH THE CABINET AND TABLE MODEL ELECTRIC RETHERMALIZER USE THE SAME PARTS

NOTE: 1 - Order Clamp PN 19A855 when ordering 208 Volt Heating Element.

2 - Order medium duty 4" (102mm) caster w/o brake PN 28-016 for the cabinet model electric rethermalizer.



**WIRING DIAGRAM** - Since minor wiring changes may occur in the future, **USE** the diagram pasted to the Control Panel Access Door for circuit tracing and/or trouble-shooting a Rethermalizer.

