ULTRAFRYER® SYSTEMS

ULTRATHERM 2 GAS RETHERMALIZER
MODEL RGE-2-1824
OPERATING INSTRUCTIONS

ULTRAFRYER® SYSTEMS

NSF® PENDING

302 Spencer Lane • P.O. Box 5369 San Antonio, Texas 78201
(800) 525-8130 • (210) 731-5000 • FAX: (210) 731-5099

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 Model RGE-2-1824 Ultratherm 2 Gas Rethermalizer. Proper use of this manual will allow store employee to properly operate, clean and maintain this equipment which will reduce service call expenses.

TECHNICAL PUBLICATIONS DEPARTMENT
ULTRAFRYER SYSTEMS
302 SPENCER LANE
SAN ANTONIO, TEXAS 78201
TELEPHONE: 1-800-545-9189 Ext 5007

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WARRANTY INFORMATION

ULTRATHERM RETHERMALIZER WARRANTY

Ultrafryer Systems warrants to the original purchaser of a gas or electric ULTRATHERM RETHERMALIZER sold within the United States, it's territories and Canada, that it will be free of defects in material and workmanship for the period listed below:

RETERMALIZER PARTS – All parts on the Electric or Gas Rethermalizer are covered for a period not to exceed one (1) year after the initial start up. This is to include computers, valves, switches, thermostats, etc. Ultrafryer Systems reserves the right to charge for certain parts such as computers or any item over $100.00 until the defective part is received by the Warranty Department. After inspection, credit for the part will be issued to the purchaser provided the part is deemed defective and that defect is not the result of neglect or abuse by the user.

PROCESSING WARRANTY CLAIMS – The equipment owner must promptly notify Ultrafryer Systems Warranty Department of any alleged defects as soon as they are discovered by calling 800-525-8130. After such notice, the Warranty Department will perform its obligation under this warranty within a commercially reasonable period of time. If alleged defects develop after normal business hours, on weekends, holidays the owner must call Ultrafryer Systems first at the above number. This number is answered 24 hours a day and 7 days a week. Ultrafryer Systems will notify an AUTHORIZED service agent to make repairs during normal and after hours. Any parts that need to be shipped back to Ultrafryer Systems will be shipped back **prepaid by the customer** attn: WARRANTY DEPARTMENT.

NON WARRANTY COVERAGE – This warranty does not include coverage for any consequential cost of damages including, but not limited to, any loss in store sales, spoiled food products, transportation, duty or custom cost or failure / damage to component parts due to scaling caused by hard water. This does not cover original installation and adjustments such as leveling, calibrations and electrical and gas connections. This warranty does not cover travel over 100 miles or 2 hours drive time from the location of the Retermalizer, or overtime, or holiday charges unless the Warranty Department granted prior approval. This warranty does not cover improper or unauthorized repairs or installation, damage in shipment, normal maintenance. **Ultrafryer Systems reserves the right to void component part warranty on any ULTRATHERM RETHERMALIZER that is stored for more than 6 (six) months after shipment from Ultrafryer Systems and not put into service.**

LABOR COVERAGE – The cost for labor to replace parts or service the Rethermalizer is covered for one year after the initial start up. The Warranty Department must be promptly notified of any defects within the first year of operation. Labor is covered by Ultrafryer Systems for repairs and service by an AUTHORIZED service agent.

DISCLAIMER OF WARRANTIES

Other than as stated herein Ultrafryer Systems makes no warranty of any kind, express or implied, including but not limited to any warranty of merchantability of fitness for a particular purpose, including trade usage. Ultrafryer Systems sole obligation, and purchaser's sole remedy, under this warranty is repair or replacement, at the discretion of Ultrafryer Systems, of any part or component that proves to be defective in materials or workmanship. In no event shall Ultrafryer Systems be liable for consequential, incidental, or special loss or damages arising from the use of, or inability to use, the Rethermalizer. There are no other documents or oral statements for which Ultrafryer Systems will be responsible.

GENERAL INFORMATION

SAFETY

The Model RGE-2-1824 Ultratherm 2 Gas Rethermalizer operates on 120 volts single phase electrical power and natural gas. **NO CLEANING OR REPAIR** to any component should be attempted without **FIRST** disconnecting electrical power and turning the gas **OFF.** When in use the Rethermalizer will maintain water temperature above 140°F (60ºC) which can cause severe burns. **ALLOW METAL SURFACES TO COOL BEFORE CLEANING THE RETHERMALIZER.**

CABINET MODEL

MODEL RGE-2-1824 Ultratherm 2 GAS RETHERMALIZER

The Model RGE-2-1824 Ultratherm 2 Gas Rethermalizer was designed by Ultrafryer Systems to operate as a commercial warmer to thaw, heat and hold prepackaged frozen products such as rice, macaroni and beans in water 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 Model 1200 ZAP Timer or an "OPTIONAL" Rethermalize and Hold Temperature Controller (RHTC), twin stainless steel baskets, self filling water float valve and a water overflow drain.

SPECIFICATIONS

Dimensions	19 ¼" (489 mm) Wide, 37 ½" (953 mm) Deep, 42 ½" (1080 mm) High
Electrical	120 Volts 60 HZ, Single Phase
Natural Gas	65,000 BTU/HR (71.5 megajoules) 61.90 FT^3/HR (1.75 M^3/HR) Natural Gas
Water Capacity	22 Gallons (84 liters)

INSTALLATION AND INITIAL CLEANING

INSTALLATION

NOTE: Ensure the installer, plumber and electrician install the Rethermalizer according to Paragraph 2 and 3 of the Installation, Operation & Maintenance Manual PN 30A026 provided with the Model RGE-2-1824 Ultratherm 2 Rethermalizer.

1. Place the Rethermalizer beneath a propely designed exhaust hood in the location where it is to be operated.
2. Have a licensed plumber level the Model RGE-2-1824 Ultratherm 2 Rethermalizer and make the following gas and water connections.
   a. Gas
      1) Connect the unit to the type of gas for which it was fabricated as shown on the rating plate.
      2) Connect the unit to the main gas supply line using the proper diameter gas line.
      3) Connect the unit to the correct size pressure regulator installed in the gas line and adjusted to the proper manifold pressure.
   b. Water - 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.
   c. Restraint - Use a restraining device to ensure tension cannot be placed on the gas connection if the unit is moved.
3. Have a licensed electrician install an UL approved 3 wire 15 ampere electrical cord, **NEMA** rated electrical plug. The unit is provided with a **NEMA** rated electrical receptacle on the wall behind the Rethermalizer.
4. The correct combination gas control valve and orifice is installed at the factory for **NATURAL** gas, This value should be **CHECKED/ADJUSTED** by qualified service personnel using proper equipment for an **"OUTLET "** gas pressure of **"4" (102mm)W.C.)** prior to start-up of a rethermalizer.
5 Test operate the Rethermalizer equipped with a Model 1200 ZAP Timer 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

   b. Turn the Manual gas valve, located behind the front control access door, to the **OFF** position and wait **FIVE (5)** minutes for any accumalated gas to disperse.
   c. **ENSURE** the **MAIN** gas shut-off valve is in the **ON** position, **MANUAL VALVE** on the combination **GAS CONTROL VALVE** (located behind the front control access door) is in the **ON** position, and the **EXHAUST FAN** is **ON**.
   d. Turn the Toggle ON/OFF switch and Manual Gas Valve to the **ON** position. Water will begin flowing into the Rethermalizer tub, the ZAP Timer will turn **ON** and the **AMBER** power indicator lamp and **BLUE** water flow lamp will **LIGHT.**
   e. When water reaches the **FLOAT** of the liquid level switch the following should occur:
      1) The **BLUE** lamp will turn **OFF** and the Water flow will **STOP.**
      2) The **RED** Heat indicator lamp will **LIGHT** indicating water is being heated.
   f. Turn the Toggle **ON/OFF** switch and Manual gas valve to the **OFF** position,; then **OPEN** the drain valve lever to drain water from the Rethermalizer into a floor drain.

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

5. Test operate a Rethermalizer equipped with a Rethermalizer and Hold Temperature Controller (RHTC) 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** lamp below the ON/OFF switch will **LIGHT.**
   c. Turn the Manual gas valve, located behind the front control access door, to the **OFF** position and wait **FIVE (5)** minutes for any accumalated gas to disperse.
   d. **ENSURE** the **MAIN** gas shut-off valve is in the **ON** position, **MANUAL VALVE** on the combination **GAS CONTROL VALVE** (located behind the front control access door) is in the **ON** position, and the **EXHAUST FAN** is **ON**.
   e. Turn the manual gas valve to the **ON** position.
   f. 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 (11ºC) 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**.
   g. Turn the **ON/OFF** switch to the **OFF** position, turn the **MANUAL** gas valve **OFF**; 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
   STAINLESS STEEL TUB GRILL

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.

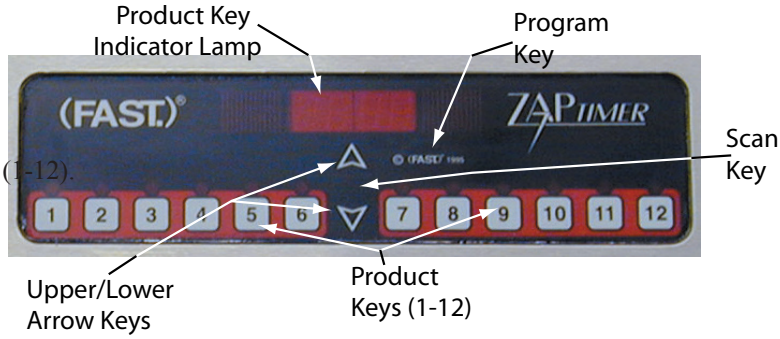
MODEL ZAP 1200 TIMER OPERATION

A. GENERAL

1. **THERMOSTAT -** The Fenwal Temperature Controller can be adjusted to heat water in the Rethermalizer tub from 60ºF (16ºC) to 212ºF (100ºC). The recommended **COOK** and **HOLD** temperature is 180ºF (82ºC).

2. **TIMER -** The Model 1200 ZAP Timer is capable of storing one (1) program time per Product Key allowing the user to start up to **12 COUNTDOWNS** concurrently. Each Product Key can be programmed up to **12 HOURS**, automatically switching from seconds/minutes to minutes/hours. When "idle" the timer will display — —:— —; and in the timing mode the display will indicate time, counting downward, of the product with the **LEAST** amount of time remaining and the LED of that product key will **FLASH.**

B. MODEL 1200 ZAP TIMER



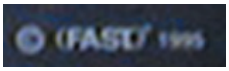
1. KEY DESCRIPTIONS

a. **PRODUCT KEY**  keys numbered (1-12).

b. **Product Key Display**  that portion above the Upper Arrow Key.

c. **UPPER ARROW KEY** 

d. **LOWER ARROW KEY** 

e. **PROGRAM KEY**  **© (FAST) 1995**

f. **SCAN KEY -** That portion between the Upper & Lower Arrows. 

2. KEY FUNCTIONS

a. **PRODUCT KEY -** In Operating Mode this key is used to select a timing cycle;
In Programming Mode, this is the product key you are setting.

b. **Product Key Display -** In Operating mode, when lit, denotes this is the active key. When **FLASHING**, indicates this is the product with the **LEAST** amount of time remaining in the time cycle.
In Programming mode denotes the product key you are setting.

c. **UPPER ARROW KEY -** In operating and programming mode, used to increase time.

d. **LOWER ARROW KEY -** In operating and programming mode, used to decrease time.

e. **PROGRAM KEY -** Used to enter and/or exit the program mode.

f. **SCAN KEY** - Pressing and holding the **SCAN** Key will cycle through all programmed product keys.

C. PROGRAMMING

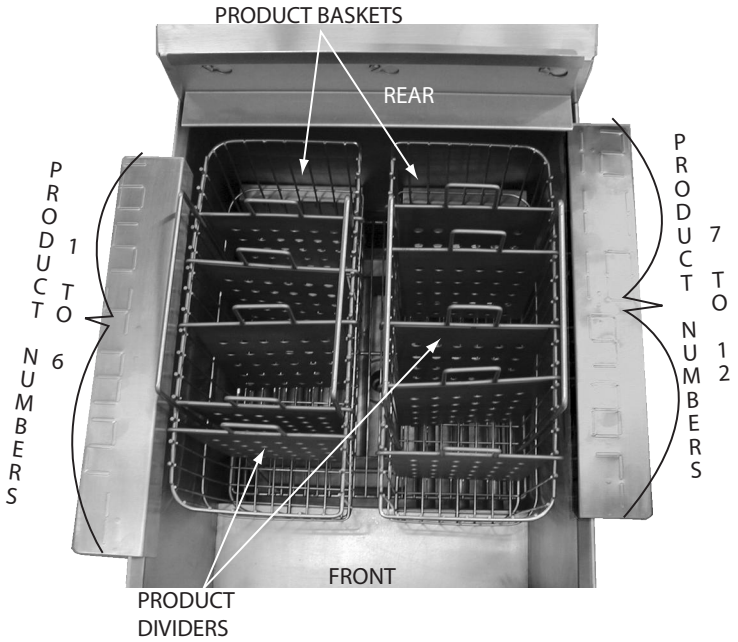
1. General - There are twelve (12) Programmable product keys. The timing range of all product keys is from one (1) second to twelve (12) hours. Times automatically switch from second/minute to minute/hours. Once a product key has been programmed and pressed in the operating mode, the lamp above that key will **LIGHT** and the display will start counting down from its **PRE-SET** time. When the Pre-set time is reached, **END** will appear in the display, the corresponding product key lamp will **FLASH** and the timer will emit an audible alarm to alert the operator. To reset that product key and silence the alarm, depress that product key **ONCE.** To cancel a cook cycle before the time is up, press and hold that product key for **3 SECONDS.**

2. Programming - The following steps must be performed to enter and program each product key:

NOTE: Turn the thermostat temperature dial to its **LOWEST** setting and turn the water to the Rethermalizer **OFF** while programming the Timer.

ITEM	ACTION	RESPONSE
1	Turn the Toggle ON/OFF switch to the **ON** position.	a. The **AMBER** and **BLUE** lamp will **LIGHT**. b. The timer will turn **ON** and - - : - - will appear in the display.
2	Press and **HOLD** the Program Key **(© (FAST) 1995)** for **5 SECONDS.**	a. The timer will **CHIRP** and **PROG** will appear in the display.
3	Press the Product Key to be programmed.	a. The existing time programmed on that Product Key or - - : - - will appear in the display. b. The lamp above that Product Key will **FLASH** and other lamps will be steadily **LIT.**
4	Enter the desired cook time for that Product Key by pressing the ▲ or ▼ Arrow Keys.	a. The time being entered will appear in the display.
5.	Repeat steps 3 & 4 to program additional Product Keys.	
6	When all Product Keys have been set to the desired cook time, press the Program **(© (FAST) 1995)** Key once to exit the programming mode.	a. The timer will return to Operating Mode and - - : - - will appear in the display.
7	To check the times entered for each Product Key press and hold the **SCAN** key.	a. The **COOK TIME** set for each Product Key will cycle in the display.
8	Turn the Toggle ON/OFF switch to the **OFF** position and set the Thermostat temperature dial to the desired cook temperature.	

D. COOKING - The following steps **MUST** be performed to start a cook cycle.



ITEM	ACTION	RESPONSE
1	Ensure the Drain Valve Lever is in the **CLOSED** position; then **OPEN** the water shut-off valve to the Rethermalizer.	
2	Turn the Toggle ON/OFF switch to the **ON** position.	a. The **AMBER** power lamp will **LIGHT.** b. The **BLUE** water flow lamp will **LIGHT.** c. Water will begin flowing into the Rethermalizer tub. d. When water reaches the **FLOAT** of the Liquid Level Switch, water flow will **STOP** and the **BLUE** lamp will turn **OFF.**
3	When the **BLUE** lamp turns **OFF,** set the temperature dial of the Thermostat to the desired **COOK** temperature.	a. The **RED** Burner Indicator Lamp will **LIGHT** indicating gas has been supplied and ignited to the Burner to heat the water.

THE RECOMMENDED COOK TEMPERATURE IS 180ºF (82ºC).

4	When the **RED** Burner indicator lamp turns **OFF** indicating the water is at the desired **COOK** temperature: 1) place the product to be cooked into the appropriately **NUMBERED** section of the Chub Baskets; and 2) press the Product Key on the Timer corresponding to the "NUMBERED" section of the Chub Basket.	a. The **COOK** time of that product will appear in the display and **IMMEDIATELY** start counting downward. b. When product is placed into the water, the water temperature will **DROP** and the **RED** lamp will cycle **ON** and **OFF**, indicating the Burner is being turned ON and OFF to maintain water at the desired **COOK TEMPERATURE.**
5	When the **RED** Burner indicator lamp stabilizes and remains **OFF**, repeat step 4 (above) to cook an additional product	**(**Repeat Step 4, 1 & 2 above.)
6	Repeat steps 4 & 5 (above) to cook additional products.	
7	As the **COOK** time for each product expires, the Timer will emit an alarm and the Product Key Lamp for that product will **FLASH**.	a. Remove the **COOKED** product and press the Product Key to **RESET** the timer and turn the alarm **OFF**.

CAUTION: WATER LEVEL WILL DROP ABOUT 4" (102 mm) EVERY 4 HOURS DUE TO EVAPORATION. PERIODICALLY, VISUALLY CHECK THE RETHERMALIZER TUB TO ASSURE WATER IS ABOVE THE HEAT ELEMENT AND THE PRODUCT IS BEING HEATED OR HELD SATISFACTORILY.

RETHERMALIZER AND HOLD TEMPERATURE CONTROLLER (RHTC) OPERATION

GENERAL

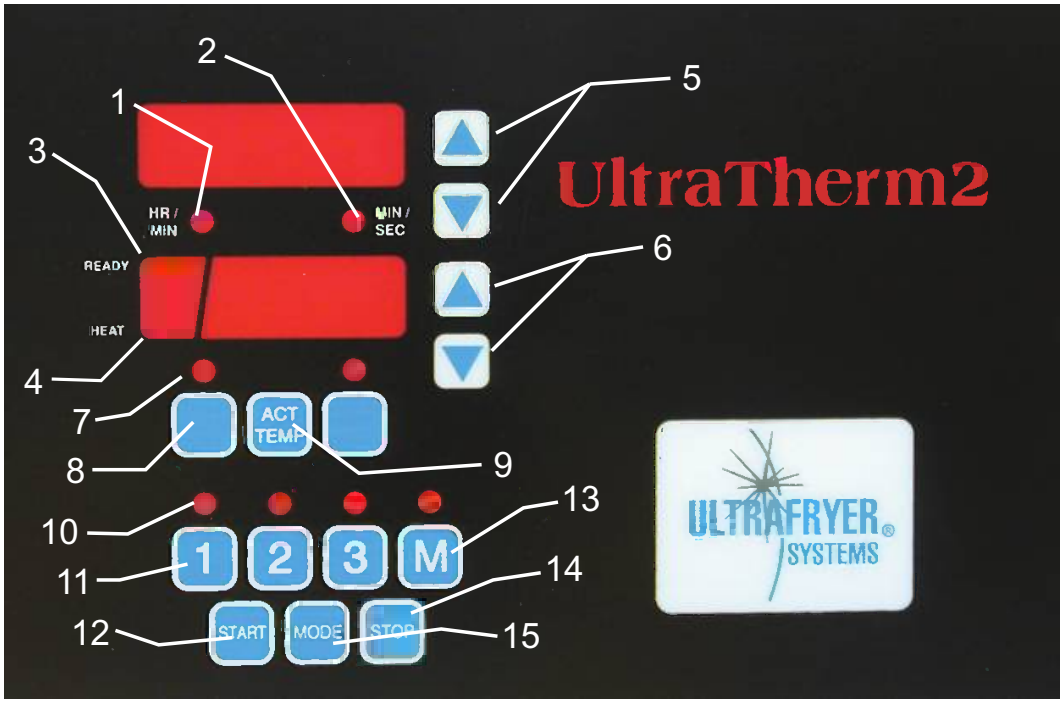
A. RHTC FEATURES

1. PROGRAMMABLE TEMPERATURE
The user will be able to program a cook temperature for each of the three (3) product keys from 140°F (60ºC) to 212°F (100ºC). The recommended Cook and Hold temperature is 180°F (82ºC).

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° (60ºC) to 212°F (100ºC). The recommended hold temperature is 180°F (82ºC).

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 (11ºC) 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 20ºF (11ºC) 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:

STEP	ACTION	RESULT
1	Press the Product key you want to program.	The lamp above the product key will **LIGHT.**
2	Press the mode key until the lamp above the product key starts**FLASHING** (approximately 3 seconds).	The RHTC is now in the programming mode.
3	Press the **UPPER** UP and DOWN arrow keys to program the **COOK** time.	The longer you press the arrow key, the faster the display will change.
4	When the cook time is set, press the **LOWER** UP and DOWN arrow keys to program the **COOK** temperature.	The longer you press the arrow key, the faster the display will change. The recommended cook temperature is 180°F (82ºC).
5	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.	The light above the **HOLD** key will **LIGHT** if the hold feature has been set correctly. The recommended hold temperature is 180°F (82ºC).
6	Press the mode key to exit the programming mode.	The product key lamp will stop **FLASHING** and remain lit.

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

STEP	ACTION	RESULT
1	Turn the ON/OFF switch and **MANUAL** gas valve **ON.**	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.**
2	When the **AMBER** lamp turns **OFF, PRESS** the product key for the product to be cooked.	a. The **LAMP** above that product key will **LIGHT.** b. The **RED** lamp below the ON/OFF switch will **LIGHT.** c. Gas will be supplied to the burner and the ignitor will **SPARK** igniting gas in the burner. d. The **HEAT** lamp on the RHTC controller will **LIGHT.** e. The pre-set cook temperature will appear in the display. f. The pre-set cook time will appear in the display.
NOTE:	If **:00** immediately appears in the display, that product key is **NOT** programmed.	
		g. 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.
3	When the **READY** lamp **LIGHTS** place the product to be cooked into the Rethermalizer tub and press the **START** key	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.
4	Press the **STOP** key to turn the alarm signal **OFF.**	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.
5	Repeat steps 3 and 4 to cook/hold other products.	

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, divider, and grill come in contact with food and **MUST** be **THOROUGHLY** cleaned each evening. If the Rethermalizer is kept clean and the following inspections are performed, this unit will provide many years of troublefree service.

INSPECTION REQUIREMENTS

INSPECTION REQUIREMENT				
ITEM	**DAILY**	**WEEKLY**	**MONTHLY**	**CORRECTIVE ACTION**
Electrical Plug, Cord, and Toggle ON/OFF Switch	X			Inspect the Electrical Cord, Plug, and the Toggle ON/OFF Switch for any physical damage. Replace damaged item.
Chub Basket, Dividers, and Grill			X	Inspect the Chub Basket, Divider and Grill for damage (broken welds, burrs, sharp edges that would tear chub bags). If applicable order and/or replace damaged items.
Drain Lever, Float		X		Inspect the drain lever and float for free movement and check for accumulation of debris.

TROUBLESHOOTING CHART

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Water will not flow into Rethermalizer Tub	a. Water shut-off valve in the closed position. b. Electrical plug not connected to electrical receptacle. c. ON/OFF switch in the OFF position. d. Circuit breaker in the main electrical panel tripped. e. Defective ON/OFF switch. f. Defective water float liquid level switch. g. Defective water solenoid valve.	a. Place shut-off valve in the open position. b. Connect plug to receptacle. c. Place switch in the ON position. d. Reset circuit breaker and check for cause that made breaker trip. e. Replace Toggle ON/OFF switch. f. Replace water float liquid level switch. g. Replace water solenoid valve.
Water fills to the float level but is not heated.	a. Defective control relay. b. Defective Thermostat.	a. Replace control relay. b. Replace Thermostat.
BLUE fill lamp lights but there is no water flow.	a. Water shut-off valve closed. b. Defective water float liquid level switch. c. Defective water solenoid valve.	a. Turn valve to open position. b. Replace water float liquid level switch. c. Replace water solenoid valve.

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, dividers, 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, Dividers, and Grill in the Rethermalizer Vat with **BOIL-OUT SOLUTION** for cleaning.

c. Boil-Out the vat using a good commercial grade boil-out compound, following the instructions advised.

d. Reassemble the Rethermalizer

MAINTENANCE

1. **MAINTENANCE -** The Fenwal Temperature Controller seldom requires adjusting if properly set during the initial installation. If necessary, adjust the Fenwal Temperature Control or Electronic Thermostat according to the following procedures.

2. **FENWAL TEMPERATURE CONTROLLER ADJUSTMENT -** If the Fenwal Temperature Controller is found to be **MORE THAN ±7°F (± 4°C)** from the desired cook temperature, they should be adjusted by a **QUALIFIED REPAIRMAN** as follows:

   A. EQUIPMENT REQUIRED:
   1) Fluke Model 51 Digital Thermometer w/ Type K "Bead" Thermo-Couple Temperature probe or equivalent **ACCURATE** digital thermometer and probe.
   2) Shortening Skimmer w/ long handle.
   3) Two (2) screwdrivers, one with a 1/8" (3mm) blade and one with a ¼" (6mm) blade.

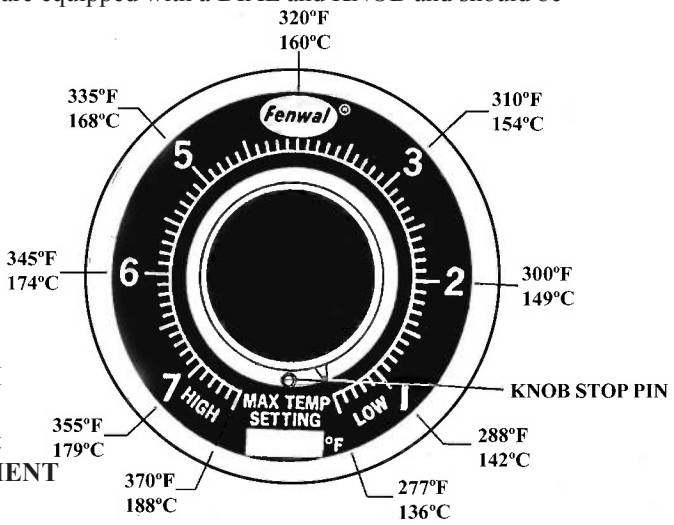
   B. PRECAUTIONS:
   1) If the **AVERAGE** temperature computed in step C 10) falls within a range of ±7° F (± 4°C) of the cook temperature, the Fenwal Temperature Controller is operating properly and should not be adjusted.
   2) **PRIOR** to checking/adjusting a Fenwal Temperature Controller, **ENSURE** the shortening **BENEATH** the heat tubes is in a liquid state, shortening has **STABILIZED** at the normal cook temperature and the shortening is **THOROUGHLY** stirred in a **COUNTER-CLOCKWISE (CCW)** direction.
   3) The Fenwal Temperature Controller adjustment shaft is **EXTREMELY SENSITIVE**. One (1) **FULL** turn (360°) of the adjustment shaft will change shortening temperature 100° F (56°C). The approximate change of shortening temperature per movement of the adjustment shaft is as follows:

MOVEMENT	TEMPERATURE CHANGE
1/8 TURN	12.5° F (7°C)
1/4 TURN	25° F (14°C)
1/2 TURN	50° F (28°C)
3/4 TURN	75° F (42°C)
1 TURN	100° F (56°C)

   NOTE: To **INCREASE** shortening temperature turn the adjustment shaft to the **LEFT** (counter clockwise).
   To **DECREASE** shortening temperature, turn the adjustment shaft to the **RIGHT** (clockwise).

   C. FENWAL TEMPERATURE CONTROLLER TEMPERATURE CHECK/ADJUSTMENT PROCEDURES:
   Fenwal Temperature Controllers in **ALL** fryer configurations are equipped with a DIAL and KNOB and should be checked / adjusted as follows:

   1) **ENSURE** electrical power and gas to the vat has been turned **OFF.**
   2) **CAREFULLY** drain sufficient shortening from the vat to **LOWER** the shortening about 4" (102 mm) beneath the Fenwal Temperature Controller sensing element.
   3) After the sensing element has **COOLED**, loop the Bead Type K temperature probe around the sensing element, connect the temperature probe to the Fluke thermometer, set the **KNOB** pointer to the **LOW** setting **(MAXIMUM CLOCKWISE POSITON)**, then **CAREFULLY** loosen the knob set screw and remove the knob form adjustment shaft. **TAKE CARE TO NOT TURN THE ADJUSTMENT SHAFT.**



   4) Replace shortening drained in step 2). and **ENSURE** it is level with the shortening level mark.
   5) Turn electrical power and gas to the vat ON and start the fryer to heat the shortening.

6) Periodically STIR shortening in a **COUNTER-CLOCKWISE (CCW)** direction with a **LONG** handle skimmer to pull congealed shortening **UPWARD** from the cold zone area beneath the heat tubes.

CAUTION: ALL SHORTENING MUST BE IN A LIQUID STATE AND EVENLY HEATED PRIOR TO ADJUSTING A FENWAL TEMPERATURE CONTROLLER!

7) When the shortening has reached temperature and the burner has cut-off, allow the temperature controller to **CYCLE ON** and **OFF** about 3 times to **STABILIZE** shortening temperature.

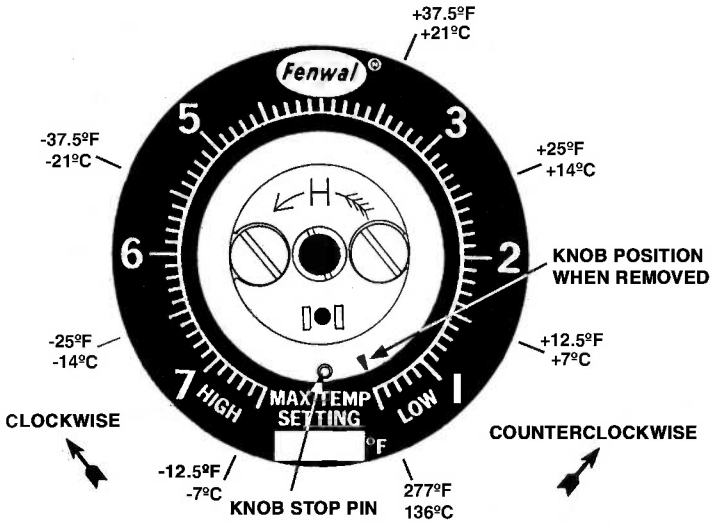
8) After shortening temperature has become **STABLE**, continue to stir the shortening in a **CCW** direction. When the fryer **SHUTS OFF**, record the temperature displayed on the fluke digital thermometer and when the fryer **TURNS ON** record the temperature displayed on the thermometer.

9) Compute the **AVERAGE** of the two (2) temperature readings recorded in step 8). For example: **SHUT-OFF** temprature = 343º F (173ºC), **TURN-ON** temperature = 339º F (171ºC), then **AVERAGE** temperature = 341º F (172ºC).

10) If the **AVERAGE** temperature computed in step 9). falls within a range of ±7º F (±4ºC) of the cook temperature, the Fenwal Temperature Controller is operating properly and should not be adjusted. If the **AVERAGE** temperature computed above is more than ± 7º F (± 4ºC) from the cook temperature, the Fenwal Temperature Controller should be adjusted as follows:

   a) If the **AVERAGE** temperature computed above is **HIGHER** than the desired cook temperature, the adjusting screw should be turned to the **RIGHT (clockwise) CW** to **DECREASE** shortening temperature. For example: the **AVERAGE** temperature is 365º F (185ºC) and the desired cook temperature is 340º F (171ºC) — turn the adjusting screw **¼ TURN** to the **RIGHT (CW)** to lower the cook temperature.

   b) If the **AVERAGE** temperature computed above is **LOWER** than the desired cook temperature, the adjusting screw should be turned to the **LEFT (counter-clockwise) CCW** to **INCREASE** shortening temperature. For Example: the **AVERAGE** temperature is 347.5º F (175ºC) and the desired cook temperature is 360º F (182ºC) - turn the adjusting screw **1/8 TURN** to the **LEFT (CCW)** to raise the cook temperature.



11) Repeat STEP 8) and 9) to re-compute the **AVERAGE** temperature and if it is within ± 7º F (± 4ºC) of the desired cook temperature, no further adjustment is necessary.

NOTE: To **ACCURATELY** set the Fenwal Temperature Controller to the desired cook temperature, shortening **MUST BE** periodically **STIRRED** in a **COUNTER-CLOCKWISE** direction to assure it is evenly heated.

12) Repeat **STEP 1**) and **STEP 2**) and after the sensing element has **COOLED**; 1) remove the Bead type K temperature probe from the sensing element, 2) **CAREFULLY** replace and secure the **KNOB** on the adjustment shaft with the **POINTER** against the **LOW** setting **(MAXIMUM CLOCKWISE POSITION)** and 3) replace shortening to the shortening level mark.

RECOMMENDED SPARE PARTS

RECOMMENDED SPARE PARTS: To minimize downtime on the Ultratherm 2 Model RGE-2-1824 Rethermalizer upon failure of a component part, at least one (1) of the following items should be kept in stock as a spare part in the local area:

RECOMMENDED SPARE PARTS RGE-2-1824			
DESCRIPTION	**MANUFACTURER**	**MFG. PART NO.**	**ULTRAFRYER SYSTEM PART NUMBER**
Ignitor Rod	Honeywell	Q347A-1012	12A043
Fasco Blower Motor	Fasco	B23618	12A021
Ignitor Spark Module	Honeywell	S87B1008	18-179
24 Volt Step-Down Transformer	Honeywell	AT40A1121	18-180
Ignitor Rod Module Cable	Honeywell	392125-1	18-187
24 Volt Combination Gas Control Valve	Honeywell	VR82003A-1005	18-227
120 Volt SPST ON/OFF Switch			18-204
1/2" (13 mm) Manual Gas Valve	Giacomini	R602	24-326
7/16" (11 mm) Orfice Plug w/ #25 drill hole for Natural Gas			24-458
120 Volt SPST Water Solenoid Valve			24-349

TECHNICAL ASSISTANCE, ORDERING INFORMATION AND PARTS IDENTIFICATION

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: parts@ultrafryer.com

2. **TERMS** – 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.

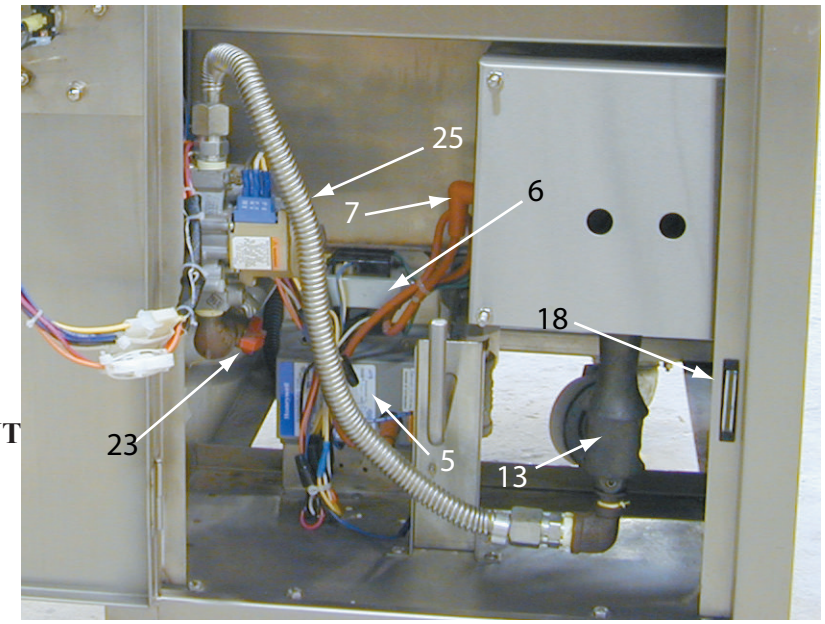
4. **RETURNS** – Ultrafyer Systems cannot guarantee credit for items returned without proper authorization. All returns must have prior Ultrafryer Systems Customer Service or Warranty department approval. An assigned number will be issued by the approval authority. Please print the assigned number on all returned packages and corresponding paperwork. Returned goods are subject to a 15% restocking charge. Ultrafryer Systems is not responsible for freight charges on returned goods unless authorized by Customer Service and or Warranty personnel. Ultrafryer 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, 4, 5, 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.

MODEL RGE-2-1824 Ultratherm 2 GAS RETHERMALIZER
FRONT VIEWS

FRONT VIEW

ZOOMED VIEW OF CONTROLS (CABINET FRONT



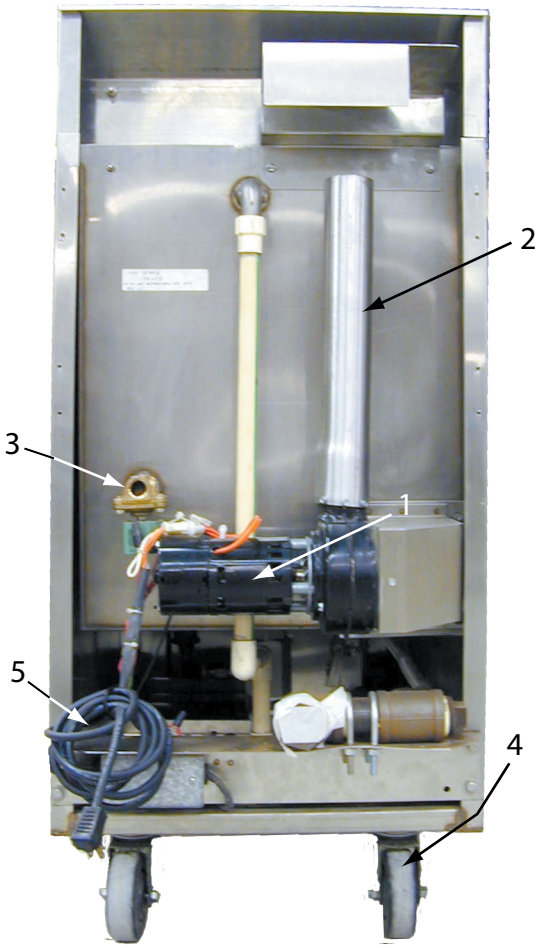
MODEL RGE-2-1824 RETHERMALIZER
FRONT VIEW

INDEX NUMBER	PART DESCRIPTION	UFS PN
* 1	Spark Ignitor Rod (Set Rod gap to 5⁄32" (4 mm) prior to installation.)	12A043
* 2	Drain Clean-Out Rod	12A120
3	Drain Ball Valve Lever,	12A510
4	Toggle ON/OFF Switch Guard	18-129
5	Spark ingnitor Module S87B1008	18-179
6	Step Down Transformer 120 to 24 VAC	18-180
7	Ingnitor Rod Cable w/Plugs Model 392125-1	18-187
8	Toggle ON/OFF Switch SPST 120 VAC	18-204
9	Electric Gas Control Valve (For Mounting bracket order PN 19A113.)	18-227
10	Fenwal Temperature Controller for use with Model 1200 ZAP Timer (PN 21A304) (For Dial and Knob order PN 22-705)	18-233
11	Liquid Level Float Switch	18A004
*12	120 Volt Control Relay	18A020
13	Cast Iron Burner Assembly	19-559
14	Fire Box w/Interior Gaskets. For Cover order PN 19-626, For Weldment Shield order PN 22A168 & Shield Gaskets order PN 12A161.	19A074
*15	17¼" x 17¼" (438 x 438mm) Tub Grill	19A510
*16	Chub Basket 6½ x 18 x 12" (165 x 457 x 305 mm) deep	19A539
17	Model 1200 ZAP Programmable Timer (Note)	21A304
18	Magnetic Door Catch	22-407
20	125 VAC ⅓ Watt Snaplight w/Red Lens	23-362
21	125 VAC ⅓ Watt Snaplight w/Blue Lens	23A054
22	125 VAC ⅓ Watt Snaplight w/Amber Lens	23A056
23	Manual Gas Valve ½" (13 mm) ID w/Red Handle	24-326
*24	**NATURAL GAS** Orifice Plug 7⁄16" (11 mm) NPT w/#25 Drill Hole (For Orifice Holder order PN 24A105)	24-458
25	Flexible Gas Line ½ x ½" MPT x 36" (13 x 13 mm MPT x 914 mm)	24A011
*26	1¼" (32 mm) Chrome Drain Ball Valve	24A057
*27	1¼" x 1¼" x 1¼" (32 x 32 x 32mm) Galvanized Tee	24A060
28	Medium Duty 4" (102 mm) Front Caster w/Brake	28-015

* Not Shown

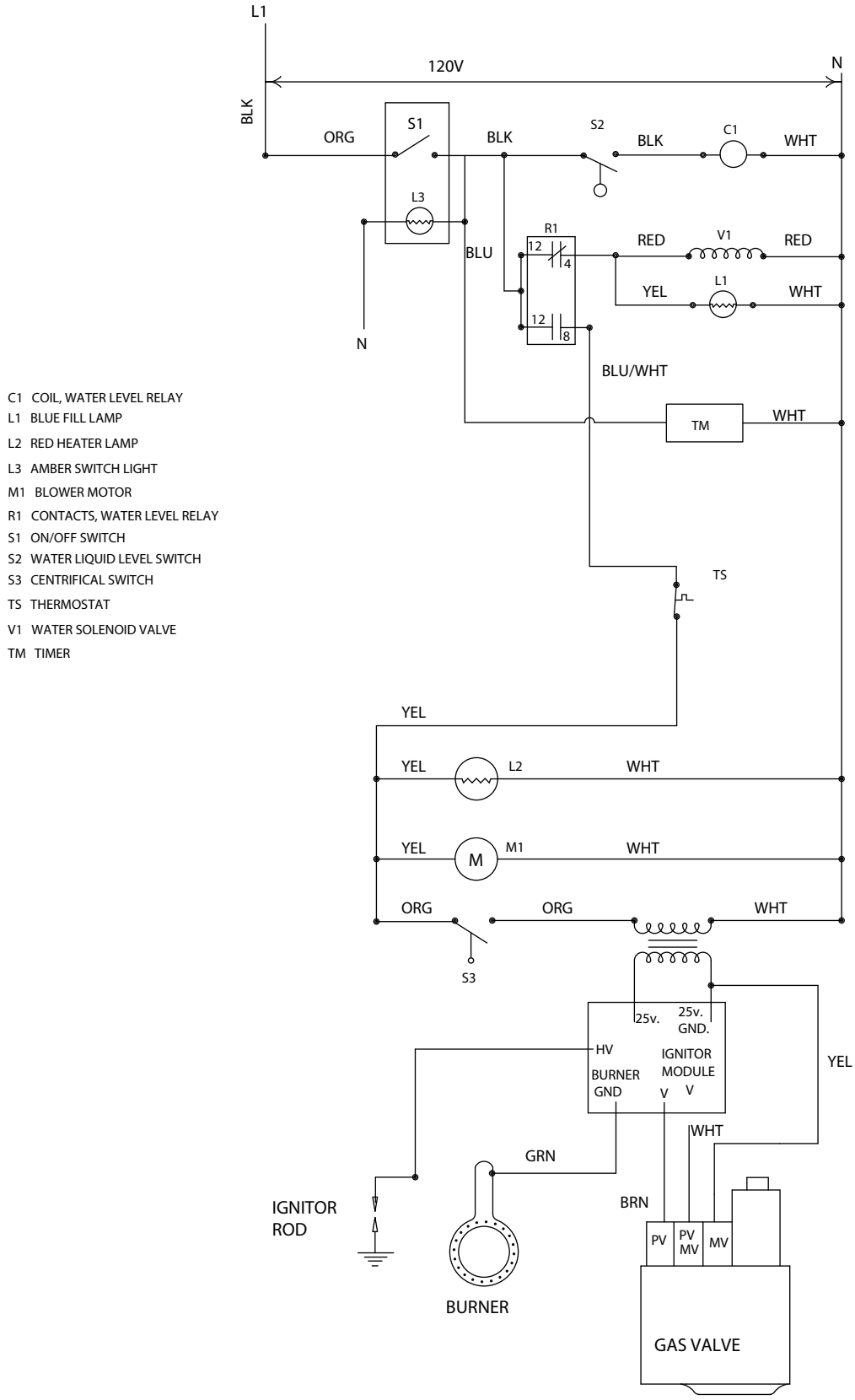
NOTE: Optional Ultratherm 2 Rethermalize and Hold Temperature Control (RHTC) PN 12A427 along with Temperature Control Probe PN 18A276 may be used on some versions of this Rethermalizer.

MODEL RGE-2-1824 RETHERMALIZER
REAR VIEW



INDEX NUMBER	PART DESCRIPTION	UFS PN
1	Exhaust Blower Motor 120VAC 60Hz 1 Phase (Pre-Wired)	12A021
2	Flue Pipe 2⅛" (54 mm) Diameter	19A459
3	Water Solenoid 120VAC SPST	24-349
4	Medium Duty 4" (102 mm) Caster w/out Brake Rear	28-016
5	Type SJO 16/3 Electrical Cord w/90º Molded Plug	33-048

WIRING DIAGRAM - Since minor wiring changes may occur in the future, **USE** the diagram posted to the Control Panel Access Door for circuit tracing and/or trouble-shooting a Model RGE-2-1824 Gas Rethermalizer.



C1 COIL, WATER LEVEL RELAY
L1 BLUE FILL LAMP
L2 RED HEATER LAMP
L3 AMBER SWITCH LIGHT
M1 BLOWER MOTOR
R1 CONTACTS, WATER LEVEL RELAY
S1 ON/OFF SWITCH
S2 WATER LIQUID LEVEL SWITCH
S3 CENTRIFICAL SWITCH
TS THERMOSTAT
V1 WATER SOLENOID VALVE
TM TIMER