SI NUMBER:
2005-2
DATE:
JANUARY 19, 2005

SUBJECT

ADTC TO U01 CONTROLLER FIELD RETROFIT

I PURPOSE: These procedures outline the steps necessary to remove, replace and perform an operational test on fryer's equipped with ADTC controllers currently in operation with Default-To-Manual-Restart (DTMR) Controller with a Fenwal temperature probe..

II PRECAUTIONS

WARNING: ENSURE THE FRYER IS COOL, THE POWER SWITCH IS IN THE OFF POSITION AND THE ELECTRICAL CORD IS DISCONNECTED FROM THE POWER SOURCE PRIOR TO PROCEDING.

ONLY AUTHORIZED REPAIR PERSONNEL SHOULD ATTEMPT THIS RETROFIT

CAUTION: ENSURE VAT SHORTENING HAS BEEN DRAINED BELOW TEMPERATURE PROBE LEVEL PRIOR TO PROCEDING.

III PROCEDURES

A. ADTC CONTROLLER REMOVAL

1. Open the applicable fryer door to gain access to the ADTC controller, remove the tie wraps securing the **RED** two (2) pin and **WHITE** four (4) pin cable connector as illustrated in Figure 1 page 2.
2. Remove the temperature probe from the fryer vat as illustrated in Figure 1 page 2 and discard.
3. Remove the two (2) 10-24 speed nuts securing the ADTC mount plate to the fryer door as illustrated in Figure 3 page 3.
4. **CAREFULLY** seperate the silicone seal from around the mount plate and remove and discard the ADTC.

NOTE: It may be necessary to remove the excess sealant from the door surrounding the mounting hole to ensure a water-tight seal when reinstalling.

B. ADTC TO U01 RETROFIT

1. Retrofit components for EACH position consist of:
   a. One (1) each - (DTMR) Controller Assembly - PN 12A265
   b. One (1) each - Computer wiring Harness - PN 12B611
   c. One (1) each - Fenwal Temperature Probe - PN 18233
   d. One (1) each - Fenwal Dial - PN 22705
   e. Two (2) each - #10 Speed Nuts - PN 27054
   f. Five (5) each - 1 3/4" Cabletyes - PN 33003
   g. Two (2) each - Wire Nuts - PN 23002

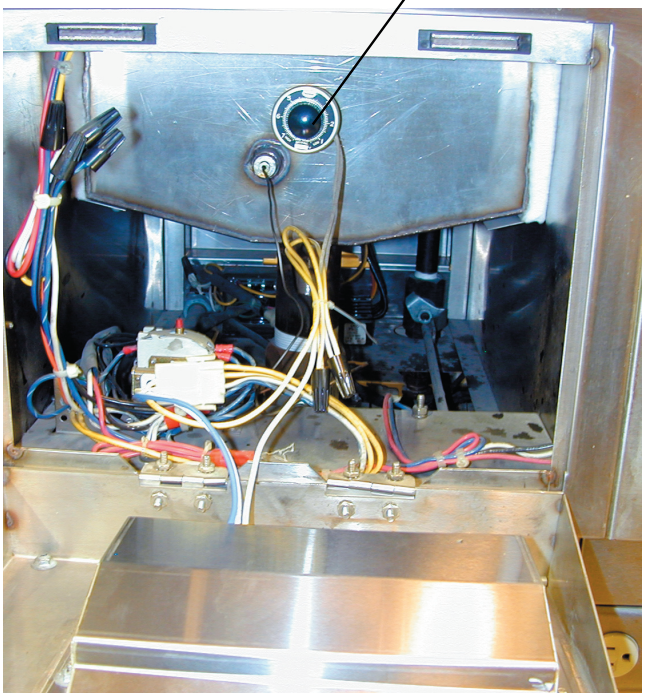
2. Install the supplied Fenwal Temperature Probe as shown in Figure 1 page 2.
3. Install the Faceplate and knob onto the temperature probe. Ensure rheostat is set at it's lowest setting prio to installing knob as shown in Figure 1 page 2.
4. Connect the four (4) pin Male fryer connector to the for (4) pin Female connector on the Harness; then connect the four (4) pin Male connector from the Harness to the four (4) pin Male connector on the DTMR assembly as illustrated in Figure 2 page 2..

four (4) pin Male connector from the Harness to the four (4) pin Male connector on the DTMR assembly.

5. Using the supplied wire nuts, attach one (1) YELLOW wire from the harness to one (1) WHITE wire from the Temperature Probe. Repeat for the remaining YELLOW and WHITE wires.
6. Locate and install the DTMR Controller assembly and the COVER panel on the two (2) 10-24 weld studs with 10-24 speed nuts.
7. Using an NSF approved sealant, apply a seal around the outside edge of the DTMR Controller Mount Plate and Controller door .
8. Close the controller door, plug the fryer's electrical cord back into the wall and proceed to section IV.

Install Fenwal Thermostat probe
Install Face Plate and mount screws
Install knob, ensure thermostat is set
to it's lowest setting and knob alignment
is set at LOW, tighten knob set screws

Figure 1



1. Connect four (4) pin MALE connector to DTMR controller
2. Connect four (4) pin FEMALE to existing fryer harness
3. Connect one (1) YELLOW wire to one (1) WHITE probe wire with a wire nut, repeat for the remaining YELLOW and WHITE wire

Figure 2

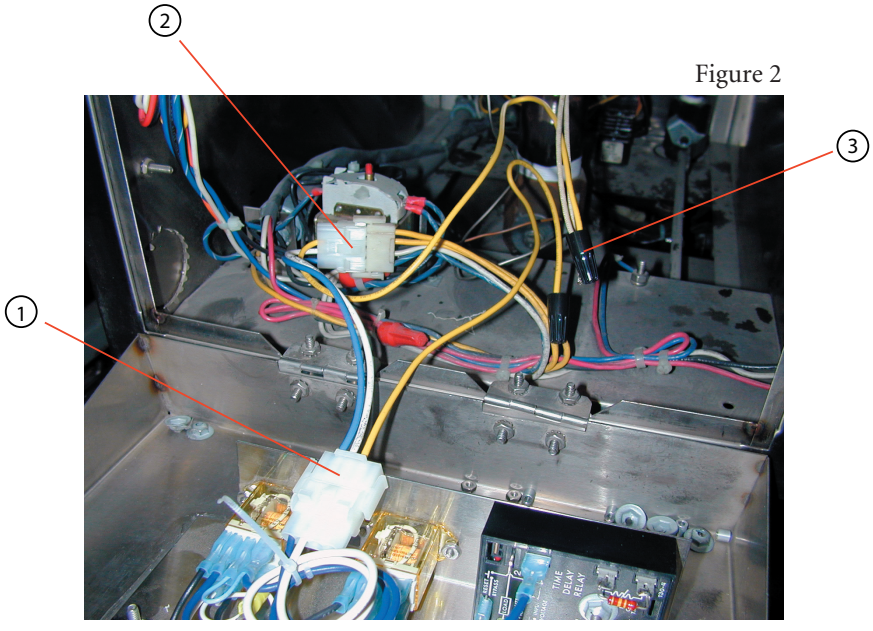


FIGURE 3

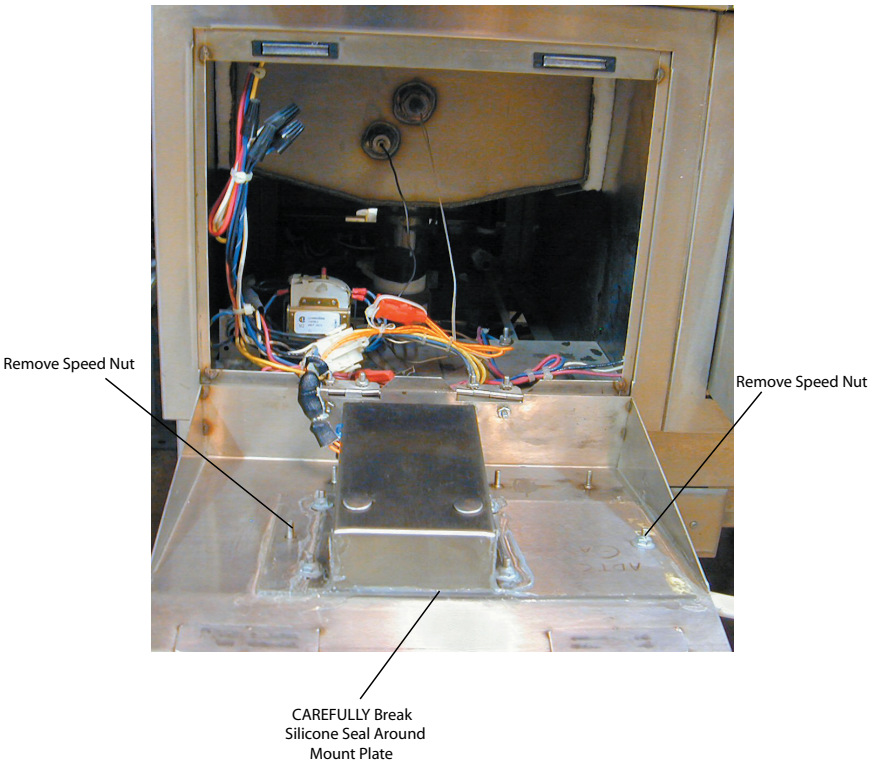
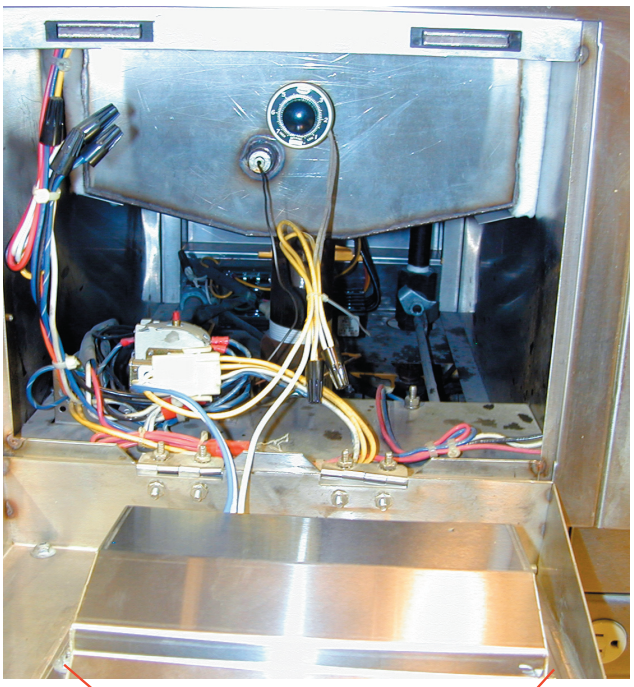


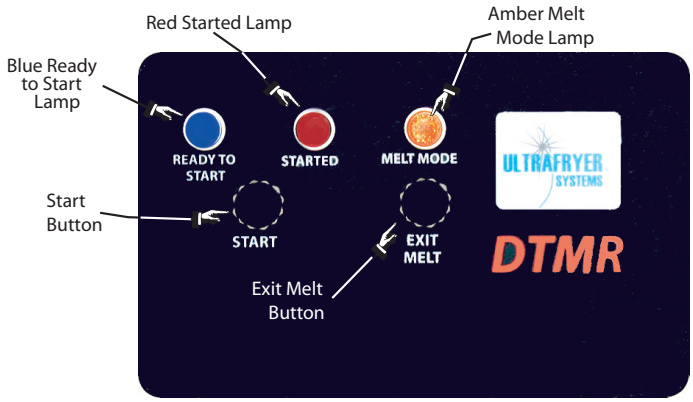
FIGURE 4



Mount and Install DTMR Controller assy and Cover with two (2) each 10-24 speed nuts as shown below

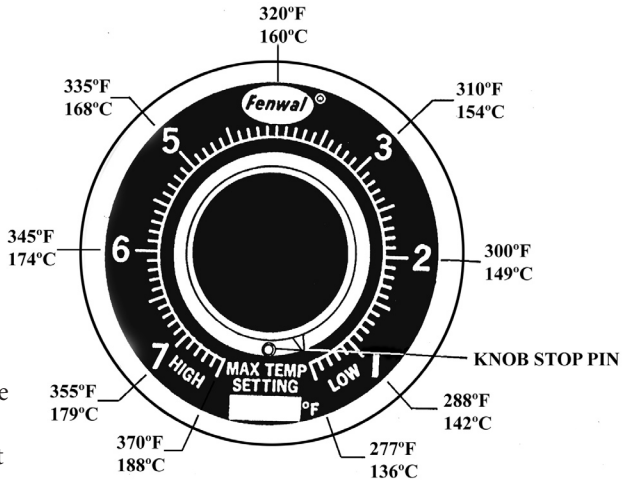
IV OPERATIONAL CHECK

1) Ensure the fryer's ON/OFF Switch is in the **OFF** position.
2) Fill the fryer vat with hot or cold water to the middle of the **"E"** in the word **LEVEL** of the applicable shortening level mark on the rear of the vat.
3) Turn the MANUAL gas valve to the **OFF** position and wait **FIVE** (**5**) minutes for any accumulated gas to disperse.
4) **ENSURE** the **MAIN** gas shut-off valve is in the **ON** position, and that the Vent Hood **EXHAUST FAN** is **ON**.
5) Turn the MANUAL GAS VALVE to the ON position.
6) Perform the steps below in the order listed:



ITEM	ACTION	DTMR CONDITION
1	**ENSURE** the drain valve is in the CLOSED position and that water is at the proper level; then turn the switch to the **ON** position.	A. The **AMBER** power indicator will **LIGHT.** B. **BLUE READY** TO START lamp will **LIGHT.**
CAUTION: PRIOR TO PROCEEDING TO STEP 2 VISUALLY CHECK THAT THE HEAT MECHANISM IS COVERED WITH AT LEAST 2" (51mm) OF WATER.		
2	Depress, then release the momentary **START** button	A. **RED STARTED** lamp and **AMBER MELT MODE** lamp will light. B. **BLUE READY TO START** lamp will turn **OFF.** C. A **TIMER** in the Default-To-Melt electrical circuit will begin cycling the fryer heat mechanism **ON** for twelve (12) seconds and **OFF** for 28 seconds to safely heat the water.
CAUTION: PRIOR TO PROCEEDING TO STEP 3, VISUALLY CHECK THAT THE WATER COMPLETELY COVERS THE HEAT MECHANISM.		
3	When the water is heated depress, then release the momentary **EXIT MELT** button.	A. **AMBER MELT MODE** lamp will turn **OFF** and the **RED STARTED** lamp will remain lit. B. The **TIMER** in the Default-To-Melt circuit will switch to the **FULL ON** position, allowing the Electronic Thermostat to heat the water.
4	When the water begins to boil, turn the On/Off switch to the **OFF** position.	A. The **AMBER** power lamp will turn OFF.
5	After the water in the vat and metal surfaces of the fryer have **COOLED**, drain the water into a floor drain.	

V. 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:

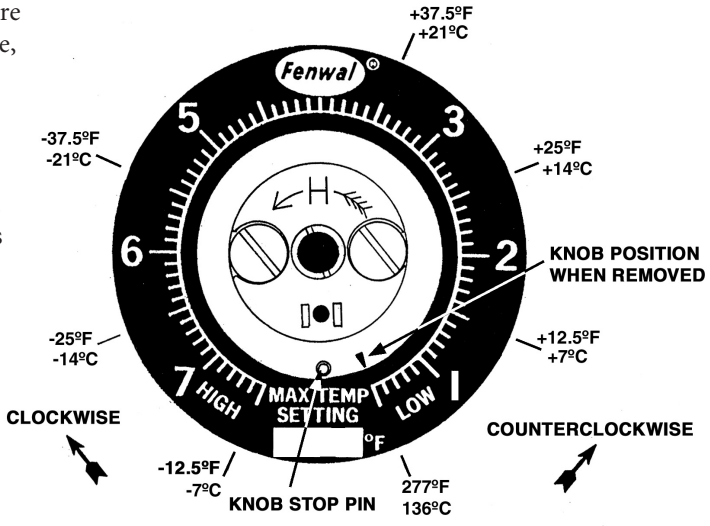


1) ENSURE electrical power and gas to the vat has been turned OFF.
2) CAREFULLY drain sufficient shortening from the vat to LOWER the shortening about 4" (102 mm) beneath the Fenwal Temperature Controller sensing element.
3) After the sensing element has COOLED, loop the Bead Type K temperature probe 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 temperature = 343° F (173°C), TURN-ON temperature = 339°F (171°C), then AVERAGE temperature = 341° F (172°C).
10) If the AVERAGE temperature computed in step 9). falls within a range of ±7° F (±4°C) of the cook temperature, the Fenwal Tempera ture Controller is operating properly and should not be adjusted. If the AVERAGE temperature computed above is more than ± 7°F (± 4°C) 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 365° F (185°C) and the desired cook temperature is 340° F (171°C) — 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 347.5° F (175°C) and the desired cook temperature is 360°F (182°C) - 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 ± 7° F (± 4°C) 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.

VI ULTRASTAT 11 COOKING COMPUTER OPERATION

1. Refer to Manual PN 30A066, Default-To-Manual-Restart (DTMR) Computer Operating Instructions, included with this kit.

VII TECHNICAL ASSISTANCE AND ORDERING INFORMATION

A. TECHNICAL ASSISTANCE

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

B. ORDERING INFORMATION

1. REPLACEMENT PARTS

Provide the following information when ordering replacement parts by phone, fax or mail:
Your company name and phone number
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 your order to: Ultafryerservice@ultrafryer.com

2. TERMS

Net 30 days for customers on approved accounts. Past due balances will be charged 1% per month (12% per annum) until full balance is paid.

3. DAMAGES

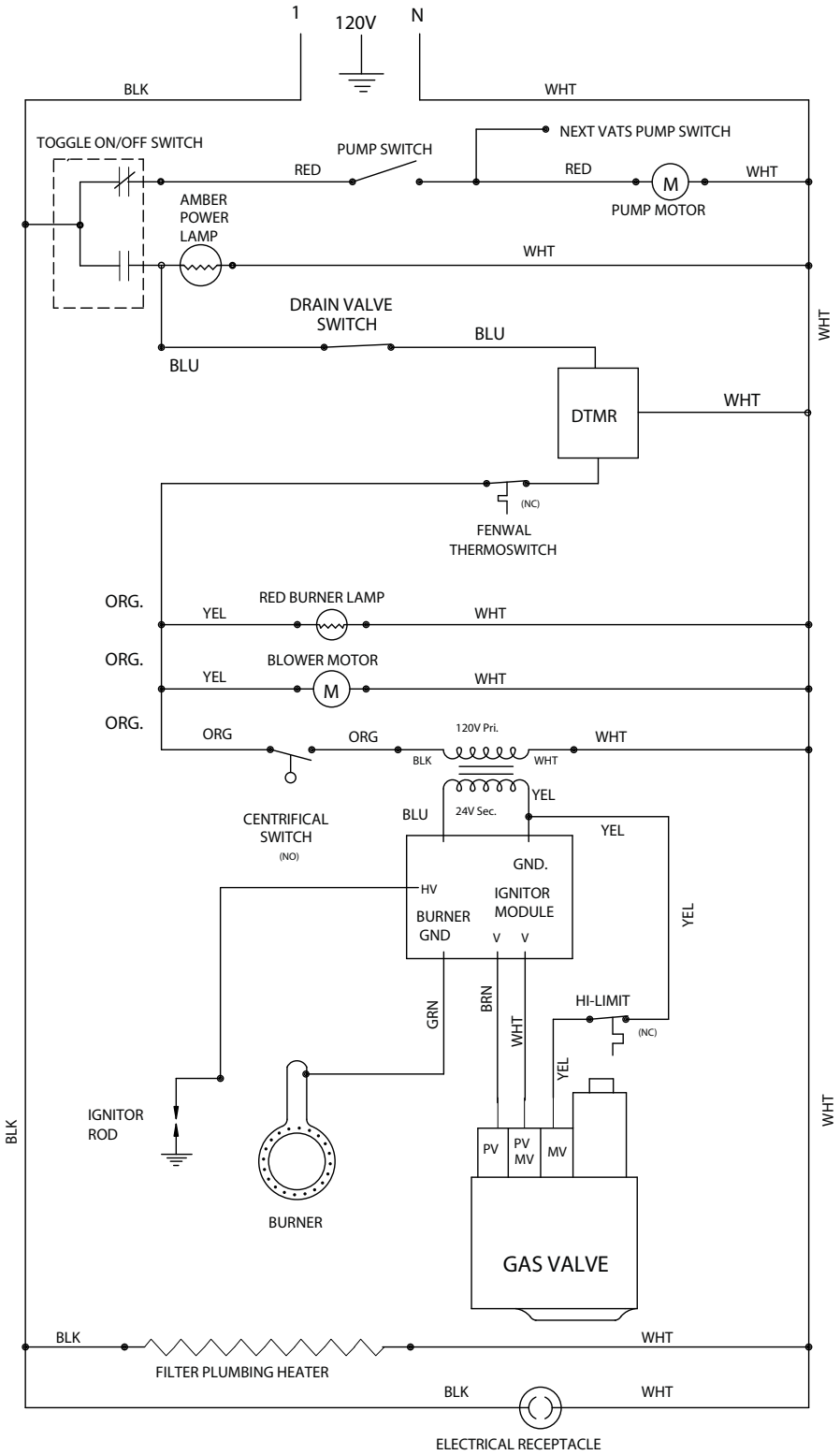
Ultrafiyer Systems is not responsible for damage occurring in transit. All deliveries must be inspected for damage to Shipping containers prior to departure of the delivering carrier. Any damage must be notated on the receiving document to facilitate filing of freight claims. Carriers must be notified 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 if 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

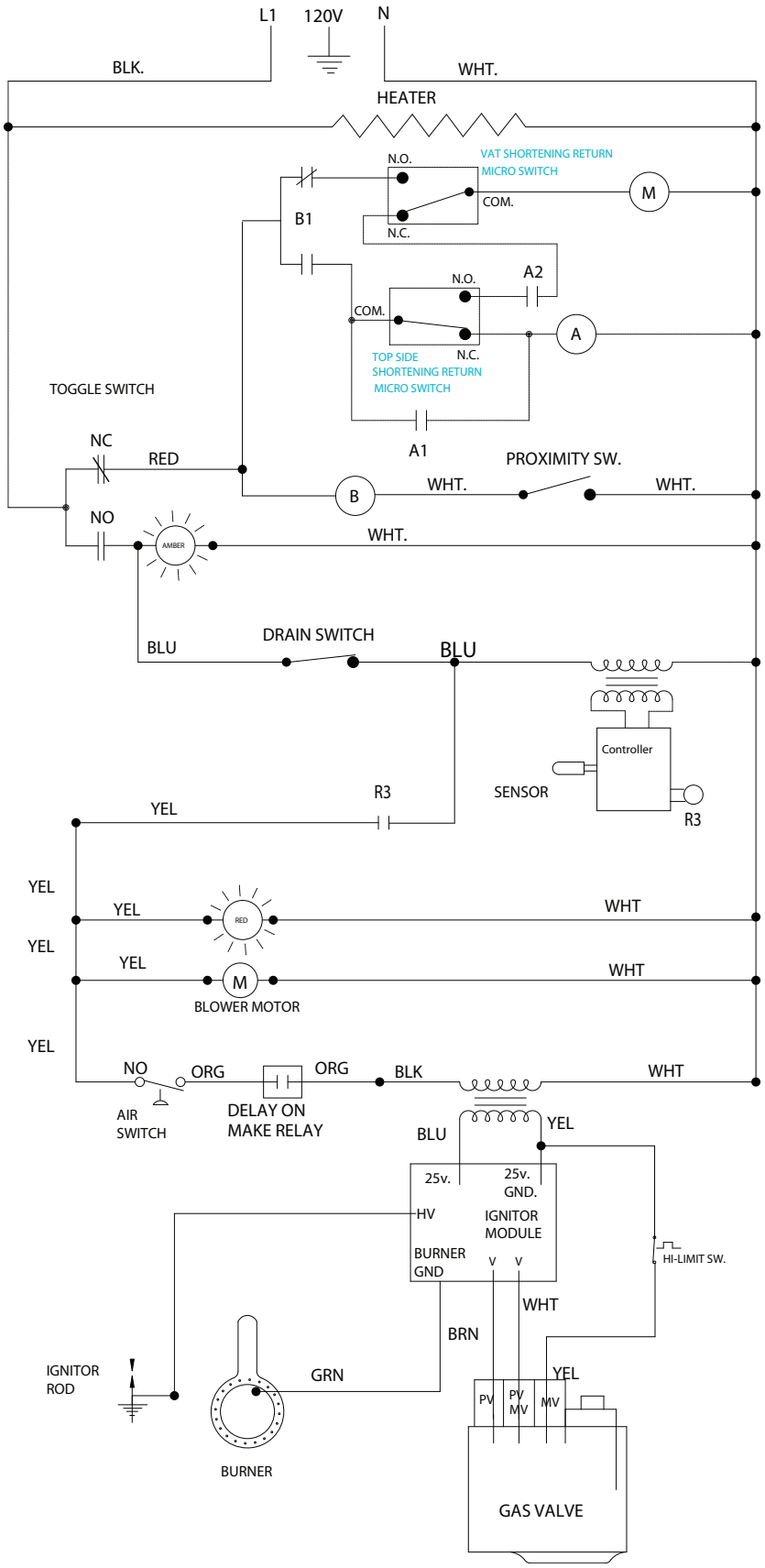
Ultrafyer Systems cannot guarantee credit for items returned without proper authorization. All returns must have prior Ultafryer Systems Customer Service or Warranty department approval. An assigned number will be issued by the approval authority. Please print the assigned number on all returned packages and corresponding paperwork. Returned goods are subject to a l5% 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.

VIII WIRING DIAGRAM

1. PAR-2 Fryers



2. PAR-3 Fryers



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