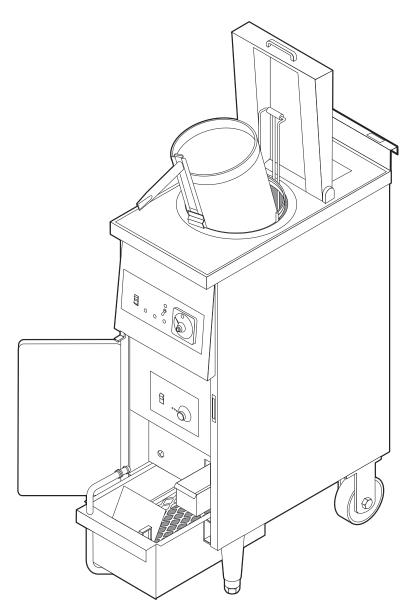


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# SUPPLEMENTAL SERVICE INSTRUCTIONS for

# ELECTRIC PRESSURE FRYER WFAE-30F

With or Without Optional Filter Wand



IMPORTANT: WELLS MANUFACTURING PROPRIETARY INFORMATION.
DISSEMINATION OF THIS INFORMATION TO ANYONE OTHER THAN
WELLS AUTHORIZED SERVICE AGENTS IS STRICTLY PROHIBITED.
TECHNICAL CONTENT OF THIS MANUAL IS DESIGNED FOR
USE BY QUALIFIED PROFESSIONAL TECHNICIANS ONLY.

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p/n **501219** Rev. B ECN-13391 S361 **07**1128 cps

#### PRECAUTIONS AND GENERAL INFORMATION



Cooking oil in this appliance operates at very high temperatures. Contact with hot oil can cause severe injury or death. Wear appropriate heat-protective clothing when operating or servicing this appliance.



#### WARNING: SLIP AND FALL HAZARD

Spilled cooking oil is very slippery and can cause falls. Clean up oil spills promptly.



#### CAUTION: BURN HAZARD

Exposed surfaces can be hot to the touch and may cause burns.



#### CAUTION: HEALTH HAZARD

Old cooking oil can be a breeding ground for bacteria. Clean and sanitize exterior surfaces of fryer regularly.

This appliance is intended for use in commercial establishments only.

This appliance is intended to prepare food for human consumption. No other use is recommended or authorized by the manufacturer or its agents.

DO NOT open any panel that requires the use of tools for access. Live electric circuits may be exposed by opening such panels. Opening access panels must be performed by an Authorized Service Agent only.

This appliance is equipped with an oil filtration system designed to filter hot liquid shortening only. Water, cleaning agents and/or other liquids will contaminate the oil and may damage the filter pump.

Operators of this appliance must be familiar with the appliance use, limitations and associated restrictions. Operating instructions must be read and understood by all persons using or installing this appliance.

Cleanliness of this appliance is essential to good sanitation. Read and follow all included cleaning instructions and schedules to ensure the safety of the food product.

DO NOT submerge any part of this appliance in water unless specifically instructed to do so. This appliance is not jet stream approved. DO NOT direct water jet or steam jet at this appliance, nor at any control. DO NOT splash or pour water on, in or over any controls. DO NOT wash area around this appliance with water jet. Any part which has become wet must be thoroughly dried before use.

Cooking oil will be very hot when in use. Contact will cause severe injury, and can cause blindness or death. Wear appropriate heat-protective clothing when operating or servicing this appliance.

This appliance must be operated with the supplied legs and casters properly installed.

The technical content of this manual, including any parts breakdown illustrations and/or adjustment procedures, is intended for use by qualified technical personnel only.

Any procedure which requires the use of tools must be performed by a qualified technician.

# 361 501219 Service Manual for WFAE-30F Fryer

**DIMENSIONS** 

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#### **INTRODUCTION**

This manual contains information needed to properly service and repair WFPE-30F Pressure Fryer, and the cooking appliance section of WVPE-30F Ventless Pressure Fryer.

For installation, operation and maintenance instructions, refer to Operation Manual p/n 306785. For information about the ventilator hood section of the WVPE-30F Ventless Pressure Fryer, refer to Supplemental Operation Manual p/n 301603, or to Supplemental Service Manual p/n 502944.

Wide

#### **SPECIFICATIONS**

Deep

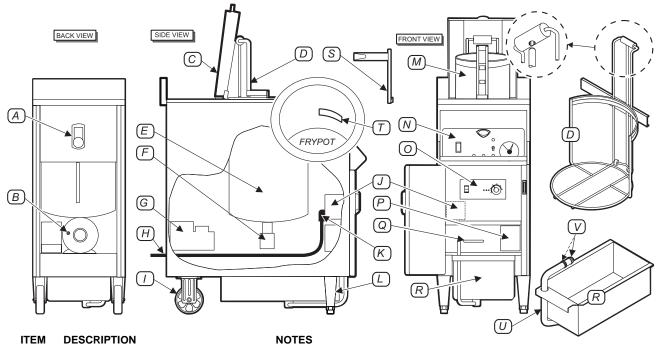
High

	15.70"	33.25"	40.0"
		Lbs.	Kg.
CAPACITIES	Cooking Oil (Liquid Shortening Only)	30	14
57.11 7.6.11.20	Chicken (Fresh)	14	6
	Chicken (Frozen)	12	5

ELECTRICAL SPECIFICATIONS			
	DOMESTIC		EXPORT (EU)
VOLTAGE REQUIREMENTS	208 VAC	240VAC	380-415V 3NAC
	NOTE: Shipped from factory 3Ø, field convertible to 1Ø		
POWER CONSUMPTION	9,000 watts	9,000 watts	9.000 watts
AMPERAGE	43.3 amps (1 ø) 25.0 amps (3ø)	43.3 amps (1 ø) 25.0 amps (3ø)	L1 = 14.3 L2 = 13.0 L3 = 13.0 N = 2.7

# **COMPONENTS & CONTROLS**

#### WFAE-30F



ITFM	DESCRIPTION	
	DESCRIPTION	

LIFT CRADLE MOTOR Α

В PUMP MOTOR RESET

С FRYPOT COVER

D LIFT CRADLE

Ε FRYPOT ASSEMBLY

F DRAIN VALVE

FILTER PUMP and MOTOR G

Н POWER CORD

REAR (FIXED) CASTER

LOWER CONTROL BOX and TERMINAL BOX COVER

Κ POWER CONNECTION

L FRONT (FIXED) LEG

М FRY BASKEY

N UPPER CONTROL PANEL

0 LOWER CONTROL PANEL

Р DRIP PAN

Q DRAIN VALVE LEVER

R FILTER RESERVOIR

S **BASKET HANDLE** 

т OIL LEVEL INDICATOR

U FILTER SUCTION TUBE

SUCTION TUBE O-RING ٧

SPARE O-RINGS

Operates LIFT ROD / Raises LIFT CRADLE

Protects against filter pump motor overload

NOTE: must be reset by manually pushing red button

Protects against hot oil splatter

Holds FRY BASKET - lifts/lowers fry basket into/out of frypot

Contains and heats cooking oil

Allows draining FRYPOT

Pumps oil during filtration cycle

Electrical power hook-up

Allow easy positioning of unit

Contains power cord connections, power contactor, temperature control thermostat, hi-limit safety thermostat and heating element connections

90° conduit fitting required, angled as shown

Adjustable for leveling unit

Holds product to be cooked

Contains main controls. See page 3

Contains heating controls and pump switch. See page 3

Collects liquids that drain from the top of the unit

Operates the drain valve (item F)

Holds filtering media for oil filtration cycle

Used to move fry basket

Measure amount of cooking oil

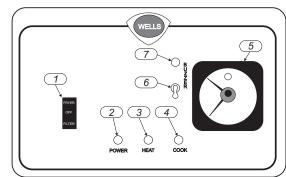
Plugs into suction line receptacle Allows oil to be drawn through filter media

Seals suction tube to receptacle Up to 3 spares may be stored here

# **COMPONENTS & CONTROLS (continued)**

#### WFAE-30F

#### **UPPER CONTROL PANEL**



#### **LOWER CONTROL PANEL**

**DESCRIPTION** 

**INSULATED HANDLE** 

3-WAY VALVE

**ELEMENT INTERLOCK SWITCH** 

QUICK DISCONNECT FITTING

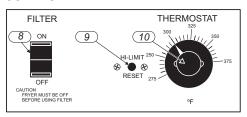
ITEM

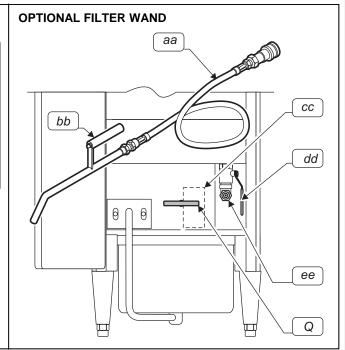
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1	POWER SWITCH	FRYER position energizes temperature control thermostat and timer FILTER position energizes filter switch OFF position de-energizes temperature control thermostat, timer and filter switch
2	POWER LIGHT	Glows when power switch is in FRYER position
3	HEAT LIGHT	Glows when heating element is energized
4	COOK LIGHT	Glows when cook lever is in COOK position
5	TIMER	Indicated set time or counts down time remaining Active when cook lever is in <i>COOK</i> position
6	BUZZER SWITCH	ON position allows buzzer to sound whenever cradle is down OFF position silences buzzer
7	BUZZER LIGHT	Glows when BUZZER SWITCH is ON
8	FILTER SWITCH	ON position energizes filter pump (power switch must be in FILTER position)
9	HI-LIMIT SAFETY THERMOSTAT	Turns fryer <i>OFF</i> is cooking oil temperature exceeds 425°F Turns fryer <i>OFF</i> if heating element is energized without being covered by cooking oil RESET by pressing red button after cooking oil has cooled.
10	TEMPERATURE CONTROL THERMOSTAT	Controls cooking oil temperature by energizing/de-energizing heating element SET by turning pointer to desired cooking temperature marked on panel Causes heat light to glow when energized
aa	FILTER WAND ASSY	Optional wand powered by filter pump, used to wash-down frypot sides, or to transfer oil to disposal container

**NOTES** 

Handle for maneuvering wand. Insulated from heat of hot oil.

Directs output of filter pump either to frypot, or to wand

Male fitting. Female fitting of wand connects here

Disables heating element anytime drain valve lever is not fully closed

#### **OPERATION**



# CAUTION: BURN HAZARD

Hot oil can cause serious burns on contact. Wear appropriate protective clothing when using this fryer.

#### **IMPORTANT:**

Always remove basket handle from basket before lowering lift cradle.

#### PRE-HEATING FRYER

Make sure FRYPOT is filled with 30 LB. of cooking oil.

Open door and set THERMOSTAT (item 10) to desired cooking temperature. CLOSE THE DOOR.

Set POWER SWITCH (item 1) to FRYER. POWER LIGHT (item 2) and HEAT LIGHT (item 3) will glow. HEAT LIGHT will cycle on and off with the HEATING ELEMENTS. When HEAT LIGHT first goes off, fryer is ready to cook the product.

#### SET COOK TIMER AND LOAD PRODUCT

Set TIMER (item 5) to desired cooking time.

#### FROZEN PRODUCT:

Load frozen product into BASKET. Using the BASKET HANDLE (item 16) set BASKET on LIFT CRADLE.

**IMPORTANT:** REMOVE HANDLE.

Press RED BUTTON on TIMER to lower BASKET into FRYPOT.

#### FRESH PRODUCT:

Using BASKET HANDLE, set BASKET on LIFT CRADLE.

**IMPORTANT: REMOVE THE HANDLE.** 

Press the red button on TIMER to lower BASKET into FRYPOT. Manually drop each piece of fresh product into hot oil, just above the oil level to minimize splattering.

ALWAYS USE PROTECTIVE EQUIPMENT, SUCH AS INSULATED GLOVES, TO PROTECT AGAINST HOT OIL BURNS

# PRESS RED BUTTON TO START TIMER 7 8 9 10 11 12 13 14 15 16 17 18

**TIMER** 

5

3

TURN TO SET TIME

#### **COOK CYCLE AND BUZZER**

When an audible alarm is desired at end of cook cycle, turn BUZZER SWITCH (item 7) *ON* after TIMER has been started. BUZZER LIGHT (item 6) will glow.

Note: If BUZZER SWITCH is turned *ON* before BASKET is lowered, BUZZER will sound until BASKET has fully lowered.

At end of cook cycle, BASKET will raise and BUZZER will sound until BUZZER SWITCH is turned *OFF*, or until the next cook cycle is started.

Use BASKET HANDLE (item 16) to remove basket of cooked product from LIFT CRADLE. Serve or dispense cooked product as required.

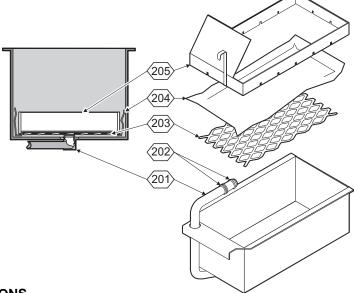
# **OPERATION TROUBLESHOOTING GUIDE**

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
POWER LIGHT not lit	POWER SWITCH not in FRYER position	Press POWER SWITCH to FRYER
Fryer not operating	Disconnected from electric power or Circuit breaker off or tripped	Reconnect to electric power Reset circuit breaker
POWER LIGHT not lit Fryer operating normally	POWER LIGHT damaged	Repair or replace power light
	TEMPERATURE CONTROL THERMOSTAT not set or set too low	Set thermostat to desired temperature
HEAT LIGHT not lit Power light lit - cooking oil cold	TEMPERATURE CONTROL THERMOSTAT damaged	Replace thermostat
	DRAIN VALVE not fully closed (optional filter wand only)	Be sure drain handle lever is horizontal
HEAT LIGHT not lit	HI-LIMIT SAFETY THERMOSTAT tripped	Allow oil to cool, press red button to reset hi-limit
Power light NOT lit - cooking oil cold HEAT LIGHT not lit	Cooking oil at set temperature	No action required Set thermostat if oil not hot enough
Power light lit - cooking oil hot	HEAT LIGHT damaged	Repair or replace heat light
COOK LIGHT not lit (CRADLE raised)	TIMER not set or not started	Turn dial to desired time, press red start button
COOK LIGHT not lit (CRADLE lowered)	COOK LIGHT damaged	Repair or replace cook light
	POWER SWITCH not in FRYER position	Press POWER SWITCH to FRYER
	TIMER not set or not started	Turn dial to desired time, press red button to start
TIMER does not operate	TIMER CAM MICROSWITCH damaged or out of adjustment	Adjust or replace microswitch
	TIMER damaged	Replace TIMER
BUZZER LIGHT not lit	BUZZER SWITCH in OFF position	Turn SWITCH ON
BOZZEK EIGITI TIOLIIK	BUZZER LIGHT damaged	Replace LIGHT
	BUZZER SWITCH in OFF position	Turn SWITCH ON
BUZZER does not sound (CRADLE raised)	BUZZER damaged	Replace BUZZER
	BUZZER SWITCH damaged	Replace BUZZER SWITCH
	TIMER not set or not started	Turn dial to desired time, press red start button
	TIMER damaged	Replace TIMER
CRADLE LIFT will not lower	LIFT MOTOR damaged	Replace LIFT MOTOR
	LIFT MOTOR MICROSWITCH damaged or out of adjustment	Adjust or replace microswitch
	TIMER has time remaining	Allow TIMER to complete cycle to "0"
	LIFT CRADLE not properly assembled to LIFT ROD	Install white plastic pivot over end of LIFT ROD (see page 3)
ODADI E LIET villa saturira	TIMER damaged	Replace TIMER
CRADLE LIFT will not raise	LIFT MOTOR damaged	Replace LIFT MOTOR
	LIFT MOTOR MICROSWITCH damaged or out of adjustment	Adjust or replace microswitch
	ACTUATOR or LIFT CRADLE damaged	Repair/replace damaged components
FRYPOT COVER does not lower with LIFT	COVER leaned back too far	Rest COVER on LIFT CRADLE
CRADLE	HINGE(S) dirty, damaged or misaligned	Clean, repair or align HINGES

#### **FILTER SYSTEM RESERVOIR**

#### ILTER RESERVOIR EXPLODED VIEW & PARTS LIST

ITEM	DESCRIPTION	SERVICE P/N
201	RESERVOIR ASSEMBLY	66717
202	O-RING, SUCTION TUBE	66474 (pk 5)
203	FILTER SCREEN	66446
204	FILTER PAPER	21711 (pk 100)
205	HOLDER, FILTER PAPER	66744
not shown	FLAVOR-SAVER FILTER POWDER	22442 (pk 9)
not shown CLEANOUT DOWEL		49752
not shown	HI-TEMP BRUSH	22516
not shown	PADDLE, STIRRING CHICKEN	22515



#### FILTER RESERVOIR ASSEMBLY INSTRUCTIONS



Always drain all water from the filter pan suction tubing.
Hot oil contacting residual water will cause a violent steam eruption.

#### **IMPORTANT:**

Use caution when cleaning around heating elements not to damage the two small CAPILLARY TUBES at the front of the HEATING ELEMENT. Contact with steam can cause severe burns.

#### **IMPORTANT:**

DO NOT use soap in FRYPOT or FILTER RESERVOIR. Soap residue will cause the cooking oil to breakdown rapidly.

If commercial clean-out products are used, read and follow the directions on the cleaner label.

Insure that FILTER SCREEN, FILTER PAPER, and FILTER PAPER HOLDER are properly installed in FILTER RESERVOIR. FILTER SCREEN must be installed under FILTER PAPER with bottom screen clip inserted into reservoir suction hole.

#### **OPERATIONAL NOTES**

Refer to the *Installation, Operation and Maintenance Manual* (p/n 306785) for complete operating instructions for the filter system.

The cooking oil must be hot (minimum of 300° F.) in order to filter properly. Cold oil will not flow through the filter paper. Press the POWER SWITCH to the *FILTER* position. Press the FILTER SWITCH *ON* 

Slowly open DRAIN VALVE. While draining oil, stir FILTER POWDER into oil at the point where it is being drawn down the drain hole.

After all the oil has drained from FRYPOT, use HI-TEMP BRUSH to push breading crumbs and other debris down the drain as oil is being circulated.

Close the DRAIN VALVE and allow the FRYPOT to fill with the freshly filtered clean oil. When all oil has returned to frypot, bubbles will appear in the oil stream. Press FILTER SWITCH *OFF*.

Press POWER SWITCH to *OFF* position until starting to use fryer again.

Allow the FILTER RESERVOIR to cool before servicing.

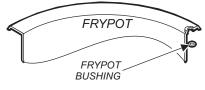
# FILTER SYSTEM TROUBLESHOOTING

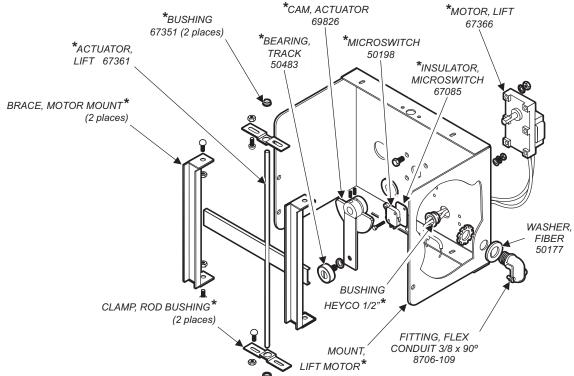
# FILTER SYSTEM

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
FILTER PUMP does not run	POWER SWITCH not in FILTER	Press power switch to filter
	FILTER PUMP MOTOR OVERLOAD tripped	Allow motor to cool. Press red button on back of pump motor
	FILTER SWITCH damaged	Replace filter switch
	POWER SWITCH damaged	Replace power switch
	SUCTION TUBE not seated in suction receptacle	Properly install filter reservoir
	SUCTION TUBE O-RING missing or damaged	Replace suction tube o-ring
	Damaged SUCTION TUBE	Replace filter reservoir assembly
	Damaged SUCTION RECEPTACLE	Replace suction receptacle
FILTER PUMP runs but will not pump cooking oil	Pump CHECK VALVE plugged	Clean check valve
	Pump CHECK VALVE reversed (improperly installed during repair)	Note TOP marked on valve Install check valve correctly
	FILTER PAPER clogged	Clear face of paper filter or replace filter IMPORTANT: Allow oil to cool before moving reservoir
	FILTER SCREEN not installed, or FILTER SCREEN improperly installed	Properly install screen
	SUCTION TUBE not seated in suction receptacle	Properly install filter reservoir
Bubbles in circulating oil at all times during filtration cycle	SUCTION TUBE O-RING missing or damaged	Replace suction tube o-ring
	Insufficient oil entering FILTER RESERVOIR	Incrementally open DRAIN VALVE Clear crumbs/debris from DRAIN VALVE
	Pump jammed with debris	Clear debris from pump
PUMP MOTOR tripped Will not reset	PUMP HEAD damaged	Replace pump head
	PUMP MOTOR damaged	Replace pump motor
Oil not being filtered	FILTER PAPER missing, damaged or not properly installed	Properly install a fresh sheet of filter paper

# **SERVICING INSTRUCTIONS**

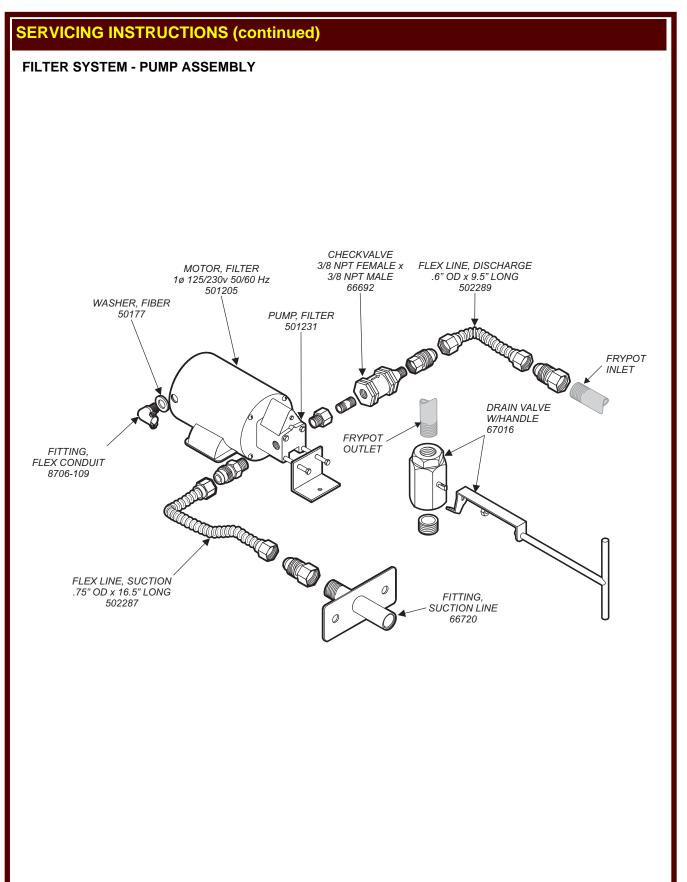
#### **LIFT ACTUATOR & MOTOR ASSEMBLY**



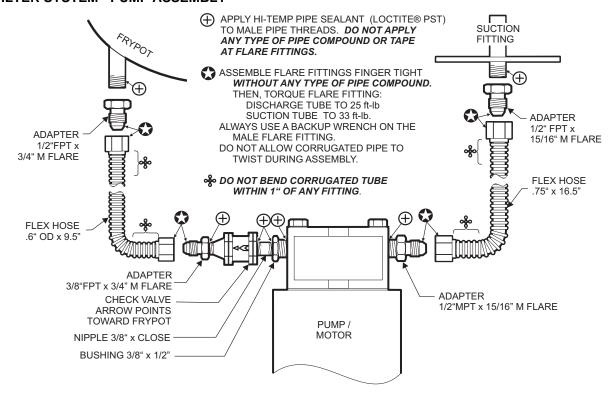


\*THESE PARTS AND ASSOCIATED FASTENERS INCLUDED IN ASSEMBLY, CRADLE LIFT ACTUATOR 69828

#### **SERVICING INSTRUCTIONS (continued)** LIFT ACTUATOR & MOTOR ASSEMBLY Frypot bushing Frypot 10-32 truss head: nut inside / head outside Rod assembles through Lube lift cradle side of bushing in lip of frypot brace w/ Teflon hi-temp Make sure bushing is present. Lube w/ grease (Accrolube) vegetable oil Adjust this clearance to .05", 8-32 truss head: or about the thickness of head inside / nut outside a matchbook cover Lube rod & bushing Clamp secures bushing w/vegetable oil ube channel of cradle lift w/ Teflon hi-temp grease Roller should ride smoothly in channel Assemble roller to actuator with lock washer and Red Loctite Assemble with white Teflon washer between actuator and motor Assemble with cam toward motor MOTOR SHAFT LONG ARM OF ACTUATOR Use Purple Threadlock on actuator set screws Adjust microswitch such that the cam positively actuates the switch during its entire travel Be sure to install the insulator between the microswitch and the motor mount Secure wiring with tie wrap to prevent interference with actuator Assemble conduit connector to Drill mounting holes in motor case to 13/64" Use 10-32 ss countersunk screws with motor mount w/ fiber washer and Purple Threadlock Tenz nuts on motor side



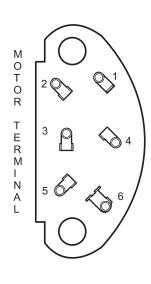
#### **FILTER SYSTEM - PUMP ASSEMBLY**



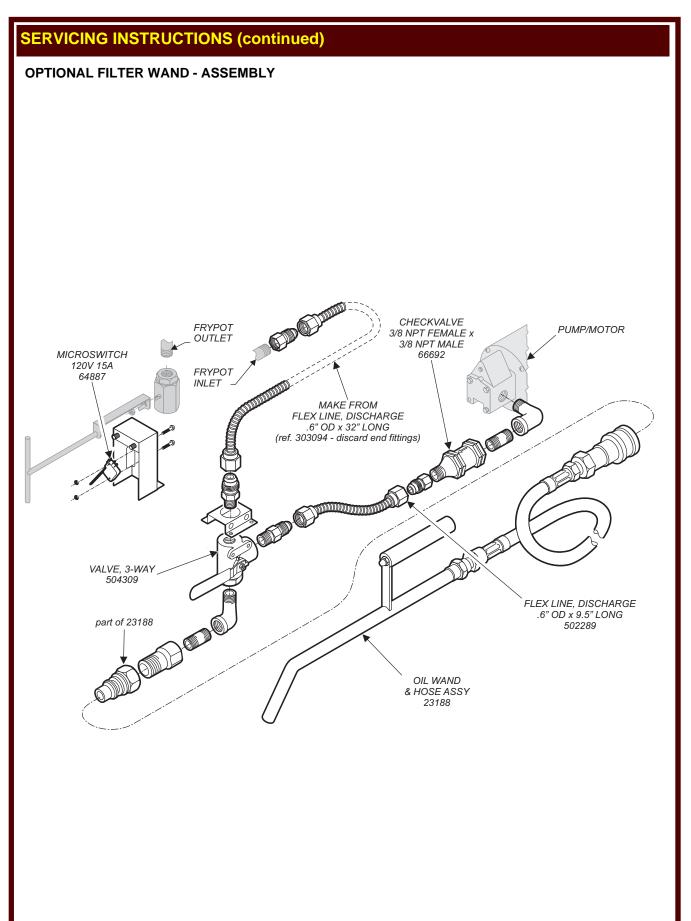
#### **IMPORTANT:**

- Motor is a dual voltage rated unit, and must be field wired to match the electrical service supply voltage.
- Motor is shipped from the factory wired for 230V and may be wired for either 230V or 125V.
   Verify supply voltage. If necessary, rewire motor, at terminal block in the end of the motor, per the table shown below.

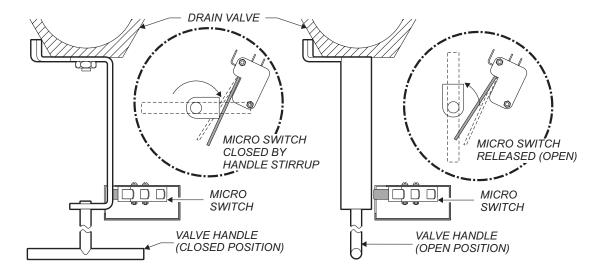
**IMPORTANT:** Failure to correctly wire the motor will result in failure to start, motor tripping or permanent damage to the pump motor.



125V (requires field conversion)		230V (factory configuration)	
1 (LINE)	YELLOW / BLACK	1 (LINE)	YELLOW/BLACK
2	BLUE BLUE	2	BLUE BLUE
3	(unused)	3	BROWN
4	BLACK	4	BLACK
5	BROWN ORANGE	5	WHITE ORANGE
6 (LINE)	WHITE YELLOW	6 (LINE)	YELLOW



#### **OPTIONAL FILTER WAND - DRAIN SAFETY SWITCH**



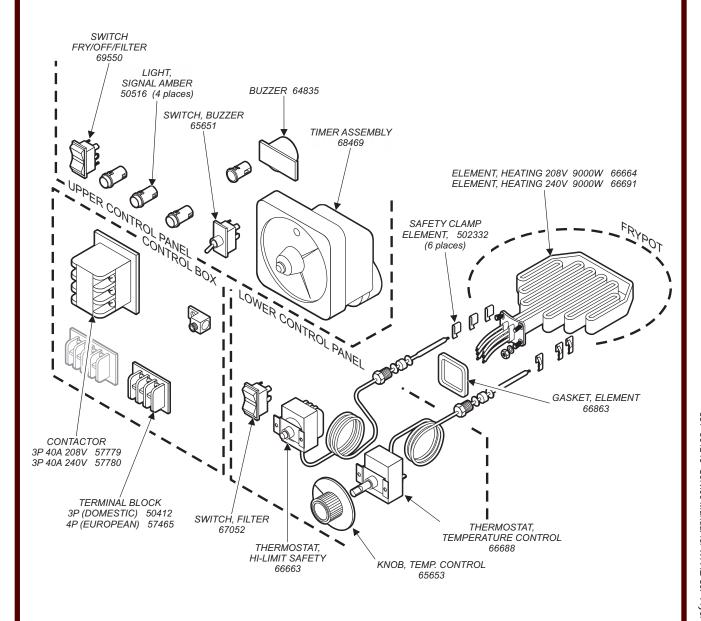
The MICRO SWITCH is in the control circuit for the heating element contactor. The switch must be closed before the heating elements can be energized.

When rotated to the CLOSED position, the stirrup-shaped portion of the valve handle will contact the micro switch actuator, closing the switch.

Assemble VALVE HANDLE to VALVE such that the stirrup-shaped portion of the valve handle is *UP* when the valve is *OPEN*.

The drain safety switch is an interlock to prevent energizing the heating elements unless the drain valve handle is in the closed position.

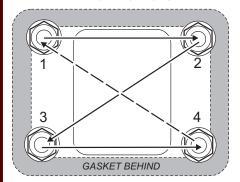
#### **HEATING ELEMENTS & ELECTRICAL CONTROL COMPONENTS**



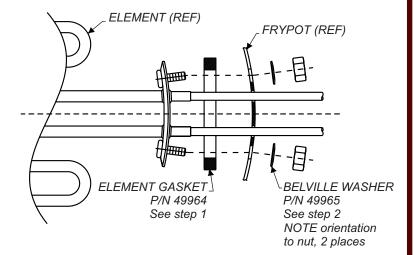
#### **HEATING ELEMENTS ASSEMBLY INSTRUCTIONS**

#### FRYPOT ELEMENT **NUT TIGHTENING SEQUENCE**

VIEW FROM FRONT OF UNIT



TIGHTEN NUTS TO 70 INCH-POUNDS REPEAT TORQUE SEQUENCE 3 TIMES



1. Install the 1/4" Gortex gasket (p/n 66864) over the element studs.

#### DO NOT USE RTV OR OTHER SEALANT!

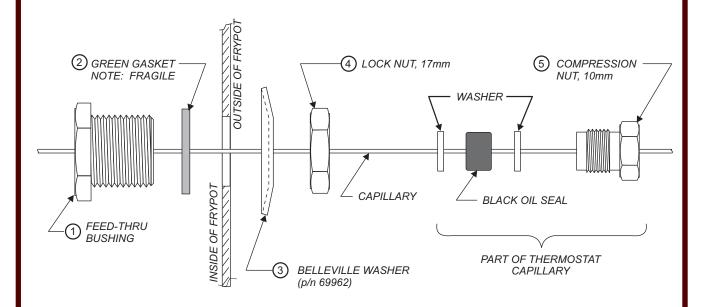
Insert element through frypot, WITH element and gasket on inside of frypot and studs through the appropriate holes.

- 2. Install four 1/4" Belleville washers with their high center away from frypot, as shown in the drawing (4 places).
- 3. Install four nuts finger tight.
- 4. Using a torque wrench, tighten all four nuts 1/2 turn at a time. Working in a cross pattern, tightening each nut in sequence until a uniform reading of 70 inch-pounds is achieved on all four nuts.
- 5. Wait 2 minutes and re-torque all four nuts to 70 inch-pounds.
- Wait an additional two minutes and re-torque all four nuts to a uniform 70 inch-pounds.



Exposed electrical circuits. Disconnect electrical power before attempting to replace heating elements.

#### THERMOSTAT ASSEMBLY INSTRUCTIONS





#### CAUTION: SHOCK HAZARD

Exposed electrical circuits.

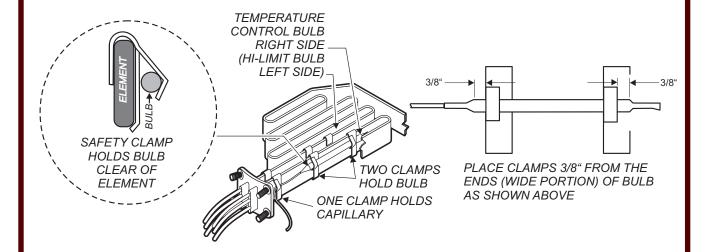
Disconnect electrical power before attempting to replace either thermostat.

- 1. Insert feed-thru bushing through green gasket, and insert both through the frypot wall.
- 2. Slide Belleville washer over the protruding threads of bushing, with high center of washer *away* from the frypot. Thread locknut onto bushing and tighten.

Torque lock nut to 30 inch pounds.

**Please Note:** 17mm hex head feed thru bushing pictured at left of drawing must not be allowed to rotate during assembly procedure. Always hold bushing stationary with a box wrench while tightening assembly to prevent shredding green gasket.

#### THERMOSTAT ASSEMBLY INSTRUCTIONS



- 3. Slip bulb of capillary tube through bushing. Mount bulb to the center portion of element with safety clamps:
  - position clamps 3/8" from ends of the widest part of bulb.
  - Route capillary tube alongside element, but out of the way of cleaning brushes, etc.
  - Secure capillary tube near the frypot end of the element with safety clamp.
- 4. Seat washers and oil seal into bushing. Insert compression nut into bushing.

Torque to 30 - 40 inch pounds, using care not to twist or kink capillary.



Exposed electrical circuits. Disconnect electrical power before attempting to replace either thermostat.

