

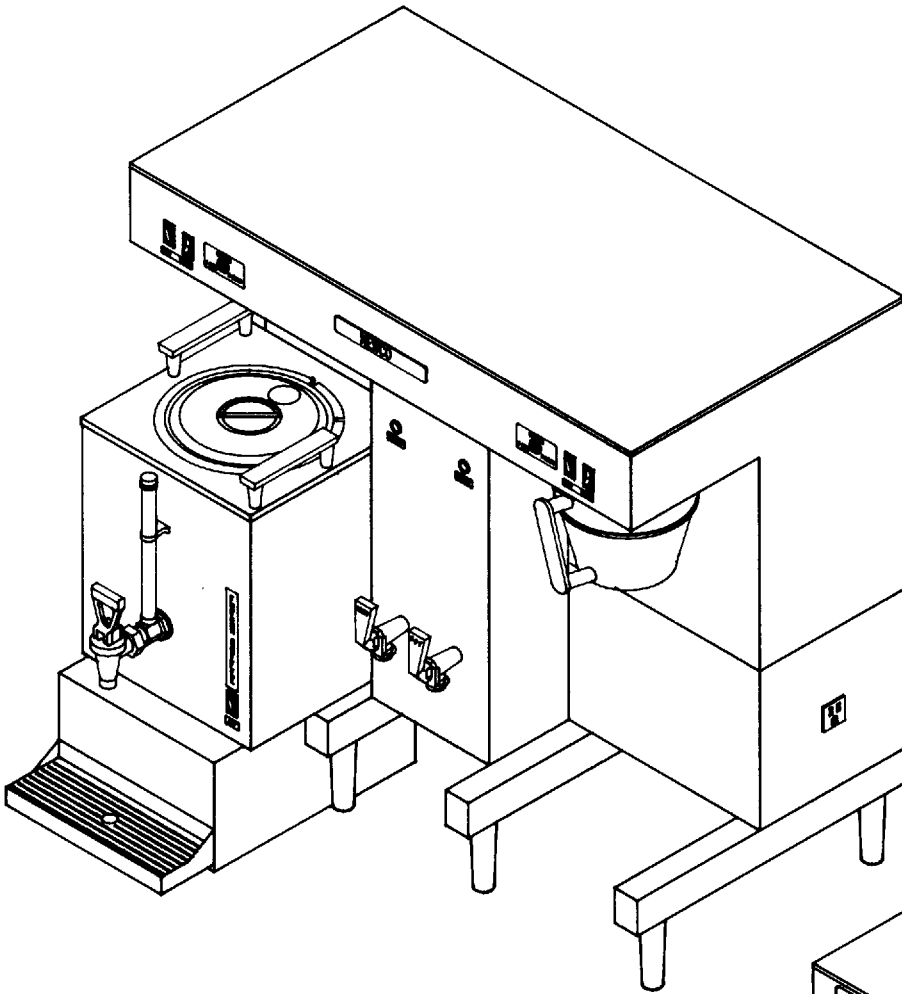
NEWCO ENTERPRISES

OPERATION MANUAL

BMF/BMR BREWERS

MNL P# 781296

1-93

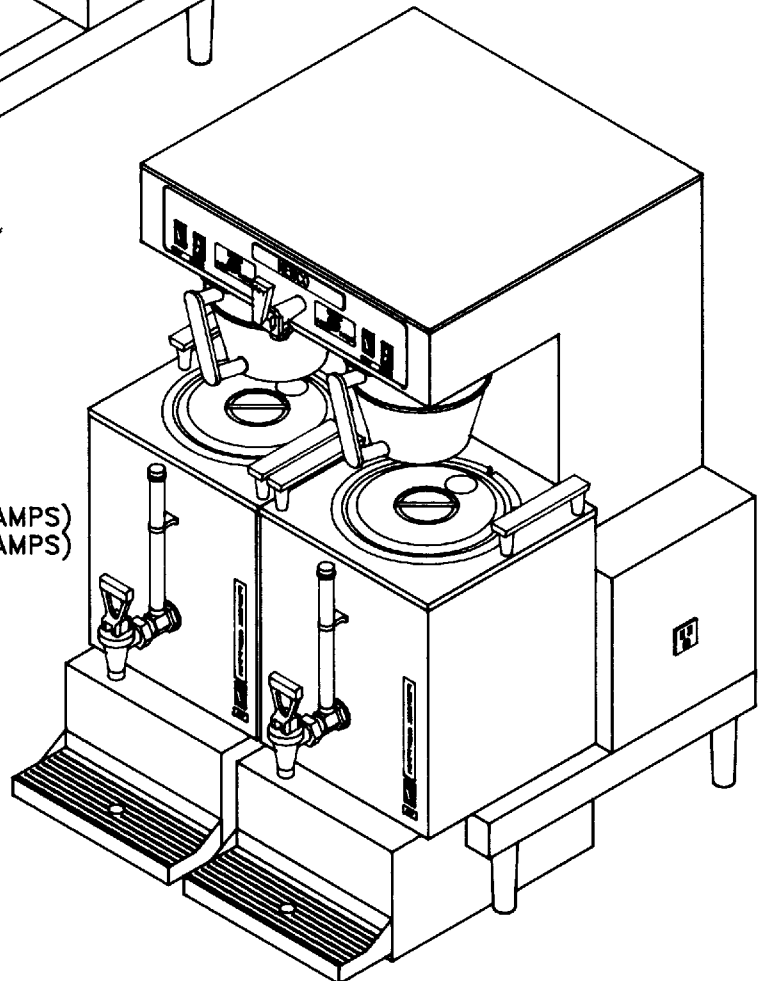


BMR

HEIGHT - 32"
WIDTH - 33"
DEPTH - 18"
WEIGHT - 100 LBS
ELECTRICAL RATINGS
208 VOLTS/9800 WATTS (48 AMPS)
240 VOLTS/9800 WATTS (42 AMPS)

BMF

HEIGHT - 32"
WIDTH - 26"
DEPTH - 18"
WEIGHT - 80 LBS
ELECTRICAL RATINGS
208 VOLTS/9800 WATTS (48 AMPS)
240 VOLTS/9800 WATTS (42 AMPS)



DISPENSER

HEIGHT - 21"
WIDTH - 12-1/4"
DEPTH - 12- 1/4"
WEIGHT (EMPTY) - 22 LBS
CAPACITY (VOLUME) 2.7 GAL
ELECTRICAL RATINGS
VOLTS - 120
WATTS - 100

PLUMBER'S INSTALLATION INSTRUCTIONS

CAUTION: Power to brewer must be OFF before proceeding with plumbing installation.

- 1) Flush water line before installing brewer. Brewer should be connected to COLD WATER LINE for best operation.
- 2) Water pressure should be at least 20 lbs. For less than a 25 ft run, use 1/4" copper tubing and connect to 1/2" or larger water line. For longer runs, use 3/8" copper tubing & connect to 1/2" or larger water line and provide an adapter fitting for connection to the brewer.
- 3) If installed with saddle valve, the valve should have a minimum of 1/8" port hole for up to 25 ft run, and 5/16" port hole for over 25 ft runs.
- 4) Connect incoming water line to the flared fitting on the back of the brewer. Manufacturer recommends connecting to copper tubing.

INSTALLATION INSTRUCTIONS

WARNING - Read and follow installation instructions before plugging or wiring in machine to electrical circuit. Warranty will be void if machine is connected to any voltage other than that specified on the name plate.

- 1) Connect brewer to power supply as follows. Remove rear panel. Run electrical supply wire/cord through strain relief on rear of unit. Note the unit electrical rating and local electrical codes for proper selection of supply line. Loosen screws on lugs of the terminal block nearest the strain relief. Push stripped end of each wire into the appropriate lug and retighten screws to secure line in place.
- 2) Place the decanter under brew basket. Slide the brew basket into the brew rails. Change selector switch to the "2 gallon" position, turn on power switch and depress brew button (See Fig 3). This will activate solenoid to fill tank. As water begins to flow from brew basket turn the power switch to off to cancel the brew cycle. Alternate: Remove top cover and using a pitcher or other vessel pour water directly into the receiving pan. When water comes out through the brew basket the tank is full.
- 3) Empty decanter and replace below the brewbasket. Turn on power switch and depress brew start switch to begin a brew cycle & check volume of water delivered into decanter. Adjust timer to deliver desired amount of water. Little adjustment should be needed to brew the volume indicated on the selection switch. If adjustment is required turn the timer dial clockwise to increase volume of water, and counter clockwise to decrease volume. Note: when the select switch is in the "1 GALLON" position the time indicated on the timer is the length of time the solenoid will remain running. When the selection switch is on the "2 GALLON" position the time will be doubled.
- 4) The brewer has been shipped with the thermostat in the off position to prevent damage to the tank elements upon brewer powerup. Turn the thermostats to the full on position and then back off approximately 1/10th of a turn.
- 5) Allow 10 to 15 minutes for water in tank to heat to brewing temperature. (Additional water may drip from brew basket on initial expansion of water in the tank).
- 6) After water has reached brewing temperature (thermostat will click off, heating noise will stop and green ready light will be on.) turn power switch, lighted rocker switch, to the on position. Depress the brew start switch & run a cycle of water to remove expanded water from tank. (Brew cycle may be cancelled by turning the rocker switch back to the off position.)

7) Note: Due to the high wattage tank element used in the brewer the thermostats should be calibrated at 197 degrees F to prevent the tank from boiling due to the residual heat which will be radiated from the element after the thermostat shuts off power. A thermometer should be inserted into the tank through the slotted nut in the receiving pan. As the thermostat cycles on and off, adjust as required so that thermostat shuts off when tank temperature reaches 197 F.

8) Run one cycle to check for the proper temperature setting with an accurate thermometer. Take the temperature of this water at a point below the brew basket opening, at the start of the brew cycle and when the decanter is half full. Recommended temperature of the water is approximately 192-195 F.

9) In higher altitude locations (5000 feet above sea level) the thermostat may have to be adjusted lower to prevent boiling.

10) **CAUTION:** The water faucet will dispense hot water when the handle is depressed. The faucet system is independent of the brewing system and can be operated during brew cycle. Once brewer is pressurized operate faucet until water flows smoothly.

COFFEE PREPARATION PROCEDURES

- 1) Place filter into brew basket.
- 2) Put the proper amount of coffee for the desired batch size into the filter.
- 3) Slide the brew basket into holder.
- 4) Place empty decanter directly under the brew basket and turn power switch to the ON position.
- 5) Change the select switch to indicate the desired volume of coffee. Press brew start switch to begin the brew cycle. (Brew cycle may be cancelled by turning the rocker switch back to the off position.)
- 6) Hot water will be delivered through the sprayhead. This distributes the hot water evenly over the coffee bed within the brew basket. The coffee brew will drain from the brew basket into the decanter below.
- 7) To clean brew basket simply remove from brew rails and dump filter into waste basket. The brewing process, as described above, can now be started again.

LIMING: To prevent liming problems in tank fittings remove sprayhead and insert deliming spring all the way into the tank. When inserted into tank properly, no more than ten inches of the spring should be visible at the sprayhead fitting. Saw back and forth five or six times. This will keep fittings open and clear of lime. In hard water areas this should be done everyday. This process takes approximately one minute. In all areas the sprayhead should be cleaned at least once a week. Where bad liming has already occurred, a new complete tank assembly may be installed. The tank may be changed in approximately 5 minutes time.

WARRANTY - Newco coffee brewers are warranted against defects in workmanship or materials, under normal use, for 90 days from the date of purchase. Brewer parts are warranted against defect for 12 months from date of purchase.

Liability in all events is limited to the purchase price paid and liability under the aforesaid warranty is limited to replacing or repairing any part or parts which are defective in material or workmanship, and returned to our factory, shipping cost prepaid. No warranty expressed or implied, other than the aforesaid is made or authorized by Newco Enterprises, Inc.

Prompt disposition will be made if item proves to be defective, within warranty. Before returning any item, write or call Newco, or the dealer from whom the product was purchased, giving model number, serial number, and date of purchase, and describe nature of the defect. If damage was incurred during transit to you, file claim with the carrier

TROUBLE SHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
CAN'T START BREW CYCLE	<ol style="list-style-type: none"> 1. No water. 2. No power. 3. ON/OFF switch. 4. Brew start switch. 5. Timer/Timer harness. 6. Solenoid valve. 	<ol style="list-style-type: none"> 1. Incoming water lines & water shut off valve. 2. Fuse or circuit breaker. Power cord and plug connections. 3. Switch continuity. (Normally closed 1 & 2) 4. Switch continuity. (Normally open) 5. wire leads to solenoid and black 3 pin connector. 6. (A) Voltage at solenoid valve terminals. Start a brew cycle and check for 120 volts A.C. (B) If voltage is present at terminals, check for water at line pressure on the inlet side of solenoid valve. 	<ol style="list-style-type: none"> 1. Be sure water shut off valve is open. 2. Replace or reset circuit protector as req'd. Unit should be plugged in securely. 3. If ON/OFF switch does not make and break contact, replace ON/OFF switch. 4. If brew switch does not make and break contact, replace brew start switch. 5. Make sure these connections are tight. If so, and all else checks out ok, replace timer. 6. (A) If voltage is not present at terminals refer to steps 2 through 5. (B) If voltage is present at terminals and water at line pressure is present on the inlet side of the solenoid, but not present on the outgoing side, replace solenoid.
NO HOT WATER	<ol style="list-style-type: none"> 1. Tank heater. 2. Hi-limit thermostat or main thermostat. 	<ol style="list-style-type: none"> 1. Check the voltage at the tank heater terminals. Voltage should be 120 or 240 volts A.C. Check serial tag for proper voltage. 2. Check the voltage between the black wire on the tank heater terminal and the incoming terminal on the hi-limit thermostat. (red wire from terminal block), then the out going terminal on the hi-limit thermostat. 	<ol style="list-style-type: none"> 1. (A) If correct voltage is present at the tank heater terminals and water tank is not being heated, replace tank heater. (B) If voltage is not present at tank heater terminals, refer to step 2. (C) If incorrect voltage is present at tank heater terminals, check voltage at outlet. 2. (A) If voltage is present on incoming terminal on the hi-limit thermostat, but not on the outgoing terminal, replace hi-limit thermostat. (B) Check voltage between black and red wire on terminal block. If voltage is not present check outlet or circuit breaker. (C) If voltage is not present on incoming terminal of hi-limit thermostat, replace main thermostat.
DRIPPING	<ol style="list-style-type: none"> 1. Not siphoning properly. 2. Solenoid valve not seating properly. 3. Faucet coil is leaking. 	<ol style="list-style-type: none"> 1. Water should flow from sprayhead freely. 2. Solenoid valve assembly. 3. Hot water coil. 	<ol style="list-style-type: none"> 1. (A) Clean sprayhead holes. (B) Check tightness of sprayhead tube. (C) See "LIMING" page 3 near bottom. 2. Be sure spring is in place and any particles are cleaned from valve seat. If valve seat is worn or mutilated, replace solenoid valve. 3. Tighten fittings or replace coil.
STEAMING OR SPITTING AROUND FUNNEL	<ol style="list-style-type: none"> 1. Main thermostat. 2. High altitude. 	<ol style="list-style-type: none"> 1. Thermostat points stuck or out of calibration. 2. For altitude above 5,000 ft. see installation instructions. 	<ol style="list-style-type: none"> 1. Thermostat should be calibrated or replaced. 2. Thermostat should be calibrated or replaced.
WATER KEEPS RUNNING	<ol style="list-style-type: none"> 1. Solenoid valve. 2. Start switch. 3. Timer. 	<ol style="list-style-type: none"> 1. Refer to "dripping" Step 1 2. Remove wires from switch and check continuity. 3. Solid state timers are not repairable. If timer will not shut off, replace timer. 	<ol style="list-style-type: none"> 1. Refer to "dripping" Step 1. 2. If start switch does not make and break contact, switch should be replaced. 3. Replace timer.

SYMPTOM

POSSIBLE CAUSE

WHAT TO CHECK

REMEDY

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
IRREGULAR YIELD	<ol style="list-style-type: none"> 1. Not siphoning properly. 2. Timer 3. Fluctuating water pressure. 4. Solenoid valve. 5. Flow washer. 6. Flow control screen. 7. Faucet coil is leaking. 8. Strainer. 	<ol style="list-style-type: none"> 1. Refer to "dripping" Step 1 2. Timer consistency. Time several brew cycles. 3. Water pressure. 4. Refer to "dripping" Step 2 5. Possible lime build up in flow washer or flow control. 6. Screen built into flow control. 7. Refer to "dripping" Step 3 8. Water pressure at output. 	<ol style="list-style-type: none"> 1. Refer to "dripping" Step 1. 2. If times are irregular, replace timer. 3. If pressure fluctuates 10-20 PSI during operation of brew cycle, add a pressure regulator to inlet side of brewer, set to lowest pressure level registered. adjust timer to yield correct water level. 4. Refer to "dripping" Step 2. 5. Replace flow washer and clean line from flow control. 6. Replace or clean screen. Clean line from flow control. 7. Refer to "dripping" Step 3. 8. If pressure is low clean or replace strainer.
DRY COFFEE REMAINING	<ol style="list-style-type: none"> 1. Filters. 2. Not siphoning properly. 3. Improper loading of brew basket. 	<ol style="list-style-type: none"> 1. Are correct filters being used. 2. Refer to "dripping" Step 1 3. Filter and coffee in brew basket. 	<ol style="list-style-type: none"> 1. Insert correct filter. 2. Refer to "dripping" Step 1. 3. Filter should be centered in brew basket and coffee bed should be level.
WEAK COFFEE	<ol style="list-style-type: none"> 1. Filters. 2. Low water temperature. 3. Not siphoning properly. 4. Improper loading of brew basket. 5. Missing sprayhead. 6. Incorrect volume setting 	<ol style="list-style-type: none"> 1. Are correct filters being used. 2. Check water temperature. Refer to "INSTALLATION INSTRUCTIONS" 3. Refer to "dripping" Step 1 4. Filter and coffee in brew basket. 5. Check for sprayhead. 6. Volume select switch 	<ol style="list-style-type: none"> 1. Insert correct filter. 2. Adjust thermostat control knob to obtain correct water temperature. 3. Refer to "dripping" Step 1. 4. Filter should be centered in brew basket and coffee bed should be level. 5. Install sprayhead. 6 Volume indicated should coincide with the amount of coffee placed in the brew basket
SOLENOID CHATTER OR HOWLING	<ol style="list-style-type: none"> 1. Brewer connected to hot water line. 2. Vibration. 3. High water pressure. 4. Water hammer. 5. 60 Cycle vibration. 	<ol style="list-style-type: none"> 1. Incoming water line. 2. If brewer is on a metal stand or counter, neither the bottom pan nor copper tubing to the brewer should touch the counter. 3. Water pressure on incoming line. 4. Incoming plumbing. 5. Nut on top of solenoid valve. 	<ol style="list-style-type: none"> 1. Brewer should be connected to cold water line. 2. Adjust as necessary. 3. If water pressure is over 90 PSI install a pressure regulator and adjust to 50 PSI. 4. This is not the fault of the brewer and can usually be corrected by rearranging some plumbing or adding an air chamber to the incoming water line. 5. Nut should be tight. Tighten as required.
CONDENSATION INSIDE OF CABINET	<ol style="list-style-type: none"> 1. Tank lid gasket. 2. Sprayhead tube ass'y. 3. Thermostat grommet. 4. Receiving pan nut. 5. Main thermostat set above 210 degrees. 	<ol style="list-style-type: none"> 1. Nicks or cuts in the gasket. 2. Tightness of ass'y to lid 3. Tight fit. Nicks or cuts. 4. Receiving pan nut loose. 5. Check thermostat calibration. 	<ol style="list-style-type: none"> 1. Replace gasket. 2. Tighten sprayhead tube ass'y to tank lid. 3. Adjust or replace grommet. 4. Tighten nut. 5. Calibrate or replace thermostat.
FAUCET DRIPPING	<ol style="list-style-type: none"> 1. Clogged valve seat. 	<ol style="list-style-type: none"> 1. Valve seat. 	<ol style="list-style-type: none"> 1. Disassemble and clean or replace as required.
FAUCET WATER FLOW TOO FAST OR SLOW	<ol style="list-style-type: none"> 1. No water. 2. Flow too slow or too fast. 	<ol style="list-style-type: none"> 1. (A) Incoming water line shut off valve. (B) Faucet clogging. (C) Needle valve. 2. Needle valve. 	<ol style="list-style-type: none"> 1. (A) Water shut off valve should be open. (B) Clean or rebuild faucet. (C) Needle valve should be open. 2. Increase flow by turning needle valve counter clockwise, decrease flow by turning clockwise.

REPLACEMENT PARTS LIST

BREWER PARTS

DECANTERS/BASKETS

152238 S/S brewbasket
 781278 Dispenser complete, L.H.
 781277 Dispenser complete, R.H.

ELECTRICAL COMPONENTS

100340 Convenience outlet
 100085 Switch on/off lighted rocker
 201162 Toggle switch
 201985 Black start switch
 201222 Switch frame
 781294 Component panel L.H. 240V
 781295 Component panel R.H. 240V
 102607 6-min multi-brew timer
 700448 Harness multi-brew timer
 213009-10 Element main 4800w 208v
 213037-10 Element main 4800w 240v
 100633 Hi-limit thermostat
 102299 Main thermostat knob type

FITTINGS ETC.

100152 Female conn 1/4F x 1/8NP
 100154 Male connector 1/4 X 1/8
 100176 Connector male 1/4F X 1/4F
 100177 Elbow male 1/4F X 1/8NP
 100190 Nut 1/2-20 jam
 100409 Gasket tank fitting
 100431 11/16 Hex brass nut 9/16-24
 101720 Female conn 3/8 comp x 1/8NP
 201132 1/4 Flare tee
 201173 Sprayhead nut, 7/16-20
 202003 Water strainer
 511023 11/16 Hex nut, 7/16-20
 700049 Tee adapter 1/4 X 1/8 X 1/8
 701200 Slotted hex nut 3/4-16 brass
 767115 Needle valve 1/4F X 1/8NP

MISCELLANEOUS

700561 Leg extension bracket
 704103 Tinnerman retainer nut
 704220 Plastic brewer leg
 781274 Label 1-gal 2-gal
 781312 Dispenser base ass'y
 781325 Center dual brew rail
 800077 Side plate ass'y

TANKS/PLUMBING

700060 S/S pour\in basin
 704113 Tank lid only w/thermo bracket
 704119 Tank only
 771031 Hot water coil ass'y npc
 781313 Tank lid ass'y 4800w 240v
 781314 Tank ass'y 4800w 240v
 781350 Tank lid ass'y 4800w 208v
 781351 Tank ass'y 4800w 208v

FAUCET/SPRAYHEAD

700069 Sprayhead tube
 700929 6-hole sprayhead s\s
 100145-10 Hot water faucet w/flare

SOLENOID/FLOW CONTROLS

700145-10 Solenoid and flow ass'y .250
 100250 Solenoid valve s/s body
 151250 Flow ass'y pipe/flare .250

GASKETS

100025 Sprayhead gasket
 100030 Gasket tank fitting
 100290 Flow control washer, .250
 704221 Silicone tank gasket
 704222 Gasket delivery tube 3-hole
 704223 Siphon cup bushing

DISPENSER PARTS

FAUCET

101652 Faucet shank assembly
 101653 Faucet/bonnet
 101656 Gauge glass shield assembly

ELECTRICAL

100187 Warmer element, 100W 120V
 100085 Lighted ON/OFF rocker switch
 700350 Power cord assembly

MISCELLANEOUS

701220 Label "FRESH COFFEE"
 781291 Dispenser handle, reamed
 100665 Bumper toe
 101267 Drip tray with grid
 781334 Dispenser lid

BMF/BMR TANK CIRCUIT WIRING

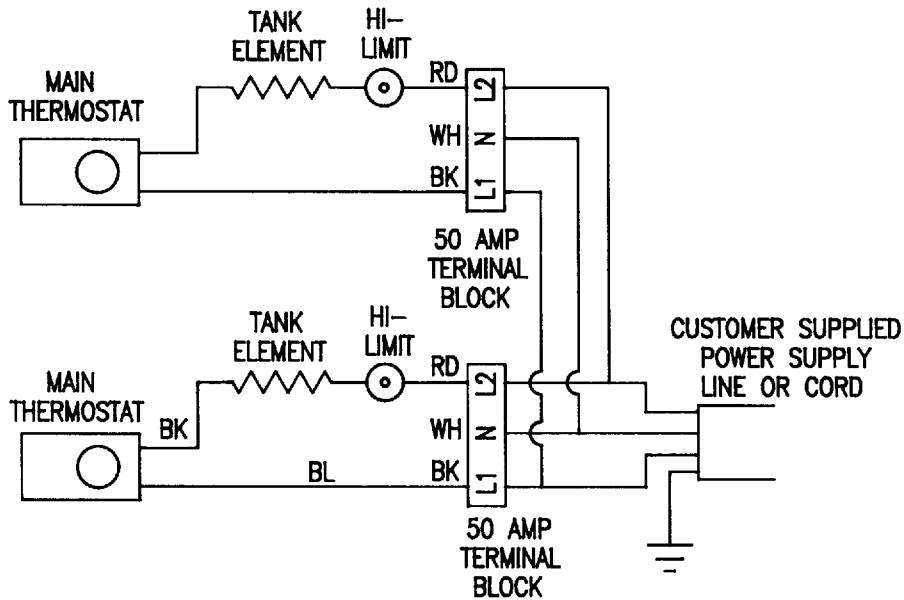


FIG 1

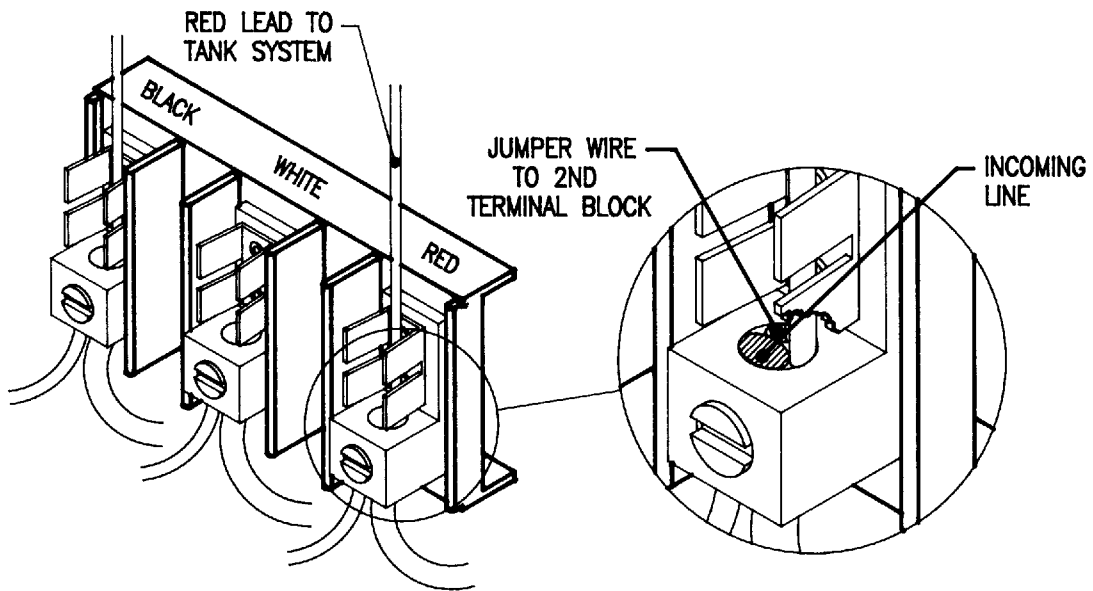


FIG 2

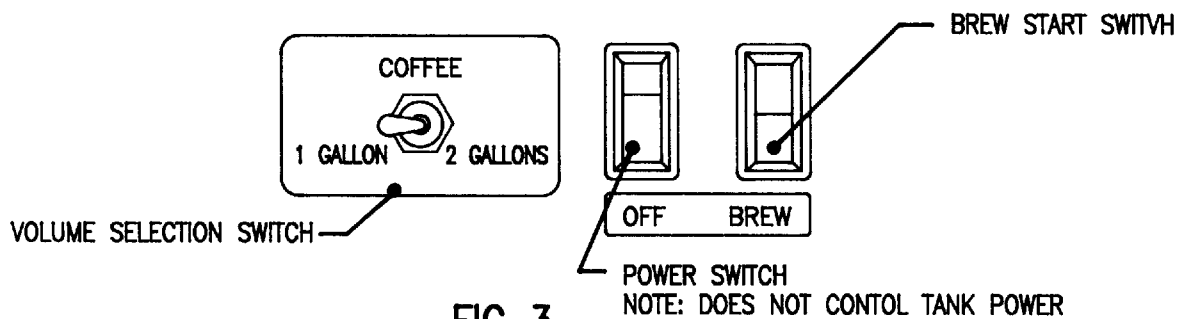


FIG 3