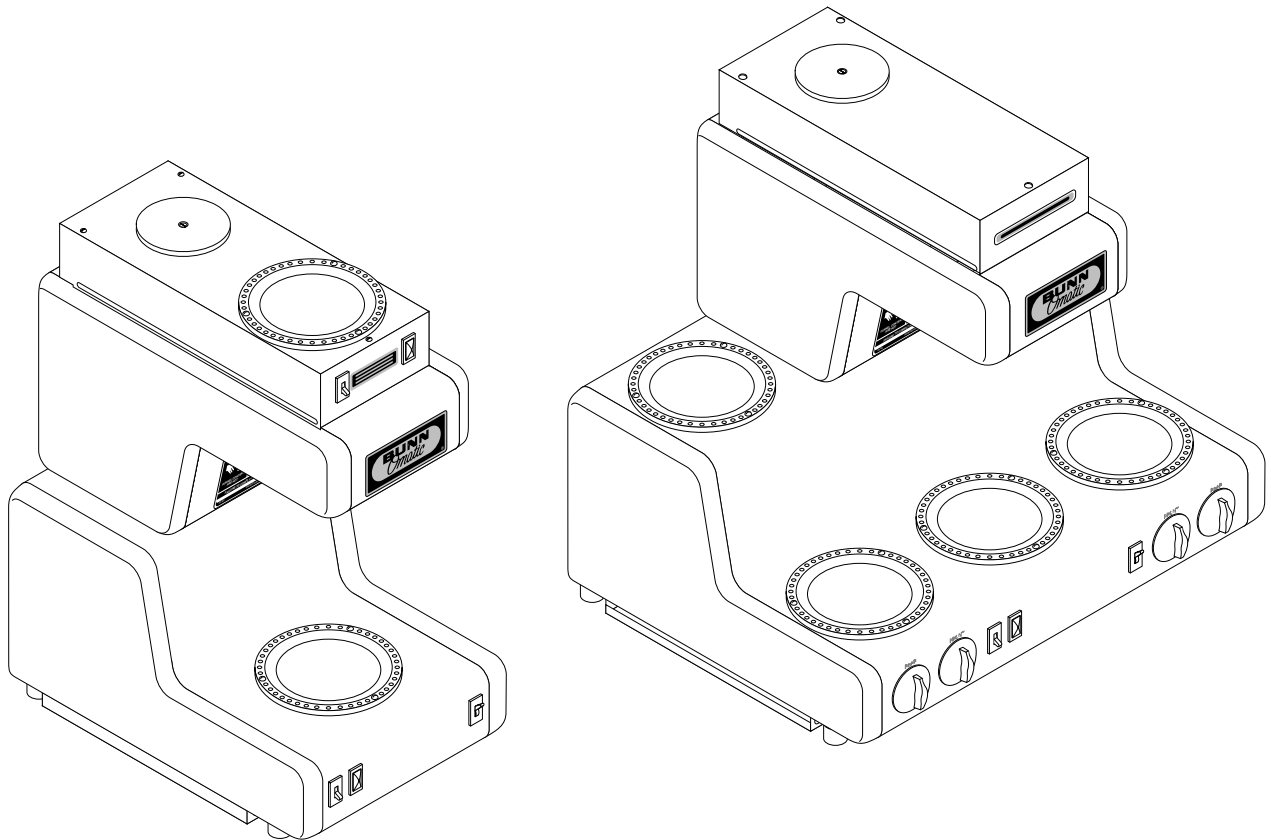


# BUNN®

# *OL & RL*



## OPERATING & SERVICE MANUAL

**BUNN-O-MATIC CORPORATION**

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# CONTENTS

Introduction .....	2
User Notices .....	3
Electrical Requirements .....	4
Plumbing Requirements .....	4
Initial Set-Up .....	5
Operating Controls .....	6
Coffee Brewing .....	7
Cleaning .....	7
Troubleshooting .....	8
Service .....	12
Wiring Diagrams .....	24

## INTRODUCTION

This equipment will brew a half-gallon batch of coffee into an awaiting decanter at the press of a button. The OL has two and the RL has five warmers to keep the beverage at the right temperature, on the RL one of which is capable of heating water to boiling. The brewer is only for indoor use on a sturdy counter or shelf.

## WARRANTY

Bunn-O-Matic Corp. (“Bunn”) warrants the equipment manufactured by it to be commercially free from defects in material and workmanship existing at the time of manufacture and appearing within one year from the date of installation. In addition:

- 1.) Bunn warrants electronic circuit and/or control boards to be commercially free from defects in material and workmanship for two years from the date of installation.
- 2.) Bunn warrants the compressor on refrigeration equipment to be commercially free from defects in material and workmanship for two years from the date of installation.
- 3.) Bunn warrants that the grinding burrs on coffee grinding equipment will grind coffee to meet original factory screen sieve analysis for three years from date of installation or for 30,000 pounds of coffee, whichever comes first.

This warranty does not apply to any equipment, component or part that was not manufactured by Bunn or that, in Bunn’s judgement, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty.

**THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** The agents, dealers or employees of Bunn are not authorized to make modifications to this warranty or to make additional warranties that are binding on Bunn. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

The Buyer shall give Bunn prompt notice of any claim to be made under this warranty by telephone at (217) 529-6601 or by writing to Post Office Box 3227, Springfield, Illinois, 62708-3227. If requested by Bunn, the Buyer shall ship the defective equipment prepaid to an authorized Bunn service location. If Bunn determines, in its sole discretion, that the equipment does not conform to the warranty, Bunn shall repair the equipment with no charge for parts during the warranty period and no charge for labor by a Bunn Authorized Service Representative during the warranty period. If Bunn determines that repair is not feasible, Bunn shall, at its sole option, replace the equipment or refund the purchase price for the equipment.

**THE BUYER’S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AS SPECIFIED HEREIN, TO REPAIR OR, AT BUNN’S SOLE OPTION, REPLACEMENT OR REFUND.**

In no event shall Bunn be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer’s customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

## USER NOTICES

Carefully read and follow all notices on the equipment and in this manual. They were written for your protection. All notices on the equipment should be kept in good condition. Replace any unreadable or damaged labels.

00831.0000

<b>⚠ WARNING</b>
<ul style="list-style-type: none"><li>◆ Fill water tank before turning -on thermostat or connecting appliance to power source.</li><li>◆ Use only on a properly protected circuit capable of the rated load.</li><li>◆ Electrically ground the chassis.</li><li>◆ Follow national/local electrical codes.</li><li>◆ Do not use near combustibles.</li></ul>
<b>FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE, OR SHOCK HAZARD</b>
<b>READ THE ENTIRE OPERATING MANUAL BEFORE BUYING OR USING THIS PRODUCT</b>
<b>THIS APPLIANCE IS HEATED WHENEVER CONNECTED TO A POWER SOURCE</b>
<small>00831.0000F 3/98 © 1988 BUNN-O-MATIC CORPORATION</small>

00658.0000

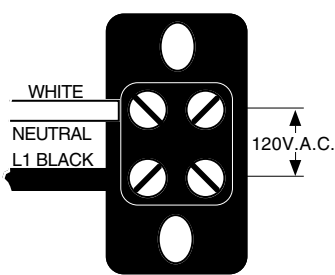
<b>⚠ WARNING</b>	
	<b>DISCARD DECANTER IF:</b> <ul style="list-style-type: none"><li>• CRACKED</li><li>• SCRATCHED</li><li>• BOILED DRY</li><li>• HEATED WHEN EMPTY</li><li>• USED ON HIGH FLAME OR EXPOSED ELECTRIC ELEMENTS</li></ul>
<b>FUNNEL CONTENTS ARE HOT</b>	
<b>READ THE ENTIRE OPERATING MANUAL BEFORE USING THIS PRODUCT FAILURE TO COMPLY RISKS INJURY</b>	
<small>PN: 00658.0000F 6/98 © 1985 BUNN-O-MATIC CORPORATION</small>	

This equipment is to be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).

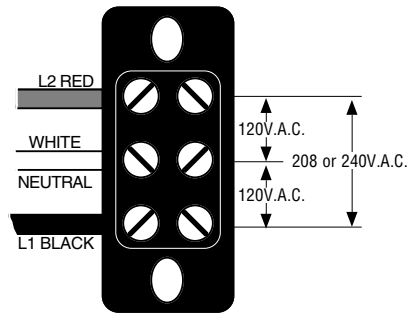
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## ELECTRICAL REQUIREMENTS

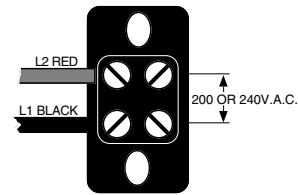
**CAUTION** - Do not connect the brewer to the power source until specified in Initial Set-Up.



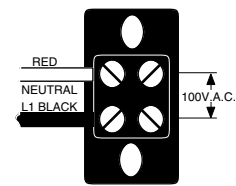
**MODELS OL15 & 20** require 2-wire, grounded service rated 120 volts ac, 15 or 20 amp respectively, single phase, 60 Hz.



**MODELS OL35 & RL35** require 3-wire, grounded service rated 120/208 or 120/240 volts ac, 20 amp, single phase, 60 Hz.



**MODELS OLA, RLA, OL35B & RL35B** require 2-wire, grounded service rated 240 volts ac or 200 volts ac, 20 amp single phase, 50 Hz.



**MODEL OL25B** requires 2-wire, grounded service rated 100 volts ac, 20 amp single phase, 50 Hz.

## Electrical Hook-Up

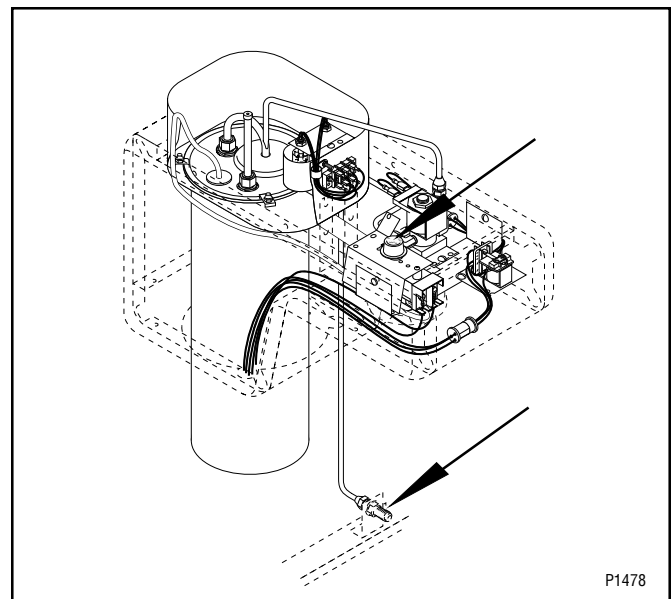
Model OL15 has an attached cordset.  
Models OL20, OL35, & RL35, proceed as follows:

**CAUTION** – Improper electrical installation will damage electronic components.

1. An electrician must provide electrical service as specified.
2. Using a voltmeter, check the voltage and color coding of each conductor at the electrical source.
3. Remove the top panel and rotate the control thermostat knob fully counterclockwise to the "OFF" position and replace the panel.
4. Remove the rear panel, feed the cord through the strain relief, and connect it to the terminal block.
5. Connect the brewer to the power source and verify the voltage at the terminal block before proceeding. Replace the rear panel.
6. If plumbing is to be hooked-up later be sure the brewer is disconnected from the power source. If Plumbing has been hooked-up, the brewer is ready for Initial Set-Up.

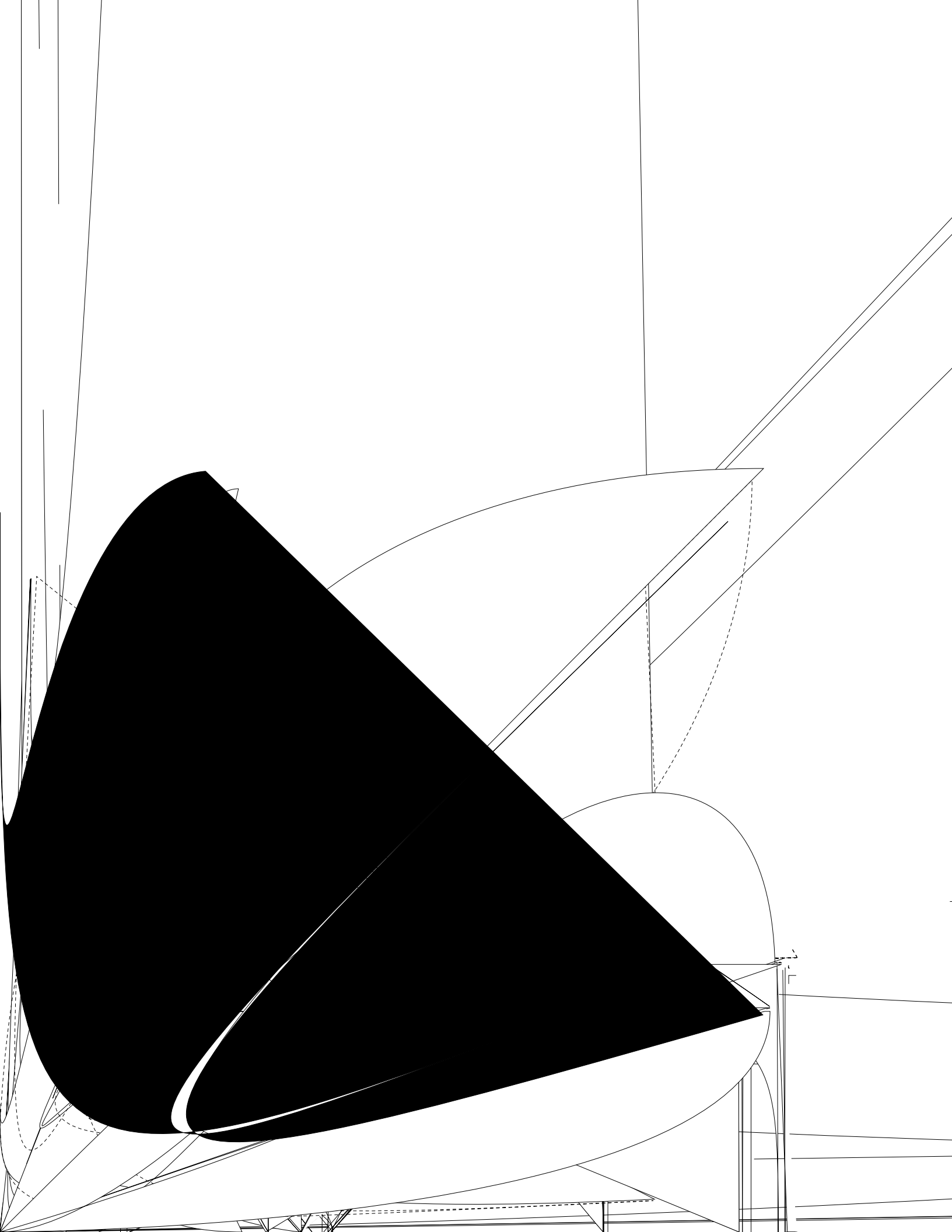
## PLUMBING REQUIREMENTS

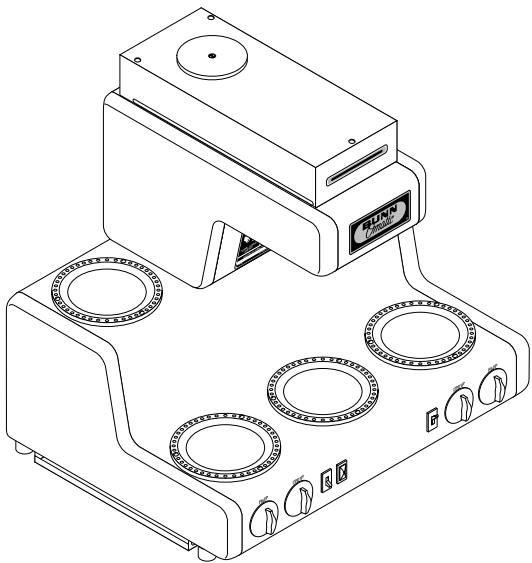
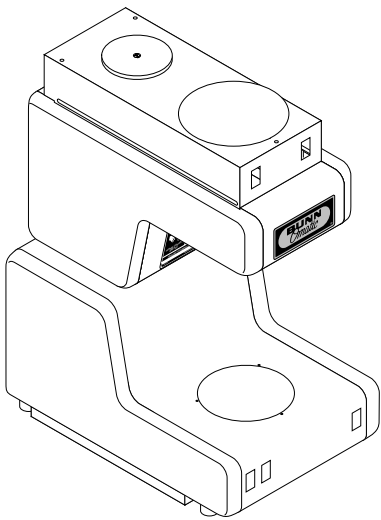
This brewer must be connected to a **cold** water system with operating pressure between 20 and 90 psi from a 1/2" or larger supply line. A shut-off valve should be installed in the line before the brewer. Install a regulator in the line when pressure is greater than 90 psi to reduce it to 50 psi. The water inlet fitting is 1/4" flare.



**NOTE** - Bunn-O-Matic recommends 1/4" copper tubing for installations of less than 25 feet and 3/8" for more than 25 feet from the 1/2" water supply line. A tight coil of copper tubing in the water line will facilitate moving the brewer to clean the counter top. Bunn-O-Matic does not recommend the use of a saddle valve to install the brewer. The size and shape of the hole made in the supply line by this type of device may restrict water flow.

**This equipment must be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).**





## COFFEE BREWING

Start each brew cycle with an empty, clean, half-gallon decanter.

1. Insert a BUNN® filter into the funnel.
2. Pour the fresh coffee into the filter and level the bed of grounds by gently shaking.
3. Slide the funnel into the funnel rails.
4. Place the On/Off brew station warmer switch in the upper position.
5. Momentarily press the start switch.
6. When brewing is completed, simply discard the grounds and filter.

## CLEANING

1. The use of a damp cloth rinsed in any mild, non-abrasive, liquid detergent is recommended for cleaning all surfaces on Bunn-O-Matic equipment.
2. Check and clean the sprayhead. The sprayhead holes must always remain open.
3. With the sprayhead removed, insert the deliming spring (provided) all the way into the sprayhead tube. When inserted properly, no more than two inches of spring should be visible. Saw back and forth five or six times.

**NOTE** - In hard water areas, this may need to be done daily. It will help prevent liming problems in the brewer and takes less than a minute.

## TROUBLESHOOTING

A troubleshooting guide is provided to suggest probable causes and remedies for the most likely problems encountered. If the problem remains after exhausting the troubleshooting steps, contact the Bunn-O-Matic Technical Service Department.

- Inspection, testing, and repair of electrical equipment should be performed only by qualified service personnel.
- All electric components have 120 volt ac voltage on their terminals. Shorting of terminals or the application of external voltages may result in equipment failure.
- Intermittent operation of electronic equipment is unlikely. Component failure will normally be permanent. If an intermittent condition is encountered, the cause will likely be a switch contact or a loose connection at a terminal or crimp.
- Solenoid removal requires interrupting the water supply to the valve. Damage may result if solenoids are energized for more than ten minutes without a supply of water.
- The use of two wrenches is recommended whenever plumbing fittings are tightened or loosened. This will help to avoid twists and kinks in the tubing.
- Make certain that all plumbing connections are sealed and electrical connections tight and isolated.
- This brewer is heated at all times unless disconnected from the power source. Keep away from combustibles.

### WARNING

- Exercise extreme caution when servicing electrical equipment.
- Disconnect the brewer from the power source when servicing, except when electrical tests are specified.
- Follow recommended service procedures
- Replace all protective shields or safety notices

<b>Problem</b>	<b>Probable Cause</b>	<b>Remedy</b>
Equipment will not operate.	1. No power or incorrect voltage	(A) Connect the brewer to the power source.  (B) Check the terminal block for the proper voltages.  (C) Check circuit breaker/fuse.
	1. No water	Check plumbing and shut-off valves.
	2. Water Strainer	(A) Direction of flow arrow must be pointing towards brewer.  (B) Remove the strainer and check for obstructions. Clear or replace.
Brew cycle will not start.	3. Water Level Switch and Overflow Safety Switch	Refer to Service - Water Level Switch and Overflow Safety Switch for testing procedures. See page 23.



## TROUBLESHOOTING (cont.)

Problem	Probable Cause	Remedy
Brew cycle will not start. (cont.)	4. On/Off Brew Station Warmer Switch	Refer to Service - On/Off Brew Station Warmer Switch for testing procedures. See page 15.
	5. Start Switch	Refer to Service - Start Switch for testing procedures. See page 17.
	6. Relay	Refer to Service - Relay for testing procedures. See page 21.
	7. Solenoid Valve	Refer to Service - Solenoid Valve for testing procedures. See page 20.
Water flows into fill basin continuously (On/Off brew station warmer switch "OFF").	1. Solenoid Valve	Refer to Service - Solenoid Valve for testing procedures. See page 20.
Water flows into fill basin continuously (On/Off brew station warmer switch "ON").	1. Start Switch	Refer to Service - Start Switch for testing procedures. See page 17.
Water is not hot.	1. Limit Thermostat	Refer to Service - Limit Thermostat for testing procedures. See page 19.
	<b>CAUTION</b> Do not eliminate or bypass limit thermostat. Use only B.O.M. replacement part <b>#29329.1000</b>	
	2. Control Thermostat	Refer to Service - Control Thermostat for testing procedures. See page 13.
	3. Tank Heater	Refer to Service - Tank Heater for testing procedures. See page 22.
Decanter warmer is not hot.	1. Warmer Switches	(A) The Warmer Switch(es) must be in the "ON" position for the warmer to operate.  (B) Refer to Service - Warmer Switch(es) for testing procedures. See pages 15 & 16.
	2. Decanter Warmers	Refer to Service - Warmers for testing procedures. See page 14.

## TROUBLESHOOTING (cont.)

<b>Problem</b>	<b>Probable Cause</b>	<b>Remedy</b>
Spitting or unusual steaming from sprayhead.	1. Control Thermostat	Refer to Service - Control Thermostat for testing procedures. See page 13.
	2. Lime build-up	Inspect the tank assembly for excessive lime deposits. Delime as required.
	<b>CAUTION</b> Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	
Warmer plates too hot, solenoid coil smoking, or water in tank heats excessively fast.	1. Brewer wired to wrong voltage	Refer to Electrical Requirements - Page 4.
Inconsistent beverage level in decanter.	1. Improper water pressure	Check the operating water pressure to the brewer. It must be between 20 and 90 psi.
	2. Syphon system	Water should flow freely from the sprayhead and then stop abruptly. The brewer must be level from front-to-back to syphon properly.
Dripping from sprayhead.	1. Syphon system	Water should flow freely from the sprayhead and then stop abruptly. The brewer must be level from front-to-back to syphon properly.
	2. Solenoid Valve	Refer to Service - Solenoid Valve for testing procedures. See page 20.

## TROUBLESHOOTING (cont.)

<b>Problem</b>	<b>Probable Cause</b>	<b>Remedy</b>
Beverage overflows decanter.	1. Beverage left in decanter	The brew cycle should be started only with an empty decanter under the funnel.
Weak beverage.	1. Type of paper filters	BUNN® paper filters should be used for proper extraction.
	2. Coffee	A sufficient quantity of fine or drip grind coffee should be used for proper extraction.
	3. Sprayhead	B.O.M. sprayhead #01082.0000 should be used to properly wet the bed of ground coffee in the funnel.
	4. Funnel loading	The BUNN® paper filter should be centered in the funnel and the bed of coffee leveled by gentle shaking.
	5. Water temperature	Place a funnel over an empty decanter on the warmer beneath the sprayhead. Place the On/Off brew station warmer switch in the upper position, press the start switch, and check the water temperature immediately below the sprayhead with an accurate thermometer. The reading should not be less than 195° F. Adjust the control thermostat slightly clockwise to increase the water temperature.
Brewer is making unusual noises.	1. Solenoid Valve	The nut on top of the solenoid valve must be tight or it will vibrate during operation.
	2. Plumbing lines	Plumbing lines should not rest on the counter top.
	3. Water supply	(A) The brewer must be connected to a cold water line.  (B) Water pressure to the brewer must not be higher than 90 psi. Install a regulator if necessary to lower the working pressure to approximately 50 psi.

# SERVICE

This section provides procedures for testing and replacing various major components used in this brewer should service become necessary. Refer to Troubleshooting for assistance in determining the cause of any problem.

## Component Access

**WARNING** - Disconnect the brewer from the power source before the removal of any panel or the replacement of any component.

The control thermostat, solenoid valve and relay are located under the top cover or top warmer housing, FIG. 1, attached with three #8-32 slotted-head screws.

The base warmer(s), switch(es), indicator lamp, start switch, tank "keep warm" heater and terminal block are located in the base. Access is gained by removing the rear panel, FIG. 1 attached with two #8-32 slotted-head screws

The limit thermostat and tank heater are located on the tank assembly. Access is gained by removing the rear panel, FIG. 1 attached with two #8-32 slotted head screws.

On the model OL, the upper warmer, switch, and associated indicator lamp are located on the removable top warmer housing, FIG. 1.

**WARNING** - Inspection, testing, and repair of electrical equipment should be performed only by qualified service personnel. The brewer should be disconnected from the power source when servicing, except when electrical tests are required and the test procedure specifically states to connect the brewer to the power source.

## Contents

Control Thermostat .....	13
Warmer(s)	
OL: Brew Station & Upper .....	14
RL: Left Rear, Left Front, Brew Station, Right Rear & Right Front .....	14
Warmer Switch(es)	
OL: On/Off Brew Station & Upper .....	15
RL: On/Off Brew Station .....	15
RL: Left Rear, Left Front, Right Rear & Right Front Rotary .....	16
Start Switch .....	17
Indicator Lamp(s) .....	18
Limit Thermostat .....	19
Solenoid Valve .....	20
Relay .....	21
Tank Heater .....	22
Over Flow Safety Switch .....	23
Wiring Schematics .....	24

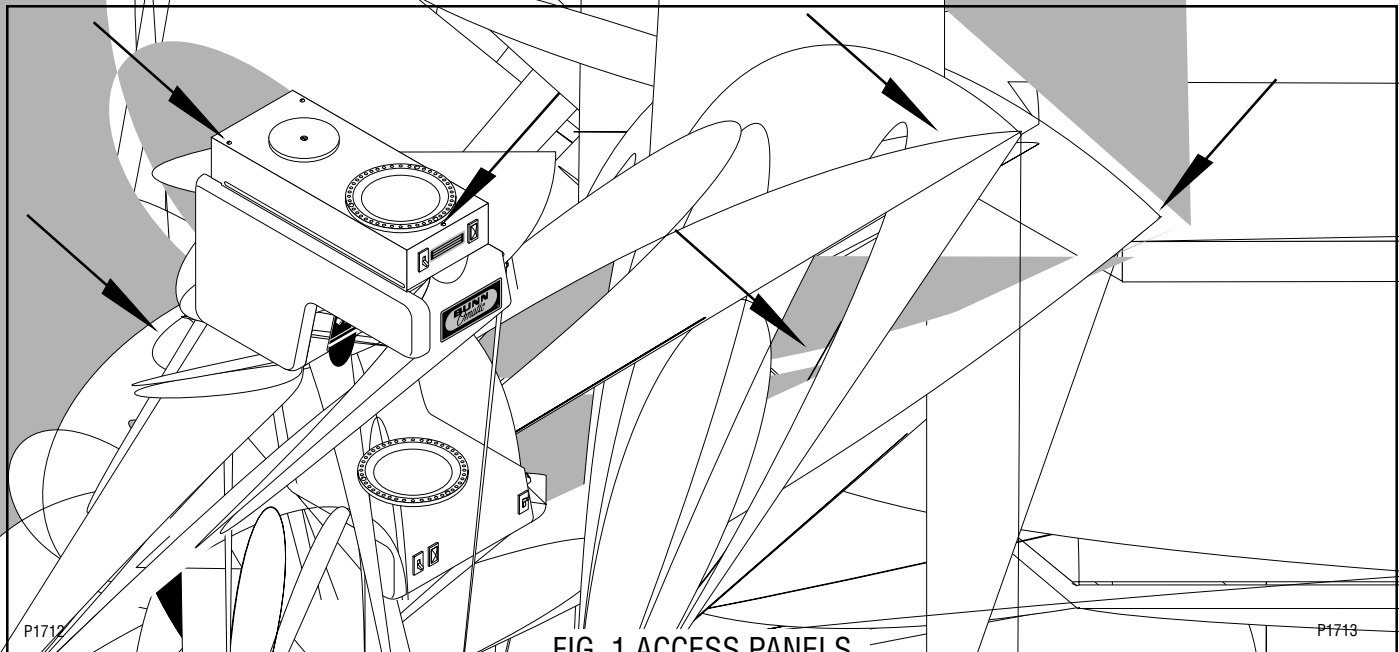


FIG. 1 ACCESS PANELS

## SERVICE (cont.)

### Control Thermostat

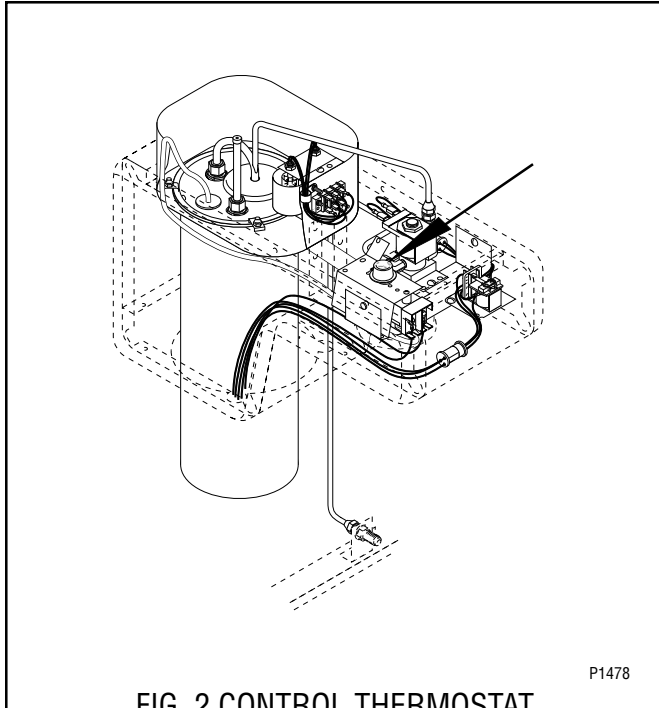


FIG. 2 CONTROL THERMOSTAT

#### Location:

The control thermostat is located under the top cover or top warmer housing, FIG. 2.

To test the control thermostat, access will also be needed to the tank heater located in the bottom of the tank assembly.

#### Test Procedure:

1. Disconnect the brewer from the power source.
2. Check the voltage across the blue wire on the control thermostat and the white or red wire on the tank heater with a voltmeter. Connect the brewer to the power source. The indication must be:
  - a) 120 volts ac for two wire 120 volt models.
  - b) 200 or 240 volts ac for two wire 200 volt or 240 volt models and three wire 120/240 volt models.
  - c) 100 volts ac for two wire 100 volt models.
3. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #4.  
If voltage is not present as described, refer to the Wiring Diagrams and check the brewer wiring harness.

4. Check the voltage across the black wire terminal of the control thermostat and the white or red wire on the tank heater with a voltmeter when the control thermostat is turned "ON" (fully clockwise). Connect the brewer to the power source.

The indication must be as described in step 2. Voltage must not be indicated across these terminals when the thermostat is turned "OFF" (fully counterclockwise).

5. Disconnect the brewer from the power source.

If voltage is present as described, the control thermostat is operating properly.

If voltage is not present as described, replace the control thermostat.

#### Removal and Replacement:

1. Remove the top cover or top warmer housing from the brewer to gain access.
2. Remove both wires from the control thermostat terminals.
3. Remove the thermostat bulb by firmly pulling-up on the capillary tube at the tank lid. This will disengage the grommet from the tank lid.
4. Remove the two #8-32 screws holding the control thermostat to the bracket.
5. Fasten the new control thermostat to the component bracket.

**NOTE** - Make sure that the capillary tube is away from any electrical termination and is not kinked.

6. Slide the grommet to the red mark on the capillary tube.
7. Insert the bulb through the hole in the tank lid and press the grommet firmly and evenly so that the groove in the grommet fits into the tank lid.
8. Carefully bend the capillary tube so that the tube and bulb inside the tank are in a vertical position.
9. Refer to FIG. 3 when reconnecting the wires.
10. Readjust the control thermostat dial as required.

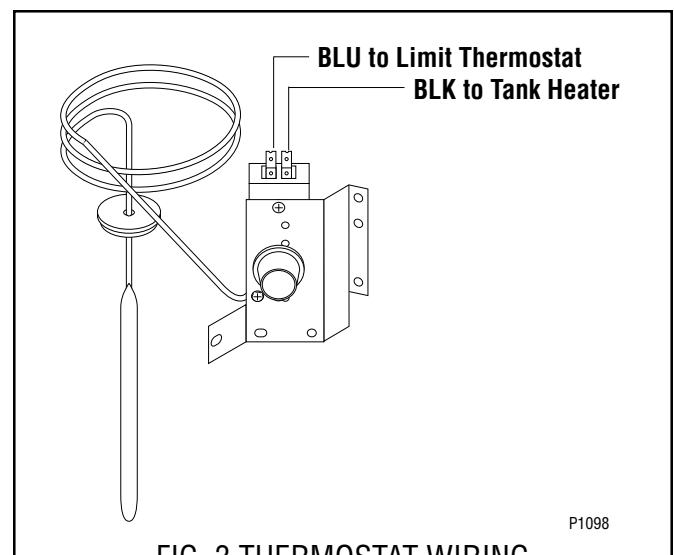
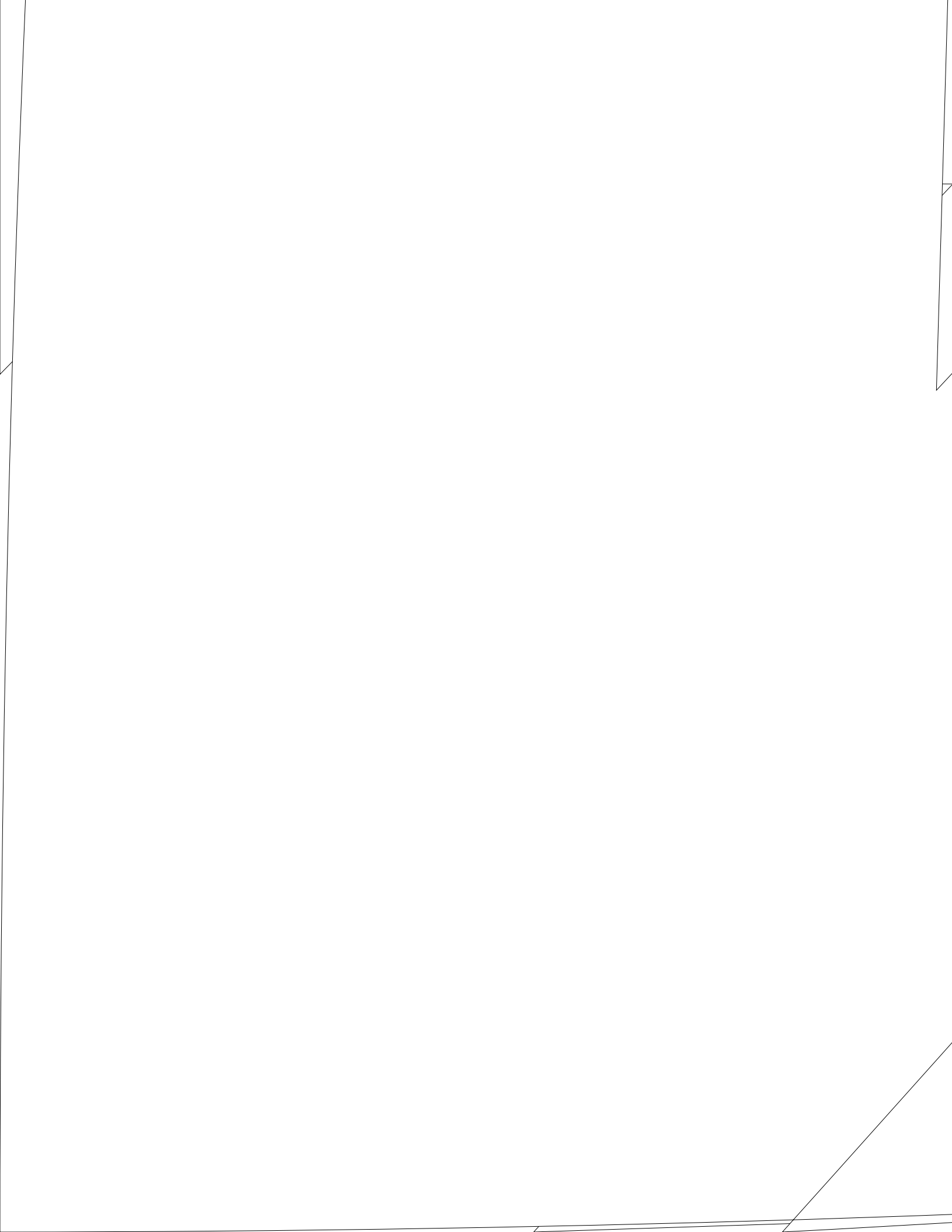


FIG. 3 THERMOSTAT WIRING





**SERVICE (cont.)**

**Warmer Switch(es)**

RL: Left Rear, Left Front, Right Rear & Right Front

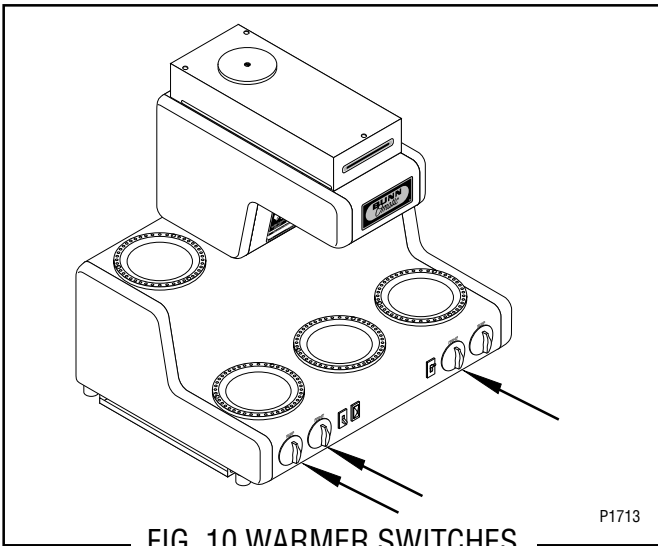


FIG. 10 WARMER SWITCHES

Location:

These warmer switches are the two at the left and the left most one on the right of the base as viewed from the front, FIG. 10. Their knobs are marked Off/On/Off/On.

To test these switches, access will also be needed to the terminal block located in the rear of the brewer.

Test Procedure:

1. Check the voltage across terminal L1 and the white or red wire on the terminal block with a voltmeter. Connect the brewer to the power source. The indication must be:
  - a) 120 volts ac for two wire 120 volt models and three wire 120/240 volt models.
  - b) 200 or 240 volts ac for two wire 200 volt or 240 volt models.
  - c) 100 volts ac for two wire 100 volt models.
2. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #3.

If voltage is not present as described, refer to the Wiring Diagrams and check the brewer wiring harness.

3. Check the voltage across terminal 1 and the white or red wire on the terminal block with a voltmeter when the switch is in the "ON" position. Connect the brewer to the power source. The indication must be as described in step 1. Voltage must not be present across these terminals in the "OFF" positions.

4. Disconnect the brewer from the power source.

If voltage is present as described, the switch is operating properly.

If voltage is not present as described, replace the switch.

Removal and Replacement:

1. Remove the knob from the switch.
2. Loosen the 5/8" nut on the switch shaft and push the switch through the opening.
3. Remove the wires from the switch terminals.
4. Refer to FIG. 11 when reconnecting the wires.
5. Securely mount the new switch onto the housing and reinstall the knob.

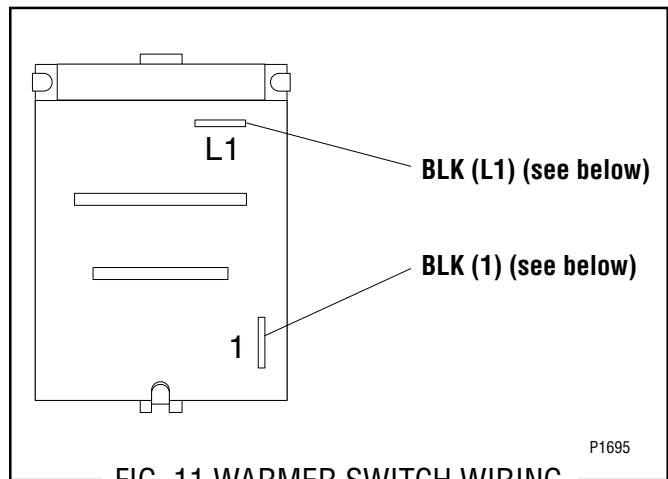
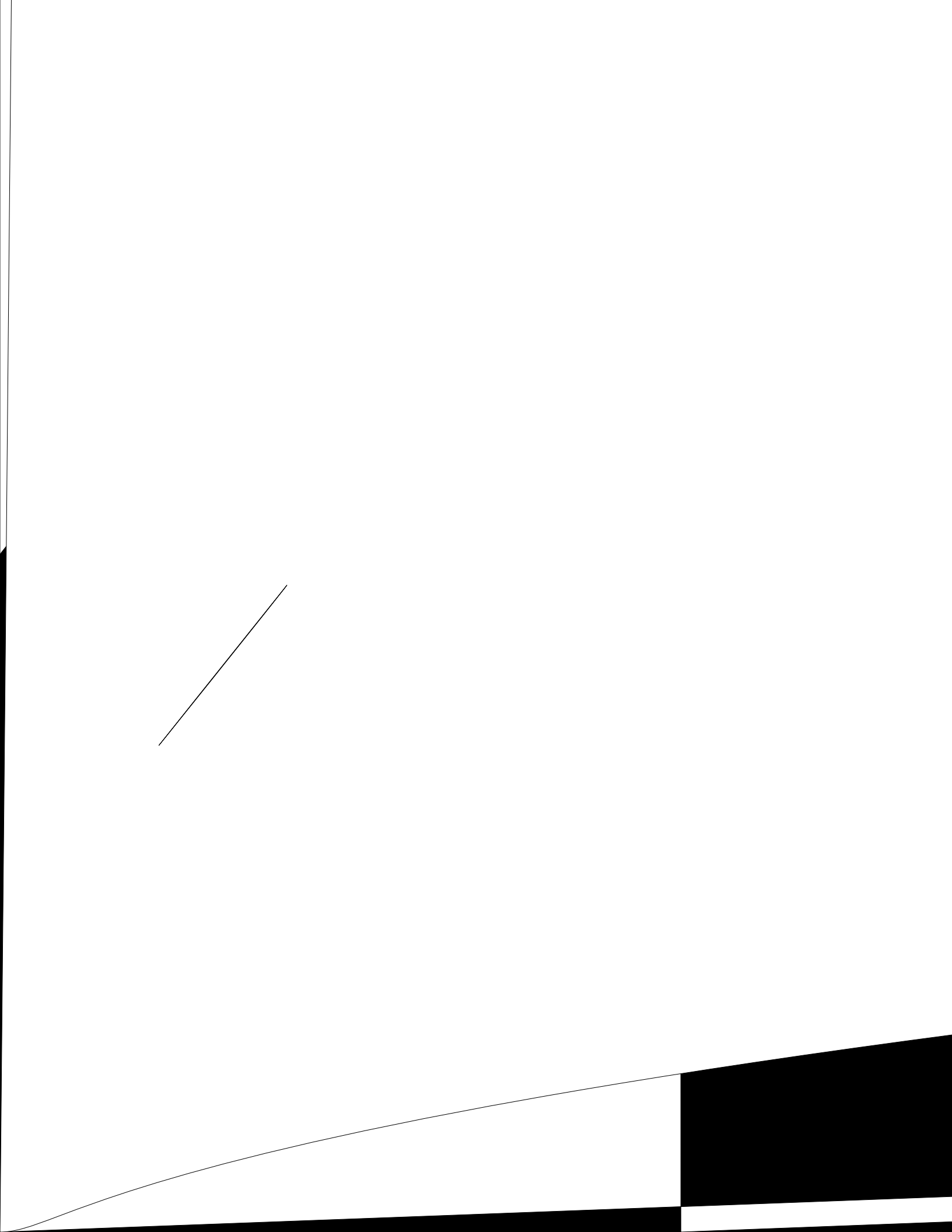


FIG. 11 WARMER SWITCH WIRING

MODEL

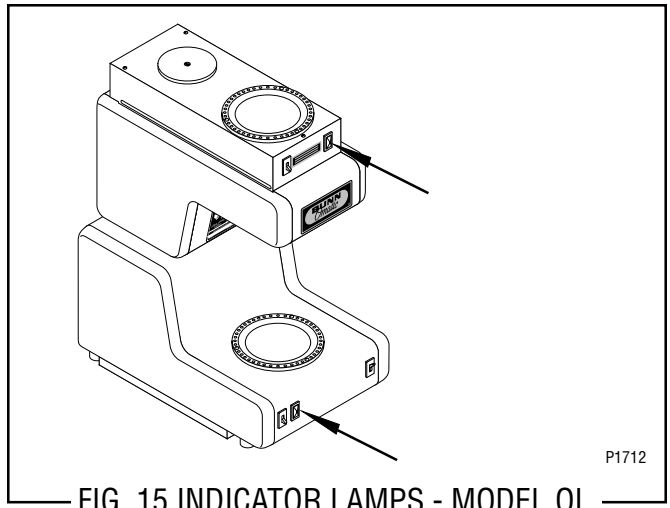
RL Left Rear	BLK 1	to Warmer
	BLK L1	to Left Front Warmer Switch
RL Left Front	BLK 1	to Warmer
	BLK L1	to Left Rear Warmer Switch to Brew Station Warmer Switch
RL Right Front	BLK 1	to Warmer
	BLK L1	to Terminal Block to Brew Station Warmer Switch to Right Rear Warmer Switch
RL Right Rear	BLK 1	to Warmer
	BLK L1	to Right Front Warmer Switch





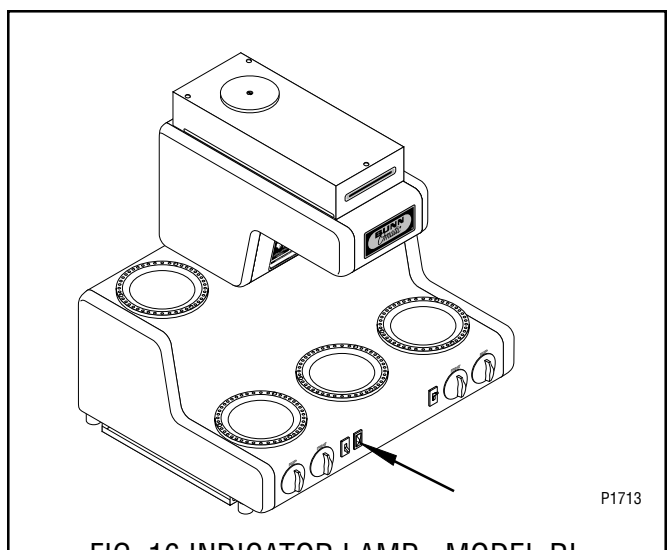
**SERVICE (cont.)**

**Indicator Lamp(s)**



P1712

**FIG. 15 INDICATOR LAMPS - MODEL OL**



P1713

**FIG. 16 INDICATOR LAMP - MODEL RL**

Location:

The indicator lamps are located beneath their associated warmers, FIG.s 15 and 16.

Test Procedure:

1. Check continuity of the black wire from the switch to the indicator lamp.
2. Check continuity of the white or red wire from the indicator lamp to the terminal block.

If continuity is present, proceed to #3.  
If continuity is not present, refer to Wiring Diagrams and check brewer wiring harness.

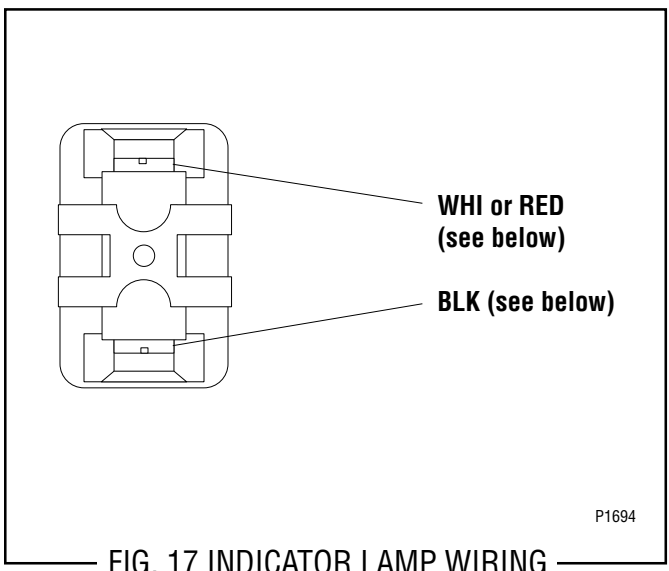
3. Check for voltage across the indicator lamp terminals. Connect the brewer to the power source. The indication must be:
  - a) 120 volts ac for two wire 120 volt models and three wire 120/240 volt models.
  - b) 200 or 240 volts ac for two wire 200 volt or 240 volt models.

- c) 100 volts ac for two wire 100 volt models.
4. Disconnect the brewer from the power source.

If voltage is present, the indicator lamp is operating properly.  
If voltage is not present, replace the indicator lamp.

Removal and Replacement:

1. Compress the clips inside the housing and gently push the indicator lamp through the opening.
2. Remove the wires from the indicator lamp terminals.
3. Refer to FIG. 17 when reconnecting the wires.
4. Push the new indicator lamp firmly into the opening.



P1694

**FIG. 17 INDICATOR LAMP WIRING**

MODEL		
OL Upper	BLK	to Warmer Switch
	WHI or RED	to Warmer to Harness P2
OL Lower	BLK	to On/Off Brew Station Warmer Switch
	WHI or RED	to Relay P2 to Brew Station Warmer
RL	BLK	to On/Off Brew Station Warmer Switch
	WHI or RED	to Right Front Warmer to Left Front Warmer

## SERVICE (cont.)

### Limit Thermostat

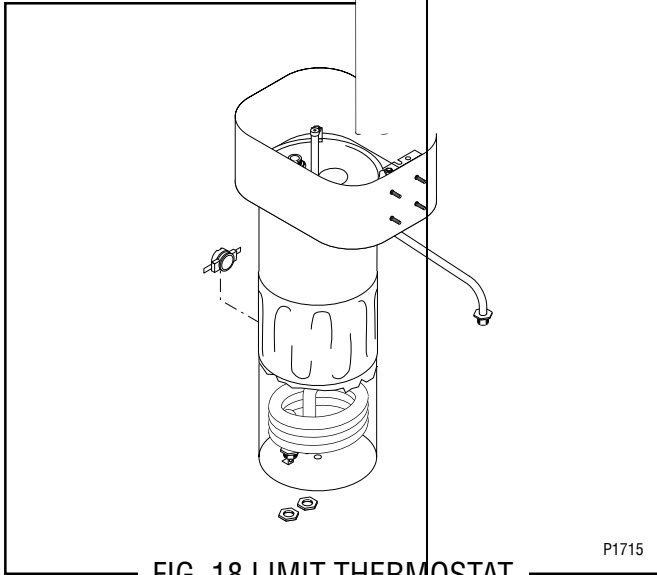


FIG. 18 LIMIT THERMOSTAT

#### Location:

The limit thermostat is located on the back of the tank assembly, FIG. 18.

#### Test Procedure:

1. Disconnect the brewer from the power source.
2. Check voltage across the black wire from the limit thermostat and the white or red wire on the tank heater terminal. Connect the brewer to the power source. The indication must be:
  - a) 120 volts ac for two wire 120 volt models.
  - b) 200 or 240 volts ac for two wire 200 volt or 240 volt models and three wire 120/240 volt models.
  - c) 100 volts ac for two wire 100 volt models.
3. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #4.  
If voltage is not present as described, refer to the Wiring Diagrams and check the brewer wiring harness.

#### LIMIT THERMOSTAT.

#### Removal and Replacement:

1. Remove both wires from the limit thermostat terminals.
2. Carefully slide the limit thermostat out from under the retaining clip.
3. Carefully slide the new limit thermostat into the retaining clip.
4. Refer to FIG. 19 when reconnecting the wires.

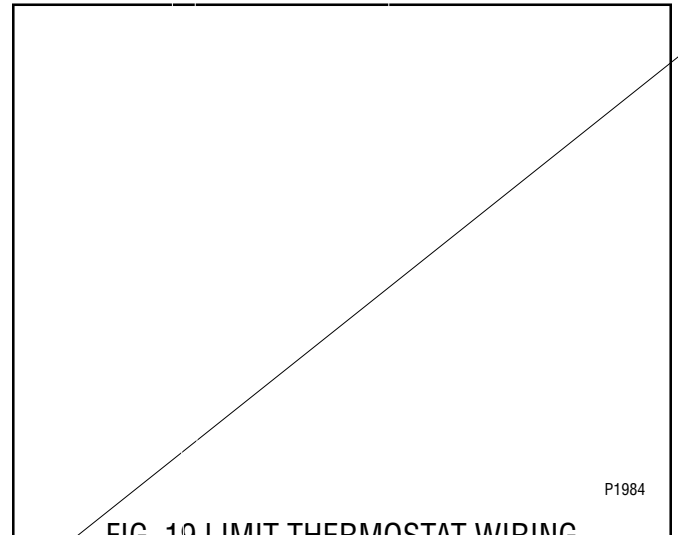
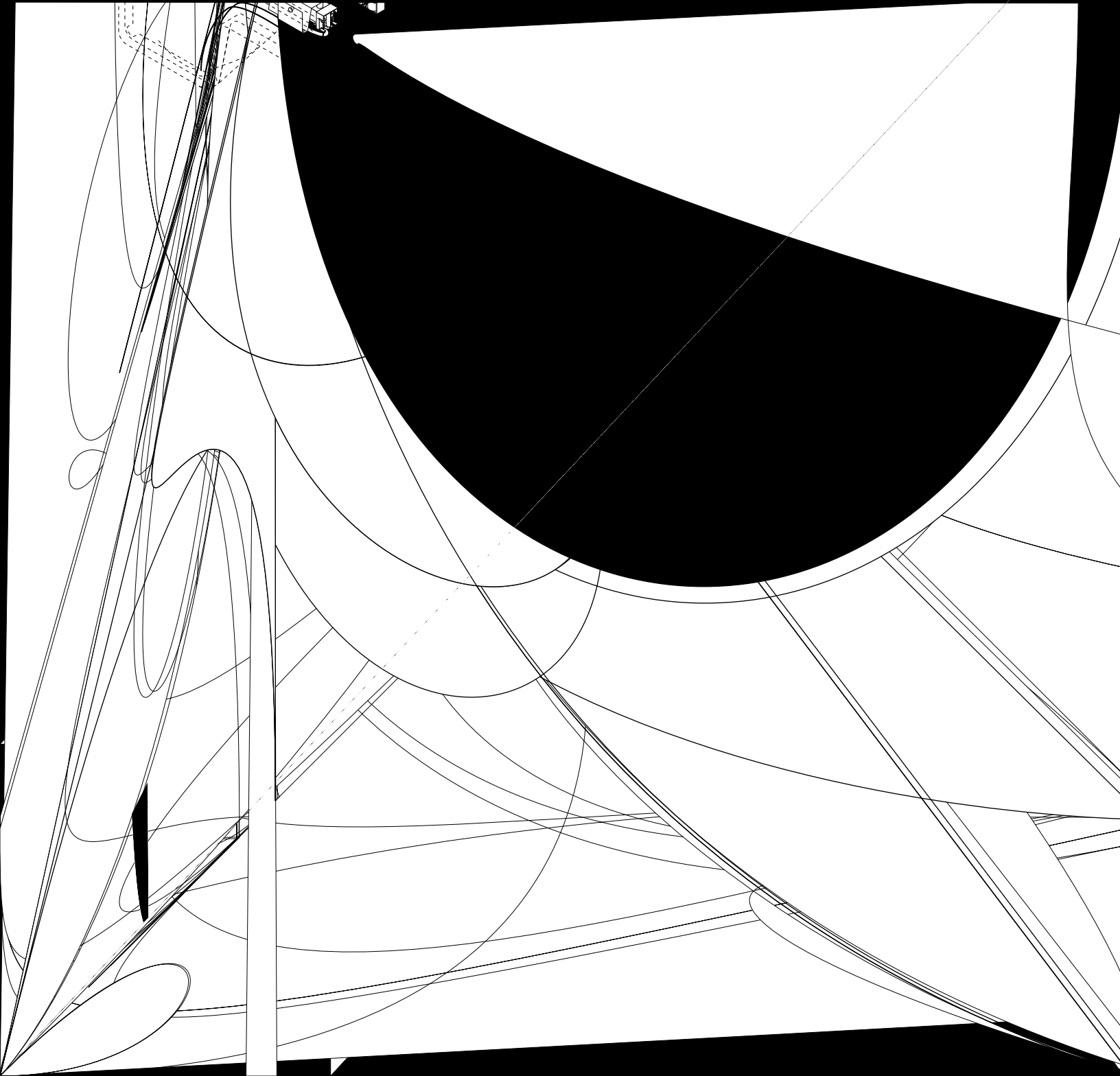
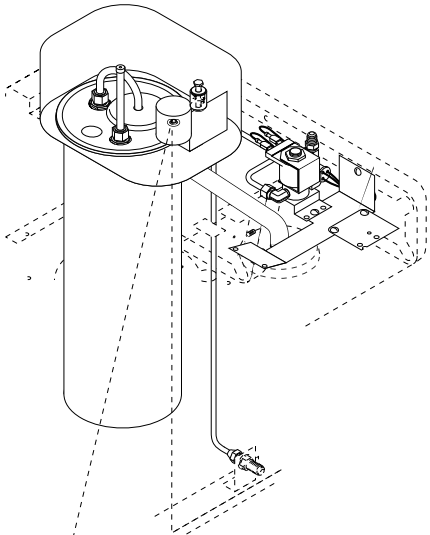


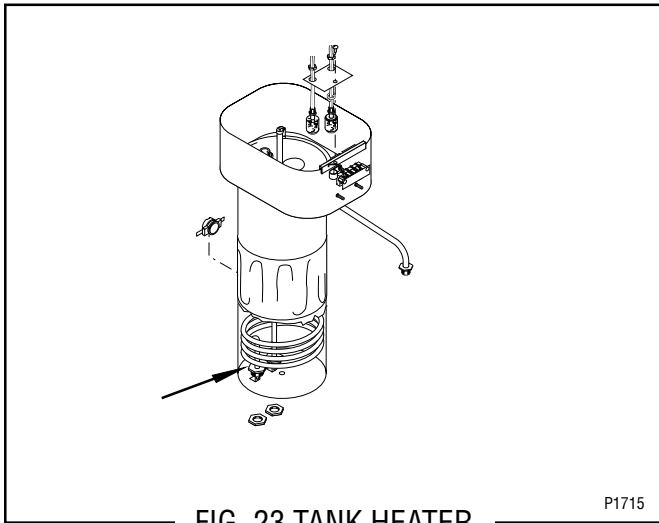
FIG. 19 LIMIT THERMOSTAT WIRING





## SERVICE (cont.)

### Tank Heater



#### Location:

The tank heater is located in the bottom of the tank assembly, FIG. 23.

#### Test Procedure:

1. Check the voltage across the black and white or red wires on the tank heater with a voltmeter when the control thermostat is turned "ON" (fully clockwise). Connect the brewer to the power source. The indication must be:
  - a) 120 volts ac for two wire 120 volt models.
  - b) 200 or 240 volts ac for two wire 200 volt or 240 volt models and three wire 120/240 volt models.
  - c) 100 volts ac for two wire 100 volt models.
2. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #3.  
If voltage is not present as described, refer to the Wiring Diagrams and check the brewer wiring harness.

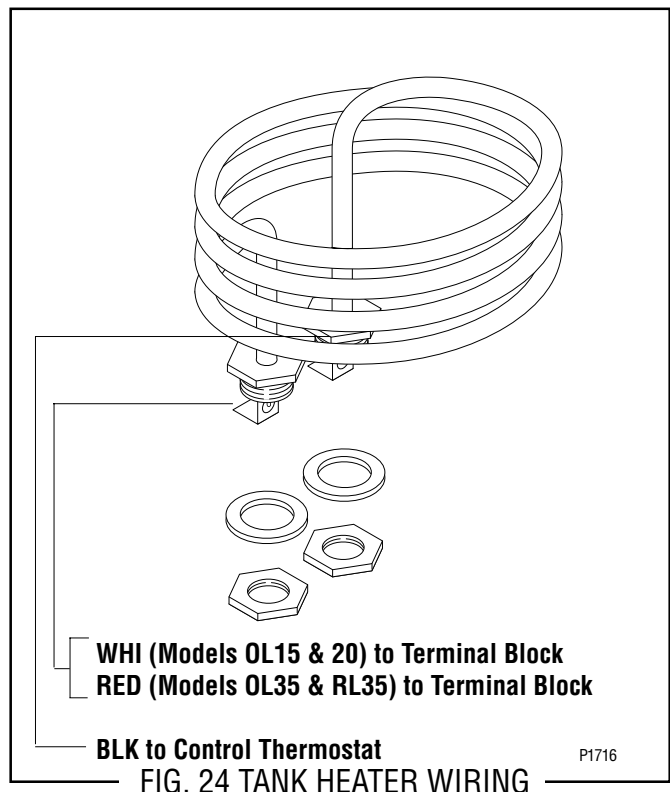
3. Check for continuity across the terminals of the tank heater.

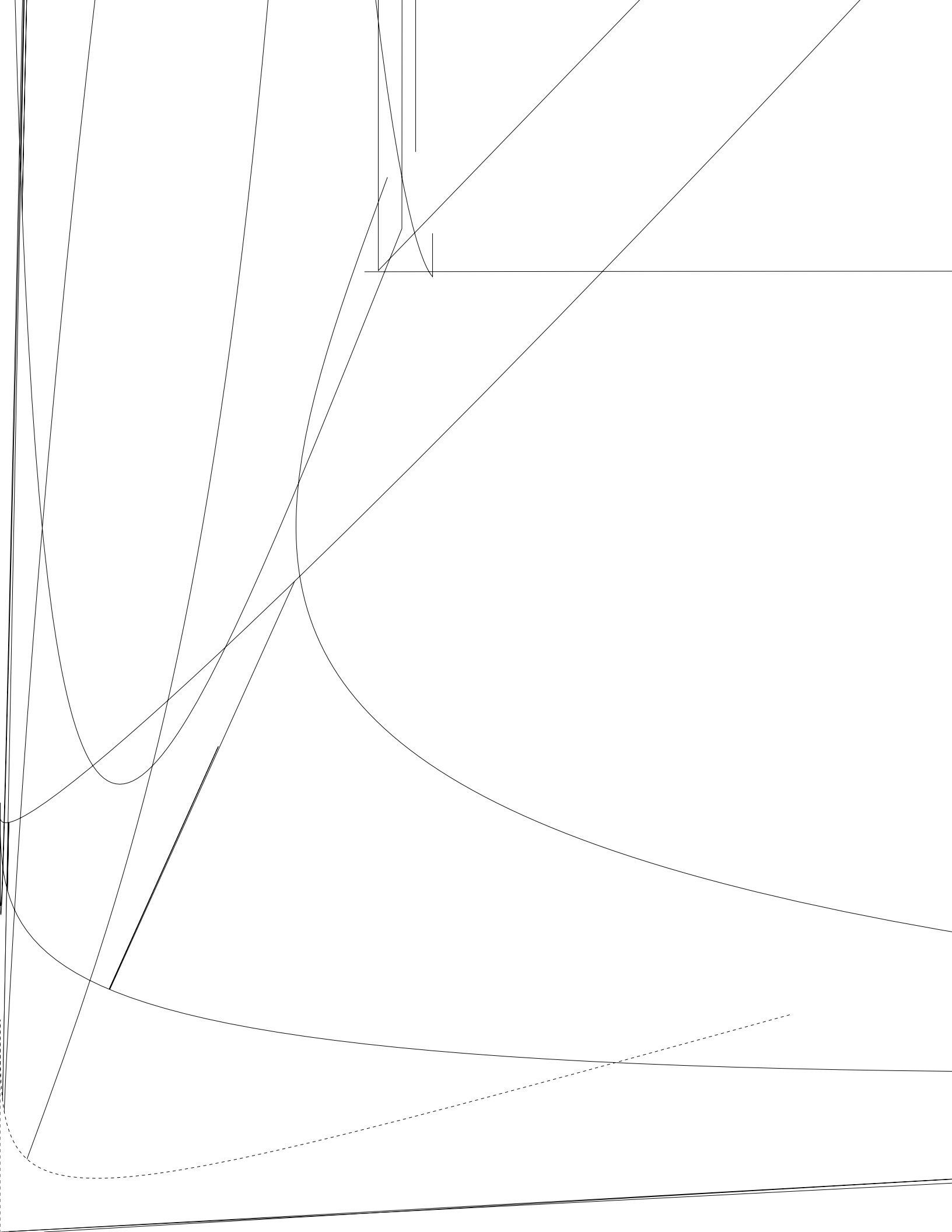
If continuity is present as described, reconnect the wires, the tank heater is operating properly.  
If continuity is not present as described, replace the tank heater.

**NOTE** - If the tank heater remains unable to heat, remove and inspect the heater for cracks in the sheath.

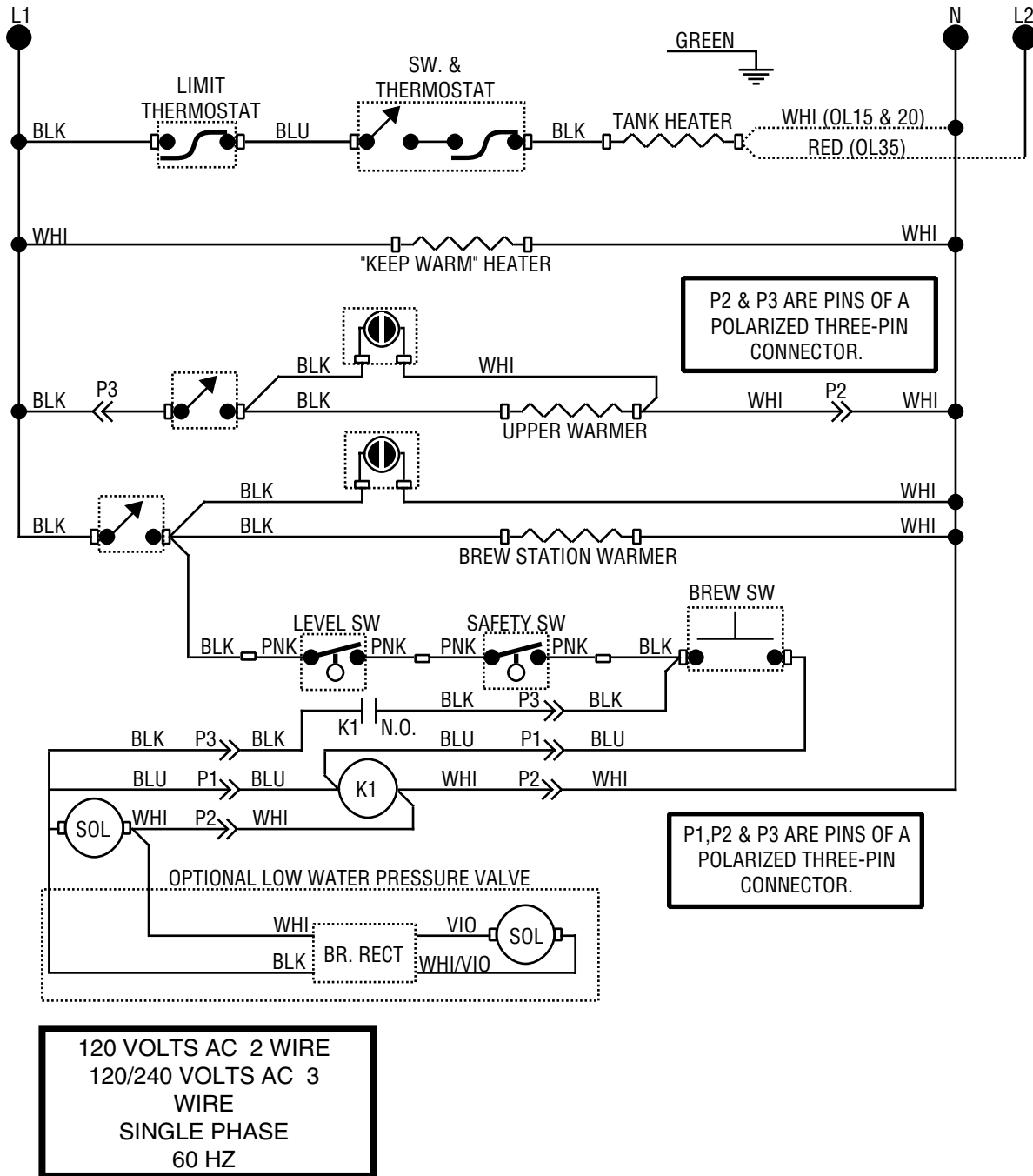
#### Removal and Replacement:

1. Disconnect the brewer from the power source.
2. Remove the top cover or top warmer housing and the rear access panel.
3. Disconnect the wires to the tank heater.
4. Gently pull the thermostat bulb with grommet out of the tank lid.
5. Disconnect and remove the fill basin tube.
6. Remove the four #8-32 nuts and hold-down brackets attaching the tank lid to the tank assembly and remove the tank lid and gasket.
7. Drain the water from the tank using a syphon or similar device.
8. Remove the two nuts securing the tank heater to the bottom of the tank and remove the tank heater.
9. Install a new tank heater with new washers and secure with two nuts. Nuts should be securely tightened to insure a proper seal.
10. Install the tank lid and gasket using the four hold-down brackets and #8-32 nuts.
11. Install the fill basin tube and tighten the nuts securely.
12. Slide the grommet to the red mark on the capillary tube.
13. Carefully bend the capillary tube so that the tube and bulb inside the tank are in a vertical position.
14. Insert the bulb through the hole in the tank lid and press the grommet firmly and evenly so that the groove in the grommet fits into the tank lid.
15. Refer to FIG. 24 when reconnecting the wires.
16. Refer to Initial Setup to refill the tank.



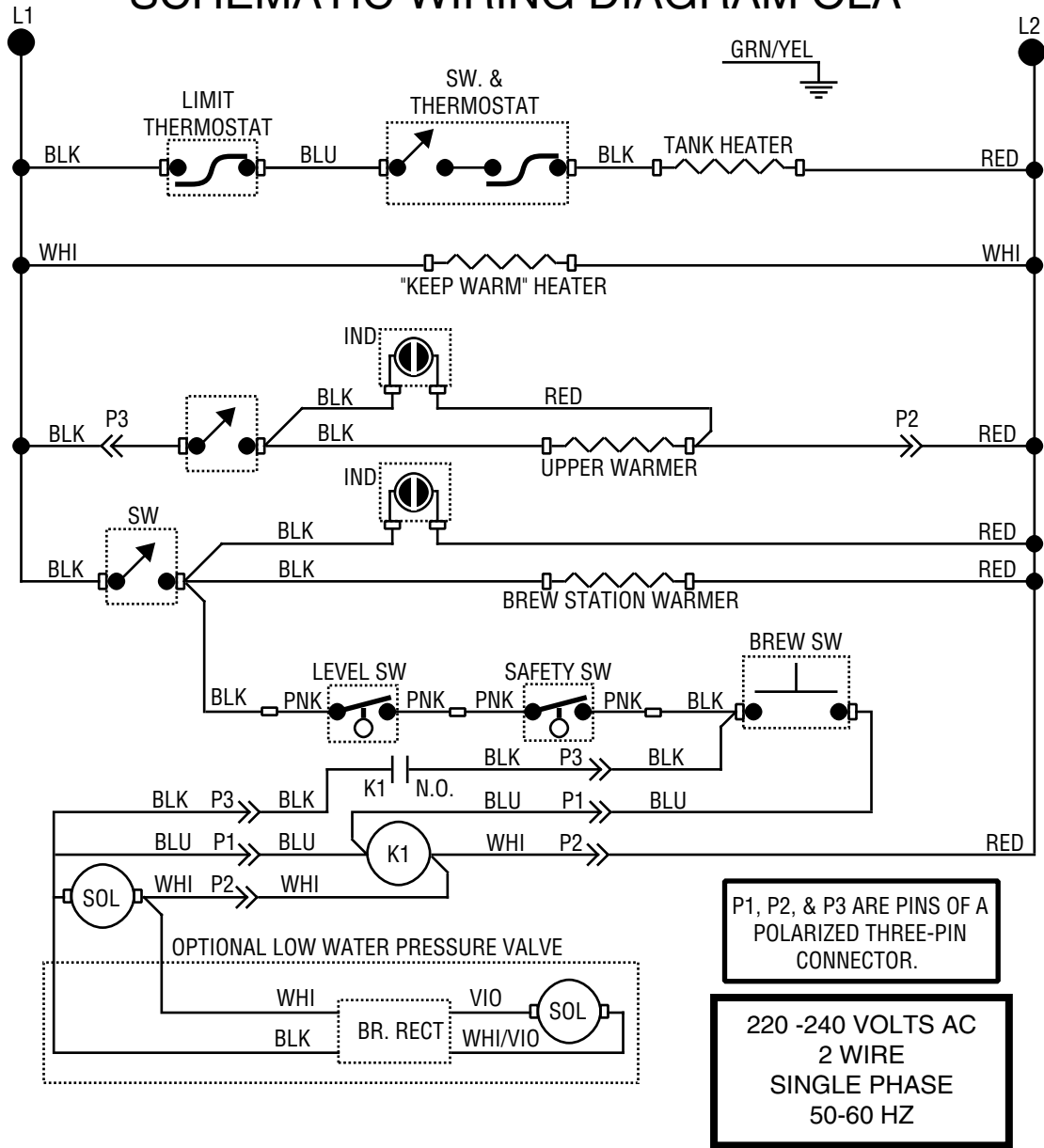


# SCHEMATIC WIRING DIAGRAM OL

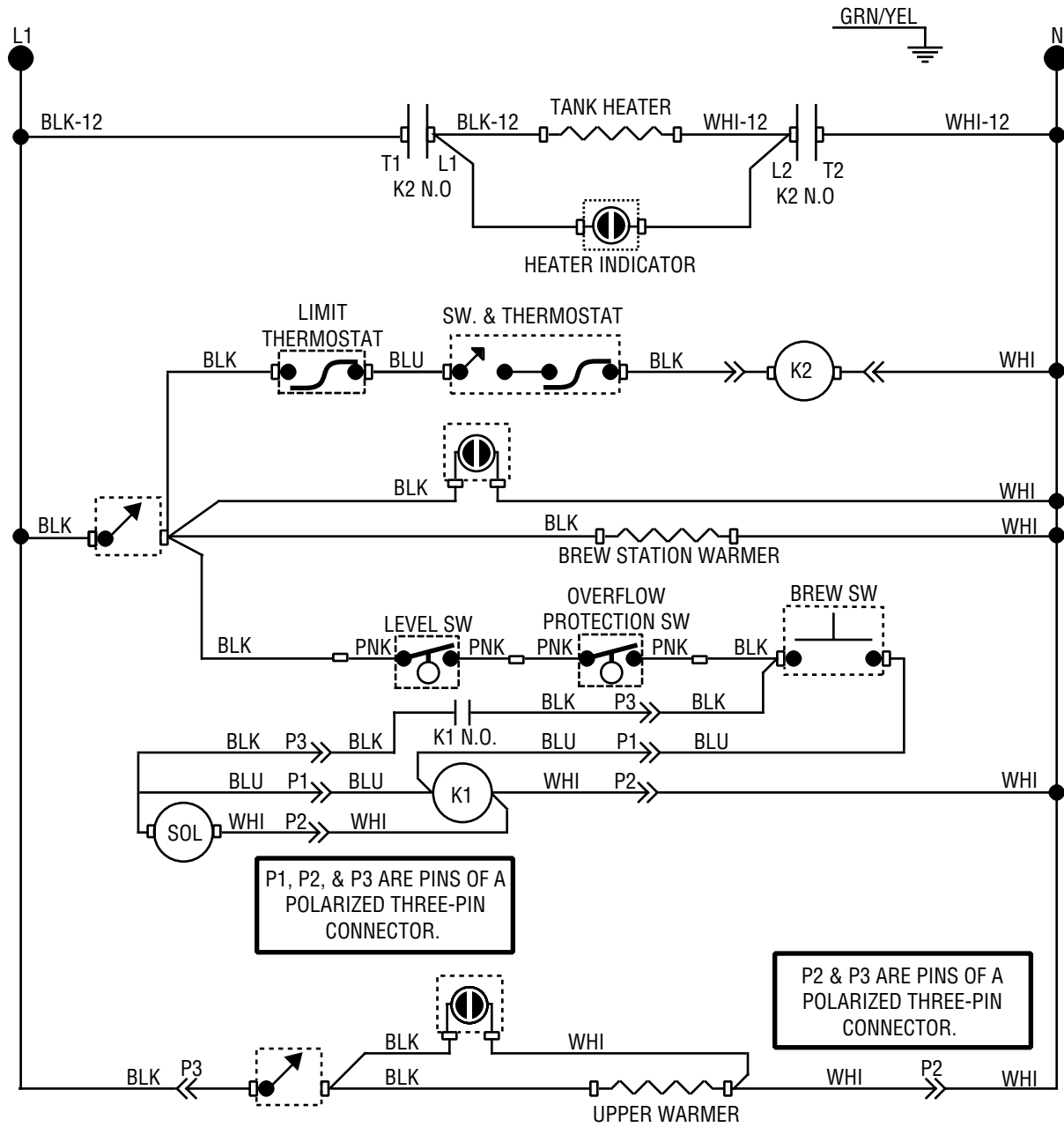




# SCHEMATIC WIRING DIAGRAM OLA

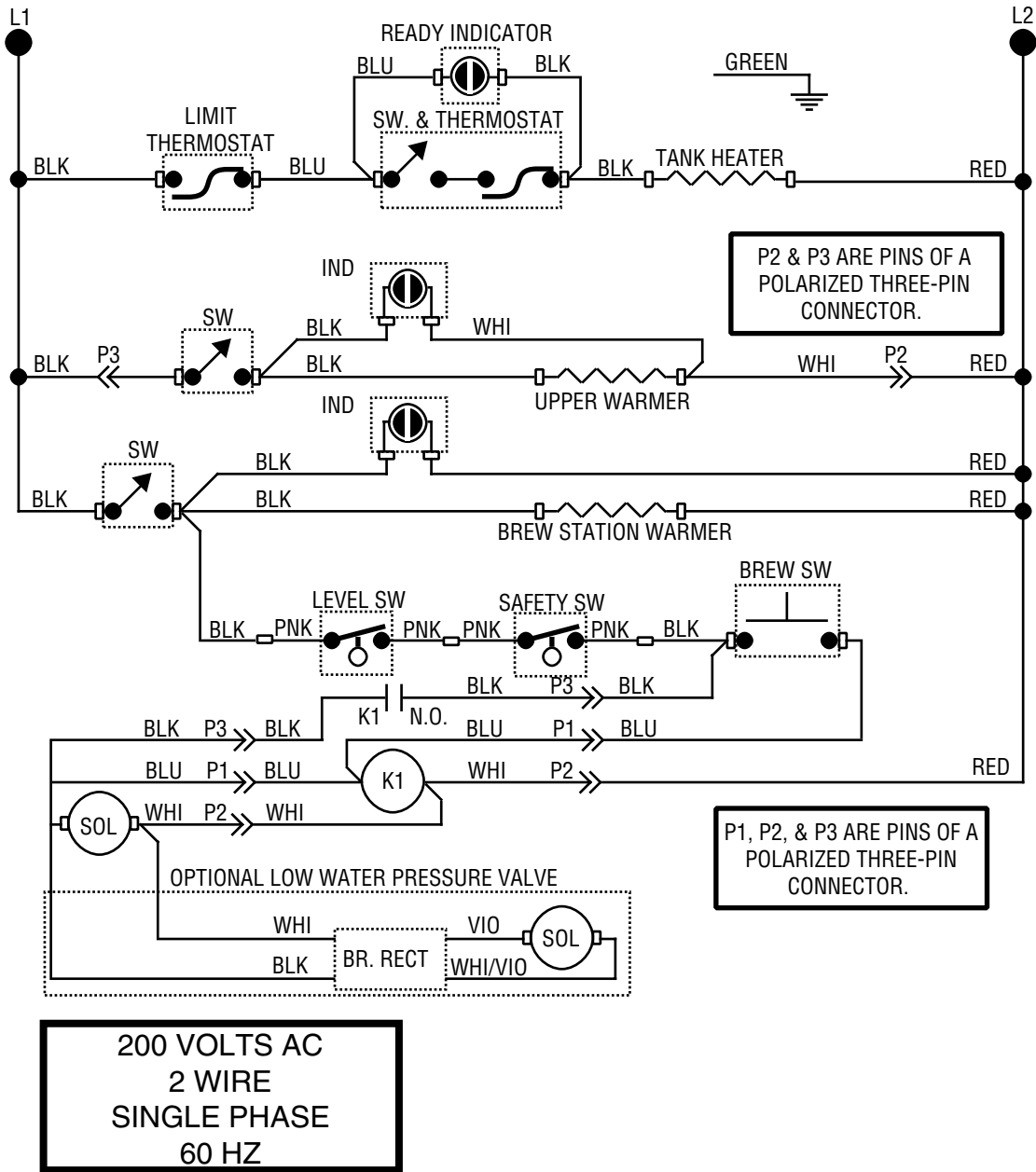


# SCHEMATIC WIRING DIAGRAM OL25B

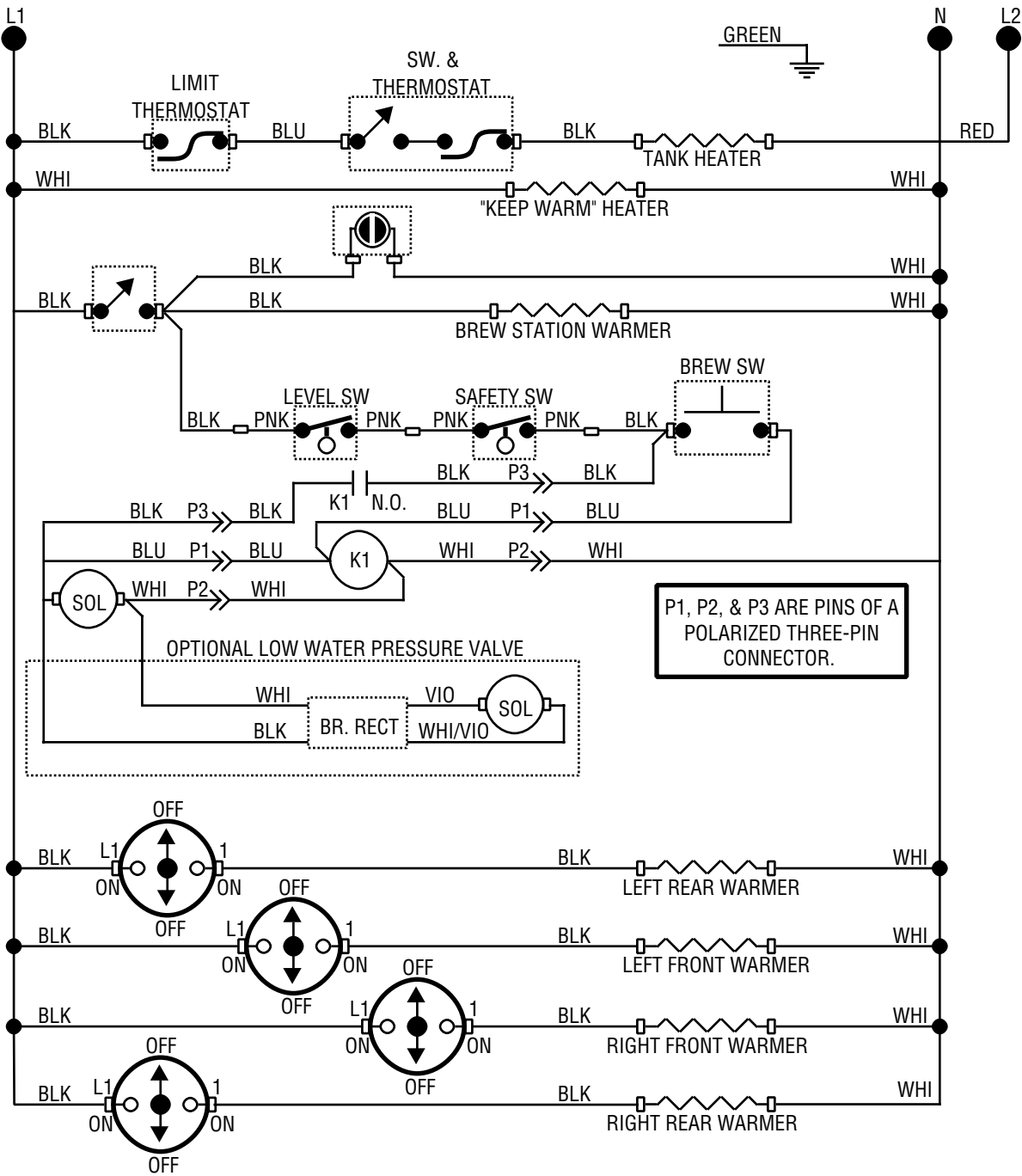


**100 VOLTS AC  
2 WIRE  
SINGLE PHASE  
50/60 HZ**

# SCHEMATIC WIRING DIAGRAM OL35B



# SCHEMATIC WIRING DIAGRAM RL

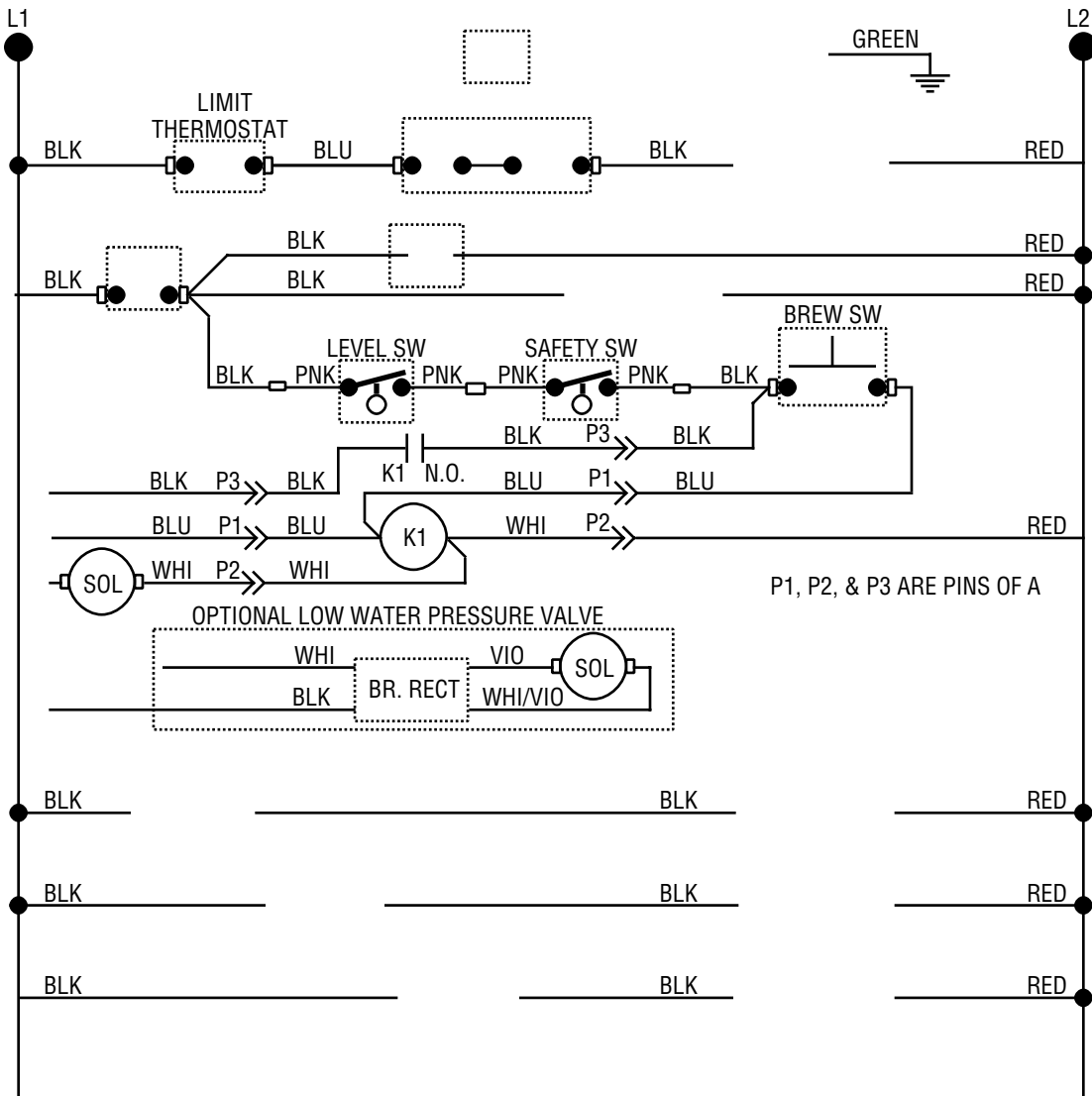


120/240 VOLTS AC  
 3 WIRE  
 SINGLE PHASE  
 60 HZ

220-240 VOLTS AC  
2 WIRE  
SINGLE PHASE

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# SCHEMATIC WIRING DIAGRAM RL35B



200 VOLTS AC  
2 WIRE  
SINGLE PHASE  
60 HZ

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